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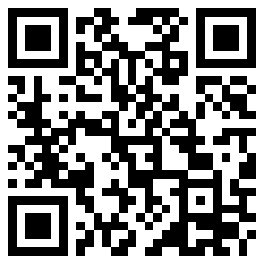
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Instructions
IN
CLINICAL MEDICINE,

Given at the London Hospital by

SIR ANDREW CLARK, BART., M.D., LL.D., F.R.S.

(*Reported for* THE LANCET *and Revised by the Author.*)

INTRODUCTORY: THE METHODS OF CLINICAL INSTRUCTION.

GENTLEMEN,—I am much touched by and very grateful to you for this cordial reception. May I be enabled to continue worthy of your confidence. I enjoy to-day a great and valued privilege. Until now this hospital had no proper clinical theatre, and clinical instructions, which, next to the treatment of the sick, constitute one of the main duties of such an institution, were given in odd corners as convenience and other circumstances permitted. To-day, however, the new theatre is opened, and the privilege which I enjoy is the privilege of inaugurating the courses of clinical instruction hereafter to be given therein. We begin here and now the course of what is conventionally called clinical medicine. What is clinical medicine? It is that department of medical knowledge which occupies itself with the study of individual cases of disease as distinguished from that other department of medicine which occupies itself with the study of disease in general. It is that part of medicine which guides you to the investigation and discovery of the symptoms and signs of disease, to the classification of their relations, to the interpretation of their meaning, and to the elucidation of their bearing upon the general system and upon the course of the disease of which they are indications. It is that part of medicine which enables you to determine the nature of the particular disease with which you are dealing, to predict its course, to forecast its issues, and to determine the means most suitable for averting death, relieving suffering, or bringing about a cure. Such, briefly and imperfectly stated, are the objects of clinical medicine. It is for the sake of clinical medicine that all your previous studies have been undertaken. It is for the sake of becoming practitioners that you have studied physics, chemistry, anatomy, physiology, therapeutics, and pathology. For all these branches of knowledge supply information absolutely essential to the accurate and adequate conduct of clinical inquiry. Let me illustrate this, in passing, by reference to the secretion of urine. We have in clinical investigation to deal, as I was saying to you, with symptoms of disorder and of disease. Now, no single symptom exists in complete isolation; every symptom holds with other symptoms and conditions numerous varied and intimate relations. The secretion of urine is not, then, a solitary, simple, unrelated fact. And when we require to understand fully and rightly the influences at work in its production we have to search into the conditions of digestion, assimilation, the circulation of the blood, the variations of blood-pressure, the dynamic and structural conditions of the kidneys, and the state and action of the nervous system presiding over all. And when healthy urine becomes diseased urine, the clinical inquirer is compelled to investigate the condition of each of those factors in the evolution of the secretion of healthy urine, in order that he may discover to what alteration of what factors such diseased condition is due. Here you will discover the necessity of those branches of knowledge in the acquisition of which you have been hitherto engaged; here you will discover that physiology, a knowledge of the conditions of healthy structure and action, is one of the main foundations of the art of medicine; and here you will also discover that the very knowledge which enables you to inquire into and understand the nature of disease is in itself a constituent of the disease which you are striving to discover. Clinical medicine, then, is at once the object and end of all your previous studies; it is in a sense the closing and the crowning of all your former work, and it is the means whereby you are to make yourselves sound and true practitioners in the art and craft of medicine.

The study of clinical medicine is the most difficult of all the other studies in which you have been hitherto engaged, for it requires the possession of many different kinds of knowledge; and to use them aright it requires, furthermore, the careful exercise, not only of the higher mental, but also of the higher moral faculties of our nature; and no one can have any just hope of becoming practised in clinical medicine who does not devote himself patiently and perseveringly to the study of it. There are two other conditions which are above all others necessary to the success of this work: the one is that the attention which you give to it shall be undivided, and the other is that it shall be thorough. When you are engaged in the work of clinical medicine it is not tolerable that you shall be concurrently engaged in cramming for examinations upon other subjects. Clinical medicine is a jealous goddess, and never grants her highest favours to a divided worship. Furthermore, remember that your methods of working now will determine with unalterable certainty what your work and character and life are to be hereafter. Do not commit yourself to many cases at a time, for doing that will bring about superficiality, inaccuracy, and a loss of that calm seriousness without which just and wise judgments are impossible. In this study, before all other studies, it is required that you shall be thorough. Practise thoroughness now, and it will soon become a habit, and the habit of thoroughness will make for you the trustiest mental and moral gymnastic; it will develop your other faculties, it will elevate and strengthen your whole nature, and it will keep you in the way of rendering the highest service to men and of giving the truest help to the advancement of knowledge.

There are several methods of teaching clinical medicine. In one method the teacher prepares a lecture on a particular disease, giving his views of its nature, embodying his experience of its treatment, and selecting his illustrations from successive or concurrent cases in the wards. In a second method, the teacher, with the help of his house physician and clerks, prepares the case of a particular patient, determines the diagnosis, settles the treatment, and, assembling his students, reads to them the complete account of his investigation. In a third method the teacher collects his students round the bedside of the patient, listens to the story of the case, examines and compares the symptoms and signs of disease, considers and determines the diagnosis, forecasts the issues, and gives his reasons for the treatment which he proposes to pursue. From time to time the case is re-examined, the course which it has followed is discussed, and the treatment is revised. If death puts an end to the case, the results of the necropsy are considered in their relations to the assemblage and progression of symptoms which have constituted the external manifestations of the disease. In a fourth method the teacher endeavours to make the conditions of teaching resemble as nearly as is practicable the conditions of practice encountered by the medical man on commencing the practice of his art. Nothing is known beforehand of the patient to be examined. He is brought into the theatre, and the teacher, with the assistance of his students, proceeds to investigate the case, just as if the patient were a private patient, and the doctor were alone in the management of it. The symptoms and signs of disease are elicited, their relations and meaning are discussed, the diagnosis is considered and made, the prognosis is weighed, the treatment to be pursued is settled, and the report to be given to the patient and his friends is arranged.

The two first methods convey information, and, as usually practised, the information is of the highest character and conveyed in the ablest manner. But neither of them conveys a true instruction; neither of them constitutes a method of true education; both have grave defects, and one of the chief defects is that they do not make you think. The criterion of true instruction is not acquiring, but thinking. Genuine clinical teaching cannot be conducted through the medium of mere books and lectures: it requires the active co-operation of teacher and of taught, the assimilation as well as the acquisition of knowledge; seeing, handling, doing, as well as trying, failing, and succeeding. The third method, supplemented in the lecture room by retrospects and revisions, has the fewest defects and the greatest advantages, and is, on the whole, the most suitable for the conveyance of practical instruction in the art of medicine. Nevertheless, this is not the method which I purpose following in the present course of clinical instruction. I purpose following the fourth method, be-

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cause it will afford us greater freedom of investigation; it will assimilate our conditions of work more closely than any other method will do to those methods under which the doctor, just qualified, will commence his practice; and it will be better adapted for the class of cases with which I wish to make you practically acquainted. There are three classes of cases to be met with in our hospital: the class of acute diseases, the class of chronic diseases, and the class of what I must be still permitted to call functional disorders.

For the study of cases of acute disease and of the graver forms of chronic disease adequate and admirable provision is made. But for the study of the slighter forms of chronic disease the provision made is inadequate, and for the study of that great variety of functional disorders growing with our advancing civilisation there is, beyond the necessarily incomplete instruction given in the out-patient department, substantially no provision made at all.[1] And yet, gentlemen, in carrying on your future work those cases of functional disorder are, probably, with few reserves, the most interesting, the most instructive, and the most important of all the cases with which you will have to deal. The study of those cases will make you familiar with the first results of the violations of physiological conditions and the earliest aspects of diseased states; they will make you familiar with them before temporary dynamical disturbances have drifted into permanent statical disease; and they will make you familiar with them when, as yet, the readjustment of diet and regimen, the judicious administration of drugs, and the regulation of all the little things of life which concur to make or unmake health, will enable you to restore the patient to health. Furthermore, cases of functional disorder and of the slighter forms of chronic disease will constitute the main body of the cases with which you will have to deal in practice; and your mastery of their forms and your skill in handling them will prove at once the measure of your usefulness and the criterion of your success. Among the functional disorders of which I am speaking there is one variety which in a special manner claims your closest study. It comprehends cases which abound in the present day, which are increasing with our advancing civilisation, which appear to arise out of irregular excitement of the nervous system, or out of neglect of the commoner conditions of healthy life, which are manifested mainly in an intense physical self-consciousness; cases which are the plague of families, profitable to the unprincipled quack, and perilous to every honest doctor. In this group of cases are the people who are always ailing and seldom ill; who, said to be sufferers from nervous debility, are yet capable of immense nervous work; who are not amenable to the curative effects of drugs; who are made worse by almost every remedy you propose; who often seek relief from stimulants and narcotics, who generally discredit your treatment, and who, nevertheless, when you fully understand their disorders and gain their confidence, are capable of being guided into that way of physiological righteousness which, despite their nervous troubles, leads them into useful, enjoyable, and worthy lives. I shall endeavour to bring cases of this sort before you; for even if the knowledge of them should not enable you to treat them successfully, it will enable you to escape discredit, and perhaps disaster, at their hands.

You will have already inferred from what I have said the mode of procedure which I purpose pursuing in the practical studies upon which we are about to enter. Nevertheless, for the sake of clearness and comprehension, it will be necessary to describe it in detail. But before I do this let me make plain to you the exact object which I have in view, that you may be neither disappointed with the nature of the instruction to be given nor dissatisfied with the limits within which it will be confined. Now my object is not the delivery of didactic lectures, not the reading of clinical essays, not the demonstration of technical proceedings, and not the discussion of rival pathological theories. All these procedures have their place and use. My one object now is to help you to get plain, practical clinical instruction, and so to get it of such a kind that you may pass from this hospital into practice accustomed to its methods and cautions, without fear of disaster, and ready for sound and honest work. At each meeting of our class, of which I expect all of you to become, in some way or another, coöperative members, my friend Dr. Hadley will present us a case for investigation, diagnosis, and treatment. Of the nature of this case we shall know nothing beforehand; and we shall proceed to deal with it in a manner resembling, as nearly as the widely differing conditions will permit, the manner in which you would deal with a like case in private practice. Of course the conditions in the two cases will be vastly different. There will be many persons present at the examination instead of one person, the tranquillity of the patient will be variously disturbed, we shall have to think and speak aloud, we shall have to discuss each other's procedures and conclusions, and teacher and taught alike may fall separately or conjointly into grave mistakes; but for all that the cardinal conditions of clinical work will be sufficiently alike to train you thoroughly, and initiate you successfully, into the practice of our art.

In dealing with each patient as he comes into the theatre it will be necessary to follow a definite plan of procedure. It may not be the best plan, and it may have many defects; but if uniformly acted upon and always employed as the standard of comparison and of judgment the results will be accurate enough for every purpose of our inquiry. In the first place, then, I shall ask the patient to tell us the symptoms of which he complains, how long he has been ill, and in what way his illness began. In the second place, I shall endeavour to learn from the patient the number and nature of the troubles from which he has suffered in the course of his life; for the continuity of organisms is one of the most instructive of teachers. In the third place, I shall make myself acquainted as closely and accurately as I am able with the medical history of the patient's family. In the disease of the parents we may sometimes read the diagnosis of an obscure disease in the child. Armed with information acquired from these sources, and assuming that the patient's statement points to the lungs as the chief seat of his malady, I shall proceed to investigate, with all modern aids to diagnosis, the condition of those organs. Completing this part of the examination I shall then inquire, through separate and successive investigations, into the conditions of the circulatory, digestive, genito-urinary, cutaneous, and nervous systems; and I shall ascertain the manner and degree in which the constitution is being affected by the disorders or diseases which we may have brought to light. At this stage of our investigation I shall be able to state in order the symptoms and signs of the patient's disease, and the signs and symptoms of disorder or of disease which may exist causally or independently elsewhere than in the lungs. I shall be able to elicit their relations, to interpret their meaning, and to set forth their bearing upon the future course and complications of the case. Now we shall be in a position to discuss the probable nature of the malady and to frame our diagnosis. This done, we shall consider the probable future of the case, settle the report to be made to the friends, and finally determine the treatment to be pursued. From time to time we shall re-examine the patient in order to correct or confirm our diagnosis, to determine the way in which the disease is going, and to consider the use or uselessness of our remedies.

Such, gentlemen, is the plan which, upon physiological lines, I intend to pursue in the conduct of these *clinical instructions*: and I feel myself justified in assuring you that if you adopt it in a spirit of serious endeavour, if you follow it step by step, if you pursue it unintermittingly, and if you bring all your collateral knowledge to bear upon its development, you will be preserved from confusion in emergencies, you will acquire a growing interest in your work, a precious habit will be formed in your mind, your whole nature will be lifted up, and in due season the fruits of your labour will be found abundant and good. Furthermore, the carrying on of your work in this manner will train your understandings, discipline your hearts, and exercise your wills to the utmost of their capacities; it will make you "cultivated men, it will enable you, on subjects of mutual concern, to hold your own with the public in the gate, and it will prepare you to deal successfully with those problems of the moral life from which few cases of disease are entirely exempt. Undoubtedly, my dear students, the fulfilment of these conditions will not be found easy. I am well aware, indeed, that it will be found tedious, disagreeable, difficult; and that it will exact self-denials always pressing, and efforts seldom slight. But then, I make the confident reply that it is only through the ready acceptance of these difficulties and sacrifices that you can acquire the strength necessary

[1] See Dr. Glover's admirable remarks on this subject, "Gaps in Medical Education."

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for the work which you have hereafter to do. When the conditions of work and life become unencumbered and easy, failure is at hand and decay inevitable. It is a sacred and happy law which has made all good things difficult; it is only by the encountering and overcoming of difficulties that our mental and moral strength is developed and sustained; and it is only by the exercise and maintenance of this strength that we can reach and live that life of labour and of sacrifice which the doctor so often lives, and which moralists agree to regard as life indeed.

In conclusion, permit me to say a word or two on another but still closely related topic. I cannot pretend that anything has ever occurred to render necessary the speaking of these words to students of the London Hospital; and yet for many reasons, at this moment unnecessary and inconvenient to be specified, I may not leave them unspoken. The men and women who come into this theatre and submit themselves to be cross-questioned and in various ways examined before us have to pass through a considerable ordeal and to undergo some suffering. For they are our brethren; they have acute susceptibilities easily wounded; they feel deeply any slight or reflection which they imagine to be cast upon them; they are suspicious and ready to misinterpret; and any unfavourable judgment of their prospects of recovery, unwittingly expressed, fills them with apprehension and prevents their return for further examination. It is therefore necessary, and our duty, when patients are before us during examination, that all of us, you and I, should keep their presence in mind, and should abstain from any gesture or manner, from any look or word calculated to ruffle the temper or to wound the feelings of those who are voluntarily submitting themselves to both inconvenience and suffering for our common behoof.

An Address

ON THE

METHOD OF ZADIG IN MEDICINE,

Delivered at the Inaugural Meeting of the North London Medico-Chirurgical Society, on Thursday, Dec. 17th, 1891,

BY T. LAUDER BRUNTON, M.D., D.SC. EDIN., LL.D. (HON.) ABERD., F.R.C.P., F.R.S.

MR. PRESIDENT AND GENTLEMEN,—Allow me, first of all, to thank you for the great honour you have done me in asking me to address you to-night. The choice of a subject has not been easy, and, in trying to select one, it occurred to me that perhaps no animal gets to its goal more quickly or more surely than the carrier pigeon; yet, when started on its homeward journey, it does not fly directly onwards, but first of all takes two or three preliminary circles, in order to ascertain its whereabouts and the direction in which to direct its flight. The time spent in doing this is very far from lost, and what occurs in the case of the carrier pigeon appears to happen also in the conduct of human affairs. A little while ago I was down in the country, and a nurseryman, a most intelligent and able man, gave me a few lessons on pruning. He told me first of all what to avoid, and then what to do. "Some people," he said, "when they want to prune a tree begin with the knife at once, and cut here and there, without having a definite idea of what they are to do. Now the proper way is to put your hands in your pockets, stand a little distance off, look at your tree, see what you want to do, and then set to work." In laboratory researches we find the same thing, and a few preliminary experiments are often very advantageous in learning the methods of work, so that an apparent loss of time at the beginning is often a real saving both of time and trouble in the end. Now, as this is a new Society, it seemed to me that perhaps it might be better, instead of beginning with a definite medical subject, such as the pathology and treatment of some disease, to ask you rather to direct your thoughts to some general methods of investigation. Now one of the greatest losses in medicine is the loss of individual experience. We find that men most able and successful in the practice of their profession, in the recognition and treatment of disease, die and carry their knowledge away with them. Some men may record the cases they have seen, but comparatively few are able to record their experience in such a way as to make it thoroughly available for others. Various attempts have been made at different times to collect the experiences of medical men, especially those in general practice, and to put it in such a form as to be available for their colleagues.

In the years 1874-77,[1] in my capacity of editor of the *Practitioner*, I made an attempt to collect the experiences of practitioners by issuing a circular and asking for returns regarding the treatment of quinsy and sciatica. Answers were returned from all parts of the world, and these were collated and published. The advantage which was thus gained, however, seemed hardly enough to repay the time, trouble, and expense which these questions and returns necessitated, and the attempt was discontinued. A few years later another attempt was made on a very much larger scale by the Collective Investigation Committee of the British Medical Association, but after this had been continued for awhile it was also dropped. The same desire for the collection of information is shown, however, in the union of medical men to form societies in which everyone shall profit by the experience of his neighbour. The formation of the present Society is another indication of the value of this form of collective investigation, and it seems to me rather important that at its commencement we should pause a while and take a glance round before proceeding with what one may term its proper work, the consideration of diseases and their treatment. The failure of collective investigation to bring out any great amount of information from the profession as a whole shows that the task is no easy one; and if I fail to trace out for you a complete course by which our end may be attained you will not, I am sure, blame me, but will rather sympathise with my attempt, and will each and all of you endeavour to carry out further than I may be able to do the search for such methods as will enable us to attain the end we all desire. It seems to me that one cause of failure is a want of exact analysis, which leads to a want of exact synthesis. I may illustrate this by the common observation that, when we wish to describe the face of someone, all we are able to recollect, or at least to put into words, are the general facts that the individual has two eyes, a nose, and a mouth, with hair of a more or less pronounced colour. If we try to describe him more accurately, we may possibly recollect that his eyes are sleepy or bright, that his face is stout or thin, that his nose is long or short, that his chin is projecting or not. But here most of us would have exhausted our stock of reminiscences. Now, it is frequently very important that a face should be so exactly described that the owner of it may be at once recognised, and for this purpose a plan has been adopted in France of photographing the front face and the profile. The enormous number of photographs which are thus accumulated, of criminals and others in whom the officers of the law take an interest, is so great that it would be impossible either to pitch upon the particular photograph that was wanted or to recognise the individual if it were not for a system of arrangement. All profiles may be at once divided into three classes, according as the base line of the nose is ascending, horizontal, or drooping—and each of these may be further subdivided according as the bridge is convex, straight, or concave. When to these are added similar subdivisions, according to the shape of the eye and the ear, we see at once that the whole of the photographs may be readily classified, and any individual one that is wanted may be picked out from amongst thousands of others at a moment's notice. Many people remember faces sufficiently well to recognise them when they see them again, but not to describe them, much less draw a portrait from memory; yet it is by teaching the law officers to describe portraits from memory that they are trained to recognise from the photographs the people who may be "wanted." It appears to me that one of the kinds of training that is needed by medical men is this power of learning to differentiate the characteristics of a patient, the symptoms he presents, and the effects of treatment upon him in such a way as to render any case presenting similar features readily recognisable by a fellow practitioner. But it is not only the outward signs that we

[1] Practitioner, Nov. 1874, vol. xiii., p. 308; vol. xvi., p. 44; vol. xviii., p. 107.

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have to differentiate in this way. We are obliged in medicine to judge of the unseen from the seen, and from the objective data which are presented to our senses we must draw conclusions regarding the processes which are going on, or have already gone on, in the persons of our patients. We must, in fact, track symptoms which we see back to their causes. Now this process of "tracking" appears to me to be a fundamental one in man, and one which seems really to be a remnant of the qualities possessed by our pre-historic ancestors. According to Haeckel, man runs through in his embryonic condition the history of the development of the race from a simple unicellular organism up to the human being. But even after birth traces of simian ancestry still appear. We have all noticed that when an infant is warming its feet before a fire the soles are not held straight forwards like those of an adult, but are turned in towards one another, and the great toes are drawn apart from the others in very much the same position as the feet of a monkey. Lately, too, Dr. Louis Robinson has shown that the arms of infants have an extraordinary power of supporting the weight of the body, and in this characteristic also an infant resembles the monkey. Even in adult life the position of the feet which we notice so easily in infants is retained by many, and we often find that the soles of people's boots are worn more on the outer than on the inner edge, the feet still tending to turn inwards, though only to a slight extent. The same tendency to reversion which we notice in the feet may be observed, I think, also in the faculties of the mind; and the keen interest in tracking game by which prehistoric man was enabled to exist still evidences itself in the intense eagerness with which boys will read in Cooper's novels about Indians in following a trail, or adults will pore over Gaboriau's stories of the police on the track of a criminal. There can be little doubt, I think, that the profession of medicine is a most intensely interesting one, and I am inclined to think that its special charm is, to some extent at least, due to the fact that it is constantly demanding the exercise of those qualities of tracking which we find in Cooper's Indian heroes. I know of no better example of the exercise of those faculties than that narrated by Voltaire in his story of Zadig. I thought it was an original idea of my own to point out the application of this method to medicine, but I find that I am only a humble follower of Professor Huxley, who has already written upon the applications of the method of Zadig to biology and palæontology [2]

Zadig was a young man who, disgusted with life, retired from Babylon to a lonely place on the banks of the Euphrates, and there studied animals and plants until he saw a thousand differences where others could only see uniformity. One day one of the Queen's eunuchs, followed by a band of officials, came hastening past and asked Zadig: "Have you seen the Queen's dog?" Zadig modestly answered, "A bitch, I think: not a dog." "Quite right," said the eunuch; and Zadig continued, "A very small spaniel, has lately had puppies, limps with the left fore foot, and has very long ears." "You have seen her, then," said the eunuch. "No," said Zadig, "I have never seen her, and did not even know that the Queen had a dog at all." At the same time the finest horse in the King's stables ran away, and the chief huntsman, when seeking it, also made inquiries of Zadig, who said: "A first-rate galloper, five feet high, small hoofed, tail three feet and a half long, cheek-pieces of the bit are of twenty-three-carat gold and the shoes silver." "Where is he?" cried the chief huntsman. "I have not seen him and never heard of him before," said Zadig. Naturally enough he was suspected of having stolen both the spaniel and the horse, and was tried and condemned; but no sooner was sentence pronounced than both the missing animals were found. Zadig was then asked to explain how he knew so much about them without having seen them, and this, he said, was the way. He noticed one day in the sand the tracks of an animal, which he easily recognised as those of a small dog. Long faint streaks on the ridges of sand between the footprints indicated that it was a bitch with pendent dugs, showing that she had had puppies shortly before. Other marks on the surface of the sand close to the prints of the forefeet indicated that she had very long ears, and one of the footprints being fainter than the others showed that she was slightly lame. As for the horse, the marks of his hoofs were all equi-distant, showing that he was a famous galloper. In a narrow alley the dust on the trunks of the trees was disturbed at three feet and a half from the middle of the path. This showed the length of his tail, which had swept the trees as he lashed it from side to side. Branches of the trees met overhead at a height of five feet, and under them were some newly fallen leaves, showing that the horse had brushed against them, and was therefore five feet high. As to his bit, he had rubbed it against a stone, which Zadig recognised as a touchstone, and his shoes had left such marks on the pebbles of another kind as showed they were made of fine silver.

A story very like that of Zadig's is told of an old fakir in the Syrian desert. He was one day visited by several Arabs, who asked him whether he had seen their lost camel. "It was very tall," said the fakir, "it was blind of the right eye, it had lost one of its front teeth, and it was laden on the one side with honey and on the other with corn." "Yes," said the Arabs, "that is exactly the camel; you have mentioned every point about it. Where is it?" "I have never seen your camel," said the fakir. "But if you have not seen it," said the Arabs, "how can you know all about it?" "I knew that it was a very tall camel because the tracks of its steps in the sand were further apart than those of an ordinary-sized camel. I knew it was blind of the right eye because it had cropped the herbage only on its left side, and I knew that it had lost one of its front teeth because in the middle of every bite that it had taken there was a small uncut part corresponding to where the tooth ought to have been. I knew that it had been loaded with honey on the one side and with corn on the other because I saw flies buzzing round one side of the track and ants busy on the other carrying away grains of corn that had fallen from the load."

An admirable example of the application to medicine of this method of tracking used to be told with great gusto by my late friend, Dr. Milner Fothergill, and I regret greatly that I cannot tell it with the same power and vividness that he did. In the town of Leeds there once lived a quack who had received no professional instruction whatever, but was known far and wide for his wonderful cures, and especially for his power of diagnosing the diseases of patients whom he had never seen, by simply examining their urine. A celebrated surgeon, Mr. X——, wishing to see his method of working, desired to be presented one day, and the quack readily acceded to his request, feeling much flattered that so great a man should patronise him. Shortly after Mr. X—— had taken his seat a woman came in with a bottle of urine, which she handed to the quack. He looked at her, then at the bottle, held it up between him and the light, shook it, and said: "Your husband's?" "Yes, sir." "He is a good deal older than you." "Yes, sir." "He is a tailor?" "Yes, sir." "He lives at Scarcroft?" "Yes, sir." "His bowels are obstinate?" "Yes, sir." "Here," he said, handing her a box of pills, "tell him to take one of these pills every night for a week, and a big drink of cold water every morning, and he will soon be all right." No sooner had the woman gone out than Mr. X—— turned to the quack, curious to know how he had made out all this. "Well, you see," said the quack, "she was a young woman, and looked well and strong, and I guessed the water was not hers. As I saw she had a wedding ring on her finger, I knew she was married, and I thought the chances were it was her husband's water. If he had been about the same age as she it was hardly likely that he was going to be ill either, so I guessed he was older. I knew he was a tailor because the bottle was not stopped with a cork, but with a bit of paper rolled up and tied round with a thread in a way that no one but a tailor could have done it. Tailors get no exercise, and consequently they are all very apt to be constipated. I was quite sure that he would be no exception to the rule, and so I gave him opening pills." "But how did you know she came from Scarcroft?" "Oh, Mr. X——, have you lived so long in Leeds and you don't know the colour of Scarcroft clay? It was the first thing I saw on her boots the moment she came in."

Now, of late years we have got so many new methods of investigation that we are sometimes apt to forget the old habits of close observation by which this quack made out so much, and proved himself, although without any diploma, a worthy descendant of the water doctor whose picture by Gerard Dow occupies such a distinguished place in the gallery of the Louvre. Without resorting to the plan of

[2] On the Method of Zadig. Nineteenth Century, 1880. Reprinted in Science and Culture.

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testing the urine, by which that water doctor and his brethren of the craft no doubt recognised the presence of sugar, he could learn a great deal from its simple appearance.

Some years ago, when staying in the country with a medical friend whose wife was boiling some eggs in the dining-room for breakfast, I said to her from the other side of the room, "You have cracked one of those eggs now." She said, "I don't think I have." On taking them out of the pan, however, she found that one of them was cracked. She wondered how I knew, but the explanation was simple enough. The pan had boiled over, the water would not have held the steam long enough to boil over, unless there had been something in it to make the bubbles tenacious, and this could hardly be anything else but albumen which had escaped from a crack. In the same way, although the water doctor did not know about albumen, he probably recognised that the persistence of froth on the urine after shaking it was of somewhat ominous import, and that would lead him to give a guarded prognosis, just as one nowadays sometimes pities an old gentleman who unconsciously proclaims his precarious tenure of life by the froth he leaves behind him in the public urinal.

The water doctor may even have learned to associate this frothiness with nervous symptoms, such as restlessness, irritability of temper, and sudden outbursts of passion quite out of proportion to the amount of offence. I well remember an incident some fifteen years ago where an apparently causeless outburst of fury on the part of an ordinarily quiet man completely astonished all his friends, who only understood it when his subsequent illness and death showed that his sudden passion was but an indication of unsuspected disease. The steward of St. Bartholomew's Hospital, Mr. Mark Morris, a man of very keen observation, has told me that whenever a patient comes down to the office at 11 o'clock at night and wants to be discharged there and then, they know that he is suffering from cardiac disease. Perhaps the outburst of fury in the Emperor Theodosius,[3] which resulted in the massacre of Thessalonica, was only an indication of the disease which later on resulted in dropsy and death. The water doctor would be sure to divide his frothy urines into pale and dark, and he would know that these two corresponded to quite different types. The dark urine was probably passed by an individual who was short of breath, disposed to rest, and frequently drowsy. The pale urine would be passed either by an individual who rose in the morning with his eyelids swollen and puffy, and who was probably drooping and languid during the day, or by a person of quite a different stamp, energetic, irritable, restless, sleepless, always on the move, and driving on like a high-pressure engine. Further than that, perhaps, the water doctor might not go, but we know now that the dark, frothy urine has probably been passed by a man suffering from cardiac disease, while the pale urine is due to renal mischief; and the classical researches of Bright and others have shown us that the man with big eyelids has probably tubular nephritis, while one who drives himself and his neighbours without intermission suffers from contracting kidney. Nay more, physiological and pathological researches have taught us that the dark urine of cardiac disease is due to low tension in the arterial system in general and in the renal arteries in particular, so that the excretion of water is diminished, while the pale urine is due either to high tension in the arterial system, as in cases of gouty kidney, or to diminished power of excreting solids in chronic nephritis.

But there are other indications of disease which may sometimes be recognised without examining the urine, and I was greatly astonished by a man diagnosing albuminuria from the photograph of a patient, although there was no swelling whatever visible in the face. On inquiry afterwards I learned that the diagnosis was made from the glistening of the eye. A tendency to œdema had caused reflection of light along the sclerotic, and this caused the eye to appear more brilliant than usual. A similar glistening of the eye we get as an effect of the emotion of compassion, in which the increased secretion of tears moistens the eyeball more than usual. An entirely different effect is produced by the emotion of anger, where the eye does not glisten, but glitters, or by great grief, which renders the eyeball dull and lustreless. If we try to follow these appearances back to their physiological cause, we may find our attempt helped by considering a typical lack-lustre eye, such as that of a dead cod-fish. We see at once that the eyeball here is flaccid and its surface perhaps indented, instead of being tense, as it ought to be, and its surface smooth. We may imitate this condition very readily upon a child's indiarubber balloon. If we let the air out it at once becomes limp. If we blow it out it begins to shine, and the tighter we blow it the more does it reflect the light. The tension in the eyeball under ordinary conditions has a relation to the tension of the blood, and the bright eye indicates the stout heart which may win the fair lady, while the lack-lustre eye is associated with a feeble circulation, which frequently has its origin in the depressing emotions of sorrow or fear. The glittering which occurs in anger is, I think, part of the same physiological process by which the face in great anger becomes pale, and the blood becomes concentrated internally, ready to supply force to the muscles in a sudden attack upon the enemy. It has always seemed to me that Orchardson's wonderful picture of Voltaire complaining of the insult that had been offered to him would have been rendered still finer by a very minute touch of white upon the eyeball, to indicate the glitter of anger. The bright eye of consumption is familiar to us all, the high temperature so common in the disease tending to make the circulation more than usually rapid, the intellect often more keen, and the hopes more bright than in health, though the face may be emaciated and the body reduced almost to a skeleton. But if we find in a thin person a languid instead of a bright eye, we are led to look for the cause of the patient's leanness rather in want of food than in rapid combustion, and not unfrequently, if inquiry teaches us that the patient is able to obtain food, we may diagnose either that he cannot eat or cannot digest.

Now it does not do to make one's diagnosis too rapidly, for otherwise one may fall into grievous error. I remember once a whole class of students standing round a man with a loud cardiac murmur, and one of his pupils much dilated. After many learned opinions had been expressed regarding his case, the man informed us that the eye over which we had been having such an animated discussion was a glass one. A similar occurrence happened to a learned professor. He was telling his students that he was able to discover this, that, and the other thing from the appearance of his patient's teeth. The woman took them out, and said, "Please, sir, I will hand them round; they might like to look at them closer." Yet, in spite of these risks incidental to all hasty observation, the habit of close attention to minute detail which this professor tried to inculcate was a most useful one, and many of those who scoffed at him five-and-twenty years ago have learned to respect and admire him. The process of tracking disease to its cause will often help us greatly in treatment, for unless we can remove the cause all therapeutic measures may be useless. I remember on one occasion being consulted by a gentleman who was second in command in a department involving not only heavy work, but great worry. He was suffering from dyspepsia, and looked thin and worn. I examined him most carefully, and could find absolutely no cause for his symptoms. Knowing, however, the conditions under which he was working, I said to him, "How is your chief?" "He is not well." "Is he irritable?" "Yes, very." "Who is physicking him?" "Dr. So-and-so." I returned him his fee, and said, "Go to Dr. So-and-so and tell him to physic your chief; it is of no use for me to try to cure you with medicine." I met my patient some time afterwards, who, with a sly glance at his chief, whispered to me, "Your prescription was very efficacious."

One of the best examples that I know of tracing symptoms to their cause is afforded by Weir Mitchell's observations on chorea and on neuralgic pains. During the American War he took great interest in cases of gunshot wounds, and especially those involving injury to nerves. After the war was over his patients were scattered far and wide over the continent of America. He was struck by the curious coincidence in the reports which he got from them, and observed that one day (to put it roughly) he might get letters from San Francisco, saying that his patients in that district were suffering from pains in their scars; next day he might get a packet from the neighbourhood of Denver, next day from Chicago, and next day from New York. He thus noticed that a wave of pain was passing across the country. He next obtained the meteorological records, and found that a wave of rain was passing across the country at the same

[3] Gibbon's Decline and Fall of the Roman Empire, chap. xxvii.

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time and with the same speed. By comparing the pain-area with the rain-area he noticed that the two were concentric, but that the pain-area had a much larger radius than the rain-area. Thus all the patients in the rain-area, when they felt twinges in their limbs, looking up at the sky, would say, "It is raining to-day, and that is the cause of my pains." But those in the part of the pain-area outside the rain-area, when they looked up, saw that the weather was fine, and could thus discover no cause for their sufferings, although these were due to meteorological disturbances just as much as those of their fellow-sufferers in the rain-area. The way in which Weir Mitchell showed the dependence of chorea on meteorological changes was almost as interesting as the relationship between pain and weather. He tabulated all the cases of chorea occurring in Philadelphia, and drew out a chart to show them diagrammatically. He then got the meteorological records and tried to find what conditions caused an increase in the cases of chorea. He tried the mean daily range of the thermometer, the average temperature, the average barometric pressure, the relative humidity of the air, but little or no correspondence could be traced between the curves representing these different factors and the curve of chorea. The curve showing the amount of rain and snow in inches showed a slight general resemblance to that of chorea, the curve showing the days on which the rain or snow fell came still nearer, but the curve showing the number of storm centres passing within 400 miles of Philadelphia showed a likeness to the curve of chorea which was very remarkable. In the same way he showed that the curve of infantile palsy closely corresponded with the curve of temperature, though not precisely so. We now constantly receive from America telegraphic information of the approach of storms, and we may well fancy that the day is not far distant when warnings will be published in the newspapers, not only to seamen of approaching storms, but to invalids and people in general of the meteorological changes which will induce pain in some and nervous excitability in others, with perhaps an added hint that extra flannel should be worn by the former, and bromide of potassium or some other nervine sedative taken freely by the latter.

One of the commonest observations in medicine is that cases come in a run. In hospital practice this is very striking. On one day you will see a great number of cases of bronchitis, another day cases of diarrhœa, another day cases of rheumatism, and so on. It has seemed to me, for a good many years back, that a most useful study would be the connexion between such runs of cases of disease and meteorological conditions. I may, perhaps, be allowed to suggest that such a society as the present might find this a useful branch of work, and one which would not entail a great deal of labour if it were properly done. Each week, or each fortnight perhaps, the members might jot down in one word the kind of cases of which they had seen most, and their individual notes might be classified, so as to give the general results, by some member chosen for the purpose. He would then be able readily to get the meteorological records, and by comparing these with the cases which had come in a run the relationship might be traced between the condition of the weather and the class of patients most affected. We are accustomed to warn patients suffering from pulmonary diseases, either phthisis or bronchitis, or from albuminuria, to avoid chills; but I do not think that the meteorological factors which give rise to exacerbation of symptoms in all these diseases have been at all satisfactorily determined as yet. The process of tracking might thus be advantageously followed, in regard to the external conditions giving rise to disease, by this Society, but the process ought not to end here; it ought to be followed onwards to the internal constitution of the patient. You will often hear people who do not believe much in doctors still say that they are unwilling to go to anyone else than the man who has attended them and their families for a long time, "because," they say, "he knows my constitution." If we try to analyse what they mean by this, I think we will find that "the constitution" implies the kind of reaction which occurs on the application of any external stimulus. Take three men belonging to different families, for example. Put them on the top of an omnibus and let them drive out on a rainy day, and with a cold wind blowing. One man comes home and has a bad bronchitis, the second an attack of sickness and diarrhœa, and the third gets an attack of rheumatic pains. The meteorological conditions to which each man has been exposed were the same, but the results have been quite different, the difference depending upon the constitutions of the individuals. But people belonging to different families do not only react differently to meteorological conditions or to other causes of disease, they are also differently affected by remedies. One of these three men, for example, might tolerate with impunity, and indeed derive benefit from, large doses of arsenic which would cause sickness and diarrhœa in another; while a second might get headache, deafness, and possibly a cutaneous rash from a quantity of quinine which would only produce a feeling of strength and well-being in another. It is the knowledge of the way in which different families will react to drugs that constitutes the most important part of the experience of an old practitioner, and which forms one of the greatest difficulties in the way of a medical man treating strangers satisfactorily and certainly. When a stranger comes before him presenting certain symptoms, he can only deal with the disease according to average rules, and yet this individual patient may present the exception to these rules, and consequently the treatment fails.

But it is not only in different families that we find drugs having a different action; different individuals in the same family will not react always in the same way, either to the cause of disease or to the mode of treatment. Nay more, a further complexity is introduced by the fact that the same person will react differently in youth, manhood, and age to causes of disease and to remedies. We not infrequently find, for example, that a youth who has been liable to bronchitis presents symptoms of dyspepsia in middle age, and may again have a pulmonary affection in old age. If these variations in families and individuals could be traced to their origin the benefit conferred on practical medicine would be immense. We should then be able to overcome satisfactorily one of the great difficulties which constantly meet us at the present time, and instead of simply *trying* our remedies, choosing first one and then another amongst those most likely to suit, we should then be able to select the drug most suited to any individual case with certainty, and treat the disease with success. In this attempt I think we may be greatly helped by the law of heredity. At present we acknowledge it to a certain extent. If a man's grandfather has been gouty we are not at all astonished at the reappearance of the gouty symptoms in the grandchild. If either the father or the mother has been consumptive we dread the same disease in their progeny: but if one child should resemble the consumptive mother and the other the hale and hearty father, we should use special care to guard against colds in the former, and have very much less fear of any tubercular tendency in the latter. We acknowledge, in fact, that the members of one family throw back to different ancestral strains either on the father's or the mother's side, and that they do this not only in external appearance, but in tendencies to disease, and this is still one of the points which wants close and careful investigation. The different tendencies of an individual in either childhood or age may be regarded as a kind of reversion to different ancestors at various periods of life. This has been beautifully put by Oliver Wendell Holmes in his novel "The Guardian Angel." The heroine of this story, Myrtle Hazard, runs away from home, and, floating down the river in a boat, sees at dusk, in an old Indian burying place, a curious vision. Around the burial mound various figures seem to flit, some thin and shadowy, others more substantial, but still misty; while others again appear almost as distinct as living men and women. She recognises, as one does in a dream, that these are her ancestors, the solid ones closely related to her in blood, while the thin and shadowy are far removed. Each ancestor has an existence in herself more or less definite according to the nearness or remoteness of blood. It is not necessary to trace our heroine through her various adventures; but at one time she develops suddenly and unexpectedly, under provocation, the characters of an Indian squaw from whom she is descended, and nearly slays a schoolfellow while they are acting together. Later on another ancestress, who was a famous beauty, appears in a dream, and for some time afterwards the heroine feels this beauty living within her and directing her actions; while later still another ancestress, who has been a great saint, drives the capricious beauty out and leads the heroine in the way she should go.

As I have already said, Haeckel believes that during intra-uterine life the fœtus rapidly runs through the

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development of the race up to mankind, and I think we may in after life trace the progress of the individual through various ancestors more and more slowly as he advances in years. In infancy and childhood we frequently notice how rapidly the features change, and friends will say at one visit how like the child is to some member of his father's family, while a week or two after they will notice a resemblance to someone of his mother's family. If this Society can gather together notes as to whether an individual presenting an unwonted reaction to medicine happens to resemble at the time someone either of his father's or his mother's family who had a similar peculiarity, a great step might be made. This, however, is not all. We have next to try to trace why medicines act differently upon different families. It is just possible that this also is a case of reversion to a very far-off period; indeed, before mankind had even reached the level of the monkey. Some years ago it occurred to me that one might possibly gain some information regarding the peculiar differences in the action of drugs on gouty and other individuals by comparing the effects of certain poisons or remedies upon such animals as rabbits, which excrete their nitrogenous waste in the form of urea, and pigeons, which excrete it in the form of solid urates. Now Weir Mitchell had shown that pigeons had a singular power of resistance to the action of opium, and can take large quantities of it without presenting any symptoms of narcosis. Dr. Cash and I made some experiments upon the subject, and we found that opium in moderate doses appeared to have almost no action upon pigeons, yet on examining more closely we found that it had a very marked action, only it did not produce sopor, but caused the temperature to fall greatly. Instead of acting as a narcotic it acted as an antipyretic. We did not try the converse of this by giving antipyretics such as antipyrin to pigeons and seeing whether they acted as soporifics, but in patients we certainly do find that occasionally, as in acute inflammation, opium seems to have an antipyretic action, whereas antipyrin certainly acts at other times like a soporific. In order to track these actions further back still and find out what changes in the circulation, blood, nerve cells, and nerve fibres the action of these various drugs depends, a large amount of experimental work in laboratories is required.

Until lately there has been no opportunity for young men generally to do such work in this country, and those who wished to undertake it were obliged to go abroad. Now, however, owing to the wise action of the Colleges of Physicians and Surgeons, opportunities are being afforded for such investigations; but all such researches will give only one side of the subject, and will remain valueless unless clinical observation can be brought to bear at the same time on therapeutic studies. The members of this Society, by the fact that they have founded it, have shown their desire to forward the progress of medicine. I have to-night tried, in a very imperfect way indeed, to consider some of the methods by which I have thought their objects might be to some extent attained; and even if I should have failed to show you how to work, this evening may not have been uselessly spent if I have succeeded in directing your attention to the search after methods of attaining the objects which we all have at heart—that of securing health and ease to our patients with quickness and certainty.

AN INFECTIOUS DISEASE HOSPITAL FOR ST. ALBANS.—At a recent special meeting of the St. Albans City Council, it was announced that Mr. J. Blundell Maple, M.P., was willing to erect, on a site already selected, a hospital for infectious diseases, to be called the "Sisters' Hospital," at an expense of £6000, to be presented to the St. Albans Corporation on behalf of the city and neighbourhood. Mr. Maple has also promised to present a recreation ground and people's park to the city.

AYR COUNTY HOSPITAL.—The utility of this institution has been again exemplified by the extended area of the benefits it has bestowed during the past year. The hospital has been more taken advantage of than in any previous year of its existence, the marked feature being a greater number of cases from outlying districts. The total ordinary income and expenditure respectively during the year were £1728 1*s.* 8*d.* and £2169 4*s.* 4*d.*, showing a deficiency of £441 2*s.* 8*d.* The endowment fund now amounts to £5922 13*s.* 7*d.*

Clinical Lectures
ON
STRICTURE OF THE ŒSOPHAGUS,
WITH FOURTEEN ILLUSTRATIVE CASES, IN FOUR OF WHICH GASTROSTOMY WAS SUCCESSFULLY PERFORMED.[1]

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LECTURE I.

GENTLEMEN,—Since the beginning of the present session you have had brought under your notice an unusually large number of cases illustrative of the class of disease which will occupy our attention in this and the succeeding two lectures. Diseases of the œsophagus leading to more or less complete stricture are not as a rule met with in considerable numbers even in our large hospitals, therefore it is the more remarkable that during the last three months you have seen so many cases in which the patients suffered from marked dysphagia as a consequence of disease of the gullet, or from pressure upon that canal. Most of these cases were sent to me by their medical attendants, while others came to the out-door department of their own accord, and simply complained of difficulty in swallowing, together with weakness, as a result of inability to take a proper amount of nourishment. In all the cases brought before you the most prominent symptom was difficulty or impossibility of swallowing food.

When we were studying the general symptomatology of diseases of the throat, your attention was directed to various conditions which may manifest themselves by difficulty or even impossibility in swallowing food. Hence various terms are employed to designate the character or degree of obstruction to the passage of food. When swallowing is painful, the patient is said to be suffering from odynphagia, as, for example, in inflammation of the œsophagus resulting from the action of corrosive agents. On the other hand, when the lesion is of a chronic character, such as cicatricial stricture or the pressure of tumours upon the gullet, the patient may suffer comparatively little pain, while the obstruction to swallowing is great. To this condition the term dysphagia is applied. Again, should the obstruction be complete, as in Cases 3, 4, and 7, the patient is said to be suffering from aphagia. Besides stricture of the gullet properly so called, the lesions which give rise to œsophageal dysphagia are numerous and varied; but as most of them will require to be referred to when we come to consider the question of diagnosis, I will simply enumerate them at present. Congenital malformations and the impaction of foreign bodies in the gullet very seldom give rise to much difficulty in diagnosis, but it is otherwise in those cases of aneurysm of the aorta, mediastinal tumour, enlarged lymphatic glands, exostosis or curvature of the spine, which, by pressure upon, or by causing distortion of, the œsophagus, may lead to serious difficulty in swallowing. The cases of aneurysm of the transverse arch of the aorta causing pressure on the gullet at the level of the bifurcation of the trachea are perhaps the most important.

Using the term "stricture of the œsophagus" in its proper sense, it may be divided into four varieties—viz., malignant stricture, obstruction by benign tumours, organic stricture, and spasmodic stricture. We will now consider these diseases in detail, and afterwards discuss the questions of prognosis and treatment. Two forms of malignant disease attack the œsophagus—the carcinomata, which are very common and usually occur as primary lesions, and the sarcomata, which are rarely met with in the gullet unless as secondary to sarcomatous formations in other parts. Carcinoma is by far the most important and also the most common new formation met with in the gullet; and it appears that any part of the tube may

[1] Selected from a course of lectures delivered during the winter session 1890–91 at the Royal Infirmary, Glasgow.

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be attacked, although there are certain points which are more liable to the disease than others. Taking, for example, the seven cases of cancer of the œsophagus which have come under our notice this session, it was observed that in two the tumour occupied that portion of the œsophagus situated behind the larynx; in other two the stricture was found to be on a level with the bifurcation of the trachea, while in three the cancerous growth attacked the gullet at its lower extremity. There is considerable difference of opinion as to the most common situation of the primary disease. Some observers assert that the lower third is the most frequent seat,[2] while Mackenzie[3] and others assign 44 per cent. of cases to the upper third, and say that only 22 per cent. occupy the lower third.

As far as my own experience goes, it appears that the most common spot to find the primary growth, at least as far as can be discovered during life, is immediately behind the cricoid cartilage, and that the next point most liable to attack is at the level of the bifurcation of the trachea. Statistics derived from the inspection of pathological reports do not afford very reliable data; because in such instances the disease is not observed at its onset, but after it has terminated the life of the individual and extended far beyond its primary focus. Even in cases examined during the early stage of the disease it is difficult to ascertain the precise limits of the lesion: all we can learn is the highest point of obstruction, unless in those rare cases in which the œsophagoscope may be employed. From a clinical point of view, the most important fact is that carcinoma of the œsophagus very frequently is situated, and may cause obstruction, at the level of the bifurcation of the trachea—namely, at a part where the gullet is likely to be pressed upon by a mediastinal tumour, or by an aneurysm of the arch of the aorta. As a matter of interest, I have contrasted a number of tables drawn up to prove the part most liable to attack; but the discrepancy between them is so remarkable that the value of individual tables is by no means high. For practical purposes we must, however, consider carcinomatous disease in reference to the situation of the tumour. When situated high up and of small size, the tumour possibly may be removed by œsophagectomy, or œsophagostomy may be performed, while if large in size the neoplasm may cause obstruction to respiration and demand tracheotomy. Again, when the tumour is situated at the bifurcation of the trachea, great care must be taken in the employment of bougies, on account of the danger of causing injury to the trachea or aorta, and at the same time, before adopting any line of treatment, the possibility of the obstruction being due to an aneurysm must be eliminated.

We now come to consider the etiology of carcinoma of the gullet. We know just as much and as little regarding the causation of tumours in this situation as in other parts of the body. The two important predisposing causes are sex and age; we will leave out of account the question of heredity. Some observers, however, attach considerable importance to heredity as a cause of malignant disease, but to my mind the influence of inheritance in the production of malignant disease has not been proved, as it has been, for example, in such diseases as hæmophilia, Daltonism, and diabetes insipidus.

Age is a most important factor. Of 510 recorded cases, the ages of which I have ascertained, 80 per cent. were between the ages of forty and seventy years, 12 per cent. were below forty, and 8 per cent. above seventy. Again, on examining more carefully into those between the ages of forty and seventy, nearly a half (or 40 per cent. of the 510 cases) were found to be between forty-five and fifty-five years of age. In considering the influence of age it must always be remembered that each decennial period does not contain the same number of individuals; so that, to be quite accurate in our calculation, it would be necessary to estimate the percentages with the fact in view that each decennium as it advances contains fewer individuals.

Another circumstance which must have attracted your attention is that out of the seven cases shown to you only one was a woman. One in seven is, however, a little below the general average. Of the 510 cases referred to already, 108 were women and 407 were men, and of all the cases which have come under my own observation only 10 per cent. were women. For practical purposes it may be said that four-fifths of the cases of cancer of the œsophagus occur in males. In this particular epithelioma of the œsophagus resembles the same disease as it attacks the lip, the tongue, the larynx, and the rectum. But while these parts are more liable to be attacked by malignant disease in men, in women disease of the sexual organs is disproportionately frequent. No reasonable explanation has yet been offered for this peculiarity, and it remains as one of the many facts in regard to the etiology of cancer of which we know little.

Regarding the exciting causes of cancer of the œsophagus there is only one point worthy of attention—namely, that protracted slight irritation is likely to determine the site of the primary growth. This point has been well illustrated by cases shown, in which the points of selection were—(1) The upper part of the œsophagus, where the tube becomes suddenly narrowed behind the cricoid cartilage, and where during deglutition the bolus of food is moulded into form to pass down the gullet; (2) at the point where the œsophagus passes behind the bifurcation of the trachea; and (3) where it penetrates the diaphragm, in all of which situations there is more likely to be obstruction to the passage of large morsels of food. Again, it has been observed that epithelioma of the œsophagus may follow upon simple stenosis, or upon an old cicatrix, just as we may have malignant disease planted on an old syphilitic cicatrix on the tongue, or a burn of the skin.

In many of the cases which have come under my notice the patients have told me that for a considerable time, sometimes for years, before they experienced any difficulty in swallowing, they were troubled with "indigestion and acidity," and had been falling off in general health. In instances where these symptoms existed for only weeks or months, the possibility is that the malignant disease was present from the onset, but when symptoms of gastric and œsophageal irritation have been present for years previous to any definite obstruction to swallowing, one cannot but seek an etiological relationship between the chronic inflammatory lesion and the carcinomatous growth. Is it likely that the tumour in this case, as in the more acute cases, existed from the beginning of the illness?

Passing now to the consideration of the pathology of the carcinomata of the œsophagus, we have already seen that there are certain points of selection; but while this is so any part of the tube may be attacked. When the disease is, as is usually the case, a squamous-celled epithelioma, the histological structure and mode of growth closely resemble cancer of the lip or of the larynx. A small raised, warty, or nodular tumour appears. The proliferation of cells probably takes place, in the first instance, in the deeper layers of the mucous membrane, but very soon the basement membrane is perforated and the actively increasing epithelial elements infiltrate the underlying connective tissue. The tumour may remain isolated, but as a rule it assumes an annular appearance, and soon forms a distinct obstruction to swallowing. The disease may further extend into the muscular coat, and afterwards into the adjacent parts. The central or more prominent parts of the growth may now ulcerate, and, as a consequence, at this stage the impediment to swallowing may be somewhat relieved. If death occurs at this period a deep ulcerated ring will be seen to be overlapped by the elevated edges of the upper and lower portions of the tumour. In most instances the obstruction is not entirely due to the space occupied by the tumour proper, but is increased by inflammatory induration of the connective tissue. This inflammatory new formation, together with the granulation tissue of the ulcer, contracts as the disease advances: so that while the epithelioma is being destroyed by a destructive process the calibre of the gullet is soon after reduced by the contraction of cicatricial tissue. It is therefore commonly observed that, during a certain period in the course of the disease, marked improvement may occur in swallowing (as in Cases 4 and 7), while later on dysphagia becomes more marked than at any previous time.

When examined microscopically, the squamous-celled epithelioma is usually found to be of the infiltrating form. The epithelium is seen to infiltrate and destroy the submucous connective tissue by sending long processes and laminated capsules into the underlying tissue. These capsules are very characteristic of this form of epithelioma. In the aggregated form the cells take, on section, the appearance of globes, but individually they are arranged in a concentric form, like the coats of an onion. The growth is usually softer, and the connective tissue more abundant,

[2] Coats' Pathology, p. 713, and Petri, Berlin, 1868.
[3] Diseases of the Œsophagus, p. 88.

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than is observed in epithelioma of the lip or of the skin. But while the squamous-celled carcinoma is the most common growth in the gullet, other varieties of cancer are met with.

CASE 1.—For example, three years ago a patient who was under my care died from starvation, with the most marked and complete obstruction at the lower end of the œsophagus, and at the post-mortem examination a tumour was found occupying the lower three inches. The new growth uniformly infiltrated the œsophageal wall, and both its lower and upper extremities were abrupt, and the parts below the cardiac orifice were free from disease, while the mucous membrane of the gullet above the tumour was the seat of only slight inflammatory changes. There was no ulceration at any part. On transverse section the tumour was seen to occupy the whole thickness of the wall, and measured from the mucous to the outermost limit about half an inch. The lumen of the tube was so reduced that even after death it would only admit a No. 3 urethral bougie. On microscopical examination the tumour was proved to be a cylindrical-celled epithelioma, or adeno-carcinoma, similar to what is usually met with in the rectum. It presented a distinctly glandular appearance in some parts; while in others, as a consequence of active cell multiplication, the adenoid structure was not strictly preserved, and the cylindrical form of the cells was lost, except perhaps in those forming the layer next the stroma. These aggregations of epithelial cells were of considerable size, and were separated from one another by a coarse alveolar stroma, partly composed of newly formed connective tissue and partly of dissected involuntary muscular fibres. This growth closely resembled in its structure and history the destructive adenoma of the stomach, large and small intestine, and rectum. These neoplasms start in the mucosa, but soon invade the deeper layers, and are accompanied by an inflammatory connective tissue proliferation, together with the development of a large number of neoplastic tubules. These first invade the submucosa, but very soon thereafter they extend, ultimately dissect their way between the muscular bundles, and may even extend to the serous covering of the alimentary canal. In the case now under consideration the patient was starved before the growth had time to extend into the neighbouring tissues or give rise to metastasis.

Mr. H. T. Butlin,[4] in his admirable monograph on Sarcoma and Carcinoma, refers to three cases of hard cancer or scirrhus of the gullet. He says: "The hard cancers are said to have presented a well-marked alveolar structure, and in one of them the mucous glands were thought to be the point of departure of the disease. The duration of the third case is not known, for the patient was too weak to communicate the hisory of his illness during the two days he was an inmate of the hospital before his death; but the duration in each of the first two cases was much longer than in the most prolonged of the cases of epithelioma. Even at the end of two years the second case does not seem to have completed its course, for neither the glands nor any of the organs were the seat of secondary growths. And in the first case, although the disease was believed, on what appeared to be sufficient grounds, to have existed for upwards of three years, only a few small nodules were found in the lungs and one small tumour in the liver, while the condition of the glands is not recorded." Three years ago I saw the last of a case very similar to the one just quoted.

CASE 2.—This patient, a man aged fifty-nine, consulted me for the first time on Nov. 1st, 1886—that is to say, about two years previous to his death, and nearly three years after the onset of the first symptoms of stricture. In other words, without the aid of an operation, the patient lived for five years with a scirrhous cancer of the œsophagus. The first symptom was difficulty in swallowing, which was observed by the patient in January, 1884. At first the dysphagia was so slight and transitory that he thought little of it, and he did not consult a medical man till November of the same year. At that time a No. 11 bougie could be passed, after which the patient experienced some relief, and he did not complain of pain, nor at any time was blood observed in the vomited matter, or in the expectoration. He could swallow fluids and semi-fluid food with ease, but frequently he had difficulty in taking such articles of diet as bread, potatoes, and meat. In the interval between Nov., 1884, and January, 1886, so far as I could learn, the symptoms, although varying in degree slightly from time to time, remained practically the same at the latter as at the former date. Indeed he felt himself, during the early months of 1886, that he was swallowing more easily; at the same time his strength and weight improved, and a No. 15 bougie could be passed with ease. This favourable condition continued till July, when gradually but steadily the stricture became more severe, and when, in November, 1886, he consulted me, I could with difficulty pass a No. 7 bougie, and the patient was considerably emaciated. The following table of weights in pounds is very interesting, and can be relied upon:—

	1883.	1884.	1885.	1886.	1887.	1888.
January ...	—	151	144	141	132	118
March ...	—	153	142	145	134	112
May ...	156	150	142	145	127	101
July ...	—	145	140	137	128	—
September.	158	143	142	136	125	—
November.	—	143	140	132	121	—

Taking the years from May, 1883, it will be seen that during the first he lost only 6 lb., the second 8 lb., the third gained 3 lb., the fourth lost 18 lb., and in the fifth year 26 lb.; in all the loss was 55 lb. This slow development of the stricture and very gradual loss in weight is in marked contrast to what is seen in other forms of cancer; and even although the case extended over such a long period, the patient did not die from starvation, but as a consequence of secondary formations in the lung. The tumour occupied the lower fourth of the œsophagus, was almost as hard as cartilage, and both in the bronchial glands and in the liver small hard secondary formations were discovered. The nodules at the root of the lung had caused constriction of the bronchi, and very extensive and marked passive pulmonary hyperæmia. We have under observation at present a man (Case 6) whom I believe to be suffering from the disease under consideration.

Soft cancer or acute carcinoma is said to be very rarely seen in any part of the œsophagus, so that the following cases are of special interest. Only one case of acute carcinoma has come under my own notice. But to show you that acute carcinoma is met with in the gullet, I refer you to a case published in the *Glasgow Medical Journal* by Dr. John Fox.[5] I will not occupy your time by referring to the clinical history of the case, but the following is the account of the post-mortem inspection. On examination after death there was found in the middle of the œsophagus a pretty firm mass, about an inch and a half long, and almost completely closing up the passage. The œsophagus, at the part occupied by the tumour, was firmly connected with the structures at the arch of the aorta, but no ulceration of these parts had occurred. The glands at the cardiac end of the lesser curvature of the stomach were enlarged and indurated. The stomach and other organs seemed free of disease. Microscopic examination of the tumour in this case was made by Dr. Joseph Coats, and he writes "that the structure of the tumour presents the characters of medullary cancer, and not of the epithelial form, which is much more usual in the œsophagus. The glands from the neighbourhood of the stomach also present similar microscopic characters." Dr. Joseph Coats informs me that in the Western Infirmary museum he has three specimens of acute carcinoma of the œsophagus, and the patient H. C—— (Case 9), to whom I shall refer hereafter, is also suffering from this disease.

Colloid cancer may attack the œsophagus, but as a rule degenerative changes are seldom observed in malignant growths in this situation. Death of the patient from starvation usually occurs so early after the onset of the disease that little time is permitted for such retrograde metamorphosis to take place. Dr. Bristowe,[6] however, reports one case in which the characteristic appearance of colloid cancer was shown in an instance in which the tumour invaded the lower part of the gullet and the cardiac end of the stomach, as well as formed secondary formations in the lungs and lymphatic glands. The report of the Morbid Growths Committee shows that the tumour presented the "ordinary features of colloid disease, and under the microscope the characteristic alveolar structure was observed."

In considering the diagnosis of carcinomatous disease of the gullet three points require to be considered together—(1) Is there a carcinoma in the gullet? (2) What is its situation? (3) What is its nature? These questions cannot well be discussed separately, for not only do the symptoms depend upon the precise nature of the tumour, but perhaps

[4] Pp. 175 and 187

[5] Vol. iv., New Series, p. 402.

[6] Trans. Path. Soc., London, vol. xix., pages 228 and 236

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even more upon its situation. In respect to situation I will therefore divide the cases which have been brought before you into three classes—(1) those in which the tumour occupied the upper part of the œsophagus; (2) cases where the growth developed at the bifurcation of the trachea; and (3) those instances in which the neoplasm was situated at the lower end of the gullet. Each of these classes may show a different history, and may present special points for consideration.

CASE 3. *Epithelioma (?) of œsophagus at the level of the lower edge of cricoid cartilage; history of steadily increasing dysphagia during two months, terminating in complete obstruction.*[7]—W. F——, aged fifty, a labourer, was admitted into the Glasgow Royal Infirmary on Nov. 3rd, 1890, complaining of complete inability to swallow any food. The only substance which he could take by the mouth was very small quantities of brandy-and-water. He stated that two months previous to admission he experienced a feeling of tightness in the throat on swallowing dry and solid food. This tightness he referred to the region of the larynx, and stated that it had remained always present, although it varied a little in degree from time to time. This constriction, however, increased, so that three weeks ago he was only able to take soft or fluid food. He did not complain of pain. There was no history of syphilis or of injury to the gullet, nor had the patient noticed at any time blood in his sputum. On passing a No. 13 bougie a distinct obstruction was found eight inches and a half from the teeth, and this stricture was so complete that no instrument could be passed through it. On palpating the neck a hard swelling, two inches in length from above downwards, was observed, situated behind the cricoid cartilage and the trachea, but there was no enlargement of lymphatic glands or obstruction to respiration. Physical examination of the chest revealed nothing abnormal.

CASE 4. *Epithelioma of the œsophagus behind the cricoid cartilage; rapid development of dysphagia and dyspnœa, requiring gastrostomy and tracheotomy: good result.*—Mrs. C——, aged forty-three, was admitted into the Infirmary on Dec. 23rd, 1890, complaining of an obstruction to swallowing and slight pain in the throat, which sometimes extended to the ears. On inquiring into the history of the case it appears that she has always enjoyed good health, with the exception of trivial ailments, until the beginning of November, when she complained of pain and dryness at the back of her throat. On examination her medical attendant discovered the pharynx to be deeply congested, and a small ulcer was seen a little to the left of the middle line. Under treatment the condition of the throat improved, the ulcer healed up, and she felt much easier. A few days after this recovery she again consulted her doctor on account of difficulty in swallowing. He passed a probang into the œsophagus and "felt an obstruction on withdrawing it," and he noticed that the bougie was stained with blood. Slight hæmorrhage continued for some hours. Her attendant, Dr. Drysdale, suspected malignant disease; but, owing to the sudden onset of the symptoms, and the almost complete absence of pain, he felt reluctant in expressing an opinion regarding the nature of the disease, and advised the patient to consult me. When I saw her for the first time on Dec. 11th, 1890, she was weak, anæmic, and much emaciated, and stated that for the last three weeks she had been unable to take any solid food, but was still able to take fluid and semi-fluid diet with ease. She told me that since the middle of November the symptoms had steadily become worse, and that during the last six weeks she had lost considerably in weight, and, although she could not give me exact figures, she believed that she had lost about 28lb. On examination, I discovered a hard, firm swelling immediately behind the cricoid cartilage, and extending from the level of the vocal cords downwards for a distance of about an inch and a half. It was found impossible even to pass a small-sized bougie, but on examination with the laryngoscope no encroachment on the lumen of the air passage was observed, either by pressure from behind or by invasion of the wall of the larynx. The voice was perfect, and the movements of the cords complete. On palpation externally, not only was the tumour described above apparent, but there were also several small firm swellings, the largest of which was about the size of an almond, and was situated to the right of the thyroid cartilage, where it was firmly adherent and embedded in the surrounding structures. Considering all the circumstances of the case, I advised the patient to come to Glasgow and have treatment in the Royal Infirmary, where I successfully performed gastrostomy on Jan. 29th.[8] When dismissed, although the lumen of the larynx was encroached upon, there was still sufficient air space to allow of the patient breathing freely. The right vocal cord was fixed in the position of complete adduction; voice good.

In those two cases the stricture was situated high up, and in both the onset of the symptoms and the development of the dysphagia were extremely rapid, so rapid, indeed, in the second case, as to raise a doubt whether the disease was malignant or inflammatory in its nature. This sudden difficulty in swallowing is probably the result of two circumstances. First, the disease involves the narrowest and least distensible part of the œsophagus; and, second, the action of the muscles of deglutition are directly interfered with by the tumour, consequently the food does not pass far enough into the gullet to allow the action of its circular fibres to come into play, hence the greater tendency of food to regurgitate into the mouth or larynx when the tumour is situated high up. In these cases there is still another danger, namely, obstruction to the entrance of air, either by pressure of the growth, leading to diminution in the lumen of the air passages by interfering with the circulation and producing œdema, or by the invasion of the larynx by the new formation.

In Case 4 tracheotomy required to be performed on March 28th—that is to say, eight weeks after the gastrostomy, on account of sudden œdema of the larynx.

(To be concluded.)

[7] In this case gastrostomy was performed on Nov. 6th, 1890, and the patient lived for exactly one year thereafter. At the post-mortem examination a scirrhous cancer was found at the level of the lower edge of the cricoid cartilage; no secondary formations; old tuberculosis and gangrene of lung.

[8] Patient was dismissed on March 21st, but on account of sudden onset of œdematous laryngitis she was readmitted on the 28th, when tracheotomy was performed, and she returned home much improved on April 25th, and is reported improving in strength on June 22nd, 1891.

THE BEARING OF RECENT BIOLOGICAL RESEARCHES ON THE PRACTICE OF MEDICINE AND SURGERY.

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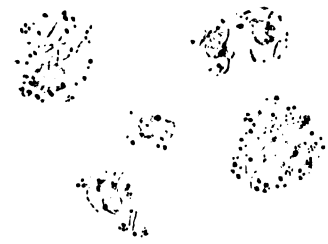
IT has long been known that inert particles of various kinds, when mixed with blood just drawn from the vessels or injected into the circulation of the newt, are rapidly taken up by the colourless corpuscles, where they are enveloped in the motile protoplasm. Particles of vermilion introduced in this way are taken into the amœboid mass of the leucocyte, and in it are passed on from point to point in the channels in which leucocytes are usually found. The number of particles taken up by leucocytes which still retain their power of independent motion is sometimes very great indeed, and it has also been noticed that after a time these particles may be ejected, as though all that could possibly be utilised had been made use of by the cell. In the dust diseases of the lung the proliferating cells derived from the lining epithelium of the air-vesicles have a similar power of ingesting particles of various kinds.[1] These proliferating cells, with their contents, are apparently carried into the lymphatics of the lung tissue; here the pigment may be disgorged, when it is almost immediately taken up by leucocytes or by the stimulated connective tissue cells, or—and this appears to happen very frequently—the wandering cell with its contents is taken bodily into the larger actively stimulated connective tissue or fixed cells, where all that can be digested is converted to the use of the larger cell, and all inorganic matter and effete material is thrown out, to be again taken up, and carried from point to point, until eventually some, at any rate, may be actually excreted from the body or may become enclosed in a fibrous capsule

[1] It has recently been maintained that these cells containing the foreign particles are derived not from the epithelium, but that they are lymphoid cells or leucocytes which have made their way from the blood-vessels and lymphatics into the air-vesicles. It seems to me that we have direct evidence that this is not the case; the partially detached catarrhal cells that contain pigment or other foreign particles being usually well made out in well-prepared sections.

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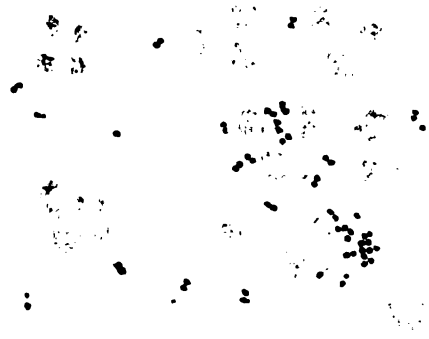
Giant Cells from tubercular lung × 1200 diam.



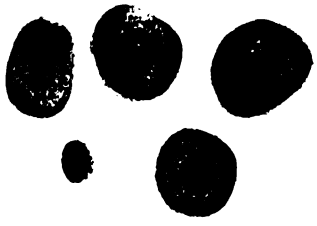
Catarrhal Cells from Case of Acute Tuberculosis of lung × 1200.



Tubercular Udder of Cow. Bacilli in Giant Cells × 1200.



Micrococci in Gonorrhoeal pus × 1200.



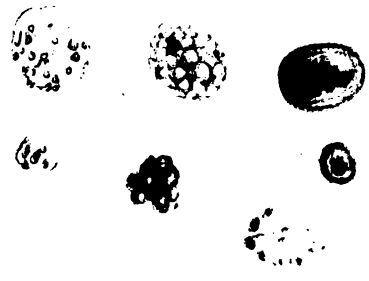
Pigmented Cells from Diffuse Melanotic Sarcoma of brain × 1200.



Pigmented Liver Cells from Nutmeg Liver × 1200.



Pigmented Cells from tumour growing from choroid coat of the eye × 1200.



Pigment holding Cells from the lung in chronic Venous Congestion × 1200.

TO ILLUSTRATE DR. G. SIMS WOODHEAD'S PAPER ON THE BEARINGS OF RECENT BIOLOGICAL RESEARCHES ON MEDICINE AND SURGERY.

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formed by the very fixed cells that took up the particles into their substance, especially in the lymphatic glands. Let us now go a step further. Examine a section of a lung from a case of chronic venous congestion resulting from mitral disease. Here will be found the same catarrhal condition of the epithelium noted above. In the proliferating cells there is also to be seen in some part or other of the section a considerable quantity of golden-brown pigment, usually in small irregular granules. On careful examination some of these catarrhal cells are seen to contain what can scarcely be anything but coloured blood-corpuscles. In most cases the outlines of these corpuscles have become irregular, as they have been altered by digestion by the ingesting cell; but here and there a plumper, more regular corpuscle, which gives us the key to the whole situation, may be seen. From this plumper ingested corpuscle the various transition stages—shrunken corpuscles, mere pigment particles, or even crystals of hæmatoidin—may be seen. These cells in turn are carried to the lymphatics and lymph spaces, where the same cycle is gone through as in the case of the carbon-holding cells above mentioned. If we examine the tissues around a bruised or incised wound after some time we find that two things have happened: the blood-corpuscles retaining the bulk of their pigment have been taken up by leucocytes, where they have been digested and the pigment has been set free, or the fluid in which the coloured corpuscles are suspended has dissolved out the colouring matter, which, however, ultimately finds its way into the leucocytes and thence into the large fixed cells already described.

It is evident from all this that certain cells in the body have the power of taking up not only foreign particles—i.e., particles derived from without,—but also of ingesting effete or dead material of various kinds and of carrying it to positions from which it may be cast out of the body. This function had been conceded to them for some time, when Karl Roser[2] suggested an extension of this function, which afterwards, in the hands of Metchnikoff, who approached the subject from an independent standpoint, was destined to create an interest in leucocytes unequalled in magnitude since the researches published by Hughes Bennett and Virchow. Dr. Karl Roser put forward as part of a theory as to the immunity enjoyed by certain plants and animals against the attacks of the pathogenic fungi that the contractile cells of the animal body have the power of taking into their substance and there digesting even the active living micro-organisms which in non-immune animals are capable of withstanding the attacks of the devouring cells, and of living on their own account in the tissues and fluids, where they give rise to their characteristic products and set up the special manifestations of the diseases with which they are associated. He held, indeed, that phagocytosis was an essential factor in the immunity enjoyed by non-susceptible animals. Metchnikoff,[3] whose thorough biological training had prepared him for the consideration of this important question, approaching it from the point of view of the pure biologist, swept aside much tradition and brought to bear upon it much new light. He already had Haeckel's observations on the blood-corpuscles of the lower invertebrates and their behaviour towards pigment particles on which to base his theory, but he went further back still. He knew well that amongst the lower invertebrates, the amœbæ and flagellated or ciliated unicellular organisms are actually dependent for part of their nourishment upon certain bacteria and fungi which they devour in large numbers, taking them into their substance, extracting from them what they require in the way of nutrition, and then disgorging the degenerated remainder. He pointed out that even one of these small monads is capable of taking into its substance in a very short time (a few minutes) filaments of leptothrix as much as ten times its own length. Here, then, we have living, undifferentiated, or only slightly differentiated cells actually attacking and utilising as a part of its everyday diet micro-organisms similar in many respects to those with which we have to deal in cases of disease.

Continuing his analogy, Metchnikoff pointed out that in animals somewhat higher in the scale of life, and composed of "layers" of specially differentiated cellular tissue, as in sponges, one special layer may still retain this peculiar general power of nutrition, the "mesoderm" cells of which the animal is in great part composed playing the part of the single amœboid protozoa. In the lower invertebrates, indeed, we appear to have the key to the whole position. The whole theory of phagocytosis may be said to depend upon intra-cellular digestion by undifferentiated cells, which cells, in consequence of their imperfect differentiation, retain their "amœboid" motions and powers of irregular contraction. This intra cellular digestion carried on by the lower metazoa is the function upon which they depend in great part for their nutrition. Extra-cellular digestion carried on by means of enzymes secreted by the cells, but thrown out from the cell before they act upon the nutrient material, gradually makes its appearance as we get higher in the scale of animal life, and certain endoderm cells become specially set apart for this process; but even here the mesodermic cells still retain their power of carrying on intra-cellular digestion. Before we leave this part of the question it may be repeated that these imperfectly differentiated cells do not act in mere self-defence in taking up the lower forms of vegetable life, they are actually dependent upon this process of ingestion for their nutrition. It is not an isolated act or a function brought into play for a solitary or rare occasion, but it is a habit upon which the animal depends for its very existence. This fact is the more important when we bear in mind that any "fundamental" function of undifferentiated protoplasm is comparatively easily again brought into play or stimulated into activity when its presence is again required. It is a fact upon which the very foundation of the phagocyte theory depends, though one which has been too much ignored by most of those who have written on the subject in this country. As the extra-cellular digestive function becomes more highly developed less remains for the amœboid cells to do; but, as Metchnikoff points out, in all vertebrates there still remain amœboid mesoderm cells which retain the function or the power of absorbing and removing dead or effete matter, such as weakened or dead cells, foreign particles, and the like. If the development of an ovum, such as that of the cod, be carefully followed, the process of intra-cellular digestion can be easily made out at certain stages in the whole of the cells of which the embryo is composed. Later, however, when the layers are becoming differentiated, and certain sets of cells are becoming specialised, the two kinds of digestion may be seen going on side by side, the more differentiated cells being nourished by extra-cellular digestion, whilst the mesoderm amœboid cells still retain their phagocytic intra-cellular digestive activity. At certain periods of the life history of the incompletely developed animal, when the tail of the tadpole is dropped as it becomes developed into the frog, the degenerating muscles and nerves are seen to be devoured by active amœboid cells, which, commencing at one end of a fibre, gradually bring about its ingestion until the tail actually drops off. In the same way the larvæ of certain invertebrates, such as the echinoderms, lose parts or organs during their metamorphic stages; and whether as cause or effect, particles of the tissue of the disappearing organ or part are invariably found in great numbers of the amœboid phagocytic cells that have accumulated at the point where the absorption is going on; whilst in the metamorphoses of insects, where most profound changes take place in the transition from grub or caterpillar to chrysalis, and from chrysalis to butterfly, phagocytosis is a most important factor of the process. The changes go on so quickly that the rapid removal of effete material is absolutely necessary; and this, apparently, is readily accomplished by the enormous number of leucocytes which collect at those points at which organs or parts are to be got rid of.

Leaving the evidence afforded by the changes that take place during development, Metchnikoff continues his search for analogous conditions in the removal of dead or effete matter in after life, in the higher vertebrates after injury or disease, or even during the process of normal absorption such as that found in Ranvier's experiments on nerve-tissues. This observer found that dead nerve-fibres are removed through the intervention of amœboid cells which appear to take up the myelin of the nerve, and in their substance digest it or carry it away from the point at which the absorption is taking place. That certain cells have this power of absorbing effete matter had long been known, for it had been observed that in the absorption of bone certain large cells, the so-called osteoclasts or giant or myeloid cells, could be seen with granular particles in their interior as they lay in the Howship's foveolæ, which latter appeared to be nothing but excavations made by these large cells. Later still, and since the announcement by Metchnikoff of his phagocyte theory,

[2] Beitrage zur Biologie Niederster Organismen Marburg, p. 18, 1881.
[3] Annales de l'Institut Pasteur, vol. i. July, 1887.

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numerous experiments and observations have been made on the ingestion of resistent particles by phagocytes. Small fragments of elastic tissue and, as we have already seen, of blood-corpuscles have been found in leucocytes, which in turn have been taken into the substance of those larger cells, which are apparently derived from the fixed connective cells. These fixed cells undergoing proliferative changes under stimulation, they lose their specialised form, and although, as a rule, they contain only a single nucleus, they approach comparatively nearly the amœboid leucocyte in the fact that they assume an amœboid activity. These large cells, the *macrophages*, as distinguished from the small multi-nucleated leucocytes or *microphages*, play an important part in determining the ultimate destination of all foreign particles, as already seen in the case of carbon pigment. In this connexion, too, may be noted those cases of the carriage of foreign matter to those parts where the building-up process is going on. In the formation of new bone at the end of the shaft or near the epiphyses there is always found an enormous number of small round amœboid cells, but in addition to these are others which must be looked upon as derived from the fixed connective tissue cells which are now in a state of active proliferation. When young animals during the period of bone formation are fed with madder waste there is formed at the seat of growth a pink layer or zone of bone, and it is pointed out that the colouring matter in this case taken up by the leucocytes is carried in the circulation to the point at which the leucocytes are specially required, the pigment is then given up, or is taken up by the more active connective tissue cells, to be again deposited in the young bone matrix as it is formed by the osteoblasts. That this is not a fanciful explanation of the presence of the pink colour in this position is evident from Arnold's observations[4] on the passage of inhaled pigment of various kinds from the lungs to the spleen, bones, and other organs. The process may be slow in the case of adults, but there is then this additional advantage from the observer's point of view: that once in position it remains much longer than when the development and absorption are going on more rapidly.

These mesoderm cells, then, according to Metchnikoff, have as one of their functions (it may be only a secondary function though he considers that it is the special function as we get to the lower end of the scale of animal life) the devouring of all those solid parts of the organism that have become effete or useless. Where they are unable singly to effect this they are seen to combine in order to attack with greater certainty of success masses which are too large to be enveloped in a single organism. In this manner whole bundles of leptothrix may in a sponge be enveloped in a kind of network which is found to be composed of amœboid cells; these cells combining to bring about what, singly, they could not possibly manage. Particles of organic or other matter when introduced into the abdominal cavities of certain of the echinoderms may, if small, be taken up by single cells; but in the case of large particles a dozen or more of such cells appear to unite to form a plasmodial mass, which in this form is enabled to cope with them. The same thing is observed in the giant cells or osteoclasts of bone, which consist of large masses of active protoplasm, with many nuclei usually accumulated near the centre. It may be objected that these large masses may be the result, not of aggregation, but of imperfect division. This undoubtedly may sometimes be the case, for in the parablast of an ovum, or that layer of cells immediately in contact with the yelk of the egg, we have a mass of protoplasm in which, although there occur proliferation and separation of the nuclei, there is no definite segmentation of the protoplasm itself as it increases in amount and the cell increases in size. In these cases, whether it be in the sponge or in the echinus where there appears to be aggregation, or in the parablast of the ovum of a cod where there is partial segmentation, the vital activity of the component individual cells is not only summated, but greatly increased in the resulting giant cell, in which there remains, after the removal of the special cause of the formation of this large plasmodial cell, an increased power of tissue formation. That is, they have, during this period of increased activity, laid by a store of food and energy, though in the parablast it is utilised by being handed on to the cells in the immediate neighbourhood. In pathological conditions such as tubercle, where giant cells are formed, the extra formative power is utilised in the construction of fibrous tissue or in resisting the invasion of the bacilli. That these cells are actively digesting in the myeloid sarcoma is evidenced by the fact that red blood-corpuscles in various stages of degeneration may be seen, sometimes, however, only in the form of particles of pigment which remain undigested and fixed in the cell longer than the proteids of the corpuscle. Helme has also pointed out that similar giant cells or plasmodia play an important part in devouring the degenerated muscle fibres of the involuting uterus, in which the process of absorption must necessarily go on at a very great rate indeed; whilst coming back to the connective tissue cell, Bevan Lewis maintains that the neuroglia cells, and not the leucocytes, play the part of scavengers in the removal, or rather the taking up and digestion, of dead or weakened nerve elements and tissues. So far we have spoken of the phagocytic action of these cells in relation to dead solid particles, except in case of blood pigment dissolved out from red blood-corpuscles In this case the phagocytes appear to have the power of separating it and in their substance of rendering it insoluble. It is probable, also, that they have the power of taking up and converting within themselves abnormal chemical products which, as pointed out by Wood and Maxwell Ross,[5] are to be regarded in a very real sense as foreign bodies in our organism. If this be true, Metchnikoff's theory must be made to include much that he does not at present allow to come within its range.

In all the examples of the phagocyte theory here put forward the amœboid cells have been looked upon as simply doing the work of scavengers. Their duty is to remove innocuous material, organic or inorganic—or, at any rate, material that has, in the quantities in which it is usually present in the organism, no deleterious effect on the phagocyte cells. In the case of phagocytosis in the single-celled amœba or in the mesoderm of the sponges, on the other hand, the cells actually attack micro-organisms, take them into their substance, and use them as food; so that it would appear as though, in the process of development, this latter power had been dropped, and that, nothing remaining to be done but the "scavenging," except under exceptional circumstances, the more active attacking power had been, in great measure, lost through disuse. Metchnikoff holds, however—and this is the fundamental part of the whole question—that, under certain conditions of stimulation, the scavenging phagocytes regain their original function in so far that, when the call is made on them, especially if this call is led up to gradually, they may not only remove dead tissues and innocuous micro-organisms, but they may actually destroy micro-organisms, which, if introduced without sufficient preparation of the leucocytes for their reception, would not be taken up, but would gain the upper hand, and ultimately lead to damage or destruction of the organism in which the experiment is made. In this case the amœboid cell regains its phagocytic function from the nutritive point of view, whilst its secondary or scavenging power is relegated to a comparatively unimportant position. In order to accentuate this fact, we may here repeat the oft-repeated, but still important, experiments made by Metchnikoff on the daphnia or water-flea with the spores of the monospora biscupidate. In this monospora, which occurs as a budding mycelial thread of elongated cells, long, thin, needle-like spores make their appearance in the long axis of the cells. These needle-like spores are taken into the alimentary canal of the daphnia, through which they are driven by the peristaltic action of the intestinal muscles. Once in the body cavity, or in the tissues surrounding the intestine, it is immediately attacked by the white blood-corpuscles, though in some instances it appears to be taken up by the connective-tissue corpuscles, or, again, it may develop into the rod-shaped vegetative form. If the daphnia is in moderately good health, which under ordinary circumstances happens in about 80 per cent. of the cases experimented on, the monospora is gradually overcome by the active devouring cells. If, on the other hand, the insect is feeble, or if the spores are ingested in such large quantities that they outnumber the leucocytes, or some are left free after all the leucocytes are engaged, these multiply so rapidly that the daphnia quickly succumbs to its attacks. This at first seemed an absolutely convincing proof of the accuracy of the theory that Metchnikoff had advanced; but it was

[4] Untersuchungen über Staubinhalation und Staubmetastasie Leipzig, 1885.

[5] Edinburgh Medical Journal, June, 1891.

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still objected that here the conditions for the existence of the monospora were not similar to those in which micro-organisms are present in the bloodvessels or in the fluids in which the tissues are bathed. In order to overcome this objection, he took little pith boxes, placed the spores of pathogenic organisms inside them, introduced them into a pocket under the skin or even into the blood-stream, with the result that only the fluid could gain access to them in the first instance at any rate. Nevertheless, the spores vegetated most luxuriantly. Ruffer,[6] repeating these experiments with the bacillus Chauvœi, found that not only were the fluids of the body innocuous; but that they actually formed an excellent culture medium, in which the organism could grow, and attenuated micro-organisms regain much of their pristine virulence. He found, for example, that when the attenuated bacillus Chauvœi supplied for purposes of vaccination was placed in small bags made of filter paper sealed with paraffin and then introduced under the skin of a susceptible animal, and even of a non-susceptible animal, it grew luxuriantly. If now the bag was broken *in situ*, so that the organisms could find their way into the tissues, or if the bag was cut out immediately after the animal had been killed with chloroform and the contents inoculated into a second animal, it succumbed sometimes after a shorter period than when ordinary virulent material was inoculated. In this case therefore the fluids cannot have any deleterious effect on the micro-organisms, so that any destruction of these that takes place after inoculation in the ordinary fashion must be accounted for, according to Metchnikoff and his pupils, by the phagocytic action of the amœboid cells. The action of pus-producing micro-organisms, the spirillum of relapsing fever, and the bacillus anthracis have all been fully studied in their relation to phagocytes; but one organism has been taken as the one by which the phagocyte theory is to be tested.

It is objected by the opponents of the theory that the leucocytes (microphages) are always a little too late to catch the erysipelas streptococcus, the organism being found in a zone always a little beyond that in which we have any evidence of inflammation. Wood and Maxwell Ross[7] showed that, although this was undoubtedly the case, the following inflammation appeared to exert a curative influence, in so far as it appeared to cut short the infective process. Metchnikoff[8] and Fehleisen, describing the appearances presented on microscopic examination, give first of all an outermost zone, where the erysipelas is spreading, but which to the naked eye appears almost normal, in which the micrococci, multiplying rapidly, completely fill the lymphatics. There is little or no evidence of inflammatory reaction. Passing inwards, however, we come to a zone in which inflammatory reaction has set in. The vessels are dilated, the fibrils of the connective tissue are swollen, and surrounding the small vessels and lying in the lymph spaces are numerous amœboid cells, leucocytes, or microphages, which, like their amœboid types, are acting the part of devouring cells, as many of them contain micrococci, sometimes in considerable numbers. The micrococci are usually so readily stained that they may easily be recognised in specially prepared specimens. Now comes the interesting point. In the next zone these smaller cells with their contents are in turn devoured by the larger amœboid cells—macrophages, probably derived from the fixed connective cells, and each containing a single nucleus only. After this the organisms found in the tissues over which the disease has passed contain only dead and degenerated micrococci; so that, as Wood and Maxwell Ross say, "It would thus seem that the wave of congestion, accompanied as it is by a diapedesis of the white blood-corpuscles, has, in fact, cut short the course of the disease." Arguing from this, they decided that if they could set up a certain amount of inflammation they could cut short the duration of the attack; in fact, that they might be able to localise it more or less completely according to the stage at which the disease came under treatment. They therefore decided to use iodine as a local irritant, applying it "in the form of a ring *slightly beyond that portion which is already affected.*" They say, "It is naturally very important that inflammation should extend beyond the limits of the disease in order that it may act as a barrier to its further progress. It is, we think, very probably to the fact that the microbes have already penetrated in the tissues beyond the point where we have the visible signs of their action that we must ascribe the statement so frequently made, that although the treatment with iodine and with other irritants exerts a checking influence as a whole, yet at some point or other the affection still continues to spread. We may in these cases suppose that at some places our zone of irritation was not sufficiently in advance of the presence of the erysipelas cocci. The application of the irritant over the whole surface of the affected skin seems also, on the whole, undesirable, inasmuch as, in consequence of this, the dilatation of the vessels at the margins, which we have considered as the most important factor in the cure, must be interfered with by these being drained into the collateral vessels of the skin, and thus tending to diminish the intensity of the process in this region." Basing their treatment on what had been observed, and bearing in mind the nature of the disease and of the spontaneous cure, they painted with iodine in the manner above described patients suffering from erysipelas, and in all cases where there was any chance of treating the disease the results obtained were most satisfactory, as the barrier of inflammation so set up appeared to serve its purpose most effectually. These observers, however, do not allow that the only effect of the inflammatory process is to bring up phagocytes to cope with the micrococci; they maintain, indeed, that there are two other very important factors to be taken into consideration. They hold that the dilatation of the vessels with the increased flow of blood may allow of the toxines produced by the microbe (which are said to have a paralysing effect on the phagocytes, which are thus unable at first to ingest the active living microbes), whilst, in the second place, they think that the relatively increased supply of oxygen brought up by the increased quantity of blood may be sent on to "the lymphatics, where the oxygen tension must naturally be very low. That this will favour the tissues rather than the microbes in their struggle is evident, when we consider that the streptococci of erysipelas in the animal body flourish best under anaerobic conditions, as is indicated by their strict limitation to the lymphatics." But they say that "the checking of the disease ..... by applying an irritant, such as iodine, in advance of it, indicates that the irritation to the cells and the new set of conditions thereby induced can alone cut short the affection." Since the publication of the paper here referred to, Dr. Alex. Miles, who assisted in carrying on the first series of experiments, has treated a large number of cases of erysipelas with marvellously successful results—results which, I am informed, will shortly be published.

It has been stated above that in the outer zone of the erysipelatous area the cells appear to be paralysed so that they cannot take up the micro-organisms. De Bary observed that in myxomycetes there were certain substances which, when brought near the plasmodium, exerted a vigorous repellent effect, so that it was energetically driven off. If, however, care was taken to bring these same substances near the plasmodium in sufficiently small quantities and sufficiently diluted, the organism would gradually become habituated to the presence of even the concentrated dose. Applying this fact, Metchnikoff pointed out that acquired immunity might be due to a similar kind of acclimatisation of the cells to the presence of what, under ordinary conditions, would not allow the cells to come into sufficiently close contact with the microbes to allow of their ingesting them. This power can undoubtedly be greatly modified, especially if the conditions be modified very gradually and slowly, and cells which at first would be quite incapable of reacting in the presence of a specific poison may ultimately be able to withstand and perform their special phagocytic functions in the presence of considerable doses of this same poison. For example, Beumer and Peiper[9] have demonstrated that if a certain dose of the poison produced by the typhoid bacillus will poison an animal, paralysing the amœboid cells, the same dose may be given to an animal that has been carefully prepared by the administration of repeated—at first small, but gradually increasing—doses of the same poison. The phagocytes are educated, or acclimatised as it were, to their new set of conditions, their original power of devouring even pathogenic organisms is regained, and the disease is kept under, as in the case of the healthy daphnia in which the dose of spores is not too great.

(To be continued.)

[6] Annales de l'Institut Pasteur, Dec. 1891.
[7] Loc. cit. [8] Virch. Archiv, Bd. cvii., 1887.
[9] Zeitschr. f. Hygiene, 1887, s. 133, et seq.

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ON SOME PAINFUL AFFECTIONS FOLLOWING INFLUENZA.

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I PROPOSE in this short communication to pursue the inductive method of reasoning in regard to some cases which at one time caused me considerable perplexity. I will first mention a case which initiated my difficulties. A gentleman aged fifty-three, who for many months previously had been in fair average health, was taken during the night with severe pain in the right hypochondrium. The signs simulated those of hepatic colic. He took a mild aperient, and the attack passed away after one to two hours and he slept. The following day the bowels were properly opened, there was no evidence of absence of bile from the motions, the urine was in all respects normal and contained no bile nor excess of colouring matter. The attacks of severe pain, however, recurred at intervals—mostly in the night, but sometimes during the day—for about ten days, treatment by opium and belladonna only relieving them. It seemed that the gall-bladder could be mapped out by the area of tenderness, but never was there the slightest jaundice. On one night there was sharp diarrhœa. I could only say that the attacks were those of hepatalgia of paroxysmal recurrence. In hunting about for a cause the only antecedent which seemed at all probable in this direction was an attack of influenza contracted in Paris at the very earliest time of the epidemic, and followed by protracted enfeeblement. I computed that nearly twenty months must have elapsed between the original attack and these consequences, if they were consequences. There was no evidence of reinfection, but of course this was possible.

The key seemed to be furnished by a number of experiences which came to me just about the same period as this first instance. In all there was fair evidence of an attack of influenza followed at intervals, extraordinarily variable, by signs of extreme pain and distress. In twenty-four such cases the sites of pain could be thus tabulated:—1. Epigastrium, nine cases; abdomen generally two cases; localised in hepatic area, one case. 2. Head, various sites, seven cases; supra-orbital region, one case; right inferior maxilla, one case. 3. Heart region, seven cases. 4. Extremities: hips and legs, two cases; calves, two cases; arms, two cases; right sciatic region, one case; fingers, one case; lumbar region, one case.

In Group 1 in some cases the pain at the epigastrium was nearly constant. For instance, a man aged sixty-six, who had been previously quite healthy, caught influenza at Christmas 1890, and had never felt well since. Six months afterwards he had constant pain at the epigastrium, with craving for food. Food slightly relieved the pain, but soon after nausea occurred, with pyrosis. In most cases the pain was paroxysmal, and frequently nocturnal, sometimes attended with vomiting or pyrosis. Peculiar symptoms occurred in some of these cases, as "a feeling as of a cold wind over the chest, and inability to take a deep breath." In some the signs of colic, as in the first case mentioned, were closely simulated; frequently there was retching, but the tendency was rather to diarrhœa than to constipation. In one case, a man of sixty-three suffering from intense epigastric pain, with sense of heavy weight preventing sleep, and some vomiting, I found a small patch of herpes zoster below the angle of the right scapula.

In Group 2 were various neuralgiæ. In one man aged thirty-eight there was intense supra-orbital neuralgia varying from side to side; previously there had been rigor and abdominal pain like colic, and then sweating and palpitation. He had suffered from influenza twelve months previously, but no ailment since. In another case, a lady aged twenty-five, urticaria followed influenza, and twelve months afterwards attacks of vertigo, with palpitation of the heart and pain referred to the occipital regions. A lady of thirty-seven, who had suffered from an attack of influenza in May, 1891, averred that two months afterwards she commenced to have headache, from which she had never been free in her waking hours for three months subsequently; she also suffered from pain on movement of the right lower jaw. She had tremors and tinnitus aurium, but no vertigo. In others headache occurred coincidentally with gastric crises.

In Group 3 some of the patients referred the pain which they suffered very closely to the region of the heart. In a few cases the pain was persistent, but in most paroxysmal. A lady aged forty-two, who had suffered from influenza nine months previously, described the pain as constant and dull, limited to the heart region. A gentleman aged thirty-six, whose attack dated sixteen months previously, was wearied with such dull aching; it was rather more diffused than in the former case. In another gentleman, aged forty-two, the constant pain in the cardiac region was accompanied by a tingling down the left arm The most important and characteristic cases in this group, however, simulated angina pectoris. A gentleman aged thirty-one, typically athletic, who had never suffered from illness before his attack of influenza, which was very severe, was taken five months afterwards with sudden and violent pain at the heart, eventuating in syncope. He was standing with his back to the fireplace, talking with friends, when the attack seized him with violence, and he fell unconscious upon the hearth-rug. There was no epileptoid sign. Another attack occurred a week after. There could be no doubt from collateral evidence that the patient became faint to unconsciousness. In the intervals no notable deviation from health could be detected; the left ventricle was slightly hypertrophied, but not more so than could be expected in an athletic subject The patient described the pain as of the character of a "grip" or "screw" at the heart; he experienced no coldness, and repudiated any sense of impending death. There were occasionally also some attacks of dyspnœa, occurring independently of exertion. Nearly at the same time at which this patient came under my observation a gentleman came under my care with like symptoms, in whom there was no evidence of an attack of influenza. He presented the appearance of typical good health, but suffered attacks of terrible pain at the heart, ending in complete unconsciousness. On some occasions the attacks were followed by wild excitement, and the patient had to be restrained from self-violence. I have reason to believe that in both these cases there was complete recovery. In a lady, aged forty-one, attacks of intense pain were initiated by exertion. The pain was localised in the second left intercostal space—presumably over the superior cardiac plexus—and here was a tender spot. The pulsations of the heart were painfully felt when in the recumbent position. In some other cases there was a feeling of impending death, as in true angina pectoris, though the pain was much less severe. This occurred in a gentleman aged thirty-three, sixteen months after an attack of influenza. Pain referred to the heart, however, had occurred at intervals ever since his attack. In the case of another gentleman aged thirty-seven, the sensation was described as of an arrest of the heart, as if the pendulum of a clock had been stopped at one swing. With this the patient said, "I feel as if I were going to die." In some cases there was a manifest slowing of the pulse; in others an irregularity. Sometimes a slow alternated with a quick pulse. Fifteen months after an attack of influenza I counted the pulse of a lady aged twenty-two as fifty-six. In most cases the rate was rapid, and I do not remember one case in which the arterial tension was unduly prolonged. This absence of prolonged arterial tension, in my opinion, took the cases out of the category of true angina pectoris. I have not heard that any case was fatal.

It is no part of my purpose to pursue the question of the cardiac phenomena of influenza. These furnish most interesting lessons, but I am concerned now only with the manifestations of *pain*. I turn now to Group 4, in which there were painful affections of the extremities. A lady aged twenty-five, who had an attack attended with high fever four months previously, complained of intense aching in both arms. This occurred chiefly at night, and she actually wept on account of the pain. Previously to the manifestation in the arms she had suffered pain in the calves of the legs resembling that of neuritis. In another case of a gentleman aged forty-one, the pain was referred to the lumbar regions more on the left side, to the right shoulder and the left wrist, to the course of the right sciatic nerve, and to the muscles of the thigh. There were fearful exacerbations, chiefly nocturnal, so that the patient, previously a healthy man, actually shrieked on account of the pain. In the case of a female aged thirty-three pain was localised in the muscles of the calves of the leg and of the thigh. The pain was strongly aggravated after food, especially meat. In another female, aged twenty-three, pain was extremely violent in the thighs and legs, and there

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were attacks of faintness. Subsequently the suffering was localised in the course of the right sciatic nerve. It was subject to remissions with severe nocturnal exacerbations; there were also shooting pains at the epigastrium. The case was of alarming intensity, but recovered. In a lady aged forty-eight pain was referred to the right hip and to the right arm; it extended from the right shoulders to the fingers, and all movement caused pain.

There could be little doubt that in these cases there was a form of neuritis. I met with other analogous instances in which there had been no history of influenza: one case in a child in whom there was severe pain in the calves, dropped feet, absolute loss of motor power, and, in fact, all the signs of neuritis of the alcoholic form. Any causation by alcohol was in this case quite out of the question; no doubt it was due to some infectious cause, and resembled the cases of peripheral neuritis, due to no traceable contagion, recorded by Dejérine and others.

In this summary of my personal experiences I have dealt with no cases of the earliest manifestations of influenza; all were in patients whose attack had passed away and who were not confined to their homes. The periods between the attack of influenza and the manifestations of symptoms of pain varied from a few weeks to twenty months.

The evidence appears to me to confirm the view of Dr. Althaus that the *materies morbi* of influenza resembles the syphilitic virus in its tendency to attack many parts of the nervous system after the attack is over, but surpasses the syphilitic toxine in virulence and in rapidity of action. Dr. Althaus[1] has adopted the deductive method in his reasoning. Starting from certain probabilities, he has worked out the problems of the effects of the *materies morbi* if it should specially attack certain areas of the central nervous system. He concludes that the different forms of influenza are due to irritant poisoning of the bulb and the nerve nuclei contained in it. Adopting a converse method, that of logical induction, and taking my arguments alone from personal experience, I have arrived at a similar conclusion to Dr. Althaus in so far as the proposition is concerned—that the virus of influenza especially affects the nervous system. Leaving the question of the acute and early manifestations, however, which I agree with Dr. Althaus in considering to be due to involvements of certain areas in the medulla oblongata, it appears to me most probable that the consequent phenomena are better to be explained by inflammatory changes in certain peripheral parts of the nervous system. In regard to the *visceral neuralgiæ*, the hepatalgia, the gastralgia, and cardialgia, there are signs of localisation and, in some instances, of local tenderness that point to a local cause. In some such it seems probable that the sympathetic fibres and ganglia are alone affected. In other cases, as in those in which there seems to be temporary arrest of the heart's action, retching, vomiting, and various disturbances of digestion, it is most probable that the vagus is involved in greater or less degree; but here also the effects might be due to peripheral irritation. In the sensori-motor manifestations it can scarcely be possible to avoid the conclusion that there is in existence a form of neuritis analogous to that which is caused by many other toxines. The conclusion, therefore, which I have come to is that the various affections I have briefly described are the remote consequences of the influenza infection, and that their proximate cause is a peripheral neuritis affecting the sympathetic ganglia and nerves, the vagus, and the sensori-motor nerve trunks.

Harley-street, W.

[1] THE LANCET, Nov. 14th and 21st, 1891.

ON THE TREATMENT OF SPREADING ULCER OF THE CORNEA WITH HYPOPION.

By RICHARD WILLIAMS, M.R.C.S.,

SURGEON TO THE LIVERPOOL EYE AND EAR INFIRMARY, AND OPHTHALMIC SURGEON TO THE ROYAL ALBERT EDWARD INFIRMARY, WIGAN.

FEW affections of the eye are more rapid in their progress or more destructive in their consequences than those cases of ulcer of the cornea with a collection of pus in the anterior chamber, and yet I believe there are not many affections more amenable to prompt and appropriate treatment. I propose in this paper to introduce a method of dealing with these cases which, as far as my knowledge extends, has not hitherto been in general use, and which consists, first, in the local application of quinine; and secondly, in a modification of the usual incision for the evacuation of the pus contained in the anterior chamber. I am able to speak of this method of treatment after an experience of several years, during which I think I have had ample reason to be satisfied with its results. As is well known, these cases are met with among the debilitated of all ages, most frequently as the result of traumatism. Among the colliers of the Wigan district they occur with unusual frequency, and I venture to assert, therefore, that my experience of them is above the average. In their treatment I have employed a solution of quinine during a period of upwards of ten years. The following mixture is used in nearly all cases that come under my care: R. quiniæ sulph. neutr., gr. iv.; liq. atropiæ sulph., ℥ i. M.; ft. guttæ. In simple ulcers without hypopion I am in the habit of prescribing eserine much oftener than atropine, but I invariably prescribe the latter drug where hypopion is present, because iritis is a common feature in this condition. I doubt if either eserine or atropine has any appreciable influence upon the suppurative process. On the other hand, there is hardly anything in medicine about which I entertain less doubt than that quinine locally applied has an immediate and powerful influence in arresting this process and in causing the absorption of the pus already collected in the anterior chamber. I believe I have had repeated evidence of this both in my private practice and public clinique.

It is not my intention to burden this paper with a number of cases which seem to me all to tell the same tale, but I cannot refrain from quoting the following case, which I think not only shows the value of quinine, but also tends to prove that atropine and eserine by themselves have no great, if any, influence upon the process of pus formation:—

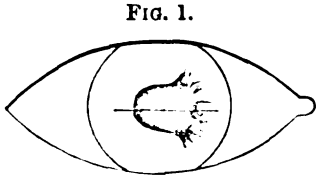
D. J——, aged eighteen, was admitted into the Eye and Ear Infirmary on June 24th, 1882, for capsular cataract due to an injury five years previously. I am indebted to Mr. Shears, who was then house surgeon, for the following notes of the case:—Soon after admission the opaque capsule was removed *en masse* by means of the cannula forceps, and two days later the patient, whose vision before the operation only amounted to perception of light, could count fingers with ease. The following day a hypopion appeared, and atropine and belladonna fomentations were ordered every three hours. On the 28th, the hypopion still remaining, quinine was added to the drop.—29th: "Hypopion much smaller."—July 1st: "Hypopion gone." The quinine and atropine drops were continued until the 8th, and eserine substituted.—12th: The hypopion reappeared, and the quinine and atropine drop was again used.—14th: "Hypopion gone, muddy condition of anterior chamber clearing up."—17th: Atropine alone was ordered.—19th: Hypopion reappeared with pain and injection; atropine and quinine drop again resorted to.—22nd: "Hypopion gone."— 26th: Patient discharged. $V = \frac{20}{30}$ c. + 6 D. J. 1, c. + 12 D. It will be noticed that in this case the hypopion made its first appearance while the patient was under atropine, and that it quickly disappeared when quinine was added to the drop. Its reappearance took place each time when the quinine was omitted, although the atropine or eserine was still continued. In other respects the treatment was not varied, the patient taking quinine internally from the first appearance of the hypopion.

I may also mention a recent case recommended to me by Dr. Bouverie MacDonald of Liscard. Mr. McW——, aged nineteen, had only complained of his eye about thirty-six hours before he was sent to me. I found an abscess of the cornea and a large hypopion. The cornea generally was hazy and the aqueous turbid. The conjunctiva was slightly chemosed and discharging muco-purulent matter. In fact, the disease had been sudden in its onset and extremely rapid in its progress, and I have no doubt that a delay of twenty-four hours would have seriously compromised the safety of the eye. I ordered quinine and atropine drops, to be used every two hours, and quinine internally three times a day. No other treatment whatever except a pad and bandage was employed. Two days later there was a marked improvement, and in four or five days the hypopion had completely disappeared. It may be argued that these cases often recover under atropine or eserine, hot fomentations, and antiseptic lotions, and that they are no proof of the value of quinine locally applied. It is obvious that positive proof is practi-

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cally out of the question in cases of this description, and it is only after comparison of a long series of cases treated by both methods that anything like an authoritative opinion can be ventured. A vivid recollection of the frequency with which these cases went from bad to worse in my earlier years leaves no doubt in my mind of the immense superiority of the quinine treatment. I am far from saying that all cases of hypopion can be made to disperse by means of quinine; but I am constantly seeing cases in which, in my judgment, the process is quickly arrested, and which would otherwise inevitably require operative measures. Old cases where the pus has become mixed with fibrinous material will no doubt require evacuation, but I believe that even then the use of the quinine drop exerts a powerful influence in preventing the reaccumulation of the pus. Before leaving this part of the subject, I may say that patients make no unusual complaint of smarting in using the drops. An aqueous solution of the soluble quinine is innocuous, and can be used as frequently as necessary without the least detriment to the eye. Coming, then, to those cases where the evacuation of the pus by operation is imperatively demanded, the question arises, What is the best method of performing paracentesis? There are two methods in ordinary use: First, by making a horizontal incision, parallel with the margin of the cornea, just underneath the purulent collection; and secondly, Saemisch's incision, which consists in passing the knife into the anterior chamber at the spot where the ulcer may happen to be and dividing it through and through, as shown in Fig. 1, the

FIG. 1.

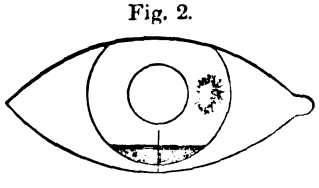


Saemisch's incision. After De Wecker.

blade entering the anterior chamber and emerging from it in healthy tissue.

To the first of these incisions I think there are serious objections. 1. The anterior chamber does not empty itself well, especially when the knife is slowly withdrawn, as is generally advised. 2. There is considerable danger of prolapse of the iris. 3. There is the maximum danger of interference with the nutrition of the cornea, because more of the nutritive channels, which are radially arranged, are involved in the incision. In fact, the only advantage this incision possesses, as far as I can see, is that it leaves no visible scar. Personally, I have entirely abandoned it for several years. Secondly, Saemisch's incision. I believe the good effect which undoubtedly follows this incision is due, not to the fact that the ulcer is cut through, but because the anterior chamber is more thoroughly emptied of the pus. On the contrary, any incision of an already attenuated and weakened part of the cornea must, it seems to me, be in itself injurious. I have not seen any reason advanced for dividing the ulcer itself as practised by Saemisch, and, unless it can be shown that this method possesses some curative influence other than is brought about by the thorough evacuation of the anterior chamber, I believe an incision in healthy tissue is decidedly to be preferred. Moreover, it is evident that if the ulcer should happen to be situated in the upper two-thirds of the cornea, the evacuation of the contents of the anterior

Fig. 2.



chamber must be a matter of some difficulty; and this is probably the reason why authors generally agree that the incision should be reopened daily for some time. It requires no great knowledge of the subject to see that this reopening of the chamber is a great drawback to the progress of the case. It prevents healing and greatly facilitates the formation of anterior synechiæ, not to speak of the pain and the annoyance it gives a patient already reduced and little able to bear them.

Basing my practice on these considerations, I now always make the incision as shown in Fig. 2. I introduce an ordinary Graefe's knife into the anterior chamber underneath the purulent collection, and carry it directly upwards in the direction of the pupil, care being taken not to enter the pupillary area. I withdraw the knife rather quickly with a forward motion, and the result is that the aqueous escapes with something of a rush, carrying with it the purulent mass which generally sticks between the edges of the incision, where it can be easily picked out with a pair of forceps. Any remaining fluid pus immediately follows, and the anterior chamber is left perfectly empty. I think this incision has distinct advantages over the others to which I have referred. 1. It is made at the seat of the purulent collection, and being *in the line of pressure* from behind, the evacuation is as complete as it can be. 2. Being made in the direction of the nutritive channels, it offers the minimum of interference with the nutrition of the part. 3. Prolapse of the iris is impossible, because the effect of pressure of the muscles upon the globe is to bring the edges of the incision together, and so effectually to prevent protrusion of the iris. 4. Being made entirely in healthy structure, it heals by first intention, and I *never have occasion to reopen it*. If, after practising this incision, the case goes from bad to worse, it is not because the anterior chamber requires to be reopened, but because of the continued spreading of the ulcer. I have no doubt, however, as already mentioned, that the use of the quinine drop after the operation has much to do with preventing the reformation of the hypopion. In the event of the ulcerative process continuing and threatening, as it sometimes does, the entire surface of the cornea, I consider the actual cautery the most effectual means at our command for arresting the spreading process. In conclusion, I think the only objection likely to be advanced against this incision is that it leaves a scar; but I consider this a purely theoretical objection. The incision need never encroach upon the pupil, hence no interference with vision need be apprehended, and the scar, being linear, is practically invisible against the background of the iris.

Liverpool.

SOME CASES OF RENAL COLIC.

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IN dealing with any case of severe abdominal pain, which recurs from time to time in a paroxysmal way, it is usual to make inquiries as to the precise starting point of the pain, and the directions in which it radiates, and to ascertain the occurrence of any accompanying symptoms which may throw light upon the diagnosis. The information thus gained will frequently form the foundation for further investigations, and thus the clinical features of the case may often be elucidated with ease. Thus a woman aged fifty, who was recently under my care at King's College Hospital, gave the following account of herself: Until three years ago she had had no serious illness, but at this time on several occasions she passed blood with her urine, and this hæmaturia was mostly accompanied, preceded, or followed by somewhat severe lumbar pain in the right side. After these attacks there was frequently more or less acute pain on micturition, which, however, gradually subsided. The association of hæmaturia clearly pointed to the renal origin of the colic, and, although the pain in these earlier attacks does not appear to have been as severe as usual in cases of renal colic due to calculus, there was no difficulty in arriving at a diagnosis, since the immediate cause of her appearance at the hospital was an attack of very severe pain, during which she was repeatedly sick, and on examination the urine was found to be highly charged with blood. Mostly the passage of the first renal calculus along the ureter is attended by more pain than in later attacks, since the ureter becomes more distended each time a calculus passes along it, and thus offers but little opposition to the passage of a small calculus. In this

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case, however, there could be no doubt that a calculus of much larger size than usual was making its way down the ureter, or perhaps had already reached the bladder. All cases of acute abdominal pain do not disclose their etiology as readily. The common causes of true colic are hepatic, nephritic, and the form due to lead poisoning. Renal colic usually commences somewhat acutely in the region of the kidney and shoots downwards towards the groin, sometimes being associated with aching and tenderness of the testicle, or even with pain on the inner side of the thigh. Sometimes, however, it passes upwards from the original site, so that tenderness or actual pain is referred to the angle of the scapula or even to the shoulder-tip, and then it is most important to consider the associated symptoms to distinguish the case from one of hepatic colic, in which the pain, starting in the right hypochondrium, radiates backwards and upwards in the direction of the shoulder. A short time ago I saw such a case in consultation, where, in the absence of hæmaturia, the vagueness of the localisation of the pain and the indefinite way in which it radiated, left considerable doubt as to its nature, until the appearance of bile in the urine rendered it certain that we were dealing with hepatic colic. In cases of lead colic the pain appears to start at almost any point within the abdomen; but it is referred mainly to the region of the umbilicus, and is generally relieved by pressure. Although by thus endeavouring to trace the course of the pain a great deal may often be learnt, occasionally the indications are misleading. Thus a case I saw in consultation a few years ago baffled all concerned. It was in a schoolboy aged twelve, in whom there was a history of hæmaturia, with severe pain, after another boy had jumped suddenly and roughly on his back. There was only this one attack of hæmaturia, but from this time there were frequent complaints of severe pain, which seemed to return with any sudden jolting movements, a railway journey or a ride in a hansom cab often proving sufficient exciting cause. It was also noted that the pain was worse with constipation or with acute diarrhœa. Digestion was imperfect and the urine contained numerous crystals of oxalate of lime. Although no certainty was felt about the presence of a renal calculus, it was generally thought that the symptoms might be due to this, and that an operation was advisable as affording the best prospect of relief. At the operation no stone could be found, although the pelvis and the substance of the kidney were carefully explored by a needle. A firm cicatrix was, however, discovered uniting the capsule of the kidney and the descending colon, and this was so tough and so extensive that it was deemed expedient not to divide it. This, then, furnished the explanation of the symptoms and the occurrence of pain after intestinal irregularity. The lad recovered, and is now able to keep fairly free from pain so long as he attends closely to the action of the bowels. As a parallel case I may mention another which has interested me greatly during the last two years. The patient, a young lady, first complained of increased frequency of micturition with pain, and the urine was found to be charged with pus. Considerable improvement followed the administration of alkalies, and later I continued to hear good accounts of her progress when she was treated by a surgeon with vesical injections of nitrate of silver. Eighteen months after the onset of cystitis she again came under my care for sudden severe pain in the lumbar region, far more intense than any pain she had previously suffered, and accompanied by sickness and by complete prostration. She has now had several of these attacks of renal colic, and the deeply interesting fact has been ascertained that for a short time immediately before one of these severe attacks the urine has usually been remarkably free from pus, but that shortly afterwards it is once more turbid and opaque. Clearly the explanation is that, although the case started with simple cystitis, the inflammation has extended to the pelvis of the kidneys, and that one ureter is occasionally blocked by a thick tenacious clot.

The pain in ordinary cases of renal colic has been variously attributed to direct irritation by the calculus, which is occasionally of a mulberry form, or to the over-distension of the ureter above the calculus. Neither of these explanations appears to me quite satisfactory. I believe that the cause may be gathered by reference to the other common forms of colic. The bile is secreted at such low pressure that hepatic colic can scarcely be due to over-distension, while gall-stones are usually so smooth that, in spite of their facets and angularity when multiple, it would seem unlikely that direct irritation can result. In the case of lead colic there is no stone to cause either severe local irritation or over-distension, but the cause is usually sought in temporary paralysis of a portion of the intestine. In the three, however, there is one condition common to all—viz., severe spasm of involuntary muscle; and in spite of the occasional abrasions which have been found in the lining membrane of the ureters, I believe that this muscular spasm should be regarded as the immediate cause of the pain. This view is further supported by the analogy of the pain of ordinary flatulent colic, and by the pains and after pains of labour, when the uterine contractions become exaggerated. Renal colic is undoubtedly the result of any attempt of a calculus to pass down a ureter of insufficient calibre, and it does not seem that the pain has any relation to the shape of the calculus or to the amount of local abrasion, but that it depends mainly on the amount of involuntary spasm which is excited by the presence and the size of the calculus. This contention is further supported by the result of treatment. In these cases it is customary to employ opium or morphine, and further relief is frequently afforded by a hot bath. The first doubtless relieves pain by its general anodyne action upon the nervous system and by blunting the sensibility it renders the condition less unendurable. The action of opium, however, extends also to the relaxation of muscular spasm, and in this action it is aided greatly by the influence of heat. Further, the pain travels downwards along the length of the ureter, and it frequently ceases almost entirely after the stone has passed into the bladder, the acute, agonising pain being followed merely by a dull aching, which gradually passes off. This last pain is, I believe, the result of irritation, while the acute pain is produced by muscular spasm.

Weymouth-street, W.

PLEURAL EFFUSION AND EMPYEMA.[1]

BY JAS. ALEX. LINDSAY, M.A., M.D., M.R.C.P. LOND.,
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IT is with some hesitation that I undertake to direct the attention of the Ulster Medical Society to so familiar and well worn a subject as pleural effusion and empyema. I am encouraged to do so because the diseases in question, however familiar, possess a very exceptional clinical interest, and because there are many points in connexion, especially with their etiology and treatment, around which much controversy has raged, and still rages. I have a further reason for inviting attention to this topic—viz., that it is one which concerns and interests not only physicians but surgeons, and I rejoice that in the goodly array of speakers who are to follow me are to be found the names of several of my surgical colleagues. Permit me to say that I have given the subject special attention for several years, and that my opportunities for observation have been considerable. My remarks will be based mainly on a series of thirty-five cases, about which I possess full information. I have also partial records of a number of additional cases, bringing up the total to about fifty, and these partial records will be available for at least a portion of our inquiries. I can hardly hope that my facts will be new, but they will be at least facts, and not mere theories or book-work.

It will be obvious that to handle exhaustively so vast a subject as pleural effusion and empyema within the compass of a single paper would be altogether impossible. I shall therefore make no pretence of covering the entire ground, but shall select a number of points which seem to offer the best prospect of affording us something of interest and value. Without further preliminaries, therefore, I proceed to consider the first question which I have put down for discussion—viz, is simple pleural effusion commonly due to (*a*) exposure, (*b*) rheumatism, or (*c*) tubercle? In this country exposure has been usually regarded as a common and adequate cause of pleurisy. On the Continent, however, the tendency has been rather to regard the affection as due to some specific cause, either rheu-

[1] A paper read before the Ulster Medical Society.

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matism, tubercle, pyæmia, or cancer. I have inquired into this point as carefully as possible, and from an analysis of thirty-five cases have obtained the following results. In sixteen cases, or nearly half the total number, there was a clear history of either a wetting or exposure to cold when the patient was heated and perspiring. Rheumatism was present in three cases, one of them being a case of rheumatic fever. There was a family history of tubercle in two cases, and in three cases the patient had suffered from hæmorrhage, probably of pulmonary origin. In ten cases, or nearly a third, no cause whatever could be assigned for the attack. None of my cases were either cancerous or pyæmic. That this question of etiology is a complicated one will appear from the fact that in one of my cases there was a clear family history of tubercle, the patient was rheumatic, and the onset of the pleuritic attack was attributed to exposure. On looking over the figures which I have just given, one is disposed to ask what value is to be assigned to the history of exposure and cold, to which patients in this country are so ready to attribute the most diverse ailments. With every desire to scrutinise critically such histories, I feel that the facts which point to exposure as a cause of pleurisy are too palpable to be overlooked and too numerous to be the result of mere coincidence. Not only were half of my cases attributed to this cause, but in many of them the history was precise and definite. In five cases the attack followed a severe wetting. In one case a lad, apparently quite healthy, slept upon a stone floor, and was immediately seized by acute pleurisy. In many of the remaining cases the patient was exposed to cold air when hot and perspiring. The argument that pleurisy cannot be due to simple exposure, inasmuch as other serous inflammations, such as peritonitis and pericarditis, are rarely, if ever, due to this cause, is entitled to some weight; but it might conceal a fallacy, as we are not entitled to assume that the various tissues of the body which are analogous in structure necessarily obey precisely the same pathological laws. It is, of course, open to us to assume that in many cases exposure is only the exciting cause, and that the predisposition, whether rheumatic, tubercular, or other, was there before. That this is sometimes the case is most likely, but the fact upon which I wish to insist, and which my records seem to warrant, is that in apparently healthy people exposure and cold are frequently followed by an attack of acute pleurisy.

As regards the influence of rheumatism, I have not found pleurisy specially frequent in rheumatic subjects. Of my thirty-five cases only one had had rheumatic fever, and only two of the remainder had symptoms of rheumatism. When we think of the great frequency of rheumatism in the north of Ireland, this number seems to afford only a slight foundation upon which to found a causal relation between the two diseases. Another test that may be employed is to inquire whether pleurisy and valvular disease of the heart are often associated. On looking over my cases I find that in no instance is the presence of heart disease recorded. On the whole, therefore, while I am not disposed to ignore the influence of rheumatism, I have no facts to indicate that it is a frequent cause of pleurisy, and the presumption seems the other way. The question of the influence of tuberculosis in the causation of acute pleurisy is a much more important and difficult one. Dr. Barrs of Leeds recently contributed an important paper to the *British Medical Journal* with the view of showing that a very large number of cases of simple pleural effusion are really of tubercular origin. He inquired into the after-history of seventy-four cases of simple pleural effusion, and found that within five years thirty-two of these were dead, twenty-five were living, and seventeen could not be traced. Of the thirty-two who were dead at the time of inquiry fourteen died of phthisis, four died of other tubercular affections, and several of the remainder succumbed to some pulmonary affection. Putting aside the cases that could not be traced, we have the startling fact that of a series of cases of simple pleural effusion apparently recovered from more than one-half died within five years, and that the majority died of some tuberculous disease. It is needless to point out that if these facts are fairly typical and should be corroborated by a wider experience, the ultimate prognosis in simple pleural effusion, so far from being, as it is now, commonly regarded distinctly favourable, would become most grave. My cases are unfortunately for the most part too recent to enable me to say much about their ultimate history, but they may nevertheless afford some guidence towards the elucidation of this very grave problem. Thus, of thirty-five cases there were only two instances of a family history of tubercle, and only three instances of pulmonary hæmorrhage. As to how many of the thirty-five cases were probably tubercular I should find it difficult to say precisely, many of the cases being still in progress, and in some the presence of tubercle being suspected, but not absolutely certain. My impression is that the association of tubercle and pleural effusion is commoner than we have been in the habit of believing, but my records would fall far short of warranting the very alarming conclusions of Dr. Barrs. The point which he has raised is one of extreme interest and importance, and it is to be hoped that it will be sifted to the very bottom. If a patient who has had an attack of acute pleurisy subsequently develops tuberculosis, the question arises whether the pleurisy was originally of a tubercular character. Dr. Barrs says that "he sees no reason to doubt that, if a pleuritic effusion is followed by phthisis, the effusion itself was in the first instance of a tuberculous origin." This does not seem to me to be a tenable position. All my knowledge of pulmonary phthisis inclines me to the belief that if a lung be left collapsed and inexpansile as the result of pleural effusion it is very likely to become the seat of tuberculosis, and that the development of tuberculosis under such circumstances is no proof that the underlying process was tubercular from the first. While the evidence at present at my disposal does not warrant the conclusion that ordinary pleural effusion is commonly followed by tuberculosis, I must admit that in dealing with the great number of cases of pulmonary phthisis which come under observation I have been more and more impressed by the frequency with which pleurisy is found as an antecedent condition. This is a fact which cannot be ignored, and of which the adherents of Dr. Barrs' doctrine are entitled to make the most.

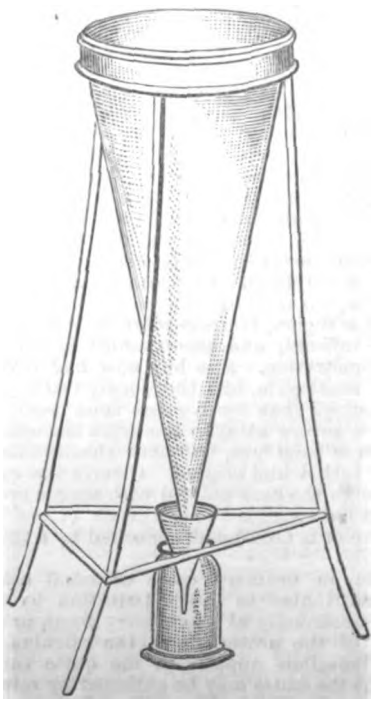
(To be concluded.)

THE FILTRATION OF URINE THROUGH EARTH.

BY F. B. WELLS, M.B. LOND.

I AM permitted by the kindness of Dr. Poore to place on record the results of a series of interesting experiments which have been made under his direction relating to the

FIG. 1.



slow filtration of urine through earth. A conical metal vessel, capable of containing about 40 lb. of dry earth,

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and perforated at the apex, was used as a filter, and to this was added day by day an amount of urine averaging about half a pint. In the first three experiments, made between July, 1890, and February, 1891, fifty-nine separate analyses were made of the urine committed to the filters, involving the estimation of urea, sodium chloride, organic and mineral residues, and in subsequent experiments the averages of these analyses have been regarded as sufficiently accurate for purposes of comparison between urine and filtrate. The experiments are arranged in four divisions:—(1) Experiments made with mould from Gower-street; (2) experiments made with mould from Brondesbury; (3) experiments made with mould that had been previously used; (4) experiments made with the application of heat to the filter.

Of the first experiment, which has already been alluded to in a footnote to a presidential address delivered by Dr. Poore to the Sanitary Congress at Brighton, 1890, the following results were obtained. Two hundred ounces of urine were added to the filter, of which 73 ounces appeared as filtrate, the remaining 127 ounces representing what was lost by evaporation *plus* what remained in the filter. The average specific gravity of the urine was 1021·4, that of the filtrate 1011. The total solids of the urine averaged 4·44 grammes per cent., of which 3·45 per cent. were organic and 0·99 per cent. inorganic, while the total solids of the filtrate averaged 1·78 grammes per cent., of which 1·069 was organic and 0·710 inorganic. The chlorides in the urine averaged 1·09 grammes per cent., and in the filtrate 0·67 gramme per cent. The total solids of the urine added would be nearly 9 ounces, and the total solids of filtrate obtained about 1½ oz., so that 7⅞ oz. of solid residue were left in the filter. The appropriation of these 7⅞ oz. of residue by the filter will be again referred to.

The surface of the filter, when the nose was closely applied, smelt distinctly ammoniacal; but the filtrate, although of deep colour, could be evaporated to dryness without offensive smell. The filtrate showed no tendency to putrefy, nor did a few drops of it, added to sterilised urine in a tube, set up putrefaction. Next as to the experiments made with a different humus, and two of which were conducted in the garden at Brondesbury. I shall consider these two together, performed as they were with similar mould under similar conditions. In all 570 ounces of urine were added to the filters in equal additions of 10 ounces daily. Of this 228 ounces have been recovered as filtrate. The average specific gravity of the urine was 1020·3, and of the filtrate 1006. The urine contained an average 2·34 grammes per cent. of urea; the filtrate 0·15 gramme per cent., an amount which, allowing for possible error in the hypobromite method of estimation, may be disregarded. The average chlorides of the urine amounted to 1·35 grammes per cent., and of the filtrate to 0·33 gramme per cent., or of about 14 oz. (13·9) of urea added to the filter, 12½ (12·3) oz. did not appear in the filtrate, and of 8 oz. (8·03) of chloride added 6½ oz. (6·6) were unaccounted for. Nor do these results represent the best that have been obtained. Thus, in the last experiment made at Brondesbury, the first pint and a half of filtrate was almost colourless, of specific gravity 1003, chlorides 0·2 gramme per cent., and urea 0·13 gramme per cent.—an amount which, as already pointed out, may be disregarded.

None of the filtrates, after standing for weeks exposed to the air, underwent any putrefactive change, nor did any of them give off offensive smell when evaporated to dryness. In colour they have varied from the almost colourless filtrate above to a yellow or deep reddish-brown. In order to ascertain whether the colouring matter was of a urinary nature, part of the filtrate obtained from the first experiment was sent to Dr. MacMunn of Wolverhampton, who kindly examined it, and has furnished the following report of his examination:—

Colour.—A deep yellow, with orange tinge by gaslight, brownish tint by daylight.

Spectroscopic examination.—A layer 40 mm. deep absorbed a little of violet end of spectrum. No detached band in any depth. With HNO_3: No band; colour diminished. With H_2SO_4 in abundance: Colour almost discharged. By Jaffé's test (HCl and bleaching salt): Colour discharged. With NaHO: A precipitate carrying down all colouring matter; filtrate clear, showing no bands; some ammonia set free. With $NH_4OH + ZnCl_2$: Brownish precipitate; filtrate clear, and gives no fluorescence.

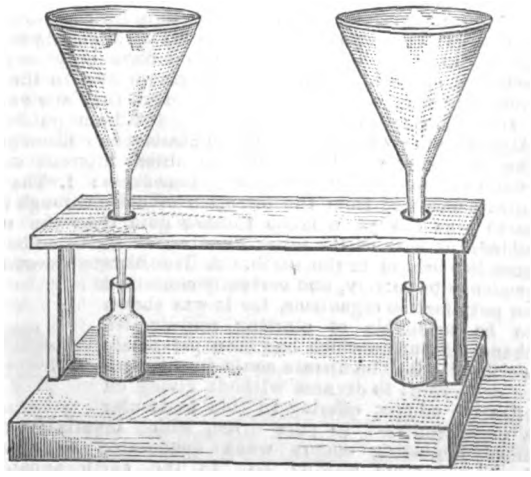
Result.—A total absence of normal urinary pigment and chromogen—that is, no urobilin, no indican, &c. The colour is probably due to the presence of some humus substance derived from the earth through which it has been filtered.

Now I will turn to the third group of experiments, those made with mould that had been previously used, an interval of five months having elapsed, during which the mould had remained intact. One hundred and nine ounces of urine were added, of average specific gravity 1024·3, with the following percentage analysis:—Urea, 2·6 grammes; chlorides, 1·2 grammes; residue, 5·48 grammes, being organic 4·12, mineral 1·35. Twenty-four ounces of filtrate were recaptured, of a uniform specific gravity 1035, with urea 0·2 gramme per cent. Thus the power of the filter to change the urea is as great as ever. Of chlorides there were 1·5 per cent., and residue 6·07 per cent., being organic 3·37 and mineral 2·70 per cent.—that is, the mineral residue of the filtrate is exactly double the amount of that in the urine; and it is evidently not due to chlorides, the respective average percentages being—urine, 1·2 grammes; filtrate 1·55 grammes. It seems probable that the 7⅞ oz. of residue left in the filter during the five months' interval has, to a great extent, nitrified and become soluble. Given an ammoniacal solution and garden soil, we have the readiest means of inducing nitrification. And, testing the filtrate qualitatively with ferrous sulphate and sulphuric acid, there is abundant evidence of the presence of nitrates. Experiments such as these—tedious, and extending over a long period—are necessarily incomplete, and it yet remains quantitatively to estimate the nitrates present.

[A new series of experiments has been instituted, in which this obvious omission will be rectified by a complete analysis of the mould at the beginning and end of the experiment.]

I shall refer but briefly to the experiments that have been made with the aid of heat roughly applied by means of a "Fletcher's burner" to the exterior of the filter, since these are, at present, the most incomplete of all the experiments made. The object has here been to maintain the mould at such a temperature as is best suited to the micro-organisms of the earth concerned in nitrification—a temperature of about 40° centigrade. In the first of these experiments, and the only one to which reference will be made, when seventy ounces of urine had been added, two ounces of filtrate were

FIG. 2.



obtained. This filtrate was of specific gravity 1002, contained no urea, and had a percentage residue of 0·54 gramme, being 0·34 organic and 0·2 mineral; 10 cubic centimetres of it yielded no appreciable evidence of chlorides. The average percentage analysis of the urine added was:—Urea, 2·2 grammes; chlorides, 1·4 grammes; residue, 4·9 grammes; of which 2·66 were organic and 1·24 mineral. Then from defect in the apparatus the mould became overheated and the filter inefficient.

[In the new series of experiments the earth will be maintained at (presumably) an optimum temperature by an incubator which has been specially constructed.]

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It will be convenient here to describe an experiment that was made to ascertain what difference in results might obtain from a water and a urine filtration through mould. Two glass funnels were employed, each of capacity about four pints, and were filled with mould. To one was added during a period of twenty days, in regular amounts, an ounce and a half of tap water, and to the other an equal amount of urine. Rye grass seed was, moreover, sown on each filter surface. The water filter produced seven ounces and a half of filtrate, and developed an excellent crop of rye grass; the urine filter produced five ounces and a half of filtrate and no grass. The daily addition of *water* was followed, after the filtrate had once commenced to appear, by an almost *immediate* dropping of filtrate; *the urine tarried much longer in the mould.* That no grass would grow on the mould to which urine was being daily added was to be expected, ordinary urine being about twenty times too strong for plant culture. The filtrate obtained from the urine filter was odourless, clear, of pale yellow colour, specific gravity 1006, containing about 0·5 gramme per cent. of urea (? or other nitrogenous bodies), and yielding no offensive smell on evaporation to dryness. The water filtrate was of faint yellow colour, and of specific gravity 1000. Finally, a few experiments were made in which grass seed or plants were used in connexion with the mould from the filters. In May, 1891, a mixture of equal parts of mould that had been used for filtration, and one-half of which had moreover been sterilised by heat, was sent to Andover, and there twenty cuttings of common yellow calceolaria were placed in pots as follows: Ten in garden soil from the garden at Andover; ten in the London mould. The pots were placed in the open. Here is the result: In the ten pots of Andover soil the calceolarias had done fairly well, and each pot had grown an abundant crop of weeds. In the ten pots of London earth the calceolarias were all dead, and there was not a single weed visible. They were the embodiment of absolute barrenness. Corresponding portions of mould were used for urine filtration, and yielded a filtrate of specific gravity 1041, with a large percentage of urea. In no case has grass grown on the surface of a filter in use. But on mould that has remained for several months exposed to the light and air in the garden after usage in the filters grass has been cultivated most readily, yielding a better crop than that produced by unused mould.

Brondesbury, Oct., 1889.

Note by DR. POORE.—Although these experiments are manifestly incomplete in some particulars, I have advised Mr. Wells to publish them and to trust to a future opportunity for amplifying and completing the statements above made. The power of the earth to deal with organic matter is one of those things of which we have only recently obtained an insight, an insight which we owe to the new science of bacteriology. I am not aware that any experiments similar to the above have yet been published. Although the experiments are tentative and incomplete, the results obtained are of undoubted interest, and I would venture to call attention to four facts: 1. That the filtrate obtained from the filtration of urine through fresh earth was always a much thinner fluid than the urine added, the bulk of the solids dissolved in the urine having been left behind in the earth. 2. The filtrate showed no tendency to putrefy, and certainly contained no putrefactive organisms, for it was shown to be incapable of starting putrefactive changes in urine which had been previously sterilised. 3. The filtrate could in all cases be evaporated to dryness without giving off offensive odours, offering in this particular a great contrast to pure urine, which invariably emits most disgusting odours when evaporated to dryness. 4. The organic residue left in the earth apparently underwent nitrification in course of time, but it was noteworthy that earth which had been used for the filtration of relatively a very large amount of urine was in all cases barren until after it had been exposed to air and rain. After such exposure, however, its fertility appeared to be of a high order. The practical importance of this matter to sanitarians and agriculturists is very great. In London, with its 4,000,000 inhabitants, it is probable that 10,000,000 pints of urine are daily run to waste, and it must be remembered that these 10,000,000 pints contain about 200 tons weight of most valuable manure.

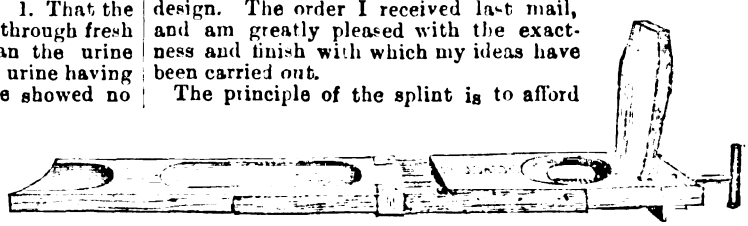
Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

TREATMENT OF FRACTURES OF TIBIA—MORE ESPECIALLY COMPOUND—BY MEANS OF SCREW EXTENSION.

BY G. R. MOORE GRAHAM, L.K.Q.C.P.I., &c.

SOME short time back I had occasion to be summoned to an accident that had occurred to a member of a travelling circus troupe, an acrobat named V. V——, who, whilst rehearsing previous to his evening performance, missed his hold on the trapeze and fell with great violence against the sharp edge of the stage, injuring, I was informed, his left leg. Upon making an examination I discovered that the left tibia had sustained a severe compound oblique fracture at the junction of the middle and lower thirds, and owing to the muscular development the upper fragment was considerably protruded through the skin. Chloroform having been administered, a reduction was made, and by means of the orthodox weight over the raised foot of the bed, sandbags, &c., I endeavoured to keep the fragments in apposition, but invariably with a negative result. As the condition of the patient and injured limb was anything but assuring, I felt it was necessary to adopt other means if the leg was to be saved, with the result that I designed the splint I am about to describe (see engraving), and had it roughly made by Japanese mechanics. Upon applying it I was gratified to find that the fragments, when once placed in apposition, never moved; also that the wound began to heal rapidly, and the patient expressed himself as greatly relieved and very comfortable, which satisfactory state of affairs continued. In three weeks' time the splint, having performed its duty, was removed; the wound had almost healed, and the fragments were well in position and uniting. The limb was put up in plaster-of-Paris, and the patient allowed to move about on crutches. In a short time he removed to Yokohama, where I am led to understand Dr. Stuart Eldridge, of that place, removed the plaster, and the wound not having quite healed he passed a probe and discovered a small piece of dead bone, which he removed, and which was shown to me at a later period. After this the wound healed entirely, and, according to latest accounts, the patient is following his usual occupation in India, and suffering no inconvenience. I might also state that, although a piece of necrosed bone came away, there was no shortening of the limb whatever. The original splint, roughly made, I sent to Messrs. Arnold and Sons, asking them to make the same according to the design. The order I received last mail, and am greatly pleased with the exactness and finish with which my ideas have been carried out.



The principle of the splint is to afford extension by means of a long screw fitted with a handle applied to the posterior surface of an ordinary leg-splint with foot piece, the splint being divided at the seat of fracture, as shown in the engraving; by means of the screw the divided segments are forced apart, and the power is so great that you can overcome the greatest amount of muscular contraction to a nicety. The splint being applied closed to the injured limb, the foot and lower fragment are securely bandaged to the lower segment of the splint, the upper fragment also being bandaged to the upper segment, the seat of fracture being left uncovered; by means of the handle the screw forces apart the divided splint and draws the fractured bone into place, which being accomplished, the limb is left with that amount of extension until the process of repair is nearly finished.

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Another advantage is the facility with which, if the fracture is compound, the wound is dressed, causing no pain or discomfort to the patient and no inconvenience or trouble to the attendant, also no chance of the fragments becoming displaced. I trust that I have not infringed any existing rights, but plead ignorance and distance from the *fons et origo* of information if I have done so.

P.S.—I quote this case as one of several, but this being the first and worst treated by this splint.

Kobe, Japan.

GANGRENE OF LUNG FOLLOWING PNEUMONIA IN A CHILD TWENTY-ONE MONTHS OLD.

BY WALTER B. DE JERSEY, B.A., M.B, B.C. CANTAB.,
SENIOR RESIDENT MEDICAL OFFICER, EVELINA HOSPITAL FOR SICK CHILDREN.

H. S.——, aged twenty-one months, was admitted into the Evelina Hospital for Sick Children on Nov. 3rd, 1891, under the care of Dr. Frederick Taylor, to whom I am indebted for permission to publish the case. There was a history of phthisis on both sides of the family. The infant was fat and healthy till its present illness, eight weeks previous to admission, when he first became feverish. A week later he was seen by a doctor, who said he had bronchitis, and ordered poultices to the chest. Five weeks before admission the patient became much worse, with severe dyspnœa, loss of appetite, and fever. Bowels confined. Child apathetic.—Oct. 30th: Lips blue, face of a "yellowish white colour," and cough severe; alæ nasi working; no expectoration appeared externally; no fetor of breath noticed. On admission a fairly well nourished child; face pale; alæ nasi working; no herpes. Temperature 101·6° F.; pulse 146; respiration 36. Markedly rachitic; mouth and throat healthy; tongue furred; breath not offensive. Wooden dulness over the whole of the left chest, except near spine, where there was rather more resonance. Blowing breathing in front from apex to nipple, and behind down to middle of scapula; only very faint distant breath sounds elsewhere; no crepitations or moist sounds. On right side a few fine crepitations at base, otherwise healthy. Heart sounds normal, apex beat not displaced. Nothing abnormal in abdomen. The left side of chest a quarter of an inch larger than right. An exploring needle was inserted into the left chest, first, in the sixth space in the mid-axillary line; second, in the sixth space external to the angle of the scapula. In each case pus was withdrawn, but in neither could a syringeful be obtained. Considering the physical signs and the pus obtained a sufficient warrant, I made (in Dr. Taylor's absence) an incision in the sixth space between the post- and mid-axillary lines. About a drachm of pus escaped with an extremely fetid odour; on inserting the finger between the ribs soft friable lung, which easily broke down, could be felt. The temperature gradually fell after the operation to 98° F.; pulse 124; respiration 36.—Nov. 4th: Child looking very ill. Pulse 130, weak; respiration 50; temperature 103 F. Dressed; thin brown discharge, very offensive odour. — 5th: Face pale, child apathetic all day; some diarrhœa and vomiting, both very offensive. Dressed; discharge as before. Dulness wooden over the whole of the left lung. No breath sounds heard.—6th: Temperature rose all day after being down yesterday; vomiting less; no diarrhœa; child restless till this evening; dying quietly at 6.30 P.M. Breath for the last forty-eight hours very offensive. Treatment, quinine and stimulants.

Necropsy, thirty-one hours after death.—Left lung solid, tubes widely dilated and thickened, containing a large amount of pus. Scattered patches of gangrene all over lung, the whole very fetid. Pleura adherent firmly all over. Some bronchitis in right lung; nothing else abnormal in any part of the body. No tubercles found anywhere.

Remarks.—The above case is interesting on two grounds: first, the fact of gangrene of lung occurring in so young a child after what was in all probability pneumonia; second, the difficulty in the diagnosis. At the post-mortem examination no disease of the heart or any of its valves was present, and there were no clots, ante- or post-mortem, in any of its chambers. The pulmonary artery and its branches showed no signs of plugging. The cause of the condition cannot then be put down to simple embolism; again, septic embolism may likewise be dismissed, no disease of ear or any other septic origin being found. Though the bronchial tubes were much dilated, none of them showed any ulceration in their interior; all, however, having their walls much infiltrated. It is usual to find in pneumonia and broncho-pneumonia in children thickening of the tubes and septa to a greater or less degree, the inflammation affecting not only the alveoli, but also the interalveolar tissue and the tubes. An acute inflammation would then account for this thickening, and the dilatation of the tubes would easily occur in their softened condition by the efforts of expiration and inspiration, and by coughing; the lung itself, unable to withstand the acute attack so widely spread, becoming gangrenous. Though very disorganised, there was little doubt, on careful examination, that the lung had been in a pneumonic condition previously. With reference to the difficulty of diagnosis, all the signs of fluid were present except displacement of heart. It was found post-mortem that a needle would have withdrawn pus from the tubes at almost any point on the left side at which it was inserted.

Southwark-bridge-road, S.E.

ENTERIC FEVER IN A CHILD FOUR MONTHS AND A HALF OLD.

BY JOHN G. OGLE, M.B.

IN connexion with the case recorded by Dr. Fuller in THE LANCET of Nov. 7th, the following notes will be interesting:—

The body of Metha Amanda D——, aged four months and fourteen days, was brought to St. Bartholomew's Hospital on Sept. 17th, 1889, death having taken place on the way to the hospital. The history elicited from the mother at the inquest was as follows:—The child, one of twins, had been healthy from birth. She had been fed on condensed milk. On Sept. 11th she was vaccinated, and since then had been vomiting, but did not appear to be ill. On Sept. 17th the mother went to her work in the morning, leaving the child, apparently well, in the charge of a friend; in the evening, on her return, the child was in the mortuary at St. Bartholomew's Hospital. The friend stated that on the morning of the 17th the child was very fretful and vomited frequently; she got worse in the afternoon, and died on the way to the hospital. The bowels acted on the 17th, and the motion was solid and lemon-coloured.

Post-mortem Examination.—The body was fairly nourished, but there were marked evidences of rickets. No signs of violence were found. The vertex of the brain was somewhat ecchymosed, and the left lateral ventricle contained a considerable excess of fluid. The intestines presented the appearances typical of enteric fever. The Peyer's patches were swollen and reticulated, and many of them, especially in the lower part of the ileum, were converted into ragged ulcers. The first ulcer occurred about twenty-four inches from the stomach, and they were of circular shape, and about four inches apart in the jejunum. In the ileum the ulcers were much more numerous, and assumed an oval form, with the long axis in the long axis of the intestine. The mucous membrane of the colon was covered with minute inflamed solitary glands, which were ulcerated in the ascending portion. There was no peritonitis or perforation. The stomach was empty and the mucous membrane healthy. The mesenteric glands were enlarged. The spleen was large and soft. Murchison makes mention of three cases in younger infants—viz., eight days old, fifteen days old, and in a fœtus of seven months.

Oxford.

FRACTURE OF THE NASAL SEPTUM.

BY W. T. CLEGG, L.R.C.P. & M.R.C.S.

DURING the past year two cases of this injury have come under my notice. In both the cartilage of the septum was displaced so as to occlude the left nostril. Both complained that the right ala nasi being unsupported fell in when an inspiration was taken with the mouth closed, and acted like a valve, making nasal breathing an impossibility. It was to remedy this that both patients consulted me. Now all mention of this is omitted in articles treating the subject, yet it is the principal difficulty to be dealt with. In the first case, by making four cross cuts through the cartilage eight triangles were formed, and these were separately fractured at their base. The septum could then be pushed into place, and the nostril plugged to support it. At the end of three weeks the result was perfect. I have lost sight of the patient since, and so cannot say whether the good result was permanent, but I have no reason to doubt it. The second case has not yet come up for treatment.

Liverpool

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A CASE OF ACUTE ORCHITIS FOLLOWING INFLUENZA.

BY J. W. HARRIS, L.R.C.P. LOND., M.R.C.S., &c.

THE following case may be of interest during the present epidemic of influenza:—

On Nov. 26th I was called to see a man, G—— W——, aged sixty-seven, a widower. He was complaining of "pains all over," more especially in the back, head, and back of eyes. Slight cough. Temperature 103·2°; pulse 120. Tongue slightly furred; bowels open. I gave him twenty grains of salicylate of soda every four hours, and he gradually lost his fever and pain. On Dec. 1st, on visiting him, I found him complaining of pain, tenderness, heat, swelling, and redness of the left testicle. Temperature 102°. I gave him an aperient and a saline mixture, with one grain of potassio-tartrate of antimony, every four hours, and he gradually recovered, and on Dec. 21st he was down stairs.

There being an epidemic of the so-called "influenza" in the town, I looked upon this case of one of acute orchitis following influenza. As the patient never got out of bed, had no trouble with his urine, and could account for the swelling in no way, and orchitis coming on as it does after mumps (metastasis), the case seems to me somewhat obscure. I should be glad to know if any of the readers of THE LANCET have met with a similar one.

Cranbrook, Kent.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL

FIFTY CONSECUTIVE MAJOR AMPUTATIONS.

(Under the care of Mr. A. E. BARKER.)

THE following fifty consecutive major amputations are here tabulated as a small contribution to the statistics of a very interesting subject. They form an unbroken series, no amputation performed by Mr. Barker since 1876 being omitted except those smaller operations for the removal of parts of the hand and foot below the wrist-joint and tarsus, all of which did well.

Double amputations, of which there were three, are entered as one operation. One patient required reamputation in the thigh, after removal of the leg two years before, for gangrene, due to alcoholic arteritis. These two operations are counted separately. In one amputation in the middle of the thigh, the rest of the femur up to its head was subsequently removed by a separate operation, making this case practically one of exarticulation at the hip. This is only put down as one case.

	Position in thirds.		Disease. Recov.	Disease. Died.	Injury. Recov. Prim.	Injury. Recov. Sec.	Injury. Died.
Thigh	Upper	1	....	—	—	.... —	1 —
	Middle	2	....	2	—	.... —	— —
	Lower	12	....	9	1	 3	— 1
Knee-joint		1	....	1	—	.... —	— —
Leg	Upper	2	....	2	—	.... —	— —
	Middle	6	....	3	—	 3	— —
	Lower	2	....	—	—	 2	— —
Ankle-joint	Syme	4	....	3	—	 1	— —
	Pirogoff	3	....	1	—	 2	— —
Shoulder-joint		1	....	1	1	.... —	— —
Arm	Upper	—	....	—	—	.... —	— —
	Middle	3	....	—	—	 2	1 —
	Lower	2	....	—	—	 2	— —
Elbow-joint		1	....	—	—	 1	— —
Forearm	Upper	—	....	—	—	.... —	— —
	Middle	1	....	—	—	 1	— —
	Lower	7	....	4	1	 2	1 —
Wrist-joint		2	....	—	—	 1	1 —
Total		50	....	26	3	 20	4 1

From this table it will be seen that forty-six patients recovered from operation and four died.

CASES 3, 19, 30, and 49.—The cause of death in each was as follows:—

CASE 3.—A man aged forty-two had tubercular abscesses about the wrist-joint for four months, with sinuses, and was greatly broken down in health. An attempt to excise the wrist failed, and a fortnight later amputation was performed in the lower third of the forearm. The wound showed feeble power of healing and the lungs were evidently affected with tubercle. He died of asthenia due to pulmonary tuberculosis on the twenty-first day. At the post-mortem examination there were twenty-four ounces of bloody serum in the left pleura; the right lung contained an enormous cavity, with surrounding tubercular consolidation; in the left lung there was tubercular consolidation of all the upper lobe, with a few moist cavities.

CASE 19 was that of a man aged twenty-eight, whose legs had been run over on the railway, the right being crushed to pulp up to the middle of the leg, the left nearly to the knee. Double amputation through thigh and below knee followed two hours and a half after the accident. Soon after the pulse became very feeble and frequent, and the patient steadily sank and died forty hours later of shock. The temperature after operation was 96°; then only rose to 98·6°, and then fell, until just before death it was 97·6°. At the post-mortem examination nothing special was found, except slight "fat embolism" in the lung.

CASE 30 was amputated above the knee for epithelioma of the leg. After the first week the patient did not do well. He said he had for a long time been subject to gout, and he had after the operation attacks like gout in the stump, which showed little power of repair. The temperature was usually below 100°, but touched 101·8° on two or three occasions. In the fourth week he began to fail, and he died of asthenia on the twenty-ninth day after the operation. There was a suspicion of trismus not long before death.

CASE 49 was that of a lad of eighteen in the last stage of exhaustion. He had more than a year before had acute necrosis of the left femur, which resulted in large open abscesses. Amputation was urged, but refused, and these abscesses continued to discharge freely up to the last. Eleven months after the first he had a second attack of acute necrosis, this time in the right shoulder, with suppuration along the whole humerus, large abscesses, and great prostration. Later the head of the humerus came away with profuse suppuration. Amputation was proposed, and was refused for a considerable time. Then amputation was agreed to, but the patient was too weak to bear it, and it was put off. Finally he was thought to have improved a very little, and the soft parts were simply divided which held the wasted arm to the shoulder. Little or no blood was lost, and all was rapidly and simply done. He was dressed daily, and the wound cleaned. He gained some strength for the first week, then he began to fail again. Another large abscess formed over the scapula. He died of asthenia on the seventeenth day after amputation

Of these four deaths, only one at the most can be credited directly to the operation. Cases 3 and 49 plainly died from the exhaustion of the disease for which the amputations had been done three weeks before. The operations were only undertaken as their last chance, and, at any rate, to rid them of limbs which were practically rotting away. Case 19 plainly died of the shock of a terrible railway injury which carried away both his legs. But death in Case 30 may fairly be credited to the operation itself, though the cause of the gradual failure afterwards was always obscure. Possibly more judgment would have been shown in leaving Cases 3 and 49 alone as too far gone to be saved. But, on the other hand, the surgeon is anxious to relieve a patient, even in advanced phthisis, of a member which is a source of untold suffering, if it can be done by so simple a procedure as amputation above the wrist; or, again, if the arm is only hanging on to the shoulder by some thin strips of tissue it seems cruel not to remove the rotting mass below by a few strokes of a scalpel if the patient can bear a few minutes under chloroform. On these grounds the two cases were treated, but the original disease carried them off some weeks later.

If we assume that only one of the four died of the effects of operation the mortality on the whole series is brought very low indeed. Two per cent. of deaths in a series which contain over 30 per cent. of amputations above the knee and three or four double amputations is a decided advance on earlier times. But this is not the only improvement. The

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mode in which a large number of this series of amputations have healed shows too how we are advancing. Many cases, more especially the latest, have healed absolutely in a week or ten days under one dressing and without any drainage of any kind, the temperature remaining normal all the time. Suppuration, with high temperature of course occurred in several cases, especially among the earlier ones. This is only to be expected where all kinds of injuries and disease are treated by amputation close to the damaged part. But suppuration was not very serious in any case. Other unfavourable sequelæ of amputation were very rarely seen. Secondary hæmorrhage occurred in one case only; necrosis, to a very small extent, of the end of the bone occurred in one case under observation, and to a large extent in another case, months after the patient had left the hospital with a sinus. This sequestrum was removed at another hospital. Perhaps slight exfoliation occurred in a third case There is no note of it in the registrar's record, but Mr. Barker has some recollection of seeing the woman as an out-patient, and removing a flake of bone from a sinus. In one case the portion of the os calcis left in the flap of a Pirogoff's amputation had to be removed on the seventeenth day as suppuration had loosened it.

One of the most troublesome sequelæ of the operation chiefly seen among the earlier cases was carbolic intoxication with fever and irritation of the skin. This is not noted among the last half or so of the series, which were mostly treated with dry dressings. It is highly probable that the blush seen in the only case set down as affected with erysipelas was in reality nothing but a carbolic rash. In this case a slight blush appeared about the knee on the ninth day after a Pirogoff's amputation, and in the notes we find "carboluria" on the eighth day. Pyæmia and septicæmia were never seen among the whole series. Erysipelas is noted in the registrar's record as present in one case, that just alluded to. In another case a rash appeared on the buttock where the thigh had been amputated. This was not regarded by the registrar as erysipelatous, and is not entered in the notes as such. It is just possible that it may have been, but the patient's general condition was excellent throughout except for high temperature. It may also have been a carbolic rash.

The dressings employed in this series were as follows:—In the first ten cases the spray was used and the old carbolic gauze was packed round the stump as usual. In the next fifteen or so of cases carbolic oil on lint was the usual application to the wound after careful washing with carbolic lotion. This lint was supported by an abundant packing of wool. The last twenty-five or so of cases were put up in one or other form of dry antiseptic dressing with or without drainage, the dressing in almost every case being salicylic wool, the sutures silk, latterly exclusively so. This last dressing has given by far the best results, such amputations through knee-joint and thigh in several cases healing perfectly under the first dressing without any drainage. There were twenty-six amputations for disease, with three deaths, and twenty-four for injury, with one death.

Remarks, by Mr. BARKER.—So much has been said and written of late about the insanitary state of our large metropolitan hospitals and the consequent high mortality of the major operations performed in them, that it is pleasant as well as important to record anything which may show such a charge to be unfounded at the present day. Amputations have usually been considered a fair test of hospital efficiency. If I, during my first fifteen years of duty at one of our busiest institutions, and dealing with cases of all kinds, the healthy with the unhealthy, the temperate with the drunken and dissolute, without any special selection, have only had at the very highest a mortality on my major amputations of 8 per cent., such a charge against general hospitals is certainly not justified. But if, as is shown by a study of the above, the real mortality from these operations themselves is, strictly speaking, only 2 per cent., it may be claimed that no institution for the reception of the sick, whether private "nursing home" or special public hospital, can show much better results. The careful study of these fifty cases has been most useful and instructive to me. The errors committed in my earlier cases have been seen to disappear one by one in the latter part of the series, and in such a way as to justify the hope that when my next series of fifty major amputations of limbs is completed, it may show a still further improvement upon the older methods. This improvement will be based on greater judgment in the exclusion of hopeless cases, a sounder knowledge of the conditions which govern the repair of wounds, and greater skill in the carrying out of the details of treatment which promote the latter.

RADCLIFFE INFIRMARY, OXFORD.

INTERESTING SURGICAL CASES RECENTLY UNDER TREATMENT IN THE WARDS.

(Under the care of Mr. H. P. SYMONDS.)

IT is interesting to note with regard to this case the short duration of the discharge from the ear before the more serious symptoms developed which led to the performance of the operation; also the apparent absence at both operations of any lesion sufficient to account for the symptoms, and the great relief afforded by the operations. There does not appear to have been sufficient proof forthcoming that the abscess in the neck was dependent on a suppurating thrombus of the internal jugular vein, which again is negatived by the absence of important symptoms. We published last year two cases which may be read with advantage in connexion with this case.[1] Case 2 is an example of the successful removal of a fibroid uterus after abdominal section and the extra-peritoneal treatment of the pedicle. As we recently pointed out, this method is the one which has been found to give the best results when it is necessary to perform extirpation for this disease.[2] Case 3: There can be no question of the propriety of surgical interference in this case, the presence of pus, with the duration of the case, making operation imperative. The occurrence of localised suppuration in perityphlitis is seen in a very small percentage of the patients applying for treatment in our hospitals, and it is not often that the appendix is so readily seen and treated as it was at this operation. For the following notes we are indebted to Mr. W. J. Turrell, M.B. Oxon.

Trephining Right Lateral Sinus.—W. H——, aged thirty-eight, was admitted on Feb. 2nd, 1891, said to have been ill eleven weeks with influenza and acute tonsillitis. For the last three weeks he had been much worse, suffering from intense cephalalgia. During the past week he had been delirious, but not violent. He had a discharge from his ear for a fortnight before admission, and had had his membrana tympani incised by Mr. Maisey of Charlbury. On admission, he was delirious, but not violent, the delirium being of an active muttering type. There were no localising symptoms of any cranial suppuration. No facial paralysis, no strabismus, the pupils were equal and reacted to light. Knee-jerks normal. Temperature 100° F. There was a red fluctuating swelling on the right side of the neck in the line of the internal jugular vein. On the night of admission, the patient being under the influence of methylene, Mr. Symonds trephined the lateral sinus on the right side with a half-inch trephine; no pus exuded, but there was a flow of dark venous blood, which was readily arrested by plugging with iodoform gauze. The abscess in line with the internal jugular vein was afterwards opened. The wounds rapidly healed, but no improvement took place in the patient's mental condition; on the contrary, he became violent, and had to be quieted by hypodermic injections of hyoscine, 1-150th to 1-100th of a grain. These injections never failed to induce sleep, and on awakening the patient was always more rational. He lost flesh rather rapidly and became very much weaker. On Feb. 24th he seemed rather better, took his food well, and was sensible for most of the day. On the 25th the patient was put under the influence of chloroform, and Mr. Symonds gouged through the lower part of the mastoid process, but did not find any pus. After this operation the patient was quite rational, took his food well, and gave no trouble. On March 2nd he was moved into the general ward. On the 7th another abscess was noticed behind the right angle of the jaw. This was opened on the following day, and was found to be very deeply situated; counter-opening was required, and a drainage-tube inserted. The patient continued to be perfectly rational, took his food well, and rapidly put on flesh. He was discharged on March 25th cured, with the exception of a superficial granulating wound behind the right ear. Since leaving he has twice been up to the hospital in perfect health.

[1] THE LANCET, vol. ii., p. 231, Mr. Page.
[2] Ibid., p. 1335.

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Hysterectomy.—Frances H——, aged thirty-seven, was admitted on Jan. 28th suffering from a fibroid tumour of the uterus, which caused increased flow of blood at the catamenial periods and considerable pain and discomfort. She first noticed the swelling in June, 1890, after her last confinement, which was a difficult one, the child being stillborn. She had been in the hospital in the autumn, but was then unwilling to undergo the proposed operation of oöphorectomy. On Feb. 3rd, the patient being under the influence of ether, Mr. Symonds made an incision about three inches long between the umbilicus and pubes in the middle line, and opened the peritoneum in the usual way; a small quantity of peritoneal fluid escaped. The tumour at once presented at the lower part of the wound, covered at the upper part by intestines; it was of irregular outline, its surface being studded with several small, very vascular, pedunculated fibroids. It was about the size of a double fist. Mr. Symonds first removed both ovaries and then determined to remove the uterus, which he did by dragging it out of the wound, applying a Koeberlé's serre-nœud round its base, inserting two Koeberlé's needles beneath the wire and then excising the mass, including uterus and fibroid. The peritoneum and edges of the wound were brought together round the stump, and a dressing of boracic powder and sal alembroth gauze applied. The duration of the operation was seventy minutes, and was followed by no marked collapse. On coming round from the anæsthetic the patient complained of great pain in her abdomen, which was relieved by one-sixth of a grain of morphia given hypodermically.

On Feb. 4th she had a good night, with five hours' sleep. Evening temperature 101·2°. On the second day after the operation the clamp was tightened half a turn, on the third day one turn. On the fifth day the wound was partially dressed, the deep dressing being powdered with boracic powder but not removed. On the sixth day (Feb. 9th) a little pleurisy developed on the right side; the ribs were strapped. On the seventh day the clamp was tightened one turn. On the eighth day it was tightened two turns On the ninth day (Feb. 12th) the wound, when dressed for the first time, appeared quite healthy. The clamp was tightened one turn twice daily. On the twelfth day (Feb. 15th) it was screwed up to the end. On the thirteenth day (Feb. 16th) the clamp was removed. On the fifteenth day (Feb. 18th) iron sulphate was dusted on the stump. On the sixteenth day the wound was dressed, a large slough cut away, and one of Koeberlé's needles removed. Wound dressed daily. The remaining needle was removed on Feb. 22nd (nineteenth day).

The wound gradually healed up from the bottom and she was discharged cured on March 28th. Since her discharge the patient has been up to the hospital several times, and is now in very good health and able to perform her household duties.

Perityphlitis: Excision of Vermiform Appendix.—A. M——, aged twelve, a well-nourished healthy-looking boy, was admitted on June 16th suffering from perityphlitis. He was quite well on Sunday, June 7th, but on the 8th thinks that he caught cold. On June 10th the patient first felt a darting pain in the right iliac fossa, and noticed a hard swelling there. It was then as big as when he was admitted. The pain was very severe, and kept him awake at night. On Sunday, June 14th, he saw Dr. Barnes of Wheatley, who sent him to this hospital.—June 17th: He did not sleep well last night, and the temperature was 101·4°. This morning 99°, lies quietly in bed, and does not appear to be in much pain. Tongue coated with white fur. There was a hard-tender swelling in the right iliac fossa, but the skin was not red. Pulse 96, low tension, regular; respiration 28, shallow. Bowels not open since admission.

June 18th (morning)—The patient seems much better to-day. The fullness in the right iliac fossa seems less, there is no redness of the skin, and no fluctuation, but it is very tender. He was very constipated, enemata bringing away large fæcal masses. After a consultation at twelve, the patient was anæsthetised and Mr. Symonds, as soon as the patient was fully under, obtained distinct fluctuation. He then made a slightly oblique incision, about two inches and a half long, commencing at the level of the anterior superior iliac spine, one inch and a half internal to it, going downwards and slightly inwards. Upon deepening the incision a quantity of very offensive pus of a dark greenish colour poured forth. Mr. Symonds without difficulty found the vermiform appendix, and seized the extremity of it with pressure forceps, which at once tore away owing to the rotten condition of the tissues. The forceps were then applied higher up, and above them an annular ligature was applied round the appendix, and the ends of the ligature being left long to hold by, the portion of the appendix beyond the ligature was removed. Two chromic gut sutures were next inserted above the annular ligature through the wall of the appendix one on either side, and after they had been separated in the usual manner their ends were tied together so as to form a "purse suture." The cavity was thoroughly douched out with boracic acid lotion, iodoform dusted over, and the wound plugged with iodoform gauze. The excised portion was found on examination to contain a well-marked ulcer, with a perforation about its centre.

The discharges came through the dressing the night of the operation, and the temperature rose to 100°. The wound was redressed with iodoform gauze. On the next day the patient said that he felt much better, and entirely free from pain. Temperature normal. The patient made an uninterrupted recovery; the wound was repacked nearly every day to ensure its healing from the bottom. There was no further rise of temperature. Bowels acted regularly. Patient was up at the end of a fortnight, and was discharged cured on July 18th, with the wound healed.

Medical Societies.

LONDON EPIDEMIOLOGICAL SOCIETY.

Famine and Disease.

A MEETING of this Society was held on Wednesday, Dec. 16th, Dr. J. Ewart, President, in the chair.

Sir WILLIAM MOORE, K.C.I.E., Q.H.P., read a paper on Famine. He commenced by mentioning some of the principal causes of famine, and remarked that he did not agree with what had been said by Mr. Danvers of the India Office, in his report on Famines in India—viz., that failure of the rains was not the usual cause. Want of means of communication intensifies famine. There may be plenty in one district and famine in another. When the rains fail the grass disappears and the water dries up, so that beasts of burden cannot be used to convey food to the people. This was sorely felt in the Rajpootana famine, as there was then no railway and not a good road throughout the country. The people therefore emigrated in search of food, passing in great streams to the north into the Punjaub, to the south to the Bombay Presidency, towards the west to the Indus, and east over the Aravelli mountains into Malwa and Central India. From the principality of Malwa alone it is estimated that one million of people emigrated, taking with them one and a half million of cattle. The anti-opiumists had said that the extending cultivation of opium in Malwa had caused the famine in the neighbouring province of Rajpootana. But the fact was that tens of thousands of human beings, and more cattle, found food in the opium growing province of Malwa. As war has its "couine" of famine, so famine has its result of disease. Ovid had vividly described famine, and Sir William Moore had seen the famine-stricken, emaciated, digging for roots and dying, as Ovid had described hundreds of years ago. The first result of famine was anæmia, which was combined with a peculiar apathy which prevented the famine-stricken caring for work. Sympathy with the famine-stricken had been diminished because it was found the people suffering from starvation would not work. This was the result of the ill-nourished brain, and of the constitutional apathy and belief in *nusseeb*, or fate, common to most orientals. But it was intensified by starvation, and the starving ought not to be blamed for their apathy more than they should be blamed for any other disease which starvation produces. Bowel complaint soon attacks the famine-stricken. This is especially the case in India, because the people there are from climate very liable to bowel complaints. Post-mortem examination had shown that changes of a fatty nature in the intestines resulted from starvation. But the primary cause of the bowel complaint was generally the articles the people used as food. These had been investigated by Sir W. Moore and Dr. G. King in Rajpootana, and

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a list was published by the Government of India in one of Sir W. Moore's reports. In the Bombay Presidency the famine foods had been investigated by Brigade-Surgeons Gray and Lyon, and in the Madras Presidency by Dr. Shortt. They were barks and roots of trees, seeds of grapes, seeds of trees, wild fruits, the stalks of the American aloe, stalks of rushes, the refuse of *till* seeds after oil had been expressed, lizards, locusts, and various other things. During a famine, and especially after a famine, when the next rains set in, there is always an enormous increase of fever. The type of the fever varies in different countries and climates. After the Irish famine it was typhus fever. During and after the Rajasthan famine it was malarious. During the Bombay famine it was diagnosed as relapsing because the *spirillum Obermeiri* had been found in the blood of some of the sufferers. But if it is correct that relapsing fever depends upon the spirillum, it must be an infectious fever, and therefore was not caused by famine. The subject was important because it had been said the spirillum signified relapsing fever, and relapsing fever signified that the people were being allowed to die from want of food. It is questionable whether relapsing fever is a famine disease, for although it has sometimes prevailed when there was famine, famine has often occurred without relapsing fever. All fevers in the tropics have a tendency to assume the relapsing type—so much so that Dr. Lyon of the Bengal Service wrote a book, endeavouring to prove that all fevers are relapsing. Scurvy was very prevalent during famines; so was, as Sir William Moore regarded it, the allied disease beri-beri. He had seen a great deal of beri-beri, and had elsewhere given reasons for regarding it as a phase of scurvy. Others, however, have "gone in" for a beri-beri microbe, but have failed to explain why the microbe comes only, or at least chiefly, when certain environments prevail. During famines beri-beri often assumes the general œdematous form. But in one season of scarcity coming under the lecturer's cognisance serous effusion was limited to the abdomen, and numbers of famine people were tapped. Skin diseases become more common during famine. Go does *peenash*, or maggots in the nose, for, there being so much human and animal offal, more than the ordinary number of flies are bred. It was remarked during the Indian famine that neither beasts nor birds of prey looked healthy, and this was attributable to repeated surfeits of flesh, for one could scarcely go a mile through the country without meeting with half-devoured carcases. Many Indian officers had great experience in the conduct of famines, which was no easy matter. It seemed easy enough to establish a famine camp and to set the people to work on a road or tank, or at some other labour. But there was the sanitation and police of the famine camp, the provision for the sick, the convoy of food, the means by which it should be given to the people, the shelter of the masses, the care of the sick. Then there was the care of the numbers of sick, aged, infirm, and children, who were unable to leave their villages for any work. Various popular impressions had to be combated. One was that if a person could take food he did not die of starvation. During the Madras famine, Surgeon-General Cornish, C.I.E., who was then Sanitary Commissioner for the Madras Presidency, was obliged to point out this, and to insist that although a person took food yesterday, that was no reason why he did not die of starvation to-day; for there are two kinds of starvation—acute and chronic. Therefore the official relief of famine should not be delayed too long. Another delusion was that one pound of grain was sufficient to support a working man. This was also successfully combated by Surgeon-General Cornish. As a matter of fact, natives of India eat usually nearer 2lb. of grain per diem rather than 1lb., besides condiments. Another idea was that so long as the person got his allowance of grain it did not much matter what that grain was. But grains vary in nutritive properties, and feeding people who habitually take rice on bajree, or the reverse, is quite enough to produce bowel complaint. Most Anglo-Indians know if they change their horses' grain suddenly the horse will probably get "gripes." Sir W. Moore then mentioned the dietary which had been proposed by Brigade-Surgeon Lyon, the chemical analyst to the Government of Bombay. A question which arises is whether the people should be fed by doles of grain or should be given money to purchase grain. It had been found that when money was given prices had a tendency to rise; also that the money was not always spent in the most desirable manner. On the other hand, purchasers of large quantities of grain by the authorities disorganised trade, and grain could not be purchased so cheaply or conveyed so cheaply by the authorities as by the grain merchants. It was desirable that local conditions and circumstances should determine this. As regards prevention of famine, Sir W. Moore said that better cultivation and more of it was necessary. We could not, except to a certain problematical extent, control the elements, but at least we could store water. There were more than 18,000 miles of irrigation canals in India; but there were large tracts where there were no rivers for the extension of irrigation canals. These parts wanted more wells. And in hilly countries more storage and irrigation tanks were required. Forest conservancy was also a necessity, for by forest conservancy more rain would be solicited, and what fell would be prevented flowing away rather than soaking into the earth. More railways were also required. At present in India there were only some 18,000 miles of railway open. The problematical control of the elements mentioned above was rain making, of which we had heard much of late. If there were clouds, probably the compression produced by an explosion of dynamite might cause vapour to condense into water. But when there were no clouds, the moisture in the air would not be sufficient. There had no doubt been mistakes in dealing with famine in India; but such mistakes were nothing to those which apparently had been made in Russia. The authorities there did not seem able to carry out the orders of the Czar, and the grain had got into the hands of middlemen. It was also reported that Russian officials were generally corrupt. Now the Government of India had declared that if it were possible to prevent it no person should be allowed to die from want of food; and when famine was once recognised the local administrations and the local officials had nobly striven to carry out the orders of the Government of India. And as a rule they had succeeded, for the officials were English gentlemen, supplemented by Indian gentlemen whose one sole desire was to save the lives of the people. In this country during time of war safety from famine would depend on naval supremacy, for if the import of food were stopped, or materially interfered with, there would be much want, the agricultural resources not being sufficient for the large population.

In the discussion which ensued the President, Inspector-General Lawson, Surgeon-Major Hendley, Dr. Murray Thompson, and Dr. Bulstrode took part.

HUNTERIAN SOCIETY.

Ruptured Aortic Valve — Tuberculosis with Addison's Disease. — Recurrent Papillary Sarcoma. — Exfoliative Dermatitis. — Phosphorus Necrosis.

A MEETING was held on Wednesday, Dec. 9th, Dr. Stephen Mackenzie, President, in the chair (pathological evening).

Dr. F. CHARLEWOOD TURNER showed specimens from a case of Ulcerative Endocarditis.

Dr. F. J. SMITH showed a specimen of Ruptured Aortic Valve. A blacksmith aged fifty-two, of rather intemperate habits, complained of severe chest pain and dyspnœa, which had come on suddenly five days before. No syphilis or rheumatism. A loud double aortic bruit was heard. He died two days later. The heart was found of normal size; old atheroma affected the aorta and aortic valve, and one cusp of the valve was completely torn through.—The PRESIDENT referred to a case now under care, in which one chorda tendinæa is believed to be ruptured.

Dr. A. T. DAVIES showed specimens from a case of general Tuberculosis with symptoms of Addison's disease. A married woman, aged thirty-nine, had suffered from progressive weakness and pigmentation of the skin for three or four months prior to admission to hospital; also incontinence of urine for six years. The entire skin was coloured yellowish brown, being darker (of a dirty brown hue) in the axilla, neck, and pubes. There was slight exophthalmos and enlarged spleen. Temperature 99° to 102°; some pus in the urine, sp. gr. 1010. She died in ten days. The supra-renal bodies were found to be enlarged by tubercular growth, most of which had become fibroid; there were numerous giant-cells. The left kidney was reduced to a caseous mass; the right was hydronephrotic, with dilated ureter. The bladder was extremely contracted, with old

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tubercular growth in the thick walls; it could not have held more than an ounce of urine. There were small patches of old tubercle in the lungs—fibrous at the right apex, caseous at the left. In Dr. Greenhow's classification of Addison's disease (Pathological Society's Transactions) the case would belong to the class in which general tuberculosis was present.

Dr. WIGHTWICK read notes of a case of Recurrent Papillary Sarcoma of the Toe, with numerous Secondary Growths. A man, aged twenty-eight, came under care in a dying condition, with growths scattered widely in the subcutaneous tissue and in the lymphatic glands and viscera. On the great toe was a small recurrent papillary growth five-eighths of an inch in diameter. Thirteen months previously several small, hard, warty growths had been removed from the toe, one of them slightly ulcerated. They were diagnosed as simple papillomata; the femoral glands, however, were slightly enlarged. The family history on the paternal side showed a marked tendency to malignant disease. His grandfather died at sixty of cancer of the cheek; one uncle and two aunts of some form of cancer.—Mr. JOHN POLAND, who had seen the case, described the post-mortem appearances, and exhibited microscopical sections of the recurrent and of the secondary deposits. The lymphatic glands in the groin, abdomen, neck, &c., the lungs, kidneys, supra-renals, liver, mesentery, and peritoneum were full of growth. There were numerous subcutaneous nodules on the trunk, other nodules in one of the papillary muscles of the right ventricle, in the mitral valve, and in the pectoral muscles. The reddish colour of portions of the growths was found to be due to small ecchymoses. The microscopical structure was almost precisely that found in melanotic sarcoma of the skin, without, however, any pigmentation, the cells being of the large round variety. But in the toe the cells were more mixed, many of them tailed. In some places the cells were closely packed, with little matrix discernible, giving an alveolar appearance. Ranvier describes this form of sarcoma of the skin.

The PRESIDENT showed a specimen of Exfoliative Dermatitis, a cuticular glove, presented to the London Hospital by Mr. Gooch in 1769. The patient, a gentleman aged fifty, had shed the skin of his hands and feet regularly twice a year for ten years. Before the exfoliation the parts were red and painful, with an eruption of red spots. The *American Journal of Medical Sciences* for last August reported a similar case; for thirty-three years the patient had shed his skin on July 24th in each year (!), the exfoliation lasting from five to ten days, with pyrexia &c. Scaly masses of cuticle from a case in the recent epidemic of dermatitis at the Paddington Infirmary were also shown.

Mr. CHARTERS J. SYMONDS showed a specimen of Phosphorus Necrosis of the Jaw, in which a large sequestrum had been removed, comprising nearly the whole of the lower maxilla, without waiting for it to become loose. The disease was arrested, new bone was formed, and mastication with the remaining two teeth was carried on.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

TUESDAY, DEC. 1ST, 1891.

Mr. ROBT. MERCER, M.R.C.S., President, in the chair.

Exhibits.—Dr. ARNOLD EVANS, medical officer of health, showed and described specimens of Fibrinous Bronchial Casts coughed up by a cow with pleuro-pneumonia, Kidney of Acute Nephritis ("black water") of Sheep, and Measly Pork showing Cysticercus Cellulosæ.

Spasmodic Torticollis treated by Neurectomy.—Mr. APPLEYARD showed a woman aged thirty-nine who had been treated for four months for spasmodic torticollis of gradually increasing severity. Drugs pushed to extreme limits had been unavailing, so the right spinal accessory nerve was cut down on in front of the sterno-mastoid and about three-quarters of an inch in length removed, the wound uniting directly, and the patient now being practically cured.—Dr. MAJOR advised surgical treatment in these severe cases, as medical treatment was without avail, and if left many of them tended to actual insanity.—Surgeon-Major COMYN, Mr. HORROCKS, and Dr. GOYDER also discussed the case.

Death-rates in Back-to-back Houses.—Dr. J. H. BELL read a paper, which will be published later, on this subject. He traversed the unanimous condemnation of all varieties of back-to-back houses by experts, stating that this condemnation was not supported by facts, and showed by extensive statistics extending over the past seven years, and drawn from nearly 2000 houses, that in certain classes of back-to-back houses over thirty years old, the death-rate was 15·8, in others, ten or twelve years old, it was 16·1, and in through houses, mostly ten to twenty-five years old, it was 17·3, the average death-rate of the borough in that time being 21·3.—Dr. ARNOLD EVANS, medical officer of health, criticised Dr. Bell's statistics as based on too few numbers to eliminate chance errors, and thought the comparison of old "through" with new back-to-back houses unjust. He was of opinion that back-to-backs as now built in Bradford were as healthy as that class of house could be made. He agreed with the body of opinion which condemned them.—Drs. GOYDER, DENBY, and the PRESIDENT continued the discussion.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

DEC. 17TH, 1891.

Mr. W. F. FAVELL, M.R.C.S., President, in the chair.

Dr. BURGESS showed a large Aneurysm of the Abdominal Aorta, and a Heart with a Perforation of the Mitral Valve and Vegetations on the Aortic Valves.

Mr. R. J. PYE SMITH exhibited Galezowski's Canaliculus Dilator.

Mr. SNELL introduced a patient who had had a foreign body (piece of steel) encapsuled in the lens for twenty-four years. The lens otherwise remained clear, and vision was still good.—Mr. R. J. PYE-SMITH made some remarks.

Dr. COCKING showed a case of Double Spasmodic Torticollis in a man aged forty-eight. For forty years he had been employed as a coal-getter ("timbering and holing"). There was no neurotic history. His health had been good up to twelve months ago, when he suffered from a spasmodic affection of the left arm, in which the elbow was slightly flexed, and the fingers suddenly extended, causing him to relax his grasp of the pick. This was followed by unilateral torticollis of the left side, complicated by a "shaking of the head" rather later, completely incapacitating him from work. When first seen, six weeks ago, there were rapid rhythmical oscillations of the head from side to side, the head being held stiffly in the middle line with a slight inclination forwards. The spasm came on in attacks, with short intermissions, and was occasionally replaced by unilateral torticollis. During the attacks both sterno-mastoids and the upper part of the trapezii were firmly contracted. There was also nystagmus on looking up and out, most marked on turning the eyes to the left. The bilateral spasm had recently considerably abated, and usually only a coarse tremor was then observed. When the patient assumed the position he generally occupied in "holing," the oscillations became extremely severe, and lasted for some time after resuming the erect posture. Nystagmus was still present. Dr. Cocking considered that the affection was due to excessive use of certain neck muscles required to maintain the head in the unnatural position necessitated by the patient's occupation. The occurrence of hammer—or pick—palsy with the torticollis bore out this conclusion. The association of both affections with nystagmus, which arose whilst working in candle-light, he regarded as corroborative of the view that "miners' nystagmus" was an occupation neurosis, called forth by overwork of certain ocular muscles which some kinds of work in coal mines required.—Mr. Court, Mr. Snell, Dr. Burgess, Dr. Dyson, and Mr. R. J. Pye-Smith took part in the discussion.

Polyuria and Retention.—Mr. B. WALKER related a curious case of Polyuria and Retention. A young woman aged seventeen was seized with severe abdominal pains. There was an impression that she might be pregnant. An examination disclosed retention of urine, and about eight pints were drawn off, the following morning seven pints, and again the next evening a large quantity, the urine being excessive for several days. A fortnight later she aborted, from which time she began to improve, and there was no further necessity for the introduction of the catheter.

Herpetic Fever.—Mr. COURT read a paper on Herpetic Fever, applying this term to a class of cases which he frequently met with, attended by an eruption of herpes labialis,

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the eruption being accompanied by pyrexia, headache, vomiting and gastric disturbance, pain in the side, and frequently, but not invariably, by pneumonia. He proceeded to show that these cases ran a very definite course, the eruption appearing about the third or fourth day and lasting about six or seven days, the whole attack occupying from nine to twelve days. When pneumonia was present it differed from the ordinary type in not being marked by the usual stages, and in the small amount of expectoration in proportion to the extent of the lung mischief, recovery also being by lysis rather than crisis. In other cases the symptoms met with were chiefly abdominal. Mr. Court related the particulars of several of his cases as examples, some of them clearly showing the epidemic character of the complaint. He contended that the herpetic eruption had nothing in common with herpes zoster, but was rather the local expression of a constitutional malady caused by some specific poison like that of measles or scarlet fever. He further remarked on the favourable prognosis in cases of pneumonia which had herpes labialis for a trade-mark, quoting some observations of Dr. Hilton Fagge on this point, and arguing that this fact indicated a specific cause. Herpes did not occur in cases of pneumonia which arose secondarily to other morbid states, but only when the pneumonia was of a certain specific type. Herpes was not simply an indication of a febrile state, as it seldom if ever occurred in acute rheumatism, typhoid, or other specific fevers. On the other hand, an epidemic of simple herpes often coincided with the prevalence of epidemic pneumonia.—Dr. ST. CLAIR SYMONDS had found a new chromogenic micro-organism in the vesicles of herpes labialis, which he called the "bacillus viridans," and believed to be pathogenic.—Mr. COURT thought that this discovery might ultimately throw further light on the questions he had raised.—The President, Mr. B. Walker, Dr. S. Matthews, Dr. Dyson, Mr. James, Dr. Hargreaves, and Dr. Martin took part in the discussion.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

WEDNESDAY, DEC. 2ND, 1891.

Mr. A. R. ANDERSON, President, in the chair.

Occupation and Health.—Dr. WILLS, medical officer of health for Southwell, read a paper on occupation and health. He quoted statistics compiled by Drs. Richardson, Hirt, and Ogle to show the influence of various occupations on health, dwelling chiefly on those which were detrimental. He discussed noxious influences in regard to the etiology of tubercle, and exemplified such causes by means of death-rate tables. For persons predisposed to tubercle he recommended sheep-farming on the highlands of Cape Colony (altitude 2000-7000 feet), the climate of which he considered superior to that of Davos, Mentone, or the Canaries. The death-rates from phthisis in the army and navy respectively were in marked contrast, in the former case high, and in the latter singularly low—a difference which could only be attributed to the different character of the occupation followed by the members of each service. For persons who could not go away, he recommended out-door occupation in the country instead of living in the crowded streets and workshops of towns; and for women the culture of fruit and flowers was recommended as being light and remunerative employment. To provide for vicissitudes of weather, large glass-houses, similar to winter gardens, should be erected in situations as elevated and as near the sea as possible. In this case, work might go on all the year round. In this manner suitable hygienic conditions might be obtained for persons of small means, while the fatigues of travel, with its attendant risks of damp roads and bad drainage, would be avoided. The President, Messrs. Ransom, Tew, Powell, and Hunter took part in the discussion, and Dr. Wills replied.

Intussusception.—Mr. POWELL showed the intestine from an idiot, aged forty, in whom the chief symptoms were vomiting and rapidly fatal collapse, but pain seemed to be absent except in the later stages. There were two intussusceptions in the upper part of the jejunum, separated by healthy bowel.

Pyo-pneumothorax.—Dr. W. B. RANSOM showed the organs from a young married woman who died with symptoms of pneumothorax preceded by hectic of some duration. Post mortem there was found considerable matting between the stomach, liver, and parietes. Behind the stomach and liver was a large abscess cavity extending up to the diaphragm, through which pus and gas had made their way into the right pleural cavity. The patient had had hematemesis some years before; scars of old ulcers were found in the stomach, and it was supposed the abdominal abscess resulted from perforation of one of these ulcers, and that the resulting mischief had been localised by adhesions.

NEWCASTLE-ON-TYNE CLINICAL SOCIETY.

THURSDAY, NOV. 26TH, 1891.

WALTER RIDLEY, F.R.C.S., President, in the chair.

Cases.—Dr. J. A. JACKSON showed a case of Hodgkin's Disease with photographs. The patient was a boy aged eight. There was great enlargement of the left cervical gland, and the spleen was somewhat enlarged. There had been slight, but continued, fever for some weeks. The boy was anæmic, and examination of the blood showed the red corpuscles were only 76 per cent. The white corpuscles were normal in appearance and were not more numerous than in health. Drs. G. Murray, Oliver, Robertson, and Drummond made remarks.—Dr. SLATER showed a patient with Solid Œdema of the Leg. The condition appeared to be due to obstruction in the lymphatic vessels following an injury four years ago.—Dr. H. BAUMGARTNER and Dr. GEORGE MURRAY showed a patient who had been cured of an empyema by excision of ribs and drainage. There had been a large purulent effusion in the right pleural cavity. An incision had first been made in the sixth intercostal space and a drainage-tube inserted. As drainage did not take place properly, portions of the sixth and seventh ribs were excised. A few days later the cavity was washed out daily for a week with a warm solution of boracic acid. Ultimately the lung expanded well, the wound healed and a good result was obtained with but little deformity.—Drs. Smith, Mearns, Galloway, Percival, Oliver, Black, Lyon Smith, and Drummond made remarks.—Dr. W. ROBERTSON showed a patient with Pachyderma Laryngis Diffusa, in which there was thickening of the rima glottidis corresponding to that part of the mucous membrane covered by squamous epithelium. He also showed a case of Laryngeal Phthisis and two cases of Mastoid Disease.—Mr. BLACK showed a patient on whom he had performed Wheelhouse's operation, and had obtained a good result.

Mr. BLACK showed casts of an extreme case of Talipes Equino-varus, taken before and after the operation, in which the astragalus had been removed and the tissues in the sole of the foot divided. A very good result had been obtained. Dr. HUGHES showed the Larynx from a patient who had died of Diphtheria, which showed the false membrane still adherent.

Dr. Coley's interesting paper on the "Treatment of Coughs" was then read.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

FRIDAY, NOV. 20TH, 1891.

Dr. BRAITHWAITE in the chair.

DR. BRAITHWAITE showed (1) Cancerous Broad Ligament Cyst of large size; (2) Papilloma of the Hilus; (3) Apoplexy of the Ovary; (4) Microscopic Sections of Diseased Ovaries.

Mr. MAYO ROBSON showed (1) a large Solid Tumour of the Ovary (cystic sarcoma) successfully removed from a patient aged sixty-three; (2) a Large Fibro-cystic Tumour of the Uterus, removed by abdominal hysterectomy; (3) two cases of Tubal Gestation, removed by abdominal section. In both cases he found the abdomen full of blood; he first grasped the base of the tube with forceps, and then removed the clots and washed out the abdominal cavity with boiled water, removed the tubes and cyst, and put in a drainage-tube. Both patients recovered. Mr. Robson noticed in these cases that washing out the abdominal cavity seemed to restore the pulse, as it were, by a process of transfusion.

Dr. HELLIER showed the Appendages removed six weeks previously from a single woman of thirty. The diagnosis had been uterine myoma, with post-uterine tumour suspected to be ovarian. This was confirmed on section, an

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ovarian cyst, the size of an orange, lying in the pouch of Douglas; right ovary also cystic. Result excellent up to date. He also showed a section from a case where the greatly enlarged uterus was lined by vegetating growth throughout. This was considered to be non-malignant.

Cancer of the Cervix Uteri.—Dr. J. F. HORNE (Barnsley) read a paper on the Necessity for Early Operation in Cancer of the Cervix Uterus. The patient came suffering from general debility, loss of flesh, with an irregular and profuse watery discharge from the vagina, which perhaps has lately become of a sanious, watery, and offensive character. Usually there is no pain; if present, it will be in the back, of a dull, gnawing character. When the growth has become parametric the pain is sharp, and often shoots down the thigh. Also the patient may complain of hæmorrhage following extra or painful menstruation or defecation. On vaginal examination we find the uterus possibly fixed, lips everted and enlarged, spreading like a mushroom in the vagina. In others the irregularly ulcerated surface of the cervix, soft and friable, with its hard and unyielding margins, are felt. The only treatment for these cases is amputation of the cervix as high up as possible. As illustrating this, Dr. Horne related the case of a woman aged twenty-nine from whom he removed the vaginal portion of the cervix for cancer. It was found that where the diseased mass had touched the vaginal walls deep ulceration of the mucous membrane had resulted. The surface was touched with a strong solution of chloride of zinc The patient made a good recovery, and a year after operation she looked healthy and well, and had gained weight. There was no vaginal discharge. The cervix was replaced by a puckered condition, which to the finger appeared quite healthy. The abraded vaginal mucous membrane appeared quite healthy.—Dr. BRAITHWAITE and Dr. HELLIER also spoke on this case.

Reid's Dilators.—Dr. BRAITHWAITE read a note on Reid's uterine dilators, relating several cases illustrating their good qualities. One was that of a lady aged thirty-four, unmarried, who had had dysmenorrhœa since she was eighteen. Had derived no benefit from the homœopathic physician who usually attended the family. Dr. Braithwaite dilated the cervix with Hegar's dilators to size 7, and inserted a large laminaria tent for the night. No benefit whatever followed this dilatation. A year after Dr. Braithwaite again dilated and used the tent as before, but on the second morning dilated with Reid's dilators to No. 4, not passing it quite up to the full length. The result has so far been an absolute success.—Mr. WRIGHT and Dr. HELLIER joined in the discussion.

Reviews and Notices of Books.

International Clinics: a Quarterly of Clinical Lectures by Professors and Lecturers in the leading Medical Colleges of the United States, Great Britain, and Canada. Edited by J. M. KEATING, M.D., J. P. CROZER GRIFFITH, M.D., J. MITCHELL BRUCE, M.D., and DAVID W. FINLAY, M.D. Vols. I. and II. Edinburgh and London: Young J. Pentland. 1891.

To those who remember the admirable clinical lectures of Trousseau and of Todd these two volumes may, at the first glance, be somewhat disappointing. They contain a great deal that is interesting, and yet the scholarly swing of forcible language which characterised the work of the great clinical teachers of a past generation appears to have almost died out. Still, the main idea is good, and in many cases the mode of treatment is satisfactory. Perhaps the first feeling of disappointment results from the difficulty of rapidly turning from one style to another, until all idea of personality is confused or lost. One great charm of clinical teaching surely lies in the recognition of the personal equation of the teacher. The cases described must of course furnish their own interest; but a good clinical teacher, whose previous work in any given direction is well known, can endow an apparently trivial case with valuable suggestive sidelights of information. On the other hand, a series of short lectures by a number of different teachers necessarily loses the personal element to a very large extent, especially when submitted to editorial suggestions, which probably tend to limit freedom of treatment. Each lecture indeed may in itself be satisfying, and yet the mental effort required to realise the new point of view assumed in each leads to a sense of weariness after the perusal of many pages. The volumes therefore are rather to be commended as books of reference than as guides which can be followed with sustained interest from cover to cover.

The leading idea is to make this periodical a complete post-graduate course of medical instruction, and as the "didactic professor" is said to present the position of the science of medicine in a formal and well-considered manner, the "clinical teacher" has to supplement the course of instruction by making the various formularies practical and applying them to the individual case. Notwithstanding this assumed distinction, it is consolatory to find the names of very many professors amongst the contributors.

With no less than thirty-six lectures in the first volume, and thirty-nine in the second, it is obviously impossible to criticise the work of the different writers in detail, still less to indicate how far their views are in accordance with those generally accepted. Even an enumeration of the subjects dealt with would reach to an indefinite length, as frequently one lecture will touch briefly upon some half-dozen or more cases in the wards; indeed, in one instance, no less than nine cases are described, illustrating totally unconnected types of disease. The surgeons are the chief offenders in this respect, several of the surgical clinics consisting of little more than the remarks made at the side of the operating table, with a line or two in brackets giving the subsequent history of the case.

In the first volume there is an interesting lecture by Dr. James Ross on acromegaly, this somewhat rare condition being well described, and the account being assisted by several plates. Dr. Porter lectures on polycæmia or plethora in its relation to inflammation. Mr. Christopher Heath, speaking of *dysphonia clericorum*, incidentally notes the rarity of this condition among elderly married clergyman. Dr. Gairdner discusses a case of hydrothorax with dexiocardia, and Dr. Mac Donnell gives a very complete history of a case of enlarged liver with jaundice, with his reasons for the diagnosis ultimately arrived at. Dr. Shattuck of Harvard deals with uræmic convulsions and with epilepsy, and then place is made for the surgeons. Professor W. Keen lectures on modern methods in surgical operations; Professor Cheever on ulcers; Mr. Hulke on a case of injury of the head; Professor Gaston on Wyeth's hip-joint amputation in a case of cystic sarcoma of the thigh; and Mr. Mayo Robson on cholelithiasis, noting in the course of the lecture the indications for surgical treatment. Gynæcology and obstetrics are dealt with by many teachers of well-established reputation.

Dr. Forchheimer gives an interesting account of tonsillar diphtheria, and Dr. L. C. Gray discourses on different types of paralysis in young children. Sir Dyce Duckworth lectures on chorea, and states that the future life history of some of the so-called non-rheumatic cases shows that rheumatic manifestation may supervene later. Professor H. C. Wood makes some interesting remarks on traumatic hysteria, regarding the treatment as largely a match between the character and wits of the physician and the character and wits of the patient. Lectures by Professor Ferrier on alcoholic paralysis and Professor Weir-Mitchell on the treatment of obstinate sciatic pain by splint rest and cold further enhance the value of the first volume.

The second volume is a worthy successor to the first, the chief papers in the medical section being those on ulcerative endocarditis, on the treatment of enteric fever by

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systematic cold bathing, on the pathology of angina pectoris, and on lead colic. Catholicity of doctrine is illustrated in the surgical section by lectures respectively advocating gradual dilatation and rapid dilatation in stricture of the urethra; most of the other surgical lectures, however, refer to numerous unconnected cases. There are also several interesting lectures under the headings of neurology and of gynæcology and obstetrics.

Reviewing the contents of the two volumes, it may be safely asserted that this new quarterly venture will afford additional facilities for easily ascertaining the views of many of the clinical teachers of the day, and that it will thus prove a valuable addition to medical literature, even though it requires to be considered piecemeal rather than as a whole.

A Manual of Operative Surgery. By FREDERICK TREVES, F.R.C.S., Surgeon to and Lecturer on Anatomy at the London Hospital; Member of the Board of Examiners of the Royal College of Surgeons. With 422 Illustrations. London: Cassell and Co., Limited. 1891.

ONLY those who have attempted it are able fully to realise the difficulty of the task Mr. Treves set himself when he undertook to write a manual of operative surgery. The scope of such a work is very ill defined, and there are no rigid tests by which it can be limited. The literature of the subject is very extensive, the ways of accomplishing the same end are oftentimes very numerous, the small modifications introduced by individual surgeons are almost endless, and the force with which they appeal to others varies widely, while their true value often depends upon the peculiarities of a patient or even of the operator himself. What to choose from the mass of material is the writer's first great difficulty. To limit himself to those operations and methods with which he is himself familiar or which he prefers is to diminish the value of the book as one of reference very greatly. To include all methods and all varieties of operations is uselessly to encumber his pages. When this initial difficulty has been overcome there remains another quite as great in the manner of describing an operation. We have all read descriptions of operations which have formed no safe guide for their performance, and this not from their too great terseness or brevity, but from the writer's failure to place himself in the position of one quite unfamiliar with the details of what he has to do. The faculty of giving just the information required, of laying due stress upon the essential points without wearying with unnecessary details, is probably only fully acquired by those who for a long period have had to teach operative surgery.

Mr. Treves states in his preface that all his leisure for the past four years has been devoted to the preparation of this book. He has taken great pains to make himself acquainted with the literature of the subject—French, German, and English—and he states that his descriptions are founded upon personal experience in the operating theatre, and upon repeated operations upon the dead. He has made no attempt at "encyclopædic completeness," but has selected those measures that have appeared to him to be the best. Without endorsing it in every particular, we must say that Mr. Treves' selection appears to us to have been very judicious. This is a matter upon which entire unanimity cannot be hoped for, but we believe that candid readers and experienced operators will find very little to quarrel with in this respect in the book before us. The descriptions also are, on the whole, well done; in some cases they might certainly be more terse, but they will be found safe guides. The questions of the preparation of the patient for operation, the after treatment of the case, and the relative merits of different operations are sufficiently and aptly discussed. The anatomy of organs and regions is given with all necessary detail, and of course with accuracy. The indications for operation are not dealt with, and this is a matter on which many readers will wish Mr. Treves had taken a different view. There is much, no doubt, to be said in favour of excluding this subject from a manual dealing only with operative procedures, but for students and young surgeons such an addition would have been very acceptable. The majority of the illustrations are new and original, and they are admirable in design and execution—real helps to the reader. The feature of all others in this work which specially commends it, and in which it is in striking contrast to some manuals and text-books, is the pains Mr. Treves has taken to mention the work of other surgeons under their name. In very many instances operations are described in the very words used by those who first performed them, and the many modifications and details that are mentioned are carefully attributed to their authors. This is a special and a very praiseworthy feature of the book, and is the strongest evidence of the care taken in its preparation. The work is well up to date. We have met with one curious omission—there is no reference to operations upon varicose veins of the lower limbs.

The publishers have done their work well. The type is admirable, the paper good, and the edges cut, and the two handsome volumes are of a convenient size.

A Manual of Physics: being an Introduction to the Study of Physical Science. Designed for the use of University Students. By WILLIAM PEDDIE, D.Sc., F.R.S.E., Assistant to the Professor of Natural Philosophy in the University of Edinburgh. London: Baillière, Tindall, and Cox. 1892.

AS an elementary exposition of the application of mathematics to physics, Dr. William Peddie's manual is deserving of the highest praise. It should be extremely useful to students reading for honours at the universities, for it covers an extent of ground which is taken up by no other existing text book on applied mathematics that we know of, and Dr Peddie's treatment of both the mathematical and the physical aspects of the subject is extremely good, being thoroughly sound and scientific. The book reflects credit on the publishers, being well got up, clearly printed, and provided with excellent diagrams. At the same time, we are rather disappointed that Dr. Peddie has not seen his way to provide a text-book for another class of student whose knowledge of mathematics is limited. We are thinking especially of the medical student, for whom it is of the greatest importance to learn the fundamental principles of physics, that he may understand the instruments in constant use in the physiological laboratory and in the clinical ward, as well as the purely physical laws which govern the action of the body. Such a student, we feel sure, would find himself almost at once out of his depth on attempting to read this book. Dr. Peddie suggests that the mathematical portions may be skipped, but mathematics is everywhere so much to the fore that without it the book would be like Hamlet without Hamlet.

When Dr. Peddie finds a new edition called for, it might be worth his while to consider the wants of junior students. To this end the printing of the mathematical portions in smaller type might contribute. Certain subjects, such as the properties of matter, statics, and hydrostatics, might with advantage be treated at greater length. In this way, without diminishing the usefulness of the book for honours students, it might be made more serviceable to the wants of the great body of students.

OUR LIBRARY TABLE.

Text book of the Principles and Practice of Medicine. By the late CHARLES HILTON FAGGE, M.D., F.R.C.P., and PHILIP HENRY PYE-SMITH, M.D., F.R.S., F.R.C.P. Third

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Edition. London: J. and A. Churchill. 1891.—The very thorough revision to which Dr. Pye-Smith has subjected this valuable work—perhaps the most important treatise on medicine that has ever been issued in this country—is more than sufficient to justify the use of his name as joint author rather than that of editor to Dr. Fagge's writing. It now includes whole chapters contributed by Dr. Pye-Smith on subjects which the original author did not live to complete, or which he had left only in fragmentary form, and, moreover, the rapid progress of knowledge in many directions of late years has necessitated the rewriting of many pages of the text and the introduction of much new matter. It would be tedious to specify in detail all these changes, commencing with the introductory chapter, which, in its terse and aphoristic style and rational views, is pleasant as well as profitable to peruse, down to the sections on Diseases of the Skin, which complete the work. It must suffice to say that nothing has been added that was not needed, nor anything excised that was not superfluous. Consequently the practitioner and the student have in this work as thorough and complete a survey of modern medicine and pathology as could well be desired. We may note, too, as not unimportant improvements which will greatly facilitate reference, the inclusion of the very carefully compiled index at the close of each volume and the recasting of the bibliographical index, which in its original form was of little use, but which now will be of great service. Lastly, Dr. Pye-Smith has introduced a new feature in scientific writings, one, perhaps, which has been left too much to writers of fiction. This consists in the placing at the head of each chapter some appropriate quotation, which stands as the motto for the subject dealt with. The selection of such quotations has been very happily carried out, and it gives a pleasing view of the wide erudition of the author who has availed himself of them. Nor are we so old-fashioned as to deprecate their introduction. Indeed, they afford a lesson in themselves, and show in matters of observation how the ages are linked together. "Fagge's Medicine" will, we may safely predict, long continue to be regarded as the most thorough and most scholarly treatise of modern times.

The Elements of Ophthalmic Therapeutics; being the Richard Middlemore Post-graduate Lectures delivered at the Birmingham and Midland Eye Hospital, 1889. By D. C. LLOYD-OWEN, Senior Surgeon to the Hospital. Birmingham: Cornish Brothers, 37, New-street. 1890. Pp. 68.—In these lectures Mr. Lloyd-Owen seeks to present to the general practitioner an epitome of the practical knowledge that has been acquired during the last few years of the action of drugs upon the eye. He gives a short but interesting introduction, stating that Mr. Middlemore, whose death at a very advanced age we had recently occasion to notice, had instituted a lectureship the first holder of which is Mr. Lloyd-Owen, whose lectures are contained in the work before us. The drugs to which he calls attention are atropine, cocaine, eserine, pilocarpine; the principal astringents, such as nitrate of silver, mercury perchloride, sulphate of zinc and of copper, zinc chloride, lead acetate, vinum opii, calomel, boric, salicylic, and carbolic acids; and, lastly, iodoform, resorcin, hydroquinone, and iodol. He does not mention the allied compound salol, which has been found useful as an antiseptic. He discusses the relative value of the application of heat and cold and of bloodletting. In regard to internal remedies, he has found small doses of the bromide of potassium and chloral, repeated at regular intervals, to be very effective in calming the irritation which so often accompanies phlyctenular keratitis in children. A final chapter is devoted to internal remedies, and especially to the effect of narcotics and quinine. These lectures will put the practitioner *en rapport* with all recent work in this direction.

An Atlas of Illustrations of Pathology. Fasciculus VIII.: Diseases of Brain and Spinal Cord. The New Sydenham Society. London: H. K. Lewis. 1891.—The New Sydenham Society is doing good service in issuing a series of pathological drawings which are extremely well executed and faithful. The present instalment of the Atlas contains plates in illustration of hydatid disease and abscess of the brain, as well as of tubercular tumours, besides several of lesions of the spinal cord. Most of the plates in this fasciculus are reproduced from Auvert's Atlas, which is but little known in this country; but two showing the effects of compression of the cord from fracture of the spine are from Mr. Hutchinson's collection. The explanatory text is clear and concise; and indeed the whole production is highly creditable to the Society, and will be much appreciated by its members.

Elementary Inorganic Chemistry, Theoretical and Practical. By A. HUMBOLDT SEXTON, F.R.S.E., F.I.C., F.C.S. New Edition. London: Blackie and Son, Limited, Old Bailey, E.C. 1891.—Of this little work, as of scores of other similar works, we can only say that, while no exception can be taken to the matter contained therein, it possesses no special element of novelty. It is an extension of the author's lectures delivered to students at evening classes, and is really intended for those who present themselves for the examination in Chemistry held by the Science and Art Department. The author has, indeed, thought it advisable to keep the requirements of the syllabus before him in preparing the book, although he has not hesitated, he confesses, to go beyond the syllabus where it has seemed good so to do. Had he included an account of such elements as bromine, iodine, fluorine, and devoted more than nine pages to organic chemistry, the book would have been more useful. As a practical introduction to the science, however, for the use of those students already referred to it is well fitted to serve.

The Asclepiad. No. 32. Vol. VIII. By BENJAMIN WARD RICHARDSON, M.D., F.R.S. London: Longmans, Green, and Co.—This number concludes the eighth volume of what is certainly one of the literary marvels of the day—a quarterly journal full of original thought and the record of personal investigation, which from end to end is the product of a single pen. The felicity of its author's style and the wise selection of topics combine to render it one of the most readable of serials, and sufficiently account for the measure of success which his bold venture has attained. One noteworthy feature of the *Asclepiad* consists in the faithful biographies of departed medical worthies which run through its volumes. The memoir this time is of a man whose life and work are, we fancy, known to but a few of the present day. Yet his was a notable figure, and he left his mark upon medicine and literature, more perhaps in the latter than the former department, for he was the author of works of fiction and history, including a sketch of the French Revolution, of which he was an eye-witness. This was Dr. John Moore, whose fame, perhaps, as Dr. Richardson suggests, has been eclipsed by that of his soldier son, the hero of Corunna. The autotype reproduction of Dr. Moore's portrait which accompanies the memoir shows us a face of strongly marked intellectual type and benevolent aspect. It is impossible to see it without understanding the esteem in which he was held by his contemporaries. Dr. Richardson gives us a fourth and concluding part of his monograph on Peroxide of Hydrogen, containing several formulæ for the exhibition of this powerful agent. A characteristic and charming essay on the Physiology of Tears follows. Then there are several "Opuscula Practica," which comprise such matters as cranial auscultation, the diagnosis of arterial cranial murmur, and labyrinthine disease, saline transfusion, &c. In a lecture on the "Cerebro-spinal Axis as a Thermal Centre and Water-power," the author introduces a new theory

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of the *modus operandi* of the nervous system, in which the cerebro-spinal fluid takes a prominent share. The number concludes with reviews and book notices, which we are glad to learn are to be given more space in the future.

Analytical Records.

PALATINOIDS AND BI-PALATINOIDS.

(MESSRS. OPPENHEIMER, SON, & CO., 14, WORSHIP-STREET, E.C.)

IT is now somewhat more than a year ago that we gave prominence to a new and elegant method for the administration of nauseous and unstable drugs. At that time we published a full account of the examination and analyses made, and the results were so good and satisfactory as to be assigned no small section of the space usually allotted to THE LANCET Analytical Records. A palatinoid consists, as it was then explained, of a thin air-tight jujube, containing the medicament in a pure and finely powdered state. By its employment an excipient is thus dispensed with, the taste of nauseous drugs like the valerianates and quinine effectually disguised, and the unpleasant effect of iron salts, for example, in the mouth and on the teeth obviated. The shape of the palatinoid is conveniently bi-convex, and it is composed of jujube material, which, when moistened by the saliva, becomes slippery, enabling the patient to swallow it without any difficulty. According to our previous experiments, the contents are discharged in about three minutes after immersion in water at 100° F. While we recognise in the palatinoid one of the best methods for the administration of unstable and nauseous drugs that have hitherto been devised, yet we think that the bi-palatinoid recently introduced by Messrs. Oppenheimer and Co. is entitled perhaps to even greater praise by reason of the ingenuity and skill which it displays. The ordinary palatinoid has probably given rise to the idea of the double or bi-palatinoid. The former is intended to administer inert or compatible ingredients, and the latter incompatible ingredients or ingredients that readily decompose one another, resulting in the production of a newly desired compound. Practitioners have long recognised the difficulty of administering many of the valuable combinations of the proto-iron salts in a satisfactory and pure condition. Griffith's Mixture (Mist. Ferri Co. B.P.) and Blaud's pill, for example, are so made as to give, as a product of double decomposition, pure ferrous carbonate. Both, and especially the former, undergo more or less rapid change by oxidation into persalts. A mixture of solid potassium carbonate and ferrous sulphate, as in Blaud's pill, even if only slightly moist, gradually decomposes and forms oxy-salts. Still more unsatisfactory are the B.P. preparations of ferrous arseniate and phosphate. The Pharmacopœia allows, it would appear, no less than 55 per cent. of impurity in ferrous phosphate, and 90 per cent. in ferrous arseniate. Any method therefore which aims at securing greater ease of administration, greater accuracy of dosage, and accordingly a full and more certain therapeutic effect from medicaments such as those mentioned, will, as a matter of course, meet with hearty and very general approval. If clinical experience is found to confirm the excellent results obtained with Messrs. Oppenheimer's bi-palatinoids in the following chemical analyses, then their employment places the administration of exceedingly unstable compounds, like ferrous carbonate, phosphate, and arseniate, upon a sounder and more scientific basis. The bi-palatinoid resembles the ordinary palatinoid as regards appearance and shape, but it contains, in addition, a septum of thin pure jujube, which serves to separate incompatible ingredients. In the event of the presence of a third or

ANALYSES OF BI-PALATINOIDS.

Stated contents of each bi-palatinoid.	Mean quantities in grains found on analysis.					Composition and character of washed precipitate or new product.	Equations and theoretical requirements.
	Ferri sulph.	Sodii carb.	Sodii phosph.	Sodii arsenias.	Alkaloids.		
Ferrous carbonate { Ferri sulph. exsic., gr. 1 / Sodii carb., gr. ½ (0·62) }	1·10	0·60	—	—	—	Pure ferrous carbonate $FeCO_3$ greyish-white ppt.	$FeSO_4H_2O + Na_2CO_3 = FeCO_3 + Na_2SO_4 + H_2O$. Proportion should therefore be 1 gr. ferri sulph. to 0·92 sodii carb
Ferrous carbonate cum pulv. aloes barb. { Sodii carb. exsic., gr. ½ (0·62) / Pulv. aloes barb., gr. ½ }	1·04	0·55	—	—	—	Ferrous carbonate coloured by aloes.	*Vide supra*
Ferrous phosphate { Ferri sulph. exsic., gr. 1 / Sodii phosph. exsic., gr. ½ (0·5) / Sodii carb. exsic., gr. ½ (0·25) }	0·97	0·30	0·57	—	—	Pure ferrous phosphate $Fe_3(PO_4)_2$ (PO_4 2· Dirty white ppt.	$3FeSO_4H_2O + 2Na_2HPO_4 + Na_2CO_3 = Fe_3(PO_4)_2 + 3Na_2SO_4 + CO_2 + 2H_2O$. That is, 1 gr. ferri sulph. with 0·5 sodii phosph. and 0·30 sodii carb.
Ferrous carbonate cum ferrous arseniate { Ferri sulph. exsic., gr. 1 / Sodii carb. exsic., gr. ½ (0·62) / Sodii arsenias anhyd., ½ (0·031) }	1·04	0·57	—	0·05 (32 palatinoids taken)	—	Mixed greenish ppt. No ferric salt.	$FeSO_4H_2O + Na_2CO_3 = FeCO_3 + Na_2SO_4 + H_2O$ and $3FeCO_3 + 2Na_2HAsO_4 = Fe_3(AsO_4)_2 + 2Na_2CO_3 + H_2O + CO_2$.
Ferrous carbonate cum ext. nucis vomicæ { Ferri sulph. exsic., gr. 1 / Sodii carb. exsic., gr. ½ (0·62) / Ext. nucis vom., gr. ¼ }	1·07	0·61	—	—	0·30 (brucine and strychnine from 12 pal.)	White tinged with green.	*Vide supra*
Ferrous phosphate cum ext. nucis vomicæ { Ferri sulph. exsic., gr. ½ (0·75) / Sodii phosph. exsic., gr. ¾ (0·37) / Sodii carb. exsic., gr. ¼ (0·125) / Ext. nucis vom., gr. ¼ }	0·80	0·18	0·35	—	0·30 (brucine and strychnine from 12 palatinoids).	Pure ferrous salt. Dirty slate-coloured ppt.	*Vide supra.*

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fourth ingredient it is placed with the compatible substance. In the bi-palatinoids examined, for example, phosphate of soda, nux vomica, and aloes were present in the compartment containing the carbonate of soda, the iron salt in all cases being apart. The bi-palatinoids enumerated below averaged in diameter about a quarter of an inch and in depth one-eighth of an inch. Like the ordinary palatinoid, they soon open under the solvent influence of lukewarm water and discharge their contents, which at once react to produce a new compound in a perfectly fresh, moist, and pure condition, and not improbably in that active state chemically known as nascent. The experiments conducted in our laboratory not only show that this action does take place, but they also indicate the especial precaution that has been taken to ensure the exact proportion of ingredients which are to react to produce the proper quantity of the new medicament. For the purposes of experiment the palatinoids were dissolved in oxygen-free water, resting under a layer of light petroleum, so as to exclude air. The resulting precipitate was allowed to subside and the excess of water removed, and the precipitate washed with oxygen-free water several times by decantation. It was then analysed and examined. The ingredients of each bi-palatinoid were also carefully separated and analysed. There is no need to offer any interpretation of the results—they are so palpably satisfactory.

CITY OF LONDON SANITARY SLATE.

(J. BEEDZLER & CO., NORTON FOLGATE, WORSHIP-STREET, E.C.)

According to the highly characteristic smell and to the physical constants we were able to obtain, the substance of this slate consists of practically pure naphthalene, a hydrocarbon which is in some instances a valuable disinfectant and antiseptic. Naphthalene melts at 79° C., and boils at 218° C. The figures actually yielded by the above preparation were—melting-point, 79·5° C.; and boiling-point, 217° C. We were not able to satisfy ourselves that carbolic acid was present, as, on shaking some of the powdered material with caustic soda solution and filtering, no precipitate was obtained on adding acid and bromine water to the filtrate. The sanitary slate may possess certain value as an antiseptic &c., but it can hardly be claimed to act as an aerial disinfector of any power. A more probable advantage, we imagine, would be gained from its employment as a preventive against the attacks of midges, mosquitoes, and similar pests. The slate is made in a form convenient for hanging upon the walls of a room or closet.

ESENCIA DE CALISAYA.

(MOSQUERA JULIA FOOD COMPANY, DETROIT, MICHIGAN, AND NEW YORK.)

This preparation is described as a tonic of great merit in all cases where the use of cinchona is indicated. It has the colour and appearance of port wine, is slightly acid in reaction, and somewhat syrupy in consistence. It is sweet and pungent to the taste, and produces a warm sensation in the throat much in the same way as a liqueur, but leaving a distinctly bitter flavour in the mouth. The active principles of Calisaya bark were successfully extracted. Inasmuch as each ounce is said to contain the equivalent of four ounces of bark, it is no doubt a valuable as it is an elegant preparation.

BENZOZOL, OR BENZOYL GUAIACOL.

(BURROUGHS, WELLCOME, & CO., SNOW HILL, E.C.)

Benzoyl guaiacol, according to Jacobsen, occurs in the volatile oils that are invariably associated in small quantity with the benzoic acid obtained by subliming gum benzoin. It is a white crystalline substance, and is said to be decomposed in the digestive tract into its proximate constituents, benzoic acid and guaiacol. Within half an hour after ingestion the latter body can be detected, it is stated, in the saliva and the urine. Guaiacol, it will be remembered, is a diatomic phenol, and is represented by the formula $C_6H_4OHOCH_3$. Though not soluble in cold water, benzoyl guaiacol appears to undergo gradual decomposition in hot water. Our own experiments showed that this interesting substance melts under boiling water, melts and then burns with sooty flame when heated on platinum foil, and dissolves readily in alcohol. It dissolves also in cold sulphuric acid, and on pouring the solution into water benzoic acid separates, and may be collected and tested. Benzozol is described as useful in cases of incipient phthisis, and as an agreeable and harmless substitute for creasote.

New Inventions.

HICKS'S NEW PATENT CLINICAL THERMOMETER.

WE have received some specimens of clinical thermometers devised by Mr. Hicks, which are accompanied by testimony from Mr. Whipple, the superintendent of Kew Observatory, showing, as the result of his experiments, that these instruments record the temperature of the blood in periods of from half a minute to a minute and a half. This desirable object has been attained by reducing the bulk of the bulb, and also dispensing with the usual contraction in the stem which is to be found in all other clinical thermometers at a distance of about one inch from the bulb. In that pattern, therefore, the graduation of the thermometer commences at some distance from the bulb, adding to the length of the instrument. Moreover, in the contraction there was a small chamber which retained a quantity of mercury equal to about ten or twelve degrees of temperature. This quantity of mercury was so far away from the bulb that it seldom got properly heated, as it was quite beyond the reach of the mouth, causing the thermometer to be sluggish in registering a true temperature, and the contraction was a point at which the thermometer usually broke when dropped. The "Non Plus Ultra" has no contraction in the stem, and no chamber to contain superfluous mercury. Its constriction is made in the top of the bulb itself; consequently, the whole of the mercury gets thoroughly warmed at once, and the temperature is not only recorded more accurately than before, but in half the time. There being no contraction in the stem, the space of one inch (referred to above) which used to be wasted is now turned to good account, as the divisions and figures are brought down close to the bulb. The scale of the thermometer is therefore rendered nearly twice as open as before, and is much more easily and accurately read. The indestructible index is, of course, retained. A four-inch "Non Plus Ultra" clinical thermometer will show as open a scale of graduations as that previously provided on a six-inch thermometer. The maker claims for the "Non Plus Ultra" greater accuracy, greater strength, and quicker action. Notwithstanding these advantages, there is no increase in the price. We may add that we have found this thermometer to possess the advantages claimed for it, and can recommend it to the profession.

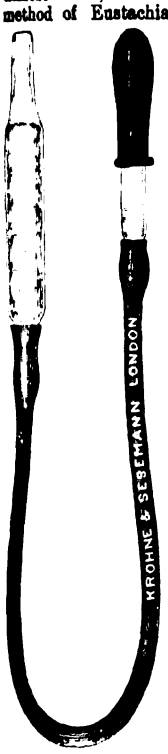


AN EUSTACHIAN INFLATOR FOR SELF-USE.

I HAVE long made use of the act of blowing on the part of the patient as an easy means of opening the Eustachian tube during the operation of inflation of the middle ear by the Politzer bag, and Dr. Ward Cousins employs the same

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principle in the use of his tympanic evacuator and inflator. At the same time, it must be admitted that for adults the swallowing of a little water is superior to mere labial blowing; but in the case of children the preferability of the blowing method is unquestionable. What I consider is almost worthy of being termed "a simplified and improved method of Eustachian inflation for children" consists in gently blowing up the nostril by means of Politzer's bag while the child blows through a tube with a very narrow bore, such as an Eustachian catheter or a pipe-stem, at the same time puffing out the cheeks.



On the same principle I have provided a number of my patients with what I call the "Eustachian Self-Inflator." It consists of the not very novel structure of a piece of india-rubber tube about $\frac{5}{16}$ in. in internal diameter and of about 12 in. in length. At one end is a glass tube, covered with an indiarubber teat, and adapted to fit comfortably into the nostril. At the other end is a glass mouthpiece, with a bulbous swelling, into which is loosely packed a little cotton-wool (*vide* engraving). On to this wool I drop a few minims of chloroform, and instruct the patient to blow two or three times through the tube while sniffing cautiously at the other end till the extreme pungency of the chloroform passes off. He then inserts the nosepiece into one nostril, closes the other, and blows. It is well known that air or steam enters much more easily into the Eustachian tubes if mildly impregnated with chloroform vapour, and I have taken advantage of that fact in devising the self-inflator. If an ordinary breath is insufficient to inflate the tympana, additional power may be obtained by the patient previously drawing a full breath. At the same time, I urge the patient to exercise the very smallest amount of pressure, which is sufficient to make the vapour "go to the ears." Should it be desired to limit the inflation as far as possible to one ear, the head is to be held to one side with that ear upwards, while the other is plugged with a finger of the patient or of someone at hand.

In several cases of most obstinate middle-ear catarrh, even where Politzerisation and the use of the catheter produced little or no improvement, this method has afforded a remarkable and most unexpected amount of benefit as regards hearing power, subjective noises, and fulness in the head. The instrument is made by Messrs. Krohne and Sesemann, Upper Wimpole-street, W.

DUNDAS GRANT, M.A., M.D., F.R.C.S. Eng.

CASUALTIES DUE TO FOG AND FROST.

THE following is a list of the cases, due chiefly to the effects of the recent fog and frost, which have either been admitted to metropolitan hospitals during the past week or treated in the out-patient departments.

London Hospital.

During the week which ended with Saturday last the following cases were treated. The cause of the accidents &c. is not noted in the receiving-room, but the officers on duty state that very large numbers resulted from the slippery state of the streets, as may be gathered from the following returns of the cases. The accident cases received into the wards or made out-patients consisted of 51 fractures, 6 dislocations, 24 sprains, 4 concussions, 13 contusions, 50 lacerated scalp wounds, and 1 rupture of the globe of the eye. The minor casualties treated, but not made out-patients, consisted of: Sprains or contusions of the shoulder, 23; of the elbow, 13; of the wrist, 23; of the fingers, 12; of the hip, 9; of the knee, 10; of the ankle, 24; of the toes, 6 of the back, 18; of the side, 23; of the jaw, 2; 8 lacerations of the finger, 4 of the face, 8 of the scalp, 5 of the forehead. In twenty-four hours—Dec. 25th and 26th—11 cases were seen of fractured radius either with or without fracture of ulna.

Westminster Hospital.

As the result of the fog and frost, the following cases of accident or illness have been received at this hospital. Admitted to the wards: Fractured femur, 2; fractured fibula, 1; fractured tibia, 1; injury to elbow, 1; injury to ankle and knee, 1; injury to head, 2. In addition, there were fully 25 surgical casualties on December 25th attributable to the frozen condition of the streets. In the medical department 8 patients are at present in the wards suffering from bronchitis brought on by the fog; and, in addition to these, 9 patients died between Dec. 22 and Dec. 27, of whom the deaths of 6 were either directly due to or accelerated by the state of the atmosphere.

The Royal Free Hospital.

The cases of accident or illness treated in the Royal Free Hospital as a result of the recent severe fogs and frost were very numerous indeed, the books of the institution showing a total of some sixty or seventy. The greater number were received between Christmas-eve and the early hours of Christmas Day, on which occasion two of the resident staff were up all night owing to the very serious nature of some of the cases. Three or four patients had to be admitted into the wards, the most serious being a man run over on the railway, whose leg had to be amputated, and a woman who fell in the street and injured her head. Among the number who were able to leave after treatment were four dislocations, six fractures of arm, and four fractures of leg, including the case of a cripple with a contracted leg.

St. George's Hospital.

From this hospital we learn that 17 cases of accident and illness due to the fog and frost were admitted as patients.

The Middlesex Hospital.

During the week ending Saturday, Dec. 26th, the surgical cases admitted into the hospital as in-patients whose injuries could in any way be traced to fog and frost were as follows: Scalp wounds, 4; fracture (jaw), 1; fracture (?skull), 1; fibula, 2; tibia and fibula, 2; and one man was brought in dead from apparently fractured base. This was the only death directly due to the causes mentioned. From Dec. 21st to Wednesday last 30 cases were admitted into the medical wards. These have included pneumonia 3, acute nephritis 2, bronchitis 12, 3 with heart disease (of whom two died), asthma 1. The bronchitic cases may certainly be attributed to fog, as also the deaths in heart disease with bronchitis. During the corresponding period there have been 13 deaths, about treble the usual number.

St. Mary's Hospital.

The fogs and frost of the last week were responsible for the admission into this hospital of twenty accident and five medical cases. Most of the accidents were on Christmas Day.

St. Thomas's Hospital.

The account we have received from this hospital does not give particulars of increased accidents during the recent exceptional weather. About twenty cases were treated in the surgery for accidents which occurred during the fog.

FOOTBALL CASUALTIES.—Whilst playing in a match on the 19th ult., between Blackpool South Shore and West Manchester, at Blackpool, a player fractured his leg below the knee. On the same day a young man, aged nineteen, playing in a match (the St. John's Club against the St. Paul's) at Bedminster Park, sustained a compound fracture of the elbow, and was removed to the hospital.

FOULING THE THAMES.—George and Robert Morgan and William Haimer were summoned at Staines Petty Sessions this week by the Thames Conservancy, for having emptied the contents of a cesspool into the Thames, just above the intakes of the Metropolitan Water Companies. The case was proved by a Conservancy official, and defendants were fined 50s. each.

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THE LANCET.

LONDON: SATURDAY, JANUARY 2, 1892.

WITH the publication of the present number, THE LANCET enters upon its seventieth year. The coming and going of the years has been from time immemorial the occasion, to minds disposed to meditation, of pensive and salutary thoughts; indeed few, and not greatly to be envied, are those persons whose buoyant spirits carry them, without a pause for reflection, hurrying past the milestones of life. To most of us the closing of our annual volumes and the start upon a new year suggest superabundant matter for thought, and thought not untinged with sadness. Quite apart, however, from any question of the pleasantness or pain of indulgence in such reflections, there is a very definite gain to be secured—at least, in the case of those who are coöperating towards a common end—by pausing periodically to report progress, and revise the programme upon which the joint adventure is being worked out. It is in the spirit of this idea that we have been accustomed at the beginning of the year to take our readers into our confidence and to recapitulate for their information, not only events of a scientific and public character such as form the material for our *Annus Medicus* review, but also those matters of comparatively private interest which relate to the work and position of THE LANCET in the world. Indeed, the successive Editors, who have always been members of the family of its founder, the late Mr. WAKLEY, have ever cultivated the feeling that readers of THE LANCET are not only their supporters and subscribers, but also coöperators with them in the task of representing and recording the mind of the profession at large. The steady support of medical practitioners throughout the British Islands, and, indeed, throughout and even beyond the English-speaking world, has enabled them to establish and maintain an independent organ of professional opinion and intelligence, which is conducted in the interests of no party and no school, but contains so far as may be an exposition of all shades of opinion, and a record of all varieties of professional and scientific work. This ambitious object can only be in any measure attained by the willing coöperation of our professional brethren both at home and abroad; and it is the abundance of the aid thus rendered which makes us feel that some more or less confidential communication with our readers on the subject of our work is at this season in no way out of place.

It is, then, with the liveliest satisfaction that we realise that the representative character of THE LANCET has never been so well sustained as at the present moment. The gradual, in recent years the rapid, growth of the weekly number is of itself a testimony to the extent to which our pages are made the channel of intercommunication between the members of the medical profession. In the year 1887 the normal size of THE LANCET was ninety-six pages, although during that year it exceeded this bulk on all but two occasions; indeed, it once attained to 144 pages. Since that date it has received repeated enlargements, and during 1891 its normal bulk has been 112 pages, a size which will in 1892 be further increased to 120. The additional accommodation thus provided is, however, by no means a full, or, indeed, any adequate measure of the extent to which demands have been made upon our space. On no occasion during the past year has THE LANCET contained only 112 pages. Its average size, to be precise, has been 137 pages; on two occasions the numbers extended to 200 pages, and the present issue also contains 200 pages.

In another direction also the development of this intimate relation with the medical profession has been equally marked, for the manager reports that during 1891 his sales exceeded by upwards of 48,000 copies the corresponding figures of any previous year. These very remarkable facts show in a manner, which is highly gratifying to those who are charged with the conduct of the journal, that they have not laboured in vain to secure the confidence and good opinion of their professional brethren.

It is, perhaps, hardly necessary at such a time as the present to say that the Editors of THE LANCET are not engaged in private practice, and that it is with them an inflexible rule that no private interest is suffered to come into competition with their public duty as medical journalists. They have engaged in no speculations and attached themselves to no interests which could have the effect of shaping their course or affecting their policy in the conduct of THE LANCET; and they would regard any proceeding of that sort not only as the height of imprudence, as tending in some greater or less measure to fetter their independence and so imperil their position, but also as a serious breach of the duty which they owe to their supporters, whose confidence would certainly and justly be withdrawn if it were supposed that private motives were allowed, whether consciously or unconsciously, to influence the utterances of THE LANCET.

Passing now to our work in its various departments, we may allude, in the first place, to the large and most useful expansion which has taken place in recent times in our correspondence columns. As far as our readers are concerned, it is not easy for them to transgress the very wide limits of available subject matter, for nothing whatever of professional interest comes amiss in these pages. The result is too familiar to those whom we now address to stand in need of any description. Our correspondence columns contain not only the most comprehensive treatment of medical questions, whether scientific or ethical, but also a very large number of communications of the highest originality and importance. During the past year some 2090 pages have been devoted to this section of the journal, and it will, we think, be generally admitted that they have worthily exhibited the drift and movement of medical opinion.

Of the lectures, original and special articles, reports of societies, mirror of hospital practice, and editorial comments upon current topics, which have formed the staple of our literary matter from week to week, it is not necessary here to speak at any length, because that has been incidentally touched upon in the *Annus Medicus* article already referred to, since in some one or other of these

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departments every one of the topics is brought before our readers which eventually make up the public record of the year's medical work. But any summary of the present kind would be incomplete which did not glance at the Special Supplements which we have from time to time produced in support of objects of special interest from a medical point of view. Foremost among these is the Hospital Sunday Supplement, which in 1891 was distributed in large numbers throughout the places of worship of the metropolis—some 100,000 copies were circulated in this way,—but 40,000 additional copies were also, at our suggestion, privately circulated by the medical practitioners of London among their wealthy and charitably disposed patients. The direct and visible result of this appeal was most gratifying, and contributed in no small degree to the marked success of the collection, a success that was attained under conditions distinctly unpromising, and such, indeed, as occasioned no little foreboding of failure until the actual result was made known. Of this we are able to speak with the greater freedom, because the result, which we are able to record with such unfeigned satisfaction, was distinctly due not to our skill or energy as medical journalists, but to the generous response made by our readers to the suggestion that they should personally interest themselves in promoting the success of the collection. They possess, as has been previously said, a special right to speak on such a subject and to urge the claims of charities which they support not only with money, but also with their services. It was not likely that their authority would be questioned if they chose to speak on such a theme. We knew, and the public also now knows, that the medical men of the metropolis are prepared to support with their good word the medical charities with which they are associated, both within the routine of professional service and without that routine. This is as it should be, and it is gratifying to be able to add that when thus approached the public will be found prepared to respond in a generous manner, and to extend an ungrudging support to institutions whose claims are avouched not only by well-disposed patrons, but also by competent critics. This is a consideration which will not be lost sight of, either by our readers or ourselves, when the occasion for a new Supplement comes round.

Nor must we pass wholly without remark the Special Supplement which was issued in November last dealing with life assurance and the medical profession. That this is a subject which merits more attention than it has heretofore received is made evident both by the facts which are constantly coming to our knowledge in connexion with the administration of THE LANCET Relief Fund and also by the concessions and advantages which it has proved possible to secure for medical men by the simple process of asking for them. It will, we hope, prove in the end that medical men have gained, not only in increased facilities for life assurance, but also in an awakened sense of its importance and advantage through the ventilation of the topic in our columns.

This survey of the past year leads naturally to the reflection that the year upon which we have just entered will make its own demands upon us all, writers and readers alike, and that to meet and satisfy those demands will require a continuance of the coöperation which has brought about in the past the results here recorded. Speaking for ourselves, we shall spare no effort to rise to the occasion as it presents itself, and we shall look with assured confidence to our subscribers to renew their support. The objects which we have in common are not personal, nor are they merely professional. They touch the largest and most abiding interests of our neighbours as well as of ourselves, and in working for success in the task to which we have set our hands we are also working for the common good. In this connexion we would allude to that excellent institution the Epsom Medical Benevolent College, and must express our regret that its treasurer, Dr. HOLMAN, has not so far been as well supported as he deserves to be in his plea for the pensioners. We would again direct the attention of our readers to the claims of this excellent medical charity, and may add how pleased we shall be, when the conditions are fulfilled, to be called upon to pay our promised £1000.

We must also mention the International Congress of Hygiene recently held in London, when with an army of reporting experts we were enabled to publish the fullest and most scientific report which appeared of the proceedings of that historical meeting, extending as it did to nearly 200 pages of THE LANCET, and consisting of highly technical and important matter. We also republished in pamphlet form all the reports which had appeared in THE LANCET of previous meetings of these Congresses, copies of which, to the number of 2000, were presented to those members who took part in the Congress.

THE devotees of medicine have this great satisfaction, that the science which they pursue is a progressive one. It does not profess to be based on revelation, like theology, and it is not fixed and settled in its principles as is the law. Medicine is not only progressive, but it progresses by leaps and bounds. To men not yet very old the changes in the fundamental conceptions of medicine seem enormous, and there is no reason to think that we are at all near reaching finality. In a very lucid and instructive graduation address on the service rendered to mankind by medical science, Professor RUTHERFORD remarks how late has been her advance. For centuries she was a slave to names. GALEN was her god. But such physiological discoveries as HARVEY'S and such chemical work as PRIESTLEY'S broke the charm of mere authority, and taught men to look to nature herself and to investigate her secrets. And the result has been that in the last 120 years, and especially in this century, the progress has been enormous. We endeavoured in our summary of last week to show what had been done in the short twelve months, and it may safely be said that the record of work involved an amount of saving of life, of limbs, and of pain which would be incapable of being understood by anyone who had twenty-five years since abruptly ceased to study medicine. The encouraging thought at the opening of another yea is that there seem to be far greater gains in prospect for the earnest student of medicine than even those which have yet been realised. Whole regions of disease invite investigation, and promise to succumb before the defined and determined attacks of recent science. We are all the wiser this year for the great disappointment of last. It has taught us perhaps

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to be slower in our conclusions, but it has not in any degree lowered the prospect of ultimate success. The impression already made on large bodies and classes of men in regard to the risks and incidence of phthisis and the increasing number of reports of recovery in individual cases are enough of themselves to make us hope that tuberculosis itself will be brought more under the control of medicine, and the insanitary conditions which lead up to it and make it possible will be gradually reduced under wise and beneficent legislation. This is still the greatest problem before physicians, as the disease to be mastered is the most disastrous to the sufferer and the most discreditable to the profession. Like that of the specific infective diseases, it will require the coöperation of various scientific workers for its elucidation. And this is the happy case of Medicine, that she is served by chemists and physicists and biologists of every kind, and that all are eager to do for large groups of diseases what has already been done so brilliantly for others. The somewhat discouraging note that has been struck of late by one or two physicians in reference to the arrest or non-curability of phthisis has not been responded to by the profession, and is not likely to be. Professor FINLAY has just published a case of recovery from tubercular peritonitis and double pleurisy, read to the Clinical Society, and properly makes much of the more hopeful tone, as respects tubercular peritonitis, of physicians in recent days as compared with that of physicians of a former generation.

As we have suggested, the hope of progress in regard to the nature and properties of the specific infections in the near future rests much on the work of men of research in the regions of chemistry and biology. It is to be lamented that there has been so much in our law that has hindered the natural tendency of Englishmen to come to the front in these investigations. But, as Professor BURDON SANDERSON lately said, there are signs of improvement. The laboratory of the combined London Colleges is a living proof that they mean to encourage such researches. They could not make a higher use of their resources. And the pressure and dread of unpleasant forms of disease will, we must hope, gradually induce the Government and the Legislature to relax those so-called antivivisection laws which are discreditable to the intelligence of the British public. Small-pox—the *bête noire* of the English public—happens to be in abeyance just now, and this fact is making them faddish in regard to the value of the one great fact and discovery of British preventive medicine. But there is another disease that is showing increased virulence that may well frighten the public into its senses and induce it to give a free hand to those who are prepared at all personal risks to investigate it. We refer, of course, to diphtheria. Twenty years ago this disease was scarcely ever seen in some parts of London and in other large towns. Now it is a veritable scare. It must be confessed that our knowledge of its origin, its nature, its relation to other infections and other diseases of man and animals, and of its mode of propagation, is very vague. Many members of the profession, most of them brilliant and promising, have fallen victims to their duty in connexion with

Many more are prepared to take all risks. If the Legislature will do its duty, the profession will soon throw more light on this difficult question. We have said that much depends with regard to medical progress on the research section of our profession. But much, too, still depends on those in general practice. Take this very disease of diphtheria. Who but general practitioners can give an account of first cases, of their relation to other diseases in man or animals, and of their behaviour under treatment? We confidently hope that the year 1892 will be a satisfactory one to all classes of practitioners, and that some of the more obscure and intricate problems of disease will receive elucidation, if not solution, ere it too, in its turn, is numbered in the ranks of the passed.

AT the Assizes held at Liverpool on the 9th ult., before Mr. Justice LAWRANCE, SAMUEL CRAWFORD, aged nine, and ROBERT SHEARON, aged eight, were placed at the bar charged with the murder of DAVID ECCLES, aged eight years and a half. From the evidence, as given in *The Times* of the 10th ult., it appears that on Sept. 7th SHEARON had played truant, and that as a punishment his mother deprived him of his clothes, locked him up, and ordered him to remain in bed. She had occasion to leave the house, and on her return she found that he had gone out without his clothes. He was seen by a witness with a portion of a coat over his shoulders and an old sack wrapped round his loins. The statements made by the two boys after they were in custody show that they lifted the deceased over the hoarding of some unfinished and abandoned buildings, in the excavated cellarage of which water had collected, the enclosed waste ground being used by boys for romping and playing purposes. They then asked him to go on the plank; they then pushed him off into the water, then dragged him out and took the clothes off him and pushed him in again twice. He fell face downwards in the water. CRAWFORD got on his head and kept him under for five minutes, and waited to see whether the lad stirred. They then took the boy's clothes and threw his boots into the pit. The prisoners wanted to steal the lad's clothes. That night SHEARON went home wearing clothes which were identified by the mother of the deceased as having been worn by him on Sept. 7th. The next day the body of ECCLES was found lying in the water in the basement of the unfinished building face downwards, naked and dead. After the finding of the body, inquiries were made which resulted in its identification, and publicity led to the mother of SHEARON giving information to the police which implicated the boy in the matter. The prosecuting counsel, after detailing the facts, said that the law as to the capacity of infants to commit crime, though clear, was perhaps not very exact. Up to seven years of age a child was incapable of committing crime. From seven to fourteen the question would be, Did they know the nature and quality of the act? The nearer seven years the more exact and precise the proof of such knowledge and malice must be. The counsel for the prisoners submitted a twofold defence: first, that it was not made out that the prisoners took the life of the lad ECCLES; and secondly, supposing the jury arrived at the finding that they did, then his defence was that the boys were not conscious of the nature and quality of their acts and of their moral gravity. The learned judge, in summing up, approved the

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law as stated by counsel: between seven and fourteen the prosecution must prove that the prisoners were capable of committing crime by some indications of knowledge or cunning.

Eventually both CRAWFORD and SHEARON were found to be guilty of having committed the act, but not to be responsible on the ground of their youth. It is further stated that the judge entered the finding as "Not guilty." We are told that the prisoners looked quite infants, and that SHEARON'S head hardly topped the front of the dock.

To be "not guilty" under such circumstances could only be the result of privilege, and fortunately, by an arbitrary rule as to age, the law is able to preserve its dignity without perpetrating an outrage upon common sense and popular feeling. Yet it was not always so: for Sir MATTHEW HALE gives two instances where the death penalty was exacted before puberty. One case was that of a girl of thirteen who was burnt for killing her mistress, and the other was that of a boy of ten, who was hanged for killing his companion. BLACKSTONE gives an instance in the last century where a boy of eight years old was tried at Abingdon for firing two barns, and it appearing that he had malice, revenge, and cunning, he was found guilty, condemned, and hanged accordingly. In more modern times a boy of ten was convicted on his own confession of murdering his bedfellow, there appearing in his whole behaviour plain tokens of a mischievous discretion.

According to the law of England, in order that an act may be criminal it must be done by a person of competent age. BLACKSTONE says that infants under the age of discretion ought not to be punished by any criminal prosecution whatever. With regard to capital crimes, by the ancient Saxon law the age of twelve years was established for the age of possible discretion "when first the understanding might open," and thence till the offender was fourteen it was *ætas pubertati proxima*, in which he might or might not be guilty of a crime, according to his natural capacity or incapacity. Under the age of twelve it was held that he could not be guilty in will, neither after fourteen could he be supposed to be innocent. Since the time of EDWARD III. the law appears to have been more desirous to measure the capacity of doing ill or contracting guilt by the delinquent's understanding and judgment rather than by any specific age after the age of seven was reached. Under seven years of age an infant cannot be guilty of felony, for then, as BLACKSTONE says, a felonious discretion is almost an impossibility in nature; but at eight years old he may be guilty of felony. The same author says that under fourteen, though an infant shall be, *primâ facie*, adjudged to be *doli incapax*; yet, if it appear to the court and jury that he was *doli capax*, and could discern between good and evil, he may be convicted and suffer death.

In relation to the question of responsibility, according to the French criminal law, there does not appear to be any age at which a child is absolutely exempt from punishment. If an offence be committed under the age of sixteen, and it be found to have been committed "without discernment," the offender is to be acquitted; but, according to circumstances, he is to be returned to his relatives, or placed in a house of correction, to be brought up there and detained for any number of years not exceeding his twentieth. By the criminal code of the German empire, a person cannot be criminally prosecuted for any offence committed before he ha completed his twelfth year.

In his "History of the Criminal Law of England" Sir JAMES STEPHEN expresses himself as follows:—"By English law children under seven are absolutely exempt from punishment, and from seven to fourteen there is a presumption that they are not possessed of the degree of knowledge essential to criminality, though this presumption may be rebutted by proof to the contrary. Like most other presumptions of law, this rule is practically inoperative, or at all events operates seldom and capriciously. My own opinion is that the age of complete irresponsibility should be raised, say, to twelve (except in the case of a few specially atrocious crimes), and that it should be succeeded by complete responsibility." This definite expression of opinion by an authority of such eminence and experience must carry great weight.

There are many points in the Liverpool case of CRAWFORD and SHEARON that are of deep interest from a psychological and social standpoint, the question of conspiracy between two delinquents being not the least. We shall take an opportunity later on of referring again to this case. Meanwhile we may be allowed to express a hope that, as the boys have been sent to homes with the sanction of their mothers and under the enlightened rule of modern law, their future life may not be overshadowed by reflections of their recent experience, and that their future behaviour may be such as to justify the steps that have been taken for their welfare.

THE opening of the fever hospitals last year for the purposes of clinical instruction and study was an event of the highest importance to medical education, and it did not come before it was required. The want of due provision for teaching the diagnosis and management of the common infectious fevers of the country had for several years been a source of great anxiety to all thoughtful teachers of medicine, and it was felt not to be without grave risk that so many students were placed upon the Register who were almost, if not entirely, without experience and knowledge of this most important part of their work. In former years, when all cases of fever as they came were admitted into the general hospitals, students had ample opportunity of gaining the requisite knowledge; but when in the course of time the general hospitals decided no longer to admit such cases, students had to seek their knowledge elsewhere, and they found that at the only places—viz., the fever hospitals—where the necessary experience could be gained the doors were closed against them, and, strange to say, by Act of Parliament.

A clause in the Poor Law Act of 1867 permitted the fever hospitals as well as the infirmaries to be used for the purposes of clinical instruction and study; but in 1869 this clause was withdrawn and a prohibitory clause introduced. How and why it is difficult to ascertain. It is, at any rate, satisfactory that no one can be found now to acknowledge the responsibility for this retrograde step.

In 1890 the College of Physicians, with the cordial coöperation of the Metropolitan Asylums Board, under

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whose management the fever hospitals of the metropolis are, approached the Government, and succeeded in obtaining from Parliament the abolition of the prohibitory clause. Rules and regulations against the carrying of infection were drawn up by the College of Physicians and adopted by the Metropolitan Asylums Board. Classes under the direction of the superintendents of the various fever hospitals were arranged for and have been successfully held, but up to the present not largely attended.

It is to be hoped that before long a course of instruction in the diagnosis and management of fevers will be an essential part of medical education and a condition *sine quâ non* of registration. At present attendance on such a class is merely voluntary, and amid the press of work there is a danger that what is not insisted upon will be regarded by the student as of comparative unimportance, and be neglected. A great deal, however, can be done if teachers of the different schools will take the trouble to bring prominently before their pupils the absolute necessity of such a course, and experience proves that where this is earnestly done students will be ready to act upon the advice given. Thus, out of twenty students who attended the courses during the few months that the fever hospitals have been accessible to them, no less than sixteen came from one school, while not one of nine of the metropolitan schools sent a single student. This is doubtless due to the fact that the importance of attending these courses was not brought home as it should have been to the students, who are, as a rule, ready enough to take good advice when it is given them by those they regard. It is earnestly to be hoped that in this coming year all the schools will do their duty equally in this respect.

The need of such instruction in fevers at the present time is self-evident, and the want of proper knowledge is amply shown by the figures recently laid before the Asylums Board. From these it appears that the mistakes in diagnosis during the past twelve months were far above a permissible percentage.

With the Compulsory Notification Act in force the consequences of error become more than ever serious alike to the medical practitioner, the patient, and the public. To the public failure in recognising an epidemic disease, such as scarlet fever, or, still more, small-pox or typhus, may mean not only widespread diffusion of the disease and the loss or damage of many lives, but also, what Boards and Vestries least of all forgive, great expense to the district. On the other hand, to the patient the diagnosis of some infectious fever wrongly may mean the exposure of that patient to great risk of infection, with possible loss of health or life; while in either case the reputation of the medical attendant must seriously suffer when the consequences of his error are so publicly known.

The fever hospitals of London provide ample material even should every student be compelled to take the prescribed course of instruction. There are something like 10,000 cases annually in the six hospitals under the management of the Asylums Board. At each of these hospitals the necessary arrangements have been already, or will be shortly, completed. Three, at any rate, are at the present moment in full working order—viz., the Eastern, the South-Western, and the Western; and at these provision is made for a succession of courses of instruction of two months' duration, according to the number of students applying. The course consists of three demonstrations weekly for a period of two months, at the end of which time a certificate is given if the attendance has been satisfactory. This certificate, it is needless to say, cannot fail to prove of the greatest value to the holder when presenting himself as a candidate for public appointments. The times of the demonstrations are so arranged that they interfere as little as possible with ordinary hospital work. Explicit rules have been carefully drawn up so as to reduce to a minimum the risk of carrying infection to others. These rules are strictly insisted on, and any breach of them would involve serious consequences to the student at his own school. All that a student need do if anxious to attend these courses is to obtain from the dean of his school a certificate or statement that he is of such standing as to be eligible, and to present himself with the certificate at the office of the Asylums Board, Norfolk House. Here, on payment of his fee, he is given the choice, as far as possible, of the particular fever hospital he would prefer, he receives a card stating the days and hours he must attend, and a copy of the rules and regulations to which he is subject, and, at the end of his course, he receives a certificate signed by the officer who has instructed him. The material at these hospitals is enormous, the instruction excellent, and everything has been done to render study there profitable and convenient. The profession owes a debt of gratitude to the committee of the College of Physicians for their energy in raising the whole question, in thrashing out the details of the scheme, and in obtaining the necessary Act of Parliament. It owes very much also to the managers of the Metropolitan Asylums Board for the public spirit they displayed, for their cordial coöperation, and for the despatch with which the necessary arrangements were completed. It would be a disappointment to both of these bodies if full advantage were not taken of the opportunities now offered to the profession. The more students there are, whether qualified or not, at the fever hospitals, the better pleased the managers will be; and should increasing numbers demand increased accommodation, it will doubtless be forthcoming.

The course of instruction in fever will probably ere long be made compulsory, and rightly; for, under the Notification Act, the first duty a student may be called upon to discharge after qualification may be to make a diagnosis of one of the fevers, with all the responsibilities this diagnosis carries with it, and all the risks to himself and the public which an error involves. Formerly medical students were taught the diagnosis and treatment of the common infectious diseases during their apprenticeship, and one of the most important parts of a medical man's education has undoubtedly suffered from the changes caused by the medical legislation of the past twenty years, which no longer compels them to follow such a course. The necessity in the interests of the public of making a course of instruction in fevers compulsory is consequently generally acknowledged, and this will doubtless soon be done; but so long as the course remains voluntary it is to be hoped that the teachers at the metropolitan schools, upon whom the responsibility of directing the instruction of the students rests, will do the duty which is clearly theirs in urging

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upon the students the wisdom and necessity of acquiring as complete a knowledge as possible of the infectious fevers before assuming the responsibilities of practice.

Annotations.

"Ne quid nimis."

THE QUEEN'S VISIT TO HYÈRES.

HER MAJESTY THE QUEEN has elected to visit this year the oldest of the Riviera health resorts. Long before Cannes and Nice were known to fame Hyères was frequented by invalids and persons of delicate health. It has always been a quiet place, where people went for health rather than for enjoyment. But to those who find their pleasure in the beauties of nature, Hyères, by reason of its climate, its vegetation, and its numerous attractive surroundings, will afford many inducements and much relaxation. Hyères is at once the most southerly and yet the nearest of the French winter resorts. It is situated on latitude 49·7° North, and is sheltered by the Maurettes and the Maure mountains. Dr. Williams mentions eighteen different flowers that bloomed earlier at Hyères than at Cannes, and it is from the Hyères market gardeners that the first spring vegetables reach the Paris market. The climate of Hyères is more sedative than that of most of the Riviera resorts. The town stands at a distance of about three miles from the sea, and thus its inhabitants escape alike from the exciting and sometimes injurious effect of exaggerated dryness and from the saline breezes of the Mediterranean. Many patients who cannot sleep at Cannes or Nice enjoy good repose at Hyères. But Her Majesty proposes to stay at a little distance from the town, and much nearer to the sea. Indeed the climate of Costebelle is very different from that of Hyères. The district known as Costebelle is on the summit of a low range of pine-clad hills, whilst Hyères is at the foot of a precipitous rock. At Costebelle there is the balsamic influence of the pine trees and the more stimulating air, due to its higher position and its proximity to the sea. Hyères is a small place, but Costebelle is simply a hill and a wood, with two hotels on the summit, and a few villas dotted here and there. Sanitation, in such a country district, assumes its simplest form; but, as nearly all the visitors to Costebelle are English, doubtless good care has been taken to adopt the best available measures for the preservation of health. The country around is rich in vegetation and in points of view that constitute the object of delightful excursions, and there is every reason to believe that Her Majesty will be well satisfied with Hyères and its neighbourhood.

INFLUENZA.

THE record of the past week shows no abatement in the influenza generally, for although it is leaving some districts in this country it is invading other parts. Thus it is abating in Scotland, Aberdeen being one of the last places to be its seat; and Dr. Matthew Hay, the medical officer of health, in his report to the town council, strenuously urges the adoption of measures of isolation. In Newcastle and the vicinity it still persists; indeed, one feature of this outbreak, as contrasted with that of two years ago, is the length of time in which the disease seems to linger in one locality. Thus it has not yet ceased to occur in Cornwall and Devon—where the earliest cases of this present epidemic arose,—and it has been conveyed to the Scilly Isles, where almost all the inhabitants have suffered. The affection at the present time is very rife in East Kent—Canterbury, Dover, and Folkestone being especially centres of it. From Dover, indeed, comes a report that the local authorities have imposed a fine of £5 upon any one suffering from influenza who exposes himself in a public place. We fear this measure — if it really be taken — will not do much to limit the spread of an affection which, though admittedly contagious, is also, according to high authorities, miasmatic. It is also prevalent in Bedfordshire. The metropolis is still free from any severe outbreak, but that influenza has a certain foothold in London is seen by the fact that during the week ending Dec. 26th nineteen deaths were directly attributed to it, an increase of two over the preceding week. The mortality from diseases of the respiratory organs last week in the metropolis was greatly in excess of the average—no doubt owing to the prolonged fogs,—and the total death-rate rose to 21·9. In Newcastle last week the death-rate was as high as 45·1 per 1000. Abroad influenza has appeared in Italy, epidemics being notified at Rome, Turin, Florence, Milan, and Bergamo. It is said not yet to be really epidemic at Vienna, although several sporadic cases have occurred there, and it is increasing steadily. There has been an outbreak on board H.M.S. *Dreadnought* at Malta. At New York it is averred that the disease has attacked the monkeys in the zoological collection there.

DEATH OF PROFESSOR JOHN WOOD.

WE regret to announce the death of Professor John Wood, F.R.S., which took place at his residence in Wimpole-street on the 29th ult. Arrangements have been made for the funeral to take place at Kensal-green on Monday, Jan. 4th, at two o'clock. Mr. Wood's professional life was spent at King's College and King's College Hospital. In 1846 he entered the medical department of the College, in 1851 he was appointed Demonstrator of Anatomy, in 1870 Professor of Surgery in succession to the late Sir Wm. Fergusson, in 1777 joint Professor of Clinical Surgery with Sir Joseph Lister, and in 1889, on his resignation, he was made Emeritus Professor in King's College and Consulting Surgeon to King's College Hospital on account of his valued services to those institutions.

A NEW AND POWERFUL LIGHT.

A VERY intense light, such as is required for photographic or occasionally for medical purposes, may, as is well known, be readily obtained by burning magnesium ribbon, which has, however, the disadvantage of being somewhat expensive. An excellent substitute has been found by a French chemist, M. Villon, in aluminium, which is about a third of the price of magnesium, and which may be utilised in the same manner by burning it in a spirit lamp, or, if a flame of much more intense brilliancy is required, in a coal, gas, or spirit flame supplied with a jet of oxygen. In these it burns without emitting fumes, in which respect it is superior to magnesium. The light given by aluminium has a high actinic power—nearly as high, indeed, as that of magnesium. The most convenient way of obtaining a very intense light, according to M. Villon, is to use a lamp provided with a jet of oxygen at the centre of its flame, into which powdered aluminium mixed with a quarter of its weight of lycopodium and a twentieth of its weight of nitrate of ammonium can be projected by means of a tube furnished with an air-ball. This gives an exceedingly intense light, without smoke. A mixture of aluminium powder with chlorate of potash and sugar can be ignited, giving an intense light by means of gun-cotton, but is somewhat dangerous. Probably the best plan for medical photography, or for laryngoscopic and auroscopic and other demonstrations, would be to burn

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a ribbon of aluminium in an ordinary spirit lamp. Of course, if oxygen and an oxy-hydrogen, or a oxy-alcoholic, lamp were at hand a much more intense light could be obtained.

THE ACCIDENT TO PRINCE CHRISTIAN.

WE have received the following from an official source:—On Saturday, Dec. 26th, H.R.H. Prince Christian, whilst shooting in the grounds of Osborne, was struck in the left eye by a shot. He was at once seen by Dr. Reid, who, finding that the shot had penetrated the globe, telegraphed for Mr. Lawson. On the following morning (Sunday) Mr. Lawson, assisted by Dr. Reid and Dr. W. Hoffmeister of Cowes, removed the injured eye. The Prince has progressed very satisfactorily. The anæsthetic used was the A.C.E. mixture.

DOES ETHER ASSIST DIGESTION?

THE effect of ether on the digestive processes in healthy subjects has been recently investigated by Dr. Gurieff, who gave thirty drops of sulphuric ether to six healthy persons during dinner, which consisted of about half a pint of soup, four ounces of meat, and six ounces of bread. It was found that the ether had the effect of stimulating the action of the gastric glands, increasing the free hydrochloric acid in the gastric juice, and causing the peristaltic movements of the stomach, together with its power of absorption, to increase thus; on the whole exercising a favourable effect upon the gastric digestion. The same result was obtained when the ether was administered by means of hypodermic injections. It would appear, therefore, that the effects must be ascribed to a general rather than to any merely local action on the mucous membrane of the stomach. Dr. Gurieff is disposed to think that there is a stimulation of the cephalic centres. This view is partly based on the observations of other Russian observers—Bekhtereff and Miloslevski, and Pavloff and Shumova-Simanovskaya—on the dependence of the gastric functions upon the central nervous system.

SANITATION AT FLORENCE.

SIR DOUGLAS GALTON, in his report on the sanitary condition of Florence, confirms in every sense the description given of the sanitation of Florence by our special commissioner, which we published on Jan. 7th, 1888. Our commissioner, like Sir Douglas Galton, did not find fault with the public water-supply of Florence, but he denounced the continued use in some houses of private well water. It was with regard to domestic drainage that the greatest complaint was made. Untrapped, unflushed closets, porous drain-pipes, and abominable cesspools, often ventilating into bedrooms or kitchens, were described and declaimed against. Our commissioner sent drawings of the main sewers—big, awkward structures, with broad, flat inverts, and insufficient means of flushing. He also mentioned that some of the newer sewers were being built in the egg-shaped and modern manner. We are glad to hear that the number of these latter has been increased since the publication of our commissioner's report. But, still, the fundamental grievances which he denounced four years ago seem to remain. The question of domestic drainage is neglected now as in the past, and is "sufficient to account for the spread of typhoid fever." On the other hand, the quarters of the town where new drains have been built and where the house sanitation has been improved escaped from the recent epidemic of typhoid fever. Thus the complaints we made, the warning we gave, at the commencement of the year 1888 have been entirely justified by the events which have since occurred, and by Sir Douglas Galton's recent report. We trust therefore that the municipal authorities of Florence will take action. We know that their position is exceptionally difficult. Once capital of Italy, but now reduced to the level of a provincial town, Florence has greatly suffered as respects her local budget, and doubtless the municipality would do more if it only possessed the financial means. But much good sanitary work can be accomplished without very large outlay; and the interior condition of houses could be altered mainly at the expense of the owners. In this respect, the municipality of Florence cannot do better than follow the example of the municipality of Brussels, where the same difficulties have been overcome in a most radical and successful manner.

FIRST AID BY CHEMISTS.

WHEN a person meets with an accident in the street it is a common practice to take him to the nearest chemist's shop; and this custom prevails not only here, but in other countries, where the laws against counter-practice are much more definite and severe than with us. In the Argentine Republic regulations are actually laid down for the guidance of pharmacists under such circumstances. Only the proprietor of the shop may attend to accidents, and he only to those which are quite recent. For washing the wound he must use either a 4 per cent. solution of boracic acid or a ½ per cent. solution of salicylic acid. No sponges may be used, but only pieces of absorbent wool. Hæmorrhage must be arrested by pressure with moist cotton wool or by compression of the artery. The edges of a wound are to be drawn together, but not completely so, by sticking-plaster; over this a layer of cotton must be put, and the whole retained by a gauze bandage. When there is a loss of substance, so that the edges of the wound cannot be brought together, the wound must be sprinkled with iodoform to the thickness of about half a millimetre. Burns are to be covered with cotton or linen soaked in carron oil. In simple fractures strips of cardboard covered with cotton wool are to be applied. No other substances—such as carbolic acid, perchloride of mercury, or amadou—and no charpie or calico bandages are on any account to be applied to wounds by the pharmacist, who must be careful to tell the patient to get the advice of a doctor as soon as possible. How would our chemists like to be obliged to conform to regulations of this character

FROST, FOG, AND SMOKE.

THE connexion between frost and fog, and its mischievous capabilities, have seldom known a more striking illustration than that afforded by the weather conditions which prevailed last week in the metropolis. To much public and private inconvenience of other kinds we must add the injury sustained by trade at a season which is for many shopmen the busiest in the year. Custom lost at such a time is not recovered, and we may regard it as certain that the Christmas takings for the year just ended would show on examination a depression markedly related to the suffocative gloom which a few days ago enshrouded the city. This, however, is but a secondary circumstance in comparison with other and more directly vital consequences. The loss of life primarily due to the fog has been considerable. Last Thursday week no fewer than eight inquests were held upon the bodies of persons who had been drowned in the docks from sheer inability to see their way. In no instance was there any reasonable suspicion either of suicide or intoxication. Four of the eight men who thus perished moreover were dock employés, and therefore presumably familiar with the roadway under ordinary conditions. The obvious necessity of such an arrangement of chain-barriers as would prevent similar accidents in future should not require

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to be impressed upon dock authorities. We give in another column some statistics of fracture and contusions which by the courtesy of the secretaries we have been able to obtain from the various metropolitan hospitals—casualties largely attributable to the causes already mentioned. The marked prevalence of asthma and bronchitis may also fairly be traced to the same sources. Every practitioner has lately had occasion to deal with cases of this trying and dangerous malady. What is of especial importance after its cure, if present, is the prevention as far as possible of the cause to which both it and the accidental deaths we have recorded are mainly attributable—the fog. Of late the press has been fruitful of suggestions respecting this matter. All of course agree in condemning the ordinary coal fire, which is a main source of mischief, and it must be admitted that some of the substitutes proposed in its place bear the mark of practical intelligence. The well known utility of gas for heating and cooking purposes requires no commendation where conditions admit of its employment. Unfortunately, there frequently exists a serious difficulty as to this during frosty weather. Otherwise no better preventive of the fog atmosphere could be found. It is possible, however, even while using coal, to use it in such a form and way as materially to diminish its power of smoke production. For this purpose a non-bituminous coke or anthracite is clearly preferable, and is capable of imparting great heat if the grate be furnished with firebricks in the manner suggested by Dr. George Wyld Most of our readers are familiar with the construction of the slow fire which burns from above downwards, the draught from below being stopped by a metal plate. By the use of either of these methods it is possible to maintain a fire suitable for all ordinary purposes, and possessing an obvious advantage in the fact that it certainly emits a much less than ordinary volume of smoke. It has been proposed that the duty of smoke consumption where coal is burnt should not be enforced in the case of manufactories only, but that the larger kitchens of clubs and hotels should be equally liable. The suggestion, if novel, is certainly reasonable enough. It is, indeed, unquestionably desirable. Whatever the method most approved, however, it must be allowed that the time has come when every possible effort should be made to abolish the fog-tyranny with which we have been in so recent and ruinous association.

TUBERCULIN AT THE BROMPTON HOSPITAL.

A REPORT has been issued from the Hospital for Consumption and Diseases of the Chest, Brompton, upon the results of the treatment of cases of phthisis and lupus by tuberculin. The remedy was used systematically for four months from Dec. 6th, 1890, to April 5th, 1891, during which time 30 patients were so treated; 28 of these were phthisical (18 males and 10 females). The report gives in a succinct manner information of the nature of the cases, the condition of lungs and expectoration, the number of the injections and their results as to reaction, temperature, cough, and expectoration, changes in physical signs, in general condition, and in body weight. It is stated that 15 improved under the treatment, or 53·6 per cent.; one was stationary, and 12 grew worse (3 deaths), or 42·8 per cent. As to weight, 53·5 per cent. gained in this respect, 14·2 per cent. were stationary, and 32·1 per cent. lost weight; but this result is qualified by the fact that the cases were selected for their being either early or limited in character and extent. The reporters admit that tuberculin speedily causes inflammatory changes in and around tubercular lesions, thus promoting the formation of cavities, as proved by the appearance of lung tissue in the sputum and by cavity signs replacing those of consolidation. It increases the amount of expectoration, but there is no proof of its diminishing the number of bacilli in the sputum; in some cases they apparently increased under its use. In many cases the injections were followed by signs of distinct extension of the disease. The "reactions" were exhausting, and caused loss of weight and strength. "The treatment is specially contraindicated in lung tuberculosis accompanied by pyrexia, as likely to convert intermittent into continuous pyrexia." In two cases there was evidence of fibroid contraction of cavities accompanying the use of tuberculin. The final judgment is—"That the tuberculin did not favourably influence the course of the disease in the majority of cases; that in some the effects were detrimental; and that even in the stationary and improved cases it was difficult to ascribe any distinct improvement to the injections, which might not have been equally attained under the treatment ordinarily employed in the hospital." The report is signed by Drs. Theodore Williams and Tatham. A report on two cases of lupus treated by tuberculin is appended by Mr. Godlee. Both cases "showed marked temporary improvement, followed by a return towards, if not actually to, the condition preceding the commencement of the treatment, when the injections were stopped; and that even before stopping the injections, the retrogression had already set in."

EXPLORATION OF KAFFIRISTAN.

HEROISM has been so connected with deeds of valour in the battle-field that we are apt to overlook that higher heroism which is the innate result of self-sacrifice undertaken for the advancement of science and for the benefit of mankind. The Indian correspondent of the *Daily Chronicle* records such an instance in the case of the explorations in the wilds of Kaffiristan by Mr. G. S. Robertson, Agency Surgeon at Gilgit. "His experience among that hitherto mysterious people will be most interesting and valuable. At one moment an honoured guest, at another surrounded by crowds of frantic savages clamouring for his blood, he established his supremacy by the calm audacity which distinguishes the British race. Armed with no authority, backed by no escort, but relying solely on his own determination and coolness, he has been the first British subject to explore that wild country."

SEWERS OR CESSPOOLS FOR CHICHESTER.

THE Corporation of Chichester seems likely to adopt a very retrograde step—namely, one which will tend to perpetuate a system of leaking cesspools, instead of adopting a method of sewerage for the city. One of the members of the Corporation is alleged to have stated that with a cesspool the only danger is that "occasionally the air is made to smell a bit," and this in a town where the contents of 2440 privy-pits and cesspools are allowed to soak away into the soil on which the place is built, and where about 816 houses are dependent for water on wells sunk in this soil. Then, again, it was advanced that cesspools can be kept out of houses, whereas "sewers had to be laid under them." Whether house drains pass to cesspools or to sewers, the only difference in this respect lies in the fact that since the cesspool must almost always be constructed on the premises to be drained, whilst the sewer is in the public thoroughfare, the sewer is, as a rule, farther away. Moreover, the question of drains passing under a house or not depends entirely on circumstances which are distinct from their outfall being into sewer or cesspool. Views of the above sort were applauded by a number of town councillors, and hence it is not astonishing that they elected to try a system for pumping out the cesspools of Chichester by means of ap-

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paratus which was adapted only to cesspools containing liquid contents; and to get over the difficulty due to the fact that Chichester retained the more liquid of its cesspool filth in its own soil, it was provisionally announced that before beginning the pumping processes, liquid was to be mixed with the more solid contents of the Chichester cesspits. A final effort to upset such proposals was rejected by one vote. Under these circumstances it is not to be wondered at that, at a subsequent meeting attended by some of the leading medical practitioners of the city, it was decided to make formal complaint to the Local Government Board, under Section 299 of the Public Health Act of 1875, to the effect that the sanitary authority had made default.

ARTIFICIAL TEETH FROM A HYGIENIC POINT OF VIEW.

IT is common experience amongst dentists that a very large majority of artificial dentures worn are discoloured and by no means devoid of unpleasant odour. This lack of cleanliness, which arises sometimes from neglect, but often from want of instruction on the part of the dentist as to the necessary *modus operandi*, is a fruitful cause of inflammatory conditions. Débris of food mixed with saliva and mucus accumulating on a plate rapidly undergo decomposition, with the result of irritating the mucous membrane and producing a general inflammation of the oral cavity. The oral secretions become altered and vitiated, so as to cause dyspepsia, and caries of the remaining natural teeth is set up, which proceeds with great rapidity, especially in "clasp" dentures, not from the friction, but because the inside of the clasps most generally escape the brush. The materials used in the construction of artificial dentures differ widely in their effect upon the tissues with which they come in contact. A larger number of cases of inflammation of the oral tissues occur where vulcanite is used as a basis than with gold or other metals, and so prevalent is this inflamation in the case of vulcanite that it has received the distinctive appellation of "rubber sore-mouth." Several reasons have been assigned for the effects produced by vulcanite. Nearly all this material is coloured with mercuric sulphide (vermilion), which ingredient has been accused of being the cause of trouble; but an exhaustive investigation did not substantiate this view, one particular point being that "rubber sore-mouth" often occurred where black rubber was used, which contains no vermilion. The porosity of vulcanite, especially when not sufficiently vulcanised, renders it liable to retain deleterious material if not kept scrupulously clean.

BURIAL REFORM AND ITS LEGAL REGULATIONS.

THROUGH the courtesy of Mr. Seymour Haden we have again an opportunity of revising his published opinions on the subject of reform in burial as a substitute for cremation. At the meeting of the International Congress of Hygiene and Demography last October Mr. Haden fully explained the advantages of the earth-to-earth system which is associated with his name, and in a subsequent letter to *The Times* he ably defended the propositions laid down in that paper. Notwithstanding that we have already on several occasions discussed this question, the practical importance of certain points which are noted in the articles before us must be our justification for again referring to them. Much has been said by cremationists respecting the contamination of water-supply by filtration of putrefactive matters from adjacent burial grounds, and the subject is unquestionably one deserving the cautious consideration of sanitary authorities. We are constrained, nevertheless, to the belief that under all ordinary conditions the oxidising processes occurring within the soil are sufficient for the wholesome transformation of such noxious substances into relatively harmless chemical equivalents. The now familiar instance of the Bishopsgate pump may be quoted in illustration. In dealing with morbid infection the case is somewhat different. Here again we cannot doubt that Nature is equal to the work of purification if due freedom, time, and earth space be allowed her processes. As regards time, difficulty may sometimes arise, and the observations of Pasteur and others tend to show that the germs of disease may linger long in the soil in which infected bodies have been buried. Such a contingency is of course abnormal, and it is one which could be simply and effectually met by the use of antiseptic precautions. As regards the medico-legal objection to cremation, we have little to add to former observations. Even the very careful system of certification adopted by its advocates is of course not perfect, and, though we would not go so far on this or any other known ground as to advise, with Mr. Haden, the prohibition of the practice, we confess that, in our view, no other method can ever so fully satisfy the possible needs of a criminal investigation as that which allows the exhumation of the body. Let us, in closing, briefly impress four points which comprise the gist of the rules relating to burial reform. These are: (1) That accurate certification be enforced; (2) that burial take place with the least possible delay after death has occurred; (3) that the needful arrangements be of the simplest kind, and such as to ensure virtually direct contact between the soil and the body; and (4) that legislative action be taken to secure these purposes.

A NEW BACILLARY DISEASE.

MM. CAZAL and VAILLARD, in the June number of the "Annales de l'Institut Pasteur" (Sur une Maladie Parasitaire de l'Homme), describe a remarkable condition in a patient who came under their observation. M. P——, a strong, muscular man, aged thirty-three, was admitted suffering from dysentery, dilatation of the stomach, restlessness, with a full pulse, no headache, nothing the matter with the lungs or heart, dry mouth, great thirst followed by extreme diarrhœa, and painful micturition. Eventually the patient died with symptoms very like those met with in the algid period of cholera or in cases of acute poisoning. On the whole of the peritoneal surface, in the pancreas, and in the liver were small rounded, discrete nodules, from the size of a millet seed to that of a pea; these contained a caseous substance, white, yellowish, and fatty, very like that found in dermoid cysts. There was some evidence of peritonitis; the mesenteric glands were slightly enlarged and congested. The nodules were most numerous in the pancreas, which appeared to have been the primary seat of the affection. In the fatty material were small, short bacilli well stained by Loeffler's blue. They were a little longer than broad, had rounded ends, not well stained by Gram's method. In the necrotic areas the masses of bacilli could be distinctly seen; they were also found in the more normal tissue, but they were not to be found in the healthy parts. In cultures, in which it was an easy matter to obtain pure growths, the organism was found as a short, motile rod, which might be isolated, arranged in pairs, or grouped in chains of ten or fifteen, or even more. These chains moved slowly, with a wavy-like motion. Unstained, they had the appearance of a figure of eight, or were dumb-bell-shaped, and were surrounded by a delicate, clear zone, which appeared to be a kind of envelope, though it was impossible to demonstrate the existence of a capsule by staining methods. The organism grows either aerobically or anaerobically. It causes cloudiness in broth after twenty-four hours, forming at the bottom of the flask a thick, pale, flocculent deposit.

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The supernatant fluid is slightly milky, and gives an alkaline reaction. It grows more readily on the surface of gelatine, and causes slow liquefaction in forty-eight hours; at the bottom of the funnel there is a white, flocculent deposit. Grown on the surface of agar there forms in twenty-four hours, at 37° C., a moist, opalescent, translucent growth which extends rapidly until it covers the whole surface with a delicate uniform layer which gradually becomes thickened, though it still retains a certain amount of transparency. On potato the culture is abundant and spreads rapidly over the surface as a thick, moist, and slightly viscid film, first of a clear yellow colour and then of a yellowish brown. The cultures have a somewhat ammoniacal odour, almost like putrefying urine; they remain active for several months when exposed to the air, but when protected from air and light they remain active for more than three years. This microbe does not appear to form spores; it is destroyed in fifteen minutes at a temperature of 60° C. in a moist medium, but after drying it resists the temperature of 100° C. for about five minutes.

A CASE OF COLOBOMA OF THE OPTIC NERVE WITH SIMULTANEOUS MELANOMA OF THE CILIARY PROCESS.

DR. TALKO publishes in the *Przeglad Lekarski* the case of a boy of five years old who, from his birth, had been suffering from considerable impairment of sight. He discovered in both eyes a coloboma without a vestige of the hyaloid, and a melanoma of the ciliary process as well, the first case of the kind he had seen in his ophthalmic practice of thirty years. No such case has, as far as he knows, ever been mentioned in medical literature. Dr. Talko is not certain if the embryonic deformity of the ciliary processes is merely a complication of the coloboma, or whether it may be found independently of other deformities of the eyeball. The case, as the first of its kind, certainly deserves to be recorded.

FOOD SURVEILLANCE IN ITALY.

AMID so much (writes a holiday contributor) that calls for redress in the sanitary state of Italy, it is gratifying to record the energy and success with which her food and drink-supply is safeguarded. Shortly after the Public Health Act came into force one could hardly open a newspaper without alighting on paragraphs announcing the seizure of adulterated breadstuffs, or tainted meats, or "doctored" wines, or bogus mineral waters. Some of the great industries, like the sausage manufacture at Bologna, were severely compromised by the exposure of the semi-putrid horseflesh used in it; the cheese producers of Lombardy were also shown to deal largely in counterfeits; and the confectioners, with their brightly coloured dainties, and the "liquoristi" (or fancy-drink vendors), with their seductive beverages, were often convicted of employing deleterious and even dangerous substances to enhance the attractiveness of their wares. The penalties inflicted on these offenders, however, were so exemplary that few now venture to enrich themselves at the expense of the public and in contravention of the law; and the notoriety given to them in the press brought such custom to the "fair and square" dealers as to make many new, if tardy, converts to the principle that honesty is the best policy. Such cases, indeed, as the following become rarer and rarer, while the occasional publicity given to them serves to keep up the deterrent force of the act. A fancy baker in Turin was convicted of using a noxious dye to give an attractive colour to the "tortellini" (pastry with sweetstuff inside), for which Turin is famous. In spite of his plea that he did not know the deleterious nature of the colouring matter in question, the baker was sentenced to five days' imprisonment and twenty lire (16*s.*) fine. Against this sentence he appealed; but the Court not only sustained the judgment already given, but, finding that the adulteration had been practised in full knowledge of its hurtfulness to the consumer, and with the clear object of enhancing the selling price of the article, condemned the appellant as an "adulteratore doloso" (fraudulent adulterator), and gave him five months' imprisonment, with a fine of seventy-three lire (£2 18*s.* 4*d.*). Italy does well to protect the consumer by such stringent regulations, and if she continues to practise the same surveillance over other matters equally affecting the health of the community she will have no reason to complain of the abstention of foreign visitors from her "sun traps" or winter cities.

A GASTROLITH IN MAN.

DR. KOOYKER has reported in the *Zeitschrift für Klinische Medicin* another case of gastric calculus—a condition which, though common enough in animals, is so rare in man that so far only seven cases have been reported. Dr. Kooyker's case was that of a man fifty-two years old, in whose lifetime it had been impossible to make a positive diagnosis, though some neoplasm of the stomach was suspected. The patient died from exhaustion. At the post-mortem examination a concretion was found in the stomach, almost entirely filling its cavity, which weighed 885 grammes and was eighteen centimetres in length. The microscopic examination resulted in finding starch, vegetable cells, chlorophyll, and vascular tufts, while hair and other animal elements were entirely absent.

"THE LANCET" RELIEF FUND.

UPON another page will be found the third annual report of the Almoners of this Fund, from which it will be seen that relief has been afforded in twenty-two cases, eight being cases in which money was advanced by way of loan and fourteen cases in which gifts of money were made. In number the total is precisely equal to that of the preceding year, the distribution of the benefits having also been an almost exact reproduction of that which was reported in 1891, when the loans were seven and the gifts fifteen in number. In amount the grants have this year been slightly larger than last year, the loans having aggregated to the same total sum—£117—and the gifts to £11 more than in 1890. The correspondence, of which some extracts are given in the report, shows that the facility with which in a proper case a grant can be made from this fund renders it in a case of emergency, such as it is intended to meet, a most valuable resource to the victims of sudden and unforeseen misfortune. Indeed, in many of the cases which come under the notice of the Almoners it is not merely true that *bis dat qui cito dat*—this aphorism does much less than justice to the facts, for in such circumstances as we have now in view to delay is to withhold, and he only gives at all who gives at once. It is a great satisfaction to the donors and Almoners of the Fund to know that so far it has proved fully equal to the particular class of necessities which it is intended to meet, and no single suitable case has been refused relief for want of funds. The balance in hand has steadily grown from year to year; and from £125 19*s.* 6*d.*, at which it stood in the beginning of last year, it had accumulated by the 31st December last to £170 14*s.* Although, therefore, it has been necessary to refuse some applications, every such refusal has been grounded on the demerits of the application, and no case coming within the rule has yet been brought to the notice of the Almoners without obtaining relief. We

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have, therefore, no difficulty in calling the attention of our readers to this charity. The Almoners can, of course, only deal with cases that are actually brought to their notice. Their satisfaction in having been able, so far, to deal in a suitable manner with every such case is founded upon a hope that the general diffusion of information concerning the existence of this Fund leads to their receiving in every, or almost every, fitting case an application for relief. A form to be used in making applications for grants will appear in next week's issue of THE LANCET. We would call attention to the fact that Mr. Edward Davies has been appointed Secretary to the Fund, and that in future, as will be seen on reference to the form of application, all communications should be addressed to him at THE LANCET Offices, 423, Strand, London, W.C.

SENSORY AND VASO-MOTOR DISTURBANCE IN FACIAL PARALYSIS.

DR. FRANKL BOCHWART, in an investigation into the conditions present in twenty cases of facial paralysis, found that in three there were disturbances of sensation and of the vaso-motor functions, in five of sensory functions only, and in two of vaso-motor only. The sensibility was only affected to a very slight degree, and sometimes the mucous membrane on the tongue and inside the cheek was affected, and sometimes it was not. Occasionally also taste was affected. These sensory phenomena disappeared much earlier than the paralysis, but in one case in which the paralysis persisted there was diminished sensibility even after several years. The conclusion sought to be drawn from these facts is that the facial nerve in man contains some sensory and vaso-motor fibres; but of course it would first have to be shown that the fibres of the fifth nerve had not also suffered when the facial nerve became affected.

DIPHTHERIAL INFECTION OF TRACHEOTOMY WOUNDS.

DR. SPRONK of Utrecht[1] has discovered in the case of three children who had been tracheotomised for diphtheria a condition which has not hitherto been described, but which he thinks is far from rare. This consists in an inflammatory œdema of the subcutaneous and fatty tissue around the tracheotomy incision, caused by the invasion of diphtheria-bacilli. He points out that in ordinary diphtheria the bacilli are confined to the epithelial surface and the false membrane, and never penetrate into even the uppermost layers of connective tissue so long as the mucous membrane is free from necrosis. Nor are the bacilli ever found in the internal organs and blood of infected individuals. Nevertheless it has been shown experimentally that these microbes can multiply in the subcutaneous tissues, especially of some animals, guinea-pigs for example. The cases he examined had died a few days after tracheotomy, and although the wound itself was free from membrane, and looked healthy, yet there was a more or less widespread diffuse œdema, without any change in the superjacent skin. This œdema was obviously inflammatory, but there was no necrosis. In two cases it occurred not only in the vicinity of the wound, round the trachea and in the intermuscular tissue, but extended for some distance over the chest and upwards to the supra-clavicular regions. He found by tube-cultures that the serum taken from different parts of the œdematous area contained abundant bacilli, which were almost as numerous at a distance from the wound as near to it. The possibility that they may have multiplied after death was slight, seeing that these organisms require a temperature of at least 20° C. to grow. Other bacterial colonies were produced from the serum, but in one case this yielded almost a pure culture of Klebs' bacilli, and the capability of these organisms to cause this type of inflammation was proved experimentally. Dr. Spronk lays especial stress on the fact that, although of course the infection takes place through the tracheotomy wound, yet its margins appeared natural. This he ascribes to the use of iodoform and the short time that elapsed between the operation and death. The importance of the discovery lies in the additional risk of the rapid absorption of the toxine produced by the bacilli when these are lodged in connective tissue.

[1] Centralb. f. Allg. Path. u. Path. Anat., 1892, No.

IMPORTED INFECTIOUS DISEASES AND THE LIVERPOOL PORT.

SOME members of the Sanitary Committee of the Liverpool Corporation are desirous of imposing special restrictions on the landing and removal of cases of infectious diseases reaching their port. The desire is, in one sense, a laudable one, for it is very important to control imported infection. But, on the other hand, such a city as Liverpool should, above all others, remember that any unusual restrictions imposed on shipping and persons reaching our ports, in respect of our current contagious diseases, is a thing that the sanitary authorities of this country have decided to be unnecessary, and one that we generally cry out against when imposed on us in foreign ports. With yellow fever we are still tied to a quarantine system, without having the means of effectually carrying it out; with cholera we have to do with special regulations under the Cholera Order; but when we come to current infectious diseases we have nothing but the ordinary sanitary law and its provisions. Dr. Stopford Taylor has rightly advised that no special danger attaches to the removal of such cases by ambulance from ships in dock to the ordinary infectious hospitals, and his view must be regarded as correct. Such diseases are not, under proper restrictions, a danger by reason of ambulance traffic, and if the proper restrictions can anywhere be applied they ought to be possible with the aid and control of dock and port officials.

INFLUENZA AT MILAN.

WE make no apology for returning to the outbreak of influenza in the Lombard capital—that great entrepôt of the travelling world between West and East. The malady has outgrown the dimensions of an epidemic; it may rather be described as a plague. The public offices, the factories, the stores, the studios—all have the majority of their hands on the sick list and the hospitals can hardly admit another patient. The schools, on reassembling, will hardly muster a fourth of their number, though it is the infant rather than the boy, as it is the old man rather than the adult, that the malady visits most severely. The mortality, not great when we wrote last week, is now considerable, the deaths on Christmas Day amounting to sixty-five. With all this, it is not the influenza of two years ago. It wants the neurosal complications characteristic of its predecessor. Its attack is directed mostly to the lungs, setting up, or more often aggravating, bronchitis and pneumonia. Weak hearts, too, suffer severely under it. Coupled with the pulmonary and cardiac symptoms there is not unfrequently a kind of infective gastritis (*una specie di gastrite infettiva*, as the local physicians call it), characterised by total loss of appetite, while palate and tongue are furred with a paste like that of powdered marble (*poltiglia*), and there are pains at the stomach as in gastralgia proper. Errors of diet in quality or amount—anything that causes indigestion in short—seem to determine the virulence of the disease towards the stomach. In some cases, though by no means in the majority, rapid loss of strength ensues on the fever, though the

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temperature is rarely above 101° or 102° F. In treatment the best—or rather, the only good—results have been obtained from quinine in varying proportions, or in combination with strychnine. Another feature of the visitation is the extreme liability to relapse, a first attack giving no immunity from subsequent ones, but seemingly inviting them; and these are less tractable than the primary one. An intelligible explanation of the violence of the disease in Italy is given by one of her most experienced practitioners, and that is the defective underclothing of the people, rich and poor alike. This, with the very insufficient warming apparatus in most Italian houses, and the tendency to make up for it—in the lower quarters particularly—by *huddling*, accounts (in his opinion) for the spread of a disease which ought, on many grounds, to find a less favourable nidus in Italy than in more northerly countries.

OPERATION FOR INTRA-CRANIAL HÆMORRHAGE.

DR. STIMSON showed, at a recent meeting of the New York Surgical Society, a patient, forty years of age, who some weeks before had been, in the course of a quarrel, struck on the head with a club. When first seen he was found to have a marked irregularity at the junction of the parietal bone with the squamous part of the temporal on the left side. Weakness of the right leg with complete paralysis of the right arm developed—it is not stated how long after the accident,—and his vocabulary was reduced to "Yes" and "No," although he could make voluble use of expletives. A diagnosis was made of intra-cranial hæmorrhage following injury, and five or six days after the injury was inflicted he was operated on. There was found to be a fracture of the temporal bone above the ear, but no depression. A fissure ran backwards over the parietal border. No blood was found between the bone and the dura, but the latter was dark in colour and no pulsation was observed in it. On opening it a large clot was found in the subarachnoid space extending back a considerable way. An ounce and a half in all were removed and the flap sutured. There was no immediate improvement in the patient's condition, but the paralysis gradually passed away and the ability to talk returned, although there was still evident impairment of this faculty. The case is a very important one, and its progress is very suggestive. Apparently operation could not be undertaken at once, as the question of possible homicide was pending, but there seems little reason to doubt that early operation in such a case would be followed by rapid recovery. Even after five or six days the amount of restoration obtained by the operation must be gratifying both to the patient and the surgeon, and it will no doubt become greater as time goes on. One curious thing about the case is that no mention is made of fits of any kind, which we should have expected as a result of a subdural hæmorrhage such as was present.

THE PREVENTION OF OVERLAYING.

IN the course of an inquiry held at the Marylebone Coroner's Court last week, Dr. Danford Thomas again drew attention to the relatively large number of infant deaths attributable to overlaying. The proportion of such deaths throughout London during the year is, he reminds us, between 600 and 700, and of this total somewhat over 200 are furnished by the central district alone. Dr. Thomas, in the course of his observations, offered a simple and rational explanation of the manner in which the fatal result is commonly brought about. It is due, in his opinion, either to the child slipping under the bedclothes when the mother's arm on which it lies becomes relaxed in sleep, or to its being drawn too near and pressed against the breasts. Either explanation is quite feasible, the former as accounting for mere accidental self-suffocation, such as also occurs when an infant is put to bed closely wrapped in a shawl; the latter as explaining the purely reflex act by which a sleeping parent may turn upon and smother her child. Clearly no person can or ought to trust herself in the circumstances with so frail a life. Cots are not so expensive but that the poorest mother, if thrifty, can usually provide one. If otherwise, even an improvised chair-couch is better for the infant than her own bed. It has been suggested that any case of fatal neglect in this particular should be held as a punishable misdemeanour. There is much to be said for this proposition. Our only objection to it is based upon a reluctance to enforce the penalty of imprisonment with its contaminating influences, and upon a conviction of the greater power of education than of legal rigour as a means of prevention. It is to be hoped and expected that the repeated warnings issued by Dr. Thomas and others in connexion with the subject will be duly regarded, and thus fulfil their intended purpose of instructing public opinion on this important subject.

CONVULSIONS TREATED BY COMPRESSION OF THE CAROTID.

DR. LEOPOLD ROHEIM of Budapest publishes in the *Gyógyászat* a case of eclampsia which he had, after the failure of all ordinary remedies, successfully treated by compression of the carotid. The case, which is quoted by the *Pester Medicinisch-Chirurgische Presse*, was that of a robust man of fifty-six, who had been suffering for years from cancer of the bladder, with occasional hæmaturia. The man had been attacked by a most violent eclamptic paroxysm, which was mainly confined to the left side. Dr. Roheim prescribed in vain musk, valerianate of zinc, bromide of potassium, assafœtida, hypodermic injections of morphia, enemata of hydrate of chloral, and frictions with mustard, and at last employed compression of the carotid. After constant compression for some time of the right carotid the convulsions were suddenly arrested, the patient recovered normal respiration, and very soon felt quite well. Two or three slighter attacks followed, which were soon arrested by properly instructed attendants. The effect of the compression was so remarkable that Dr. Roheim earnestly recommends this treatment. He compressed the carotid with the index and second finger between the larynx and sterno cleido-mastoid muscle backwards towards the spine, just as Trousseau and Bland had recommended. He was equally successful in the case of a girl nine years old. He considers the *rationale* of the treatment to be that by compressing the carotid and at the same time necessarily the sympathetic nerve fibres, which closely follow the course of the artery, the excitability of the brain is allayed.

CARCINOMA OF THE LARYNX.

DR. LICHTWITZ of Bordeaux records a case of carcinoma of the left vocal cord,[1] which is of especial interest as bearing on the case of the late Emperor Frederick. The patient, fifty-three years of age, consulted Dr. Lichtwitz in November, 1889, for loss of voice, which had been almost absolute since the previous August, and from which he had suffered at times during the past two or three years. His health had been previously good, and there was no suspicion of syphilis, whilst the aphonia was the only symptom present. Laryngoscopical examination showed a smooth, fusiform, yellowish-grey swelling occupying the anterior two-thirds of the left vocal cord, which was congested posteriorly. The movements of the cord were impaired. A portion of the growth, which was suspected to be of malignant nature,

[1] Ext. des Annales des Maladies du l'Oreille et du Larynx.

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was removed, and pronounced by M. Ferre to be so. But as it was thought desirable to get a further opinion, another portion was excised, and the sections sent to Professor Waldeyer of Berlin. He reported that they contained several horny bodies and papillary excrescences, but reserved an opinion as to their cancerous nature, until it had been determined whether the growth was circumscribed or diffuse. He said that the preparations were very similar to those examined by Virchow in the Emperor's case, and remarked that in that case it was the subsequent examination of the sputa and the clinical course which convinced Drs. Gerhardt and Bergmann of its malignant nature. In the present case, antisyphilitic treatment proving of no avail, further portions were examined and extirpation was decided on. Waldeyer reported on these later specimens that the growth was obviously papillary, and that if not already carcinomatous it would probably become so. M. Demons undertook the operation, and removed the growth by splitting the larynx, a preliminary tracheotomy having been performed some days previously. The operation took place on Feb. 22nd, and proved to be very difficult and tedious, since, in spite of the tampon, much material was drawn into the bronchi. The growth was very thoroughly removed and the exposed parts cauterised, but the patient succumbed to broncho-pneumonia five days later. The carcinomatous nature of the affection was determined without question, and it was found that the cartilage was becoming infiltrated. Professor Waldeyer reported that there was great proliferation of the epithelium and an unusual degree of laminated tissue. He therefore regarded the growth as an example of scirrhus, whereas that of the Emperor Frederick was medullary. Dr. Lichtwitz, in his comments on the case, remarks on the paucity of symptoms, and cites with approval the conclusions of Dr. Semon, not to wait for absolute histological proof from extirpated fragments before excising, if the clinical course of the growth is that of malignant disease.

THE ASYLUMS BOARD AND DR. COLLIE.

A RESOLUTION has been passed by the General Purposes Committee—which is a committee of the whole Board—recommending a pension of $\frac{2}{3}$ths of £600 to Dr. Collie, who has resigned his position as medical superintendent of that hospital. The matter will be finally settled by the Board on Jan. 9th, 1892. We trust that the result of the decision will be the award of a liberal pension to Dr. Collie—one adequate to the eminent services which he has rendered in connexion with the duties of the office which he has just vacated, as well as in view of his valuable contributions to the literature of infectious diseases.

CASES IN VESICAL AND URETHRAL SURGERY IN NEW YORK.

THE *New York Medical Journal* contains an interesting paper, read by Dr. Fred. S. Dennis, on some cases of vesical surgery. One of these was that of a man who, after slipping from a scaffold, fell astride a staging horse and ruptured his urethra, giving rise to extravasation of urine and deep perineal abscess. On admission to the hospital, in a very weak and anæmic state, there was a large opening in the perineum, in which the two ends of the ruptured urethra could be seen two inches apart. There was also acute cystitis. During the few days following admission there were several severe hæmorrhages from the wound, rendering the patient pulseless, and requiring hypodermic injections of brandy and digitalis. On Nov. 5th, after eleven such hæmorrhages, his condition was so alarming as to induce Dr. Dennis to tie the internal pubic artery. This effectually stopped the hæmorrhages. The wound in the perineum soon began to granulate. A catheter passed through the penile portion and then into the proximal end of the urethra was left in the bladder. It was ere long covered with granulations, the two inches of urethra were made up, and the patient passed most of his urine through the penis. In less than six months the urethra was quite healed. Case 4, reported by Dr. Dennis, is that of a supra-pubic lithotomy by which a large stone was removed without the slightest difficulty, weighing 1360 grammes (about forty-four ounces), measuring seven inches in circumference and two inches and a half in diameter. The patient was twenty-four years old, and had had hæmorrhage and other symptoms of stone for nineteen years. The urine contained a great deal of pus, the patient was exceedingly pale, and he weighed less than 100 pounds. He recovered perfectly and gained thirty-five pounds in weight. Case 9 was one of hæmorrhagic cystitis occurring as a complication of typhoid fever, the formation of a calculus with a blood-clot as a nucleus, and the extrusion of a complete cast of the interior of the bladder.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. H. Thierfelder of Strasburg has been recognised as *privat docent* in Medical Chemistry.

Harvard.—Dr. H. C. Ernst has been appointed Assistant Professor of Bacteriology.

Kazan.—Dr. Malinovski of Kieff has been appointed to the chair of Operative Surgery.

Prague (Bohemian University).—Dr. Mischel has been promoted to an Extraordinary Professorship.

St. Petersburg (Military Medical Academy).—Drs. Batuyeff and Fabitski have been recognised as *privat docenten* in Anatomy and Clinical Medicine.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Otto von Gärtner, formerly Body Physician to the King of Wurtemburg, on Dec. 9th, at Stuttgart, in his seventieth year. He was the first surgical director of the Catherine Hospital, and was not only a good ophthalmologist, but enjoyed a large medical practice as well.—Dr. Jean Servais Stas, Professor of Chemistry in the Brussels Military Academy, at the age of seventy-eight. He was a medical man, and contributed considerably to the application of chemistry to forensic medicine and to the investigation of animal substances, such as the amniotic fluid. Indeed, his name is known to every student of elementary organic chemistry.—Dr. G. Kordi, ordinator of the Gynæcological Clinic of the St. Petersburg Medical Academy.—Constantine Leonteiff, who, though a medical man, is known chiefly by his writings on ethnography and non-medical subjects. He was at one period of his life in the Russian diplomatic service, being stationed in Turkey and Greece. He was then appointed censor of the press at Moscow, and some years ago entered a Russian monastery as a monk.

IT may be well to remind our readers that the five years' curriculum will apply to all candidates for the licence of the Royal College of Physicians and for the diploma of member of the Royal College of Surgeons of England who register as medical students after Jan. 1st, 1892. The revised regulations are not yet ready for issue, but it is probable that they will be published before the end of January.

PROFESSOR CELLI of Rome, whose "Reminiscences of an Italian at the International Congress of Hygiene" were lately given in THE LANCET, has just delivered (Dec. 28th) an address in that city on "Woman's Place in Social Hygiene." Her Majesty the Queen of Italy presided.

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IT was reported in several of the German medical journals last week that Professor Ph. Schech of Munich was dead. This, fortunately, is not the case, though he was seized, while performing a very long and troublesome laryngeal operation, with sudden spasm of the glottis, which was followed by a tetanic condition, from which, however, he is recovering.

AT the meeting of the Election Committee of the Middlesex Hospital on Wednesday last Dr. W. Essex Wynter was elected Assistant Physician, in succession to Dr. Kingston Fowler, who has been appointed fourth Physician. Dr. Wynter has for the past three years been medical registrar to the hospital, and is an *alumnus* of its school.

THE death is announced of Dr. Richet, Professor at the Faculty of Medicine and surgeon at the Hôtel Dieu, at the age of seventy-one.

MR. ANTHONY A. BOWLBY, F.R.C.S., has been appointed Assistant Surgeon to St. Bartholomew's Hospital.

SIR WILLIAM TURNER has been appointed a Deputy-Lieutenant of Edinburgh.

Pharmacology and Therapeutics.

STRONTIUM IN PARENCHYMATOUS NEPHRITIS.

M. Constantine Paul, writing in *Les Nouveaux Remèdes* on the treatment of Bright's disease by strontium, remarks that Carlsbad water contains a small quantity of the carbonate of strontium, this being practically the only difference, chemically speaking, between the true Carlsbad water and what has been called French Carlsbad—that is to say, the water of Miers in the department of Lot. Professor Sée has made some observations as to the value of strontium in place of sodium; but M. Paul, arguing from its place in the electro-negative series between lithium and calcium, thought it might more probably be found suitable as a substitute for lithium. The salt he generally employed was the lactate, and of this he has during the last few months prescribed more than a couple of pounds in addition to smaller quantities of the bromide and nitrate. According to some physiological researches recently published by M. Laborde, the salts of strontium are innocuous, thus contrasting with those of barium, which are highly poisonous, and with those of potassium, which are not well borne in large quantity. Strontium salts are not diuretic, and they have the property of diminishing the albumen in epithelial and parenchymatous nephritis, though they do not altogether stop its formation. If the drug is discontinued prematurely the albumen increases again. A large number of cases having been treated with strontium, M. Paul is now in a position to give the following general results. It is useful in parenchymatous nephritis, whether of rheumatic, scrofulous, or gouty origin; also in the albuminuria of pregnant and parturient women. He is not able to say as yet whether it is suitable in scarlatinal albuminuria or in the albuminuria of other infectious diseases, or in that depending on syphilis, or in cardiac cases. It has, however, shown itself valueless in interstitial nephritis, and also in the albuminuria of phthisis. As a rule, the diminution of the albumen is followed by a marked amelioration in other symptoms, and the patient improves considerably. In order that the treatment may succeed it is important that it should be commenced before the period of urinary insufficiency and uræmia has arrived. Pyrexia, however, even when of a high degree, does not prevent the lactate of strontium from exerting its beneficial action in parenchymatous nephritis. It has been suggested that bromide of strontium might be found useful in epilepsy; but of this M. Paul has only had the experience of a single case, where, indeed, it appeared to succeed in a remarkable manner after bromide of potassium had been given in large doses without effect. The daily quantity of bromide of strontium ordered in this case was ninety grains, and this was continued for two months. In the nephritic cases the dose of the lactate per diem was from 120 to 150 grains, and in no case was it badly borne.

CANTHARIDATES IN TUBERCULOSIS.

In a recent number of *Merck's Bulletin* numerous investigations of the efficacy of cantharidates are reported, the cases varying from lupus, tuberculous ulcers, and granular lids to laryngeal and pulmonary tuberculosis. Opinions differ with regard to the pain produced at the point of injection; according to one observer all the patients complained of intense pain. With very few exceptions there was no rise of temperature or other sign of general reaction. None of the patients ever complained of any urinary difficulty or symptoms referable to irritation of the urinary organs. The beneficial results in cases of lupus are said to have been very striking; the cases of granular lids were markedly improved; most of the cases of laryngeal phthisis underwent considerable improvement, but in two cases in which fever was present before the treatment was begun the injections seemed to have no particular effect on the fever or on pulmonary symptoms On the other hand, it is stated that it has no effect on the tuberculous processes in the lungs, that it neither sets up nor reduces fever, and that it has no effect on the number or shape of the bacilli. Professor L. Tümas concludes that on the whole the cantharidate treatment is decidedly beneficial in some cases, and hence deserves a further trial. Its chief advantages are that the medicament can be prepared by everybody, that it admits of precise dosage, that it does not give rise to any serious complications, and that it can be safely applied to out-patients, as it does not involve any change in the patient's usual mode of life.

CAMPHORIC ACID IN PHTHISIS AND IN CYSTITIS.

Camphoric acid has been employed in cystitis, and as an intestinal disinfectant, by Fürbringer; it has also been used with success in the treatment of the night sweats of phthisis. More recently Bohland has been employing this drug, of which he gives one gramme in a wafer at nine or ten o'clock at night. The dose may be increased to two grammes, or even to three grammes if necessary; for some patients who only begin to perspire towards the morning it may be well to administer the camphoric acid at two or three o'clock in the morning. The results he obtained were satisfactory in about 80 per cent. of the cases. Camphorate of soda appears to have an action somewhat inferior to that of camphoric acid. In two cases the acid, given in the dose of three grammes in three doses, arrested phthisical diarrhœa which had resisted other methods of treatment. In cystitis when the urine is ammoniacal and alkaline it can be speedily cleared and rendered acid by three grammes of camphoric acid in the day, given in three doses. The acid is eliminated with the urine from two to five hours after its administration. Urine thus impregnated with camphoric acid may be kept several days without undergoing putrefaction.

A NEW METHOD OF TREATING DIPHTHERIA.

Dr. Charles Smith of Casterton, Australia, has recently given his experience of a new method of treating diphtheria. It has the advantage of not necessitating the stoppage of other methods of treatment. Briefly stated, the treatment consists in the continuous inhalation of a vapour composed of a mixture of carbolic acid, eucalyptus oil and turpentine, together with the administration, in ordinary doses, of tincture of digitalis, tincture of belladonna, and aromatic spirit of ammonia. The only novelty claimed by Dr. Smith is the continuous employment of the inhalation, together with the method of applying it. The ingredients are mixed in the following proportions:—Carbolic acid 1, eucalyptus oil 1, turpentine 8. Sometimes, however, he has used them in the strengths of 1-1-4. In the mixture two cloths, about a foot square, are soaked; one is placed close to the face, the other on the pillow near the head; one or two others are hung about round the cot. It is important that none of the cloths should be allowed to touch the face. Brief notes of seventeen cases are given.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.—Notice has been issued that a meeting of the members will be held at 3, Bolt-court, Fleet-street, on Tuesday Jan. 12th, at 4 P.M.

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REPORT OF

The Lancet Sanitary Commission

ON THE

VENTILATION OF THEATRES AND PLACES OF PUBLIC ASSEMBLY.

PART II.—THE PARIS SORBONNE.

WE will now describe the ventilation of the great amphitheatre of the Paris Sorbonne, which contains 3000 seats, and is the most recent application of the principles we have attempted to explain. We have already remarked that the Paris Sorbonne was the latest application of the principles of ventilation so successfully employed at the Vienna Opera House. Of course we allude to the new Sorbonne, the magnificent edifice that abuts on the Rue des Ecoles, which was inaugurated in 1889, but which, nevertheless, has not yet come fully into use. Within this structure there is an immense amphitheatre, where all the great ceremonies connected with the Paris University take place. Here the problem of warming and ventilating is as difficult as in a theatre, for 3000 seats have to be provided; while that of the form of structure is even more difficult, for the seats should be all equally good. The building, however, differs from a theatre inasmuch as there is a platform instead of a stage. The form adopted is that of most Parliament houses—namely, the semicircle, with a platform instead of the tribune. The president's seat is of course in the centre of the platform, facing the half-circle. The pit or floor is about the size of the platform—namely, only half the width of the amphitheatre. On each side and all round rise tiers of seats, while on the floors above there are two galleries. Even the sectional drawing, which we give, will at least partially show that the seats are all equally good and command an equal view of the platform. It will be observed how under every seat there is an air inlet. In fact, the seats in the galleries, as in the body of the hall, are all suspended over air chambers, and these air chambers form the third of the series—namely, the mixing chambers similar to what we have seen at the Vienna theatre. Yet the ventilation only resembles that of the Vienna Opera House in general principle; there is a difference in detail. The air is propelled into the amphitheatre by the force of three fans that stand side by side in the inlet passages or air shafts. A portion of the air is conducted into a furnace, where it is warmed, the other portion travels upwards towards the mixing room. The two shafts, however, meet together just below the floor of the mixing room. Here a very simple apparatus enables the attendants to open more or less widely the door or valve of the cold air shaft. The wider it is opened the greater the current of cold air as compared with that of the warmed air, and thus by moving these valves the temperature of the mixing chamber is easily regulated.

The three fans propel each 20,000 cubic metres of air per hour. This is, therefore, a total of 60,000 cubic metres. But if they were made to revolve with exceptional velocity the supply of air could be raised to 72,000 cubic metres per hour. These fans are unusually large in diameter, more than six feet, and they only make about 150 revolutions in the minute. They were designed especially to produce a plentiful but slow current of air. When a shaft is very long and force is required to send the air forward a great distance, as in the ventilation of coal mines, then the Ser ventilator would, with its great centrifugal force, render better service. But at the Sorbonne the object was the reverse—namely, that of moving a large volume of air over a wide space at a slow rate. The power is provided by a gas motor engine of 15 horse-power. As the air enters the underground passages it can be moistened in summer by a spray of water. This spray is produced in the same manner as that which exists at the House of Commons, whence the idea was derived.

When tenders were invited for the ventilation of the Sorbonne, the condition stipulated was that each person should be supplied with 20 cubic metres of air per hour. A well-known firm of French sanitary engineers, Messrs. Geneste and Herscher, were successful in the competition that ensued, and we have seen that the screw fans which they provided, by propelling 60,000 cubic metres of air per hour, supply precisely the 20 cubic metres required for each of the 3000 persons who can be seated in the amphitheatre. But with mechanical force it is easy enough to give any amount of air; the difficulty is to ensure its even distribution, and this in so slow and gradual a manner as to be imperceptible. To moderate the current, the air inlets, which are cut out in the floor under every seat, are covered over with two perforated iron plates, placed about an inch one above the other. The perforations in the plates are very small namely, four millimetres in diameter. These iron perforated plates measure about 8 in. by 14 in., but the total useful surface for air inlet amounts throughout the whole amphitheatre to 80 metres square. The rapidity at which the air enters is equal to 25 centimetres per second. The outlets measure in all 45 metres square; they are situated in the roof of the hall and under the galleries. Here the air passes out at the rate of 50 centimetres per second. Gas-burners help to draw upwards the vitiated air till it reaches the final outlet shaft, which measures 14 metres square; and in this shaft the air travels at the rate of 1 metre 20 centimetres per second. It has not been found necessary to place an exhaust fan in this outlet shaft; the air, being warm and forced in from below, naturally goes upwards.

Thus we find realised at the Sorbonne what had already been done at the Vienna Opera House. In the screw fans and the 15 horse-power engine are the mechanical means of providing with mathematical exactitude the amount of air required. Then there is the large mixing chamber, where, by means of nicely adjusted valves, the attendants can regulate the inlet of hot air and of cold air so as to make an atmosphere which they generally warm to 65° F. The inlets are so numerous and large that the air can only travel through them slowly, and, being subdivided by the minute perforations in the iron plates placed over the inlets, occasions no draught. All this, we repeat, is a copy of what we have seen at Vienna; but Messrs. Geneste and Herscher were determined to go a step further, and attempt to realise for the Sorbonne M. Émile Trélat's highest conception of good ventilation.

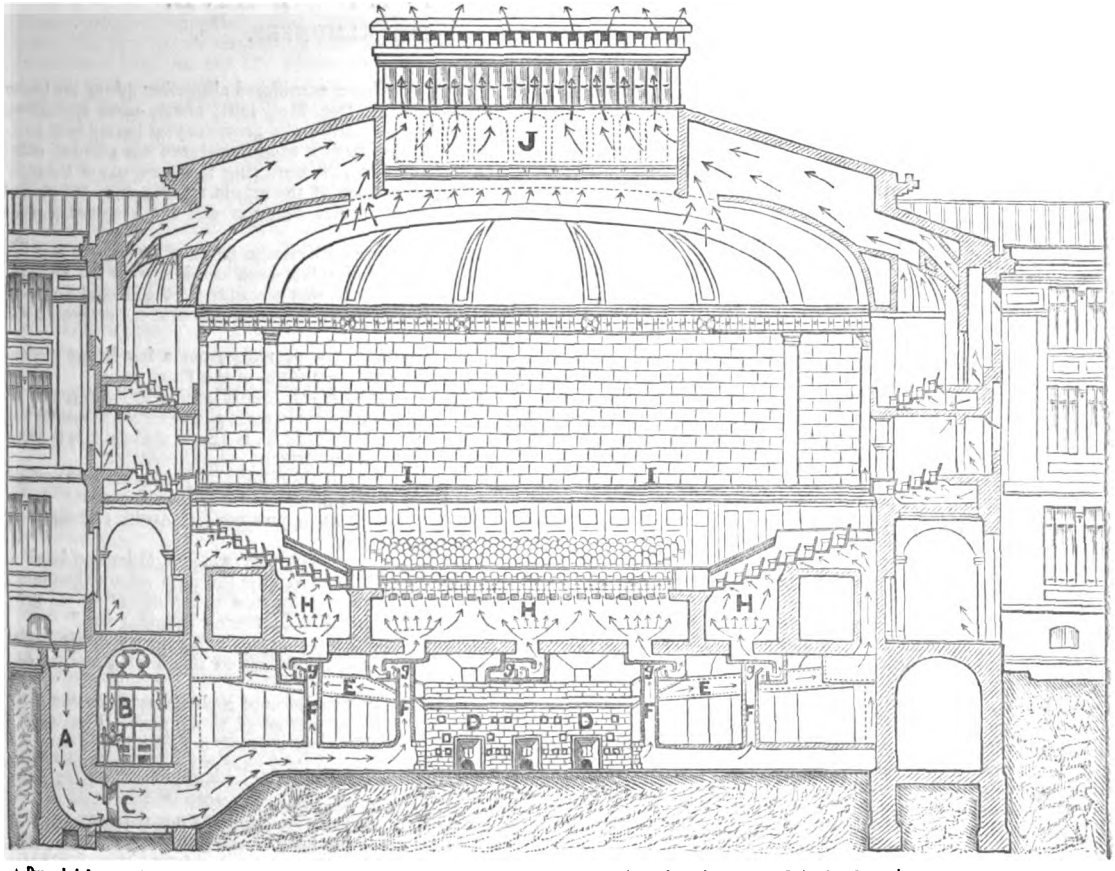
M. Trélat's ideal of well-being is a fine autumnal day, when the air is cold and crisp, but the rays of the sun are still warm. The colder the air, the greater the internal oxidation in breathing, and therefore the greater the internal warmth. If while breathing cold air the body can be preserved from external cold by the radiation of heat from the sun or other sources, then the most healthy and the most enjoyable state of physical existence results. We know that the atmosphere takes up little or none of the heat that passes through it by radiation. To realise this ideal the walls surrounding the amphitheatre are hollowed, and inside there is a canalisation by which heat can be imparted to the substance of which they are built. Also the flat wall facing the amphitheatre, by reason of its size and the coldness of the stones with which it is built, would chill the air in the body of the hall and determine a down current. This would strike the heads of the professors sitting on the platform. To obviate such a danger, at a height of about ten feet above the platform, and for the whole length of the wall, there is an emission of especially heated air, which counteracts the down current and the chill created by this broad surface of cold wall. Thus the cold produced by the material of the building itself is neutralised. This is not all. Though, as already explained, there are ample means of providing warmed air throughout the whole of the amphitheatre, it can also be ventilated with cold external air in the midst of radiated heat. To secure this imitation of M. Trélat's ideal autumnal, cold, bright, sunny day, the air-mixing chambers of the amphitheatre are closed about an hour before the public are admitted. The batteries in the heating furnace are raised to about 300° to 400° C. The air passing over these very hot warming batteries is allowed to escape up all the hot air shafts built inside the walls of the amphitheatre. It enters the amphitheatre by the openings such as that situated ten feet above the platform, and travels upwards along the cold surface of the walls, which are soon warmed. As this is proceeding the air in the mixing chamber, by its proximity with the furnace that is in the chamber below, becomes slightly warmed. It therefore expands and travels

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upwards through the multitudinous openings into the body of the hall. In a very short time the temperature of the whole amphitheatre is raised to about 160° F. The place is therefore absolutely untenantable. The walls, the furniture, everything in the amphitheatre is thoroughly heated, and soon absorbs and husbands a large stock of caloric. Then about a quarter of an hour before the public are admitted all the hot-air supply is cut off, and the warming of the amphitheatre entirely stopped. The air-propelling screw fans are now set in motion. They pump into the amphitheatre pure cold air from the street. The overheated air is soon driven out, and by the time the public enter they find in the amphitheatre exactly similar air to that they were breathing in the street. This air has not been warmed or mixed with warmed air in any way; it is a pure and, so to speak, an unadulterated out-of-door atmosphere. But through this cold air is radiated the heat given off by the hot walls and furniture of the amphitheatre. Also the cold incoming air as it strikes the hot walls is warmed. It therefore becomes lighter, expands, and travels upwards towards the outlets in the ceiling. If, on the contrary, as is usually the case, the walls were cold and the incoming air was warmed, then the air on striking the walls would be cooled, would condense, would become heavier, and therefore would fall as a cold draught on the heads of the people below. The walls of the amphitheatre retain their heat for a few hours; that is long enough for the ordinary meetings held in this magnificent assembly hall. Thus the Sorbonne amphitheatre can be warmed and ventilated as is the Vienna Opera House, with a carefully prepared mixture of hot and cold air; it may be ventilated with pure cold outside air, and warmed by radiation from its heated walls, or the two systems may be combined if desired.

There is something especially fitting in the fact that this, the great centre, where honours and rewards are distributed to those who have distinguished themselves in learning and science, should in itself be an example of what science can achieve for the comfort and health of the audiences privileged to assist at any of the meetings held in this amphitheatre. At the Sorbonne will be crowned the laureates of the Paris University, but crowns should also be reserved for those who have made its amphitheatre an example to the world of what can be done to secure the due observation of Nature's laws by continuing the provision of pure air, even when 3000 persons have to assemble under one roof and in one single hall.

THE NEW SORBONNE, PARIS.



A, Pure air inlet. B, Engine house. C, Inlet ventilating fan. D, Furnace for warming the air. E E, Hot air shaft. F F F F, Cold air shafts. g g g g, Valve regulating amount of cold air, which here joins the hot air shaft. H H H, Hot and cold air mixing chambers. I I, Hot air pipe to counteract cold down draught caused by the wall. J, Burners above glass reflecting roof, serving to light the amphitheatre and draw off the foul air.

NEW INFIRMARY BUILDINGS, ST. OLAVE'S UNION.—Recently the opening ceremony took place of the new pavilions at the infirmary, Lower-road, Rotherhithe. They have been erected by the guardians of the poor of the St. Olave's Union, and will provide room for 280 beds, raising the total accommodation to 650 beds. The outlay has amounted to about £36,000.

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BROWN *v.* DUKES AND CARPENTER.

AT a special meeting of the members of the Croydon Medical Reading Society, held Dec. 22nd, at the house of Mr. Richardson, the following resolutions were passed unanimously:—1. That steps be taken to raise a fund towards defraying the expenses incurred by Drs. Duke and Carpenter in defending the action Brown *versus* Dukes and Another." (2) That Dr. Coles, George-street, Croydon, be requested to act as treasurer of the fund, and that Mr. Richardson, 87, London-road, West Croydon, act as secretary. (3) That the secretary be requested to send circulars to all the members of the South-Eastern Branches of the British Medical Association, and other medical men in the district. (4) That the preliminary expenses of soliciting subscriptions be borne by the funds of the Society. (5) That the Editors of THE LANCET and *British Medical Journal* be asked to kindly acknowledge the subscriptions in their columns. The following sums have been promised:—

Dr. Adams	.. ..	£2	2	0	Dr. Morton	£2	2	0
Mr. Horsley	.. ..	2	2	0	Dr. Coles	2	2	0
Mr. Richardson	.. ..	2	2	0	Dr. Duncan	2	2	0
Mr. Wray	.. .. ..	2	2	0	Dr. Philpot	2	2	0
Dr. Barnes	.. .. ..	2	2	0	Dr. Rosser	2	2	0

*** It will be remembered that we have already opened a subscription list on behalf of the defendants in this action, and that a preliminary list of subscribers was published in our issue of Dec. 19th. We shall, however, be pleased to coöperate with the Croydon Society to hand over to Dr. Coles, the treasurer, the sum we have received, and to acknowledge further subscriptions.—ED. L.

THE LANCET RELIEF FUND.

THIRD ANNUAL REPORT OF THE ALMONERS.

THE LANCET Relief Fund, which has for its Almoners the President of the Royal College of Physicians (Sir ANDREW CLARK, Bart., F.R.S.), the President of the Royal College of Surgeons (Mr. THOMAS BRYANT), the President of the General Medical Council (Sir RICHARD QUAIN, Bart., F.R.S.), Mr. THOMAS WAKLEY, F.R.C.S., and Mr. THOMAS WAKLEY, jun., L.R.C.P. Lond., with Sir HENRY PITMAN, M.D. Camb., F.R.C.P., as Honorary Auditor, came into operation on the 1st of February, 1889.

In presenting the third annual report, the Almoners think it well again to direct attention to the objects for which the Fund was established.

For the sustentation of the Fund the sum of at least £300 will be provided every January by the Proprietors of THE LANCET, and administered free of cost, for the purpose of affording immediate pecuniary assistance to registrable medical practitioners, or to the widows or orphans of members of the profession in cases of distress and emergency, by the grant of money by way of loans free of interest, or gifts, as the circumstances of the various cases may require.

When the Fund was inaugurated considerable misapprehension existed as to the precise objects for which it had been established; and, as a result, the majority of the earlier applications, being cases of *chronic* distress, and not coming, therefore, under the designation of *emergency*, could not be entertained. Attention was called to this fact in THE LANCET of Feb. 16th, 1889, in the following words:—

"We are requested by the Almoners to state that, from the character of a number of the applications received, both personally and by letter, for relief, it is evident that in many cases the object for which this Fund has been established is not quite clearly understood; and if relief had been afforded in the cases of those who suffer from chronic distress, the Fund would have been completely exhausted within the first few days of its existence. They would therefore be greatly obliged if those readers of THE LANCET who may be asked to endorse applications would carefully peruse the Application Form and explain the precise object of the Fund to those applicants whose cases do not seem to come within the scope of the purpose for which the Fund has been established, which is to afford prompt aid to registrable medical practitioners, or to the widows or orphans of members of the profession, who, in consequence of the supervention of some unexpected exigency which is not likely to recur, have pressing need of immediate and temporary pecuniary relief," and who, it may once more be pointed out, are likely to be permanently benefited thereby.

The balance in hand at the end of 1890 amounted to the sum of £125 19*s.* 6*d.* On January 1st, 1891, the Proprietors of THE LANCET placed to the credit of the Fund the sum of £300. During the course of the year repayments to the amount of £33 16*s.* 6*d.* have been made. The sum of £289 2*s.* has been granted in relief either by way of loan or of gift, leaving a balance of £170 14*s.*

There have been considered altogether during the twelve months ending Dec. 31st, 1891, twenty-seven applications for relief (the number the previous year having been forty-five). In twenty-two cases assistance was afforded, either as a loan or as a gift, according to the request of the applicant, the amounts of the grants ranging from two guineas (given on a special occasion and for a special purpose) to £25.

In some cases of extreme urgency, as was the case last year, an application has been considered by the Almoners, a grant sanctioned, and a cheque for the amount forwarded to the applicant on the same day that the application was received.

The following are extracts from a few letters received from some of the recipients of the Fund:—

CASE 92.—"Will you kindly express to the Almoners his heartfelt thanks for their great consideration in sending him a gift of £10, for which he is deeply grateful. It is such a comfort to us in our present painful position."

CASE 95.—"I am in receipt of your letter with enclosed cheque for £25, for which I am deeply grateful. It has come to me most opportunely. Again expressing my abiding gratitude."

CASE 99.—"I cannot find words sufficient on behalf of myself and family to express the deep sense of gratitude I feel for your liberal response to my appeal for aid in my present distress. Again sincerely thanking you."

CASE 100.—"I beg to thank you for so kindly lending me £25, which enables me to tide over a pressing difficulty."

CASE 112.—"Your prompt reply to my application to the Almoners was truly a relief to my mind. I was afraid I should lose a chance of earning a livelihood for want of a few pounds. ..... Pray express, on my behalf, more adequately than I can, my appreciation of the kindness shown to me by the Almoners."

CASE 113.—"I beg to sincerely thank the Almoners for their very kind response to my appeal, and to assure them that I shall ever feel grateful to them for the same. I have every reason to hope that the advance made will enable me to hold my ground. Assuring you how deeply I feel your kindness."

CASE 114.—"I am instructed by Dr. —— to express his sincere gratitude for the donation enclosed in your letter of ——. It reached him just in time, as he was totally destitute and actually starving."

CASE 98.—Extract from a letter received on final repayment of an advance: "I can only say that I am very much obliged indeed for the loan, which has been of the greatest use to me."

A resolution was passed at the meeting of the Almoners, expressing their deep regret at the loss the Fund had sustained by the death of Professor Marshall, who was one of the original Almoners of the Fund.

Mr. Edward Davies has been appointed Secretary to the Fund.

(Signed)
ANDREW CLARK, THOMAS WAKLEY,
THOMAS BRYANT, THOMAS WAKLEY, JUN.
RICHARD QUAIN,

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Statement of Accounts for the Year ending Dec. 31st, 1891.

DR.

	£	s.	d.
To Balance at Bank Jan. 1st, 1891	125	19	6
„ Proprietors of THE LANCET	300	0	0
„ Repayment of Loans :—			
Case No. 25 ... ... £5 10 0			
„ 64 ... ... 10 0 0			
„ 98 ... ... 12 0 0			
„ „ 0 1 6			
„ 105 ... ... 1 5 0			
„ 107 ... ... 5 0 0			
	33	16	6
	£459	16	0

CR.

	£	s.	d.	£	s.	d.
By Loans :—						
Case No. 97	10	0	0			
„ 98	12	0	0			
„ 100	25	0	0			
„ 105	20	0	0			
„ 107	25	0	0			
„ 112	5	0	0			
„ 113	10	0	0			
„ 115	10	0	0			
				117	0	0
By Gifts :—						
Case No. 90	5	0	0			
„ 92	10	0	0			
„ 94	5	0	0			
„ 95	25	0	0			
„ 99	15	0	0			
„ 101	10	0	0			
„ 104	15	0	0			
„ 108	10	0	0			
„ 109	25	0	0			
„ 110	2	2	0			
„ 113	15	0	0			
„ 114	10	0	0			
„ 115	15	0	0			
„ 116	10	0	0			
				172	2	0
By Balance at Bank Dec. 31st, 1891				170	14	0
				£459	16	0

I find by the Banker's Book that the actual balance on Jan. 1st, 1891, to the credit of the Fund was £125 19*s.* 6*d.*, to which the sum of £300 was added by the Proprietors of THE LANCET on the same day.

The balance at the Banker's at the present date is the sum of £170 14*s.* I have also checked the receipts for disbursements, and find the above account strictly accurate.

December 24th, 1891. HENRY A. PITMAN, Hon. Auditor.

THE MEDICAL SOCIETIES.

WE much regret that, owing to an unfortunate delay in the post last week, we were compelled to hold over our annual review of the work of the Medical Societies during the past year. In the accompanying short glimpse of the work that has been accomplished we have followed our usual custom, and have selected a few only of the many prominent communications for notice, it being quite impossible to deal with even a majority of them in at all an adequate manner. We may preface our remarks, however, with the assertion that the material produced before the Societies during the past twelve months has been equal in value to that of any previous year. All the old Societies continue to increase in their numbers and to flourish financially, while the last month of the year has given birth to another, which has been christened "The North London Medical and Chirurgical Society." Its chosen place of meeting is the Great Northern Central Hospital, and a considerable accession of members has already justified it in looking forward with confidence to a prosperous and useful career.

We will commence our retrospect with the *Medical Society of London*. The subject of the treatment of chronic disease of the uterine appendages was introduced by Dr. William Duncan in a paper giving notes of thirty consecutive cases treated by abdominal section, and Mr. Alban Doran at the same meeting gave a brief historical view of the whole subject. Dr. Douglas Powell inaugurated a discussion on the subject of angina pectoris, which he held was not such a simple malady as had been thought, and which he classified, according to the symptoms, into four subgroups. Mr. Edmund Owen referred to a case in which he had amputated both breasts simultaneously for cancer, and held that, contrary to the teaching of text-books, bilateral disease should not be considered a bar to operation. An interesting series of cases illustrative of hepatic surgery was communicated by Mr. Knowsley Thornton. Surgeon-Major Keegan of Indore brought forward the results of his experience as to litholapaxy in children, and he tabulated and commented upon the 125 operations which he had performed in males below fifteen years of age. Dr. B. W. Richardson pointed out the various methods of administration of peroxide of hydrogen. Dr. De Havilland Hall read a paper on chronic atrophic rhinitis, discussing fully its etiology and treatment. Mr. Buckston Browne emphasised the importance of the post-prostatic or trigonal pouch in the surgery of vesical calculus, illustrating his remarks by several cases. Dr. G. A. Heron gave his experience of the use of Koch's remedy in lupus vulgaris and in tuberculosis of the lung. Mr. Whitehead brought before the Society a list of 104 cases of entire excision of the tongue carried out by the method he had recommended. Mr. Mansell Moullin advocated the treatment of compound fractures into joints by corrosive sublimate baths. Professor Bahadhadji gave his experience of the treatment of dysentery by simple therapeutic measures. Mr. H. Allingham read a paper on fifty cases of left inguinal colotomy, and remarked on their points of special interest. Dr. Julius Althaus dealt with the pathology of influenza from its neurotic aspect, and Dr. G. H. Savage gave his views on the relationship of this disease to the neuroses. Dr. Burney Yeo enumerated what he considered to be the conditions of cure in consumption. Mr. Richard Davy gave his experience of amputation at the hip-joint, illustrated by ten cases. Dr. Thomas Savill furnished a detailed description of the epidemic skin disease at Paddington Infirmary, and at the last meeting Dr. Ord read a thoughtful paper on the occurrence of cardiac symptoms in conjunction with gastric ulcer.

At the *Royal Medical and Chirurgical Society* cases illustrative of the advance which has been made in dealing surgically with calculous affections of the kidneys were described by Mr. Lucas, Mr. Godlee, and Mr. Turner. Dr. Pye-Smith communicated a paper on the therapeutic value of venesection, in which this practice was held to be useful in meeting certain indications of pathological states, especially in cyanosis from obstruction, the intense pain of aneurysm, and in uræmic and prolonged epileptic convulsions. Sir George Humphry, dealing with the subject of macrodactyly and some other forms of congenital overgrowth in their relation to tumours, held that the process in both was analogous, both being instances of insubordination to the laws of development and growth. Mr. Barwell advocated a method of treatment which he called rachilysis for straightening spinal curves. The curious condition

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known as idio-glossia was illustrated by papers introduced by Dr. Hale White, Mr. Golding-Bird, and Dr. Frederic Taylor. Mr. Lockwood dealt with the subject of the treatment of strangulated hernia when the intestine was gangrenous or ulcerated, and he concluded in favour of primary resection and suture. Mr. John H. Hutchinson discussed the possibility of the poison of measles acting as a cause of endocarditis, but he seemed to think that a rheumatic taint was at the bottom of the cases he quoted. A very suggestive paper from the pen of Mr. Arbuthnot Lane dealt with the subject of chronic traumatic arthritis, which he differentiated from rheumatoid and rheumatic arthritis respectively. Mr. Watson Cheyne gave the results of his investigations into the value of tuberculin in the treatment of surgical tubercular diseases. Mr. Bowlby read a paper on thirteen cases of Paget's disease of the nipple, and he concluded that there was no evidence to support the view that the growths were caused by psorosperms. Dr. Délepine and Mr. Dent gave the result of their researches as to the changes observed in healthy arteries and in tendon ligatures during the first four weeks after ligation. Dr. George Thin and Dr. Wethered communicated a paper on the symptoms and pathology of a case of acute inflammation of the mucous membrane of the ileum from climatic causes. Mr. Raymond Johnson and Dr. G. Murray used a case of limited lesion of certain spinal nerve roots by secondary carcinoma to demonstrate the source of the nerve supply of certain muscles. Dr. A. Haig held that uric acid was an important cause of high arterial tension. Cases illustrative of the infection of the human subject by actinomycosis were brought forward by Dr. W. H. Ransom, Dr. W. B. Ransom, and Mr. A. R. Anderson. Mr. Lawson Tait drew attention to the occurrence of pleural effusion in association with disease of the abdomen. Mr. D'Arcy Power produced an analysis of sixty-three cases of ununited fracture occurring in the long bones of children. He believed that these lesions were more frequent than they formerly were.

At the *Pathological Society* many subjects of great interest were discussed, and we are only able to select a very few of them for remark. Sir Hugh Beevor read a note on media for the cultivation of the tubercle bacillus, demonstrating the wide range of temperature at which these organisms would grow. Dr. S. M. Copeman showed specimens of urine containing hæmato-porphyrin, from cases which the author believed were allied to pernicious anæmia. In connexion with the latter disease Dr. Wm. Hunter had isolated from the urine certain putrefactive alkaloids which he believed were causative of destructive changes in the blood and of inflammatory lesions in the coats of the stomach. Dr. Samuel West described a case of chronic general nodular tuberculosis in which the lesions were of a kind common to some animals. An important communication was made by Professor Crookshank on the morphology, cultivation, and toxic products of the tubercle bacillus. Dr. Job Collins brought forward a case of asymmetrical kidney from atrophy of its fellow, and dwelt on the importance of recognising the occurrence of these cases when nephrectomy was contemplated. Mr. Stephen Paget showed specimens of imperforate anus, and pointed out the frequency with which other malformations were associated with these cases. Mr. Bland Sutton brought forward several specimens illustrative of comparative pathology. He showed a sheep's head with a cervical auricle, and a tooth which had been removed from a persistent second bronchial cleft in a horse. He likewise described an "implantation cyst" removed from an ox. Mr. Howard Marsh exhibited some loose bodies which had come from a knee excised for tubercular disease; and Mr. Bruce Clarke, at the same meeting, showed a piece of cartilage which had been chipped off the patella as the result of an accident. Dr. Galloway read a paper on a well-marked specimen of syringomyelia, and described its minute anatomy. An interesting case of tuberculosis of a tendon-sheath was brought forward by Mr. E. C. Stabb. Mr. Sydney Jones exhibited a specimen of perforation of the gall-bladder from calculi. Mr. William Anderson brought forward a case of fæcal fistula at the umbilicus associated with imperfect development of the large intestine, which terminated in a blind extremity six inches from the ileo cæcal valve. Dr. Albert Wilson gave a paper on the micro-organisms of diphtheria, with experimental results in animals. Mr. W. H. Battle showed specimens of epiphysitis obtained from long bones in infants under one year of age with disease at one or both articular ends. Dr. Voelcker showed specimens illustrating the involvement of the lung by caseous bronchial glands in children; the pulmonary changes in these cases he regarded as secondary. Dr. Délepine showed some cultivations of psorosperms, and stated that he had obtained typical examples from the viscera and skin in various diseases. Messrs. Shattock and Ballance related the negative results they had obtained with psorospermial inoculation of animals. Mr. Clutton exhibited a patient with a median hare-lip. Mr. Charters Symonds exhibited microscopical sections of the callus of simple fractures to demonstrate the process of ossification through cartilage. Mr. Shattock communicated the results of a research on the action of proteus vulgaris and of pyococci on urine. Mr. Bland Sutton accounted for the existence of the mandibular tubercle and cicatrices, drawing his illustrations from both human and comparative sources. Dr. Walter Sibley described the results of his experiments in inoculating tubercle into snakes. A careful description of a case of xanthoma diabeticorum was furnished by Mr. Malcolm Morris and Mr. Clarke. Dr. E. T. Wynne described a series of specimens illustrative of the origin of cysts in pachymeningitis hæmorrhagica; he denied the inflammatory origin of this affection. Dr. Herbert Larder described fully the lesions in a case of leprosy that had been under his care; he regarded the tuberculated and anæsthetic varieties of the disease as essentially similar.

The subject of intussusception was brought before the *Clinical Society* by Dr. Whipham, Mr. Turner, and Mr. Lockwood. Dr. Sidney Phillips dealt with the subject of typhoid fever, fatal at a late period, without intestinal ulceration, and he discussed the clinical signs, which were indicative of the latter complication. Dr. Hale White and Mr. Arbuthnot Lane described a case of stricture of the pylorus following upon hydrochloric acid poisoning, in which a modified Loreta's operation was performed. Cases of excision of the vermiform appendix were brought forward by Mr. Herbert Allingham, Mr. Sutton, and Mr. Andrew Clark, and were followed by an animated debate, in which the success of medical treatment in the early stages of these cases was insisted on. Dr. Gowers read an account of a case of acute atrophic paralysis in which there was a primary multiple neuritis. Mr. Pearce Gould described a peculiar case of symmetrical gangrene of the feet from obliterating disease and thrombosis of the arteries and veins, which he classed with the rare cases of primary arteritis obliterans. Mr. A. T. Norton communicated a case of popliteal aneurysm in a boy of seventeen caused by a femoral exostosis. Cases illustrative of the value of nephrolithotomy in the treatment of calculous nephritis were related by Messrs. Turner, Jacobson, and Pollard. The subject of gastro-jejunostomy was illustrated by a paper from the pen of Mr. W. H. Brown, and by cases exhibited by Mr. Jessett, Dr. Ewart, and Mr. Bennett. Mr. Arbuthnot Lane described the results of two cases of resection of the intestine by Senn's method. Mr. Charters Symonds related instances in which sequestra were removed from the neck of the femur without injury to the joint. Dr. Maclagan narrated cases of peripheral neuritis in which the nerve lesion was followed by changes in the joints of the knuckles and fingers. Dr. Handford, using a case of gastrostomy, was able to make experimental investigation of the movements and contents of the stomach. Mr. A. Lane read the notes of eleven cases of laminectomy which he had performed for compression paraplegia resulting from spinal caries. Dr. Churton, in a case of hæmorrhagic pericarditis, had attained a successful result by repeated aspiration. Dr. Lee Dickinson and Dr. Fyffe drew attention to the subject of albumosuria. Dr. Pye-Smith gave the details of a case of mycosis fungoides in which there was a secondary visceral growth simulating sarcoma. The clinical significance of rapid heart was discussed, the subject being introduced by Dr. Buckland, with an illustrative case.

Among other communications of interest to various Societies were the following:—Dr. Playfair, in a paper on the removal of the uterine appendages in cases of functional neurosis, held that the procedure was not justifiable in cases of pure neurosis, was not to be recommended in hystero-epilepsy or hystero-mania, and that, if structural disease of the appendages co-existed, the neurosis should be treated first in the hope that operation may be avoided. Dr. Herbert Spencer gave a valuable contribution to the study of the causation of still-birth, relating the results of 130 necropsies and pointing out the frequency of visceral hæmorrhage. Dr. F. J. McCann described six cases of chorea gravidarum, and gave an account of

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the modifications of that disease during pregnancy. Dr. Herman discussed the relation between backward displacement of the uterus and sterility and abortion. Mr. W. A. Brailey read a paper on some points of the development of cataract, giving the results of analysis of a large number of cases. Miners' nystagmus among the South Wales colliers was discussed by Mr. Tatham Thompson, who considered that visual strain with insufficient illumination was as great a causative factor as strain of the ocular muscles, and that errors of refraction were predisposing causes. Mr. Treacher Collins made some very valuable observations on the glands of the ciliary body in the human eye. He had prepared his sections by bleaching them with chlorine. Mr. Richard Williams read a description of an interesting case of arterio-venous aneurysm of the orbit. Dr. Mules described the formation and pathology of pyramidal and central anterior capsular cataracts. Dr. Bronner gave notes of fifty cases of strabismus trea ed by advancement of a rectus muscle according to the method advocated by Schweigger. Mr. Kenneth Scott found that perchloride of mercury was of value in the curative treatment of trachoma and other conjunctival diseases. Dr. Beevor and Mr. Horsley related a case of traumatic abscess of the left angular gyrus, with right hemianopsia and word blindness, which was treated by operation. Dr. Edward F. Willoughby compiled a retrospect of the successive epidemics of cholera in Europe and America from 1830 to 1890. Dr. Dreschfeld described a case of acute lympho-sarcomatosis in which the course of the disease was very rapid and the blood appeared to be flooded with cells like those seen in lympho-sarcoma. Dr. Buxall emphasised, by means of an illustrative case, the fact that sepsis could occur after childbirth without fetor. Dr. Bewley read a statistical paper on the diagnostic significance of venous hum in the neck, in which he confirmed the conclusions previously arrived at by Apetz. Dr. Woodhead dealt with the question of the relation of modification of function of micro-organisms to the virulence and spread of specific infective diseases. Dr. Campbell Munro produced an epidemiological study of measles. Dr. M. A. Boyd, discussing the etiology of Cheyne Stokes respiration, reviewed all the physiological explanations of this phenomenon offered by writers on the subject since Stokes' time to the present day. Sir William Stokes gave his valuable experience of operations on the thyroid gland. Dr. Hingston Fox introduced for discussion the subject of albuminuria in relation to life assurance. The President of the Royal Academy of Medicine of Ireland introduced a valuable discussion before that body on the operative treatment of uterine cancer. Dr. Leith Napier, discussing the subject of the treatment of habitual abortion, urged the value of local measures, together with the prolonged exhibition of mercury. Mr. Bryant, in his capacity of outgoing President of the Harveian Society, delivered an able address on the treatment of internal intestinal strangulation and obstruction. The subject of the present position of disinfection was ably discussed by Mr. Wynter Blyth. Sir Charles Cameron drew attention to cases of illness caused apparently by eating aniline-coloured sweetmeats. Fuchsine was the dye used, and the author thought that it might be toxic even when free from arsenic. Dr. Louis Parkes read a very suggestive paper on the relations of saprophytic to parasitic micro-organisms. Dr. E. S. Reynolds related an instance of so-called spontaneous combustion, and classified all the reported cases. Dr. Hellier advocated abdominal section for pelvic abscess, where there was no pointing obvious in rectum, vagina, or groin.

Many discussions on the value of the "Koch" treatment for tuberculosis took place both in London and in the provinces, and a large number of cases that had been under treatment were shown. The "clinical evenings," as heretofore, have been an unqualified success, and the meetings devoted especially to discussions have been very fully attended.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 3794 births and 4106 deaths were registered during the week ending Dec. 26th. The annual rate of mortality in these towns, which had declined in the preceding three weeks from 22·6 to 19·1 per 1000, rose again to 22·8 last week. The rate was 21·9 in London and 23·5 in the twenty-seven provincial towns. During the first twelve weeks of the current quarter the death-rate in the twenty-eight towns averaged 19·9 per 1000, and was 1·5 below the mean rate in the corresponding periods of the ten years 1881–90. The lowest rates in these towns last week were 13·2 in Leicester, 16·4 in Huddersfield, 16·5 in Birmingham, and 16·9 in Hull; the highest rates were 27·0 in Sunderland, 27·1 in Manchester, 28·1 in Liverpool, and 45·1 in Newcastle upon-Tyne. The deaths referred to the principal zymotic diseases, which had declined in the preceding three weeks from 477 to 395, rose again last week to 461; they included 170 from measles, 167 from whooping-cough, 39 from scarlet fever, 34 from diphtheria, 26 from "fever" (principally enteric), 25 from diarrhœa, and not one from small-pox. No fatal case of any of these diseases was registered in Brighton or in Halifax; in the other towns the lowest zymotic death-rates were recorded in Portsmouth, Bristol, and Hull; and the highest rates in Bolton, Manchester, Liverpool, Wolverhampton, and Newcastle-upon-Tyne. The greatest mortality from measles occurred in Derby, Manchester, Sunderland, Wolverhampton, Newcastle-upon-Tyne, and Cardiff; from scarlet fever in Huddersfield; from whooping-cough in London, Manchester, Wolverhampton, Blackburn, Bolton, and Newcastle-upon-Tyne; and from diarrhœa in Preston. The mortality from "fever" showed no marked excess in any of the twenty-eight towns. The 34 deaths from diphtheria included 20 in London, 4 in Liverpool, 2 in Manchester, and 2 in Newcastle-upon-Tyne. No fatal case of small-pox was registered in any of the twenty-eight large towns; one small-pox patient was under treatment on Saturday last in the Metropolitan Asylum Hospital at Dartford, but not one in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1465, against numbers declining from 1554 to 1489 at the end of the preceding three weeks; 90 new cases were admitted during the week, against 137 and 109 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding three weeks from 449 to 337, rose again last week to 553, and exceeded by 51 the corrected average. The causes of 92, or 2·2 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Leicester, Newcastle-upon-Tyne, Cardiff, and in four other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Halifax, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the preceding three weeks from 32·2 to 26·0 per 1000, rose again to 27·1 during the week ending Dec. 26th, and exceeded by 4·3 the mean rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 22·0 in Perth and 23·0 in Leith to 29·6 in Paisley and 30·6 in Aberdeen. The 698 deaths in these towns showed an increase of 29 upon the number in the preceding week, and included 16 which were referred to whooping-cough, 11 to diarrhœa, 5 to measles, 4 to scarlet fever, 4 to diphtheria, 1 to "fever," and not one to small-pox. In all, 41 deaths resulted from these principal zymotic diseases, against 59 and 50 in the preceding two weeks. These 41 deaths were equal to an annual rate of 1·6 per 1000, which was 1·0 below the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 18 and 12 in the preceding two weeks, rose again last week to 16, of which 5 occurred in Glasgow and 4 in Aberdeen. The 11 deaths from diarrhœa corresponded with the number in the previous week, and included 4 in Dundee, 3 in Glasgow, and 3 in Edinburgh. The 5 fatal cases of measles were all recorded in Glasgow. The deaths from scarlet fever, which had steadily increased in the preceding four weeks from 4 to 11, declined again to 4 last week, of which 2 occurred in Edinburgh. The 4 fatal cases of diphtheria corresponded with the number in the previous week, and included 3 in Glasgow. The deaths referred to diseases of the respiratory

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organs in these towns, which had declined from 331 to 246 in the preceding three weeks, rose again last week to 254, and exceeded by 72 the number in the corresponding week of last year. The causes of 64, or more than 9 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 25·2 and 33·9 per 1000 in the preceding two weeks, declined again to 29·1 during the week ending Dec. 26th. During the past twelve weeks of the current quarter the death-rate in the city averaged 28·5 per 1000, against 18·7 in London and 25·8 in Edinburgh. The 194 deaths in Dublin during the week under notice showed a decline of 32 from the number in the previous week, and included 9 which were referred to different forms of "fever," 5 to whooping-cough, 2 to diarrhœa, and not one either to small-pox, measles, scarlet fever, or diphtheria. In all, 16 deaths resulted from these principal zymotic diseases, equal to an annual rate of 2·4 per 1000, the rate during the same period being 2·9 in London and 1·4 in Edinburgh. The fatal cases of "fever," which had been 11 and 7 in the preceding two weeks, rose again to 9 last week. The deaths referred to whooping-cough, which had increased from 2 to 4 in the previous three weeks, further rose to 5 last week. The 2 fatal cases of diarrhœa were below those recorded in any recent week. The 194 deaths registered in Dublin included 31 of infants under one year of age, and 57 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked decline from the numbers in the preceding week. Three inquest cases and 2 deaths from violence were registered; and 62, or nearly a third, of the deaths occurred in public institutions. The causes of 18, or more than 9 per cent., of the deaths in the city were not certified.

Correspondence.

"Audi alteram partem."

SHAKESPEARE'S DEATH.

To the Editors of THE LANCET.

SIRS,—Although a little belated, I would fain make, with your permission, some remarks on the recently revived speculations as to the mode of death of one of the world's greatest men. For every intelligent lover of English literature, or even for every admirer simply of Shakespeare himself, the question of the dramatist's early death must ever have a keen though regretful interest. And it is little wonder that the modern spirit of scientific medicine should specially seek to utilise the results of accumulated research and observation in trying to explain the hitherto death-mystery of Shakespeare. But here we are face to face with a deplorable illustration of the saying that "the world knows little of its greatest men"; and as to the cause of Shakespeare's death we do not know, and are not likely ever to know, anything at all. For absolutely the only thread of information as yet known to exist, from which to weave any reasonable hypothesis, is unfortunately so slender and trashy as to be utterly worthless. The Rev. John Ward, Vicar of Stratford, as was not uncommon in those days, seems to have acquired a smattering of medical knowledge sufficient to induce the bishop of his diocese to grant him also a licence to practise medicine; and this clerical dabbler in physic and gossip, this "chronicler of small beer," close on half a century after the poet's death, resolved to immortalise himself by associating his name with Shakespeare's and giving to posterity some "facts" about the great Stratford man's history. These statements are embodied in his "Diary" under date 1662—a chronicle, no doubt, composed of a "halfpennyworth" of truth to an "intolerable deal" of gossip. The "facts" which he gravely records concerning Shakespeare's life are known to be very wide of the truth, and mere popular garbage; and the account of his death has on it the stamp of the same base coinage. He evidently knew nothing definite about the poet, his life, his works, his real nature and character, or his death. Indeed, the discerning student of Shakespeare has to-day a much better knowledge of the man Shakespeare, from his works and some authentic records, than Ward could have had. And, in my opinion, it is unquestionable that, after an appreciative and careful study of Shakespeare's whole works, no one can willingly entertain the suggestion that this man of noble mind and well-balanced character, of whom it might be said in his own words—

> "His life was gentle; and the elements
> So mix'd in him, that Nature might stand up
> And say to all the world, 'This was a man'";

who to the sanest sense and practical knowledge of the world and of the human heart united the first intuitions of the imaginative faculty and a profound respect for moral dignity; who, after twenty years of most copious literary production of such high quality, which scarcely can be reconciled with much dissipation, had retired to his own property in his native town to enjoy a life of refined leisure and some social dignity, and where, it is certainly ascertained, he was greatly respected and honoured: that this man, on the occasion of entertaining two of his oldest and most cherished friends, should give himself over to a drinking bout and guzzle himself into a "fever." The Rev. John Ward could not have held Shakespeare's memory in very high respect to accept and record for truth the vulgar slander of prejudiced ignorance and popular chatter; and it is highly probable that he did not, for the stage had little mercy shown it in those days, especially by the Church, and he would know little and care less about the playwright, his reputation, or his writings. From the tenor of the testimonies, on the other hand, paid to Shakespeare by some of his contemporaries, it may reasonably be inferred that among a set of convivial actors and dramatic authors he himself was at least comparatively temperate. And, moreover, at the time of his death he was surrounded domestically by a religious and even puritanic atmosphere, which would hardly be compatible with indecent conviviality in his own house. With your own remark that he himself in his writings lends some plausibility to the story I can scarcely agree; for it is one thing to be a creator of characters and a close observer of men, using material as an artist for true and realistic human effects, and quite another to be the character delineated. And it must be remembered that he has a Cassio as well as a Falstaff, a Prospero as well as a Caliban. The visit of Ben Jonson and Michael Drayton may be accepted as very probable, and by no means the first or only one, if unfortunately the last; and it is quite possible they may have had a "merry meeting" and taken too much. But they did not take "fever," which was "there contracted" by Shakespeare. On the whole, this debauch incident must be entirely abandoned as totally improbable, untrustworthy, and unsupported. And yet your smart American writer—for smart he certainly is—largely founds his theory on the "deep intoxication" of Shakespeare as exposing him to a chill which leads on to pneumo-paresis. This "fundamental fact" must be regarded as having no foundation in fact. Your judicial Daniel has even improved upon Ward, who says nothing of "deep intoxication," and he has also taken for granted what is not stated, that the illness was a very short and rapid one. It must, however, be admitted that three months before his death the poet commenced his will with the words: "I, William Shackspear, of Stratford-upon-Avon, in the county of Warwick, gent., in perfect health and memory (God be praysed!)"; but two months later, that is in March, he attested the will with his signatures, and these certainly show much shakiness, as if some illness were already telling on his strength. And although a large proportion of deaths in the end of April of people of fifty years of age may be caused by respiratory mischief, there were many other things a man of fifty might have died of in a low-lying midland county in the early years of the seventeenth century, and just on the eve of May-day. Drayton was a year older than Shakespeare, and Jonson but ten years younger; and yet these good fellows both lived on for many years afterwards free from pneumo-paresis. It was not rare in a low-lying, sheltered place like Stratford, on the lush, level banks of a river, to have a course of warm, moist weather in late spring; and there appears to have occurred early in that spring, what was not unusual after the winter, an inundation of the river Avon. To the dwellers in Stratford, therefore, with its imperfect drainage, impure water-supply, and defective

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sanitation generally, such a condition of things and combination of evil influences were surely not much less perilous than a sudden change of temperature or an east wind. And there is no certainty that Warwickshire was specially exposed to east winds in the end of April. Chaucer writes:—

"When that Aprile with his showres sote
The droughts of March hath perced to the rote,

When Zephyrus eek with his swete breth."

Besides, Dr. Hall mentions in his "Select Observations," published by Cooke, that the very year after his illustrious father-in-law died a "new fever" was raging in the town, and might possibly have begun in the place the year before; for it is matter of unspeakable regret that the notes of this physician begin most tantalisingly in the year after Shakespeare's death. What this "new fever" was—whether typhoid, epidemic pneumonia, influenza, or some modified phase of malarial or rheumatic fever—it is impossible to say from the evidence at command.

The only other link in the chain of this "drunk and dying" theory is that of the look of "ineffable sadness" which has been detected in the bust of the poet. Whoever discovered this melancholic aspect of the Stratford bust before? And even if it were found to exist, would it be exceptionally wonderful, rare, or strange, or necessarily suggestive of death from pneumonia? There is no doubt whatever that the author of "Hamlet" during his lifetime bore many a time and oft a look of "ineffable sadness" in his noble face without suffering from pneumonia. And I have certainly never known a physician who could diagnose death from pneumo-paresis by looking at the expression on the face of a cadaver; such quick-sighted divination has but rarely reached the schools as yet, and must be limited to a very few specially gifted medical seers. And surely pneumonia is not the only cause of a look of sadness in dead faces. The eyes have a trick of seeing what the mind is wishful to see; and the primitive makers of the original cast and the humble sculptor of the Stratford bust copied from it, could not have dared to hope that the double operation would result in such perfect and minutely accurate work as your American writer supposes he has found it to be. Altogether, this point of the pneumonic physiognomy, true to a certain extent as it may be, which has been gathered from a probably imperfect, though generally reliable, bit of sculpture, is much too refined, artificial, and forced for ordinary mortals. I am pretty sure that, like the "deep intoxication," it has no real existence.

I cannot see, therefore, that the writer in the New York *Medical Record* has at all made out his case, however ingenious his hypothesis may be. It is quite possible that Shakespeare died of pneumonia, just as it is equally possible that he may have died of typhoid fever, rheumatic fever, bronchitis, influenza, or malarial poisoning of some kind, for we have no idea whatever as to the length of his illness. Instead of a "jury of the present day," provided they had an intelligent acquaintance with the poet's character and works, reasonably finding a verdict of "Death from pneumonia," I have no doubt whatever, if the evidence were fully given and severely examined, that their verdict would still be "Cause of death unknown." I have merely to add that your correspondent Mr. Foy, who, like myself, disagrees with the new suggestion, though for a somewhat different and, in my opinion, erroneous reason, has not been altogether accurate in his statements. He mentions that the period covered by Ward's diary, 1648 to 1679, was that "in which Shakespeare enjoyed his leisure and died;" while of course the fact is that that period was from 1613 to 1616. And again, instead of Dr. Hall being an "important witness," as he might well have been, it is a pre-eminently lamentable fact that he is silent about the illness and death of his now world-renowned friend and patient. For it cannot be doubted that he was the medical attendant in Shakespeare's last illness. But no hint is to be found in his "Select Observations" bearing on the case of his father-in-law; possibly his notes previous to 1617 have been lost. So that any diagnosis drawn from his notes must be entirely imaginary or a hypothetical inference from some vague facts of the family history. It is true that among the rank-and-file of the profession in those days the term "pleurisy" was employed to designate most forms of inflammatory chest disease; but among the better educated and cultured of the physicians, among whom Dr. Hall has claims to be reckoned, the affection known as "peri-pneumonia" must have been familiar, as it is distinctly recognised, described, and named by the old medical writers who were their authorities. The word "fever" also covered many undiagnosed inflammatory diseases as well as the specific and zymotic ones.

I am, Sirs, yours truly,

D. BEATTIE BAIN, M.D.

Airlie-place, Dundee, Dec. 21st, 1891.

ANTISEPTICS IN OPHTHALMIC SURGERY.

To the Editors of THE LANCET.

SIRS,—In to-day's issue of THE LANCET there appears a letter from Mr. Bullar in which he throws considerable doubt upon the benefits resulting from the use of antiseptics in ophthalmic surgery, and in support of his opinion he refers to an experiment in which, in spite of the use of antiseptics and every care, the rabbit's eye—the subject of his researches—very soon decomposed. But, Sirs, this experiment, to my mind, proves nothing at all; he is dealing with dead matter, tissue absolutely devoid of resisting power through any vitality of its own; and, curiously, he describes this experiment immediately after having mentioned Dubief's interesting paper, in which is demonstrated the practical impossibility of rendering an eye operation aseptic—i.e., that, after repeated washings and treatment with antiseptics, germs capable of multiplying and setting up mischief could still be discovered in the tissues by the microscope. Then what, under such conditions, is it that allows of a successful result in any case? Should they not all fail? Is it not the inherent vitality of the tissues, the superior fighting power of the leucocytes, or other resisting forces, which prevent such a disastrous termination to every operation? But may not antiseptics have something to do with the successful result; may they not act as the skirmishers and sharpshooters in less mimic warfare, crippling the germs and making them very sick, so that they may more readily receive the *coup de grâce* at the hands of the leucocytes &c., or, at any rate, be rendered powerless to make a breech in their opponents' bulwarks? Is it not a fact that both pan-ophthalmitis and plastic iritis—those two bugbears after extraction of cataract, and both, in all probability, septic in origin—are decidedly less frequent than before the use of antiseptics? Do not the records and experience of our metropolitan ophthalmic hospitals, situated as they are in places where germs most do congregate, bear out this statement? I think so. Because many operations are successful, though carried out under other than antiseptic principles, it does not follow that antiseptics are of no use; they may, perhaps, be only really necessary in an odd case or two in which the inherent resisting power of the tissues is not great enough unaided to wage a successful war with their microscopic foes; but as it is impossible to know such cases from others, it behoves us to treat all with equal care, then we can have nothing to reproach ourselves with. Even a good swimmer would not feel any the less secure in either smooth or rough water with a reliable swimming belt round his chest.

I am, Sirs, yours faithfully,

S. JOHNSON TAYLOR, M.B., M.R.C.S.

Prince of Wales-road, Norwich, Dec. 19th, 1891.

"ACUTE RHEUMATISM AND THE TEMPORO-MAXILLARY JOINT."

To the Editors of THE LANCET.

SIRS,—In reply to Mr. Lane's letter in your issue of to-day, I would say that when I exposed (what I represented to be) his premisses and upset his conclusions, I did not, as he suggests, do it unintentionally. To misstate an opponent's argument is bad, but to misquote his statements is worse, and Mr. Lane has twice been guilty of this offence; in his first extract from my letter he writes "and *even* with rheumatic arthritis" instead of "and *never* &c." This, though, may be a clerical error, and as such I leave it; but when in his next quotation he writes, "why should that joint be affected alone" instead of "why should that joint *never* be affected alone" there can, it is plain from the context, be no such error as I have supposed above. I feel too that he

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must have read my letter so carelessly as almost to justify me in not replying, for not only does he quote the sentence wrong, but he makes it refer to rheumatoid arthritis instead of acute rheumatism, as in the original it most clearly does. This correction is sufficient answer to that part of the letter following and founded on the above misstatement. I fear I am intensely dull, but I cannot grasp the line of reasoning as to comparative and complete degrees of tendency to affection of certain joints. If my logic was "pre-Baconian," Mr. Lane's may be termed ultra-Baconian. That I have misstated Mr. Lane's argument I quite deny. I repeat that in his first letter he practically said "that because the temporo-maxillary joint is often affected with rheumatoid arthritis, and never with rheumatic arthritis, therefore it alone can never be affected with acute rheumatism." For he wrote: "The *only* [the italics are mine] connexion which is in my mind allowable is between affection of this joint and rheumatic arthritis." The only proof he adduces in support is the subsequent part of his letter, where he states that according to his observation the temporo-maxillary joint never is affected with rheumatic arthritis, and that it is very frequently the seat of rheumatoid arthritis—so often, in fact, that "the disease may be diagnosed with comparative safety by terming it rheumatoid arthritis should the temporo-maxillary joint be at all affected." I first wrote pointing out that I thought your correspondent had not sufficient grounds to upset Dr. Gallipe's diagnosis, as the statements in his first letter were all he brought forward to support his contention, and as there was evidence in Dr. Gallipe's report against rheumatoid arthritis and in favour of acute rheumatism, I can only repeat what I first said. In answer to Mr. Lane's last paragraph, his letter is certainly quite "enough," though not right enough, to show me any chimera of my own creation.—I am, Sirs, your obedient servant,

Freshford, Dec. 26th, 1891. CHARLES E. S. FLEMMING.

To the Editors of THE LANCET.

SIRS,—Apropos of some recent communications in your widely read journal on the above subject—Oct. 24th and Nov. 14th, 1891,—I would like to add the following peculiar case, also some few remarks and deductions from some recent experience, to me appearing to add weight to the microbic theory of the origin of the disease. A sailor, aged twenty-seven, employed as a guard over unruly and incorrigible apprentices, was suddenly taken ill in the night with shiverings and general pains. He presented himself for treatment on the following morning. He had only a moderately high temperature (101·5°), complained of pains in his back, neck, and principally in his jaws. Upon examination the temporo-maxillary joint was very tender, swollen, and mastication or movement of the jaws was impossible. He was known to be living under insanitary conditions most of the time, and there was suspected serious disease, possibly tetanus. He was isolated and placed under conditions of extreme quiet and careful management. On the third day the joints of the lower extremities manifestly became involved, the jaws could be opened slightly, and as no spasm of muscle or nervous phenomena occurred, the case was recorded as one of ordinary acute rheumatism and treated accordingly. It was next discovered that the patient had gonorrhœa, and the affection was thus finally placed in its proper category. It went on for a month, as a more or less painful inflammatory and septic affection of the ligamentous tissues of the body. The temporo-maxillary joint and contiguous structures, the hip and knee-joints, caused most anxiety and pain, and in the order named. The temperature averaged 102°, with a daily evening rise; the perspirations were constant; the urine not changed beyond being concentrated; and the pains exquisite, and requiring large amounts of narcotics and anodynes to keep him from crying out constantly. He was treated with alkalies, salicylates, quinine, and hot baths, the urethritis receiving proper attention. After using large doses of morphia, bromides, chloral, &c., with only partial success, to relieve his acute sufferings, we found that by using the ext. cannabis indica, in half-grain doses, for several hours, and at sundown a full dose of sulphonal in a large draught of hot water, painless sleep was procured. Now this was a case produced by an antecedent specific urethritis without a doubt. I have seen many cases of what we call "gonorrhœal rheumatism," but not one with such peculiar temporo-maxillary initiatory pronounced symptoms simulating a tetanoid condition of the neck and jaws. From some acute rheumatisms in my experience, not connected with gonorrhœa, but following an ulcerated tonsillar condition, I am inclined to believe that this disease is a septic or toxic infection pure and simple, and may be in the great majority of instances so demonstrated satisfactorily. When once these structures and tissues become disordered—the fibrous tissue—the liability to future exacerbations remains. This liability is most pronounced when the disease follows a specific urethritis. The cases following ulcerated tonsils showed not much fever or general articular lesion beyond moderate swelling, pain, and for short periods of time; and the symptoms were promptly controlled. The striking point, and a most serious element in the prognosis in these cases, is the strong tendency to lesion of the cardiac valves, notwithstanding every precaution employed. Whether a patient with vulnerable tonsils is also vulnerable at the cardiac valves is of importance, but I have been struck with these cases of moderately severe acute rheumatism following ulceration of these glands in the throat, and the sequence of disease of the heart valves.

In the contention whether acute rheumatism is or is not a germ disease, or, in other words, of microbic origin, the study of such variations in the course of the disease, when apparently following, and a sequence of, purulent inflammation of a mucous membrane, is of valuable interest and importance. It is not probable, if I may hazard the thought, that a single species of bacterium is the sole cause; or that all subjects are equally susceptible to the pathogenetic influence or toxicity of the pus organisms, or of an as yet unknown micro-organism, acting singly or in association; yet that the toxic influence is evolved during such suppurative inflammation of mucous membrane and glandular tissue, in which the well-known pus organisms chiefly figure, is in my observation a strong probability.

I am, Sirs, yours truly,

C. A. SIEGFRIED,

Newport R.I., U.S. America, Dec., 1891. Surgeon U.S. Navy.

CURIOUS ACCIDENT: A WARNING TO PRACTITIONERS

To the Editors of THE LANCET.

SIRS,—On the evening of the 27th ult., when about to examine an infant's chest with my binaural stethoscope, unobserved by me the left ivory ear-piece dropped off. I let the instrument go into the ear in the usual way, and the spring being somewhat strong, the uncovered end pierced my membrana tympani with a fearful crash. I shall never forget the sensation! For a moment I thought an explosion had taken place, shattering the wall on the left side of me, and for an instant felt stunned. This was followed by nausea. About a teaspoonful of blood flowed from the ear. The next morning Sir W. Dalby did me the kindness of inspecting the damaged membrane, endorsing the diagnosis expressed above, and put me on a line of treatment for the injury. Curiously enough, to-day (Dec. 29th) I described the case to a medical friend who had precisely the same accident occur to him, but without such a serious result, and, strange to say, both our stethoscopes were made by the same firm of instrument makers, and the cause of the accident was the same in each—viz., too short a screw fixing the ivory ear-piece on to the metal work. In my instrument there was only one turn and a half of "thread" to the screw, which had served well for a time, but in opening the instrument the slight hitch had apparently jerked the ear-piece off, and this falling just as I was about to insert the tube into the ear escaped my notice to my cost. My object in writing this will be obvious to both practitioners and instrument makers, cautioning the one class to look to their fittings and the other to see that their workmen really do their work well. Of your usual kindness in promoting the welfare of the medical profession, both individually and collectively, I am well aware, and on this point of knowledge I beg to trespass on your valuable space in bringing this accident before my medical brethren.

I am, Sirs, yours truly,

London, Dec. 29th, 1891. A GENERAL PRACTITIONER.

THE CORPUS LUTEUM.

To the Editors of THE LANCET.

SIRS,—I do not know whether my friend Dr. Robert Lee will be inclined to place me in the rank as one who has had

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experience of the kind required to justify an expression of opinion upon the much-vexed question of the corpus luteum or not, but I am perfectly confident that I have made sections of more ovaries concerning the actual history of which the facts were known than any man alive. I have only to say that my conclusion long ago made, and confirmed by every investigation which I have made, is that the belief that the corpus luteum is altered in any way by pregnancy, or that there is such a thing as a true corpus luteum or a false corpus luteum in relation to the fact of pregnancy, is one of the most extraordinary crazes which has crept into medical belief, and it has been productive of a very large amount of mischief. It is one of those assertions which has been made in the early investigation of ovular physiology and pathology, based on the assumption that ovulation is a monthly occurrence, and it has been handed down from writer to writer without any kind of substantiating proof, whilst the negative evidence against it is perfectly overwhelming.

I am, Sirs, yours truly,

Birmingham, Dec. 30th, 1891. LAWSON TAIT.

TRAUMATIC HYDRONEPHROSIS.

To the Editors of THE LANCET.

SIRS,—Under the above heading in your issue of Dec. 19th Dr. J. J. Knox describes a very interesting case, and refers to three descriptions of such cases in THE LANCET during the last ten years. If he will refer to the "Mirror" columns of THE LANCET for Sept. 12th, 1891, p. 612, he will find a very similar case recorded by me under the title of "Traumatic Renal Cyst." In that case a boy aged six was struck on the front of the abdomen, and five months later a large swelling was found in the right loin. This remained unaltered for six months, and was then aspirated by Mr. Paul Swain at the South Devon Hospital, Plymouth, an absolute cure resulting from this single tapping. There are two points to which I wish to draw attention—1. The operation performed by Dr. J. J. Knox. In a case where the history and symptoms so clearly pointed to the tumour being a fluid cyst due to contusion of the kidney, would it not have been safer first to have attempted to cure the urinary effusion by aspiration, and that failing, by lumbar incision, by which means the cavity is much better drained and the peritoneum not opened? The fact of a single aspiration being sufficient in our case I think proves that this measure in all similar cases should be first resorted to. 2. As to the name of the condition. Nearly if not all these cases of so-called traumatic hydronephrosis are really extravasations of urine around the kidney from a rupture of the kidney involving its pelvis. The urine is therefore behind the peritoneum. The term hydronephrosis ought to be restricted to cases of dilatation of the pelvis and calyces of the kidney due to obstruction to the outflow of the urine. Would it not be better, therefore, to call these traumatic cases by the name "retro-peritoneal extravasation of urine?"

I am, Sirs, yours faithfully,

Dec. 24th, 1891. W. GIFFORD NASH.

THE AFTER-TREATMENT OF PLASTIC OPERATIONS ON THE PERINEUM.

To the Editors of THE LANCET.

SIRS,—Dr. Griffith is undoubtedly right in laying stress on the importance of accurate apposition of the wound surfaces and edges in these operations; but however complete the success of this stage of the operation may be, it cannot protect the wound from the entrance of septic infection if the edges of the wound and the surrounding parts are soiled with decomposing organic matter. Bathing the parts externally cannot protect the wound from the influence of urine within the vagina if it is allowed to get, and to remain, there. It is an almost universal practice to prevent separation of the patient's thighs, while the wound is healing, by passing a binder round the knees. When micturition is performed under these conditions the stream of urine cannot pass away clear of the vulva as it should do, and the vulva and perineum are almost always wet in the act. Placing the patient in the prone position would not cause the urine to pass away clear of the vulva, and would have the disadvantage of risking an undue strain being put upon the wound in turning the patient over and back again. On the other hand, the douche can be administered with no greater disturbance of the patient than is involved in raising the pelvis two or three inches for a moment. The douche has this further advantage in cases of retention, that, acting as a hot antiseptic fomentation to the wound, it at once allays the irritation which, in most cases, is reflexly causing temporary difficulty in relaxing the sphincter of the bladder, and so obviates the necessity for passing a catheter.

I am, Sirs, faithfully yours,

Hanley, Dec. 21st, 1891. ARTHUR E. NEVINS.

INCREASED DIRECT REPRESENTATION.

To the Editors of THE LANCET.

SIRS,—I have just read Dr. Wilks' letter in this week's issue of THE LANCET with much interest. He lays down the fact that the General Medical Council was appointed to supervise medical education and registration, in order that the public might be supplied with "fully educated medical men." This is an undisputed fact. There was another purpose, however, for which the Council was appointed—viz., to watch over the moral character of the registered practitioner, and, if he acted wrongly, to expunge his name from the Register—i.e., they were appointed to maintain a moral as well as an intellectual standard *for the welfare of the public*. How has this work been done? Let us glance for one moment at the present state of the profession. Let us look at the consequences of the small fee system. 1. So many patients have to be seen in order to make a livelihood (self-preservation being the first law of nature) that sufficient time cannot be given to the diagnosis of each individual case. This leads to unsound treatment, or in many cases pure quackery, and the public suffer. 2. Many scientific, highly qualified, and high principled men have been driven out of the profession, in which they found themselves handicapped by their conscience, into some other pursuit, where, in the words of the labour orator, "a fair day's wage is given for a fair day's work." Those who can go, and those who cannot remain, and often are driven by dire necessity to improper conduct. 3. Poorly qualified, or in many cases absolutely unqualified, assistants are doing the work which the authorities and the public fancy is being done by properly trained men. Again the public suffer. These facts are known to every general practitioner in the land.

What is the attitude of the Council? Sir William Turner is reported to have said that "he hoped he should always sympathise with the struggles of those who were beginning professional life; but he entirely failed to see what the hardships and struggles of the poorer members of the profession had to do with this question."[1] Sir Dyce Duckworth is reported thus: "In what direction had the best interest of all parts of the profession been neglected at the Council?"[2] Sir John Simon as follows: "The Council was not called upon in any vague sense to promote the welfare of the profession."[3] Dr. Wilks says in his letter: "Finally, I have not heard one good reason why more general practitioners are required on the Council."

I can only say that the report on the debate in Council of Nov. 26th, 1891, gives one excellent reason—viz., that the representatives of the examining bodies are out of touch not only with the profession, but also with the public, whose interests they were appointed to watch over. The members of Council who spoke referred the direct representatives to Parliament, but there still remains the right of appeal by the practitioners of England to the Privy Council. If either of these courses is forced upon the practitioner, then reform (i.e., restoration of the profession to a state of purity and usefulness) is taken out of the hands of the profession and placed in those of the laity. Surely, this is not a question of slight moment, but is of vital importance to the public weal.

I am, Sirs, yours faithfully,

CHARLES PATTERSON, M.B., M.R.C.S.

City-road, E.C., Dec. 16th, 1891.

[1] THE LANCET, Nov. 28th, p. 1243. [2] Ibid., p. 1244. [3] Ibid., p. 1244.

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THE MEDICAL DEFENCE UNION.

To the Editors of THE LANCET.

SIRS,—The proposed alterations in the articles of the Medical Defence Union are retrograde and revolutionary in character. Although the report of the committee, which prepared the new articles, was on the agenda of the last Council meeting in London, it was withheld at the last moment for some ostensible reason. Hence it becomes necessary for me to appeal to the whole body of members. I shall merely allude to the introduction of a section into the new articles to prevent the annual meeting from petitioning against legislation injurious to the profession, as it did last time, contrary to the wishes of our valued, though somewhat self-opinionated, president. I believe this attempt to restrict the Memorandum of Association to be futile and illegal. The really serious matter, however, is the proposed change in the management of the Union. Hitherto all the officials and the Council have been directly responsible to the Union itself, each individual requiring annual re-election. This self-governing system has worked well and the Union has flourished. Now all this is to be changed. At the next annual meeting twelve members of Council are to be elected, and to them will belong the power of electing all the officials, the president of the Union, and as many vice-presidents as they choose. Nor are the twelve to be responsible to the Union by requiring annual re-election. They are merely to select from their number any three they choose to retire, or stand their chance of re-election. Now, suppose that the Council adopted a policy contrary to the wishes of the Union: an annual meeting could elect three members of Council opposed to such policy; but the Council can neutralise their influence by its election of vice-presidents &c. Briefly, the twelve members of Council elected at the next annual meeting under the new articles will have absolute and practically irresponsible control of the Union. The Council has power to act for the Union, and the acts of the Council are as the acts of the Union. This is a plain statement of facts, and I appeal to the members of the Union to pause before they hand over their powers to any twelve of their number. I believe that such a step will prove disastrous to the Union.—I am, Sirs, yours faithfully,

HUGH WOODS, M.D.,
Vice-President of the Medical Defence Union.

Highgate, Dec. 22nd, 1891.

INFLUENZA.

To the Editors of THE LANCET.

SIRS,—After reading the paper by Dr. Althaus on Grip and the letters of some others on different aspects of the same affection, I am tempted to reiterate the one or two points I ventured to bring forward in my note to you three or four months ago, in which I suggested that for a nervous fever of which the characteristic and diagnostic symptoms are to be found in tracts supplied by the trigeminal nerve, trigeminal fever is a truer and more connotative name than either grip (which is by no means universally descriptive of this disease, and might indeed, with as much or more propriety, be applied to other affections) or influenza (which is confessedly confusing and usurpative). Again, if there be anything in theory of eye infection or in collyrium treatment, then still more fitting becomes this term, "trigeminal fever." The point upon which I desire evidence, with your kind assistance, is the following:—In the few hundred cases seen by me during this present year the one single diagnostic point has been in the upper gum and labial frænum; this, indeed, has seemed as typical and decisive as one symptom can be of one disease. Skeptomai means: "I look that I may see." Surely no man has the right to be sceptical in loose, conventional parlance, unless he be such in derivative sense. Perhaps Dr. Althaus would prefer the term "bulbar fever"; but this implies a theory which, however probable, is not quite proven.—I am, Sirs, yours faithfully,

Hastings, Dec. 14th, 1891. G. HASSALL HUNTLEY.

NEW COTTAGE HOSPITAL AT LEDBURY.—Mr. M. Biddulph, M.P., has presented to the town of Ledbury, in commemoration of the coming of age of his eldest son, Mr. John Biddulph, a cottage hospital, at a total cost of about £3000.

THE ORIGIN AND INSPIRATION OF "THE LANCET."

WE are indebted to an old and esteemed correspondent for the following article, which will, we are sure, be read with interest:—

The condition of the profession of medicine prior to and at the time of the founding of THE LANCET has been much traversed, and writers of the period have pointed out that in the hospitals as well as outside them there existed abuses such as would not be tolerated at the present day. Monopolies, cliques, time-servers, and place-hunters abounded, hindering most egregiously the progress of medicine as a science and the career of the medical student as an individual. Colleges and universities were not much in advance of the average state of matters, and, in some instances, it appeared that the unsatisfactory condition of the body medical was mainly attributable to their conduct. Metropolitan hospitals existed, as they do now, for the benefit of the poorer classes of the community, and collaterally to aid in the acquirement of a sound medical education. But they were practically closed to the medical profession. Men were appointed by influence to important positions in them who had "neither eyes to see, ears to hear, nor tongues to teach." That anyone should enter a hospital for the purpose of making notes of a lecture for publication was considered to be a species of poaching. The "game laws of physic" were as stringent as the laws relating to hunting in the time of William the Conqueror. The lecture was a secret—a mysterious thing of wonderful erudition—to the outside world, and even to many members of the profession. No one benefited from the opportunities of investigating disease clinically save those who were fortunate enough to have obtained one of the hospital appointments, oftentimes through the payment of vast fees to the leading members of the hospital staff. The public had no means of judging whether things were well managed or mismanaged within the walls of these medical sanctuaries. The medical profession was kept profoundly ignorant of what was in progress there. The student was neglected, any clinical instruction worthy of the name had not yet been called into existence, and the medical prescriptions were models of mystery.

This was the condition of matters in the metropolitan hospitals at the time when Napoleon the Great was on the island of St. Helena, a period renowned for the discussion of the question of the liberty of the Press, when Pitt the younger was Premier. It was a period of reformers, though many who began as such turned tail on discovering a policy which paid better. Men were replacing slaves in the colonies, and Cobbet was advocating political reforms at home. At this period a young student from the county of Devon enrolled his name in the archives of St. Thomas's Hospital. His robust appearance, athletic limbs, and general manly bearing, no doubt developed by two years' seafaring life in the Indian merchant service as a midshipman, attracted the attention of some of his teachers, and shortly afterwards became a favourite with the majority of his student colleagues. He was descended from the Celtic stock, the pure old British blood flowed in his veins, and he possessed all the essential qualities of the Celt — fire, impetuosity, strength, that courage which means manhood, the standing up for rights and doing battle in a noble cause. These were some of the qualities which young Wakley brought with him from the country hearth to the hospital on his entrance to the medical profession. His observation was keen, and he was soon speedily and painfully alive to facts of the kind which I have recorded above. He went through the dreary routine of the hospitals and the schools of that period and his spirit was stirred within him as he perceived in all quarters efforts to impart medical knowledge according to methods that a Highland schoolmaster of the last century would have been ashamed of. As

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time went on the abuses to be rectified grew upon his mind with greater and greater intensity. He determined that the abuses so manifest should be rectified if possible. Things medical had come to a critical period. The tension between the various medical bodies was so strong that Mr. Wakley could not fail to observe it, the strong feelings which existed between the more thoughtful of the students and those responsible for the scant and often improper use which was made of the material at their disposal for their instruction, and, above all, the acute condition of matters between hospital teachers and the medical profession generally, started the train of thought which caused the name of this young student in after years to become synonymous with the champion of medical reform. The task he set himself was to remove, if possible, those conditions which had given rise to the high tension in the body medical. It required, he said, treatment similar to that upon which in our forefathers' time the physician relied for the disappearance of those morbid products, or "humours" as they were called, and which often led in the case of disease to complete recovery. Could the body medical be made subject to treatment of this kind. If so, it might be possible to bring about a profound change in the system of things as they then existed. Hence the origin of THE LANCET. This little instrument of steel, which, though now serving for the most part as a decoration for students' pocket-cases, must have afforded, according to high testimony, great relief to our forefathers, and, in many cases, must have prolonged life, notwithstanding the fact that Lord Byron has credited it with having slain more than the soldier's lance.

The action of the lancet was never punitive, but conservative of life and energy, and an agent used to purify the body from those deleterious products upon which its mortal ills depended. It occurred to Mr. Wakley that, by using the quill for purposes similar to those for which surgeons used the lancet, he might, in the body medical, get rid of much that was harmful; and, instead of its members tottering with premature decay, despised by all men, they might obtain a new lease of life and vigour, and be of greater service to the people in the country at large. Accordingly, in the year 1823, his energies were thrown with full power into a publication which was then indeed a "tiny instrument," and he issued, on the 5th of October of that year, the first number of THE LANCET. It extended only to thirty-six pages, but its effect was startling in the extreme; though tiny, yet so sharp and penetrating were the articles in this number, and withal so bold, that many were astonished at the apparent audacity of the little number. The comfortable hospital doctors beheld its appearance with trepidation. Quacks held their breath, malpractitioners were in alarm, and the medical public were quiet and expectant. Its statements and criticisms were courageous and full of manly vigour, and it sounded in medical literature a stirring note altogether different from the tone of its tame predecessors.

In illustration of the correctness of these statements a brief sketch of the contents of this first number of THE LANCET, published on Oct. 5th, 1823, at 6*d.*, by A. Mead, 201, Strand, will be sufficient. The preface expresses regret that no work existed which would convey to the public, to distant practitioners, and to students reports of the metropolitan hospital lectures. Then follows a surgical lecture, delivered on Wednesday, Oct. 1st, 1823, in the theatre of St. Thomas's Hospital, by Sir Astley Cooper, at which over 400 students were present, describing the duties of the profession, and advocating the practical aspect of medical education. General education was stated to be essential to the welfare of the profession. This lecture was reported specially for THE LANCET, and led to a prolonged struggle, which only terminated in the law courts. Then comes a section headed "Politics," with a sketch of Mr. Pitt the younger, who is described as "a character to whom England owes anything but gratitude. His admirers in rapture called him in his twenty-third year the boy statesman, and in his forty-seventh he was still the same, running after wild, impracticable schemes regardless of everything but the gratification of his own senseless and petty ambition." An intimation follows of the intention of THE LANCET to publish in the next number particulars of a case which excited much attention at the time—namely, that of Dr. Collyer. Interesting criticisms of the drama are next given from Drury Lane and from Covent Garden. In the medical and surgical intelligence, Henry Earle defends himself from Sir Astley Cooper's reply to his critical observations on fracture of the neck of the femur, of which Sir Astley, when he read them, was led to exclaim, "Good God! is this written by an English surgeon?" Next there is an account of a case of anasarca successfully treated by acupuncturation, in which "the arms and trunk were reduced in the course of a week to their natural size." A case of hydrocephalus chronicus in which pressure proved most beneficial is recorded by J. F. Barnard, Esq., of which the following gives the gist: "I had the head shaved perfectly clean. I then applied broad strips of adhesive plaster completely round the head from before backwards, and cross strips from the one side to the other, so as effectually to support the parietes of the cranium. Having decided on my practice, I waited patiently the result." The article ends: "It is now two months since the bandage was applied, and the child is in every respect healthy except that the head still contains water, and is larger than it ought to be. I shall recommend the bandage to be worn until the bones are fully united." What would be thought of such a procedure now? Mr. T. M. Greenhow, surgeon, records a case in which hydatids were discharged in considerable quantities from the intestines. They were of various sizes and of different colours, very nearly resembling boiled gooseberries and of about the same dimensions. An interesting ancient notion of the physiology of respiration is given in a paper on Obstruction of Blood in the Lungs, reprinted from the *Edinburgh Medical and Surgical Journal*, in which an attempt is made "to convince a person that the blood stagnates in his lungs every time he interrupts his respiration by uttering long sentences, and that that interruption endangers the rupture of a blood-vessel or engenders tubercular consumption." A remarkable illustration of the fatal effects of fear in the operation room, and a few medical extracts of an interesting character, are followed by an account of the composition of quack medicines, and three columns of table talk. The number concludes with a remarkable article on Southey, the Poet Laureate, in which he is set forth as a "Sack-hunting, hypocritical rhymer" and a "pretended moralist."

It was not for nothing that Mr. Wakley broke away with such violence from the trammels of professional precedence, and embarked in an enterprise which called for the most unbounded courage and the most enduring self-sacrifice. At the end of the first year of the publication of THE LANCET the young editor was able to say, "We have successfully resisted an attempt on the part of the three surgeons of St. Thomas's Hospital to gag the medical press. We have effected some modification of the recent law of the College of Surgeons, the effect of which is to destroy all competition between surgical teachers. We are glad to announce that, in respect of our efforts, a regulation has now been adopted at the hospitals in the Borough, by which clinical lectures both in Medicine and Surgery are to be delivered weekly, and the surgeons in passing through the wards will be required to make observations to the students in an audible voice upon every case of importance." After more than sixty-eight years it is hardly possible for medical students to realise what was meant by regulations of this kind. In his efforts Mr. Wakley was well aware that he would be assailed by much interested opposition, but, that notwithstanding, he declared he would faithfully and fearlessly discharge his duty. Mystery and ignorance were to him synonymous terms. The time, he declared, was come when ceremonies and signs had lost their charms; hieroglyphics and gilded serpents their power to deceive. This was the keystone of the edifice of reform he was destined in after years to construct—the motive power which enabled him so successfully to remove the cobwebs of tradition and ignorance which overhung and obscured the condition of the medical profession. He was not the man to put his hand to the plough and to look back, but against delusion, sham, and cant he maintained his stand, an unknown youth, teeth clenched, and face determined, fronting the world and anticipating his own future in it, with something of that feeling which, call it what we may, in the light of retrospection, has probably, by a divine law, filled every great and honest heart at the outset of a great career. The object for which he lived has been beautifully put by Professor Masson in speaking of another genius whose life had been spent in a similar fight:—

> Lay the vain impostors low,
> Blockheads fall in every foe,
> Splendour comes with every blow,
> Let me do or die.

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BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The General Hospital.

THE election of Mr. Haslam as Surgeon to the General Hospital has given general satisfaction. It is felt that the traditions of the institution will be safe in his hands, and that the teaching strength will be considerably enhanced.

Christmas-time.

At most of the hospitals in the city there have been the usual festivities. The decorations have been in keeping with the season, and the generosity of the subscribers also. Whatever may be the feeling as to the propriety of keeping up the custom at the hospitals, and the necessary abstraction from other duties which it entails, no one having seen the happiness given to others, both young and old, who participate in the joyous proceedings, would grudge the efforts made to render the entertainments successful.

The New Coroner.

A suggestion of a useful kind has been made by the coroner for the city, Mr. O. Pemberton, that a society should be formed for visiting the homes of the poor and supplying fireguards when these are found to be absent. No doubt the number of cases of burns at this time of the year prompts the idea, which, however feasible in theory, might not be free from objection in practice on several grounds: the provision of such a precaution ought to be regarded as the duty of parents themselves, and might reasonably be insisted upon by precept or by a more forcible appeal.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Christmas Festivities to the Poor and in the Hospitals.

FOR years past it has been customary to give Christmas breakfasts and dinners to a large number of the deserving poor, this being effected by the liberal pecuniary donations of the rich, aided by contributions in kind from some generous tradesmen, who have contributed large quantities of tea, preserves, &c. A very large number of persons have thus been provided with a good breakfast or dinner, or both, and "the hungry have been filled with good things." The weather has been less severe—an agreeable change to the very old, the young, and indeed to all.

Jubilee of Mr. Henry Churton as Coroner for Chester District.

On Dec. 28th, 1841, Mr. Henry Churton, surgeon, was elected coroner for West Cheshire. On the corresponding day, 1891 (last Monday), he held two inquests at the Queen's Hotel, Park-entrance, Birkenhead. Advantage was taken by the foreman of the jury to offer their congratulations that he had been permitted to reach that memorable day, which was the jubilee of his coronership. They had always admired the faithful manner in which he had discharged the duties of his office, in the performance of which he neither coveted favour nor feared frown. They trusted that he would be spared to continue the faithful performance of his duties in the future as had been the case in the past. A member of the press present also congratulated Mr. Churton on the auspicious event, thanking him for the courtesy which he had always shown to the reporters in the discharge of their duties. In responding, Mr. Churton alluded with gratification to the fact that though Birkenhead had been incorporated as a borough and had its own court of quarter sessions, he had been appointed coroner to it as well as continuing in his office of county coroner. Mr. Churton is seventy-eight years of age, but in spite of this, and of a recent very severe illness, he enjoys excellent health, and was present at the funeral of his old friend, Mr. Clarke Aspinall, the late coroner for Liverpool, although the day was an extremely cold one. He then expressed to some of those present a hope that he might be able to discharge his duties up to the very last.

Theatres and Free Exits.

Boxing night has come and gone without any fatalities here. Before any theatre is licensed evidence must be given that it can, when filled, be emptied in a very few minutes. Moreover, the stage is now generally separated from the rest of the house by a fireproof curtain.

Dec. 29th, 1891.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Gateshead Calamity.

MOST of us in Newcastle heard for the first time on Sunday forenoon of the dreadful event which had taken place in the sister borough of Gateshead at the Theatre Royal on the preceding evening, and which resulted in the loss of ten lives. The story is very soon told; indeed, it is an old story: an alarm of fire, a panic, a rush down an ill-constructed gallery-stairs, where the sufferers fell, and were soon trampled to death or suffocated. An inquest is going on, but I do not think it can throw any additional light on the above statement of the event. Most of the medical men of Gateshead were on the spot to render all possible aid, but in proportion to the killed there were very few injured, and they were mostly sent to the Royal Infirmary, Newcastle, where they are doing well. Another of the injured has since died, making the eleventh victim of the disaster at the Theatre Royal, Gateshead.

Fire at Messrs. Atkinson and Philipson's Carriage Factory.

On Monday night last Newcastle was lit up with a lurid light which was seen to proceed from the direction of Messrs. Atkinson and Philipson's far-famed Northumberland coach works. It was soon evident that the whole place was in flames. The works are well known to most medical men in the northern counties. Fortunately no lives were lost, but the destruction of property was very great.

The Salt Water Supply at Tynemouth.

The *Newcastle Chronicle* has a good article on the system of salt water supply so long in use at Tynemouth, and which has proved such a blessing to the place and a comfort to the inhabitants. The system was introduced in 1875, under the then borough surveyor, Mr. J. P. Spencer. The pumps at the pumping station, of which there are two, are capable of each lifting 9000 gallons an hour. The water is raised to reservoirs and filter beds. The main reservoir is capable of holding 190,000 gallons, and is situated about a mile and a quarter from the pumps, with a rise of 150 feet. At present the town is intersected by about six miles of salt-water pipes. The water is laid on to private dwellings and public and private baths in the same manner as the ordinary town or potable water, and is supplied to householders at the very moderate rental of £1 per annum. The public baths are also supplied with salt water, and during the winter months these are in great demand. It is found, as regards street-watering, that the salt water keeps the roads and thoroughfares moist much longer than does the fresh. The salt water is likewise used for flushing the town sewers and latrines. It is pointed out in the article that for sixteen years the people of Tynemouth have adopted this practice, and, they believe, with excellent results, as they can point to a generally low death-rate; for instance, during the month of November last the average was 15·4, and for the four weeks ending Dec. 5th it was 19·9.

Darlington Hospital.

Dr. Simpson, who has been for some time house surgeon at the Darlington Hospital, has been presented with a purse of 30 guineas, of which £10 was voted by the committee and the rest subscribed by friends. The testimonial was accompanied with the regret of Dr. Simpson's friends at his leaving Darlington, and with best wishes for his success in his future career.

Tyne Port Sanitary Authority.

At the last meeting of the Tyne port sanitary authority it was reported that during the past two months visits had been made to 1358 British steamers and 342 sailing vessels, 321 foreign steamers and 203 sailing vessels, extra vessels 383, making a total of 2607 visits. At the same meeting the authority was asked to adopt a memorial which was about to be presented by Hull and Goole port sanitary authority to the Board of Trade, asking, amongst other matters, that the amount of space allowed to seamen be increased to 150 cubic feet, and compulsory provision of bath and lavatory accommodation be made. A spirited discussion took place on this subject, a member remarking that, compared with the time he was at sea, ships were now more like palaces, and that the air at sea was entirely different from what was to be had in towns. Dr. Armstrong, our able medical officer of health, however, re-

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garded the proposal as an important one, and maintained that the air on board some small vessels was so bad that it could not be compared with anything on shore. In the end, the discussion was adjourned.

Influenza.

Influenza still continues rife in the north, and most practitioners are fully occupied. In the Cleveland district of North Yorkshire it is very bad. I have heard of a husband and wife lying dead together at New Marske after eight days' illness, and leaving four young children.

Cleveland Ambulance Centre.

The annual meeting of the Cleveland Centre of the St. John Ambulance Association was held recently at Middlesbrough. It was shown that the Association was doing excellent work, surrounded as the district is by mines and works where accidents occurred almost daily. During the year 818 persons had been instructed. Regretful allusion was made to the death of Dr. Duncan McCuaig, who had instructed the first class formed under this centre and five others of the fire brigade, also the borough police. Two thousand railway men had taken advantage of the concession of the North-Eastern Railway with regard to classes &c. The report dealt with other useful work done, and fully acknowledged the valuable assistance rendered by the honorary medical staff and other officials. Mr. Wayman Dixon, the honorary secretary of the district, may well be proud of his work.

Newcastle-on-Tyne, Dec. 30th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS)

Death of Mr. Imlach, F.R.C.S.Edin.

MR. FRANCIS B. IMLACH, F.R.C.S,Edin., died with painful suddenness when out of doors last week. He was walking along one of the most frequented streets in the city when he was observed to fall. He was taken to the infirmary directly, but was found to be dead. Mr. Imlach was born in 1829, and was a native of Edinburgh. He practised as a dentist and held a prominent position in that department. He took an active part in the management of various public bodies, and in none more so than the Royal Infirmary, of which he had for a number of years been one of the board of managers. Some years ago he occupied the presidential chair of the Royal College of Surgeons of Edinburgh. As a man he was much respected by the Fellows of both the Edinburgh Colleges; while his genial and sympathetic manner and kindly words were often valued, and were not infrequently a strength and encouragement to those to whom they were extended.

Professor McFadyean's Appointment.

Those who know Professor McFadyean, while gratified with his appointment to the Royal Veterinary College, London, are grieving over the prospect of losing him from the inner circle of more active workers in Edinburgh. Professor McFadyean, although he has devoted himself to veterinary science, is a graduate both in medicine and science of the University. No man in Edinburgh has a higher reputation amongst those who know him as an honest and reliable worker. And those who have had occasion to seek his assistance and help, know how ready and willing he always is to give them. His appointment to the London Veterinary College is the highest tribute that could be paid to the value of the work he has done in veterinary pathology.

Health of Edinburgh and Leith.

The mortality last week was 120, and the death-rate 24 per 1000. Diseases of the chest caused 69 deaths, and zymotic diseases 5. The intimations for the week were: typhoid fever, 3; diphtheria, 6; scarlatina, 14; measles, 13. In Leith the number of deaths last week was 31, making the death-rate 23 per 1000.

Health of Aberdeen.

In his report for the week ending Dec. 19th, Dr. Matthew Ray draws attention to the great prevalence of influenza in the city, and he makes some remarks upon its prevention and treatment. He says that in his practice as surgeon to the members of the police force he finds large doses of salicin to be followed by the best results. During the week the following cases of zymotic diseases were notified:—Scarlet fever, 31; typhoid fever, 1; whooping-cough, 45; and erysipelas, 10.

Influenza in Glasgow.

The presence of influenza is evidently making itself felt in Glasgow. During the past fortnight there were registered in the city 805 deaths, representing a death-rate of 31·7, in place of 27·5, in the previous fortnight. Of these deaths 365, or 46 per cent., were due to pulmonary diseases; to influenza, 39, as compared with 11 in the previous period. Four of these influenza fatalities took place in the Royal Lunatic Asylum, Gartnavel. These deaths from influenza also were distributed with fair uniformity over the city; their distribution as to age was:—Under one year, two; one to five years, six; twenty to twenty-nine years, one; thirty to thirty-nine years, two; forty to forty-nine years, three; fifty to fifty-nine years, seven; sixty years, and upwards, eighteen; no fatal case between five and twenty years; while 46 per cent. of those who died from influenza were over sixty. Only six were certified as due to influenza pure and simple, the remainder to complications such as pneumonia, bronchitis, and pleurisy. The whole bill of mortality therefore bears the impress of influenza. The number of deaths due to acute diseases of the lungs has risen 27 per cent.; the death-rate of persons under one year had increased only 6 per cent., while that of persons over sixty had increased 22 per cent. The above-noted increase of mortality is the more striking when it is stated that zymotic diseases had fallen both in number and mortality. Yet so mysterious is this disease in its ways, though a supplementary fever hospital (in Parliamentary-road) has been reopened for the special reception of cases of influenza as well as of measles and whooping cough, only four cases were in it on Nov. 30th. Of this supplementary hospital Dr. Wm. Gemmell has been appointed physician superintendent.

Victoria Infirmary, Glasgow.

At their annual meeting a few days ago the governors of this institution were able to submit a very favourable report. During the year 926 patients had received treatment, while at the dispensary for out-door patients 4744 consultations had taken place. The average residence of each in-door patient was 29·9 days. The total deaths numbered 72, or 8·3 per cent; deducting 20 cases (2·3 per cent.) in which the ailments or injuries were such that death occurred within forty-eight hours, the death-rate is reduced to 6 per cent. The cost of each fully occupied bed was £66 13*s.* 10*d.*, and the average cost per patient £5 5*s.* 4*d.* The total income exceeded the total expenditure by £2067 15*s.* 9*d.*; this sum has been transferred to capital account, which now amounts to £12,283 1*s.* 3*d.* It is satisfactory to note that of the sums received nearly £1000, or about a fourth of the ordinary income, has been contributed by workmen themselves. The infirmary is at present undergoing extension, another pavilion being added to it, which will raise its accommodation to 150 beds. A "nurses' home" is also nearing completion, providing a separate bedroom for each nurse, and a large common sitting or recreation-room. This home is to be furnished, at a cost of £500, by Mr. and Mrs. Renny Watson in commemoration of their silver wedding. The governing body of this infirmary is peculiar in this respect, that it includes three direct representatives of the contributing workmen. The privilege of sending these three governors is one highly prized by the working men, as furnishing a guarantee that their interests will be attended to. It is specially stated in the governors' report that the representatives hitherto elected by the workmen "have been of great practical service" Owing to the disappearance of some of the small burghs round Glasgow, which have now been merged in the city proper, certain alterations have to be made in the board of governors; three additional governors will be elected by the General Court of Contributors, and one additional representative will be elected by the workmen.

The medical classes in Edinburgh reopen on Tuesday, Jan. 5th.

The Aberdeen Medico-Chirurgical Society held its annual

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dinner in the Society's hall on Dec. 15th, and there was a large attendance. In the unavoidable absence of the president, Dr. Garden, the chair was occupied by Dr. Angus Fraser, and Dr. Edmond acted as croupier.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Death of Dr. Edward J. O'Neill of Dublin.

DR. O'NEILL died last week at his residence, 6, Cavendish-row, Dublin, from typhoid fever, aged fifty-five years. Deceased obtained the M.D. of St. Andrews in 1858, and the licence in surgery of the Royal College of Surgeons in Ireland five years previously. He was a Director of the Apothecaries' Hall.

Trinity College Tercentenary, 1892.

A committee has been appointed by the Tercentenary Committee to provide for the reception of guests at the tercentenary celebration, and includes the names of Sir George Porter, Bart., the President of the Royal College of Physicians, Dr. Cruise, Sir John Banks, &c. The celebration will last from Tuesday, July 5th, to the following Friday, and will consist of a commemoration service at St. Patrick's Cathedral, the presentation of congratulatory addresses by delegates from various universities, and the conferring of honorary degrees on a number of distinguished visitors. There will also be a banquet and garden parties, the college races, and a ball. A play also will be performed in the Gaiety Theatre by students and graduates of the University.

Kilkenny District Lunatic Asylum.

Thirteen of the governors of the Kilkenny Asylum having resigned in consequence of the Board of Control having, contrary to their wish, expended a sum of money for the purchase of additional land to the asylum, the Under-Secretary has, in a lengthened letter, explained the action of the Board of Control. There were until recently only twenty-eight acres for over 300 inmates, and for some time past those who inspected the asylum strongly urged the absolute necessity of obtaining more land. In the last report issued it is stated that the asylum, containing more than 300 patients, has only about eight acres available for tillage attached to it. This has been brought under the consideration of the governors; but as yet they refuse to add to the estate, stating that the amount of land is sufficient; yet the resident medical superintendent reports that if the farm were of sufficient size he would be able to nearly double the number of male patients engaged in agriculture. Some adjacent land being about to be sold, the Board of Control recommended that the governors should purchase it; but as they declined, the ground in question was purchased by the Board. The governors regarded this as arbitrary, and accordingly the majority resigned. It must also not be forgotten that the duty of seeing that a lunatic asylum is properly provided with land is imposed by law on the Board of Control. A special meeting of the governors of Kilkenny Asylum will shortly be held to consider the letter of the Under-Secretary in reference to the dispute between the governors and the Board of Control.

Cork Hospital Saturday.

The amount at the disposal of the committee, after defraying all expenses, for distribution to the various hospitals will be something over £600.

A woman named Stretton died recently at Tralee, aged 108 years, and on the same day a woman named Moriarty died at Barrow at the age of 104.

Dec. 29th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Mercury, Syphilis, and Tabes Dorsalis.

THE literature of that interesting clinical discussion, the supposed or pretended connexion between syphilis and its mercurial treatment on the one hand and locomotor ataxia on the other, received a fresh contribution from that eminent syphilographer, M. Fournier, at a recent meeting of the Academy of Medicine. Two reasons, he said, determined his undertaking this inquiry: First, the supervention of tabes in two of his patients in spite of a rational, regular, and sustained course of antisyphilitic treatment; and secondly, the necessity of judging at its proper value the accusation brought forward against the mercurial method of being a cause of tabes in syphilitic subjects. In proof of this the deleterious action of mercury, when abused, on the vessels and vascular endothelium was advanced, whence it was concluded that degeneration or sclerotic changes in various tissues, amongst them the nervous, were possible, and hence tabes dorsalis. M. Fournier's inquiries into this gravely important question extended over 321 cases of locomotor ataxia in syphilitics. As a result of his analysis of their cases he concludes that mercury must be put *hors de cause:* First, because amongst these 321 cases twenty-four became tabetic without having ever had mercury administered to them in any shape: and, secondly, because he is able to show conclusively that the number of syphilitic subjects who develop tabes is in increased ratio to the length of time mercurial treatment was carried on. For instance, amongst twenty-three syphilitics subjected to mercurial courses who developed tabes he found that no fewer than twenty-two were treated for various terms of less than one year, while only one developed disease of the posterior columns after a mercurial course lasting from two to four years.

Functions of the Thyroid Gland.

At a late meeting of the Biological Society M. Gley recorded the results of some experimental observations he had made on the thyroid. Removal of this gland was followed by death in the rabbit and dog. He found, however, that this was not the case if two small accessory glandules situated on each side below the main structure were left. These soon developed, and took on apparently the function of the entire gland as before. He referred also to the apparent connexion as to function that exists between the thyroid and pituitary bodies, and demonstrated the trophic *rôle* which the latter structure plays in the rabbit and the dog. He showed a dog in which he had removed the thyroid entirely, but which had survived to cicatrisation by means of intravenous injections of an extract from the tissues of the glands. Later on the animal showed signs of trophic troubles analogous to those which supervene on the removal of the pituitary body.

Ocular Troubles in Influenza.

M. Galezowski records that as a result or complication of influenza he frequently found spasm of the arteries of the retina. This spasm was manifested by a passing sensation of dazzling, and by an amblyopia which lasted from a few hours to some days. Examination of the fundus revealed the branches of the central artery of the retina contracted and almost effaced from view. He concludes that the amblyopia was purely dynamic, and was perhaps due to some toxic substance secreted by the microbe of this singular disease acting on the vaso-motor nerves. Sulphate of quinine generally relieved the condition.

Unusual Foreign Body in the Rectum.

At the Surgical Society M. Marchand showed a wine-glass which he had extracted from the rectum of an individual seventeen hours after its introduction. After several ineffectual attempts to get it away through the anus, he found it necessary to incise the posterior wall of the rectum and perineum. The operation was quite successful, for fifteen days after the suturing of the bowel the patient was discharged with a sphincter perfectly reconstituted.

Recurrent Erysipelas: its Pathogenesis.

This curious ailment was the subject of discussion at the Société Médical des Hôpitaux on Dec. 18th, a paper contributed by MM. Hirtz and Vidal being of special interest. The basis of these observers' communication was the case of a barge woman, aged thirty-three, who was wrecked four years ago, and in whom menstruation, up to that time regular, has not reappeared. Four months after her rescue she suffered from a first attack of facial erysipelas, the invasion of which was marked by a rigor, and which, involving the scalp, was accompanied by severe general symptoms. The attack terminated on the

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ninth day, and was attended by loss of hair. A week later the disease reappeared on the face. During a sojourn of four months at the Hôpital Necker the patient had two relapses. It is to be noted that neither the foregoing nor any subsequent seizure coincided with what should have been the menstrual period. Up to her admission in December, 1890, into the Hôpital Cochin only once had she been free from an attack for two consecutive months, the erysipelas often relapsing several times a month. She entered that hospital to be treated, not for erysipelas, but for Bright's disease, the symptoms being general œdema of the face and limbs, copious epistaxes, dimness of vision, a well-marked *bruit de galop* (reduplication of the first sound), and albuminuria (1 or 2 grammes of albumen per litre). Between Dec. 24th, 1890, and March 31st, 1891, she suffered from at least twenty attacks of erysipelas, the part affected being now the face, now the upper and inner surface of the thighs. In the latter case the blush always radiated from patches of eczema similarly situated. The attacks were always mild, the temperature rarely reaching 100·4° F., and the duration being variable, and often not exceeding a few hours. On April 14th, however, there occurred a fresh attack, characterised by violent rigors, high fever (104·9° F.) persisting for a week, great disfigurement of the features and scalp (large phlyctenulæ developing at those situations), together with disquieting adynamic symptoms. On the tenth day the temperature fell to the normal point, and convalescence set in. In the course of the succeeding month she had three mild apyretic attacks of brief duration. Pure cultures of *streptococcus* were procured from specimens of blood taken respectively during a mild attack on March 26th and during the severe attack above mentioned. The March culture inoculated into the ears of two rabbits gave rise in the one to the most violent experimental erysipelas ever witnessed by MM. Hirtz and Vidal. The local infiltration was enormous, and the temperature rose to 106·7° F. In the other rabbit death supervened in forty-eight hours. There was discovered post mortem splenisation of the lungs and dessemination of the streptococcus in all the viscera. The absence of synchronism between the suppressed menstrual periods and the accesses of erysipelas is a noteworthy circumstance in this case. Instances of vicarious monthly attacks of facial erysipelas occurring during the menopause are not infrequent. The authors of the paper under consideration cite an example in a woman of fifty. The occurrence of nephritis after four years of recurrent erysipelas is a proof that sometimes, at any rate, the albuminuria attending erysipelas may become permanent. Dr. Pye-Smith, in his classical work,[1] states that this is a very rare event. The presence of *portes d'entrée* to the streptococcus in the guise of eczematous patches on the thighs (and in the case cited of menopausal erysipelas of a similar patch on the ear) lends support to the now generally accepted assertion of Trousseau that a local lesion of some kind is always demonstrable in these cases if a careful search be made. The case also teaches us that, however mild the majority of such attacks may be, the onset of a serious one is to be apprehended. In the course of the discussion raised by the reading of the above paper, M. Labbé expressed doubt as to the authenticity of so-called menstrual erysipelas, believing that it is really only erythema. This view was strongly combated by MM. Guyot and Rendu. The latter physician reminded the Society that, when the view now advanced by M. Labbé was some years ago promulgated by the late Maurice Raynaud, the Society rejected it by an overwhelming majority. M. Rendu remembers well how erysipelas in a severe form was once communicated at the Hôpital St. Louis to a neighbouring patient by a woman who was suffering from one of these trifling apyretic attacks.

Dec. 29th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Influenza.

THE Medical Department in the Prussian War Office has published a book on the influenza epidemic of 1889–90 in the German army. The number of cases was 8778, and the epidemic spread from north-east to south-west. The book contains highly convincing proofs of the infectious character of the disease. It is copiously illustrated, and treats also of the causes, treatment, and prophylaxis of the disease. On Dec. 17th Prof. Nothnagel of Vienna lectured to his students on influenza. After expatiating on the history of influenza and its dissemination this year, he continued as follows: "The following questions of general interest arise. How far is one protected in influenza against relapses? Does one attack confer immunity or not? Does it leave the patient more predisposed for a second attack or less? From the observations hitherto made one may say that one attack does not increase the predisposition; whether it diminishes it will perhaps now appear; but here, too, one must say, 'Non liquet.' One thing is clear—influenza is an infectious disease. Despite all bacteriological investigations, the specific agent of infection has not yet been discovered. In short, in spite of all descriptions and investigations, we have a great chaos before us, but no clearness. One thing is beyond doubt: influenza may certainly be miasmatic, for it was observed that the epidemic spread at a rate much more rapid than that of human intercourse. As regards the symptoms, we adhere to the old classification, and distinguish between nervous, gastric, and catarrhal influenza. The virus of influenza shares with many other microbes the quality that it infects and affects the whole body; the most various parts of the frame may suffer from it. It has struck observers from of old that the fatal cases of influenza are mostly those in which the organs of respiration are affected. Slight croupy pneumonia may occur in influenza and along with it. Apart from this, however, there is a genuine influenza pneumonia which, owing to its severe effect on the heart, is more dangerous than bronchial pneumonia. The prognosis is very various. Weak persons and those who suffer from heart disease or tuberculosis seem to be exposed to greater dangers than others." In conclusion, Professor Nothnagel spoke of the treatment of the disease, declaring that there is no specific against it, and that the treatment must be symptomatic, and most decidedly warning against all experiments with antipyrin and antifebrin. In the week which ended on Dec. 12th the number of deaths in Berlin from influenza was eighty.

Rifle-shot Wounds.

In a recent lecture the celebrated surgeon Professor von Bardeleben stated that wounds inflicted by the new rifle bullets are simple round holes. He reported on two wounds caused by the firing of sentinels. In one case the bullet had gone through the knee-joint of a man, and the wound healed so completely that the mobility of the joint was unimpaired. In the other case the bullet struck a young lady in the thigh without striking a bone. The only treatment was the application of an antiseptic bandage, and when the bandage was removed the wound was completely healed.

Death of Dr. Ignaz Hirschler.

Dr. Ignaz Hirschler, the pioneer of modern ophthalmology in Hungary, died the other day at Pesth. He was born at Pressburg in 1823, and studied medicine in Vienna. After having been for some time assistant to a distinguished ophthalmologist there, named Anton von Rosas, he went to Paris, where he studied under Desmarres. In the clinic of that physician, then the gathering-place of ophthalmologists from all parts of the civilised world, he met Albrecht von Graefe, to whom, with Helmholtz and Donders, the world mainly owes the enormous progress which has since been made in ophthalmology. In 1849 Hirschler returned to Hungary, and established himself in Pesth. For a long time he was the only ophthalmic surgeon in Hungary. He published most of the results of his observations in Graefe's *Archiv*. Among the most important of his writings are those on cysticercus in the anterior chamber of the eye, disturbances of vision due to alcohol and tobacco, and pigmentation of the cornea. Though not an official teacher in any university, he gave courses of private lectures on ophthalmology, which his position in a hospital enabled him amply to illustrate. He also took part from time to time in political life.

The Virchow Jubilee.

The financial surplus of the Virchow Jubilee amounts to 23,550 marks. Twenty thousand were saved by the Festal Committee from the proceeds of the great collection, and the remaining 3550 are the publishers' payments for the

[1] Practice of Medicine, vol. i., p. 254.

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contriontions to the festal work, the collaborators of which friends and former assistants of Virchow preferred in this case to work without reward. The whole surplus has been added to the Rudolf Virchow Fund for the support of scientific investigations, which amounted before this addition to 97,000 marks. Some thousands, it is true, will have to be refunded, for the Festal Committee has resolved, with Virchow's consent, to distribute bronze casts of the Virchow medal to the most eminent European pathological anatomists and to the corporations which took part in the jubilee.

Professor Graefe.

Professor Graefe, a cousin and very distinguished pupil of the famous founder of modern ophthalmology, Albrecht von Graefe, has resigned his office as head of the eye clinic of the University of Halle.

Dr. Paul Michelson, of the University of Königsberg, died two or three days before Christmas.

On the occasion of the fiftieth anniversary of Professor Bardeleben's graduation, the Emperor conferred on him the distinction of hereditary nobility.

Professor Billroth is suffering from influenza.

Owing to the prevalence of yellow fever in Brazil, and especially in Santos, all ships arriving at Hamburg from there have to be disinfected.

Berlin, Dec. 29th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Prophylactic Measures to Prevent Cholera.

IN view of the International Quarantine Commission so soon to take place at Venice, it will be interesting to note what Egypt did to guard herself against any possible outbreak of cholera during the summer of 1891. The disease broke out in Mecca in July, and was also known to be lurking in Syria, so that Egypt seemed menaced from two points. During the months of August and September 11,950 returning pilgrims were received at the quarantine station of El Tor; themselves and their clothing were thoroughly washed and disinfected, and though 121 deaths occurred among them, only six were victims to cholera. It is most satisfactory to note that no cholera appeared in the track of these pilgrims, though the disease broke out again in Syria shortly after their return there. Some 450 pilgrims, mostly camel drivers, returned to Egypt by the land route, and, as usual, arrived in good health. In Egypt itself strict measures were taken to enforce an amount of cleanliness, which is unhappily habitually absent from this country. Responsible committees were formed in all the chief towns to inspect nuisances and insist upon sanitary reforms. All worked with a will, except the representatives of the Wakfs, the Ecclesiastical Department, who do their utmost to obstruct real progress. The following list will give an idea of what was done during the summer months, and it is to be hoped that the Government may in the future be induced to carry out a similar "spring cleaning" every year. Some 13,000 Cairo huts were cleansed and whitewashed, besides an equal number in the provincial towns, while more than 3000 of the worst of them were destroyed; 2000 more were condemned, but have not yet been demolished; 1700 small inns, half of which were in Alexandria, have been cleansed and whitewashed, and 700 others were condemned and closed; 220 of the public baths were shut up, and 710 others were well cleaned. Nearly 4000 mosques were forced to have their latrines cleansed and whitewashed, but there remained 1800, mostly in the country towns, where sufficient sanitation was not carried out; 629 drains leading directly into drinking water canals were peremptorily closed, but the Commission reported that there remained 113 drains in Behera province to be so treated, and 79 more in Guergeh province. 7514 of the low-class stables and shops were treated with whitewash, and 642 public kitchens were overhauled, while in Cairo alone 1719 tripe shops were compulsorily made clean. Rags and bone warehouses were banished to the outskirts of towns. 14,643 private houses of the lower classes were whitewashed in Cairo alone, besides 13,540 of the small shops and coffee houses.

Sanitary Department

Brigade-Surgeon Green Pasha has been compelled to resign his post as director of the sanitary services in consequence of incurable deafness. He is fortunate in having enlisted under old pension rules, which entitle him to a life allowance of £650 a year after only seven years' service. By the existing rules he would be entitled only to a bonus of £700 and no yearly pension. The higher officials of the department presented him with a gold and silver coffee-service and tray as a mark of sympathy with his physical affliction. Surgeon-Major Rogers Pasha, his successor, has for the last eight years been the principal medical officer of the Egyptian Army.

Influenza reimported from Europe.

At the end of October last an English steamer arrived at Alexandria having on board some passengers who had just left influenza-stricken friends in Spain. Two families became ill on board, and carried the disease ashore with them, so that several cases occurred during November in Alexandria, Mansourah, and Cairo. The patients are chiefly confined to the families of those who had travelled on this steamer, and the disease has shown no tendency to spread universally.

Government Hospital at Alexandria.

This hospital continues to improve, and the new out-patient department is now attended by 200 natives every day, who testify to its popularity. His Highness the Khedive recently visited it in order to inaugurate a small mosque chapel which has just been completed for the use of the in-patients. The experiments upon lepers with Koch's tuberculin have now been discontinued, for though there was perhaps a very slight improvement in some cases, there was not sufficient to encourage either doctor or patient.

Cairo Medical School.

The only medical school in Egypt is about to lose its director, whose resignation has been demanded by the Government in consequence of some late intrigues among the native professors and insubordinate conduct on the part of the principal. He was removed in 1884 from the control of the Quarantine Service, and in 1885 from the Sanitary Department for various irregularities. He is to be succeeded by Dr. Ibrahim Pacha Hassan as director, and by Dr. Keatinge as vice-director. Dr. Keatinge was one of the English medical officers attached to the Egyptian Army for six years, and now for more than a year has been professor of anatomy in the medical school. His new appointment will give him fresh opportunities for continuing the good work which he has already begun.

Cairo, Dec. 7th.

Obituary.

SIR J. RISDON BENNETT, M.D., F.R.C.P.

JAMES RISDON BENNETT was the son of the Rev. Dr. Bennett, a learned Nonconformist divine, and was descended through his mother from Risdon Daricott, a man of great piety and worth, who is mentioned in the "Dictionary of National Biography." After choosing the medical profession he was apprenticed to the late Mr. Thomas of Sheffield, and afterwards studied at Edinburgh, where he took his degree in 1833, and soon after went abroad as travelling physician to one of the Earl of Aberdeen's sons. He spent some time at Rome, and became acquainted with French, Italian, and German. After his return to England he was for a time connected with Charing-cross Hospital, but soon afterwards was appointed assistant physician to St. Thomas's, then and for many years afterwards in the place where it was founded, in the borough of Southwark. Subsequently he joined the new Hospital for Diseases of the Chest at Victoria-park and became an accomplished auscultator. During the greater part of his professional life Dr. Bennett lived in Finsbury-square, near his friend and neighbour, the late Dr. Jeaffreson of St. Bartholomew's Hospital, Dr. Peacock, his colleague at St. Thomas's, Dr. Gull of Guy's, and Dr. Herbert Davies of the London Hospital.

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Here he had a good City practice for many years. Here he brought up his family, and here he sustained a severe bereavement in the loss of his eldest son, a barrister of great promise. He moved to Cavendish-square in 1876, the year in which he was elected President of the College of Physicians in succession to the late Dr. Alderson. He filled this high office during five years with characteristic dignity and judgment. He had previously served several offices at the College with credit, and had delivered the Croonian Lectures on Bronchitis in 1863, and the Lumleian Lectures on Intra-thoracic Tumours in 1870. After he had retired from the chair he continued to be a constant attendant at the comitia, and occasionally spoke with clear, good sense and apt expression, equally free from the heat of youth and the captiousness of old age.

He took an active part as chairman of the Organising Committee in preparing for the International Congress of 1881, and at the first general meeting at St. James's Hall welcomed the assembly in a well-worded and well-delivered French speech. In his later years Sir Risdon Bennett's opinion was frequently sought by Government, and he was well known in the City as a consultant in cases of life insurance. It was much regretted at the time that he was not put on the Royal Commission which dealt with the proposed University in and for London; the marked absence of any member of the medical profession on that Commission was justly resented, and Sir R. Bennett's great experience, impartiality, and judgment would perhaps have prevented the divided report which has led to the present unsettled state of the question. At the advanced age of eighty-two Sir R. Bennett had still full possession of his faculties and a considerable share of bodily strength. He went safely through a sharp attack of influenza last spring; and those who attended the Section of Medicine at the meeting of the British Medical Association last July at Bournemouth will remember how vigorously, tersely, and genially he took part in one of the debates. Soon after, however, his memory of words began to fail, and, early in October, he consulted a medical friend on the subject, stating the symptoms with his usual clearness and appreciation, and bringing a prescription which he had failed in writing as evidence of the degree of agraphia as well as aphasia. From that time he passed, by gentle and painless gradations of decay, to the closing scene. His funeral at the King's Weighhouse Chapel was attended by the President, Treasurer, and censors of the College of Physicians, by the senior physicians of the chief hospitals, and by many other professional friends; while other contemporary and attached colleagues were only prevented being present by the infirmities of advanced age. Sir Risdon Bennett was tall, with a grave and dignified aspect and a pleasant smile, a courteous and hospitable host, a good talker, but content to take his share in conversation; excellent on a committee, sagacious in consultation. He was scrupulously exact and honourable in all the relations of life; and, while far from anything like cant, maintained in practice as well as in profession the high standard of Christian conviction. He published little, his Lumleian lectures and a few contributions to the medical societies being almost the whole of his printed works: but he occasionally wrote slighter papers, the last of which was an interesting memoir of the private and religious life of the great Haller. He left three sons and three daughters; one only, Dr. Selfe Bennett, follows his father's profession. He had so long left his hospital that he was scarcely known to any except the senior members of the staff; but at the College of Physicians and among many of the oldest and most honoured of the profession his good company, his *mitis sapientia*, and his staunch friendship will long be remembered with affectionate regret.

THE SERVICES.

Surgeon-Lieutenant-Colonel J. G. Rogers, Army Medical Staff, who has been Principal Medical Officer of the Egyptian Military Forces since November, 1883, is, we learn, about to vacate that position, having been offered by the Khedive the appointment of Director-General of the Board of Health.

ARMY MEDICAL STAFF.—Brigade-Surgeon-Lieutenant-Colonel John Butler Hamilton, M.D., to be Surgeon-Colonel, vice E. G. McDowell, C.B., retired, and Surgeon-Lieutenant-Colonel George Joseph Hamilton Evatt, M.D., to be Brigade-Surgeon-Lieutenant-Colonel, vice J. B. Hamilton, M.D (both dated Nov. 30th, 1891); Surgeon-Major-General D. A. C Fraser, M.D., having attained the age of sixty, has been placed on retired pay.

ARMY MEDICAL RESERVE OF OFFICERS.—The surname of Surgeon F. St. J. Kemm, 3rd Volunteer Battalion, the Prince Albert's (Somersetshire Light Infantry), is as above, and not as stated in the *Gazette* of Dec. 1st, 1891.

VOLUNTEER CORPS.—*Artillery:* 1st Cumberland: Surgeon-Captain J. A. Macdougall to be Surgeon-Major (dated Dec. 30th, 1891).—1st Devonshire (Western Division, Royal Artillery): Arthur Goulston, Gent., to be Surgeon-Lieutenant (dated Dec. 30th, 1891).—*Rifle:* 2nd Volunteer Battalion, the East Lancashire Regiment: Surgeon-Lieutenant-Colonel L. Fisher, M D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated Dec 30th, 1891).

Medical News.

UNIVERSITY OF LONDON.—The following gentlemen have passed the examination for Honours at the recent B S. examination:—

First Class.—George Francis Blacker (Scholarship and Gold Medal), University College; Herbert Geo. Graham Cook (Gold Medal), St. Bartholomew's Hospital; John Lloyd Roberts, M.D., B.A., B.Sc., Guy's Hospital; Ransom Pickard, St. Bartholomew's Hospital, and Wm. Gusterson Rogers, Guy's Hospital (equal).

Second Class.—William McAdam Eccles, St. Bartholomew's Hospital; Thomas Benjamin Philip Davies, Guy's Hospital; Robert Henry Elliot and Holburt J. Waring, B.Sc., St. Bartholomew's Hospital (equal); Thomas Philip Cowen, St. Thomas's Hospital, and Harold Hodgson, Guy's Hospital (equal).

Third Class.—John Edward Platt, M.D., Owens College and Manchester Royal Infirmary; Alfred Theodore Rake and Arthur Stanley Wohlmann, Guy's Hospital (equal); Harold Meredith Richards, University College.

UNIVERSITY OF OXFORD.—In a congregation held on the 17th ult. the degree of D. Med. was conferred on

Henry John Tylden, Exeter.

UNIVERSITY OF DUBLIN.—At a meeting of the Senate recently the following degrees were conferred:—

Bachelor in Obstetrics.—Abraham W. Bate.

Bachelor in Surgery.—Dionysius Lionel Fitzgerald.

Bachelor in Medicine.—Abraham William Bate, John Simpson Jackson, Frederick Edward Rainsford.

Bachelor in Medicine, Surgery, and Obstetrics.—Bernard Robert Chatterton, Patrick Bernard Considine, Henry Croly, Alfred John Davoren, Raymond Alexander Dowdall, James Augustine Haran, Frederick William Kennedy, Patrick Percy Kilkelly, Joseph John Long, Michael Archdale Morris, Cecil Orpin, Victor John Rutledge, William Arthur Valentine, William Arthur Winter.

In absentii.—Rev. Kenneth William Stewart (stip. cond.).

Doctor in Medicine.—Edward Litton Luther, Samuel Wm. Robinson.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the December sittings of the examiners in Public Health, the following gentlemen were admitted diplomates in Public Health:—

John Alexander, M.D., Wick.
Francis Hollingsworth May, L.R.C.P., Birmingham.

SOCIETY OF APOTHECARIES OF LONDON.—EXAMINATION IN ARTS.—The following have passed in all the subjects required for registration:—

First Class (in order of merit).—F. C. Blakiston, E. S. Crispin, J. C. Hollocombe, B. H. E. Evans.

Second Class (in alphabetical order).—M. C. B. Anderson, H. L. Apthorp, A. Atherton, C. E. Carter, M. S. Coghill, G. E. Duncan, W. R. Field, A. H. Gadsden, J P. E. Henery, B. Hogan, J. B. B. Howat, T. W. Hyde, E. Joseph, L. F. Leslie, H. R. Marsh, H. R. Miller, J. Milligan, P. D. Pywell, A. L. Rozelaar, F. S. Vine, H. J. Walker, F. E. Wayte, E. M. Wells, R. G. Whiting.

WOLVERHAMPTON INFECTIOUS DISEASES HOSPITAL. The new buildings at the Borough Hospital for Infectious Diseases, Green-lane, Wolverhampton, were formally opened on Wednesday by Alderman Major, the chairman of the Sanitary Committee, in the presence of a number of members of the Town Council and corporation officials. The additions which have been made to the hospital comprise an entrance-lodge, enlargement of the administrative block, and a hospital pavilion.

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TRAFFICKING IN DEAD BODIES.—At the Glasgow High Court on the 21st ult., John Daniel was charged with a contravention of the Anatomy Act by delivering bodies from the Glasgow City Poor-house for dissection without the certificate required by the Act. After a long trial the judge imposed a sentence of fourteen days' imprisonment. It was stated that Daniel pretended to take the bodies away for burial, but removed them instead to the dissecting house, receiving a fee for each.

LEEDS IMPROVEMENT BILL.—In addition to providing further hospital accommodation, whether temporary or permanent, for the treatment and isolation of persons suffering from infectious diseases, the Corporation desire to make further provisions as to the removal and burial of dead bodies, for preventing the letting of infected premises, for the disinfection of refuse, for cleansing and disinfecting bedding, clothing, and premises, with power of entry, for which purposes the Infectious Diseases Notification Act (1889) and the Infectious Diseases Prevention Act (1890) are incorporated.

THE KILMARNOCK INFIRMARY.—Great activity has prevailed in the several departments of this institution, during the past year. The number of cases treated was considerably above the previous year, and the financial prospects show an improvement. In the annual report for 1890 reference was made to the generosity of the Dowager Lady Scott Howard de Walden to build an important addition to the infirmary, the chief features of which are a handsome children's ward, dormitories for nine nurses, and new domestic offices: also new laboratory arrangements both for the new extension and the old edifice. Three ladies in the district have contributed £1000 each for the purpose of endowing cots. A hearty response was made by the working classes to the request of the directors for additional financial aid, which has already, to some extent, been carried out. The capital account amounted to £10,105.

PRESENTATIONS.—Dr. Henry White, of Manningham-lane, Bradford, the honorary instructor of the two ambulance classes composed of employés in the service of the Midland Railway Company at Manningham, and under the auspices of the St. John Ambulance Association and the patronage of the railway company, has been presented with an elegant oaken cigar chest, well stocked with cigars, by the members of the classes in appreciation of his painstaking and efficient instruction on first aid ambulance work. —Mr. A. W. Stocks, M.R.C.S., has received a presentation from the honorary medical staff of the Salford Royal Hospital on the occasion of his resigning the office of honorary surgeon after a prolonged service of thirty-five years devoted to the institution, and the unique position he had occupied for upwards of twenty years as senior honorary surgeon and chairman of the medical board.

ROYAL INSTITUTION.—A course of six lectures on "Life in Motion," adapted to a juvenile audience, was commenced on Tuesday, Dec. 29th, by John G. McKendrick, M.D., LL.D., F.R.S., Professor of Physiology in the University of Glasgow. The lecture, which was introductory in character, dealt with the movements characteristic of living beings. Various interesting demonstrations were made of the action of muscular tissue and the electrical stimulation to contraction through the nerves, and also to the muscle direct. The production of tetanus or spasm was clearly shown by a very delicate instrument sent direct from Berlin. The experiments were all very satisfactory, and delighted and instructed not only the juveniles present, who occupied the front benches, but also the adult part of the audience, which entirely filled the rest of the theatre. The subject was resumed on Thursday, and the lectures are to be delivered every alternate day till the end of next week.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand.

Ophthalmic Notes. By A. Vernon Ford, M.R.C.S., L.K.Q.C.P. Irel. 1891. pp. 107.

A Manual of Physics. By Wm. Peddie, D.Sc., F.R.S.E. 1892. pp. 501.

CHURCHILL, J. & A., New Burlington-street, London.

Abdominal Surgery. By J. Greig Smith, M.A., F.R.S.E. Fourth Edition. 1891. pp. 806.

Year-book of Pharmacy, from July 1st, 1890, to June 30th, 1891. With the Transactions of the British Pharmaceutical Conference at Cardiff, August, 1891. pp. 596.

A Manual of Diseases of the Nervous System. By W. R. Gowers, M.D., F.R.C.P., F.R.S. Second Edition. Vol. I.: Spinal Cord and Nerves. 1892. pp. 616.

LEA BROTHERS & CO., Philadelphia.

Human Monstrosities. By B. C. Hirst, M.D., and G. A. Piersol, M.D. Part I. Illustrated. 1891. pp. 88.

MURRAY, JOHN, Albemarle-street, London.

Journeys in Persia and Kurdistan. By Mrs. Bishop (Isabella L. Bird.) In Two Vols. I. and II. Illustrated. 1891.

PENTLAND, YOUNG J., Edinburgh and London.

Diseases of the Throat, Nose, and Ear. By P. McBride, M.D., F.R.C.P. Edin. Pentland's Medical Series. Illustrated. Vol. III. 1892. pp. 640.

SMITH, ELDER, & Co., Waterloo-place, London.

Dictionary of National Biography. Edited by Sidney Lee. Vol. XXIX. Inglis—John. 1892. pp. 457.

The Journal of the College of Science, Imperial University, Japan; Vol. IV., Part II. (published by the University, Tokyo, Japan, 1891).—Professional Memoranda, 1892 (Burroughs, Wellcome & Co., London).—Index Medicus: Authors and Subjects; Vol. XIII., No. 11, November, 1891 (Trübner & Co., and Lewis, London).—Une Mission en Espagne; L'Hygiène Scolaire et les Exercices Physiques; par Dr. C. Delvaille (C. Delagrave, Paris, 1892).—Cutaneous Tuberculosis; reprint (Damrell & Upham, Boston, U.S.A., 1891).—Studies from the Pathological Laboratory of the College of Physicians and Surgeons, Columbia College, New York: for the Collegiate Year 1890-91; reprints.—Catechism Series, Public Health; Part III., Sewage and its Treatment; Part IV., Vital Statistics (E. & S. Livingstone, Edinburgh); price 1s. each, net.—Magazines for January: Good Words, Sunday at Home, Leisure Hour, Sunday Magazine (Isbister); Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society); Scribner's.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDERSON, JAMES, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed a Public Vaccinator for Footscray, Victoria, Australia.

BODY, H. M., M.R.C.S., has been appointed Medical Officer to the Crediton Improvement Commissioners.

BOWLBY, A. A., F.R.C.S., has been appointed an Assistant Surgeon to St. Bartholomew's Hospital.

BROOKE, WILLIAM, M.D. Irel., L.C.R.P., L.R.C.S. Edin., has been appointed Medical Officer for the Third Sanitary District of the Oldham Union.

DAVIES, T. B. P., M.B., B.S. Lond., has been appointed Assistant House Surgeon to Guy's Hospital.

DICKSON, B. D., M.D. Dub., L.K.Q.C.P. Irel., has been appointed Health Officer for the Bet-Bet Shire, Victoria, Australia.

FULLERTON, ANDREW, M.B., B.Ch., B.A.O., has been reappointed Senior House Surgeon to the Miller Hospital and Royal Kent Dispensary.

GARTH, H. C., M.B., C.M., has been appointed Junior House Surgeon to the Miller Hospital and Royal Kent Dispensary, vice C. Evans, resigned.

HANSON, A. STEPHEN, M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer and Public Vaccinator for the Titchfield District of the Fareham Union, vice Wm. Hoare, resigned.

HASLAM, WILLIAM F., F.R.C.S., has been appointed Surgeon to the General Hospital, Birmingham, vice Oliver Pemberton, F.R.C.S., resigned.

HODGSON, H., M.B., B.S. Lond., has been appointed House Surgeon to Guy's Hospital.

HUNGERFORD, L. M. T., L.K.Q.C.P., L.R.C.S. Irel., has been appointed Resident Medical Officer and Public Vaccinator for the Urban and Suburban Districts of Dongara and Rural District of Irwin, Western Australia.

JOHNSON, H. OSWIN, M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Gloucester General Infirmary, vice J. L. Adam, resigned.

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KELLY, C., M.D. Lond., F.R.C.P., M.R.C.S., has been reappointed Medical Officer of Health for the Horsham Sanitary District.

LAYCOCK, G. L., M.B., C.M. Edin., has been appointed Honorary Medical Officer to the Melbourne Children's Hospital, Victoria, Australia.

LONG, D. S., M.B., B.C. Cantab., has been appointed House Physician to Guy's Hospital.

MACGREGOR, R. D., M.B., C.M. Edin., has been appointed, *pro tem.*, Health Officer for the Alberton Shire, Victoria, Australia.

MAHOOD, ALLAN E., M.B., M.Ch., M.R.C.S., has been appointed House Surgeon to the Queen's Hospital, Birmingham.

M'CLOSKY, A. J., M.B., C.M. Edin., has been appointed Acting Colonial Surgeon, Penang, Straits Settlements.

M'CLOSKY, D. H., L.R.C.P. & S. Edin., F.P.S. Glasg., has been appointed Medical Officer, Aindings, Straits Settlements.

PERCIVAL, ARCHD. S., M.A., M.B., B.C. Camb., M.R.C.S., has been appointed Honorary Ophthalmic Surgeon to the Hospital for Sick Children, Newcastle-on-Tyne.

PRIOR, C. E., M.D. Aberd., F.R.C.S., has been reappointed Medica Officer to the Woburn Sanitary Authority.

ROGERS, W. G., M.B., B.S. Lond., has been appointed House Surgeon to Guy's Hospital.

RUSSELL, R. H., L.R.C.P. Lond., F.R.C.S., has been appointed Honorary Medical Officer to the Melbourne Children's Hospital, Victoria, Australia.

SAMWAYS, D. W., M.B., B.C. Cantab., has been appointed House Physician to Guy's Hospital.

STEWART, JOHN, L.K.Q.C.P., L.R.C.S. Irel., has been appointed Health Officer for Walhallashire, Victoria, Australia.

THOMAS, A., M.B., B.S. Lond., has been appointed Assistant House Physician to Guy's Hospital.

THOMAS, ROBERT STANLEY, M.A., M.B., B.C. Cantab., has been appointed House Surgeon to the South Devon and East Cornwall Hospital, Plymouth.

THOMPSON, J. E., M.B. Lond., C.M., M.R.C.S., has been appointed House Surgeon to the Wolverhampton Eye Infirmary.

TRESIDER, H. J., L.R.C.P. Lond., M.R.C.S., has been appointed Government Medical Officer and Vaccinator for the District of Dubbo; also Visiting Surgeon to the Dubbo Gaol, New South Wales.

TURNER, FREDK., M.R.C.S., has been reappointed Medical Officer of Health for the Buxton Urban Sanitary District.

WOOD, F. S., M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to Guy's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOROUGH HOSPITAL, Birkenhead.—Junior House Surgeon. Salary £60 per annum, with board and lodging.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Medical Officer. Salary £100 per annum, with board &c. (Apply to the Secretary, at the Office, 24, Finsbury-circus, E.C.)

DENTAL HOSPITAL OF LONDON, Leicester-square.—Assistant Dental Surgeon.

GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INFIRMARY.—Surgeon.

HOLLOWAY SANATORIUM HOSPITAL FOR THE INSANE, Virginia Water.—Second Assistant Medical Officer. Salary £200, with furnished rooms and lodging.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—House Surgeon for one year. Salary £50 per annum, with board and residence in the Hospital.

HOSPITAL FOR WOMEN (LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistants.

NARBERTH UNION.—Medical Officer for District No. 4. Salary £35 per annum, with certain extra fees. The person elected will also be appointed Medical Officer of Health for the said district, at an additional salary of £20 per annum. (Apply to the Clerk, at the Union Office, 3, St. James-street, Narberth.)

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months. Board, lodging, and washing provided.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House Surgeon. Board, residence, and washing provided.

Births, Marriages, and Deaths.

BIRTHS.

BUXTON.—On Dec. 26th, at Mortimer-street, Cavendish-square, the wife of Dudley Wilmot Buxton, M.D., of a son.

DUNLOP.—On Dec. 26th, at Stafford-street, Edinburgh, the wife of James Cranford Dunlop, F.R.C.P., of a daughter.

JOULE.—On Dec. 24th, at Maida-hill West, W., the wife of John S. Joule, M.D. Lond., of a daughter.

MINTER.—On Dec. 25th, at Leigham-street, Plymouth, the wife of E. D. Minter, Surgeon Royal Navy, H.M.S. *Cambridge*, of a son.

PAUL.—On Dec. 30th, at 38, Rodney-street, Liverpool, the wife of F. T. Paul, F.R.C.S., of a daughter.

PEDLEY.—On Dec. 4th, at Rangoon, Burmah, the wife of Dr. T. F. Pedley of a son.

SMYTH.—On Dec. 29th, at Castleacre, Adelaide-road, Brockley, S.E., the wife of Francis Sydney Smyth, F.R.C.S., of a daughter.

MARRIAGES.

GARRETT—GRAVELY.—On Dec. 16th, at St. Peter's Church, Cowfold, Philip Gell Garrett, M.R.C.S., L.R.C.P., eldest son of the Rev. Jos. Garrett, to Fanny Maria, daughter of Thos. Gravely, M.R.C.S., L.S.A., of Cowfold.

LOWNDS—STRAFFORD.—On Dec. 28th, at the Parish Church, Putney, Charles James Lownds, B.A., L.R.C.P. of Kirkburton, Yorkshire,, second son of Dr. Lownds, of Wateringbury, Kent, to Alice Gertrude, third daughter of Thomas William Strafford, Esq., of Putney.

RICHARDSON—PAPE.—On Dec. 16th, at Fulham Parish Church, John Charles Ryder Richardson, M.A., M.B., B.C. Cantab, of Benenden, Staplehurst, Kent, son of the late William Ryder Richardson, of Whalley Range, Manchester, to Mary Elizabeth, daughter of the late David Pape, of Keswick.

DEATHS.

BROWN.—On Christmas Day, at Ascot, William Barr Brown, L.S.A., M.R.C.S., in the 85th year of his age.

BRUNTON.—On Dec. 15th, at Kirkdale, Sydenham, William Riddell Brunton, M.R.C.S., L.S.A., St. George's Hospital, &c., late Brigade Surgeon East Surrey Volunteer Brigade, aged 59, eldest son of the late Lieut. John Brunton, R.N., formerly Commander of H.M. Revenue cutter *Mermaid*, and afterwards Governor of the Northumberland County Prison, Morpeth.

BURTT.—On Dec. 11th, at Chard, Somerset, G. R. Burtt, L.R.C.P. Edin., M.R.C.S., aged 78.

DOBBIE.—On Dec. 11th, at the County Hospital, Ayr, Robert Dobbie, M.D., L.R.C.S. Edin., aged 60.

HARDIE.—On Dec. 26th, at his residence, Florence-road, Ealing, Gordon Kenmure Hardie, M.D., Deputy Inspector-General, retired, in the 69th year of his age.

IMLACH.—On Dec. 24th, at Edinburgh, suddenly, Francis Brodie Imlach, F.R.C.S., aged 71.

LANGMORE.—On Dec. 28th, at Domdaire, College-road, Upper Norwood William Butler Langmore, M.R.C.S., in his 80th year.

RICHARD.—On Dec. 22nd, at his residence, Dumbarton, Benjamin M. Richard, L.F.P.S., L.M. Glasg., aged 39.

SKAE.—On Dec. 19th, at Lerwick, Shetland, F. D. A. Skae, M.D. L.R.C.S. Edin.

WATSON.—On Dec. 23rd, at Isleham, Cambs., Edward Watson, M.R.C.S., L.S.A., formerly of North Somercotes, Lincs., aged 76.

WOOD.—On Dec. 29th, at his residence, Wimpole-street, John Wood, F.R.S., F.R.C.S., aged 66.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on December 29th, 1891.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	227	60	..	46	2	335	442
North-Western Hospital	288	41	..	16	1	346	411
Western ,,	109	15	..	25	1	150	224
South-Western ,,	231	42	..	30	2	285	340
South-Eastern ,,	198	20	4	89	1	312	454
Northern ,,	413	19	..	21	...	453	480
Totals	1446	197	4	227	7	1881	2351

SMALL-POX.—*Atlas* hospital ship, 1

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Dec. 31st, 1891.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Dec. 25	30·11	N.E.	27	..	..	46	23		Foggy
,, 26	30·00	S.W.	46	45	57	49	27	·05	Cloudy
,, 27	29·75	S.W.	41	40	53	46	40	·09	Cloudy
,, 28	29·89	S.W.	40	39	57	53	39	·04	Cloudy
,, 29	29·69	S.W.	52	51	66	54	40	·03	Overcast
,, 30	29·72	S.W.	48	47	..	56	47	·03	Raining
,, 31	29·51	S.W.	54	52	57	54	48	·34	Raining

Medical Diary for the ensuing Week.

Monday, January 4.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Professor W. Rose: The Surgical Treatment of Trigeminal Neuralgia. (First Lettsomian Lecture.)

Tuesday, January 5.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor John G. McKendrick: Life in Motion, or the Animal Machine.

PATHOLOGICAL SOCIETY OF LONDON.—Mr. Chas. A. Morton: Tubercular Ulceration of the Tongue, with Sections showing Bacilli.—Dr. H. Rolleston: Sarcoma of Duodenum.—Mr. Raymond Johnson: Pathological Condition in the Mamma associated with Carcinoma.—Mr. C. F. Beadles: Some Histological Changes found in the Breast in association with Glandular Carcinoma.—Dr. G. B. White: A Mamma with a Carcinomatous and Two Adenomatous Growths in it. Card Specimen:—Dr. R. G. Hebbs: Microscopical Sections of Tubercular Endocarditis.

SOCIETY FOR THE STUDY OF INEBRIETY (Rooms of the Medical Society of London, 11, Chandos-street, Cavendish-square, W.).—4 P.M. Dr. James Stewart (Clifton): The Prevention of the Development of Inebriety.

Wednesday, January 6.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour

LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.

OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. Shaw-Mackenzie, Dr. Heywood Smith, Mr. J. Bland Sutton, Dr. G. Beale, Mr. Butler-Smythe, and others. Dr. Herman: On the Relation between Backward Displacements of the Uterus and Prolonged Hæmorrhage after Delivery and Abortion.—Dr. J. Inglis Parsons: Twenty cases of Fibroma and other Morbid Conditions of the Uterus treated by Apostoli's Method.—Dr. Lewers: Six cases of Craniotomy, with Remarks on the Relative Position of Craniotomy and Cæsarean Section.

Thursday, January 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

HARVEIAN SOCIETY OF LONDON.—Clinical Evening. Cases will be shown by Dr. Savill, Dr. Waterhouse, Mr. Costelloe Shaw, and others.

ROYAL INSTITUTION.—3 P.M. Professor John G. McKendrick: Life in Motion, or the Animal Machine.

Friday, January 8.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

CLINICAL SOCIETY OF LONDON.—Sir Dyce Duckworth: A case of Gout of the Penis.—Mr. Bland Sutton: A case of Fracture of the Skull complicated with Hæmorrhage from the Middle Meningeal Artery; Trephining, Recovery.—Mr. F. Bowreman Jessett: Five cases of Gastro enterostomy and Two cases of Jejunostomy for Carcinoma of Stomach.—Mr. Herbert Allingham: A case of Punctured Wound of the Thigh; Femoral Artery and Vein Divided; Ligature of Proximal and Distal Ends; Gangrene of Leg; Amputation through Knee-joint.

WEST KENT MEDICO-CHIRURGICAL SOCIETY (Royal Kent Dispensary, Greenwich).—8 P.M. Dr. Dundas Grant: New Instruments and Methods of Diagnosis and Treatment for Diseases of the Throat, Nose, and Ear.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY (Board Room, West London Hospital).—8 P.M. Mr. Bruce Clarke: Indications for Different Kinds of Treatment in Urethral Stricture.—Mr. Edmund Owen: A case of Cervical Caries and Post-pharyngeal Abscess.

Saturday, January 9.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

ROYAL INSTITUTION.—3 P.M. Professor John G. McKendrick: Life in Motion, or the Animal Machine.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

THE LANCET DURING 1891.

THE following particulars of the work of THE LANCET during the past year have been forwarded to us from a correspondent; and as they are likely to prove of interest to our readers we, after categorically verifying the accuracy of the figures, publish them. From the figures submitted it appears that in the year 1887 THE LANCET contained 11,744 columns, in 1888 it contained 12,376, in 1889 it rose to 13,728 columns, and in 1890 the figure reached was 14,032 columns. The year 1891 shows a still higher figure, a total of 14,304 columns, 5980 of which were devoted to purely literary matters, 8324 columns contained advertisements, and space amounting to nearly 150 columns was required for the purpose of an index. From these figures a simple calculation will show that the average size of each weekly impression has amounted to 137 pages. Looking at the impressions individually it will be found that two of the numbers contain 200 pages each—namely, those of January 1st and September 5th. No single number of THE LANCET of corresponding size has ever before been offered to the subscribers. Of the other numbers there were three of 152 pages, two of 144 pages, thirty-three of 136 pages, ten of 128 pages, and two of 120 pages. THE LANCET last year was permanently enlarged to 112 pages, but that figure has been exceeded by every number issued during the year 1891. One very marked feature in THE LANCET for 1891 was the publication of two Special Supplements in aid of the

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Metropolitan Hospital Sunday Fund, the second of which contained a selection of sermons preached in aid of this fund. Another Supplement (following up and detailing the results of the Special Supplement of the previous year devoted to these subjects) dealt with life assurance and the medical profession. The columns of literary matter include reports of clinical lectures extending over 583 columns; nearly 846 were devoted to Clinical Notes, and about 590 to Original Articles. The department of the Mirror of Hospital Practice occupies over 310 columns, and no less than 208 have this year been devoted to Analytical Articles and Pharmacology. Leading Articles and Annotations have taken up about 905 columns, and 190 were devoted to Critical Reviews of Books bearing on Medical Science. The Correspondence columns exceed 511, and Articles on the Public Health to the extent of 215 columns have been printed. The Reports of the General Medical Council extended to 47 columns; of the Meeting of the British Medical Association to 35 columns, and a Special and Full Report of the International Congress of Hygiene occupied nearly 400 columns of THE LANCET. Matter to the extent of 5394 columns has thus been accounted for, the remaining 586 columns having been devoted to Obituary Notices, Miscellaneous Medical News, Law Reports on Medical Questions, and Parliamentary News, of Interest to the Profession.

A Subscriber.—The question is more legal than medical. But we will not shrink from giving our opinion. We do not quite agree with our correspondent. The other party was acting for him, and he has undergone a very serious ordeal of suffering and injury—which he certainly never bargained for in undertaking, as he did kindly, to officiate for a friend. The three facts mentioned do not, it seems to us, alter the case. The acceptance of responsibility for the full payment may involve inconvenience and hardship to our correspondent, but it will give him lasting satisfaction. It is one thing to ask a friend to undertake the duty of a *locum tenens*, and another to hold him responsible for all legal consequences.

Professor Middendorp.—The copy of the monograph has not been received.

Mr. B. H. N. (Gijon).—We do not give medical advice.

"CURRENT FROM THE MAIN."

To the Editors of THE LANCET.

SIRS,—With reference to my communication in THE LANCET of the 19th ult., I find that it would have been more in accordance with what is occurring in actual practice at the present time to have instanced the supposed incandescent lamp as requiring about 60 watts instead of 50. This does not affect the conclusions arrived at, as even 600 milliampères is still within the safety limit under the conditions named. I am, Sirs, yours faithfully,

Brighton, Dec. 29th, 1891. W. S. HEDLEY, M.D.

AN EIGHTEENTH-CENTURY POET'S PRECEPTS FOR THE MAINTENANCE OF GOOD HEALTH.

PREVENTION is better than cure, and it may be worth while to transcribe some good hygienic rules, formulated by Monsieur l'Abbé de Grecourt, in his work published in 1772. They run as follows:—

USANE INFALLIBLE CONTRE TOUTES SORTES DE MALADIES.

Prenez deux grains d'indifférence,
Autant de résolution,
Dont vous ferez infusion
Avec du suc de patience.
Point de procès, point de querelle,
D'ambition, point de faux zèle,
Demi-livre de gaieté,
Deux onces de société,
Avec deux dragmes d'exercise:
Point de femme, point d'avarice,
Un bon grain de dévotion,
Point de nouvelle opinion.
Vous mêlerez le tout ensemble,
En l'infusant, si bon vous semble,
Avec deux doigts du meilleur vin,
Que vous prendrez chaque matin.
Vous verrez que cette pratique,
Au médecin fera la nique [mockery].

One who Wishes to do Right.—The title "doctor" is not warranted. Surgeon and apothecary are the safe titles; others are questionable.

INCOME-TAX.

To the Editors of THE LANCET.

SIRS,—As in this district we have a new surveyor of taxes, who is very active in "putting on the screw," I advise my professional brethren to see that their life assurance premiums are properly deducted in the demand notes now being sent out before the tax is due.

I am, Sirs, yours obediently,

Dec. 29th, 1891. MARYLEBONE.

SPIRIT-WRITING IN THE FIFTEENTH CENTURY.

THE history of imposture and fraud, like the history of peoples and kingdoms, repeats itself, and there is nothing new under the sun. So that we are not surprised to find that the spirit-writing and precipitated letters were quite well known four centuries ago, as the following letter, taken from the Colloquies of Erasmus, which is worth quoting in part, shows:—

> "From the Imperial Heaven, Ides of September, Anno 1498. Under the Seal of my own ring.
>
> "Faunus, long a captive, but now free. To Faunus his gracious deliverer, sends eternal health. .... God has respected the pious intention of thy mind, and has delivered me from torments; and I now live happily among the angels. Thou hast a place appointed thee with St. Austin. .... In the meantime live merrily."

It is interesting to observe that it was transcribed, not on ordinary paper, but on a peculiar reddish paper, like that which "goldbeaters put their leaf in," and written in a strange antique character. There is no reason to believe that Erasmus fabricated the story of this imposture; the local colouring gives it an air of reality, and, as he says he was in company with men of judgment when the first part of the play was enacted, we can fancy his relating to Dean Colet and others of his learned friends this tale of the portentous apparition, the rumour of which in three days' time had spread over all England, and which was the prelude to the "precipitated" letter quoted above. We can also picture from his written account the merriment it created among that circle of wits, in no wise tender towards imposture or superstition, and especially delighted to have such a fling at the credulity of a priest. It is much to be desired that similar spirit communications and believers in them of the present day could be treated in the same wholesome manner.

D. W.—Unless otherwise stipulated by agreement, all fees are understood to be claimed by the principal. We state the rule, though it must be conceded that in some cases it bears hardly on assistants.

A SUGGESTION.

To the Editors of THE LANCET.

SIRS,—I was much interested in Mr. Heath's suggestion of "digital pressure on the posterior half of the perineum as an aid to defecation." Let me suggest that the same effect can be produced by placing that portion of the perineum on the posterior edge of an oval commode, and, further, that the seat of an utensil can be made much more effectual for this purpose by having the slightest convex prominence at its posterior end. This can be added without the slightest discomfort to the patient. I am, Sirs, yours truly,

W. MURRAY, M.D., F.R.C.P.Lond.

Barrasford, Northumberland, Dec. 23rd, 1891.

IMPERFORATE ANUS.

Mr. W. G. Nash writes to draw our attention to the case which we published in the "Mirror of Hospital Practice," vol. i., 1891, p. 143, which bears a great similarity to the one which we inserted on p. 1335, vol. ii., and which had been under the care of Mr. Elliot.

Gwen Quinton might put her question to the editor of the *Nursing Record*, 11, Ludgate-hill, E.C.

A Subscriber.—Surely the "term now generally adopted" is "Death *under* Chloroform."

Mr. J. D. Lambert is thanked.

TREATMENT OF THREADWORM.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of Dec. 19th, 1891, p. 1410, there is a reference to naphthalin as an anthelmintic, and it is there stated that it is very efficacious for the removal of threadworm. Will anyone who has used it for this purpose kindly give his experience as to its efficacy, mode of administration, and dose for young children? I have been treating two children (both under six years) with all the ordinary remedies for some time, but with little success. Any hints for treatment would be esteemed. I am, Sirs, yours faithfully,

Dec., 1891. X.

W. S. B.—We are not aware of its prevalence at Cheltenham or Malvern.

Mr. A. E. Edwards.—We cannot promise acceptance of the paper.

THE CLIMATE OF JAVA.

To the Editors of THE LANCET.

SIRS,—Could any of your readers give an intending visitor any information with regard to the climate of Java? The duration of the stay on the island would only be a few weeks. Would such a visit entail any exceptional risk to health, and which is the most favourable season for such a visit? I am, Sirs, yours faithfully,

Dec. 29th, 1891. VIATOR.

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COMMUNICATIONS not noticed in our present issue will receive attention in our next.

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NEWSPAPERS.—*Sussex Daily News, Liverpool Mercury, Western Morning News, South Wales Daily News, Dundee Advertiser, Bristol Times and Mirror, Times (New York), Irish Times, Manchester Guardian, West Middlesex Standard, Scotsman, Midland Evening News, Local Government Chronicle, Weekly Free Press and Aberdeen Herald, Windsor and Eton Express, Scottish Leader, Liverpool Daily Post, Bristol Mercury, Surrey Advertiser, Metropolitan, Liverpool Daily Post, Leeds Mercury, Law Journal, Mining Journal, Hertfordshire Mercury, Builder, Broad Arrow, Chemist and Druggist, Sunday Times, Windsor and Eton Gazette, West Middlesex Advertiser, Architect, Spectator, Saturday Review, Pharmaceutical Journal, City Press, Insurance Record, Kilmarnock Standard, Liverpool Courier, Lightning, Standard Union (Brooklyn), Argus (Melbourne), News of the World, Liverpool Echo, Court Journal, Building News, North Wales Chronicle, Dramatic Review, Irish News, Whitby Gazette, Norfolk News, Edinburgh Evening Dispatch, Wolverhampton Chronicle*, &c., have been received.

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ABSTRACT OF THE

Lettsomian Lectures

ON THE

SURGICAL TREATMENT OF TRIGEMINAL NEURALGIA.

By WILLIAM ROSE, F.R.C.S.,

PROFESSOR OF SURGERY IN KING'S COLLEGE, AND SURGEON TO KING'S COLLEGE HOSPITAL.

LECTURE I.

AFTER a few introductory remarks as to the difficulty of selecting a subject which should touch on new ground, Mr. Rose considered that his recent experiences in the treatment of intractable facial tic might be interesting to the Fellows of the Society. The scanty details as to the morbid anatomy, and the unsatisfactory character of the statistical records, from the patients not having been kept under observation long enough, were noted, and a hope expressed that future investigations would be carried out more systematically. The temporary nature of the relief given by the usual operative means was alluded to, and the want of some more radical measure insisted on. He submitted that if the Gasserian ganglion could be removed without risk to life, it held out a better prospect of permanent relief than any other proceeding. Conrads' statistics were then quoted to show the frequency of this form of neuralgia.

Before dealing with the surgical treatment of this disease the lecturer thought it would not be out of place to allude briefly to the causes which produce this condition, and to the symptoms associated therewith, inasmuch as an accurate estimate of these must be formed as a basis of scientific treatment. The following was suggested as a convenient etiological classification:—1. Intracranial causes—cerebral, radical, ganglionic. 2. Cranial. 3. Extracranial or peripheral. 4. Toxic—e.g., mercury, lead, or malaria. 5. Reflex. 6. Functional.

Under *cerebral* causes were mentioned sclerosis, aneurysms, and tumours interfering with the deep origins of the nerve in the pons and medulla. Dr. Putnam's able paper[1] was referred to, from which the following predisposing factors of central disease were quoted:—(1) The large extent of the deep origins, and hence the existence of wide connexions with other nerve tracks rendering this nerve more liable to be affected at its origin by morbid influences from many extraneous sources independent of its own area of distribution, and (2) the elaborate and delicate organisation of the centres, as evidenced by the exquisite sensibility of the parts connected with it—e.g., the lips, tongue, and eyes. Dr. Putnam also maintained that inflammatory changes may occur in a nerve as a result of frequent and severe nerve-storms passing along it.

Radical causes.—Any inflammatory affection of the dural sheath lining the fibrous canal through which the root of the nerve passes on its way from the pons to the ganglion was suggested as a possible origin of the disease.

Ganglionic causes.—Chronic interstitial inflammatory changes pressing on the nerve cells were present in one of the author's cases, and such may probably be a starting point of the neuralgic condition. Carnochan's opinion as to the function of Meckel's ganglion was mentioned.

Under *cranial* causes were included all the morbid processes occurring at the base of the skull and the foramina in it through which the nerves pass. Bony and malignant tumours, callus from fractures, and syphilitic periostitis were alluded to, and some observations made by Mr. Carless on the shape and size of the foramen ovale were introduced to illustrate the fact that the foramina are smaller in females than in males; that the foramina are inconstant in lumen and often asymmetrical, and that in form they may vary from nearly a circle, seven or eight millimetres in diameter, to a narrow slit not more than two millimetres broad. They were stated not to vary at all regularly with the age of the patient, but more with the shape and size of the cranium.

The *peripheral* causes were next dealt with, and special attention was devoted to three conditions: 1. Dental caries was a fruitful source of the trouble, and it was alleged that neuralgia might be started by a tooth which is itself not painful and might be increased by its extraction. The filling-up of the alveoli of edentulous jaws with bone, which compresses the nerve filaments, as described by Gross, was stated to have been relieved by the removal of wedge-shaped pieces of bone or by drilling into them. 2. The condition of the peripheral bony canals had long been recognised as a potent factor in the production of the disease, especially in cases where the infra-orbital and inferior dental nerves are affected. The non-occurrence of neuralgia in children when these canals are widest was mentioned, also the fact that a contraction of their lumen had been met with on the operating table. Unfortunately, though the cause might be removed the effect remained, and often tended to spread upward. 3. Exposure to cold or damp was also noted as being associated closely with the production of the disease, and presumably the pathological condition present was a rheumatic perineuritis producing pressure upon the nervi nervorum. Retention of secretion in the frontal sinuses (Horner and Seelig-Müller), disease of the ear (Tröltsch and Moos), implication of the nerves in cicatrices, impaction of foreign bodies, &c., were also included in this division.

The *toxic*, *reflex*, and *functional* causes were summarily dismissed, but importance was attached to a morbid neurotic temperament, either inherited or acquired; to anæmia, and to worry as predisposing, if not exciting, causes of the pain.

A marked distinction was drawn between the simple forms of the disease and the severe variety known as tic-douloureux or epileptiform neuralgia. The latter term is a modification of the name suggested by Trousseau—viz., "tic epileptiforme," and the similarity of the paroxysmal attack to an epileptic seizure was commented on. This severe variety is more common in the second and third divisions of the nerve than in the first, the infra-orbital and inferior dental branches being especially liable to it. The simple form would appear to more commonly affect the ophthalmic division, and it is now generally acknowledged that supra-orbital neuralgia is more closely associated with central neurosal conditions, such as migraine, &c., rather than with tic. The amenability of this form to quinine, and the frequent periodicity of the attacks, have suggested the term "brow-ague," so often applied to it, although there is no absolute evidence connecting it with malarial poisoning.

The pathological anatomy was next dealt with, and Professor Dana's recent paper in the *American Journal of Nervous and Mental Disease* (No. 1, 1891) commented on. This author maintains that although many causes of inveterate facial tic are due to definite local lesions—such as tumours, aneurysms, &c.,—yet the majority are due not even to a neuritis of the branches affected, but rather to an obliterative endarteritis of the vessels supplying the nerve.

The microscopical appearances of the excised nerves were alluded to, the observations of Mr. Horsley,[2] Dr. Putnam,[3] and Prof. Schweinitz[4] collaborated. The axis cylinders are found swollen or shrunken, and sometimes have disappeared entirely; they are usually difficult to stain with either logwood or carmine. The medullary substance often appears swollen, and the sections of the tubules are not clear and sharply defined, but consist of a confused mass of concentric rings. "The transverse section of nerve fibres might in places be not incorrectly compared to the interior aspect of a minute oyster-shell both in shape and by virtue of this peculiar concentric arrangement" (Schweinitz). The sheath of Schwann is crumpled up more or less, and its nuclei increased in numbers. The interstitial connective tissue (or endoneurium) is also increased in amount, especially around the bloodvessels. These appearances are similar to those seen in a case of chronic neuritis, and that of an ascending character, the changes being often more marked peripherally than at the central end. Putnam notes the fact that all the fibres in a nerve are not invariably affected in the same way, and often healthy and diseased tubules may be seen in the same section lying side by side. The perineurium is also in some cases thickened, and some observers have noticed small nerve bundles lying in this tissue with the fibres very much changed. These are probably the remains of the "nervi nervorum" described by the late Mr. John Marshall,

[1] Boston Medical and Surgical Journal, August, 1891.

[2] Trans. Odont. Soc., 1887, xix., p. 270.

[3] Vide paper by Ewing Mears, Transactions American Surgical Association, 1884, ii., p. 469.

[4] Boston Medical and Surgical Journal, Aug. 13th and 20th, 1891.

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the compression of which may possibly be one of the chief factors in the production of the pain.

Turning to the clinical aspect of the disease, the leading symptoms of a typical case were given as follows: The patient, usually a female, and probably in the middle period of life, complains of more or less periodic attacks of severe unilateral cumulative pain, darting along special nerve tracks, and referred particularly to the points of exit of the peripheral branches upon the face, especally to those of the second and third divisions. The attacks, after reaching a certain pitch of severity, suddenly subside, leaving the patient intervals of freedom, which, as the complaint advances, become proportionately diminished. As these intervals become shortened, so does the general tone of the nervous system become sympathetically lowered from anxious apprehension and dread of the return of the pain. As a severe paroxysm of pain frequently follows any touching of the affected parts of the face, patients guard them most jealously; washing even is avoided; and the lecturer had seen many such cases where the side of the face was distinctly dirty from this cause. Similarly the tongue may become thickly covered with fur on the affected side in consequence mainly of the patient using only the opposite side of the mouth in mastication, but possibly also to trophic disturbance. Stimuli reaching the centres from other sources, such as the mere slamming of a door, any sudden noise, or a draught of air, will suffice in like manner to precipitate an attack, so that the patients live in a morbid state of dread. In the midst of speaking, laughing, coughing, and particularly chewing, a paroxysm may occur with lightning-like rapidity, causing a sudden cessation of any of these acts. The special character of the pain must be carefully noted as being entirely different from those migratory or wandering pains which often attack these patients in the intervals between the paroxysms of true tic, and which might mislead the medical attendant in arriving at a decision as to the exact seat of the lesion. Those who have long suffered from this disease look upon them as trifling in comparison with the agony of which they are so frequently the precursors. Abnormal conditions of the motor, vaso-motor, and secretory apparatus also form part of a typically severe attack. Spasmodic or paralytic motor symptoms may be seen, more commonly the former; in neuralgia of the third division, for example, the muscles of the jaw, face, and even those rotating the head, may be spasmodically contracted. There is often an abundant flow of mucus from the nose, as well as of saliva and tears accompanying the attack, whilst beads of perspiration often stand upon the affected side of the forehead and face. Again, vaso-motor paralysis is manifested in a reddening and heightened temperature of the side of the face, with swelling of the veins, and the conjunctiva may be similarly affected. As a result of this, in old long-standing cases, the lips may become thickened and tumefied from chronic inflammatory hyperplasia.

The *differential diagnosis* was discussed and the importance emphasised of ascertaining, if possible, the exact site of the lesion. The previous history and surroundings of the patient should be carefully investigated, special stress being laid on possible injuries to the soft and hard structures in any part of the area of distribution of the nerve. The teeth should be examined by a skilled dentist, and old stumps removed. In women the condition of the uterus and ovaries, and the regularity or not of the menstrual functions, should also be noted. But even if the case be due to some central lesion, the lecturer maintained that operative measures may be distinctly of value in relieving the pain, and he discussed Bell's and Wagner's theories to explain this occurrence.

After a passing allusion to the medical treatment, general and local, and to the use of hypnotism, the different means of dealing directly with the nerves surgically were described as follows:—

In reviewing generally the *operative treatment* of this disease, the first and simplest method employed, that of *neurotomy*, was suggested by Albinus and Galen, and first carried out on a branch of the fifth nerve by Schlichting and Maréchal about 150 years ago, but good results did not follow their efforts. It was performed more or less frequently up to 1840, and then for a decade or more seems to have fallen into disuse, if the silence of records is to be so interpreted. But in 1852, M. Roux of Paris recorded four cases of operation on the fifth nerve, since which time they have become numerous enough. The plan usually adopted was that of introducing subcutaneously or under the mucous membrane a fine tenotome and so dividing the nerve, whilst in a few cases the open method was employed. Transient relief followed in some instances, but not in all; and usually the neuralgic pain recurred at an early date with all its old severity. The cause of this is not far to seek, in that we now know how very readily divided nerves reunite, and even when a portion of a nerve trunk is entirely removed, regeneration of the destroyed portion is a matter of frequent experience. The scar itself, moreover, may become the exciting cause of the relapse and may require extirpation. To prevent this reunion of the nerve, *neurectomy* on a more extensive scale naturally suggested itself, and in this country it was performed for the first time by Abernethy in 1793. Even then insufficient portions of the nerve trunks were removed, seldom more than half an inch, so that the regenerative energy of the nerve soon bridged over the interval, and the pain recurred. Many other plans were suggested to obviate this. Thus, in 1822 Klein crushed and cauterised the central end; Middledorpff, Bardeleben, and Luikart divided the nerve with the galvano-cautery; Boyer cauterised the peripheral end; whilst Malgaigne split one or both ends longitudinally and turned them back in a loop manner, in other cases attempting to place a flap of soft tissue between the two ends. M. Péan more recently has recommended the old plan of removing the central end by cauterisation. The results of all these earlier operations, whether neurotomy or neurectomy, were not satisfactory, as the following statistics will show:—Otto Weber[5] collected 100 cases with only 18 cures. Wagner in 1869 recorded 135 cases (possibly including Weber's) and the results given were:—Cures after three years, 18; fatalities from sepsis, 6; in 1 case only, relief was experienced for less than a month; in 32 cases, it continued for months; in 20 cases from one to three years; in 24 the relief was temporary, but the after-history was not known. Dr. Fowler of Brooklyn[6] collected 83 cases recorded since Wagner's list was published; but the statistics are of comparatively little value, as so many of the patients were kept under observation for but a short time.

The regenerative energy of the nerve was shown not to be the only cause of the relapses. Attention was directed to the important fact that so many of the branches of the nerve passed through bony canals, and were thus more directly exposed to pressure, whilst it was also noted that during the period of life when these bony canals were relatively widest—i.e., among children—neuralgia is practically unknown. The suggestion naturally followed that the nerves should always be divided on the proximal side of the canals.

As to the extent of the operation of neurectomy, it is eminently desirable to divide the nerve as high as possible, in order to get above any undiscovered lesion; whilst it is also advisable to remove as much of the nerve peripherally as is practicable in the affected locality, in order to give the nerve centre as much rest as possible, and prevent stimuli from reaching the brain along anastomosing trunks. Mr. Rose continued: "The removal of a large extent of the nerve trunk was first suggested, I believe, by Professor Braun as a means of dealing with the infra-orbital nerve; he advised its division at the foramen rotundum, and also at the infra-orbital foramen, removing the whole of the intervening portion by traction. M. Beau of Toulon recommended a similar process to be adopted in the treatment of the inferior dental branch, dividing it at its entrance to the dental canal, and at its exit from the mental foramen, and removing the part between. But it was Professor Thiersch,[7] who carried out this plan of *nerve-extraction* more thoroughly, and extended the operation to all the divisions of the trigeminal. He frees the nerve from its connexions at some spot easily accessible, and then by a process of torsion with specially constructed forceps he is able to draw out a considerable length of it both distally and proximally, tearing the central end away and cutting the peripheral. By this means very large portions of the nerve can be removed, and so, it is hoped, recurrence of the neuralgia more effectually prevented. He recorded twenty-eight cases of the operation in 1889, performed on seventeen different patients, having operated eleven times on the infra-orbital,

[5] Pitha and Billroth's Handbuch, Bd. iii., Ab. i., Lief. i., p. 163.
[6] Annals of Surgery (St. Louis), 1886, iii., p. 269.
[7] Deutsche Gesell. f. Chirurg., 1889, S. 44.

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five times on the supra-orbital, four times on the inferior dental, thrice on the lingual, and once on the mental. Five or six centimetres can be removed from the supra-orbital; and he showed two specimens of the lingual nerve that had been extracted from the cadaver, 9·5 and 15 centimetres in length respectively. Of the second specimen 6 centimetres were central, and 9 peripheral, measured from the angle of the jaw beneath which the nerve was grasped; and he calculated that it was torn through only one or two centimetres from the Gasserian ganglion. As to his results on the living subject, a marked degree of success attended his practice. Only one case had relapsed, and that in a very hysterical subject; several of the operations had been performed six years previously. Paresis of the facial muscles had occurred temporarily in a few instances, and this is attributed to damage to the facial nerve terminals through the avulsion of the sensory twigs distributed with them.

"The value of *nerve stretching* as a means of treatment was accidentally discovered by Nussbaum of Munich in 1860, from the disappearance of a tetanic spasm of the arm after an accidental stretching of the ulnar nerve during resection of the elbow. In 1861 Hauser similarly by chance cured a contraction of the fourth and fifth fingers; and in 1869 Billroth[8] unintentionally cured a case of sciatica by the traction made during a thorough examination of the sciatic nerve. But it was Nussbaum who reduced this plan of treatment to method, and first deliberately stretched the brachial plexus in 1874,[9] whilst Vogt in 1876 appears to have been the first to use it in trigeminal neuralgia. Since that date the operation has been largely employed, and its value has been pretty accurately ascertained in the treatment of the many conditions to which it has been applied. Its use in cases of neuralgia has not been very satisfactory, and especially is this so in facial tic. Statistics are not of much value in the investigation of this subject, inasmuch as the cases were kept under observation for so short a time. Hahn of Berlin records eleven cases, however, of which eight relapsed after six or eight months, two were utter failures, and only one case was really improved, although not cured, and in this a portion of the nerve was excised after being stretched. Lagrange gives somewhat similar unsatisfactory accounts of the operation of stretching the supra-orbital nerve; out of fifteen cases there was but one known cure after three years, and five were quite unsuccessful; in one there was but temporary relief, and the subsequent histories of the other cases is not recorded. Of six neurectomies of the same nerve, four were successful. The same author contrasts neurectomy with nerve stretching of the infra-orbital nerve; and whilst with the former 25·67 per cent. of the cases remained free from pain after three years, only 12·57 per cent. of those in which the nerve was stretched were similarly free at the same time. Practically it is now admitted by almost all surgeons that nerve stretching should be retained as a means of dealing with neuralgia of mixed nerves only, and undoubtedly it is beneficial in some such cases. But with the fifth nerve, which is almost entirely sensory, no permanent relief can be expected from the operation, and neurectomy is infinitely to be preferred. Probably, however, in all cases of neurectomy, a certain amount of stretching of both central and peripheral ends accompanies the manipulations necessary to free the trunks, and it is a perfectly open question as to whether or not such traction has any beneficial effect or otherwise on the course of the disease. That central changes can result is now a fact tolerably well established in those instances where the nerves pass directly through short, straight canals to the central organ. Thus Dr. Pauline Tarnowski, in the *Archives de Neurologie* (May and July, 1885), has reported the results of experiments made by him on rabbits. The sciatic nerves were stretched, and the spinal cords carefully examined at varying intervals of time. If slight traction alone was employed—e.g., 500 grammes—the only change found was a transient hyperæmia which soon passed away. But when the force reached four or five kilogrammes more definite changes occurred, unnecessary to particularise here, beyond stating that in the grey matter hæmorrhages and inflammatory exudations were seen soon after the injury, and later on sclerosis with atrophy of the nerve cells, such changes being always more marked in the posterior than in the anterior cornua. It is quite probable that similar effects may be produced in the Gasserian ganglion by stretching the branches of the third division, but evidently sufficient curative effect is not thereby established.

"One other plan of treatment which has been suggested must be alluded to—viz., *ligature of the carotid artery*. It was originally recommended and practised by Trousseau, and up to the present time, so far as I can ascertain, but eighteen cases have been thus treated, and the results as given by Dr. Fowler have been as follows:—In four cases there was relief for over three years, in three for fifteen months, in four for one year, in one case there was only partial relief, and in two cases no relief. One case was fatal. The longest period of relief was eleven years, but it must be noted that some of the reported cures had also been treated by nerve stretching and excision. Roser is stated by Madelung[10] to have tied the external carotid for tic thrice, with one cure. Of this plan I have had no experience, and, indeed, have heard of no cases in which it has been recently tried; but one cannot help being struck by the above results, especially in connexion with the theory of obliterative endarteritis, alluded to earlier in this lecture propounded by Professor Dana. The figures quoted indicate a measure of success which is certainly somewhat greater than that usually attending operations directed to the nerves themselves. The mortality of the operation is a serious objection to it, for whilst it will be less than when the artery is tied for aneurysms &c, Hüter calculates it is about 5 per cent. in these cases, and such a fact would exclude it as a means of treatment, except as a last resort. Moreover, even if not fatal, the possible effect upon the cerebral hemispheres must not be lost sight of in advising such a plan of treatment. That death has occurred from neurectomy is an undoubted fact, but this is usually explained by septic contamination of the wound which can be avoided, and I am thankful to state that I have not yet lost a case in any of my nerve operations. Should, however, a recurrence of the pain occur after dealing with the Gasserian ganglion, this operation of carotid ligature can still be resorted to."

[8] Archiv. f. Klin Chirurg., xiii. S 379.
[9] Deutsche Zeits. f. Chirurg., 1874.

[10] Archiv f. Klin. Chir., xvii.

Clinical Lectures
ON
STRICTURE OF THE ŒSOPHAGUS,
WITH FOURTEEN ILLUSTRATIVE CASES, IN FOUR OF WHICH GASTROSTOMY WAS SUCCESSFULLY PERFORMED.

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LECTURE I. (*Concluded.*)

IN the second class of cases—viz., those where the growth has developed at the level of the bifurcation of the trachea, the supervention of dysphagia is generally, other conditions being equal, more gradual, but the special points in diagnosis are more difficult and various.

During the session we have had two cases of cancer at the level of the bifurcation of the trachea, and in both the development of difficulty in swallowing has been very gradual.

CASE 5. *Epithelioma of the œsophagus at the level of the bifurcation of the trachea; ulceration and rupture into the aorta; early symptoms, dysphagia, afterwards improving, dyspnœa, unequal inspiration in lungs; dull area posteriorly; death from hæmorrhage*.—G. A——, aged fifty-seven, was admitted into the Glasgow Royal Infirmary on March 25th, 1890, complaining of difficulty in swallowing, which, he said, commenced at the beginning of December, 1889. The first difficulty he experienced was in swallowing solid food, and this gradually increased until the middle of February in the present year, when he had to give up taking solids, and since that time his diet has been composed entirely of liquid food. During the act of swallowing he feels as if the difficulty in deglutition was caused by con-

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striction at the level of the cricoid cartilage, but once the bolus has passed that point it occasions him no trouble, nor has he ever suffered from vomiting, cough, alteration in the voice, or pain. The pupils are equal, and the radial pulses are synchronous and equal in force, although somewhat weaker than normal. On passing a bougie (No. 16) a complete obstruction is met with, thirteen inches from the teeth, so that the stricture of the œsophagus may be said to be situated between the level of the supra-sternal notch and that of the bifurcation of the trachea. The largest size of bougie which passed through the stricture was a No. 6. On inquiring into the history of the case, no evidence could be found to show that the patient at any time suffered from syphilis, or sustained any traumatic injury to the œsophagus. On palpating the neck, nothing abnormal could be discovered in the line of the gullet or in the lymphatic glands. The larynx and trachea, as far as could be seen, were quite healthy, but on the least exertion the patient suffered from well-marked dyspnœa.

Physical examination of the chest showed the cardiac sounds to be pure, but feeble, and very irregular in rhythm; but there was no evidence of valvular disease. I did not examine the condition of the lungs critically, but posteriorly, in the interscapular space and to the left side of the spine, on a level with the fourth dorsal vertebra, and extending upwards and downwards from that point, there could be detected a distinct localised dulness occupying an area of about three or four square inches. Associated with this dulness on the left side, and about the same level as the obstruction in the œsophagus, there was evidence that air was not entering the left lung as freely as the right.

The patient was sent to Dr. Jas. Wallace Anderson, who kindly furnished me with the following report: "The upper left front of the thorax is slightly retracted, and there is a corresponding diminution of expansion; there also being a rather increased resonance on percussion over the same area The respiratory murmur over this area is less full and free than on the right side, at some points being hardly audible, at others of a whiffling, wavy character, but always faint. Posteriorly there is a mere suspicion of dulness in the upper left interscapular region. The respiratory murmur is distinctly fainter on the left side at the level of the third, fourth, and fifth dorsal vertebræ, and this diminution is continued one or two vertebræ lower on that side. The respiratory murmur over the left lung generally, though quite audible, is fainter than on the right side. There is no alteration in the vocal resonance, and no râles are heard anywhere. Cardiac phenomena and circulation generally are all perfectly natural."

At this time (April 1st) I was quite satisfied that the case was one of cancer of the œsophagus, but as there was no demand for surgical interference I transferred the patient to Dr. Wallace Anderson's care. During his residence in Dr. Anderson's ward he was kept at rest in bed, and as a result of treatment the symptoms became less pronounced, and the patient desired to be dismissed, and to return to his ordinary employment. Between April 1st and May 24th great improvement took place in his power of swallowing, and he gained in weight; so that when he was dismissed he was able to swallow not only fluids with freedom, but with a little care solid food as well. This improvement, with freedom from pain in swallowing, and the absence of vomiting, emaciation, or anæmia, led me to doubt the accuracy of my first diagnosis, and consider whether or not the dysphagia and impaired respiration on the left side might not be due to the presence of an aneurysm or solid tumour at the bifurcation of the trachea. A large-sized bougie now passed with ease. During the summer months the patient enjoyed moderately good health, and was able to swallow well both fluid and semi-fluid food; but in the autumn he again began to suffer from dysphagia, and he stated that since he was dismissed from the infirmary he suffered greatly from breathlessness. Patient was re-admitted into my ward on Oct. 7th. On passing a bougie (No. 12) it was found to be impossible to get it past thirteen inches from the teeth. At this time I went over the case very carefully again, and found the patient to be very much in the same condition as in April, except that, perhaps, he suffered more from dyspnœa, and I made a note in the journal to the effect that "although there are no positive signs of aneurysm, the situation of the obstruction, the dyspnœa, the impaired respiration on the left side, the area of dulness posteriorly, and the history of the case, raise the gravest suspicion of an aneurysm at the bifurcation of the trachea." On Oct. 18th the patient spat up a small quantity of dark blood, and for the first time complained of pain in the chest. On the 28th he again suffered from a deep-seated gnawing pain in the præcordial region, and when I saw him in the morning he was looking very ill. At 1 o'clock on the following morning the patient raised himself in bed suddenly, because of some distress referred to the chest. Immediately he sank back on the pillow and became blanched, his pulse at that time being small and thready, and a few minutes afterwards almost imperceptible, while he continued to breathe after the pulse had ceased.[1] The breathing was of a sighing nature. Between each respiration an interval of about half a minute occurred, which gradually increased until the breathing ceased altogether. This form of respiration lasted for about eight minutes.

Post-mortem examination revealed a malignant perforating ulcer of the œsophagus opening into the thoracic aorta, causing fatal hæmorrhage into the stomach and intestine. Dr. Lindsay Steven's report was as follows:—"The pericardium contains about three ounces of slightly blood-stained serum. The heart is very soft and flabby, and its external fat is much increased on the surface of the right ventricle. The aortic and pulmonary curtains are competent. There is slight atheroma a little above the free margins of the semilunar curtains, but the orifices of the coronary arteries are patent. The muscular tissue is very soft, but on the whole normal looking. On cutting into the septum, slight yellowishness of the fibres is observed. The lungs, trachea, and gullet are removed together. The left lung is pretty generally and moderately firmly adherent, the pleura in this situation being of cartilaginous hardness, and perhaps even slightly calcareous in parts. This very firm adhesion on the left side extends upwards as far as the fifth or sixth dorsal vertebra, but does not extend round towards the front. After the thoracic viscera have been removed, a probe is passed into the gullet from above, and its further progress downwards is completely arrested at the level of the bifurcation of the trachea. On passing the probe from the gastric end of the gullet, it passes through the entire length of the tube without any difficulty. The trachea is then opened along its posterior wall, almost to the bifurcation, but nothing abnormal is seen in it. The thoracic aorta is then laid open by cutting with the scissors from below upwards. Its internal coat presents tolerably healthy characters, but about an inch below the arch, and towards its posterior border, a circular opening with thin and somewhat ragged edges is found; this opening leads into a ragged cavity. The gullet is next laid open, and at the level of the obstruction just mentioned a large ragged ulcerated cavity containing débris of blood-clot and broken-down tissue is found in its wall. The upper margin of this excavation is raised and rather sharp, and presents the typical characters of the margin of a malignant ulcer. The cavity had evidently eaten its way into the aorta, and produced the aperture in that vessel described above. It should also be noted that the wall of the aorta, in the neighbourhood of the aperture, which is about the size of a threepenny-piece, is somewhat thinned." The other case is still in the ward.

CASE 6. *Scirrhus of the œsophagus at the level of the bifurcation of the trachea; very slow development of symptoms; gastrostomy successful.*—J. P——, aged fifty-six, admitted into the infirmary on Jan. 26th, 1891. On inquiring into the history of the case it appears that about six months ago he experienced slight difficulty in swallowing such articles of diet as butcher's meat, potatoes, and fish, but after a few attempts he was able to take a satisfactory meal. From being slight, the dysphagia steadily became more marked, so that within two months of the onset of the symptoms he found that after taking a few mouthfuls of food just mentioned his gullet got filled up, and he felt a choking sensation in his throat. Sometimes after repeated attempts at swallowing such food was ejected, but he found little difficulty in swallowing oatmeal cake, porridge, or snow-cake. Soft bread was swallowed with greater difficulty. Fluid food has always been swallowed with ease. Between June and December, 1890, the patient's weight was reduced 28 lb. When admitted into the hospital he was unable to swallow solid food, and had not eaten butcher's meat for some weeks. He was able, however, to take porridge, very finely minced meat, and bread

[1] The mode of death was observed and described by Dr. J. G. Gray, the resident assistant, who kept careful notes of the case.

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when partaken of along with a good quantity of fluid. On passing an œsophageal bougie a firm stricture is discovered thirteen inches and a half from the teeth. From the situation of the stricture the question was at once raised whether the obstruction to swallowing was due to pressure from without, or to the presence of a growth within, the gullet. Careful physical examination of the chest made by Dr. Wallace Anderson and myself showed the thoracic organs to be quite normal. On auscultation of the œsophagus the act of deglutition was shown to be delayed and prolonged below the level of the third dorsal vertebra. There was no evidence of pouching of the œsophagus above the seat of obstruction, and on all occasions the quantity of food which regurgitated was never greater than what was last swallowed. At no time has the patient suffered pain, nor has blood been observed in the vomited matter. No history of injury or of syphilitic disease. During the time the patient was in the ward his general condition improved, and his weight was maintained at from 138 lb. to 139 lb. After being in the ward for two months he was dismissed, and requested to report himself once a fortnight. The patient returned to the Royal Infirmary, and gastrostomy was successfully performed in December, 1891. The patient was still able to swallow some food by the mouth.

When an obstruction to swallowing is detected at the level of the bifurcation of the trachea great care must be taken in the passage of bougies. While I was pathologist to the Royal Infirmary a case came under my observation where a very complete obstruction to swallowing was caused by an aneurysm of the aorta. In this case a physician, supposing the obstruction to be due to a tumour in the gullet, passed a bougie, and perforated, not only the œsophagus, but the wall of the aorta. The hæmorrhage which resulted caused the patient to be sent to the Royal Infirmary, and she died shortly after admission. This case made a very strong impression upon my mind, and, as a consequence, I have been most careful, when I discover an obstruction in the situation indicated, to avoid the passage of bougies unless it is very evident that there is no aneurysm or ulceration of the œsophagus.

In other cases difficulty in diagnosis is only experienced during the early stage of the case, when, with evidence of well-marked obstruction in the œsophagus, there are no physical signs directly pointing to aneurysm, and the only symptom which leads one to suspect serious disease of the aorta is paralysis of the left vocal cord. The value of this symptom in distinguishing between aneurysm and other causes of œsophageal obstruction is considerable, and in one of the cases seen this session it, to a great extent, prejudiced my mind in favour of aortic aneurysm as the cause of the dysphagia, even although no other symptoms pointed in the same way. And while it is quite true that, in a few exceptional cases, unilateral paralysis of the muscles supplied by the inferior laryngeal nerve may be caused by other conditions, I think it is of the utmost importance to bear in mind the undoubted fact that aneurysm of the transverse arch causes paralysis in the large majority of cases. Indeed, for practical purposes, it may be looked upon as the cause of paralysis in nineteen out of twenty cases. Undoubtedly cases have been recorded in which paralysis of the left recurrent laryngeal nerve has been the result of pressure by tumours in the œsophagus,[2] by enlarged bronchial glands, by pleuritic adhesions or fibroid induration of the apex of the left lung, by enlargement of the thyroid body, by great pericardial exudation, or by hypertrophy of the heart, leading by pressure or displacement to interference with the function of the nerve. The answer to the question, What is the cause of the paralysis? is usually easy, but in a few cases it is almost impossible to give a definite reply. In such cases, I would say, treat the case as one of aneurysm of the aorta. In my experience I have seen a considerable number of these at first obscure cases, and in the large majority they have proved in the end the accuracy of the statement I have just made.

The remaining class of cases—namely, those where the cancerous formation is situated at the lower end of the œsophagus has also been well illustrated in the three following cases.

CASE 7. *Epithelioma of lower end of œsophagus; history of sudden and steadily increasing dysphagia, culminating in almost complete obstruction; gastrostomy in two stages, followed by improvement in swallowing.*—W. H——, a labourer aged sixty-eight, was admitted into the Glasgow Royal Infirmary on Oct. 7th, 1890. He stated that about five weeks previous to admission he found one day that he was unable to swallow any solid food, although still able to swallow fluid and semi-fluid diet, some articles of food passing into the stomach more easily than others. As a rule, he experienced greater difficulty in swallowing hot than cold substances. Since the onset of these symptoms the dysphagia has steadily become worse, so that on admission the patient was greatly emaciated, his weight being reduced from 16 st. to 9 st. 10 lb. Now if fluid food be swallowed rapidly or in any quantity at a time, it is ejected with considerable force. There is no evidence of any pouching of the œsophagus above the seat of obstruction, the quantity of food vomited being only what has been last swallowed. On passing a full-sized bougie an obstruction is met with at the lower end of the œsophagus, which, on further examination, is found to permit the passage of a No. 10 œsophageal bougie. The patient stated that he had not suffered pain at any time, nor had he noticed any blood in the vomited matter. There was no history of injury or of syphilis. In respect to treatment little has to be said, the principal object being to introduce as much nourishment as possible in a concentrated form both by stomach and by nutrient, zyminised suppositories, and enemata.—Oct. 27th: Since admission the dysphagia has become steadily worse, so that now the patient is unable to swallow more than a few spoonfuls of fluid in the twenty-four hours. His weight is now 9 st. 1 lb. Gastrostomy was therefore performed, and the patient made a good recovery.[3]

CASE 8. *Epithelioma of the lower end of the œsophagus.*—J. F——, aged sixty-three, was shown to you at a demonstration last week. It appears that he first experienced a difficulty in taking solid food on Oct. 16th, 1890, and since that date the dysphagia has steadily increased, so that at present he is only able to take cold fluid food. During this period his weight diminished from 160 lb. to 130 lb., and he is now very anæmic and complains much of weakness. He had no morbid sensation in the throat, further than what is produced by a regurgitation of food, and sometimes the quantity which accumulates above the stricture amounts to more than one pint. When he attempts to swallow food rapidly, or in considerable quantity at a time, it is suddenly ejected with force, and not infrequently flows into the nostrils and larynx. He has never noticed any blood in the vomited matter. On introducing a full-sized bougie a stricture is detected at the lower end of the œsophagus, through which not even the smallest size of bougie can be passed. A careful physical examination of the chest fails to reveal any abnormality of the thoracic organs, further than that the action of the heart is feeble and the pulse numbers from 55 to 65 per minute. The patient was very anæmic and extremely weak from want of food, and he was advised to come into the hospital immediately, but this he failed to do. Since I examined him before you he has not been seen by me. He left the hospital, and probably we will see him no more.

CASE 9. *Acute carcinoma at the lower end of the œsophagus involving cardiac end of stomach; death from collapse.*—H. C——, aged seventy-one, was admitted into the hospital on Jan. 30th, 1891. Four months previous to admission the patient enjoyed perfect health, and was able to take his food without the slightest difficulty, but he noticed that his appetite was not so good as formerly, and this want of desire for food continued until the beginning of December, when he noticed for the first time difficulty in swallowing certain kinds of food, such as potatoes, bread, and butcher's meat. At the beginning of the month, the difficulty in deglutition was but slight; the dysphagia, however, steadily and rapidly increased, so that by the beginning of the year 1891 he was quite unable to swallow any solid food, and during the first fortnight of January he had taken nothing but a little sherry negus, and a few spoonfuls of beef-tea occasionally. His ordinary weight was 174 lb., but on admission he weighed only 141½ lb., and considering that his height is 5 ft. 11½ in. he looks very much emaciated. The pulse was firm and strong, and numbered 100 beats per minute. Little or no anæmia and no pain. On passing an œsophageal bougie a complete obstruction is met with close to the stomach. The stricture is so complete that it is with the greatest difficulty a No. 3 bougie was passed. As a consequence of the extremely weak condition of the patient, and

[2] In Case 4, before the patient left the ward there was complete paralysis of the left vocal cord.

[3] Patient progressed favourably during the early summer, and the disease advanced very slowly; but, not receiving proper attention at home, he was found dead in bed from starvation in August.

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his inability to take food by the mouth, he was fed by the rectum by means of beef peptonoids, peptonised beef-tea, and meat suppositories. Physical examination of the chest gave the following results:—The sounds of the heart are feeble, but there is no evidence of organic disease. Lungs normal. On palpating the abdomen the liver is found to project downwards beyond the costal cartilages for a distance of about one inch and a half, but on percussion the hepatic dulness is not found to be increased, and no nodules can be discovered. To the left of the liver the percussion is equivocal, and to the hand there is a marked resistance in the region of the stomach. Other abdominal organs normal. From the circumstance that the obstruction was situated so low down and was associated with marked resistance in the region of the stomach, which indicated that that organ was involved in the disease, I resolved not to operate, and the patient died in a few days from collapse.

The necropsy showed the thoracic organs to be normal. The liver was found to be displaced downwards and to the left, so that the left lobe overlapped and hid from view the contracted and empty stomach. At the lower end of the œsophagus, and along the neighbouring parts of the stomach, there was a large and widespread malignant ulcer, and the substance of the tumour involved the entire thickness of the stomach wall throughout an area of about four inches square, the greater part of which occupied the greater curvature. The tumour was an encephaloid carcinoma. There were no secondary formations.

With these cases before you it is at once obvious that not only the symptoms during life, but also the mode of death, are determined by the situation as well as by the precise nature of the malignant disease. It is clear I think that even a slow-growing epithelioma, if situated in the uppermost part of the œsophagus (as, for example, in Cases 3 and 4), will lead to death by starvation sooner than a more rapidly growing tumour situated at the level of the bifurcation of the trachea, or at the lower end of the œsophagus—e.g., Cases 5, 6, 7, and 8. Putting the question of situation of the tumour out of account for the moment, and, other conditions being equal, I think it may be safely said that adenoid cancer grows most rapidly, and, if not interfered with, causes death in the shortest time. Epithelioma is less acute, while scirrhous cancer, as shown in Cases 2 and 6, may remain practically stationary for a considerable period. As will be observed by reference to the cases I have demonstrated to you, the most prominent and constant symptom is dysphagia, which, as a rule, is at first slight in degree, but gradually and steadily progressive, at first occasional, but afterwards always present. In some cases, on the other hand, the difficulty in swallowing develops suddenly, and is from the beginning severe. This is experienced when the tumour is situated high up, but if the lower part of the gullet be attacked in not a few instances the patient only complains of severe difficulty in deglutition after the disease has been shown to exist for some considerable time. The usual experience is that solids, especially bread, potatoes, and butcher's meat, when taken in quantity, fail to pass a certain point in the gullet where the bolus may become lodged, or it may be found necessary to wash down each morsel by a draught of fluid, and even this may only succeed after careful mastication and repeated unsuccessful attempts. The patient may imagine that he has managed to swallow a moderately good meal, when, to his disgust, in a short time the greater part of it wells back into his mouth. This temporary retention of the food is possible only when the œsophagus has become pouched above the stricture. At first the quantity of food so retained is small in amount, and regurgitates almost immediately after it is swallowed; but as time advances the sac may become of considerable size, and capable of retaining large quantities of food. The regurgitation observed in such cases is very different from what is noticed in cases of spasmodic stricture or in ordinary vomiting of the stomach, in so far that the contents of the pouch simply well up, and resembles the vomiting resulting from cerebral disease more closely than any other form of sickness. When ulceration occurs sometimes the dysphagia is relieved to some extent, but at the same time the vomited matter is no longer simply the food as it was swallowed, but is usually mixed with disagreeable fetid muco-purulent blood-stained materials. About this stage of the disease the patient expectorates quantities of frothy mucus, and the secretions become more and more offensive. Alongside the development of dysphagia, it will be observed that the patient is rapidly emaciating and the blood becoming more and more deficient in colouring matter and in blood corpuscles. The emaciation is generally but not always marked. In the case of W. F—— (Case 3), even although he was practically unable to take any food for three weeks previous to admission, at the operation of gastrostomy there was fully three-quarters of an inch of fat covering the abdominal wall, and the portion of the omentum exposed was noticed to contain a considerable quantity of adipose tissue. The stomach was quite empty and collapsed. But while, in this particular case, the emaciation was not so marked as one would have expected under the circumstances, the condition of the pulse, the temperature, the feeling of extreme weakness, and the tendency to syncope all showed the effects of starvation.

In most of the cases which I have shown to you the patients have not complained much of hunger, except perhaps during the early stage of the disease. In the more advanced cases it is frequently very difficult to get food taken, even although the patient is able to partake of fluids or semi-fluid diet. Partly on account of the dryness of the throat and fetid odour of the breath, but also I believe from a desire that their suffering may soon terminate, the patients may absolutely refuse to take nourishment in any form. Some time ago I had a case where I was feeding the patient very satisfactorily by a stomach-tube, when one morning she intimated that she had had her last meal, and would allow no more food to be given to her in any form; but this was not to be wondered at, for after each meal she was tortured with severe pain in the epigastrium, due to the collection of large quantities of gas in the stomach, which she was unable to rid herself of. In very few of the cases which I have seen does the patient complain much of pain during deglutition, unless in those instances where the tumour is situated high up. In these the pain during swallowing is often sharp and burning, and is referred to the ears and side of the neck rather than to the throat. Between meals the pain is less severe, but still present at all times unless when relieved by treatment. When the disease attacks the middle third of the œsophagus the patient not uncommonly states that in the evening or during the night he experiences a feeling of a "load of uneasiness" or even of dull aching pain in the back or in the epigastrium. Should the carcinoma involve the lower end of the œsophagus, the patient seldom suffers from pain either during deglutition or at other times. This absence of suffering in such cases is somewhat remarkable. For example, in the case of H. C—— (Case 9), even although the carcinoma involved the lower extremity of the œsophagus and the cardiac end of the stomach, the patient, on being carefully questioned, stated that he suffered from pain in the stomach at no time since the onset of the disease. Respecting the sensation of the stomach, it is rather remarkable that simple ulceration should cause so much distress; while stitching of the stomach, or even perforating its walls with the electric cautery, as observed in the cases of W. F——, Mrs. C——, and W. H—— (Cases 3, 4, and 7), should hardly be felt by the patients. The presence of dyspnœa, aphonia, and cough depends upon the position of the tumour. When the upper part of the larynx is involved obstruction to breathing may be occasioned, as I have already shown, by direct pressure upon the air passages by extension of the tumour into the larynx, or by œdema, as in Case 4. Again, as a result of involvment of the recurrent laryngeal nerves, paralysis of the muscles of the larynx may be produced and give rise to aphonia or dyspnœa according to circumstances. The voice may also be impaired or lost as a consequence of the tumour invading the cavity of the larynx. Cough is a very common symptom, and may be caused in many ways—by saliva or food flowing into the larynx or trachea and there giving rise to catarrh, by the establishment of fistulous openings between the gullet and air passages, or by reflex irritation. Patients affected with carcinoma of the œsophagus, partly on account of their weak physical condition, are very liable to attacks of tracheal and bronchial catarrh, even although there may be no evidence to show that the malignant growth in the œsophagus is interfering with the function of the lungs. When the growth is situated in the first part of the œsophagus its situation and extent may be easily ascertained by palpating the neck or by examination with the finger passed into the pharynx. Should the disease attack the œsophagus at a lower level, in order to gain information it is often necessary to examine the passage by means of bougies. At the demonstrations I have shown you how these instruments

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are used, so that in the remarks I am about to make I shall limit your attention to their employment only as applied to cases of stricture. When the bougie, one of large size to begin with, has been introduced into the œsophagus, it should be passed gently, no force being employed under any circumstances. If any obstruction be encountered in the course of the œsophagus, the bougie should be marked at the point in contact with the teeth, then withdrawn, and the distance from the point of the instrument to the mark carefully measured. The surgeon should then introduce a smaller instrument, and so on gradually going down the scale until he either succeeds in penetrating the stricture or in assuring himself that the obstruction is complete. In cases of cancer of the œsophagus sometimes even the most careful use of bougies may cause injury and slight hæmorrhage. In such instances the employment of instruments should be discontinued, but regarding this point I shall have more to say when we come to speak of treatment.

I have now completed what I have to say respecting the etiology, pathology, and diagnosis of carcinomatous disease of the gullet, and at the next lecture I will ask your attention to the other tumours which may occupy that canal, and also to spasmodic and organic stenosis.

THE BEARING OF RECENT BIOLOGICAL RESEARCHES ON THE PRACTICE OF MEDICINE AND SURGERY.

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(*Continued from page 13.*)

EVEN before the observations made by Beumer and Peiper it was well known that certain diseases, such as small-pox, could, when introduced into virgin soil, become excessively malignant, and it is recorded that whole tribes of North American Indians have been decimated and in some cases almost exterminated by this disease. Similarly it has been remarked that regiments that have been in certain barracks for a considerable length of time have been comparatively free from typhoid fever, although a sporadic case might occur; as soon, however, as a new regiment has marched into the vacated barracks typhoid fever has at once broken out as a widespread and most virulent disease. In both these cases it would appear that there is some process of acclimatisation, similar to that above mentioned, in all those who are exposed to the action of certain organisms or their products for any considerable length of time; whilst in those who for the first time come under the influence of these agents the power of special or general resistance is paralysed, and the patient succumbs. Coats[1] holds that this resistance is in different races the result of hereditary influence—that is, that we must look upon the process as due to a long-continued acclimatisation through successive generations. Coats, quoting Hirsch, points out, for instance, the remarkable difference as regards susceptibility of malarial fevers between negroes and Europeans, whilst the reverse is the case as regards susceptibility to small-pox. A number of similar examples of other diseases in which the same thing is seen are also given. All these examples are held by the followers of Metchnikoff to be in favour of the theory of phagocytosis; but, as we shall find it necessary to point out, several very strong, though not perfectly conclusive, arguments have been advanced in support of the theory put forward by Buchner and others of the German school, that immunity depends more on the soluble constituents of blood-serum than on the presence of phagocytes. Buchner maintains[2] that the cause of recovery of an animal from an attack of an infective disease is not due to the action of phagocytosis, but to the disinfecting action of the serum, and that phagocytosis is merely the result of an attempt on the part of the organism to get rid of the devitalised micro-organisms. He admits that phagocytosis occurs only in those cases in which an effort is made on the part of the organism towards recovery—i.e., that it occurs only where a certain immunity is present, but that it occupies merely a position of secondary importance, and that it is due to the action of chemotactic proteins which are set free from bacterial cells that have been rendered inert by the action of the serum. He had previously pointed out that certain proteid bodies introduced into the circulation exerted a very great effect on the leucocytes, which became enormously increased in number. The same thing had been previously observed by Schmidt of Dorpat and his pupils, and more recently it has been further worked out in connexion with Wooldridge's tissue fibrinogen by A. E. Wright and others. Buchner also points out that Roux and Metchnikoff, both of them believers in the importance of phagocytosis in relation to immunity, differ materially as to their interpretation of the effect of the action of the "specific toxines" of micro-organisms on leucocytes, Roux holding that these products attract leucocytes, exerting a positive chemotactic action, whilst Metchnikoff regards them as negatively chemotactic or as repelling the leucocytes. In order to get over this difficulty, Buchner suggests that it may be possible that certain toxines or toxalbumens may act positively and that others act negatively, but he admits that as yet we have no proof of such different action. Some time ago it was pointed out[3] that the same irritant, toxine or antiseptic, might act in different ways, according to its concentration, or according to the period during which it was allowed to act. Lister,[4] using a red-hot wire, which he gradually approached to a ciliated cell, found that when the wire came to a certain point it set up more rapid movements of the cilia, the heat acting as a stimulant by increasing the molecular activity in the cell. This was withdrawn, and again the speed of the movement fell. The hot iron was again brought near, and quickening was again produced, though not to such a marked extent. It was brought nearer still, and the motion now became slower and at last ceased. When the hot wire was suddenly brought near the stage of the microscope the ciliary movements stopped at once." Schulz,[5] working out the same idea from a different point of view, has been able to prove that the ferment power of yeast is distinctly increased by the addition, in sufficient dilution, of such virulent protoplasmic poisons as corrosive sublimate, arsenic, carbolic acid, and iodine; and he formulates the proposition that "every irritant exerts an action on every living cell of which the effect in relation to the cell activity is inversely proportional to its intensity." Wood and I repeated some of these experiments, and came to the conclusion that, as regards antiseptics and those protoplasmic poisons, there could be little doubt that just as in the case of sedatives, such as opium and chloroform, there is a stimulating stage through which the cells may become habituated by the continued and gradual increase of the dose to the action of the poison, so also was the stimulating or depressing action of an animal poison manifestly exhibited in cases of infectious disease. It has frequently been pointed out that when virulent anthrax is introduced into a susceptible animal no marked lesion is evident at the point of inoculation, but the animal dies rapidly of general anthrax; whilst if the same anthrax is introduced into an animal partially protected by vaccination or into an animal that is naturally refractory, or if it be introduced in sufficiently small quantity even into a susceptible species, there is usually a local reaction with inflammation, rarely accompanied by any general disease; so that here, as in the case of an abscess, the weakened poison acts upon the normal leucocytes or the strong poison acts upon the acclimatised leucocytes as a stimulant, and not as a depressant, with the result that the organisms and the disease are distinctly localised; the toxines are destroyed or eliminated, and although the local symptoms may be severe, there is no general disease. It is evident therefore that in the one case the poison acts as a stimulant, in the other as a depressant; or if we prefer it, the one exerts a positive, the other a negative, chemotactic action, for this is really what it amounts to.

Ruffer, in his experiments on the effect of antiseptics when introduced into the tissues in fragments of sponges, has arrived at very much the same conclusion, and he has

[1] THE LANCET, Jan. 14th, 1888, on the Pathology of Infective and Infectious Diseases.
[2] Centralbl. f. Bakteriologie u. Parasitenk., Bd. x., No. 22, S. 727.
[3] Woodhead and Cartwright Wood: Edin. Med. Journ., May, 1890.
[4] Quoted in Chiene's Lectures on Surgery, p. 10.
[5] Ueber Hefe-Gifte, Pflüger's Archiv, Bd. xlii., S. 517, and Virchow's Archiv, Bd. cviii., S. 427.

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demonstrated in a most clear and satisfactory manner the chemotactic action of dilute solutions of such substances as corrosive sublimate, turpentine, and iodine.[6] When dilute solutions are used, the leucocytes from the surrounding tissue pass into the sponge in considerable numbers, and we have a regular zone of deeply stained cells advancing and getting rid of the foreign substance; whilst where the stronger solutions are used the leucocytes appear to be repelled or paralysed, and only when a considerable portion of the foreign substance has been removed in solution by the action of the fluids of the body are the leucocytes able to advance. Roux and Metchnikoff also suggest[7] that leucocytes may become accustomed to the presence of considerable quantities of toxines in those cases where there is acquired immunity, and they bring forward considerable evidence in support of their thesis. Buchner criticises their position, and points out that since in the case of vibrio metchnikovi the animals which are immune against the action of the vibrio itself still remain remarkably susceptible to the action of the toxines, unless the acclimatisation is brought about very gradually, we must suppose that the leucocytes only have acquired a tolerance of the poison. Improbable as this at first might appear, and indeed as Buchner maintains, we have a number of facts which indicate that it may actually take place, and that even after the leucocytes have become accustomed to the presence of considerable quantities of the toxines the nutrition of other tissues in the body will be so markedly interfered with that the animal may succumb. In this connexion it was pointed out as early as 1879 by Maffucci[8] that the products of the tubercle bacillus, or even sterilised cultures of that organism, when introduced subcutaneously into healthy fowls or guinea-pigs, produced a condition which he termed "marasmus." Emaciation and atrophy of the liver cells and of the cells of the spleen were brought about; whilst circulatory changes of such a grave nature were set up that there was marked congestion, not only of the spleen, but also of the lungs and kidney. Anyone who has worked with anthrax bacillus or the bacillus of blue pus must have remarked the same thing, for even when an animal has come through an attack of one of these diseases it often succumbs at a comparatively late stage—say, three weeks from the time of inoculation—when the organs, especially the secretory organs, are found to be in a state of fatty degeneration. Animals made immune from anthrax are notably very easily affected by changes of temperature, and a cold wave will frequently carry off a whole series of animals thus protected; whilst in the case of the blue pus bacillus the death from marasmus at a late stage of the disease, after the active bacilli have disappeared, is looked upon as occurring almost invariably. In all these cases, then, although the leucocytes, according to Metchnikoff, or the fluid constituents of the blood according to Baumgarten, Buchner, and others, may have become more resistant to the action of toxines, and are able to destroy and eliminate bacteria, the effects on the other tissues are so marked that they have undergone distinct degenerative changes, which here also are the result of over-work through over-stimulation by a more or less concentrated poison. There can be little doubt that in these cases, as in diphtheria where fatty degeneration, as pointed out by Roux and Yersin, is of such frequent occurrence, the changes are due to the products of the micro-organisms—some holding that these products are excreted; whilst others (amongst whom may be reckoned Maffucci, Philip, Buchner, and Mitchell-Prudden and Hodenpyl) maintain that the proteins of which the micro-organisms are composed are the cause of these changes, and that they can only occur after the organism has been killed by the serum and broken down by the phagocytes. From experiments made by Cartwright, Wood, and myself[9] I am convinced that some at any rate of these products are undoubtedly very intimately bound up with the protoplasm of the micro-organism, and can only be separated by a most careful treatment or long-continued maceration, especially after the organism has been killed. I shall return to this question of chemotaxis.

It has recently been maintained that micro-organisms are present in all the tissues of the body, and that if a healthy animal be killed these micro-organisms will develop, multiply, and set up decomposition of the tissues in which they are present. Mr. Lawson Tait[10] says, "A solid mass of beef—say, a bed and silverside—is removed from a perfectly healthy ox, and is put at once into a sound and healthy pickle. The pickle is a powerful antiseptic, and if the pickle reaches the middle of that beef before the germs contained in it have had time to start their work the beef in a few days or a week or two will be fit to eat; but every housekeeper knows perfectly well that the result will depend absolutely upon the outside temperature. It would be absolutely impossible to pickle a piece of beef in August which could be easily pickled at Christmas." And then he goes on to argue that during the few hours, or maybe few minutes, that the beef is exposed to the air it does not become impregnated with germs right to the centre; but that it is more consistent with common sense to believe that the germs were in it before it left the ox, and therefore in life. I have in connexion with this matter experimented most carefully with a view of determining whether in a healthy animal micro-organisms really find their way, or remain for any length of time capable of development and multiplication in the animal tissues. I have repeated the experiments made by Chiene and Ewart, Burdon Sanderson, Ballance and Shattock, and others, and I am convinced that in a healthy animal or in a healthy human being there are no organisms to be found, except in certain cavities of the body, directly continuous with the external world; and that, even in some of these cavities and passages, as Lister long ago pointed out, where the walls are in close apposition, micro-organisms cannot exist. In the urethra, for example, no organisms are found beyond the meatus urinarius externus until the patient dies. If, however, the blood of an exhausted animal, or of a patient who has just died from some disease, be examined, or if particles of the dead tissues of diseased animals be examined in the same way as tissues of the healthy animal were examined, organisms may undoubtedly be found. We must therefore assume that in these instances the barriers which under ordinary circumstances exist have been broken down, and the micro-organisms have made their way from the respiratory passage or from the alimentary canal into the circulation, and so to the weakened tissues by which they are not immediately killed off. This is a point of very great importance, for we know that in cases of pyæmia, where micro-organisms are undoubtedly present in certain parts of the circulation, or in cases of abscess formation where we cannot in all cases assume that the micro-organisms are as definitely localised as is the case in pyæmic abscesses, suppuration is set up at one or more points, whilst it is entirely absent from others. We must therefore assume that organisms introduced at one point, and into comparatively healthy tissues, are killed off; whilst organisms which make their way into less resistant, unhealthy, or weakened tissues can multiply and give rise to localised suppuration. Although this is undoubtedly true, we may accept it as proved that in most instances pyogenic or pathogenic organisms have little power of maintaining their full vitality during their passage through the protective epithelial and lymphoid cells of the alimentary canal, say, and that in most cases, even when there is actual disease, they are so far weakened that their destruction is ensured within a comparatively short time, even by the weakened agencies (whether they be phagocytic or biotoxic) which ordinarily interfere with their advance. In the case of an incised or contused wound, where a considerable mass of tissue is devitalised and where large quantities of serous fluid, which is not constantly brought into contact with living tissues, and to which new nutrient material cannot be brought, and from which excretory products cannot be removed, we have of course all the conditions necessary for the growth of micro-organisms, a growth which will go on most luxuriantly should any seed material be allowed to find its way to this prepared soil.

As Lister used to point out, if the two surfaces of an incised wound can be brought close together after the stoppage of bleeding and the serum has ceased to escape, the wound will heal without suppuration from the fact that any micro-organisms which might make their way into the wound from outside are immediately destroyed. In those cases, however, where a large quantity of organic or inorganic material in which micro-organisms are present has been introduced into the wound, the case is different, for here a large number of organisms are partially protected by the material along with which they are introduced; they are able to obtain such foothold that they cannot be got rid of without a determined battle between them and the phagocytes, as the result of which we have what is known as suppuration.

[6] THE LANCET, Dec. 26th, 1891. [7] Annales de Pasteur, No. viii., 1891. [8] Centralblatt für Allgem. Path. u. Path. Anat., Bd. i., No. 26, Dec. 15th, 1890. [9] THE LANCET, Feb. 22nd, 1890. [10] British Medical Journal, Feb. 14th, 1891, p. 381.

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Whatever may be held as to the ultimate mechanism of immunity there can be little doubt that suppuration is most intimately associated with phagocytosis. If we take the case of an ordinary abscess it is usually found that chains or masses of cocci are found in the lymphatics, especially those in the connective tissue; whilst in the case of pyæmic abscesses, pyogenic micro-organisms become impacted in the small vessels. In either case the result is much the same, though where the organisms make their way by the bloodvessels they occur in larger masses, the process is more acute, and the abscesses are smaller; where they are conveyed by the lymphatics the masses of micrococci are smaller, though the immediate area of distribution may be wider than when the infection is by the bloodvessels; and more extensive localised suppuration ensues.

It may, perhaps, be said that abscesses have been so frequently described that it is superfluous to give any further description; but as I wish to insist upon one or two special points I shall give a short description of what may be seen in a small septic embolic abscess—in the muscle of the heart, say. In its centre may usually be seen a section of the vessel plugged with a mass of micrococci. This, when stained with one of the aniline colours, stands out very distinctly, especially as around it there is usually a very imperfectly stained zone of somewhat homogeneous tissue, which consists of the wall of the vessel along with fragments of muscle, amongst which lie a few unstained, and therefore probably dead or degenerated, leucocytes; the fragments of muscle fibre have also lost much of their ordinary typical structure and appearance. Outside this area comes a zone of multinucleated leucocytes, or, if we prefer to speak of them as such, phagocytes, deeply stained, evidently in a very active state of existence; whilst here and there is a larger cell with one, or rarely two, deeply stained nuclei, derived apparently from the fixed connective tissue cells. At the extreme margin of the abscess these fixed connective tissue cells are more numerous as they lie in this cellular mass, the muscle fibres are much degenerated, fragments of the sheath remaining, with here and there scraps of much degenerated or vacuolated granular muscular fibre. In this case there can be little doubt that the products of the micro-organisms acting on the tissues in their immediate neighbourhood have done one of two things—viz., they have lowered or destroyed the vitality of the protoplasm directly, or they have set up a kind of digestion of the muscular fibres and their tissues, a function which is usually ascribed specially to the leucocytes that are brought up at a certain period of the process; for following or accompanying this alteration in the muscles, which has resulted in such a degeneration that the nuclei within them are now imperfectly stained, there has been a further migration of leucocytes from the distended vessels in the degenerating area, which gradually make their way from the margin to the centre of the abscess, and digest and remove the degenerating tissues.

In this process a number of these leucocytes or phagocytes are destroyed and disintegrated either by over-stimulation or over-work, or possibly by the peptonising action of the micro-organisms or of the still active leucocytes; and pus cells—devitalised cells which can never return to the vessels—are formed. As the abscess increases in size more and more of the leucocytes in the centre of the abscess become disorganised; but those near the periphery are regularly reinforced, to form a barrier to the advance of the bacteria, either merely temporary or more permanent in character according to the original vitality of the tissues on the one hand, and the activity of the micro-organisms on the other; even in cases of acute abscesses, sooner or later localisation occurs almost invariably.

(To be continued.)

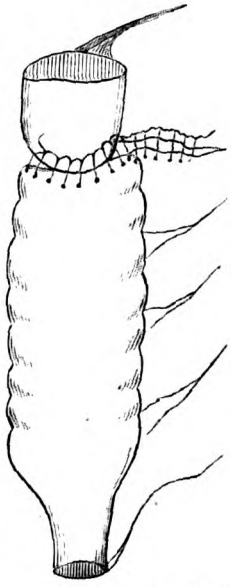
A SUGGESTION FOR THE TREATMENT OF IRREDUCIBLE INTUSSUSCEPTION OF THE BOWELS.

BY ARTHUR E. BARKER, F.R.C.S.,
SURGEON TO UNIVERSITY COLLEGE HOSPITAL, ETC.

IN the discussion which followed the reading on May 10th, 1887, of a paper which I had the honour to present to the Royal Medical and Chirurgical Society on a case of excision of an intussusception of the sigmoid flexure of the colon I was asked how I should deal with a case of intussusception in which the mass could not be reached from the rectum, and was found to be irreducible on opening the abdomen. My reply was that the possibility of such a state of things had occurred to me long ago, and that I had formulated an operation to meet the difficulty, but had not had as yet an opportunity of putting it into practice. I then described this procedure briefly to the meeting,[1] and now propose to publish it in detail in the hope that it may be the means of saving life in some cases belonging to a class hitherto regarded as almost hopeless. I have waited for more than five years for an opportunity of putting this method into practice in the living body, and testing its feasibleness and practical value. Having during the past summer been called upon to deal with two cases of irreducible intussusception, and having in each employed this procedure, the time appears to have arrived to make it more generally known, and to suggest its being tested by other surgeons. For, although in the cases in which I used this method it did not prevent a fatal termination, the attempt proved that the operation was quite feasible, and could be completed in a reasonable time and without much difficulty. It also showed, I think, that it was correct in principle, and that the fatal result was not due to any inherent defect in the procedure itself, but to the desperate condition of these particular cases. And I cannot help feeling that under less unfavourable conditions, and with an increased experience of details, this method will prove very successful.

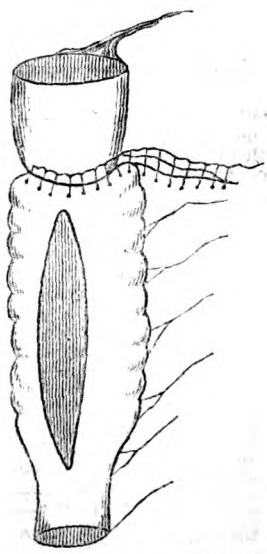
The procedure is as follows. Given a case of intussusception which cannot be reached from below, and which on opening the abdomen is found to be so tightly strangulated that reduction, even if feasible, could only end in disaster, then, instead of forming an artificial anus on the one hand, or, on the other, resecting the whole mass of damaged bowel directly, and suturing the divided ends together (both most formidable measures which have so far been followed almost invariably by death), I proceed as follows:—At the point at which the intussuscipiens receives the intussusceptum the two portions of the bowel are at once united by a continuous circular suture of fine silk taking up the serous and muscular coats of each, and carried on to the mesentery. (Fig 1.) A longitudinal incision is then made for about two inches through all the coat of the intussuscipiens on its free margin (Fig. 2). This gives access to the

FIG. 1.



First step: to join intussusceptum and intussuscipiens above by circular continuous suture.

FIG. 2.



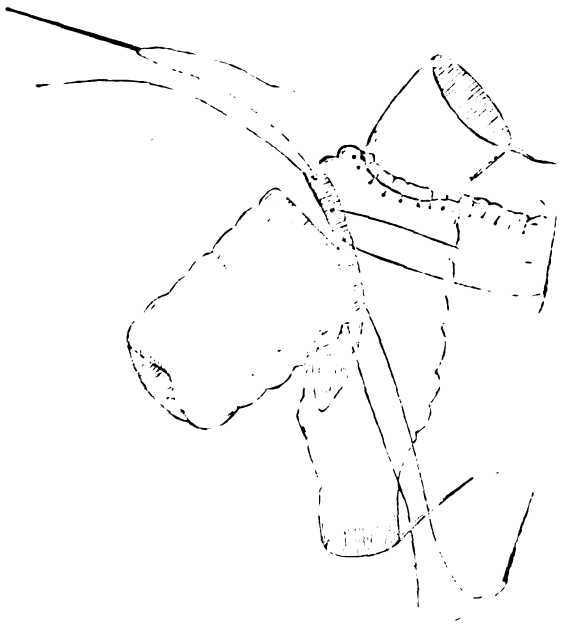
Second step: to open intussuscipiens by longitudinal incision.

[1] Vide Proceedings of Royal Medical and Chirurgical Society, new series, vol. ii., p. 267.

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sausage-like intussusceptum within. The latter is then drawn out through this incision, and is cut across close to its upper end (Fig. 3); or, if too long to be first drawn out, it may be cut across *in situ*. A few stout

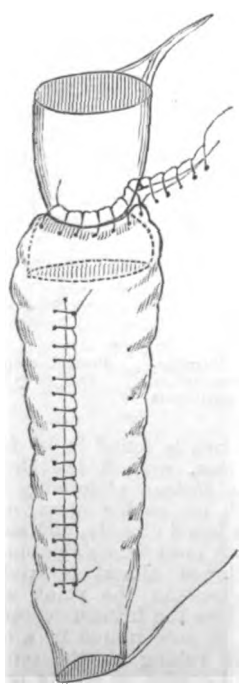
FIG. 3.



Third step: to draw out intussusceptum, cut it off, and suture its divided edges.

silk sutures are, however, passed through all the walls of the stump as the mass is gradually cut off (Fig. 3), and are tied tightly so as to keep the serous surfaces in contact and control all bleeding from the vessels entering it at its mesenteric attachment. The stump is now cleansed, dried,

FIG. 4.



Fourth step: to close longitudinal incision, leaving stump of intussusceptum inside.

and dusted with iodoform, and is allowed to drop back through the incision into the lumen of the intussuscipiens Then the longitudinal incision in the latter is closed by a continuous suture from end to end (Fig. 4). Toilet of the surrounding parts and closure of the abdominal wound completes the operation, which in my first case only lasted half an hour and in my second a little longer. In a future case I shall look forward to finishing the whole operation in a much shorter time and with much less manipulation. Now, in this operation the resulting junction of the bowel is just what we aim at in the far more elaborate procedure of direct resection of the bowel. But we have the great advantage, besides the saving of time, of not interfering with possible adhesions at the point of strangulation or with the mesentery. Moreover, the vessels of the latter are probably blocked by the strangulation at a point above that at which they are cut, and, if they are not so, they are closed by the same sutures which bring together the divided edges of the stump.

In both my cases the operation was practically extra-abdominal and was comparatively easy. The principle of the procedure is, as I pointed out in my first notice of it at the Royal Medical and Chirurgical Society, to imitate what nature does in those rare cases in which the intussusception is thrown off by gangrene. But by this method the part that would slough is boldly cut away without disturbing the adhesions which form round the upper end. Moreover, these adhesions are reinforced by sutures applied first on their proximal (Fig. 1) and then on their distal aspect (Fig. 3). My impression is that the sutures used for the divided surface of the intussusceptum will not require to be many. Three or four towards the mesenteric aspect, which will secure the vessels, will be, I think, enough.

CASE 1.—Arthur C——, aged four months, was brought to University College Hospital on July 31st, 1891, having had his bowels obstructed for three days The attack had begun on the 27th with violent pain and without any history of previous illness. A small motion had been passed on the 30th, but no flatus. The mucus and blood passed on admission had a gangrenous odour, and the finger introduced by the rectum came away covered with bloody mucus, with the same smell. An attempt to reduce the intussusception had been made by inflation before admission, but had failed. When brought to the hospital the child was very collapsed; pulse 140, extremities cold. Its abdomen was tense. Per rectum the intussusception could be reached about two inches from the anus. Under chloroform a sausage-shaped tumour was felt in the left iliac region. The bladder having been emptied, I opened the abdomen in the middle line, and found in it a quantity of dirty, grey, foul fluid. The intussusception was now drawn out of the abdomen, and immediately it was seen that the intussuscipiens was perforated by two gangrenous ulcers, from which the sloughing mucous membrane of the intussusceptum protruded. These ulcers were laid open into one, and through this the intussusceptum was withdrawn, cut off, and sutured, as described above, with four sutures The stump was then replaced, and the edges of the ulcerated intussuscipiens, being inverted, were drawn together with an ordinary continuous suture. Toilet of the surroundings and closure of the abdominal wound completed the operation, which had lasted half an hour. The child was put back into bed surrounded with hot bottles, but sank gradually, and died ten hours later. In this case little was to be expected from any operation, the abdomen having already been infected by gangrenous fluid and the child's powers being exhausted; but the subsequent necropsy showed that the suture of the bowel was quite firm, and resisted a high pressure of water without leaking. The lumen was also pervious through the stump of the intussusceptum. The portion excised contained part of the cæcum and the termination of the ileum.

CASE 2.—Raymond G——, aged twelve years, was admitted into University College Hospital on Aug. 14th, 1891. On Aug. 12th he was seized with sudden pain in the abdomen, which soon became tender and swelled up. He then took a dose of castor-oil; this was followed by a motion the same night "like diarrhœa." The next day another slimy motion was passed mixed with blood. He was sick twice during the day, but passed no flatus. On the 14th, before admission, he was again sick, but the pain was less, probably owing to the opium which had been given him by his doctor. On admission on the 14th (5 P.M.), there was no collapse. Pulse 116, rather small, and compressible. He was dark and sunken round the eyes, but quite sensible. The intussusception could be felt through the abdominal wall, but not per rectum. On opening the abdomen I was able to draw out the intussusception without much difficulty, and found it five or six inches long. The intussuscipiens was

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very tightly stretched over the mass within, and was dark purple above. Hoping to be able to reduce this infolding as I have done successfully in other cases, I grasped the intussuscipiens below the swelling, and gradually squeezed it against the end of the intussusceptum. But very soon the damaged bowel began to give way over the upper part of the tumour, the serous coat tearing in one or two places transversely, and then the muscular coat. Finding that reduction was impossible, I now increased the amount of bowel intussuscepted until the tears in the serous coat were infolded, and then performed the operation described above and figured. In this case the incision was made longitudinally in the intussuscipiens. On cutting away the intussusceptum and suturing it the little finger could be passed through its lumen into the distended bowel above.

The most careful antiseptic precautions were of course taken in both these operations. The usual restoratives were used and morphia was given, but the patient's condition became gradually worse and he died fourteen hours after operation. The portion of bowel removed consisted entirely of jejunum. There was no adhesion between its serous coats which were separated by effused fluid.

Necropsy by Mr. WHITE.—"There is a slight trace of turbid fluid in both flanks and a few trifling adhesions between the coils. In the neighbourhood of the sutured intestine everything is quiet. The intussuscipiens for quite nine inches below the point sutured is livid and ecchymosed. The longitudinal line of suture in the intussuscipiens is perfectly satisfactory and hardly to be noticed, with a little plastic lymph about it. The intussusception was within three feet of the duodenum. Before opening the sutured bowel it was tied over a water tap, and the water was turned on. This passed freely through the sutured portion without leakage, and only when the distended force was made extreme by closure of the bowel below was there a trace of the latter. Both lines of suture appeared perfectly adequate. There was no hæmorrhage either inside or outside the bowel. The internal organs were all normal."

In this last case I believe I was very near success. But the condition of the bowel was very bad, and I lost time, besides, in fruitless attempts to reduce the intussusception. This only resulted in a cracking of its two outer coats, which were softened above. Had I at once proceeded to perform the operation described it is probable the result would have been different. But of course there are factors in all these internal strangulations which may have the most unfavourable influence upon the general condition without giving much evidence of their presence at the time of operation. These might have vitiated the operation, even if it had been more rapidly completed. It is satisfactory to note that as far as the suture was concerned it left nothing to be desired. And, besides this, the lumen of the bowel was now quite free. Again, one point about which I was very anxious was cleared up by these operations, specially by the latter—namely, the condition of the included portion of the mesentery and its vessels. Neither the mesentery itself nor its vessels gave any trouble. The first was found quite secure at its junction with the bowel, and its vessels were also perfectly controlled by the sutures which had been passed through the stump of the intussusception. It might be objected that, even if these patients had recovered after operation, they would have suffered from stricture of the intestine at the point sutured. This has certainly not been the case with two patients upon whom I performed excision of an intussusception of the sigmoid flexure of the colon, by a method almost perfectly analogous. One of these women is now in the enjoyment of excellent health without intestinal trouble, more than five years and a half after operation; the other I have lately seen in the street quite well, upon whom I operated last summer. I can already see some small points in which the details of the operation described above might perhaps be improved, and hope to be able to effect these improvements in subsequent cases.

NEW COTTAGE HOSPITAL AT LEDBURY.—The opening of the new cottage hospital took place at half-past twelve on the 29th ult. The hospital—which cost £3000—has been given to the town by Mr. M. Biddulph, M.P., in commemoration of the coming of age of his eldest son, Mr. John Biddulph.

PLEURAL EFFUSION AND EMPYEMA.

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(Concluded from page 18.)

I PASS on to consider the second question which I have put down for discussion—viz., "Is the diagnosis of pleural effusion from pneumonic consolidation ever impossible?" There are some good clinical observers who teach that there are many cases, especially in children, where it is impossible to feel sure of the presence of fluid before inserting the needle, the physical signs being indistinguishable from those of pneumonic consolidation. This is no doubt a consolatory doctrine, but I think we should pause before assenting to a proposition which, however convenient to ourselves, is hardly flattering to the resources of our art. I am disposed to believe that cases in which the thorough application of the various methods of physical examination will leave a real doubt upon our minds are few in number, though I do not deny that now and again, though very rarely, a case presents itself in which the physical signs are puzzling and conflicting. In cases of doubt I am accustomed to rely mainly upon two signs, and I have very rarely found them to fail. Those two signs are (1) the diminution or absence of the normal vocal fremitus, and (2) the displacement of organs, especially the heart. The former of these, though not absolutely diagnostic, is certainly almost invariably found where fluid is present, and is excessively rare in any other condition. The displacement of organs, especially the heart, is diagnostic unless there are grounds for suspecting some other cause for it. I believe that attention to these two points, together with the careful mapping out of the area of dulness, will make the distinction between pleural effusion and pneumonic consolidation usually easy. The character of the breathing is not to be depended upon in doubtful cases. Bronchial breathing is quite common in pleurisy, and cannot be distinguished from the breathing of pneumonia. Nor is vocal resonance any help. The sound of the voice heard through fluid is quite variable, and may be normal, or simply faint, or bronchophonic or ægophony may be heard. The history of the case and the course of the temperature will usually afford some guidance. While, therefore, I believe the difficulty of distinguishing pleural effusion from pneumonic consolidation has been sometimes overstated, I have notes of a case in which great difficulty arose.

John B——, aged fifteen, was admitted to the Royal Hospital, under my care, on Monday, Dec. 9th, 1889. The history was that he had been taken ill on the previous Friday, Dec. 6th, with chills, headache, pains in the knees and the right side, and slight cough. He remained at work on Friday and Saturday, but gradually became worse, took to his bed on Sunday, and on Monday (1 P.M.) was removed to hospital. On examination I found the breathing hurried, respiration 44 to the minute, face flushed, temperature 102°. There was dulness over the base of the right lung, and in the right axillary region. Vocal fremitus was lost over this area, and the breath sounds were much diminished. The diagnosis of pleurisy with effusion seemed obvious. On Monday evening the temperature rose to 103°; herpes appeared upon the lips, and crepitus was heard at the right base. On the following morning (Tuesday, Dec. 10th) the temperature had fallen to 101·4°. The same evening, however, it rose to 104·2°; loud tubular breathing was heard at the right base, the respiration was 36, pulse 116, and there was cough, but no expectoration. The patient was not obviously worse. He had a quiet night and slept well. On the following morning (Wednesday, Dec. 11th) the tubular breathing had quite disappeared, the breath sounds were almost absent over the affected area, but some crepitus was heard at the upper level of the dulness; vocal fremitus much diminished, as before; temperature 102°; the pain in the chest had disappeared. The temperature on Wednesday night was 103°, but had fallen to 101° on Thursday morning. The pulse was now 100; respiration 48. The temperature on Thursday evening rose to 102·4°. On Friday morning it was 101°. Dulness and diminished fremitus as before;

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some crepitations still heard over the affected area. A slight displacement of the apex of the heart was now for the first time observable. I inserted the hypodermic needle, and drew off a drachm of pure serum. The subsequent progress of the case presented the ordinary features of pleurisy, friction appeared speedily, and the boy was discharged well on Jan. 4th, 1890, having been in hospital twenty-six days.

To discuss this case adequately would take more time than I can afford for it. My conviction is that the case was one of pleurisy throughout, and that there was no pneumonia; but it will be admitted that the physical signs, the high temperature, and the labial herpes caused considerable difficulty. My reasons for regarding the case as one of simple pleurisy are as follows: 1. The onset was gradual, the patient not taking to bed until the third day. 2. The maximum temperature (104·2°), though high for pleurisy, was not reached until the fifth day of the disease. 3 The subsequent course of the temperature was irregular, and there was no crisis. 4. Vocal fremitus was much reduced or absent throughout. 5. The bronchial breathing lasted only one day, and was suddenly succeeded by almost total loss of the vesicular murmur. 6. The displacement of the heart was observable on the eighth day of the illness.

A few words must suffice for the third and fourth questions which I have put down for discussion. By a bloody effusion I mean not an effusion which consists of serum streaked with blood, which is not uncommon and of no particular significance, but an effusion which is mainly composed of blood. This has not been very common in my experience, though it cannot be reckoned a rare occurrence. I have met with it in three cases. In the first the patient died suddenly, and a post-mortem examination revealed the presence of an aneurysm of the aorta, of which there had been no characteristic signs during life. The second case was a very chronic one; but no tubercular, cancerous, or other complication could be detected. This case has been lost sight of, and I cannot say what is the explanation of the bloody effusion. The third case is still in progress, and there are some grounds for fearing tuberculosis. A bloody effusion is also known to occur in cancer of the pleura and in scurvy; but I have no personal experience of such cases. My cases are too few to warrant any conclusion, but so far as they go they corroborate the general impression that a bloody effusion is unfavourable and frequently conceals some complication. At the same time we must recollect that there are cases on record where the removal of a bloody effusion by aspiration has been followed by a speedy and uninterrupted recovery.

The answer to my fourth question—viz., "Can the presence of pus be positively diagnosed before aspiration?" must be a decided negative. The presence of pus may often be shrewdly suspected, but I have seen cases which have convinced me that the signs laid down in many text-books as diagnostic of the presence of pus are fallacious. If we trust to constitutional signs we are apt both to diagnose pus when it is absent and to overlook it when it is present. In one of my cases there was the most typical hectic fever, with high and remitting temperature, profuse night sweating, malar flush, and wasting; yet on aspiration the fluid proved to be limpid serum. In another of my cases there was only a very trifling rise of temperature, no night sweats or other symptom of hectic fever; yet the fluid proved to be pus. As regards the local signs, which have been alleged to furnish a *differentia* between serum and pus, I can only say that in none of my cases have I found them of any value. I should therefore be disposed to say that our wisest course at present is to admit that we cannot determine the character of the fluid present without removing some of it for examination, and that, where the distinction is of importance, we should determine the point at once by inserting the needle.

My fifth question—viz., "What is the best method of treatment for cases of moderate serous effusion?"—will require fuller consideration. It is to be regretted that we have no satisfactory records to show us what is the normal course of cases of moderate effusion without treatment. The tendency is, no doubt, to spontaneous subsidence, and the only practical question is whether by the administration of drugs or operative interference we can materially hasten the natural process. It is now generally admitted that many of the methods of elimination formerly in favour are either useless or injurious. The administration of diaphoretics, diuretics, and hydragogue purgatives would seem to exercise slight influence over the effusion, and in view of the facts that pleurisy is always accompanied by a good deal of debility and that a considerable number of cases become tubercular, depletory measures should not be pushed too far. Two remedies, however, maintain their position—viz., counter-irritation either by cantharides or iodine, and the administration of iodide of potassium. My experience would incline me to think that both these remedies are helpful, and tend to promote absorption. The addition of the ammonio-citrate of iron to the iodide of potassium seems often very advantageous, especially if the case tends to become chronic. The great question, however, in this connexion is whether aspiration should be performed, and, if so, how soon. In certain cases the necessity and advantage of aspiration are universally admitted. If the amount of the effusion be very large and dulness extend as high as the second rib in front, or if the measurement of the affected side be markedly increased, or if there be much dyspnœa, in such cases there can be little doubt we ought to perform aspiration without delay. The difficulty of decision is rather in that large group of cases where the effusion is moderate in amount and where there is very little dyspnœa or other disquieting symptom. The questions arise with regard to such cases: (1) Does aspiration lessen the chance of a fatal issue? and (2) Does aspiration shorten the duration of the disease? The first question may be dismissed, as a fatal issue in such instances is so rare that it is hardly a factor in the case. The second question is a very interesting one, but the difficulty of determining it is very great. I have collected a considerable amount of evidence, both from my own practice and from other sources, with a view of determining whether (in the class of case now under consideration) aspiration hastens recovery; but I find it impossible to draw any secure conclusions. One practitioner inclines to tap frequently and to tap early, and his statistics will be very favourable to aspiration. Another reserves tapping for serious cases with large effusion, or for chronic or semi-chronic cases, and his statistics will be unfavourable. My own experience inclines me to the view that, apart from urgent symptoms or excessive effusion, there is no advantage in tapping during the first fortnight, the fluid accumulating again and again if the tappings be repeated. If, however, the third week progresses without some decided evidence that the fluid is ebbing, or if at this period there is any increase of the effusion, tapping should probably be performed. One way to throw some light on this question would be to compare the best results obtained with and without tapping. I find that there is very little difference to be observed. Several of my cases in which tapping was not performed were convalescent in three weeks, and I have no evidence that tapped cases run a less course than this. Nevertheless, the good effects of tapping in suitable cases are often very striking.

I have, lastly, to consider some points in connexion with the very interesting subject of empyema. Of (*a*) simple aspiration for empyema I have no experience. It almost invariably fails, and there are many grave reasons against the delay which repeated tappings involve. Nevertheless, a success is occasionally obtained. A case has been recently reported to me by a medical friend of a young lady the subject of empyema whose relatives refused to sanction the operation of incision. Tapping was therefore resorted to, and after four aspirations there was no further accumulation of pus, and a cure was effected. Such a happy result is, we must remember, exceedingly rare. The plan of (*b*) continuous syphon drainage after the method of Dr. Bulau of Hamburg has won great favour in Germany, and has been most favourably reported on by Professor Leyden of Berlin and Professor Immerman of Basle. It consists in the use of an elastic tube connected with a trocar leading into an antiseptic solution. It is said to be unsuitable for cases of inexpansile lung, pyo-pneumothorax, and pulmonary fistula, as well as for those where the pus is thick. It is said to be somewhat difficult of application, as it requires perfect rest on the part of the patient, the elastic tube being apt to slip from the wound. Forty-nine complete cures out of fifty-seven cases with three deaths have been reported by this method, and this result must be regarded as highly favourable. Of (*c*) free incision, with or without resection of the ribs, I can speak very highly. It is the recognised operation in this country, and the results are most gratifying. Probably not less than four-fifths of the

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cases thus operated on recover, provided there be neither tubercle nor amyloid disease present. My own experience is limited to three patients, all of whom made a good recovery. In one case dangerous collapse followed the operation, and the patient was only rallied by the most energetic measures. Resection of the ribs is frequently an absolute necessity from the manner in which the ribs get wedged down one upon the other. I have seen one case where the space between the ribs at the inferior angle of the scapula was barely sufficient to admit the edge of a knife. I am disposed to think that in all cases a very free incision is desirable, and that a thoroughly free exit for the pus should be secured at all hazards. I see no advantage in the plan of making two openings, which is a favourite method at some hospitals. As regards (*e*) irrigation, the present feeling is against its employment. Accidents have been reported from this procedure, and unless in cases of very foul pus, no advantage seems to accrue from it.

THE PERCENTAGE OF FIBRIN IN THE BLOOD OF LEPERS.

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THIS inquiry was made in Trinidad, and was suggested by a case which occurred there. On opening the body of an anæsthetic leper a thoracic aneurysm was found which had undergone spontaneous cure.[1] The blood in leprosy was examined many years ago. Danielssen and Boeck[2] made fourteen analyses—eight in tuberculated and six in anæsthetic lepers,—and found the highest percentage of fibrin to be 0·6 per cent., and the lowest 0·22 per cent. Hillairet[3] also made three analyses of blood in cases of tuberculated leprosy, and found that the percentage of fibrin ranged from 0·31 to 0·61.

We cannot now accept the theory of Danielssen and Boeck, that the excess of fibrin and albumen in the blood is the primary cause of the other leprous changes. An examination of leper blood is, however, not without interest; for though there is reason to believe that leprosy is due to a bacillus, the changes which are produced in the blood, either directly or indirectly, are of no little importance. Thus the rapidity with which leprous tissues heal after operation is well known to those in charge of asylums, and has already been referred to by the writer.[4] Also the spontaneous formation of firm laminated clot in an aneurysm of the arch of the aorta is unfortunately by no means common. Another noteworthy fact was the rapid coagulation of blood in an anæsthetic leper, in whom the great toe was being explored for dead bone in the Trinidad Asylum. The blood clotted so quickly that it fell in round beads into the basin of water above which the operation was being performed. These beads remained undissolved in the water. The percentage of fibrin in this patient was afterwards found to be 1·25. It seemed, therefore, that an attempt to estimate the fibrin in leprosy extended over a number of subjects might not be without value. For this purpose fifty lepers were chosen from those in the asylum. An endeavour was made to obtain a nearly equal number of persons suffering from each of the three forms of leprosy, but otherwise they were chosen without selection, the blood being chiefly collected from operation cases. In these there is the fallacy that in cases of sinus or ulcer there may be a certain amount of local inflammation causing effusion of fibrin factors in the tissues. As far as possible this source of error was avoided by collecting the blood in such cases after the first gush had taken place. In each case the blood was collected in a test tube and immediately whipped with a rough piece of wood to collect the fibrin. The test tube, wood, and blood were then weighed together. The clot was afterwards detached from the piece of wood, left to soak for some hours to detach blood-corpuscles, dried on blotting-paper, and weighed. The test tube and wood were also washed, dried, and weighed, their weights being deducted from the original total weight. The remainder gave the weight of the blood, and that of the dried fibrin being also known, the percentage was easily calculated.

The accompanying table shows that the range of percentages obtained by this method was very great, the lowest percentage being 0·12, the highest 1·87. The blood in this

Table showing Percentages of Fibrin in Fifty Observations.

No.	Age. M.	Age. F.	Form of leprosy.	Time affected.	Percentage of fibrin.	Source of blood.
1	21	—	M.	17	0·56	Enlarged left mamma.
2	—	57	A.	12	1·07	Perforating ulcer of foot.
3	18	—	T.	9	0·66	Large tubercle of hand.
4	44	—	A.	8	0·71	Granulating ulcer of finger.
5	39	—	A.	22	0·91	Swelling of foot from caries.
6	51	—	A.	9	1·39	Sinus of foot from caries.
7	—	25	T.	4	1·33	Infiltration of arm after acute leprosis.
8	66	—	A.	2	1·02	Stump of amputated toe.
9	68	—	M.	10	0·33	Tubercle of hand.
10	11	—	T.	5	0·85	Bleeding ulcer of leg.
11	26	—	A.	9	0·51	Stump of amputated great toe.
12	34	—	M.	15	1·06	Tuberculated thickening of arm.
13	61	—	A.	2	0·98	Swelling of forearm after suppuration of finger.
14	37	—	A.	2	0·33	Swollen anæsthetic finger.
15	45	—	A.	17	0·89	Sinus of foot.
16	41	—	A.	12	0·73	Stye of upper lid.
17	54	—	A.	12	0·59	Sinus of great toe.
18	—	18	T.	1	0·30	Tubercles of hand.
19	21	—	M.	4	0·95	Tuberculated thickening of finger.
20	45	—	A.	9	0·43	Sinus of foot.
21	—	16	T.	1	1·47	Tubercle of face and tissues at elbow.
22	22	—	A.	7	0·49	Sinus of great toe.
23	—	16	T.	6	0·30	Ulcerating tubercles of foot.
24	—	48	A	4	0·52	Sinus of finger.
25	41	—	A.	12	1·05	Ulcer of foot.
26	45	—	M.	1	0·12	Tissues in front of forearm.
27	32	—	A.	7	0·77	Sinus of foot.
28	42	—	A.	8	0·73	Sinus of finger.
29	37	—	A.	14	0·81	Ulcer of sole.
30	35	—	A.	8	1·25	Sinus of foot.
31	44	—	A.	7	1·06	Swelling of finger from necrosis.
32	42	—	A.	5	0·48	Swelling of finger from necrosis.
33	39	—	M.	2	0·19	Sinus of foot.
34	30	—	M.	6	0·41	Sinus of foot.
35	52	—	T.	5	0·29	Swelling of foot.
36	20	—	M.	7	0·82	Swelling of finger.
37	—	41	T.	2	0·69	Exuberant granulation of foot.
38	52	—	M.	1	0·25	Tubercles of face.
39	—	41	T.	3	0·68	Sinus of great toe.
40	—	21	T.	8	0·69	Tuberculated thickening of hand.
41	18	—	T.	1	1·00	Tubercles of nose.
42	56	—	M.	18	1·56	Tuberculated thickening of hand.
43	37	—	M.	5	1·31	Sinus of toe.
44	11	—	T.	2	0·41	Swelling of ball of toe.
45	36	—	T.	11	0·63	Tissues in front of forearm.
46	—	14	T.	1	0·50	Tissues in front of forearm.
47	41	—	M.	4	0·83	Infiltrated tissue of leg and foot.
48	57	—	M.	11	0·79	Ulcer of toe.
49	45	—	T.	10	1·87	Ulcer of leg.
50	41	—	M.	5	1·09	Swelling of leg.

Average percentage of fibrin in 16 tuberculated lepers	0·78
,, ,, ,, 21 anæsthetic ,,	0·79
,, ,, ,, 13 mixed ,,	0·72
Average percentage for the 50 observations	0·76

case, however, was collected from an incision at the side of a large hæmorrhagic ulcer of the leg, so that there was a possibility of the existence of the fallacy above noted. Taking, however, the average in the three forms of leprosy, there was seen to be a remarkable constancy in the percentage of fibrin. Thus in sixteen tuberculated cases the mean percentage was 0·78, in twenty-one anæsthetic cases it was 0·79, and in thirteen mixed cases it was 0·72. The mean percentage in the fifty lepers amounted to 0·76. In Danielssen and Boeck's fourteen observations the average percentage of fibrin was 0·36, while in Hillairet's three observations it was 0·65. Allowing, therefore, for the errors of experiment already mentioned, the mean percentage calculated on an increased number of observations and subjects agreed approximately with the results previously obtained from more limited records. The table contains details of the observations. It is noteworthy that in only two of the fifty cases was the percentage of fibrin below 0·2—the quantity said to be present in healthy human blood.

[1] Path. Soc. Trans., vol. xxxviii., p. 120.
[2] Traité de la Spédalskhed, pp. 238, 296.
[3] Ann. de Dermat. et Syphilog. (Paris), tome v., No. 3.
[4] THE LANCET, Sept. 25th, 1886, p. 581.

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CANCERS IN UNUSUAL SITUATIONS.

BY CHARLES STEELE, M.D., F.R.C.S.

CASE 1. *Scirrhus of Tonsil.*—Mr. H. N——, aged fifty-five, consulted me in February, 1886, concerning his left tonsil, which felt full and uncomfortable. I had attended members of his family for several years, but he had never required medical attendance during that time; in fact, he was a remarkably healthy gentleman, of a cheerful, bright nature, and took a great deal of walking exercise. The tonsil was enlarged, having a smooth flat surface as large as a penny curling over on its anterior edge, very firm to the touch. There was also a visible fulness under the ear. I entered it "malignant?" in my notes. He turned to me and said, "Tell me, is it cancer?" I asked what should make him think so, and he replied, "Because my father died of cancer." I told him that I should wish to try absorbent but non-irritating treatment before arriving at a definite conclusion, but that its nature was questionable. He had some round red spots on his forehead, and frankly owned to chancre in early manhood, and his mind was relieved by the idea of treatment bearing upon that basis being adopted. The spots cleared away, but the tonsil remained unaltered for a month. This treatment was discontinued because the swelling under the ear started rapid growth, extending both in circumference and also outwards beyond the level of the ear. Swallowing gradually became difficult; he refused to go out of doors, lost flesh and appetite, and was reduced to a fluid diet. The tonsil did not enlarge much more, but the curled edge became more prominent. Development of disease was in the soft parts outwards. Large veins showed themselves, the mass extended backwards almost to the nape of the neck, the growth extended two inches beyond the level of the ear, dark, hard prominences formed; and eventually ulceration took place exactly as in a scirrhous breast. Sloughing took place, leaving a wide deep cup, in which hæmorrhages, at first slight, but eventually severe and sometimes arterial, occurred, but were checked by the local application of perchloride of iron, while other styptics failed. He became confined to his bed, and died in September. The medicine which gave him *relief*, and which he took for some months, was tincture of hydrastis, in one-minim doses three times a day. When I increased the dose to ten or even five drops he refused to take it, and would fall back on the minim doses. The fulness of the tonsil was what he first noticed in January, then the swelling under the ear; but he put off calling to see me in consequence of his dread of being confirmed in his impression that the disease was really cancer. Yet he was imperative as to a frank reply to question, and, when the specific course of treatment failed to make an impression, I was obliged to confirm his fear. Dr. Greig Smith saw him early in consultation with me, and we were perfectly agreed that the idea of removal could not be entertained, on account of the extension into surrounding parts and involvement of bloodvessels and nerves. Duration of disease nine months.

CASE 2. *Scirrhus of the Vagina.*—Mrs. K——, a widow, aged forty-six, consulted me in October, 1889, on account of discomfort in the lower part of the abdomen and slight vaginal discharge. She had two children, aged seventeen and eighteen, and had not ceased to menstruate. Although she looked healthy and in good condition, indications made me desire an examination, to which she demurred, considering that she was suffering from leucorrhœa only; but on my representing that it was absolutely necessary, she consented. I found the vagina to consist of a flattened tube of dense tissue, which felt like cartilage. Both bleeding and pain resulted even upon my turning my finger gently. There was a small nodule on the os uteri. The growth at that time did not extend in front to the meatus urinarius; micturition was natural. Little increase occurred for a month, then extension on the right side into the pelvis took place, producing neuralgia in the right anterior crural nerve, then lameness, and swelling below Poupart's ligament. Continuous pain set in, accompanied by feverish constitutional disturbance, and dryness and redness of the tongue; and a cold abscess gradually formed and extended from the trochanter major to the adductor brevis, and rendered by its internal influence regular catheterism necessary. Great relief was afforded by my drawing off the pus with a trocar, and natural micturition was restored. Restlessness and sleeplessness rendered a sedative necessary, and sulphonal suited her well until her death, which occurred in May. It was not until the fourth day that I could gain consent to make a post-mortem examination, and the weather being hot, decomposition had commenced. I took out the vagina, uterus, and appendages, with the involved surrounding parts, and found the vagina hypertrophied uniformly except at the right side, where the disease had extended and embraced the anterior crural nerve. The uterus had one small nodule on the anterior lip and another more recent one in the fundus. The ovaries were free. The specimens were too decomposed to show anything by microscopic examination, though submitted to it at once. This disease clearly commenced in the vagina, and the uterine deposits were secondary. The abscess being manifestly caused by pressure on the anterior crural nerve is a confirmation of the dictum that abscesses are caused by depressed nervous function. Known duration of disease nine months.

CASE 3. *Cancer of the Meatus Urinarius.*—Five years ago a gentleman who consulted me several times from a distance told me that his wife's health caused him much anxiety; that she frequently passed blood, but would not hear of her medical attendant examining her properly. A few months afterwards they came to reside here, and I was asked to visit the lady, aged sixty. I represented to her that an examination was essentially necessary, and that, if the cause of her hæmorrhage was a serious one, delay might render her case hopeless. She consented, and immediately my finger entered the vulva it impinged upon a mass of cancerous excrescence, which surrounded the meatus urinarius and extended backwards to half an inch from the bladder. I urged immediate removal while I could get beyond the disease and save the sphincter of the bladder. Both the husband and wife consented, and I removed the mass entirely with the écraseur, leaving nothing but sound tissue beyond. The case did well. For a time urine was passed through a retained indiarubber catheter, but this was removed as soon as cicatrisation was sufficiently established. Power of retention was gradually gained, except that when the patient sat in a perfectly upright position a little urine was always voided. She has remained free from any recurrence ever since. During convalescence this case was complicated by the gradual formation of an abscess on the front of the leg, half way between the knee and ankle, which was opened, and did well. The disease was epithelioma.

Clifton.

A RARE FORM OF SKIN ERUPTION.

BY H. R. KENWOOD, M.B., L.R.C.P., D.P.H.

AN extremely interesting case of an aberrant form of urticaria has been under my supervision for some years, and it serves to sustain in a striking manner the now generally accepted theory that this disorder is due primarily to a direct or reflex irritation of the peripheral vaso-motor system, in which contraction, followed by a partial paralytic dilatation of the cutaneous vessels, determines the exudation of lymph with the production of wheals. It must be held, however, that each sufferer from the complaint possesses a hyper-sensitive condition of the vaso-motor system, so that more or less trivial causes will suffice to disturb its balance. A severe body-chill has always furnished the exciting cause in this case, and after careful and thorough investigations the most absolute negative evidence of any concomitant derangement, either of the digestive, nervous, or reproductive systems, has been forthcoming. The urine has, however, always had its colour and acidity somewhat accentuated, but there has been no albuminuria or lithuria. The patient, who is now twenty-five, first noticed "swellings" when between seventeen and eighteen years of age, and they have since recurred on almost every occasion upon which she has caught a violent chill. She has always enjoyed excellent health and is of a slightly florid complexion. The eruption mainly consists of wheals, which are sometimes six inches in diameter, and are generally discovered on the third day after the chill (that is to say, when the other effects of "the cold" have somewhat spent themselves). These may occur anywhere about the body; the lips and eyelids (especially the lower) are frequently attacked, and the pharynx is said to have been

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involved on an occasion during which I did not see her. Over the area on which a wheal is about to form the following sequence of events has been invariably noticed by both the patient and myself. The area at first suddenly assumes a slight red blush, sometimes bright like erythema, but generally of a somewhat duskier hue, and at this stage a faint "tingling" pain manifests itself. When the spot is rubbed by the patient or myself—and in all other cases the necessary friction or pressure is doubtless given by clothes, &c.—the centre rises, becomes blanched (relatively), and then extends rapidly by an indefinite border until it reaches the limits of its extension, by which time a faint red line is seen to surround a paler swelling. The tingling sensation is at all times slight, is greatest in the stage immediately preceding the swelling, and then diminishes, to disappear entirely when the wheal has reached its maximum development. At this later stage there are no subjective sensations of any kind which would tell her of their presence so long as she remains at rest, and does not rub or press them. The swellings last in bad attacks two days; but they have come and gone in two hours, leaving in no case any trace whatever of their existence, and we have both succeeded in some cases, but only early in the attacks, in producing wheals by friction over areas which have appeared perfectly normal. Apart from the slight discomfort accompanying "the cold," the patient feels perfectly well and in good spirits.

What marks the case as one of exceptional interest, however, is the fact that some of the swellings have frequently assumed the characters of a condition which has been described (by Quincke and Rapin notably) as "acute circumscribed cutaneous œdema"—that is, there have been present, I may say in *most* attacks—three or four on an average—œdematous tumefactions of the skin and subjacent tissue, of firm and knobby consistence, with ill-defined borders, and possessing a slightly pale hue relatively to the adjacent skin; which tumours pit (almost imperceptibly, it is so slight), upon pressure. Their favourite sites are the skin over the deltoid muscle of the arm and that over the region of the buttocks. The swelling of the tongue which accompanied a recent attack was due to one of them. They have never been, in any case which I have had the opportunity of investigating personally, less than two inches and a half in their longest diameter, and have generally shown a tendency to assume an oval shape. The largest had a diameter of over six inches, and was situated upon the buttocks, with its centre over the tuber ischii. Their near relation to the urticarial wheal is manifest from the closely similar sequence of changes during their development; from the almost equal rapidity in which they appear and disappear, and from the fact that in this case a common cause induces both to appear. As in the wheal there is at first a blushing of the area, followed by rapid swelling, which quickly spreads the while it grows paler and becomes eventually surrounded by a slightly—very slightly—reddened zone of skin. The borders of these hard swellings are not well-defined, and almost evanesce into the adjacent skin, and there are no subjective symptoms accompanying them when matured, not even one of tension.

How unlike typical acute urticaria the condition is, even if the presence of the hard tumours be excluded, is at once manifest from the absence of all evidence of any, even faint, constitutional disturbances of the nature which generally accompany that condition; the number and size of the wheals, many of which quite reach in the latter respect the proportions found in "urticaria gigans"; the seasonal prevalence of the disorder, most marked in the winter, whereas in acute urticaria by far the greatest incidence of attack falls in the spring and summer; the extreme faintness of all subjective sensations, and their total absence after the swellings have formed; while in acute urticaria the itching, tingling, and pricking sensations generally occur *with* the eruption, in a marked degree, and there is a craving to scratch. The case appears to me to be a hybrid of three conditions: (1) Common acute urticaria, (2) urticaria gigans, and (3) acute circumscribed cutaneous œdema. The patient has felt slight, obscure, and wandering muscular discomfort at times, which may be attributed to chronic rheumatism, though she has never had acute rheumatism, nor is there any parental history of the disease. She is somewhat of the "rheumatic constitution." Although for a time I was inclined to think that drop doses of aconite hourly exercised the greatest influence in limiting the duration of the rash (even more so than the salicylate of sodium of which I had read), I have since had ground to believe that a mixture of the latter salt with iodide of potassium has been more successful. It is difficult, however, to say anything definite upon the results of different treatments, as the duration of the condition, in spite of drugs, would appear in this case to bear a direct relation to the magnitude of the exciting cause; that is to say, it is the severity of the chill—a difficult factor to reckon with—which chiefly determines the severity and persistence of the condition, and therefore in different attacks it is impossible to tell what their duration would be apart from the treatment employed.

Denbigh-place, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASE OF ILEO-CÆCAL INTUSSUSCEPTION IN A MALE INFANT AGED NINE MONTHS.

BY T. CUMING ASKIN, M.D.

A SHORT account of this case may prove interesting, as the diagnosis was verified by a necropsy. A strong, well-developed male child enjoyed perfect health till the morning of Dec. 4th, 1891, when, while crawling on the floor, he was suddenly seized with great pain, which made him cry out. His mother said the bowels moved soon after, and the motion contained nothing but blood. The pain did not recur, but the child seemed heavy and stupid, and vomiting set in, nothing being retained on the stomach. I saw the child on Sunday evening, the 6th. His face had a pained and anxious expression. Surface of body cold. Temperature 98° in axilla; pulse about 160. Eyes dull, pupils dilated. Abdomen not distended. In the right iliac fossa a tumour, doughy in consistence and freely movable, could be easily and distinctly felt. Palpation did not seem to cause pain. A glycerine suppository was given and brought away a little blood. Bowels had not acted since the 4th. On the morning of the 7th I again saw the child, whose condition then was much the same as it had been on the previous day, except that he seemed weaker. The tumour did not appear to have altered much in position or size, and there was no abdominal tenderness or distension. I advised an operation, but the mother would not consent. I then sent for a pair of bellows, intending to inject air into the bowel, but the child died before they could be procured. The cottage was situated in a very lonely and isolated part of the county, being several miles from any village or town.

The necropsy revealed an ileo-cæcal invagination, about four inches of the gut being involved. The intestine was intensely congested, and I had considerable difficulty in withdrawing the invaginated portion of the gut. The small intestine was moderately distended (this must have occurred within a very short period of death). There was no evidence of general peritonitis.

Alderton, Suffolk.

CASE OF APHASIA.

BY D. ROBERTSON DODIE, M.D. EDIN.

THE following case may prove of interest to medical practitioners and merit insertion in the columns of THE LANCET. By publishing I invite a free discussion of the case, and will leave it to more experienced and intelligent observers to explain how the favourable termination which I now describe came about.

Mrs. H——, aged fifty-six, was suddenly seized with loss of speech, unaccompanied by any paralysis, in January, 1883. I did not at that time see the patient, but I am well aware that she lost her speech completely, and could not utter a syllable. She could read quietly to herself, but was unable to communicate her ideas in writing. She was treated in a most careful manner by a neighbouring practitioner, and was soon up and attending to her household duties. I frequently attended Mrs. H—— when she came into my district during 1883, and subsequently for minor ailments in connexion with the menopause, and I am inclined to think

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this had something to do with the seizure. An embolism might be formed in the uterine sinuses and carried onwards to the brain. This is a mere speculative opinion. She could say nothing but "ta-ta" and "tut-tut" from 1883 to 1891, and by signs and gestures lead her husband and family to understand what she wanted. My patient subsequently removed out of my district, and I never heard of her until last month, when she came to consult me and to report the marvellous change which had come about in the following way. On Saturday, Oct. 31st, 1891, she was thrown into a violent passion and much annoyed by her daughter, with whom at times she does not get on very well, and the strife lasted a considerable time. After the storm had blown over she felt a severe pain in the head, and after a short interval she found she could speak perfectly well and give expression to her feelings as plainly as ever she did in her life. As was to be expected, the sudden change caused great consternation in her household and struck terror into the hearts of her neighbours. I had a long conversation with my patient a fortnight after the occurrence, and was most interested in her story. She is an intelligent woman and for nine years had been unable to give utterance to her thoughts. I have recorded this case at some length because I believe it to be unique, and so far as I can learn no such sudden and complete restoration of speech after so long a period of silence has ever before been recorded.

Coldstream, N.B.

SOFT PAPILLOMA OF EAR OF SUSPECTED INFECTIOUS ORIGIN.

By ROBERT LAKE, F.R.C.S.

NEW growths of the external ear are, when compared with other affections of that part, somewhat uncommon; thus there did not occur more than a single case, and that not correctly speaking a growth, in 1146 consecutive cases in the aural department of St. Thomas's Hospital.[1] The general position of the one described below is the usual seat of the soft variety of papillomas,[2] the hard ones being also found in other situations.

The patient, a girl of short stature, aged seventeen, of dull appearance, had been subject to ostitis media purulenta for two or three years; no cause was known for its having originated. For some weeks there had been severe pain in the ear; the discharge was most horribly offensive. On examination of the affected ear (right), the meatus was found closed by three pinkish masses, which were at first believed to be purulent collections in the subcutaneous tissue. One mass covered the posterior surface of the tragus up to the entrance to the canal; the next one sprang from the inner surface of the antitragus; the third and largest, fully half an inch across, grew in that part of the concha adjacent to the canal, proceeding down that also for a few lines. The whole mass was covered with epithelial detritus and pus. The patient was anæsthetised, and the whole mass thoroughly scraped away with a curette. It was soft and bled freely; the raw surface was rubbed with a solution of chloride of zinc, sixty grains to the ounce of water; the middle ear was well disinfected and also the Eustachian tube, which was so patent that fluids flowed easily down it when the ear was syringed. Healing rapidly progressed, the raw surface being scarcely recognisable in two weeks' time.

Remarks.—Although the odour and appearance of the growth were so suggestive of gonorrhœal warts, yet no history of infection could be arrived at, and unfortunately no cultivations were made, hence the question arises whether the irritation causing the growth was an infective one or merely due to the acrid character of the discharge. The theory of infection is to a certain extent borne out by the fact that the growths on the tragus were obviously secondary to that on the concha, for whilst their surfaces were in contact their bases were free. Dr. Payne has shown[3] that simple warts in other parts are sometimes infective, so the infection was not necessarily from the gonococcus. To the free patency of the Eustachian tube is due the absence of symptoms from plugging of the meatus externus.

Barnes, S.W.

[1] St. Thomas's Hospital Reports, 1889–1890.
[2] Gruber, p. 313.
[3] British Jour. of Dermatology, vol. iii., No. 6.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

A CASE OF COLLAPSE FROM VOMITING AND DIARRHŒA TREATED BY INTRAVENOUS INJECTION OF SALT SOLUTION.

(Under the care of Dr. STURGES.)

THIS case is a most important addition to those which have already been published as to the efficacy of the injection of saline solutions where excessive loss of blood, or of the watery constituents of the blood, has taken place. It will assist in bringing before the profession in a most convincing manner the value which the treatment has in some apparently hopeless cases. Dr. B. W. Richardson[1] has drawn the attention of the readers of THE LANCET to the effect produced by the injection of a saline solution into the veins of a woman who was moribund from cholera collapse. "She became quite conscious, sat up in bed, and signed a short will." The improvement was, however, only temporary, and required to be repeated, but each repetition was followed by the renewal of diarrhœa and cramps, and the patient died some hours later. Mr. Lane's[2] experience, which was also published in THE LANCET, was derived from a case of secondary hæmorrhage and collapse after an operation for cleft palate on a girl of thirteen. The results were almost miraculous, and the child rapidly recovered. He injected three pints and a half of common salt (one drachm to the pint) into the basilic vein. We have also recorded a case under the care of Mr. Anderson[3] of Nottingham, in which a fatal result from secondary hæmorrhage was apparently prevented by the intravenous injection of a solution of common salt, forty grains to the pint. Eighteen ounces of this were injected, and although at the time very collapsed, within two hours "he was able to sit up and ask for his tea." An injection of twelve ounces of similar fluid was required next day after an operation to secure a wound in the popliteal artery from which the hæmorrhage had come. This was again followed by satisfactory results, and the patient, a lad of sixteen, recovered. The injection of ten ounces of a solution of phosphate of soda, twenty grains to the ounce, was employed in a patient almost moribund from loss of blood due to wounds of the neck, with immediate benefit. Before the injection the pulse was quite imperceptible at the wrist, the pupils dilated and fixed, and the conjunctivæ insensitive. A case in which much benefit of a temporary character was obtained is also recorded in our columns. It was that of a man aged fifty-four, under the care of Dr. Churton, who from excessive vomiting due to cancer of the stomach became prostrate and pulseless. Here again the improvement was very marked whenever the injections were used. Dr. Churton's remarks on his case are interesting. We have referred to the experiments of Messrs. Dastre and Lange, who say that the expression "toxic dose" has no meaning so far as the salt solution is concerned. There is no such thing as a toxic dose, but there is a toxic rapidity. Their experiments are important, and will be found in detail in the *Archives de Physiologie*. For the notes of this case we are indebted to Mr. Horace Collier, house physician.

W. H——, aged nine months, was admitted to the Hospital for Sick Children, Great Ormond-street, on Oct. 26th, 1891. For four months he had been under care as an out-patient for congenital syphilis and rickets, with several attacks of diarrhœa. He was, upon admission, cold, pale, shrivelled-looking, completely quiet, and with sunken eyes and hollow-looking orbits. The history was that there had been severe diarrhœa and repeated vomiting for two days.

The child was at once rendered warm, and brandy

[1] THE LANCET, vol. ii. 1891, p. 701. See also the Asclepiad, 4th quarter, 1891, p. 335.
[2] Ibid., vol. ii. 1891, p. 626. [3] Ibid., vol. i. 1889, p. 929.

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and meat-juice were administered in small quantities. Eight hours later the patient was still more collapsed, and appeared to be near death. He had vomited frequently since admission. The house physician exposed the left external jugular vein, where it was superficial to the sterno-mastoid, and slowly injected with a double-nozzled syringe twelve ounces of distilled water containing thirty-six grains of common salt and rather more than a drachm of brandy, the temperature of the solution being kept at 101°. The reaction appeared before the operation had been completed, the pulse becoming bounding, the face flushed, the skin hot, and the child very restless. The temperature was 104·8° three hours later; it remained at this level for two hours, and gradually and almost regularly fell, reaching 98 6° thirty-six hours from the time of the injection. The very marked restlessness was combated with opium. The child vomited once only after the operation. The diarrhœa was treated with grey powder and the compound ipecacuanha powder, and the patient showed no further complication and recovered.

Remarks by Mr. COLLIER.—The shrunken appearance and sunken eyes of such a patient show how wanting in fluid the tissues are; and if, as in this case, owing to the condition of the mucous membrane of the stomach and to the frequent vomiting, the absorption of fluids from the alimentary tract becomes greatly interfered with, it appears rational to make an intravenous injection. This case illustrates well the immense value of saline injections, the revival of the practice of which we owe to the late Dr. Wooldridge and to Mr. Arbuthnot Lane.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

TWO FATAL CASES OF LORETA'S OPERATION.

(Under the care of Mr. PAUL SWAIN.)

THE operation of digital divulsion of the pyloric orifice of the stomach has been performed many times since the account of the first operation by Loreta was published in THE LANCET.[1] These examples of this method of operating show that the procedure is attended with some considerable risk. The first patient died with a return of vomiting on the fifth day, the second from collapse four hours after the operation. An important thing in the second case is the condition of the pylorus as found at the necropsy. Loreta is reported to dilate the opening until his fingers are three inches apart. Here the stretching was very much less than that, and yet a complete rupture of the wall was found. Dr. Barton[2] gives a mortality after this operation of 40 per cent., whilst Dr. Ball[3] estimates it at 33·3 per cent. Dr. Weir,[4] in a clinical lecture, strongly recommends the performance of gastro-enterostomy in simple pyloric stenosis in preference to the operation for the relief of the condition recommended and practised by Loreta, giving a mortality of only 11 per cent. in such cases. The improved methods of performing it have certainly lessened the risk which formerly attended this operation. For the notes of these cases we are indebted to Mr. W. Gifford Nash, late house surgeon.

CASE 1.—Eliza T——, aged thirty, who has had three miscarriages but no children, was admitted under the care of Dr. Prance on March 17th, 1890. She stated that two years previously she first suffered from vomiting and pain after food, the pain not being relieved by vomiting. For three months she had been losing flesh, and for six weeks had suffered much from pain in the stomach and vomiting after food.

April 4th.—The patient has been sick two or three times daily since admission, the vomit consisting of curdled milk. The right kidney is mobile, and the abdominal aorta pulsates very forcibly. There is no abdominal tumour.

May 9th.—For a week has been passing dark, clotted blood in her motions.

16th.—There is some thickening of the structures overlying the abdominal aorta.

23rd.—Mr. Swain examined the abdomen under methylene, and in the left half of the epigastrium found a resisting mass apparently connected with the stomach. Splashing was obtained in the stomach.

June 1st.—The patient suffers much from headache and nausea.

27th.—She goes home to-day unrelieved. She has been treated by dieting and all kinds of drugs.

Aug. 5th.—She was readmitted under Mr. Swain for constant vomiting, coming on about half an hour after taking food. The vomit, which is never offensive or copious, neither contains sarcinæ nor blood. There is still some thickening in the left half of the epigastrium. She is losing flesh.

17th.—Under methylene, followed by A.C.E. mixture, an oblique incision was made parallel to and one inch below the left costal margin, commencing in the middle line. The stomach was found, and a two-inch incision was made in the greater curvature, commencing an inch and a half above the pylorus. The pylorus was thought to be thickened. Its orifice was searched for, and found after a long search; it was contracted down to the size of a goosequill. The muscular wall was not indurated and the mucous coat ulcerated. The little finger was first forced through and the opening further dilated so as to admit two fingers with ease. The stomach wound was closed with fifteen Czerny's and fourteen Lembert's sutures. The abdominal wound was then closed with silkworm gut. The patient was fed with peptonised nutrient enemata. She was frequently sick for the first three days after operation, the vomit consisting of grumous fluid. On the fourth day a teaspoonful of milk and soda-water was given every hour. On the fifth day vomiting returned, and the patient gradually sank from exhaustion.

Necropsy.—There was no peritonitis, and the stomach wound was firmly closed.

CASE 2.—Maria H——, aged thirty-seven, a single woman, was admitted under the care of Mr. Swain on June 23rd, 1891. She stated that ever since childhood she had been subject to pain in the stomach and vomiting of food, sometimes directly after a meal, and at others some hours later. At times she has gone for months without vomiting at all. She has lived on milk for a month at a time, and has improved under it. During the attacks of vomiting and pain she rapidly lost flesh and as rapidly improved when the vomiting ceased. She has never been so thin as now. At the age of fourteen she had an attack of ulceration of stomach which nearly proved fatal. For fifteen years or so she has vomited altered blood, and for one year noticed a stationary lump in the abdomen. The bowels acted regularly until two months ago, but since then have been constipated. On admission, the patient was a very pale, emaciated woman. On examining the abdomen there was an evident fulness below the level of the umbilicus, chiefly on the left side. The dilated stomach, or what appeared to be it, was situated in the hypogastric, umbilical, left lumbar, and iliac regions. The great curvature lay in the hypogastric, left lumbar, and iliac regions just above the pubes and Poupart's ligament. The pylorus lay just below the umbilicus, and the cardiac end just below the ninth costal cartilage. There was a tender mass just below the umbilicus fixed to the anterior wall of the pyloric end of the stomach. Splashing was easily obtained. The tympanitic stomach note was obtained over the area above mentioned, and above it appeared the transverse colon. There was a resonant note over the normal position of the stomach, but this was not so tympanitic as over the displaced stomach. The stomach was washed out daily with boracic solution. It easily received forty ounces of the solution. The mucus washed out was tinted brown, and contained torulæ and sarcinæ. The patient vomited about a third of a pint of brownish fluid two or three times daily. She suffered great pain, requiring frequent injections of morphia, and notwithstanding being fed by the mouth and rectum continued to lose flesh.

On July 4th, the stomach having previously been washed out, chloroform, followed by the A.C.E. mixture, was given, and an incision three inches long made in the left linea semilunaris, about midway between the umbilicus and pubes. What appeared to be the dilated stomach was at once exposed, nothing being seen of the great omentum. The lump proved to be a coil of small intestine, adherent to the front of the pyloric end of the stomach. The pylorus was felt to be thickened and constricted. The stomach was opened by an incision two inches and a half long in its anterior wall and the pylorus easily found, admitting the tip of the index finger with difficulty.

[1] THE LANCET, 1883, vol. ii.
[2] Transac. of Americ. Surg. Assoc., 1890.
[3] Medical Record, 1890. [4] Medical Bulletin, Phila. 1889.

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First one finger, then two were introduced; next both index fingers, and drawn asunder to admit a third. A firm ring or band was felt, and heard to suddenly tear or give way. The wound in the stomach was sutured with a double row of Lembert's silk sutures, and the abdominal incision closed with silkworm gut. The patient was very collapsed, never rallied, and died four hours later, after having vomited a pint of brownish fluid.

Necropsy. — On opening the abdomen the distended stomach was at once seen, and lying in front of it near its pyloric end a coil of small intestine firmly adherent to it. On tracing up the lesser curvature of stomach was found a tube which was at first thought to be the œsophagus. On tracing this further upwards, to the left was found a second stomach, about the same size as the lower stomach, and situated in the usual position. On opening the two dilatations they were both lined with rugæ, and were undoubtedly both parts of the same stomach. The constricted portion, which formed a tube quite two inches long, was the seat of a large firm cicatrix. Near the pylorus was a cul-de-sac about the size of a hen's egg, evidently the seat of an old ulcer. The outer surface of this cul-de-sac was adherent to the coil of small intestine and to the first part of the duodenum. The pylorus was also the seat of a cicatrix. The constriction of the pylorus was partly due to this and partly to the dragging of the cul-de-sac from outside. At the bottom of the cul-de-sac was a slightly elevated ulcer about the size of a shilling. On opening the duodenum it was found to be very thin, and its junction with the pylorus at the back was quite torn through, so that blood and gas were extravasated into the subperitoneal tissue around the pylorus. The upper half of the hour-glass-shaped stomach was empty, but the lower contained dark-brown grumous fluid. The glands of the mesentery were much enlarged, especially those around the pylorus.

Remarks.—Case 1 was treated for ulceration of the stomach from March 17th to June 27th. The symptoms appeared to be increased by a neurosis, of which the pulsating aorta was evidence. When she was readmitted in August she was very weak and emaciated, and although there seemed to be very little chance of Loreta's operation succeeding, still it was felt to be right to give her the only chance. In Case 2 again the patient came under treatment in such a weak and emaciated condition that an attempt was made by rectal feeding to strengthen her for the operation. The hour-glass shaped stomach produced a very interesting and puzzling condition, which was not diagnosed until after death. It showed very well how such a condition is produced by the contraction caused by the cicatrisation of ulcers. Mr. Swain felt that both these cases were, from circumstances over which he had no control, operated on too late.

CUMBERLAND INFIRMARY, CARLISLE.

TWO SURGICAL CASES.

(Under the care of Dr. LEDIARD.)

IN connexion with the cases of conical stump published in THE LANCET of Oct. 3rd, under the care of Mr. Owen of St. Mary's Hospital, the following case may be of interest, as it resembles closely the third described by him, and also one which was under the care of Dr. C. A. Powers. We are indebted to Mr. James B. Bird, house surgeon, for notes of these cases.

CASE 1. *Conical Stump.*—G. M——, a schoolboy aged fourteen years, was admitted into the hospital on Sept. 23rd, 1891. He had the left upper arm crushed seven years ago, and it was amputated some distance above the elbow. A conical stump resulted some years later, and three years ago Dr. Lediard resected the humerus, leaving ample flaps. On admission the patient complained of the stump, which on examination proved to be conical, the bone protruding at the apex and causing pain. The skin was adherent to the bone. The bone protruded about half an inch. There was some pus.

Sept. 25th.—Over two inches of the humerus were removed to-day.

On Oct. 7th the stump had almost healed, and on the 14th the patient was discharged.

The above account shows how active the upper epiphysis of this humerus has been, and it bears out the fact that conical stump is very apt to result in the arm after amputation in boys. It is curious that the bone seems to have grown more rapidly during the last three years than it did during the seven years previously. Unfortunately, it is not known how much bone was removed in the first instance, in proportion to the length of the flaps.

CASE 2. *Necrosis of Sternum.*—A. W——, housewife, aged twenty-two years, was admitted on July 29th, 1891, complaining of discharging sores over the breast-bone. The disease had commenced four months ago, after her confinement, when a swelling was noticed over the middle of the sternum. This swelling burst, and had discharged pus up to admission. When the patient was admitted she was found to be a healthy-looking woman. There were three discharging sinuses in the mid-sternal region. Dead bone was felt when the sinuses were probed. On Aug. 7th the sternum was exposed by an incision through the soft parts, and after gouging for some time, two somewhat flattened sequestra were removed, one being over an inch in length, and the other about half an inch. The wound was plugged, and the case has since progressed favourably. The sequestra were lying loose in this case, one being about the middle of the sternum, and the other higher up. Mr. Erichsen, in his "Science and Art of Surgery," does not remark that these cases are rare, but one does not see them very often in practice.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Tubercular Ulceration of Tongue.—Sarcoma of Duodenum.—Pathological Conditions in the Breast associated with Carcinoma.

AN ordinary meeting of this Society was held on Jan. 5th, the President, Sir George M. Humphry, being in the chair.

Mr. CHARLES A. MORTON of Clifton showed a specimen of Tubercular Ulcer of the Tongue from a man aged fifty-five, under the care of Mr. Penny, in the Bristol General Hospital. The ulcer had almost healed, but was beginning to break down again when the man died of phthisis. The ulcer was at the tip of the tongue. Several minute ulcers formed and coalesced. There was less induration than in an epithelioma. Microscopic sections showed the tissue infiltrated with small, round, and giant cells containing numerous tubercle bacilli. The tubercular growth extended quite half an inch below the ulcer, showing the need of free removal in these cases if excision be performed, although the base was not indurated. The submaxillary glands were caseous. There was advanced pulmonary and laryngeal phthisis, also tubercle of an epididymis. The author did not think the phthisis could have been produced by the inspired air passing over moist tubercular discharge, but more likely by inoculation of an abrasion on the tongue from rough teeth by bacillary sputum; or that the ulceration on the back of the arytenoids had been caused by swallowing the discharge from the ulcer, and that the disease had then spread into the larynx and lungs.—Mr. MORTON likewise showed a specimen of Tuberculous Ulcer of the Tongue, excised by Mr. Munro Smith in the Bristol Royal Infirmary, which he had examined microscopically and found the same appearance as in the first case, except that instead of there being as many as a dozen bacilli in a single giant cell, he only found three in ten sections, each one in the centre of a giant cell. There were signs of phthisis at one apex. The submaxillary glands were slightly enlarged. This ulcer was also close to the tip, between it and the floor of the mouth; a smaller one existed by its side. The man was aged thirty-four, and the ulcer was of six months' duration.—Dr. PENROSE remembered seeing a case in a child, in which he demonstrated the presence of tubercle bacilli. There was no local condition, such as rough teeth, to account for the presence of the lesion. It was situated at the back of the tongue, close to the epiglottis, and both larynx and lungs were found to be tubercular.—Dr. HADDEN recalled a case which he had described in the Society's Transactions in 1883. Later Mr. Barker had been through the literature of the subject, but he had failed to find a case in a child. Since then the speaker had seen many instances of tuber-

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ocular lingual ulceration, in some of which that affection appeared to be the initial tubercular lesion. Often a local predisposing condition was observed to be present.—Mr. SHATTOCK referred to Mr. Butlin's suggestion of scraping these ulcers for purposes of diagnosis, and he asked the author if he thought that this proceeding would have aided in elucidating the cases under discussion.—The PRESIDENT thought that the rarity with which the tongue was attacked by tubercle depended on the thickness of its epithelial covering, which was greater over this organ than at any other part of the digestive tract.—Mr. MORTON, in reply, said that the site of infection was probably usually an abrasion, the anterior part of the tongue being frequently nipped between the teeth or damaged by traumatism, as, for instance, in one case a man was attacked by tubercular ulceration of the tongue who was in the habit of carrying tin tacks in his mouth. He thought that scraping should prove of value in aiding diagnosis.

Dr. ROLLESTON showed a specimen of Duodenum, in which the mucous membrane of the first, second, and commencement of the third part was greatly altered; the surface was raised and rough, from the presence of plaques of material resembling hardened Peyerian patches. This growth was ulcerated, and, in the region of the biliary papilla, and again at the commencement of the third part, there was considerable destruction of tissue. In the latter situation there was a cavernous ulcer passing under the pancreas; its walls, rough and irregular, were formed of muscular coats infiltrated with growth. On the floor of the ulcer the inferior pancreatico-duodenal artery was exposed and eroded. The pancreas was not infiltrated with growth, but was expanded over infiltrated and enlarged glands at its head. The mesenteric glands, and those in the portal fissure, were enlarged and infiltrated with growth, but there were no enlarged glands elsewhere, and no growths in the liver, spleen, or rest of the intestine. The stomach and small intestine contained a large quantity of recently extravasated blood. Microscopically the submucous coat was seen to be the part primarily affected with a growth composed of small and medium sized round cells; their nuclei were relatively large to the scanty surrounding cell substance. Between the cells delicate fibrillæ and coarser strands of fibrous tissue, probably derived in part from the tissues invaded by the growth, could be made out. The growth infiltrated the muscular coats and passed up to the mucous coat. The latter had disappeared from the greater part of the duodenum, and its place was taken by growth with some blood channels devoid of proper walls. The growth had some of the characters of a lympho-sarcoma, but was limited to the duodenum and its adjacent glands. Dr. N. Moore, in the thirty-fourth volume of the Society's Transactions, had described a case of lympho-sarcoma limited to the duodenum. The specimen was taken from a patient thirty years of age, who had died in St. George's Hospital under Dr. Whipham of hæmatemesis.

Mr. RAYMOND JOHNSON read a paper on Pathological Conditions of the Mamma associated with Carcinoma. His investigations had been undertaken with the object of ascertaining whether pathological evidence could be obtained indicating the propriety of the complete removal of the whole organ in cases of carcinoma. The condition of the breast tissue had been carefully ascertained by naked-eye examination and the use of microscopic sections. From a practical point of view, it was very convenient to divide carcinoma of the breast into two varieties, the nodular and the infiltrating. The infiltration of the gland might arise through the lymphatic, and also probably by a widespread carcinomatous change affecting the glandular tissue. Specimens and drawings were shown exhibiting both these processes. In a case of infiltrating carcinoma in a woman aged twenty-six years, microscopic examination of parts of the breast appearing normal to the naked eye revealed masses of cancer cells apparently lying in lymphatic spaces. On the other hand, in another specimen of the infiltrating variety the microscopic appearances strongly suggested that a widespread carcinomatous change was involving the whole organ—sections showing the new growth arranging itself around the small ducts, which were themselves apparently normal. In this paper, however, attention was especially directed to the nodular form of the disease. In the case of a woman aged thirty-four years a small nodular carcinoma was situated at the axillary border of the left breast. After removal, two small nodules were found at the sternal end of the breast, each having the typical structure of glandular carcinoma, whilst microscopic examination of the central part of the gland showed marked changes in the epithelium, to be described later. Reference was then made to the nodules described by Heidenhain in the fascia over the pectoral muscle, and a drawing was shown of such a nodule invading the muscle at a distance from the tumour itself. Small cysts in the breast tissue were not uncommon, but no evidence was obtained to show that their relation was more than accidental, cysts being common at the age at which cancer is common. Possibly, however, such cysts might arise as the result of the blocking of the ducts by the growth of the tumour. With the microscope changes were often found when the naked eye gave no evidence of disease. Thus in one case the microscope showed invasion of remote parts of the breast through the lymphatic spaces as in the infiltrating variety of the disease. More common, however, were proliferative changes in the epithelium of the acini. The latter were somewhat dilated, and more or less blocked by masses of swollen, faintly staining cells, often with indistinct outlines. These changes were well seen in a small indurated area excised by Mr. Godlee from the centre of the breast of a woman aged forty years. The condition was probably of the nature of a chronic inflammation, and there were no signs of tumour formation. Specimens were also shown exhibiting these changes in breasts the seat of carcinoma, as well as in the breast of a lady whose opposite breast had been excised by Mr. Berkeley Hill for carcinoma several years previously. It was suggested that these proliferative epithelial changes probably stood in the same relation to cancer of the breast as chronic superficial glossitis did to cancer of the tongue—viz., it represented a possible precancerous condition. The conditions found in the breast in association with carcinoma were summarised as follows:—(*a*) Gland tissue to all appearances healthy; (*b*) gland tissue atrophied, with large admixture of fat and fibrous tissue; (*c*) chronic proliferative epithelial changes; (*d*) infection of the gland through the lymphatics; (*e*) cystic changes; and (*f*) presence of simple tumour. The conclusion to be drawn from these observations seemed to be that as far as possible all the gland tissue should be removed in excising a cancer of the breast. Breast tissue was liable to be left in reflecting skin flaps from the surface of the gland, at the periphery of the breast, and on the surface of the pectoral muscle. As far as possible all overlying skin should be removed, and the surface of the pectoral muscle should be cleaned, with possibly removal of the superficial fibres. Finally, specimens were exhibited showing fragments of breast tissue left behind in the usual operation of excision, and others showing that such fragments might in some cases at least be the starting-point of recurrent growths. Mr. Johnson expressed his thanks to the staff of University College Hospital for the free use of their cases, and especially to Mr. Marcus Beck, at whose suggestion he had undertaken the observations.

Mr. CECIL F. BEADLES read a paper on some Histological Changes in the Breast found in association with Glandular Carcinoma. He commenced by saying that the condition of the breast tissue apart from the actual carcinomatous tumour appeared to have been little, if at all, investigated. After a careful search into the literature of the subject, he had only found allusions to the subject by Cornil and by Creighton. As a result of microscopical examination of about a hundred breasts amputated for carcinoma, he was able to state that these breasts were never in what might be considered as a normal state, but it was doubtful to what extent the conditions found were dependent on the presence of cancer. He then referred to the frequency with which small carcinomatous nodules might be found at a distance from the larger growth, and having no connexion with it. He then described the changes found in the stroma of the breast lobules, and said there could be seen in different cases all the stages usually described as being present in chronic interstitial mastitis—namely, a small round-celled infiltration, a stroma formed of connective tissue cells, and of dense fibrous tissue, associated with atrophy of the gland acini, or with the formation of cysts. There was often also a marked proliferation of the epithelium within the acini, and when this was considerable the central cells were usually degenerated. A peculiar change found in some gland acini of the breasts affected by malignant disease was then de-

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scribed. This consisted in the increase, combined with great irregularity in size of the epithelial cells, some being very large and in character indistinguishable from malignant cells. These were often associated with degeneration of the others, the débris formed by cells and cell secretion being often of a yellowish-brown colour. This condition he looked upon as a stage between simple œdema and glandular carcinoma, which was, in fact, commencing malignant disease. A papilliform change, sometimes found in the epithelium of the ducts, was next described. This presented itself in two forms—in the one, groups of spaces were lined by large columnar epithelial cells, and into these spaces small processes passed from the stroma. This condition he had found in breasts that contained no form of malignant growth. In the other form there was a fine branching intracystic growth of fibro-cellular tissue covered by smaller columnar cells. The process of degeneration could be traced in adjoining spaces, both of the stroma and epithelium. In conclusion, Mr. Beadles believed the changes that he had described in the gland acini were independent of the primary growth, and were probably produced by the same cause as the latter; and he stated that in his experience the direct infection of the breast through the lymphatics was extremely rare, except in the immediate neighbourhood of the growth. These changes in the epithelium might account for recurrences of the disease in some cases, so that very great care should be exercised in the removal of all traces of the mammary gland.—The PRESIDENT said that this was an illustration of the close relation which pathology had to practice. Clinically, though it was not surprising to find cancer localised to one spot, yet its return in a distant part was common. This fact suggested that in many cases disease might be lurking in a distant part of the gland, though it was not to be detected by any ordinary method of examination. He had often noticed that after the removal of a breast for cancer there would happen a recurrence in the neighbourhood in tissue which was not apparently mammary. This, he thought, happened too frequently to be accounted for by the idea that in every case portions of breast tissue had been left behind. He believed these local growths were situated in the connective tissue or in the skin. Mr. Stiles of Edinburgh had been working very carefully at the nature of the tissue which was to be found on the axillary side of the breast, between it and the axillary glands, and he had found that much of the connective tissue of this region possessed a glandular structure which might of itself be the site of recurrence. The results of amputation of the breast had been more successful of late years because of the freer removal of the tissues. The skin was now often much more freely taken away than formerly, the gap left being filled up by cuticle shaved off after the method of Thiersch. He held that this free removal of skin was a very important matter in these operations. He agreed that mammary cysts had no particular relation to cancer. He remarked that the mammary glands were very peculiar organs: they might remain functionless through life, they might be repeatedly and actively functional for limited periods, or one organ might remain entirely functionless while the other was active, and he thought it would be a matter worth inquiry as to which of these three conditions was the most frequent predecessor of cancer. He referred in conclusion to Dr. Creighton's paper on the conditions of the cells of the mammary gland under circumstances of evolution and of involution and their bearings on cancer.—Mr. BOWLBY thought that many of the changes which had been described had nothing to do with cancer. He had examined many breasts taken from persons of middle age not affected with cancerous disease, and he had found similar changes in these also. They all showed involution changes in the ducts, acini, and surrounding tissues. There was proliferation of the epithelium in the acini and ducts; collections of cast-off cells in the acini and small celled growth round both ducts and acini, with formation of fibrous tissue interstitially. These changes would only at the most predispose breasts to affection with cancerous disease. It should be remembered that a cancer growth often spread a considerable distance beyond its apparent limits, and the breast tissue in these subjects was usually so little in depth that a small cancer nodule would lie in relation with both the skin above and the pectoral fascia below. He asked the authors how far from the cancer nodules were these changes found? These papers seemed to suggest that secondary growth, and at a part of the gland distant from the primary focus, was almost sure to follow; but he did not think that this result was nearly so common as had been thought. At St. Bartholomew's Hospital it was the practice of some, if the growth were limited to the axillary border of the gland, to remove the growth only and leave the gland; where this had been done, if recurrence followed, it was usually not in the breast at all, but in the axillary glands. If the tumour lay nearer the sternal side of the breast the remainder of the breast tissue was more likely to be affected, because the lymph stream was directed towards the axilla and traversed the mammary region to arrive there.—Mr. WATSON CHEYNE said that he had examined the specimens prepared by Mr. Stiles and agreed with his conclusions. He felt convinced that cancer spread by growth along the course of the lymphatics rather than by continuous growth along the ducts. The lymphatic plexuses in the mamma were so free that he did not feel justified in adopting partial amputation, even if the growth appeared to be limited to the axillary border. It was of importance always to remove the pectoral fascia, for lobules of the gland penetrated it and lymphatic vessels traversed it. He had examined a large number of small nodules of recurrent growth, and in the great majority of cases they were imbedded in a bit of breast tissue which possessed healthy acini; this again pointed to lymphatic infection.—Mr. JOHNSON in reply said that he was at present engaged in examining a number of specimens of breasts of women between forty and forty-five, and, though he had found changes, these were not nearly so marked as those in several of the carcinoma cases. Where he had referred to tissue examined from a part of the gland remote from growth, it meant that the specimen was taken from the opposite hemisphere of the gland at a distance of two or three inches from the primary growth. He had found the changes which he described in many of the cases he had examined, but not in all.—Mr. BEADLES likewise briefly replied.

The following card specimens were shown:—

Dr. R. G. HEBB: Microscopical Sections of Tubercular Endocarditis.

Dr. H. D. ROLLESTON: Depression of Frontal Bone of an Infant aged nine months.

CAMBRIDGE MEDICAL SOCIETY.

FRIDAY, JULY 10TH, 1891.

Mr. J. H. HEMMING, President, in the chair.

Recurrent Growth of Cornea.—Mr. WHERRY showed a patient with a firm, pale, sessile growth of the cornea and conjunctiva, not quite extending to the edge of the pupil, but interfering a good deal with vision from its projection and altered vascularity. This growth had recurred after removal two years and a quarter ago. A drawing made before the operation showed it more lobulated or papillated in shape. There had been entire immunity during two years. Another operation was proposed and a transplantation of mucous membrane of the lip into the gap. The growth was probably sarcoma. This patient had large flat warts on the back of the left hand of four years' growth, not now spreading; each papilla ended in a fine bristle or hair, not many hairs between the papillæ.

Cases of Deafness treated by Injection of Pilocarpin.—Mr. T. HYDE HILLS read the notes of two cases of deafness treated by the injection of pilocarpin. One was a man aged sixty-five, deaf in both ears, and the other was a lady aged thirty-one, also deaf in both ears. Both cases ran much the same course, the initial injection commencing at $\frac{1}{10}$ gr., and being increased in a few days to the maximum of $\frac{1}{4}$ to $\frac{1}{3}$ gr. Salivation was produced with $\frac{1}{3}$ gr. The treatment was prolonged for about seven weeks in each case, daily, with occasional intervals of one or two days. In the first place (i.e., of the man of sixty-five) the watch was heard before treatment on the right side 3 in., and on the left side 12 in. At the end of treatment the patient heard at a distance of 18 in. on the right and 6 ft. on the left side. In the second case the patient heard the watch on the right side at $1\frac{1}{2}$ in., and on the left at $\frac{1}{2}$ in. At the finish he could hear on the right side 9 in., on the left $3\frac{1}{2}$ in. At the commencement the patient heard a tuning-fork on the mastoid: right 13 in., left 12 in. Both cases gradually deteriorated, and three weeks after treatment were as deaf as before treatment. Another case

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which was treated by Mr. Field about the same time, and which Mr. Hyde Hills had opportunity of seeing from time to time, improved for the time, but had exactly the same result. Pilocarpin is said to influence labyrinthine deafness. But certainly middle-ear deafness is also improved. It is difficult to see how pilocarpin can influence cases of so-called labyrinthine deafness. The physiology of the labyrinth is so hopelessly complex and so little known that its (pilocarpin) action there cannot with any degree of certainty be explained. It may be that there may be some change caused in the constituency and specific gravity of the perilymph or the endolymph, which may put things right and allow of effective conduction of vibrations. Or it may be that the fibres of the basilar membrane, or some part of the infinitely delicate membrane of Corti which hitherto has been damped by the accumulation of concentrated secretion, may be set free to respond again to normal stimuli. But of this we have no proof. On it we might theorise *ad infinitum*. But, on the other hand, it seems easy to see how a copious secretion from the aginparous and muciparous glands of the Eustachian tubes could so flush those canals that their walls should no longer adhere, and atmospheric pressure on each side of the tympanic membrane should thus be rendered again equal, and the oscillations of that membrane and the ossicles, and therefore the fluid of the labyrinth, should again be adequate to stimulate the sensitive nerve endings. Or again—and this seems to me most probable—it may be the delicate joints between the ossicles that are influenced. It is easy to see how the joints can be interfered with by deposit, rheumatic or otherwise, and the pilocarpine may so influence them as to set them free to act more efficiently. Iodide, however, seems not to have any such effect.

PLYMOUTH MEDICAL SOCIETY.

SATURDAY, NOV. 14TH, 1891.

Mr. W. D. STAMP (Plympton), President, in the chair.

Exhibition of Cases.—Mr. WOOLLCOMBE showed a man aged fifty-two who nine months before had been successfully injected with pyoktanin for a malignant growth of the right ilium. He now presented an ankylosed hip-joint, but no signs of recurrence of growth.—Mr. LUCY showed a man aged twenty-one with a firmly ankylosed right elbow-joint (the seat of former tubercular arthritis), which nine months ago was riddled with sinuses. Thirty-five injections of Koch's tuberculin were given; the sinuses all healed, and have remained sound after the lapse of six months.—Mr. WOOLLCOMBE showed a boy aged three on whom two months previously he had performed Macewen's radical cure for a Right Congenital Inguinal Hernia. A firm cicatrix was now present, and the invaginated sac could be distinctly felt as a disc closing the internal abdominal ring.—Dr. CHEYNE WILSON exhibited specimens of five new drugs.

Influenza.—Dr. C. R. PRANCE opened a discussion on influenza. After reviewing the various names given this peculiar epidemic, he approved of the German term "epidemic catarrhal fever." He cited the large amount of literature on the subject, dating back to the twelfth century, the contradictory evidence as to influence of season, weather, &c., considering that Europe and the Antipodes were visited at one and the same time, but the general spread of invasion had always been from east to west. The stay of the epidemic in any locality seemed to be a month or six weeks, and adults were attacked more often than children, the strong as well as the delicate, being no respecter of persons or classes. Dr. Prance stated that catarrhal symptoms were more marked in the epidemic of 1847 than in last winter's, but he could offer no theory as to the *materies morbi*. Reference was made to the long-enduring and varied sequelæ, mostly of a nervous character, to the absence of proof of its contagious nature but strong proof of its infectiousness, modified generally though by atmospheric conditions. The differential diagnosis between typhoid fever and influenza was touched on, and in conclusion the lecturer said early recognition and prompt treatment were called for imperatively.—Mr. ELLIOT SQUARE dwelt on the difficulty of diagnosis in the early stage of the disease, and inquired of Dr. Aldridge the frequency of post-influenzal insanity.—Dr. MEENES remarked that Dr. Huxham of Plymouth had written a most graphic account of the disease in 1733.—Fleet-Surgeon ELLIS, R.N., cited the case of influenza breaking out on H.M.S. *Orion* in 1890 as proof of the infectiousness of the disease, they having received off Sumatra several men of the troopship *Himalaya*, on board which influenza was then raging.—Dr. L. FOX said that in China if a traveller calling for a night's lodging had a cough he was told to go elsewhere, proving that the Chinese recognised the infectiousness of influenza. He also cited the outbreak of influenza on board three ships in Brest Harbour in 1890, consequent on the receipt by an officer of a parcel from Paris, where the epidemic then raged.—Surgeon-Captain MYLES, M.S., considered dengue very similar to influenza. The number of engineers who went on the sick list was small compared with the line privates, the pay of the former only being stopped in case of sickness.—Dr. ALDRIDGE (Plympton) remarked that in lunatic asylums the staff more frequently than the patients contracted the disease. He had never found a single case of insanity traceable to influenza admitted into his asylum.—Mr. LEAH found that old and bedridden people were not subject to influenza. An attack was often followed by a second nine months or a year afterwards.—Dr. WILLOUGHBY said that at St. Bartholomew's Hospital during the last epidemic he found that the inmates of beds adjacent to a case admitted with influenza almost always contracted the malady.—Mr. WOOLLCOMBE said that bearing on the question of infectiousness in four of the principal railway companies in England 5 per cent. of the drivers and stokers were attacked, while of the clerks who worked together in the same office 10 per cent. were affected.—Mr. LUCY asked Dr. Prance what he considered the incubation period of the disease.—Dr. PRANCE, in reply, said it was impossible to recognise any definite incubation period, as the onset was so sudden and unexpected.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

WEDNESDAY, NOV. 18TH, 1891.

Mr. A. R. ANDERSON, F.R.C.S., President, in the chair.

Acromegaly.—Mr. LOVEGROVE showed a case of supposed acromegaly in a man aged seventy-three, whose hands and feet exhibited much enlargement and thickening. There was no history of gout or rheumatism, and the thickening was general in all parts of the four extremities.—Dr. HANDFORD exhibited a case of tabes dorsalis with temporary arrest of the disease in a woman of forty-six.

Thrombosis of the Portal and Mesenteric Veins and of the Vena Cava.—Dr. HANDFORD described and showed the specimens from this case, which occurred in a man aged forty-one. He had suffered from deep jaundice for about twelve weeks, when he was suddenly seized with intense abdominal pain, œdema of the lower extremities, hæmatemesis, and frequent bloody stools. The patient rapidly became collapsed, and died within twenty-four hours. The cause of the long-standing jaundice was found to be a carcinoma of the head of the pancreas, which had led to a retention cyst containing about two ounces of clear fluid. The portal veins within the liver were filled with pus. The portion of the portal vein outside the liver was filled with an adherent, firm, partially decolorised thrombus. The mesenteric veins were hard to the touch and firmly plugged with a thrombus which appeared slightly more recent. The vena cava close to the liver was also blocked by a thrombus some days old. The intestines, large and small, contained numerous recent black coagula, which in many instances formed complete casts of the bowel. There were also numerous interstitial hæmorrhages into the coats of the stomach and intestines. Four very similar cases are recorded, in the Transactions of the Pathological Society, by Drs. Fagge, S. West, F. Taylor, and Goodhart in vols. xxvii., xxix., xxxii., and xl.

CREMATION IN FRANCE.—From a report drawn up on the subject of cremation in France recently it appears that, although strictly forbidden by the Roman Catholic priests, the total number cremated during the year 1891 was about 150. In 1889 the number was only 49.

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Reviews and Notices of Books.

Lehrbuch der Organischen Chemie für Mediciner. Von Dr. THEODOR WEYL. Mit 11 Holzschnitten. Berlin: August Hirschwald. 1891.

WHEN the hope is expressed that a German work may be speedily translated into our own tongue, the author receives the best compliment an English reviewer can pay him. Dr. Theodor Weyl's manual is an admirable one, and contains not only all that is essential for students of medicine to know, but also information of value to the practitioner, and of service to the chemical teacher. We shall hail with satisfaction the appearance of a translation of this work, that it may be better available for the use of English readers. Works on organic chemistry commonly and properly start with a definition of this branch of the science; and accordingly we read that organic chemistry is the chemistry of the carbon compounds, and not that which deals exclusively with plant and animal products, which were the result, as it was hitherto supposed, of the action of so-called vital force. The plan of the work before us reminds us of the excellent little manual which was edited by the late Henry Watts, and well known as Fownes "Organic Chemistry." Like this work, it is divided into two parts — general and special. The general part—subdivided into nine lettered paragraphs—deals with the usual introductory matter, such, for example, as the qualitative and quantitative analysis of organic bodies, the deduction of formulæ from the percentage composition, the determination of vapour density, Raoult's method for determining molecular weight, structural formulæ, nomenclature, reactions and the physical properties, including the melting and boiling points of organic bodies. The special part is subdivided into two sections, Section I. being devoted to the methane derivatives or fatty group, and Section II. to the benzene derivatives or aromatic group. The chapters of Section I. are distinguished by letters, and the chapters of Section II. by figures. Here we may note that Chapter 1, according to the table of contents, treats of acids (Säuren) on page 139. On reference to this page, however, the letter K is found. For I, therefore, should be read K, for K should be read L, and so on through the section, I having by an oversight been omitted. We would draw the author's attention also to the wrong position assigned to many of the multiple numbers attached to the symbols. Thus hydrogen, when acting as a reducing agent on certain organic substances, is represented by H_6 instead of 6H; and again, O_3 is represented instead of 3O. This would represent the action of ozone rather than that of oxygen. The officinal preparations of the German pharmacopœia are strikingly underlined, so that they are made to stand out boldly from the rest of the matter.

Allusion may now be briefly made to some of the more interesting subjects which Dr. Weyl has aptly discussed. The composition of wine, beer, and spirits is entered into pretty fully in the chapter on alcohols, a complete analysis of many kinds being cited. Sulphonal is described under the heading "Sulphonic Acids," and the method of preparation is given, with the equations representing the reactions. In the account of chloroform we do not find any mention of the chlorination of ketones, by which chloroform may be produced. The chapter on fats contains an excellent, though brief, account of medicated soaps, transparent toilet soaps, and their adulteration, emplastra, and unguenta. This naturally leads to a description of the vegetable and animal fats, and the fats used as vehicles in medicine, of which lanoline is a type. The constitution of lecithin, a brain constituent, also finds a place in this chapter. The section on sugars includes an account of Emil Fischer's famous researches on the synthesis of glucose. Official sugar preparations like ferrum oxidatum saccharatum, ferrum carbonicum saccharatum, as well as troschisci and oxymel scillæ, are all referred to in this interesting chapter. Under the starch group mention is made of the use of starch and gelatine in capsules. Antifebrin is described together with the substituted anilines; it is obtained by acting on aniline with acetyl-chloride, when antifebrin or acetanilide and hydrochloric acid are obtained. Phenacetin is included with amido-phenols, being produced from amido-phenol by treatment with acetic acid. It is accordingly known to chemists as p-acetyl-amido-phenetol. Details of the process by which the curious substance saccharin is obtained are given in the section on sulphobenzene acids. Passing on, we come to the pyridin group, under which are very properly discussed the alkaloids, piperidin, piperin, conine, tropine, nicotine, and cocaine. They are, in fact, hydrogen additive products of pyridin C_5H_5N. The synthetic production of inactive conine by the reduction of allyl pyridin is of especial interest in this section. Then follows a section devoted entirely to the alkaloids, an account of the cocaine alkaloids being assigned two pages. This concludes with a short list of the ptomaines, putrescin, muscarin, neurin, &c., and their formulæ. Cholesterin follows closely on the camphors and terpenes; while the essential oils and resins are dismissed in the four concluding pages of the chapter. Under the title of "Animal and Vegetable Substances of Unknown Constitution," cantharidin, bilirubin, urobilin, biliary acids, and protagon are described. The latter, as is known, is assigned the formula $C_{160}H_{308}N_5PO_{35}$. Protein bodies are next discussed, and these of course lead to peptones, ferments, enzymes, and albumen. Finally, comes a terse, though instructive chapter on proteids, divided into glyko-proteids and chromo-proteids. Under the former are included mucin and mucoid, and under the latter hæmoglobin and its interesting compounds. The cumbersome formula $C_{636}H_{1032}N_{164}FeS_3O_{181}$ is stated to represent the hæmoglobin of the dog.

Dr. Weyl has obviously dealt ably and in a succinct fashion with a great number of valuable facts, and the pains which he has taken to give a fitting place to a full account of the remedies with which chemistry has lately furnished us will be appreciated by all those who believe that chemistry is not the least of the servants that faithfully minister to the wants of the healing art.

OUR LIBRARY TABLE.

A Handbook of the Diseases of the Eye and their Treatment. By HENRY R. SWANZY, A.M., M.B., F.R.C.S.I., Surgeon to the National Eye and Ear Infirmary, Dublin. Third Edition. London.—We are glad to find that a third edition of Dr. Swanzy's able treatise has been called for in the short space of six months from the issue of the second edition. Well printed, well illustrated, and of moderate compass, it affords just the amount of information that a practitioner who wishes to refresh his memory, or a student who is attending a course of lectures and is dressing in the ophthalmic wards of a hospital, requires. The present edition is larger by about fifty pages than the preceding one, and a few additional woodcuts have been added, raising the number from 148 to 158. In regard to the text it was not to be expected that the author would find any great novelties either in the way of pathology or of therapeutics, considering the shortness of the period that has elapsed since the publication of the last edition. He has, however, made various minor additions, omissions, and corrections, bringing the book up to date. Thus, for example, under the head of "Optic Nerve," he adds

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that some, as Ulrick, maintain that in optic neuritis œdema, but not inflammation, of the optic trunk is conducted from the brain. He also mentions that hyaline or colloid outgrowths from the optic papilla are occasionally met with, presenting the appearance of bluish-grey mulberry-shaped nodules. Such growths originate in the lamina vitrea of the choroid at the margin of the papilla. They rarely cause serious blindness, and seem to be due to traumatisms. The sections devoted to glaucoma, to amblyopia and amaurosis, to affections of the orbital muscles, and to cataract are all remarkably well written. Dr. Swanzy still appears to favour that method of operating in which an iridectomy constitutes an essential feature, chiefly on the ground of the frequency with which prolapse of the iris follows, or is said to follow, the operation. Surely this is an error. Prolapse is not common if care be taken to make the incision just within the periphery of the cornea, to adapt the edges carefully, to instil a drop of eserine, and finally to avoid bandaging the eyes too tightly. As for the occurrence of irido-cyclitis in eyes from which the lens has been removed without iridectomy, it may, we think, be dismissed as an imaginary danger, or at least not more likely to follow the operation without than with iridectomy. Though differing from him in some details, we can recommend Dr. Swanzy's book as one of the most intelligently written and reliable text-books on diseases of the eye that, amongst the many which have appeared during the last few years, has as yet been written.

Archives of Pediatrics. A Monthly Journal devoted to the Diseases of Infants and Children. Edited by WILLIAM PERRY WATSON, A.M., M.D. Philadelphia: J. B. Lippincott Company. Vol. VIII., No. 95, November, 1891. — This number contains the minutes of the third annual meeting of the American Pediatric Society, held in Washington Sept. 22nd to 25th, 1891, and a portion of the transactions, which includes the address by the President, Dr. Rotch, on "Iconoclasm and Original Thought in the Study of Pediatrics," in which he says: "It is no exaggeration to state that a large number of sick infants and young children throughout the land are suffering from the vigorous treatment of their zealous medical attendants rather than from the disease with which they started"; as well as three papers, which do not contain anything new, by Dr. Latimer, Dr. Forcheimar, and Dr. Osler, on the "Diagnosis of Pneumonia in Infancy and Early Childhood." Dr. Dorland continues his original communication on "Affections of the Respiratory System in Infancy and Childhood, compiled and arranged in Tabular Form," and there is a good current literature on Hygiene and Therapeutics, Medicine, and Surgery, in their relation to Diseases of Children.

Brain: a Journal of Neurology. Parts LIV. and LV. London: Macmillan and Co. 1891.—This double number of the representative journal of neurological science contains several articles of interest and importance, which demand close study. The most prominent is a lengthy exposition from the physiological standpoint of the Sense of Effort, by Dr. Augustus D. Waller. It is largely based on experimental observation, and is also critical of the views of others. It should take an important place amongst contributions to cerebral physiology. Professor Chauveau writes on the Sensori-motor Nerve Circuit of Muscles, a topic cognate to that discussed by Dr. Waller. Dr. Morton Prince of Boston (U.S.A.) takes what may be summarily described as the psychological view of the inter-relations between mind and brain, in an article suggested by Dr. Hughlings Jackson's writings. But apart from these subjects of the "higher neurology," the journal abounds in excellent clinical and pathological records. Dr. Savill makes a contribution to the subject of sensory cerebral centres in his record, and comments on a case of anæsthesia and trophic changes consequent on a lesion limited to the gyrus fornicatus and part of the marginal convolution. Other clinical cases are contributed by Drs. Allen Starr and McBurney of New York, Dr. Bristowe, Dr. Handford, and Dr. Donkin. A "critical digest" of the subject of neurasthenia is contributed by Dr. Paul Blocq, of the Salpêtrière; and the number is also very rich in abstracts of neurological writings in other journals.

The two numbers of the *Bacteriological World*, September and October, give evidence that our American brothers are fully alive to the fact that it is necessary to diffuse a knowledge of bacteriology as widely as possible. Original articles, abstracts, or selections, lessons in bacteriology, reviews and notices, make up in each case a most interesting number. In the October number, in a contribution entitled "Notes on the Bacteriological Study of Diphtheria," by Wyatt Johnson, M.D., Montreal, the author has collected the results of a considerable number of experiments, from which he calculates that in 342 cases of diphtheria examined the Klebs-Loeffler bacillus has been proved to be present in no fewer than 327; in fifteen only was it impossible to find this organism. An extract from the Michigan State Board of Health on the Prevention of Small-pox is of interest, as showing what is being done in connexion with vaccination in the States.

Diaries &c. for 1892.—Messrs. Charles Letts and Co. (3, Royal Exchange) have forwarded to us an assortment of diaries of great variety and excellent in style; whilst the price brings them within the reach of everyone. The information which they supply is judiciously selected and of the most interesting kind. The "Improved Office Diary and Note-book for 1892" is a handsome book, devotes a page to each day, and is provided with a handy index. It can be obtained either of octavo or foolscap size. The popular "Desk Diary" contains a week's entries on every opening, and is interleaved with blotting-paper of good quality. The "Improved Pocket Diary" is another which can be recommended for notes, and which may be used as a cash-book. Perhaps the "A B C Medical Diary and Visiting List," with which is combined the prescriber's index of remedies and posological table, prepared for ready reference by medical men, will have special interest for our readers. It has for long been a favourite on account of its completeness and compactness, and it still continues to supply an excellent portable and compendious means of recording professional engagements.—We have also received from Mr. J. M. Richards, 46, Holborn Viaduct, what is termed a "Daily Reminder." It is suitable for the desk or pocket, and affords space for addresses and for daily entries.—Rudall, Carte, and Co., 23, Berners-street, W., publish "The Professional Pocket-book, or Daily and Hourly Engagement Diary for 1892," specially adapted for professional engagements, and constructed according to the plan of Sir Julius Benedict.—Another most excellent medical diary, that published by Smith and Co., and well known to the profession as "Smith's Diary and Visiting List," has given great satisfaction to those by whom it has been used. Within its pages will be found ample space for all the notes and memoranda which a medical man may have occasion to make on account of his professional services. The binding is strong and handsome.

Sell's World's Press and Advertiser's Reference Book, 1892. 167 and 168, Fleet-street, London.—Sell's Dictionary of the World's Press and Advertiser's Reference Book comes as a boon to others than "the great army of newspaper men," and undoubtedly is deserving of a very high place as a work of reference. The lists in the directory portion of the dictionary have been carefully revised and corrected

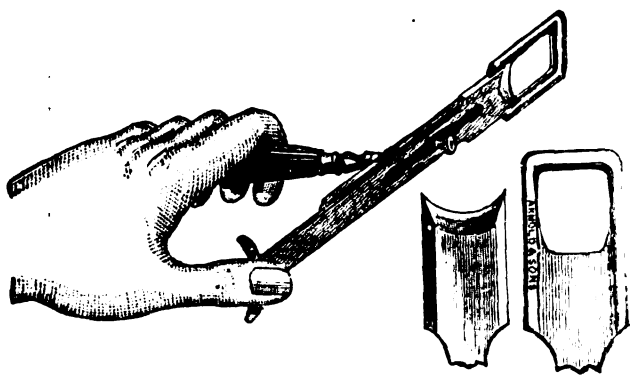
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to date, and special indexes have been added to facilitate more rapid reference. This volume also contains articles of interest on press subjects by such well-known pressmen as Mr. James Walker, Mr. Stead, and Mr. Fox-Bourne. Mr. Walker supplies an able article on "The Growth of the Provincial Press in London," in the course of which he says: "I am well within the mark in saying that the editors, sub-editors, and reporters of provincial papers working for their respective journals in the metropolis are twice as numerous as the whole staffs of the London press." The general reader will find much to consider and to learn when he peruses this work. The information it contains is given in a clear and concise manner, and its literary articles on press work are of a higher order.

New Invention.

IMPROVED TONSIL GUILLOTINE.

THE insufficient removal of an enlarged tonsil when using "Mackenzie's guillotine" may depend upon want of dexterity in the operator, a defect which nothing but experience can remove. There are, however, conditions in the instrument itself which are calculated to frustrate the intention of the operator. In the usual instrument the handle is placed close to the end of the director or lower blade, so that when the knife is pushed home the driving thumb comes close to the grasping fingers, and the muscular mechanism of the hand establishes an arc of movement from the forefinger and hand towards the thumb, which causes the distal end of the instrument to diverge from right and left or from left to right, according as the right or the left hand is employed in operating. In other words, the instrument has a movement away from the tonsils



towards the middle line of the throat. This tendency may be obviated by placing the handle further forwards, and by making the knife itself at the same time longer, so that when it is pushed home an inch or so remains behind the commencement of the director. The result of this is that the main arc of manual motion is from the thumb towards the rest of the hand, and not *vice versâ*, and the distal end of the instrument moves towards, not away from, the tonsil.

Messrs. Arnold and Sons have constructed such an instrument for me, in which also the fenestra for admitting the tonsil is a large oblong, which may be diminished by pushing forwards the knife, the cutting edge of which is concave, not convex as usual. The shape of the fenestra has been modified in order to obtain as long an oblique diameter as possible, to enanare long and obliquely placed tonsils, which are not so easily included in the ordinary circular opening.

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PROPHYLAXIS OF INHERITED INEBRIETY.

AT the quarterly meeting of the Society for the Study of Inebriety held at 11, Chandos-street on Tuesday, 5th inst., Dr. Charles Hare presiding in the absence of Dr. Norman Kerr (to whose indisposition the chairman made feeling allusion), a paper was read by Mr. JAMES STEWART, F.R.C.P.Ed., of Clifton, who said they could not too often as scientific men protest against the use of the words drunkenness and inebriety as if they were convertible terms. M. Trélat had put the difference very clearly thus: "Drunkards are people who drink when they find any opportunity of drinking. Dipsomaniacs are diseased persons who get drunk whenever their attack seizes them." The drunkard, continued the lecturer, if he continues his vicious course might so injure his brain structurally or functionally that he would eventually become an inebriate. The inebriate, on the other hand, was an individual who was in most cases born with an unsound brain. He might even be a man who had never so much as tasted any alcoholic drink in his life. True, the disease might be acquired, but the experience of fifteen years had taught him that the neurosis was in most cases an inherited one. The neurosis often led the sufferer to seek relief by the narcotism of alcohol, and so cause and effect were greatly mixed up. Admitting, as they all must, that it was a transmissible cachexia, the question arises how best to prevent the germs of the inherited disease from being developed. Dr. Joseph Parrish had said "inebriety might descend as inebriety, but it was just as likely to change the form of its appearance into insanity or other allied manifestation." Bearing this in mind, it was important that the child of an inebriate should be kept free from what might upset the nervous equilibrium, care being specially taken that the surroundings during early years were bright and calculated to develop the higher and nobler characteristics of the individual. He deprecated especially corporal punishment at the hands of strangers. He advised the mother, if her husband had been an inebriate at the time of her child-bearing, to not only bring up her children absolutely as total abstainers, but, by telling them after puberty of their terrible inheritance, to warn them against ever touching alcoholic drink all their lives. The neglect to give this warning, the keeping back of this knowledge, had in some cases treated caused reproaches to be uttered against the mother for omitting to perform a duty to her child out of a desire to shield the memory of her husband. But if this duty was imperative in the case of a son, how much more so in the case of a daughter if either parent had suffered from the disease. If she is to marry, she ought to be warned as to the danger of marrying anyone whose family history was tainted with a neurotic inheritance—a danger enormously increased if she should marry a first cousin. The lecturer concluded by the following summary of his views: 1. Drunkenness is a vice, inebriety a disease; the two terms must not be confounded. 2. The disease of inebriety once established may be transmitted to the patient's offspring either in the form of the alcoholic diathesis, epilepsy, chorea, insanity, or even tendency to crime. 3. The child of an inebriate born after the functional or structural lesion has been established is sure to inherit some nervous diathesis. 4. The only security against this diathesis developing as inebriety is by life-long total abstinence on the part of the child. 5. Even the adoption of this precaution will not absolutely make certain that there will be no transmission of the cachexia by the child to his or her offspring. 6. To prevent the development of the alcoholic neurosis in other directions—such as epilepsy—sudden excitement of the emotions and sensibilities, such as might be produced by corporal punishment by strangers, should in all cases be guarded against. 7. In the prophylaxis of inebriety the principle to be acted on with regard to children's training is that if we accentuate the good we attenuate the evil. 8. The marriage of the child or even grandchild of an inebriate to a first cousin should be absolutely interdicted.

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THE LANCET.

LONDON: SATURDAY, JANUARY 9, 1892.

THE gathering of the International Sanitary Conference, which opened at Venice this week, represents another attempt to arrive at some understanding as to the best method for preventing the extension of cholera to Europe. One of the main questions about which the Conference has to deliberate seems to be this: Whether ships coming from the East, and declared to be infected or only "suspect," shall be allowed to pass through the Suez Canal without being forced to remain there for days or weeks under observation or quarantine, provided that they are subjected to a strict supervision in the canal and prohibited from all contact with the shore as absolutely as if they were in an open arm of the sea. The Conference has been summoned on the initiative of the Austrian Government, and will take as its basis of discussion a protocol signed in London in July last by the Austrian Ambassador and the Marquis of Salisbury. This document deals with the measures to be taken by the Board of Health in Egypt in the quarantine question. Four-fifths of the vessels between the East and Europe are British. It is England consequently, with her system of commerce and troop service for India, that is most directly concerned, and it is probable that Germany, Austria, and Italy may support the views generally entertained in England.

The continental view is that cholera comes from India, that the Suez Canal is the portal by which it gains its entrance, and that all shipping should be dealt with there accordingly. England does not, through her scientific advisers, deny the possibility of the admission of cholera to Europe by the Canal route, but she can point to the fact that, although her own ships come through the canal year after year, in almost ever-increasing numbers, yet she has not imported cholera into Europe; and that if a real remedy is needed it is such terrestrial measures of prevention as will make the soil of Europe less ready to receive and to hold fast to an infection such as was imported from Tonkin on the occasion of the last epidemic. Those countries, the inhabitants of which do not care to spend much money in sanitary reform, would, of course, get off cheaply if their interests could be guarded by restrictions taken at Suez, and the burden of which would have to be almost exclusively borne by others than themselves. But, on the other hand, people who have willingly borne a vast expenditure in the amelioration of their own sanitary circumstances, hardly see why they should also be made to suffer again just as if they had been amongst the most neglectful of European nations. In this way two widely conflicting interests face each other at Venice, just as they did at Rome in 1885, but the Canal seems more than ever the central point of the discussion on this occasion, and the Foreign Office has now accordingly sought its principal counsellors amongst Egyptian officials. Mr. LOWTHER, new to office and new to the points in dispute, is, as British delegate, however, also accompanied by Mr. H. FARNALL, C.M.G., of the Foreign Office, and in his secretary Mr. LOWTHER will find one who is thoroughly conversant with every detail of the questions to be discussed, and who can weigh with judgment the respective merits of the various proposals which may be brought forward. Indeed, the secretarial position assigned to Mr. FARNALL may give him opportunities of making use of his very exceptional experience in regard to European cholera and quarantine, which he might have lacked had he been an actual delegate.

So many incidental interests are involved in anything relating to the Suez Canal that science can hardly be expected to find itself paramount in any conclusions that may be arrived at. Commercial, political, or financial considerations should not be permitted to dominate in a question of this kind. Our experience, observation, and the present state of our knowledge should be mainly consulted. Continental nations may freely assent to the view that the best safeguard against cholera, for example, is sanitation. But sanitation in an extended sense, and carried out as it is in England, means a very large expenditure of money such as only a rich country could afford, in addition to the expenditure of time during which the necessary public works are being constructed. Quarantine, isolation, and disinfection, it might be urged, are direct, immediate, comparatively easy of application, and cost relatively little. If it is not possible to remove the insanitary conditions necessary to the growth and development of a disease-cause, the best way is to strive to prevent its introduction. Unfortunately, however, experience has shown that all attempts hitherto made in this direction have been futile or impracticable. But we might go further. The Suez Canal has been open since 1869. The traffic between India and Great Britain has been enormous during the interval between that and the present time. It has often happened that cholera has prevailed in India, and it has occasionally happened that cases of cholera have occurred in ships leaving that country for England, but, as before remarked, there has not been one indubitable instance of a vessel passing through the Canal having introduced cholera and given rise to an epidemic or extensive outbreak of that disease in Egypt or this country since the Suez Canal was opened. As far as statistical evidence goes British ports have suffered almost nothing from cholera in comparison with other countries and places, and, as regards the recent history of cholera in Egypt, all the evidence points rather to Mecca pilgrimages than to the Suez Canal as its source. After all, we know too little of the real causes of many diseases to base practical action and legislation on such knowledge as we possess; but we do know a great deal about the effect of practical sanitation in safeguarding us against disease, and once we quit that we are apt to lose the foothold which fact and experience afford us.

Under all circumstances, the outlook at Venice is not, perhaps, as hopeful as we could have wished; and this the more so because whilst England has in reality been consistent in opposing cholera by sanitation in place of a failing quarantine system, she appears to foreign nations as

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doing so only when she finds it answers her own purpose to adopt this alternative. The meeting-place is a favourable one, for the Government of Italy, who are acting as hosts, have shown themselves to be much in advance of many other European nations in regard to the true methods for preventing cholera extensions; and it is to be hoped that, under Italian auspices, some satisfactory conclusion may be arrived at.

THE researches of many inquirers working on such different lines as those afforded by the microscope, chemistry, meteorology, clinical medicine, and pathology, have shown incontestably that we are surrounded by multitudes of active and predaceous, if minute, enemies always ready to take advantage of any defect in our defensive armour, and to enter the system through every breach of continuity of the surface. Having once gained entrance, if the conditions be favourable to their growth and development, they rapidly multiply, and by their voracity as well as by their excreta soon destroy their host. The outworks of the fortress are extensive, the defenders are few and scattered, but active and capable of quick concentration. It may sometimes happen, therefore, that the numbers of the enemy admitted are insufficient to gain a footing, and, after a more or less severe contest, are overcome, their bodies squeezed and sucked, and then thrown out; or, on the other hand, it may happen that the garrison, tired and exhausted, or taken by surprise by a large body of the enemy, are unable to resist, and then utter rout and destruction are the result. The immunity that various animals possess against certain microbes has been the subject of a lecture in THE LANCET of Dec. 26th, 1891, by Dr. ARMAND RUFFER, and of a paper by the same author which appears in the volume for 1891 of the *Quarterly Journal of Microscopical Science*. It is here pointed out that, though denied by competent bacteriologists, overwhelming evidence has accumulated showing the influence of numbers. Thus 250 millions of staphylococci injected into a rabbit will produce an abscess in this animal, but 1000 millions of the same parasites will cause death. A few drops of a culture of the bacillus pyocyaneus injected into the veins of a rabbit give rise to a chronic disease, whereas a quarter of a cubic centimetre of the same culture kills the animal with certainty. The nature or virulence of the microbes introduced, the animal experimented on, and the mode in which the introduction is effected—as, for example, into the blood itself or into the subcutaneous connective tissue,—are all circumstances that materially modify the result. Still, it is interesting to inquire by what means the injurious effects caused by a minute quantity of the poisonous fluid injected are prevented, when it can be easily demonstrated that a slightly larger quantity proves fatal. Dr. RUFFER first discusses the cases in which guinea-pigs have been inoculated with the virulent disease named "quarter-evil," produced by the bacillus Chauvœi, to which disease, unlike rabbits, they appear to possess a remarkable proclivity. If a small quantity of the powdered virus be introduced under the skin, a small hard swelling appears at the seat of the wound in from twelve to eighteen hours; crepitation is felt, with thickening of the surrounding parts. After twenty-four hours the animal shows evident signs of sickness, becomes lethargic, droops and dies in the course of forty-eight hours after the inoculation. On examination, the remains of the powder are found lying in a cavity lined by a thin grey fibrinous layer and containing fluid. The surrounding muscles are œdematous. Now, if twelve hours after the puncture a little of the transparent fluid in the cyst is drawn off, it is found to contain a large number of bacilli, which move in the liquid. The leucocytes are few, and are either empty or occasionally hold two, three, or more bacilli in their interior. Forty-eight hours after the puncture, or just after death, the fluid contains immense numbers of bacilli and many leucocytes. These are of the small variety of amœboid cells named microphages, and many of them contain bacilli. The abscess walls present on their free surface a dense mass of similar amœboid cells, the bacilli in the interior of which frequently show signs of degeneration, staining less uniformly and deeply than the bacilli which still remain outside the microphages, becoming smaller, and ultimately breaking down. Large numbers of bacilli exist outside the leucocytes. We may suppose that in such a case the fight between the microbes and the leucocytes ends in the discomfiture of the latter, and death results. If, however, a small dose of a weak virus be inoculated subcutaneously, the struggle between leucocytes and bacilli is evident up to the fifth day, or even later; but the number of micro-organisms gradually diminishes, so that after the fourth day hardly any bacilli are found at the seat of inoculation. On the fifth day the few bacilli which can still be seen are contained in migrating cells, and show evident signs of the most advanced degeneration. In such a case the contest between the microbes and the amœboid cells terminates in favour of the latter. Similar facts have been observed in the erysipelas of man, and Dr. RUFFER in two fatal cases found numerous streptococci in the lymphatic vessels, in the skin, and in the layers immediately beneath, but always outside the vessels; innumerable leucocytes had emigrated to the spot. In other cases which ended in recovery many of the migrating cells were absolutely crammed with micro-organisms, forming a mass surrounded by a clear vacuole in the interior of the leucocyte. Analogous conditions were found in cases of swine fever and in cases of anthrax. There seems to be no doubt that the bacilli are ingested by the leucocytes in the living state, since after the death of the leucocytes the bacilli, if placed in favourable conditions, begin to develop. But another observer (Dr. ROGER) has made the interesting observation that the serum of guinea-pigs which are non-immune against the bacillus Chauvœi possesses very strong bactericidal powers on this organism; whereas the serum of rabbits which are relatively immune has no harmful action on it. This observation is in favour of Dr. RUFFER'S view that the bactericidal powers of the *dead* fluids of any animal against a specific micro-organism is no criterion of the power of resistance of that animal against this micro-organism. Finally, there seems good reason for believing that the chemical poisons secreted by micro-organisms attract the leucocytes to the spot where they are introduced.

DESPITE the fact that the fog question has been discussed over and over again by eminent authorities and experts, no practical solution of the difficult problem has as yet been arrived at. Indeed, it is open to grave doubt whether any

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of the many proposals that have been made could be really carried to a practical issue, or would be followed up with any measure of success. The adoption of smokeless stoves has been thought to be a means of grappling with the intolerable nuisance, but to carry out this scheme in a large city like London would clearly involve an immense outlay of money, and the difficulties which would obviously attend the introduction of the smoke-consuming stove in the place of that used in almost every house in the metropolis at the present time would appear to be well-nigh insurmountable. Even supposing, too, apart from this, that every stove in London did effectually consume its own smoke, nothing can alter the climatic conditions which must inevitably produce what, for the sake of distinction, we call mist. London is just as liable to the formation of mist as the English Channel or the open country; and granting that coal is perfectly burnt, how far, it may be asked, will perfect combustion affect the character of the well-known pea-soup variety? From the nature of the constituents of coal, we know that if it is completely burnt in air nothing but invisible gases, consisting mainly of carbonic acid, water, and sulphur dioxide (or sulphuric acid, $H_2O + SO_3$), as we have generally found, should be obtained, together with a perfectly white ash, representing the mineral contents. As long as coal therefore is our source of fuel, however perfect the method of consumption may be, there must result *a priori* the products just enumerated. Are these products deleterious, or at any rate as prejudicial to health as those which have been shown to occur in fog deposit? The analysis of fog deposit collected at Kew, an account of which appeared in THE LANCET of August 15th, 1891, page 390, showed it to consist of 42·5 per cent. carbon, 4·8 per cent. hydrocarbons and organic bases (pyridines), 4 per cent. sulphuric acid, 0·8 per cent. hydrochloric acid, 1·1 per cent. ammonia, 41·5 per cent. mineral matter, and 5·3 per cent. moisture. A deposit collected in Chelsea consisted of 39·0 per cent. carbon, 12·3 per cent. hydrocarbons, 2 per cent. bases (pyridines), 4·3 per cent. sulphuric acid, 1·4 per cent. hydrochloric acid, 1·4 per cent. ammonia, 2·6 per cent. iron and magnetic oxide, 31·2 per cent. mineral matter, and 5·8 per cent. moisture. The amount of deposit collected was equivalent to six tons to the square mile. From this it appears highly probable that the character of fog would, by the adoption of smoke-consuming stoves, be changed for the better, and be reduced to the less injurious condition of mist. The substitution of invisible carbonic acid, water, and small quantities of sulphuric acid for visible and colour-producing carbon, organic bases, pyridines, and various mineral matters would, it is safe to assume, be far preferable. Carbonic acid and water, both the normal products of oxidation in the animal economy, can hardly be said to possess properties of a particularly noxious character, although exception might be taken to sulphuric acid. The production of this acid is inevitable so long as coal contains sulphur. Probably, however, it could be removed by the adoption of a simple arrangement similar to that used in gas works for purifying foul gas. Lime or any of the alkalies readily absorb this acid. There seems to be no reason why a few shelves or drawers arranged in dovetail order containing either of these substances could not be constructed at some convenient place in the chimney. The absorbent could be renewed from time to time, just in the same way as at present the chimneys are periodically swept out.

There is much to be said for and against the scheme which proposes to introduce the exclusive employment of gaseous fuel. One common obstacle to the introduction of this and to most other schemes—and by no means one easy to remove—is that of sentiment. There lies in the glowing coals a virtue which a mere heat-giving body cannot possess, and the mysterious reflections and fancies conjured up when—in an indulgent reverie—one peers into the incandescent depths, can never be derived from a gasburner or the closed and dead-looking stove. This sentimental objection is no doubt a strong one to remove, and inventors would perhaps do well to give their attention to a method which shall provide for the removal and utilisation of the products of incomplete and imperfect combustion as they are met with in the ordinary domestic fireplace of the present day.

UNDER the name of "Onomatomanie," MM. CHARCOT and MAGNAN have recently described some curious forms of functional derangements of the faculty of speech. These derangements occur in certain neurasthenic patients, and are quite distinct from any variety of aphasia or aphemia. M. SÉGLAS of the Salpêtrière, in a recent paper, describes five varieties of the affection. In the first, the chief feature is an agonised effort to recall some word; in the second, the sufferer seems possessed by some word, and under an irresistible impulse to go on continually repeating it; the third variety is characterised by the patient attaching some peculiar and dreadful meaning to some commonplace word; in the fourth, the patient attaches some talismanic influence to certain words, and goes on repeating them as a safeguard to himself; while in the last variety the individual is impelled to, as it were, spit out some word, like a disgusting morsel. According to M. SÉGLAS, a word is "a complexus of images, localised in certain centres of the cerebral cortex, the images being partly auditive, partly visual, partly motor. Thus, the characteristic feature of "onomatomanie" is just the irregular action of one or several of these verbal images, resulting from some functional disturbance of the corresponding centre."

In what is called simple "onomatomanie" the chief feature is that the patients are generally possessed with the idea of recovering a word which escapes them. Although the word is quite familiar to them, although they can give its signification, state the place where they have read it or the moment at which they have heard it, they appeal vainly to their memory to recall it. The result is an agonised effort to recall the word, and presently the patient hears, as it were, the word vibrating at his inner ear, and he becomes calm again. In another variety of the affection it is the articulate part of speech which is at fault. The patient knows the word, sees it written, as it were, visibly before him, but is quite incapable of articulating it. Perhaps he utters some synonym of the word or some word resembling it in certain letters, until suddenly the word is found and the painful crisis ends. More curious still are those cases in which the patient seems possessed by a word as if by a demon. Sufferers state that they hear the word constantly resounding in the head, or sometimes the word seems to

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fade away in a sort of distant echo. The attacks may come on each time the patient meets certain words in reading or hears them accidentally pronounced. M. SÉGLAS mentions the case of a woman who each time she met the word "rage" seemed to feel the word persisting before her eyes. Such cases shade off into cases of genuine hallucination, in which the patient hears imaginary words constantly sounding, or sees them written in the air. Other patients are tortured by the fear of uttering gross or compromising expressions, and often ask the bystanders what they have just said. Others, again, present the symptom of "echolalie" or imitative speech, and go on repeating words like a phonograph.

A second distinct variety of the affection is described under the term of "onomatomanie associée," which includes those cases in which certain words acquire some peculiar and preponderant meaning in the eyes of the patient. He may regard some word as noxious and disgusting, to be got rid of by a violent expulsive effort, or he may look on some word as possessing the power of shielding him from hurt and mischief. A case is cited of a patient who could never hear the words "vendredi," "malheur," "treize," without at once correcting their supposed injurious meaning by pronouncing the words "samedi," "bonheur," "quatorze." Some patients have the idea that it is some enemy who has the power of making them hear and repeat the disquieting words. What distinguishes "onomatomanie" from ordinary cases of auditory hallucination is the occurrence of the crisis of agonising effort, and the calm which follows when the crisis has been surmounted. It must be observed that the mere verbal features of the affection would be insufficient to distinguish it. As regards the prognostic value of the various forms of "onomatomanie," M. SÉGLAS is of opinion that the outlook is most grave in those cases in which the language troubles seem to depend upon an erethism of the motor centres exaggerating the intensity of the motor images, and impelling the patient to an irresistible impulse to expel the word. This last symptom, he believes, denotes a cerebral disintegration characteristic of the worst forms of intellectual decline.

The above description will, we imagine, be new to many of our readers. It must be observed that while some of the cases adduced in the earlier part of this article bear a considerable resemblance to some cases of aphasia, they occur apart from any paralytic or hemiplegic condition, and simply in neurasthenia. Other cases seem to border on true hallucination, but the accounts of our French contemporaries would seem to establish the genuine existence of an intermediate class of case, distinct alike from aphasia and insanity, and the recognition of this group under a distinctive name would be a real gain to pathological literature. The subject abounds in difficulties, which is not surprising when we recollect how complex is the machinery employed in language, and how many factors, physical and psychical, unite for its production.

SIR ANDREW CLARK has done good service to the cause of medical education by undertaking a course of clinical lectures on Common and Functional Diseases, the introductory lecture of which, on the Methods of Clinical Instruction, we published last week. The moment is opportune. This is New Year time in a special sense with medical education. From the beginning of 1892, by recommendation of the General Medical Council, an additional year will be added to the term of study required of medical students. On June 5th, 1890, the Council adopted the following resolution of its Education Committee: "(*a*) That the course of professional study after registration should occupy at least five years *conditionally*," and one of the chief *conditions* is specified by the Council in the following recommendation: "(*d*) That the fifth year should be devoted to clinical work at one or more public hospitals or dispensaries recognised by any of the medical authorities mentioned in Schedule A of the Medical Act, 1858, provided that, of this year six months may be passed as a pupil to a registered practitioner holding a public appointment, or possessing such opportunities of imparting practical knowledge as shall be satisfactory to the medical authorities." Recommendation (*g*) requires every candidate for the final professional examination at the end of the fifth year to give evidence that he has had sufficient opportunities of practical study &c. Recommendation (*h*) provides that the regulations of schools and examining bodies be so framed that attendance on systematic lectures shall be concluded at the end of the fourth year, so as to permit of the student devoting the fifth year to clinical work as defined in recommendation *a*. Recommendation (*i*) requires that, with the view of securing attention to practical work in education, the time devoted to the practical part of the examinations in all the subjects shall be extended.

Such resolutions, in their spirit and in their letter, mark an era in medical education. In other words, they indicate a determination on the part of the General Medical Council to insist on the *clinical* element in teaching, to bring it to a practical issue, and to send out young men from the schools familiar with disease as they are likely to meet with it, and fit for the duties and responsibilities of practice. In these circumstances nothing could be more seasonable than the address of Sir ANDREW CLARK, in which he expounds, with his usual clearness, the different methods of instruction in such matters, and ends with a preference worthy of GRAVES or of LATHAM. It might have been otherwise. Sir ANDREW CLARK is more than a mere physician. He has powers of the dialectic and of the didactic sort, in the use of which he excels. Systematic exposition and moral reflections are in him such powers as great preachers or orators might envy. But he represses all these and elects to use the hour which he is to steal from his busy life to show the students of the London Hospital the plain art of seeing a patient in the most considerate and humane way, and finding out readily and shrewdly what is the matter with him, how his health can be restored and placed on sound physiological lines for the future.

"My object is not the delivery of didactic lectures, not the reading of clinical essays, not the demonstration of technical proceedings, and not the discussion of rival pathological theories. All these procedures have their time and use. My one object now is to help you to get plain

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practical clinical instruction, and so to get it of such a kind that you may pass from this hospital into practice accustomed to its methods and cautions, without fear of disaster and ready for sound and honest work."

These are timely and weighty words, alike loyal to the spirit and the letter of the recommendation of the Medical Council, and kind to his students. He is not only going to teach clinically, but he is going to show to his students his own method of seeing patients, and his own way of eliciting the truth as to their case and wants. He is not going to mumble out a few broken sentences after hearing the report drawn up by the clinical clerk, but, coming fresh to the consideration of the case of the patient, he is going to make him tell his own story and his family history; then using the proper methods of investigation and instruments of diagnosis, he will form his opinion of the case, its proper treatment and its probable course—all to be done with due regard to the feelings of the patient. In other words, he is going to act the part of a practitioner in daily practice examining cases functional rather than organic, chronic rather than acute, common and ordinary rather than exceptional. An example so good by a teacher so authoritative cannot fail to be extensively followed by other teachers. He expresses no opinion on the difficult question of pupillage. But he admits that while ample provision is made in medical education for the study of the graver forms of disease, acute and chronic, substantially no provision exists for the study of the slighter forms of disease or of disease in its earlier and more curable stages, beyond the necessarily oftentimes incomplete lessons afforded by the out-patient department. Such a statement comes very near an admission of the necessity for lessons in general practice. There are large classes of cases in general practice which cannot be seen in their continuity elsewhere. The claim of the general practitioner to be a teacher might have to be determined by the examining authorities, one of whose functions it is to recognise hospitals or schools. But if students are to study cases that are scarcely seen in hospitals, and cases that largely make up general practice, and to study the art of seeing them and dealing with them promptly and practically, it is difficult to deny a place in the curriculum for lessons in general practice. We do not here propose to go further into this question, but content ourselves with thanking Sir ANDREW CLARK for his powerful exposition of a defect in medical education, and for giving the weight of his personal example in favour of the best of all kinds of clinical instruction, enabling those who receive it to enter practice "without fear of disaster and ready for sound and honest work."

Annotations.

"Ne quid nimis."

THE ROYAL MEDICAL BENEVOLENT COLLEGE, EPSOM.

IT gives us great pleasure to inform our readers that the Lord Mayor of London has consented to take the chair on April 5th at the dinner in aid of the Pensioners and Foundationers Fund of this College. It is peculiarly fitting that his lordship, a resident near the College and a Welshman, should consent to come forward to assist the great work of his fellow countryman, John Propert. It is necessary to find between £5000 and £6000 annually to meet the expenses of the charity, and the yearly income from its small capital is only a few hundreds. Pecuniary aid is therefore urgently needed to meet these demands, and this year a strennous effort will be made by the Council to place the condition of the pensioners on a more satisfactory footing. Of late years public opinion has recognised how far greater a charity it is to give even a moderate pension to the aged and to the needy, and to enable them to spend their declining years with their relatives and friends, than to give them a smaller income and residence in a fixed situation—too often at a distance from anyone they have known. The Council will again appeal most earnestly for help to capitalise such an amount as will enable them to give the pensioners augmented incomes in lieu of residence, and to allow them to live where they please. In this connexion it may be remembered that on the occasion of the last biennial festival, which was fully reported in THE LANCET of April 26th, 1890, we stated that we considered this suggestion so admirable that we had written to Dr. Holman, the treasurer, to say that "providing £49,000 be collected within two years from the present time, we will give the other £1000 to make up the amount he asks for; or, in the event of that not being accomplished in two years, we will subscribe an amount in a similar proportion to the sum actually collected." No aid is asked for the school, which has so often erroneously been termed a charity school, although Section 28 of the Act of Parliament proves that this was never contemplated. It is full to overflowing as a result of its high repute for tone and good work. Success, indeed, presses so hard that increased accommodation is urgently needed. A double advantage will eventuate from a greater charity to the pensioners: the Asylum can be most usefully employed in meeting the demand for increased school accommodation. The wishes of the founder will assuredly be carried out by a more generous treatment of the aged and of the poor; and the dream of John Propert that Epsom might one day rank high amongst the schools of England bids fair to be realised.

INFLUENZA.

THE past week has been marked by a rapid extension of influenza, both in this country and abroad. It has also been notable for the announcement from Berlin that Dr. R. Pfeiffer has discovered in the sputa of patients suffering from the affection a bacillus which he believes to be pathogenically related to the disease. In this connexion it may be well to call to mind the former discovery by Dr. Jolles of Vienna, two years ago, of a microbe in influenza which was suspiciously like Fraenkel's pneumococcus. Still, as there is *a priori* ground for believing that influenza is a microbic affection, we must await fuller details of Dr. Pfeiffer's research before passing judgment upon it. Although the discovery, if confirmed, will advance our knowledge of this mysterious plague, it cannot be expected to influence the lines of its treatment very materially; and it is quite unreasonable, as some are doing, to reproach the profession for not having ere now found a specific remedy first, seeing that there is no infective disease known for which it can be said that we possess a true specific. The laity may feel assured that the treatment of influenza is carried out on rational principles. It is noteworthy that, when the numbers attacked are considered, the mortality rate is lower than that from almost any other known specific fever. As regards the parts of this country which are now the chief centres of the epidemic, it is noticeable that the southern, eastern, and midland counties are those where it most prevails. The Scilly Isles have been visited severely by the epidemic, which still exists to a great extent in South Devon, and has been especially rife at Tiverton. In Dorsetshire the agricultural

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population is widely attacked. In Hampshire influenza is very prevalent at Southampton and the vicinity. In Berkshire, Windsor, Reading, Newbury, and the country around have been severely visited. In Surrey it has prevailed at Walton, Kingston, and Richmond. In Sussex cases have occurred at Horsham, Worthing, and Brighton. But it is in Kent, as noted last week, that its ravages have been most severe, particularly at Canterbury and the Ashford district, where the authorities have followed the example of Dover in imposing a penalty for wilful exposure of patients. North of the Thames influenza has gained a firm foothold in Essex, where numerous cases are occurring in the villages and smaller towns, Bishop's Stortford and Dunmow being specially mentioned. In Herts cases have occurred at Luton, Dunstable, and St. Albans, and the counties of Cambridgeshire, Huntingdonshire, and Northamptonshire are all being invaded. At Hucknall Torkard in Notts there have been many cases. In Suffolk and Norfolk it is also very prevalent. In fact, the disease is spreading over the land quite as markedly as at its previous visitations. It has certainly become more prevalent in the metropolis, where last week the number of deaths directly attributed to it rose to 37 from 19 in the preceding week. The mortality from diseases of the respiratory organs (for which the previous week of fog was largely responsible) rose to the enormous figure of 1317, exceeding the corrected average by 778. The general death-rate in London was as high as 42 per 1000, being only exceeded among the large towns by Liverpool (42·2 per 1000) and Wolverhampton (45·3 per 1000). Influenza seems to have disappeared from Scotland, except in the remote Orkneys, where it has been recently raging; and in Ireland Limerick and Newry have been the chief centres. On the Continent it still prevails in France, and among its victims has been Professor Charcot, who, we are glad to learn, is now convalescent. In Italy it is especially rife at Milan, but has occurred in many other towns, as Florence, Begamo, Turin, and Genoa. In Austro-Hungary the outbreak at Buda-Pesth has been exceptionally severe, and the disease is prevailing in Styria and elsewhere. There is less mention of its spread in Germany; but it has been very prevalent in Belgium, among the sufferers being the King of the Belgians and the distinguished political economist, M. de Laveleye, who succumbed to the disease. The lunatic colony of Gheel has been ravaged by the epidemic, the mortality being very high indeed. At Malines work has been almost suspended by the plague. From Russia comes the intelligence that the Czarina has been attacked; but we have no definite information of the spread of the disease in that country. In other parts of the world information comes of its occurrence in two opposite quarters of the globe—namely, in Tonquin in the far East, and in British Columbia and Vancouver in the far West, the native Indians especially suffering in the latter countries. In conclusion it may be noted that influenza and "pink-eye" have been very rife among the horses at the South Yorkshire collieries, whilst concurrently with the influenza epidemic in Dorset "pink-eye" has prevailed among the farm stock, and the same affection is also prevalent in the farms of South Bedfordshire.

THE JEALOUSY OF THE PEERAGE.

THE new year's list of honours is thin and poor, as far as science is concerned. The gift of a peerage to Sir William Thomson, indeed, is an act which redounds highly to the credit of those who advise Her Majesty, but it is late, and is almost the first recognition of the sort in this country which is generally supposed to lead in liberal ways and generous recognition of merit. The deserts of the medical profession are met, according to this test, in the gift of a C.M.G. to P. D. Anthonisz, M.D., of Ceylon. The House of Lords will receive as much honour as it will confer in the elevation of Sir William Thomson, and we cordially recognise in this step an indication that Lord Salisbury wishes to make the second chamber something more than a mere collection of hereditary legislators. Perhaps he is not to blame for the halting manner in which the need for reform is recognised; but somebody is to blame, and whoever it be he is no friend to the House of Lords. We shall say little about the continued exclusion of representative men of our own profession from the House of Lords; but we think the more. The Upper Chamber will never be what it ought to be till it includes men of light and leading from all the liberal professions.

"RURAL DEPOPULATION."

THE rapid increase of our urban communities and the slow and declining rate of increase of our rural population during a long series of years are of the deepest nterest from a public health, as well as from a social and political, point of view. It is, however, manifestly incorrect to speak of this constant migration from country to town as "rural depopulation," by which term it is so generally described by the newspaper press. The inaccuracy of the use of this term was insisted upon by Dr. Ogle in a paper on the subject read a year or two ago before the Royal Statistical Society. The Preliminary Report on the Census in April last showed that while the population of the 1006 urban sanitary districts had increased by 15·3 per cent. between 1881 and 1891, the increase in the remainder or rural portion of the population of England and Wales was only 3·4 per cent. It is obvious from these figures that the rural districts during the last intercensal period lost by migration to towns or by emigration beyond the seas a very large proportion of their natural increase during the ten years by excess of births over deaths. It is, however, at the same time obviously inaccurate to talk of the depopulation of our rural districts when their population in 1891 exceeded that in 1881 by more than a quarter of a million. There is another point in connexion with the light thrown upon this important subject by the results of the recent census, to which attention was recently called in the columns of THE LANCET, but which is lost sight of by most of those who write concerning this so-called rural depopulation. We pointed out that in those rural counties in which the population has recently been actually declining the rate of decrease was smaller in 1881-91 than it was in 1871-81; while in the rest of the rural counties the rate of increase, although very low compared with the rate of increase in towns, was higher in 1881-91 than in 1871-81. A recent correspondent in a contemporary was inaccurate when he wrote of "the decrease of population in rural districts shown by the recent census," for, speaking generally, there has been an increase of 3·4 per cent. instead of a decrease; he was, however, still more markedly inaccurate when he referred to the evidence afforded by the agricultural returns of the cause of this decrease, which decrease is disproved by the census returns. The decrease of the English population engaged in agriculture between 1871 and 1881 was partly attributed by the census commissioners in their report to the decrease of arable land and the consequent increase of permanent pasture. The same correspondent asserts that "no very great acreage that was under tillage has been laid away to grass." This assertion is too general in form to controvert, but when he adds "in point of fact the acreage under grass of all kinds in Great Britain has only increased 9·1 per cent. during the last twenty years," and supports this assertion with figures, it becomes evident that his ratio of increase is miscalculated. His figures show that, in 1871, 54·5 per cent.

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of the acreage of Great Britain was under grass, while in 1891 the proportion had increased to 63·6 per cent. of the whole. These figures indicate that of each 100 acres in Great Britain the number under grass in 1891 exceeded the number in 1871 by 9·1, but it is obviously incorrect to say that "the acreage under grass of all kinds in Great Britain has only increased 9·1 per cent. during the last twenty years," since the increase of 63·6 upon 54·5 is equal to 16·7 per cent. Indeed, if the proportion under permanent grass be taken alone, the amount of increase in the twenty years is no less than 23·2 per cent., although in each 100 acres there were only 9·2 more under pasture in 1891 than there were in 1871. This is not the place to discuss the causes of the constant migration from rural to urban districts, but the facts referred to above appear to warrant the conclusion that if this migration be in great measure due to the higher wages and general attractions of town life, these causes are accentuated by the depression of agricultural interests, one of the signs of which is the increasing acreage laid down in permanent pasture leading to a most important reduction in the demand for farm labour.

THE LANCET RELIEF FUND.

THE "Application Form" of THE LANCET Relief Fund will be found in our "General Advertiser" columns. It can easily be removed, filled up, and forwarded to the Secretary, Mr. Edward Davies, THE LANCET Offices, 423, Strand, London. We would once more ask those of our readers who may have occasion to employ the form, or to sign one of the required accompanying certificates, to carefully notice the conditions on which applicants become entitled to a participation in the benefits of the Fund.

DEATH UNDER CHLOROFORM.

WE are able to give the following facts concerning the case which proved fatal at the Middlesex Hospital on Dec. 19th:—The patient was a carman, aged forty-seven, to whom an anæsthetic was administered for the purpose of discovering the cause of a considerable loss of blood from the bowel. The patient was a man of large frame and full habit; he was said to be much addicted to drink. His chest was very barrel-shaped, and the lungs markedly emphysematous. Chloroform was administered by means of Krohne and Sesemann's modification of Junker's inhaler, with patent respiration indicator. He took the anæsthetic well, and passed through the stage of intoxication, the face becoming slightly congested, but not livid. At about four minutes after the commencement of the administration he was wheeled into the theatre and lifted on to the operating table, the administrator closely watching the respiration and pulse all the time. The respiration then suddenly stopped without the slightest warning, though the pulse for a time continued to beat regularly. Despite every effort at restoration the man never rallied. Directly the breathing stopped the head was hyper-extended and the tongue drawn forward; forcible pressure was made once or twice on the sternum, and Silvester's method of artificial respiration was resorted to, though this, owing to the rigid state of the thorax, produced but little flow of air. Tracheotomy was therefore quickly performed and air pumped into the lungs. Howard's method of artificial respiration was also tried, but was found to be less efficient than Silvester's. Inversion combined with artificial respiration was also resorted to, and these, together with minor measures, such as enemata of brandy, injection of ether, hot fomentations over the heart, exhibition of nitrite of amyl, free supply of fresh air, &c., were continued for over an hour without the slightest effect. The necropsy revealed firmly adherent and extremely emphysematous lungs and a greatly dilated thin-walled heart infiltrated with fat, the right cavities being full, the left empty. The cause of the rectal hæmorrhage appeared to be a general capillary oozing, and this had been so extensive that the man would probably have died in a few days. It is difficult to arrive at the true explanation of any case of death from chloroform; in this instance it is probable that the lungs, being extremely emphysematous and adherent to the chest wall, contained a large amount of residual air, which became saturated with the chloroform vapour, and the latter, becoming absorbed, suddenly paralysed the respiratory centre. Owing to the pathological condition of the lungs, and to the conformation and rigid state of the thorax, the vital capacity, and therefore the power of elimination, was extremely small, and artificial respiration was correspondingly difficult. The amount of chloroform used was carefully observed, and it is stated to be under one drachm.

THE ENLARGING NUMBERS OF THE PROFESSION.

WE shall have to wait some time for the official Register of the profession. Meantime we are very thankful for Churchill's Directory which gives us early information of the numbers of the profession. According to this authority there is no check in the rush into our already overcrowded ranks. The explanation of this increase cannot be found in a desire to evade the regulation extending the curriculum to five years, for this regulation has not been passed long enough to affect those registering last year, and whose registration would seem to add no less than 551 to the total of the profession. The numbers given for the two years 1891 and 1892 are as follows:—

Number of Practitioners.

	1891.		1892.		
London	5095	....	5293	....	+ 198
Provinces..	13,926	....	14,026	....	+ 100
Scotland	2739	....	2850	....	+ 111
Ireland	2489	....	2445	....	- 44
Resident Abroad	2795	....	2962	....	+ 167
Naval, Military, and Indian Medical Services, and Mercantile Marine	2440	....	2410	....	- 30
"Too Late" List—Additional names*..	—	....	49	....	—
Total	29,484		30,035		+ 551

* Not given in 1891.

From these figures we gather that the augmentation increases. "The rain it raineth." For whereas between the years 1890 and 1891 there was only an increase of 112, between 1891 and 1892 the addition is 551. There are some changes in the arrangement of districts. Thus London now includes the following places:—Chingford, Chiswick, Edmonton, Gunnersbury, Leyton, Manor-park (Essex), Merton, Tottenham, Turnham-green, Walthamstow, Wimbledon, and Woodford.

THE RE-INFLATION OF A LUNG FOR ISLINGTON.

ACCORDING to recent information there is now in Islington a chance for the good offices of the Metropolitan Public Gardens Association. It appears that the vestry, after long delay, and at the instance of the County Council, have decided to reorganise, by extensive demolition and otherwise, the little slum district known as Norfolk Area. The spot in question is, in its way, an interesting relic of rural Islington, a village fragment which has become on all sides hemmed in by the backs of back streets, themselves respectable at least in age. It consists of small, old-fashioned houses, for the most part whitewashed, and arranged in two squares, each having its plot, once a garden, in front. Thanks to their distribution in this order, ventilation of the space is far from hopeless, notwithstanding its imprisonment by surrounding brick and

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mortar, and the roadway is cleanly enough kept. The buildings themselves, however, have become superannuated, and it was hardly to be expected that their internal defects could long escape or could ever satisfy the fiery eyes of modern sanitation. Its light has penetrated their ancient recesses, and the vestry, its minister, has condemned them. The squares, rustic no longer, will probably be traversed by a new road, and certainly there can be no objection to this, though it seems hardly needful to add a spacious thoroughfare to others already existing close at hand, nor is it easy to see how the whole of the available space can be thus utilised. A passage connecting two or more of the adjacent streets would satisfy the requirements of pedestrians, and the rest of the area might well be converted into a small common green or playground for the children of the district, with back-door communication for the surrounding houses if desired.

CEREBELLAR TUMOUR.

DR. HOWARD publishes in the *Australian Medical Journal* the case of a patient who had been under his care suffering from cerebellar tumour. The patient was a woman of forty, who for six months before her confinement in December had suffered from headache, giddiness, and unsteadiness in walking. Her symptoms became aggravated after her confinement; she staggered in walking, being inclined to fall to the left side. She had severe headache, worse in the occipital region to the right of the middle line. There was no actual paralysis, her knee-jerks were normal, and there was no change in the optic discs and fundi except some venous engorgement. Death took place suddenly, and at the necropsy a round tumour was found arising from the back of the inferior vermiform process of the cerebellum, and growing forward so as to fill all the front part of the fourth ventricle. The tumour was an inch and three-quarters long and an inch and a half broad, and in structure was a mixture of glioma and sarcoma.

THE TREATMENT OF DIPHTHERIA.

To what extent principles of treatment of cases of infective disease may be modified by the acquisition of true knowledge concerning the nature of such affections is well shown in a paper read recently before the Clinical Society of Paris by M. Barbier, in which he dealt with the subject of diphtheria (*La France Médicale*, Jan. 1st, 1892). He pointed out that the researches of Klebs, Loeffler, Roux and Yersin, and others have now conclusively established that the pathogenic agent is a bacillus which is only to be found in the false membranes and does not penetrate either the blood or tissues. That discovery decides the much disputed question of the "local" or "general" nature of the malady. The "false membrane *is* the disease," and the primary object of all medication must be to detach and remove it wherever it is accessible; for one removes thereby not only the morbific agent, but the toxalbumens which the microbe elaborates, and which are the source of the symptoms. But experiment also teaches that the bacillus does not develop on healthy or non-excoriated mucous membrane, and it is therefore of chief importance that the false membrane should not be detached violently, but gently and slowly. Cotton wool held in forceps gently and with frequent patient repetition brushed over the false membrane will gradually detach it, but care must be taken not to touch any other part. This is the first step. The next is to apply to the affected area such an antiseptic solution as has been proved by experiment to destroy the bacillus. Under M. Grancher, M. Barbier had largely studied this subject experimentally, and found carbolic acid to be the best parasiticide for this purpose; and he now recommends the application of a mixture of sulphovicinic acid (100) and carbolic acid (20) as more efficacious than carbolic acid and glycerine or olive oil, as hitherto adopted. This "*phenol sulfovicinè*" causes a transitory sensation of heat and burning, but its taste is not very pronounced, and, he says, children tolerate it well. Moreover, although frequently applied—every hour by day, every two hours by night—M. Barbier has never seen any sign of carbolic poisoning. Before applying it each time there should be practised free irrigation of the naso-pharynx, which aids in detaching more membrane, the warm water being rendered antiseptic by the addition of a small quantity of an alcoholic solution of salol (1 in 40). He claims for this procedure, vigorously carried out, a marked amelioration in the more serious signs of infection—the redness of the throat, glandular swelling, constitutional symptoms, and albuminuria. Similar principles he applies to the after-treatment of tracheotomy in laryngeal diphtheria; and he advises the prescription of calomel and naphthol to promote intestinal antisepsis rendered necessary by the swallowing of portions of membrane detached from the fauces. Then general tonic treatment, with plenty of fresh air and sunlight, and avoidance of close rooms and steam. He gives no statistics, but he claims to have seen many good results from adhering thus rigidly to the teachings of the laboratory; and certainly there is no greater field for the study of diphtheria than the Paris Hôpital des Enfants Malades, where M. Barbier's observations have been made.

SOCIAL GATHERINGS AND PREVAILING SICKNESS.

WE are not going to make ourselves disagreeable by offering any unreasonable objections to the usual juvenile parties of the season; but we cannot forbear a word of monition on the subject. Schools when reassembling require certificates from the pupils that they have been free from exposure to infectious disease. It would scarcely do to add a postscript to an invitation to the effect that the guests must fortify themselves with a similar certificate. But surely some understanding should be arrived at that persons having been lately exposed to infectious disease in their houses should, for the public good, decline to give their friends the pleasure of their company. If this be not done, New Year and other parties may become a great engine for the multiplication of regrettable cases. A little candour and unselfishness in such matters are high virtues.

ARMY RECRUITING.

THE committee appointed to consider the question of recruiting for the army has now been engaged for a considerable time. A large amount of evidence has no doubt been taken, and we may presume that the committee must by this time be discussing and deliberating about the nature of their report. The task is obviously a very difficult one, and we are afraid it will not be much facilitated by all the discussions that have taken place of late about our military organisation and administration. We gather from it all, however, that there seems to be a general agreement on two points, and on two points only—viz, that our army abroad, in India and elsewhere, is satisfactory, and in an excellent condition of physical efficiency; whereas our troops at home are mainly composed of young and immature soldiers—boys, as they are termed—so that our camps and garrisons here are but feeding grounds for the supply of our battalions abroad. We may make up our minds to one thing—viz, that we must catch our recruits very young, or not at all, and be content to feed and drill them for some time before they can be of any use to us as soldiers. Once young men have already started in any calling in life, or are of an age to be thrown upon the labour market, the army is nowhere in

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the competition. The questions that have, therefore, to be answered first of all is that of an increase of pay and advantages for the army. Some hold that the soldier should have, for example, a shilling a day clear, and be relieved of the system of stoppages, with all the unpopularity and discontent which that system entails, and that it would be better to alter the present system of deferred pay, which tempts men to leave the ranks in order to obtain a lump sum of money that is only squandered as soon as it is obtained. What is wanted is a system by which a larger number of young men of really good or promising physique may be tempted into the army at one end and retained in larger numbers at the other. The disposition in this country has always been to adopt and follow the particular system that has been successful in another country, without due regard to the tastes, habits, and requirements of our own population. Speaking generally, soldiering in India is popular when once the men have arrived there and become accustomed to the country, but the voyage out is often attended with extreme discomfort to many young men, who find themselves suffering from sea-sickness in a crowded ship. The European garrison of India has necessarily been much increased of late years, and India proves a great drain on the young manhood of the army owing to the diseases incidental to that climate and period of life. It is probable that the predisposition to typhoid fever in India is more attributable to the constitutional changes induced by recent arrival in that country than to any other factor, but with a short service system this is unavoidable. People, especially young people, in the present day are less amenable to control and discipline than their forefathers, and the calls made upon them in army life in this respect are looked upon as more irksome and distasteful than was formerly the case. Notwithstanding all the objections that have been urged against our present system, we do not see that a better or more economical one, capable of providing us with a large reserve, has yet been put forward.

THE PRODUCTION OF CHEMICALS BY ELECTRICITY.

CAUSTIC soda and carbonate of soda, next to sulphuric acid, are probably the most important industrial products of modern chemical manufacture. Neither occurs to any extent in nature, and the chemist accordingly resorts to that compound containing an abundance of the element sodium, which occurs as chloride in large quantities in sea water as well as in certain mines, notably those in Cheshire. Sodium chloride is converted by two well-known processes into the carbonate. The old system, discovered by a French *savant* named Leblanc, and known as the Leblanc process, depends upon the conversion of chloride into sulphate by treatment with sulphuric acid, and subsequent formation of carbonate by heating the resulting sulphate with coal and chalk. This method was threatened with extinction a few years back by the discovery of the ammonia process, which consists in the treatment of strong brine with ammonia and carbonic acid gas, by which bicarbonate of soda is formed and precipitated, while ammonium chloride enters into solution. Ammonia is recovered by heating with lime and the carbonic acid gas by heating the bicarbonate, which is thus converted into the normal salt Na_2CO_3. The by-products of the Leblanc process, amongst which are chlorine and sulphur, are, however, valuable. Electricity now promises to act as a successful agent in the production of valuable chemicals such as those indicated. On Wednesday last we inspected the electrolytic process for the direct production of caustic soda and chlorine, as well as other chemical products, at the works of the Caustic Soda and Chlorine Syndicate, Phœnix Wharf, Church-road, Battersea. It has of course long been well known that caustic soda and chlorine can be produced from a solution of common salt by electrolysis, but the many difficulties which have presented themselves have only recently been avoided by the adoption of special plant invented by Mr. J. Greenwood. Failure has hitherto resulted from the want of a material sufficiently refractory to resist the strong action of nascent chlorine. Mr. Greenwood uses a compound anode composed of non-porous carbon plates, separated by, but in contact with, a metal coil to increase their conductivity. The diaphragm, which is said to render the recombination of the electrolysed products impossible, is comparable to a Venetian shutter stuffed with asbestos. In commencing to work, the electrolytic vessels are charged with a solution of common salt, through which a current is then passed, thus decomposing or splitting up the salt into its elements, chlorine and sodium. In the preparation of sodium, however, a secondary action takes place, hydrogen is evolved, and the sodium is converted into caustic soda. The chlorine gas is conveyed by means of branch and main tubes into several absorbers, in which milk of lime, kept in a state of agitation, takes up the gas, and forms bleaching or chlorate liquor as may be required. The caustic soda is rendered more or less concentrated according to the particular purpose for which it is destined. The cost of production has, it is stated, been determined by carefully conducted electrical and analytical tests, and they are said to demonstrate an economy of over 50 per cent. as compared with present methods. The products obtained are, as might be expected, of especial purity, and the process promises to become a formidable rival to the two methods of the present day—the Leblanc and the Solvay ammonia method.

DEATH OF A FASTING MAN.

THAT the "fasting experiments" which have of late become so numerous are full of risk to the chief person concerned will not be disputed. An account is given in the *Boston Medical and Surgical Journal*, Nov. 26th, 1891, of a fatal attempt to fast for forty-five days. A man named George Stratton attempted to perform this feat. After going for thirty-seven days and one hour on water alone, his physicians ordered him two teaspoonfuls of champagne a day. At the end of forty-one days and eighteen hours and a half, however, symptoms of heart failure became so marked that it was at once decided to stop the fast. The champagne which was given him while in an extremely debilitated condition appeared to bring on alcoholism, and the next day he was transferred to a hospital. There he was treated with stimulants and peptonised food, but was unable to rally, and died two days after admission. The necropsy showed that death had resulted from cerebral congestion caused by alcohol, with fatty degeneration of the heart as a contributory cause. Stratton was a man thirty years old, and of immense physique. At the commencement of his fast he weighed 270¾ lb., and at the end 211 lb. 8½ oz., a loss of nearly 60 lb.

LECTURES AT THE ROYAL COLLEGE OF SURGEONS.

THE following are the arrangements for the various lectures at the Royal College of Surgeons of England for the present year, each lecture to commence at 4 P.M. Professor C. B. Plowright will give three lectures on "The Diseases of the Reproductive Organs of Plants caused by Fungi," on Feb. 22nd, 24th, and 26th. Professor B. T. Lowne, three lectures on "Some Recent Views on the Development of the Embryo, and the relation of the Parablast to the Blastoderm, as exemplified in the Development of Insects in the Egg and Pupa, on Feb. 29th and March 2nd and 4th. J. Hutchinson, Esq., jun. (Erasmus Wilson lecturer),

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three lectures on "Syphilitic Affections of the Bones, Joints, and Lymphatic System," on March 7th, 9th, and 11th. Professor Charles Stewart, six lectures on "The Physiological Series of Comparative Anatomy in the Museum of the College," on 14th, 16th, 18th, 21st, 23rd, and 25th March. Dr. J. Rose Bradford (Arris and Gale lecturer), three lectures on "The Physiology of the Vaso-motor System," on May 23rd, 25th, and 27th. Professor C. W. M. Moullin, three lectures on "The Operative Treatment of Hypertrophy of the Prostate," on 30th May and June 1st and 3rd. Professor H. B. Robinson, three lectures on "Certain Diseases of the Breast," on June 7th, 8th, and 10th. Professor W. Watson Cheyne, three lectures on "The Treatment of Surgical Tubercular Diseases, on June 13th, 15th, and 17th. Professor H. T. Butlin, three lectures on "Cancer of the Scrotum in Chimney Sweeps and others," on June 20th, 22nd, and 24th.

"DOCTORS AND THEIR PAYMENT."

THE coroner for the district of Upton has either been misreported or has a peculiarly illogical way of reasoning on the work that is possible to a medical man. Holding an inquest on the body of George Day, who refused to see a doctor till within a few hours of his death, it transpired that Mr. Dodd had been sent for. As he could not go, he referred the messenger to his assistant, who could not attend. Three other doctors being unavailingly applied to, the messenger returned to Mr. Dodd, who went. The patient was by this time dead. Mr. Brickwell gave evidence of such extensive and chronic disease as precluded recovery under any circumstances. The coroner is reported to have made this remarkable observation, that if Mr. Dodd was able to attend on the second occasion, he was upon the first. This is a most gratuitous and illogical assumption for a public man to make, though it seems to have carried the jury with it. There was more common sense in his remark that doctors would be more prompt in their attendance if they had some security for eventual payment. The medical man is the only person who, according to common notions, is bound to be at everybody's beck and call without hope of fee or reward. There is no propriety in such doctrine.

THE LONDON LUNATIC ASYLUMS.

THE Asylums Committee of the London County Council have reported that for some time past they have had under consideration a letter from the Home Secretary, transmitting a copy of a memorial of the guardians of the Wandsworth and Clapham Union, praying that the London lunatic asylums should be placed under the Metropolitan Asylums Board, and asking for the Council's observations thereon. The memorial showed shortly as follows: "(*a*) That the memorialists are aggrieved at the vesting of the asylums in the London County Council, and submit that the duties of the Council are so enormous that it is impossible for them to efficiently administer the asylums; (*b*) that boards of guardians should be more in touch with the management of lunatic asylums than they are at present; (*c*) that many difficulties would be removed by placing them under the Metropolitan Asylums Board; (*d*) that there is no direct link between the boards of guardians and the London County Council; (*e*) that the Metropolitan Asylums Board have control of the imbecile asylums; (*f*) that Wandsworth Asylum was transferred to Middlesex, and 400 Wandsworth patients were sent to London and other asylums; (*g*) that their patients are distributed in asylums and licensed houses all over the country; (*h*) that the guardians have great difficulty in obtaining accommodation for recent cases, and that they consequently feel discouraged in their efforts to provide for the safety and comfort of lunatics belonging to their union; and, finally, (*i*) they pray that further legislation may be applied for to enable the suggestions of the memorialists to be carried out." The committee did not think that these grievances would be lessened by placing the lunatic asylums under the control of the Metropolitan Asylums Board, and they contended that the guardians appeared to lose sight of the fact that the county authorities have to deal with a large class of insane persons outside the range of the ordinary pauper; and that were their duties in this respect transferred to the Asylums Boards even greater inconveniences and hardships than these mentioned in the memorial might occur. We quite agree with the Council in their belief that it would be unwise to make changes in a system which could hardly be said as yet to have had a fair trial. They express their confidence that the system is working well, and they deliberately assert, and we think truly, that the lunatic asylums and their inmates receive as much thought, care, time, and personal supervision as they did under the management which prevailed before the Local Government Act. The committee do not think it advisable that lunatics as well as imbeciles should be placed under the control of the Metropolitan Asylums Board; but they believe that there would be advantage if eventually both classes were under one properly constituted authority. The committee, after dealing with some further points of detail in the question, recommended that a reply be sent by the clerk to the Home Secretary embodying their observations in the above sense on the memorial.

THE DETECTION OF ADULTERATION IN BUTTER.

AN instrument which is likely to be found useful in rapidly detecting adulterations in oils, glycerine, butter, &c., has recently been devised by a continental chemist named Soudén, under the name of the "liquoscope." It consists of a cylinder of glass containing glycerine, in which are immersed two hollow prisms side by side. When both these are filled with substances having identical refractive indices a horizontal line seen through them appears continuous, but when their contents have different refractive indices the line is apparently broken, one section being above the other.

TREATMENT OF CHLOROFORM ACCIDENTS.

IN an article in a Russian surgical review Prof. Bobroff recommends the employment of hypodermic injections of the physiological solution (0·6 per cent.) of common salt in case of failure of the heart's action during the administration of chloroform. He has employed this method for four years with satisfactory results, and considers it decidedly preferable to the subcutaneous injection of ether and other stimulants. With regard to ether, he says that it stimulates the cardiac action for a time only, afterwards having a paralysing effect. Strychnine, atropine, ammonia, the previous administration of digitalis, and the inhalation of amyl nitrite, he considers more or less dangerous and by no means satisfactory, while the hypodermic use of the physiological solution of common salt is perfectly innocuous, and has proved in his hands very valuable. It is best not to wait for complete stoppage of the heart or respiration. If only a moderate quantity of blood has been lost before symptoms of danger show themselves, an ounce or so of the fluid is sufficient to inject; in anæmic patients, or where a large quantity of blood has been lost, 3½ to 7 oz. may be required. The liquid is readily absorbed, especially if the locality is manipulated a little. The pulse becomes stronger, the respirations deeper, and the patient rapidly recovers. The solution may be made alkaline by the addition of

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0·05 per cent. of caustic soda. Prof. Bobroff objects to the employment of such means of peripheral stimulation as affusion of cold water, the introduction of ice into the rectum, and putting ammonia to the nostrils, as these may by reflex action induce failure of the heart and arrest the respiration. The best and safest remedies are, he thinks, injection of solution of common salt hypodermically or into the venous circulation, lowering the patient's head, galvanising the pneumogastric nerve, and the employment of Silvester's method of artificial respiration.

THE RETIREMENT OF DR. BALLARD.

ALL Dr. Ballard's colleagues and all men who know the nature of the work he has been doing in the Medical Department of the Local Government Board will hear of his retirement with very mingled feelings. It has been known to his friends for some years that his health has been impaired, and that painful attacks of illness have repeatedly been brought on by the arduous journeys eagerly undertaken in the discharge of his duties. So far we may see in his retirement cause for satisfaction; but when we consider the value of his judgment in questions of State medicine and the number of the subjects in this department which he has elucidated, when we remember the enthusiasm of his investigations and the way in which he despised labour and trouble, we cannot but regret the loss which the department and the profession must suffer. It is gratifying, however, to know that Dr. Ballard's energy and interest in questions affecting the public health are still unabated, and that we may yet expect from him in his retirement contributions to the solution of great problems for which he had but scanty leisure while liable to the calls of active duty. We cannot conclude without expressing a hope that so good a servant will be retired on terms to which the possession of every virtue of character and of service entitles him.

NIGHT REFUGES AND THE "STARVING POOR."

CASES of death from absolute starvation are certainly less common than the frequent use of this term in the daily press reports would lead us to suppose. The association of disease is usually too subtle and too intimate for us to exclude its influence upon the fatal result. Inasmuch as this factor, however, exercises after all but a secondary influence, we need hardly object if want is made a scapegoat for the double fault. A few weeks ago we mentioned a case of this kind. We would now once more direct attention to such another in which the sufferer, an infant of eighteen months, though ill with congestion of the lungs, owed this and her death mainly to hunger and exposure. The case derives a special interest from the fact that while under investigation by Mr. Wynne Baxter and a coroner's jury it elicited some rather cutting observations on statements of the Charity Organisation Society respecting the homeless poor, and because of the light it sheds upon the utility, and we may say also upon the inadequacy, of night refuges. The point first mentioned need not be enlarged upon. The censures referred to have evidently arisen from a misunderstanding which the reply published by the secretary of the Society should suffice to remove. In connexion with the refuges, the food question is again to the front. The poor child whose case has been quoted was merely housed in the shelter frequented by her mother. No nourishment was provided. In the circumstances a question naturally arises whether the night refuge should not, as in the case of parish casual wards, afford its occupants at least food enough to sustain life. Our readers will reflect that a mere trifle of expense is enough to satisfy this primary necessity if a shelter be well attended and the simplest provision only be supplied. We should like to see the management of these shelters and the ordinary casual wards more nearly assimilated, so as to facilitate the attendance of every truly needy person, due care of course being taken to discourage imposture. How this latter purpose is to be realised, however, constitutes a problem still unsolved. The key to it may perhaps be found by combining inspection and, if possible, inquiry with some system of work which does not compel residence.

THE RATING OF THE LOCK HOSPITAL.

WE are glad to understand that the rating of the Lock Hospital, to which we referred on Aug. 1st last, has now been readjusted upon appeal. The case, as our readers will remember, was a peculiarly hard one, for not only was the assessment very greatly increased, but the managing body of the hospital were shut out from appealing in the regular course by the very irregular manner in which notice of the change was conveyed to them, the fact being that the statutory notice was given to a cleaner who chanced to be upon the hospital premises, and who forgot to hand it to any person in responsibility. It was at first apprehended that this oversight might preclude the appeal, but it now appears that this is not so. We were sanguine at the time that a technical objection of this kind could not be ridden so hard, and we are glad now to learn not only that the objection has broken down, but also that a substantial measure of justice has been done by the reduction of the assessment from £2000 to £1100.

HONORARY OFFICERS OF BENEFIT CLUBS AND MEDICAL ATTENDANCE.

DR. JOHN WILLIAM of Bethesda lately sued Mr. W. J. Parry, Collnor Hall, Bethesda, at the Bangor Police Court, for £65 for medical attendance. Various defences were set up. One that Mr. Parry, who is Vice-chairman of the Carnarvonshire County Council, and Chairman of the Joint Police Committee, was entitled to be attended as secretary, and therefore member, of the Penrhyn Quarries Benefit Club; another that the charge was partly on account of a son who is of age; and thirdly that the bulk of the debt was statute-barred. The judge, Sir Horatio Lloyd, decided that £42 8*s.* 6*d.* was statute-barred, that Mr. Parry was not entitled to be attended gratuitously inasmuch as he did not pay the weekly subscription demanded from ordinary members, but that he was not liable for the charges set against his son. Judgment was then given for £18 6*s*, his Honour declining to interfere with the question of costs further than signifying that the case was a fit one to be brought before the High Court, from which it had been transferred. The most interesting point is that a vice-chairman of a county council, who pays no weekly subscription to a club, claims to be attended as a club patient. We do not envy Mr. Parry his reflections on the non-success of such a monstrous plea.

MR. CHAMBERLAIN ON CRUELTY TO CHILDREN.

THE Birmingham Branch of the Society for the Prevention of Cruelty to Children was fortunate in securing an able exponent and advocate of its purposes at its annual meeting in the person of Mr. Joseph Chamberlain. Speaking of the necessity for the Society's operations, the right hon. gentleman had no difficulty in showing that the influence exercised by it in respect of legal evidence was of a kind as indispensable to the just restraint of cruelty as it was usually beyond the competence either of the police or of disinterested neighbours, however zealous and right minded. He drew special notice to another important fact—namely, that the prevention of cruelty, not the

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punishment of ill usage, was the special aim of the Society's efforts; and in proof of this he quoted the satisfactory circumstance that of 8810 cases investigated 5064 had been satisfactorily disposed of by mere warning, while of the more aggravated class in which prosecutions had been instituted, the Society's officers had been victorious in 89 per cent. An assurance that no pains would be spared to maintain intact, wherever possible, the family tie was as satisfactory as it was happily needless. Reference was made likewise to the subject of infant insurance and of infant nursing by strangers, matters respecting which we are pleased to learn Mr. Chamberlain has not spoken his last word in Parliament. An exhortation to increased vigilance and care on the part of officials and local committees concluded an able and interesting speech, a fuller digest of which appears in the January number of the *Child's Guardian*.

SMALL-POX AT DEWSBURY AND BATLEY.

A VERY serious state of things has long been maintained at Dewsbury and Batley with regard to small-pox. Neither town will erect an isolation hospital, and whenever small-pox breaks out the patients, whether paupers or not, are sent to the Dewsbury workhouse and placed in a building within a few feet only of the workhouse infirmary, which contains people who, as the Government inspector has stated, are virtually prisoners by reason of their poverty and their sickness. On several occasions the small-pox has thus spread to the body of the workhouse; but in spite of remonstrances and warnings on the part of the Local Government Board the process was repeated last May. The disease spread to the infirmary sick, and three of these unfortunate people actually died as the result. Dr. Downes, Local Government inspector, again declared the arrangement to be "absolutely unsafe," and added that it placed the workhouse "in imminent peril"; but the guardians have again admitted eighteen cases "of small-pox, or 'so-called' small-pox." It is with the locality and the constituents of the authorities concerned that the judgment must apparently remain, for the erection of a hospital for infectious diseases is permissive, not compulsory, in the present state of the law. But surely the guardians could be surcharged for the expenses involved in maintaining those who are not paupers in a workhouse building which can only legally be used for pauper purposes.

THE OUTCRY AGAINST FOREIGNERS PRACTISING IN BELGIUM.

THE *Scalpel*, one of the chief organs of the Belgian medical press, is irate with the Government for the very insufficient protection it gives to native medical men against foreign competition. According to the journal mentioned, Belgium is, of all European countries, the one where foreign doctors, or *soi-disant* doctors, find it a perfectly simple matter to obtain a licence to practise. It is only necessary to produce a diploma with a translation by the candidate himself. Sometimes, indeed, in order to save appearances, a pretence of an examination is required, which is said to be a very perfunctory sort of affair, before a jury nominated for the occasion. The editor of the *Scalpel* has had the good fortune to be present at an examination of this kind, and he promises his readers to give them some account of it, as it amused him considerably. Who is it that profits by this liberalism? Not the English, French, or Dutch practitioners, "for in their own countries they can easily obtain a practice of from £400 to £800 per annum, besides which, as there are plenty of openings in their colonies, the profession cannot well become overcrowded" No, the doctors who come pressing into the best parts of Belgium, such as the neighbourhood of Antwerp and Ostend, are those that are forced at home to maintain a struggle against economic and social conditions more than usually adverse—e.g., the Germans. Their country is overrun with doctors of every kind of science, and every year, according to the statistics compiled by a Göttingen *savant*, Professor Lexis, the German universities turn out some three hundred more doctors than there is room for. The medical profession in Ostend, which is now suffering severely from foreign competition, is advised to bestir itself and to say to the Government, "You refuse to admit unsafe guns, poisonous spirits, and trichinous pigs from Germany. Why don't you send her back her starveling doctors?" Is not this a little hard on the Germans, who, whatever faults may be found with their ham and their cheap spirits, certainly produce men who are quite capable of passing the Brussels M.D. or other similar examinations, and who, as they probably practise mainly amongst their own countrymen, who abound at Ostend, can hardly be likened to the dangerous importations mentioned. In the list of requirements exacted from foreign medical men wishing to practise in various countries the *Scalpel* somewhat exaggerates the difficulties which a continental practitioner of good standing would meet with in England.

SIR WILLIAM DALBY.

SIR WILLIAM DALBY will have completed his term of twenty years as aural surgeon to St. George's Hospital at the end of this month. In sending in his resignation to the Medical School Committee he did not apply for re-election, on the grounds that he felt that he could not give the time necessary to attend efficiently to the out-patients. We understand that the Medical School Committee have written through their chairman to express their regret at losing his services, and have unanimously recommended the board of the hospital to elect him as consulting aural surgeon.

LEICESTER AND ITS FEVER HOSPITAL.

IT is satisfactory to find that Leicester is about to remedy its deficient accommodation for the treatment of typhoid fever, and to provide a new hospital in place of its present obsolete and unsatisfactory collection of wooden structures. The Town Council had before it for consideration on Tuesday last a proposal to erect a fever hospital with upwards of 200 beds upon the most modern and improved designs, where all or any of the infectious diseases can be properly treated and kept separate the one from the other. Premiums are offered of £100, £50, and £25 for the three best designs.

INTERNATIONAL DERMATOLOGICAL CONGRESS.

THE second International Congress of Dermatologists will take place at Vienna from Sept. 5th to the 10th, 1892. Professor Kaposi is president, and Dr. G. Riehl, Bellariastrasse, 12, secretary. The subjects chosen for discussion are: Lymphatic Disease of the Skin from a Pathological and Anatomical Standpoint; the Present Position of Leprosy in Europe; Dermatomycoses, and especially with reference to their proportion in France; Late Syphilis; the Anatomy and Development of the Epidermis Pigment; Psorospermosis; the Principles of the Treatment of Gonorrhœa; Lupus Erythematosus.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Montecot, the *doyen* of French physicians, at the age of ninety-eight. In 1813, when little over nineteen years

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of age, he joined, in the capacity of surgeon-general, Lemarois' Corps, which then held Magdeburg, and, after the Battle of Leipzig, was shut up in the town until the end of the war. He was a Knight of the Legion of Honour, an Officer of Public Instruction, and was decorated with the Saint Helena Medal.—Dr. P. Laure of Lyons —Dr. Michelson, a teacher of laryngology in Königsberg.

FOREIGN UNIVERSITY INTELLIGENCE.

Greifswald.—Dr. E. Peiper has been promoted to an Extraordinary Professorship of Medicine.

Marburg.—Dr. Tuczek has been promoted to an Extraordinary Professorship of Mental Diseases.

Naples.—Drs. Manfredi and Lancetti have been recognised as *privat docenten* of Hygiene and Anatomy respectively.

WE have received from an Edinburgh correspondent an abstract (which we hope to publish and comment upon in our next issue) of an important document which has been prepared by the Edinburgh Association for the Promotion of Reform in Medical Education.

As we go to press we receive with regret the intelligence of the death of Mr. Berkeley Hill, Vice-president of the Royal College of Surgeons, Professor of Clinical Surgery at University College, and surgeon to the hospital.

DR. FREDERIC KORANYI, Professor of Medicine at the University of Budapest, was raised on New Year's Day to the House of Magnates of Hungary.

LONDON POST-GRADUATE COURSE.

THE annual general meeting was held on Thursday, Dec. 17th, 1891, at 15, Cavendish-square, Mr. Hutchinson, F.R.S., President, in the chair.

After the minutes of the last meeting had been read and confirmed, Dr. Barker, the chairman of committee, read the financial report, from which it appeared that during the spring term 1890, when the lectures commenced, there were five courses delivered, and that during the spring term 1892 there will be eleven courses delivered at the following hospitals and institutions—viz., the Hospital for Consumption, Brompton; the Hospital for Sick Children, Great Ormond-street; the National Hospital for the Paralysed and the Epileptic, Queen-square; the Royal London Ophthalmic Hospital, Moorfields; the Hospital for Diseases of the Skin, Blackfriars; Bethlem Royal Hospital for Lunatics; the London Throat Hospital; the Bacteriological Laboratory, King's College; the Great Northern Central Hospital; the Parkes Museum; and a course on midwifery and diseases of women by lectures on these subjects at the London Medical Schools. During 1891 there had been 172 entries (160 men and 12 women). Of these, 108 were from the British Isles, 13 from the United States, 9 from Canada, 9 from the Army, 8 from the Navy, 6 from Australia, and 1 each from Sweden, the Cape, the Mauritius, New Zealand, Assam, China, and Japan. The widespread interest in the work affords great encouragement, and it is worthy of notice that whilst the bulk of the members are from our own country, men have joined who have come from the remotest parts of the world. It is also gratifying to remark that so many of the men possess high qualifications, more than one-half holding university degrees. The English, Irish, and Scotch Universities were well represented, as well as those of the Colonies and the United States. The bacteriological course conducted by Professor Crookshank in the excellent laboratory of King's College formed undoubtedly the great attraction of the courses, and was an admirable illustration of the objective method of class teaching. This course throughout was well attended. Judging from the number of inquiries, the course on Public Health and that on Midwifery and Diseases of Women will be equally successful. The treasurer, Dr. C. Theodore Williams, then read his report and presented the balance-sheet and scheme for division of fees. From these it appeared that the receipts exceeded those for the previous year, whilst the expenses had been reduced. There were 172 attending the lectures, as compared with 121 in 1890. Twenty members entered for the whole course, and 152 for one or more of the single courses. It had been interesting to observe how the men had picked out those lectures that enabled them to fill up the gaps in their previous studies. The president, Mr. Hutchinson, then addressed the meeting, and, after other speakers had discussed the reports, they were unanimously adopted. Votes of thanks were passed to the president, chairman, treasurer, and secretary, and they were re-elected for the ensuing year.

The next term will commence on Monday, Jan. 18th, and all information may be procured from the secretary, Dr. J. Fletcher Little, 60, Welbeck-street, London, W.

ROYAL COLLEGE OF PHYSICIANS.

AT an extraordinary meeting of the Royal College of Physicians, held on Dec. 17th, 1891, a communication was received on the subject of the resolution of the General Medical Council, which was moved by Sir William Turner on Friday, Nov. 27th, by which the Council determined to leave that College to substantiate the claim to register its single diploma of Licentiate or Member as a completo qualification in medicine, surgery, and midwifery.

With regard to this resolution, the College approved the course which had been taken by its officers in submitting the question for their opinion and advice to the law officers of the College, the Attorney-General, with Sir Arthur Watson, Bart., Q.C. The question raised by the College for the opinion of counsel was—(1) Are they correct in the view they take of the right of their licentiates to claim registration of their licence as a complete and independent qualification? The counsel's opinion thereon is as follows:

(1) We are of opinion that the College are correct in the view they take of the right of their licentiates to claim registration of their licence as a complete and independent qualification. (Signed) RICHARD E. WEBSTER, ARTHUR T. WATSON.

Dec. 18th, 1891.

THE ALBERT UNIVERSITY CHARTER.

WE have received from the Secretary of the Association of Diplomates and Students of the London Medical Schools a copy of the circular which, we are informed, is intended to be sent to all the diplomates of London schools along with a petition which is to be presented to the House of Commons. The petition runs as follows:—

TO THE HONOURABLE THE COMMONS OF THE UNITED KINGDOM OF GREAT BRITAIN AND IRELAND IN PARLIAMENT ASSEMBLED.

The Humble Petition of the Students and Diplomates of and in the London Medical Schools

Sheweth as follows (that is to say):—

The draft of a proposed Charter, called the Draft Charter of the Albert University, hereinafter called "the Proposed Charter," has been laid upon the table of your honourable House pursuant to the provisions of an Act of Parliament made and passed in the Session of Parliament holden in the 34th and 35th years of the reign of Her present Majesty, Queen Victoria, intituled an "Act to amend the law respecting the granting of charters in certain cases," and thereby authorised to be cited as "The College Charters Act, 1871."

Your petitioners will be injuriously affected by the granting of a Charter in the form in which the proposed Charter now stands, and they desire the amendment thereof for the reasons and in the manner hereinafter appearing. Clause 1 of the "proposed Charter" provides (*inter alia*) as follows: "There shall be, and there is hereby constituted and founded, a University in and for London, with the name of the Albert University" (which University is hereinafter referred to as "the proposed University"). Clause 2 of the "proposed Charter" provides as follows: "University College, London, and King's College, London, shall be and are hereby constituted Colleges of all Faculties in the University. The following medical schools shall be and are hereby constituted Colleges of Medicine in the University: The Charing-cross Hospital Medical School, the Guy's Hospital Medical School, the London Hospital Medical School, the Middlesex Hospital Medical School, the St. Bartholomew's Hospital and College Medical School, the St. George's Hospital Medical School, the St. Mary's Hospital Medical School, the St. Thomas's Hospital Medical School, the Westminster Hospital Medical School, and the London School of Medicine for Women. Clause 3 of the "proposed Charter" provides as follows:—"The University shall have power to confer degrees in the Faculties of

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Arts, Science, Law, and Medicine, and in such other Faculties corresponding to the provinces of study and educational work occupied by the University on all persons, male or female, who shall have pursued a regular course of study in a college in the University, and shall submit themselves for examination."

Your petitioners are, or have been, students of the colleges and schools named in Clause 2 of the proposed Charter, or of some or one of them. And they humbly submit that according to the text of the last-mentioned clause of the proposed Charter it will only be open to students who, after the proposed University becomes incorporated, shall undergo a course of two years' study in one of the medical schools proposed to be made colleges in "the proposed University to take the degrees, which by virtue of the proposed Charter the Council of the proposed University would be empowered to grant.

Your petitioners submit that this restriction is unjust to them and to other students and diplomates of the London medical schools who are passing or have passed through the exact course of studies and the same examinations as the future student will have to pass, inasmuch as they will be debarred from presenting themselves for examination for the purpose of taking the degrees of the proposed University unless they again attend for two years a college in the proposed University.

Your petitioners therefore submit that Clause 3 of the proposed Charter should be made retrospective, and should be altered and amended as shown in the copy of that clause next hereinafter set forth (that is to say):—"The University shall have power to confer degrees in the Faculties of Art, Science, Law, and Medicine, and in such other Faculties corresponding to the provinces of study and educational work occupied by the University on all persons, male or female, who shall have pursued, whether before or after the coming into operation of the Charter," a regular course of study in a college in the University "or in any Institution which is hereby constituted a College of the said University," and shall submit themselves for examination.

Your petitioners therefore humbly pray your honourable House that it will be pleased to present an address to Her Majesty praying Her Majesty to withhold her consent to such part of the proposed Charter as is contained in Clause 3 thereof until the same is amended as hereinbefore set forth, or to the like effect. And your petitioners will ever pray, &c.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6751 births and 6572 deaths were registered during the week ending Jan. 2nd. The annual rate of mortality in these towns, which had been 19·1 and 22·8 per 1000 in the preceding two weeks, further rose to 36·4 last week, a higher rate than in any week since 1880. Some of this large excess is due to the delay in registration caused by the Christmas holidays during the preceding week, but it is mainly attributable to the cold and foggy weather that recently prevailed. The rate was as high as 42·0 in London and 31·9 in the twenty-seven provincial towns. During the thirteen weeks of the quarter ending on Saturday last the death-rate in the twenty-eight towns averaged 21·2 per 1000, and was 0·5 below the mean rate in the corresponding periods of the ten years 1881–90. The lowest rates in these towns last week were 19·4 in Halifax, 20·5 in Leicester, 21·8 in Huddersfield, and 22·0 in Birkenhead; the highest rates were 37·0 in Newcastle-upon-Tyne, 38·3 in Brighton, 42·0 in London, 42·2 in Liverpool, and 45·3 in Wolverhampton. The deaths referred to the principal zymotic diseases, which had been 395 and 461 in the preceding two weeks, further rose last week to 667; they included 273 from whooping-cough, 224 from measles, 52 from diarrhœa, 48 from diphtheria, 36 from scarlet fever, 34 from "fever" (principally enteric), and not one from small-pox. No fatal case of any of these diseases was registered in Brighton; in the other towns the lowest zymotic death-rates were recorded in Huddersfield, Plymouth, and Halifax, and the highest in Blackburn, Wolverhampton, London, and Cardiff. The greatest mortality from measles occurred in Birmingham, Nottingham, Derby, Newcastle-upon-Tyne, Norwich, and Cardiff; from whooping-cough in Bradford, Oldham, Cardiff, London, Derby, Blackburn, and Wolverhampton, and from "fever" in Norwich. The mortality from scarlet fever showed no marked excess in any of the twenty-eight towns. The 48 deaths from diphtheria included 37 in London and 3 in Manchester. No fatal case of small-pox was registered in any of the twenty-eight large towns; three small-pox patients were under treatment on Saturday last in the Metropolitan Asylum Hospital at Dartford, but not one in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1471, against numbers declining from 1554 to 1465 at the end of the preceding four weeks; 101 new cases were admitted during the week, against 109 and 90 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 337 and 553 in the preceding two weeks, further rose last week to 1317, and were considerably more than double the corrected average. The causes of 163, or 2·5 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Wolverhampton, Derby, Birkenhead, Bolton, and Oldham; the largest proportions of uncertified deaths were registered in Liverpool, Blackburn, Sheffield, and Birmingham.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 26·0 and 27·1 per 1000 in the preceding two weeks, declined again to 26·0 during the week ending Jan. 2nd, and was 10·4 below the mean rate during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 15·6 in Paisley and 18·6 in Perth to 28·9 in Aberdeen and 29·3 in Glasgow. The 670 deaths in these towns showed a decline of 28 from the number in the preceding week, and included 22 which were referred to whooping-cough, 11 to diphtheria, 11 to diarrhœa, 10 to "fever," 9 to scarlet fever, 6 to measles, and not one to small-pox. In all, 69 deaths resulted from these principal zymotic diseases, against 50 and 41 in the preceding two weeks. These 69 deaths were equal to an annual rate of 2·7 per 1000, which was 1·0 below the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 12 and 16 in the preceding two weeks, further rose to 22 last week, of which 15 occurred in Glasgow and 3 in Aberdeen. The deaths referred to diphtheria, which had been 4 in each of the previous two weeks, increased to 11 last week, and included 4 in Glasgow, 3 in Edinburgh, and 2 in Aberdeen. The 10 fatal cases of "fever" exceeded those recorded in any recent week, and included 5 in Glasgow. The deaths from scarlet fever, which had been 11 and 4 in the preceding two weeks, rose to 9 last week, and included 3 in Glasgow, 3 in Greenock, and 2 in Edinburgh. Of the 6 fatal cases of measles, 5 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 246 and 254 in the preceding two weeks, declined last week to 203, but slightly exceeded the number in the corresponding week of last year. The causes of 67, or 10 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 33·9 and 29·1 per 1000 in the preceding two weeks, rose again to 45·8 during the week ending Jan. 2nd. During the thirteen weeks of the quarter ending on Saturday last the death-rate in the city averaged 29·8 per 1000, against 20·5 in London and 25·5 in Edinburgh. The 305 deaths in Dublin during the week under notice showed an increase of 111 upon the number in the previous week, and included 10 which were referred to different forms of "fever," 8 to whooping-cough, 2 to diarrhœa, 1 to diphtheria, and not one either to small-pox, measles, or scarlet fever. In all, 21 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3·2 per 1000, the rate during the same period being 5·2 in London and 2·0 in Edinburgh. The fatal cases of "fever," which had been 7 and 9 in the previous two weeks, further rose to 10 last week. The deaths referred to whooping-cough, which had steadily risen in the preceding four weeks from 2 to 5, further increased to 8 last week. The 2 fatal cases of diarrhœa corresponded with the number in the previous week. The 305 deaths registered in Dublin included 37 of infants under one year of age, and 113 of persons aged upwards of sixty years; the deaths of infants differed but slightly from the average, while those of elderly persons considerably exceeded those recorded in any week of 1890. Twelve inquest cases and 9 deaths from violence were registered; and 118, or more than a third, of the deaths occurred in public institutions. The causes of 19, or more than 6 per cent., of the deaths in the city were not certified.

MORTALITY IN QUEENSLAND.

It appears from the report recently issued by the Registrar-General of Queensland that the rate of mortality in

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that colony in 1890 was considerably lower than in any recent year. The death-rate in 1890 was 13·6 per 1000, against rates ranging in the nine preceding years from 23·0 in 1884 to 14·6 in 1887. It should be stated that these rates appear to have been based upon population for each year of the intercensal years 1881 to 1890, estimated from the excess of births over deaths, and from the excess of immigration over emigration, without regard to the results of the census in April last. From a comparative table given in the report under notice it is shown that the death-rate in 1890 in the several Australian colonies ranged from 9·6 and 12·0 per 1000 in New Zealand and Western Australia, to 13·8 in Tasmania and 15·9 in Victoria. All these rates are remarkably low; and bearing in mind the difficulties in the way of death registration in very thinly populated districts, it is very possible that the true death-rates are somewhat under-stated in most of these colonies. There is no satisfactory basis for estimating the varying extent of this under-statement in the several colonies. With regard to the Queensland statistics, it is interesting to note that the deaths in 1890 included 89 of Chinese, 450 of Polynesians, and 16 of other alien races. Calculated upon the estimated number of persons living of each race, the rate of mortality was equal to 12·3 per 1000 among the Chinese, 46·4 among the Polynesians, and 10·3 among persons of other alien races. It must be remembered that these rates among aliens, mainly imported labourers, are the rates among persons in the prime of life, and in a certain sense selected lives. This fact accentuates the enormity of the excess in the death-rate among the Polynesian labourers imported from the South Sea Islands. With reference to this subject the Registrar-General of Queensland remarks: "The in-breeding for long periods of certain tribes in the islands produces a race who seem extremely liable to contract phthisis, so that the change of climate from the humid atmosphere prevailing in the islands of the South Seas to the drier air of this continent and the great difference of diet &c., all tend to predispose a naturally weak constitution to a disease most fatal amongst them." Does this explanation supply any facts to weaken the grave responsibility of the colonial authority which sanctions this imported labour system in the face of so terrible a loss of life? We would also notice that the Queensland Registrar-General, in pointing out that the death-rate among the Chinese is lower than that of the European races, omits to notice that the two populations have very different age proportions, and that, corrected for this difference, the Chinese rate shows a very considerable excess.

THE SERVICES.

ARMY MEDICAL RESERVE.

A new Royal Warrant has been issued from the War Office, which directs that in the Army Medical Reserve of Officers the new designations of Surgeon-Lieutenant-Colonel, Surgeon-Major, Surgeon-Captain, and Surgeon-Lieutenant shall be substituted for the ranks hitherto borne. It is further ordered that promotion shall take place on completion of the periods of service required according to ranks in the Militia, Yeomanry, and Volunteers, except that promotion to Surgeon-Major shall be given on completion of twelve years from the first appointment. Honorary Assistant Surgeons permitted to join the Reserve will be given the rank of Surgeon-Lieutenant.

NAVAL MEDICAL SERVICE.—The Greenwich Hospital pension of £50 a year, vacant by the death of Deputy Inspector-General of Hospitals and Fleets Andrew Murray, has been awarded to Deputy Inspector-General of Hospitals and Fleets W. H. Adam.—The following appointment has been made at the Admiralty:—Staff Surgeon Thomas E. H. Williams to the *Impregnable* (dated Jan. 2nd, 1892).

IMPROVED BURIAL LEGISLATION.—A conference was held on the 3rd inst., in the vestry of St. Edmund, King and Martyr, London, "to consider the desirability of improved burial legislation and the appointment of a Minister of Health." Archdeacon Sinclair of London presided. The subject was well discussed and a resolution adopted to memorialise Lord Salisbury, suggesting the necessity of a change with regard to burials and the need of fresh legislation on the question.

Correspondence.

"Audi alteram partem."

MEDICAL DEFENCE UNION.

To the Editors of THE LANCET.

SIRS,—Dr. Hugh Woods' criticism of the proposed alterations in the Articles of Association of the Medical Defence Union have already been fully and, I trust, satisfactorily answered both by Dr. Leslie Phillips and myself in the columns of your contemporary, the *British Medical Journal*. As, however, there may be many of your readers who are not members of the Association, and do not therefore read the journal, I must claim your indulgence, and ask you to permit me to give a *résumé* of the reasons which compelled us to advocate the alterations referred to by Dr. Woods. After three years' working it was found that certain of the by-laws were distinctly adverse to the future prosperity of the company. One of these, against the wishes of the executive, on whom the sole legal responsibility of the correct working of the Union lies, was used at the last annual meeting to work a semi-political agitation against the Midwives' Registration Bill.

Whilst not expressing any opinion for or against such a Bill, the directors felt that to use the Union's funds—which are small enough, in all conscience, and are required for the defence of the individual member against false charges—for such a purpose was adverse to the interests of the company, although, legally speaking, "within its rights." At the earliest possible opportunity, therefore, after the general meeting a subcommittee was appointed, and, aided by the solicitors, certain alterations were suggested which were considered advantageous. The repeal of the by-law permitting the funds of the Union to be used for public agitations was decided upon. If every medical man subscribed to the company no exception could be taken to the carrying out of any agitation for the benefit of the profession as a whole; but as such is not the case, the directors, in my opinion, decided wisely in wishing to husband their funds for the furtherance of the *raison d'être* of the company—viz., individual defence of the member or subscriber.

I do not believe for one moment that Dr. Woods' opinion, as expressed in his letter, will be shared by any member who will look carefully into the matter. Again, with regard to the election of the directorate. Here we follow in our proposed new laws the rules of every limited company in the United Kingdom. Instead of the whole body of directors being liable to be rejected at an annual meeting by a catch vote, we suggest that a certain number shall retire annually, so as to give a sensible infusion of new blood, but at the same time to prevent the chaos which would arise were the whole body to consist of new members, to whom the work would be unknown. The present directors have done wonders in raising the Union from such a "slough of despond" in which they found it. Dr. Leslie Phillips' work has been extremely arduous; thousands of letters are written each year by him, and each day's duties occupy some hours on behalf of the Union. All these duties cannot be learned at once, and our duty as sensible men is to retain the valued services of such men as the present directors as long as they will continue to give their time and care to the Union. The Union was wrecked before by want of such care and attention. Let us now be thankful that it is prospering, and likely to continue prospering as long as we realise that our aim is the defence of the individual member. The Parliamentary Bills Committee and the General Practitioners' Union are both at the service of those who wish to agitate for various items in medical reform. As an insurance society, our company has no right to interfere in such matters, and it is by upholding this contention that we have reaped our present success, although at the cost of adverse criticism from Dr. Hugh Woods. I trust, however, that by patience we may be able to win finally this gentleman's applause.

I remain, Sirs, yours faithfully,

A. GEORGE BATEMAN, M.B.

Longridge-road, S.W., Jan. 6th, 1892.

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ANTISEPTICS IN OPHTHALMIC SURGERY.

To the Editors of THE LANCET.

SIRS,—I regret that my letter in THE LANCET of Dec. 19th was not sufficiently explicit to convey my meaning to your correspondent, Dr. Johnson Taylor. If Dr. Taylor will refer to Dubief's paper he will see that the presence of organisms in the lens after extraction was demonstrated by cultivation in sterilised broth and not by the microscope. I experimented on the rabbit's eye in order to test Dubief's results for my own satisfaction. In both experiments the object was to test the efficacy of antiseptics—that is, their power of destroying germs; and the fact which Dr. Taylor puts forward as rendering my experiment futile—namely, that I was dealing with dead matter "absolutely devoid of resisting power" towards germs—was an essential condition both in Dubief's and my own experiments. It is obviously impossible to test the efficacy of an antiseptic in protecting from germs a substance which itself possesses antiseptic power. In my letter I pointed out that we can only test an antiseptic method by experimenting in such a way that, if it fails to destroy all germs, those that escape must infallibly show their presence. I quite agree with Dr. Taylor that the living tissues possess antiseptic properties—the fact cannot be doubted; and I said that the fact of a wound doing well is no evidence that germs have been excluded from it.

Dr. Taylor admits that antiseptics do not kill germs, and that the majority of successful results are due to the power of the tissues to resist infection; but he makes the suggestion that antiseptics may so far weaken the germs as to be of service in cases in which the tissues possess only a small resisting power. Now, this is precisely the question which it is interesting to solve. *A priori* arguments will not help us. We know that in sufficient strength antiseptics kill not only the germs but the tissues, and it is a nice question to decide which of the two would die first. The supposition that antiseptics weaken the germs and enable the tissues to finish them, does not, as far as I know, rest on any better basis than the opposite supposition that the tissues may be rendered weaker and the germs enabled to destroy them. This question can only be decided by a comparison of the results obtained with and without antiseptics. Dr. Taylor thinks that the records of metropolitan ophthalmic hospitals show better results with antiseptics than without them. I shall be extremely obliged to him if he will kindly inform me what the data are which led him to this conclusion. He will of course bear in mind that to say "before and after the introduction of antiseptics" is very different from saying "with or without the use of antiseptics." Finally, Dr. Taylor begs the whole question by comparing antiseptics to a *reliable* life-belt. The *reliability* is the point at issue. A straw life-belt has been found a useless encumbrance. Antiseptics may also be worse than useless; and, as I said before, the time has arrived when it is desirable to decide this question by a comparison of the results of a large number of operations, antiseptic and otherwise. I suggest that the best way to make this comparison, and to eliminate the element of personal dexterity, which is irrelevant to the question, would be for an equal number of surgeons who use and who do not use antiseptics in cataract extraction to send you the results of 100 consecutive cases—not for publication, but to be compared and impartially reported upon by the Editors of THE LANCET.

I am, Sirs, yours faithfully,

Southampton, Jan. 4th, 1892. J. F. BULLAR.

THE ELECTRO-MAGNET AND FOREIGN BODIES IN THE RETINA.

To the Editors of THE LANCET.

SIRS,—In recording a case of removal of a piece of steel from the retina, which appeared in your issue of Oct. 24th, I did not attempt to enter into the question of the treatment of foreign bodies in the fundus generally. I merely recorded a rare case, and quoted the only successful cases which, so far as I was aware, had been previously recorded. In a subsequent number Dr. Neale wrote pointing out that I had omitted to quote cases of Mr. Snell's. I wrote to Mr. Snell to ask if that was so, and he, in reply, referred me to his series of electro-magnet cases and to the Ophthalmological Society's Transactions for 1886. Not having in my possession or available that volume of the Transactions, I relied on a search through the series I understood I was referred to, and there found the three cases I mentioned in my last letter under the head of "Retina," and the other case I quoted under the head of "Retina-vitreous." The electro-magnet was used in each of the first three cases, but without result as far as removal of the foreign body was concerned; but I may have given a wrong impression in speaking of them as cases in which unsuccessful attempts were made to remove foreign bodies from the retina, seeing that no absolute diagnosis of their presence there was made beforehand. Their being recorded under the heading of "Retina" misled me. I now find that Mr. Snell's case of successful removal was not included in the series; and having obtained the volume of the Transactions referred to, I have read his case with interest, and wish to express my apologies to Mr. Snell and my assurance that the oversight of this case was quite unintentional. I agree with Mr. Snell's remarks about the possible danger of needlessly attempting the removal of foreign bodies in the retina, having myself come across two cases in which a foreign body had remained so situated for several years without materially disturbing visual function.

I am, Sirs, yours faithfully,

Cardiff, Jan. 5th, 1892. J. TATHAM THOMPSON.

MR. A. E. BARKER'S FIFTY CONSECUTIVE CASES OF AMPUTATIONS OF THE LIMBS.

To the Editors of THE LANCET.

SIRS,—As a practical surgeon I congratulate Mr. A. E. Barker upon the success which he has obtained in his fifty cases of limb amputation; but the importance of the report is marred by the absence of any information as to the ages of the forty-six patients who recovered. This omission is unfortunate, as the age is one of the factors which tells largely either for or against a successful or an unsuccessful operation, and unless the information in this direction is supplied the usefulness of Mr. Barker's statistics for the purpose of comparison will be minimised, if not destroyed.

I am, Sirs, yours truly,

Wolverhampton, Jan. 2nd, 1892. T. VINCENT JACKSON.

THE INTERNATIONAL SANITARY CONFERENCE AT VENICE.

(FROM OUR ITALIAN CORRESPONDENT.)

ON Dec. 12th THE LANCET announced that a Conference would meet at Venice on Jan. 5th to consider the "re-organisation of the Sanitary Commission of Alexandria, and the conditions under which vessels in quarantine may pass through the Suez Canal." The preparations for this important Conference are now, I may say, complete; Germany having just nominated as her representatives at the same Count Leyden, Consul-General at Cairo, and Dr. Kulp of Alexandria. By arrangement of the Venetian Town Council the sittings will take place in the Palazzo Farsetti, and during the six days these will occupy every disposition will be made for the convenience and recreation of the delegates. The Piazza di San Marco will be illuminated on the evening of the 5th, a "serata di gala" will be given at the Fenice theatre on the 6th, and the Commendatore Colmayer, the prefect, will hold a reception in honour of the representatives of the Powers at Ca' Corner on the 11th. So far nothing will be wanting to promote the success of the Conference; but there are already indications that its proceedings will, to say the least, be animated. French anglophobia will, it is feared, find matter distinctly contentious in the proposal to dispense English vessels from sanitary inspection in the Suez Canal, and its organs in the press are already calling on the Austro-Hungarian and German delegates to resist the "pretensions" of England in the interests of the "general hygiene of Europe." The old prejudices in favour of quarantine, which, it will be remembered, made shipwreck of the Conference that met with a similar object in Rome in the May of 1885, will be pressed once more into service—ostensibly to "protect the general hygiene of Europe," really to combat what France absurdly contends is the policy of England: that of making the "Red Sea an English lake." There are signs, however,

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that France will have less support for her anglophobia than she counts upon. In the first place, quarantine has been sufficiently discredited—by none more than Tommasi-Crudeli—since the Rome conference to make it a very doubtful weapon of obstruction before such an international tribunal as that which meets on the 5th. In the next place, France may count upon receiving as little aid from Italy as she is likely to do from Austria-Hungary or Germany. A good deal has happened since 1885; and as evidence of what is likely to be the attitude of Italy towards England at the approaching conference, I may quote the opinion of a high-placed Italian publicist. "The instructions," he says, "received by our delegates are strictly reserved and not to be divulged. But from the demeanour of France in Egypt, smarting as she is under the loss of her influence there, and bent on always creating obstacles for *la perfide Albion*, and, on the other hand, from the cordial relations we enjoy with the 'Cabinet of St. James,' we may anticipate perfect harmony of views between England's delegates and our own." Italy, as already announced in THE LANCET, will be represented by his Excellency Signor D'Arco, Under-Secretary of State for Foreign Affairs, who will have as his assistant that skilled diplomatist the Marchese Silvio Carcano, Consul-General of Italy in Egypt, who as resident minister in Chili asserted Italian interests in South America with equal ability, firmness, and tact. Another Italian representative will be Professor Pagliani, Director of State Medicine in the kingdom of Italy, and yet another will be Dr. Andrea Torella, sanitary delegate in Egypt, and intimately acquainted with the hygiene of that country, especially in Red Sea waters. These men, according to the Italian publicist just referred to, are much more in unison with English than with French views of international sanitation, and will, he expects, receive from the enlightened delegates of Germany and Austria-Hungary a support for the reformed sanitary regulation of Red Sea traffic which will more than outweigh the *vis inertiæ* of the Porte or the obstructive tactics of France.

A list of the statesmen and hygienists who represent the Powers at this conference has just been officially given by the organ of the Italian Government, and in the following order:—England: Mr. J. W. Lowther, Under-Secretary of State for Foreign Affairs, and Dr. Mackie, English delegate to the Sanitary Council of Alexandria. France: M. Camille Barrère, chargé d'affaires at Munich, and Professors Brouardel and Proust, the former President of the French Sanitary Council, and the latter Inspector-General of the Sanitary Service of France. Austria-Hungary: Geheim-Rath Count Karl Küfstein, Herr C. von Csiller, ex-Consul in Egypt, now delegate to the Danube Commission and Consul-General at Galatz, and Dr. von Nagel, Austro-Hungarian, delegate to the Sanitary Council of Constantinople. Germany: Count Leyden, Consul-General at Cairo, and Dr. Kulp, delegate to the Sanitary Council of Alexandria. Russia: The Privy Councillor Jomini. Spain: The Resident Minister, De Bagner, and Dr. Maria Cortezo. The Netherlands: Dr. Jonkheer-van-de-Does-de-Willebois, Consul General at Cairo, and Dr. Ruysch, Sanitary Councillor to the Minister of the Interior. Belgium: M. E. Beco, Secretary-General to the Ministry of Agriculture, Industry, and Public Works. Denmark: Count Knuth, Minister at the Court of the Quirinal. Egypt: Butros Pasha, Under-Secretary of State to the Minister of Justice, M. Mieville, President of the Sanitary Council at Alexandria, and Mahmend Pasha, vice-Director of the Internal Sanitary Service. Greece: by her diplomatic representative at Rome and by her delegate to the International Sanitary Commission at Alexandria. Turkey: by four delegates (names not yet announced); and Italy: Count d'Arco, Under-Secretary of State for Foreign Affairs; the Commendatore Pagliani, Director of the Sanitary Office in the Ministry of the Interior; and the Commendatore Carcano, Consul-General in Egypt.

January 2nd.

FRENCH OPINION ON QUARANTINE.

(FROM OUR SPECIAL CORRESPONDENT.)

THE meeting of the International Conference at Venice to discuss the question of quarantine renders it interesting to study the views entertained abroad on this subject. M. Henri Monod, who is Director of the Public Hygiene Department at the Ministry of the Interior, represents the most enlightened French views on the subject. M. Monod has an excellent knowledge of English, and his recent publication on the progress of sanitary reform in England proves that he thoroughly appreciates what has been achieved in this country. Under these circumstances I availed myself of M. Monod's invitation to call and talk the matter over with him. M. Monod lives in the English style—that is, not in an apartment or flat, but in a villa that stands by itself. His library is full of English publications, notably all the Local Government Board Blue Books relating to public health, the Registrar-General's returns &c., which he estimates so highly that he has had them preserved in artistic bindings. His conversation showed that these works had not rested idly in his library, but had been carefully studied. It was also very soon evident that very considerable misunderstanding prevails as to the views which in England it is supposed the French entertain with regard to quarantine and the transmission of cholera. M. Monod again and again protested that he did not believe there was any difference of opinion between Dr. Buchanan, Dr. Thorne Thorne, and himself. M. Monod recognises that by the adoption of sanitary measures, rather than by the enforcing of quarantine, epidemics can best be averted; but he insists that England, like other countries, sought to protect herself by quarantine till such time as her great sanitary works are completed. Quarantine was maintained in 1866, for Sir John Simon protested against it, and urged that it had not prevented the 14,000 deaths from cholera. It was only in 1884 that England was again seriously menaced by cholera, and by that time such great progress was accomplished in sanitation that England could afford to dispense with quarantine. If, he said, the English expect such unhealthy, badly drained ports as Marseilles, Toulon, Constantinople, &c., to dispense with quarantine, then they expect foreign countries to do what England herself did not do.

M. Monod argues that English medical men recognise that cholera is endemic in India, that it can be transmitted, notably by soiled linen brought from India in a ship. It does not matter whether such a ship be English or foreign; the fact that soiled linen is on board an English ship does not make it less infectious. Of course I was obliged to recognise that the English flag did not possess any special antiseptic properties, and M. Monod reminded me that in 1832 the cholera came to France from England, the epidemic commencing at Calais. Then again in 1865 an English ship, the *Sidney*, brought the cholera to Egypt, whence it spread in Europe. England by its geographical position enjoys a natural quarantine—namely, the time vessels take to reach its shores. But the English Crown Colonies of Cyprus, Malta, and Gibraltar, which are in the same position as the Mediterranean Powers, impose quarantine regulations of even greater severity than these latter. M. Monod knows that English scientific men do not approve of the protective measures adopted by these colonies, but he thought they would be in a better position to convince foreign countries if they had succeeded in convincing their own countrymen. In answer to this point, I ventured to mention that during the great cholera epidemic of 1885, when I was at Gibraltar, the authorities explained to me that they did not approve of the quarantine measures, which they nevertheless very rigorously enforced. But in times of peace Gibraltar is nothing more than a coaling station and a barren rock. For their meat and vegetables the inhabitants are entirely dependent on their trade with the Spanish continent and with the Moors of Tangiers. Their communications with these people would have been cut off, nor would ships have been able to call for coal, if they had not strictly enforced quarantine regulations. What was done at Gibraltar was done in deference to the pressure brought to bear by other nations. M. Monod's case was stronger when he rejoined that the delegates from Canada and Australia to the London International Congress of Hygiene had spoken energetically in favour of quarantine. Yet, with all this, M. Monod is not himself in favour of quarantine. He only insists that England should not talk too loudly on the subject, for England very carefully put her own house in order before she proclaimed the principle of the abolition of quarantine; and even now, in England, measures are taken that do not fall far short of what is understood by the word quarantine. Thus in June, 1889, the *Neva*, of the Royal Mail Company, arrived at Southampton with yellow fever on board. This ship was kept in quarantine for ten days.

To bring the conversation to a practical issue I inquired what it was the French desired. M. Monod replied

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that ships coming from India should be stopped on entering the Suez Canal, and that all personal linen should be disinfected by steam under pressure, as was done so rapidly and successfully on the Spanish frontier during the cholera epidemic of 1890. This need not occasion a delay of more than about five hours, and even this delay might be avoided if the ship carried a disinfecting oven, or if it could be proved that all the clothing had been disinfected in India before the passengers came on board. Should there be a case of cholera on board, then M. Monod thought the entire ship ought to be disinfected, the patients isolated, and the passengers and crew detained for five days after the last case, this being generally considered the period of incubation for cholera.

M. Monod based his demand for measures of this description on the insalubrious condition of our Indian colonies, and forthwith proceeded to quote his authorities. Dr. Simpson, medical officer of health of Calcutta, in his Report on Sanitary Measures in India in 1889-90, p. 122, says: "The decline in fever mortality is not so marked as to justify much congratulation on the improvement of public health." On page 123, Dr. Simpson says: "Each year's delay in carrying out the construction of broad streets brings with it greater difficulties and expenses; the crowding together of houses is becoming greater, the open spaces are being more encroached upon, the breathing space is gradually contracting, and the localities are progressively attaining a more unhealthy state." According to Mr. Ollivant, Municipal Commissioner of Bombay: "The most graphic description of the foul state of some districts will not give as good an idea of the truth as a quarter of an hour's visit;" and the Deputy Sanitary Commissioner of Madras, describing the town of Tirupati, says: "There are no public latrines. Portions of backyards are set apart for private resort, holes being left in the walls so that pigs may enter and clean up. People defecate anywhere, and the whole town is pervaded with the odour of pig's dung and human excreta.' In spite, however, of the want of sanitation there has been, it is said, a reduction in the death-rate of India; but M. Monod pointed out that the English themselves did not attach much faith to these figures. Sir B. Simpson, Sanitary Commissioner of the Indian Government, states that the death registration is so imperfectly conducted that it is impossible to say whether better health or more careless recording is the cause of the apparent reduction. In any case, there seems to have been no reduction in the mortality from cholera. These are the figures: In 1878 there were 318,223 deaths from cholera; in 1879, 269,336; in 1880, 118,856; in 1881, 161,712; in 1882, 350,971; in 1883, 248,860; in 1884, 287,600; in 1885, 385,928; in 1886, 208,371; in 1887, 488,788; in 1888, 270,408. M. Monod referred also to Dr. Pringle's speech at the London Congress of Hygiene, when he declared that 95 per cent. of the population of India lived in villages where their water-supply was contaminated. He alluded to the descriptions made by Mr. Ollivant of Bombay, by Dr. Holbein Herdley, and Mr. Baldwin Latham, who declared that the statistics of Calcutta and Bombay proved that the fearful mortality was due, not to the effects of the Indian climate, but to the total absence of sanitary measures. M. Monod then displayed some graphic charts, which showed that while from 1878 to 1888 the general mortality had decreased in England from 217 to 177 per 10,000 inhabitants, the mortality from cholera in India was, on the contrary, increasing. Yet English sanitarians recognise that cholera is a preventable disease. Even in India this has been proved over and over again. At the International Conference held in Rome in 1885 it was understood that the Indian Government would adopt and enforce special sanitary measures to check the development of cholera in India. At the London International Congress of Hygiene, held in 1891, Dr. Brouardel challenged the English representatives to show what had been done in India in conformity with the resolutions voted at Rome in 1885. M. Monod now maintains that if any serious sanitary progress had been made, the prevalence of cholera in India would have decreased.

Pending, therefore, more energetic action in India, M. Monod maintains it is necessary to take precautions against ships coming from India. He recognises that the Native Passenger Ships Act of 1887 constitutes an important step in the right direction. To have rendered obligatory the presence of a surgeon on board a ship carrying 100 pilgrims is an excellent measure; but why should the examination of passengers before they come on board be only facultative? Perhaps such examination will only be practised when a violent epidemic is prevailing. M. Monod insists that, in any case, pilgrims before they are allowed to embark should obtain a clean bill of health or sanitary passport. But not only should their persons be healthy, their clothes should be clean. These clothes can rapidly and without damage be sterilised by exposing them to superheated steam under pressure. This was very conclusively demonstrated by the scientific experiments of the Jury at the Universal Exposition of 1889. Thirty-four English ocean steamers have on board apparatus for this purpose. Such slight expense can render great service. If every pilgrim was examined medically and his clothes disinfected before he left India, the chances of importing cholera into the Red Sea would be very materially reduced.

Reverting to the question of quarantine, M. Monod thought that the English unwisely exaggerated when they made the sweeping assertion that quarantine could be of no service. M. Monod believed that there was something better to be done than the imposition of quarantine. In his opinion, medical inspection and disinfection offered a much more effective guarantee than the ancient system of quarantine, but to say that quarantine had never rendered any service was to fall into the other extreme. In 1891 an English ship, the *Dekkan*, arrived at Camaran with 1200 pilgrims on board. There had been cases of cholera among these pilgrims. The pilgrims went to Jeddah, and then to Mecca, and cholera followed in their wake; a severe epidemic ensued. On the other hand, the ship *Adana* left the port of Jeddah and went to Tor with 971 pilgrims on board. Eighteen deaths from cholera occurred during the journey, and six more while the passengers were landing. But at this port quarantine was imposed. Altogether more than 10,600 pilgrims were kept rigorously in quarantine, and the cholera did not travel any further. Egypt and Europe were saved. It would be difficult not to conclude that in this case quarantine was successful; therefore it is not always useless.

All these views of the questions at issue had not been sufficiently expounded in England; at least, M. Monod was tempted to believe that this was the case, because what was said by the French speakers at the London International Congress of Hygiene seemed to surprise the English members present. It was very regrettable that the question was not more fully discussed at that Congress. However, M. Monod hoped that a cordial agreement would ultimately be established between all the nations concerned, and certainly cholera would never be stamped out without the active assistance of England. Such were the main points of my lengthy conversation with M. Monod, and I was well pleased to have an opportunity of gathering from so competent an authority what were the views entertained in French Governmental circles.

Paris, Dec., 1891.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Victoria and the Albert Universities.

A MOVEMENT has lately been set on foot for the Victoria University to oppose the grant of a Charter to the proposed new Albert University for London. Sir George Young has sent a strongly worded letter to several of the leading newspapers in this district against such movement, especially as the opposition comes entirely from the medical element. He asserts that the fears expressed as to the lowering of the standard of the entrance and scientific examinations is mere surmise, and asks, "Why should two groups of educational institutions, hitherto friendly, each with ample work to do, and fair, though not superabundant, resources for doing it, be brought into violent antagonism on such insufficient grounds?" He asserts that in matters medical the Victoria University has an enormous advantage over the proposed new one, and advises the agitators "to let well alone."

The Proposed Infirmary Extension.

It was noted in these columns some time ago that a memorial had been circulated, supported by a very influential section of the subscribers to the Infirmary, asking the Board to stay their hand with regard to the proposed extension. It is expected that very shortly plans will be ready showing how the extension is to be carried out. But

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the opponents thereto contend that the preparation of plans is altogether premature, the principle of extension upon the present site being the first thing to consider. The opposition to any further extension on the present site is apparently gaining strength, and with the medical staff by no means unanimous, the governing Board also divided in opinion, and a hostile feeling in the city Council as guardians of the open spaces in the city, the scheme so far does not appear very likely to be carried. A series of suggestions from the opposing memorialists for providing a new hospital as a branch of the Infirmary appears to have met with little favour by the governing body.

Salford Royal Hospital.

The financial condition of this charity has for some time caused its treasurer and managing committee some anxiety. At the present time there is a deficit of nearly £5000, and a public meeting was recently called by the Mayor of Salford to consider what means should be taken to place them in a more satisfactory position. The meeting, taken altogether, was not a marked success—the attendance was small, and the mayor, in his speech, made some remarks which did not meet with general approval. He stated, what is no doubt true, that many wealthy men in Salford contributed little or nothing to the hospital's support, and he also charged the working-classes with giving much less than might be expected from them. Mr. Mather, M.P., in the course of his speech, referred, as did influential speakers at the recent public meeting of the Hospital Sunday Committee, to the possible application in the future of public moneys from the rates for the support of hospital charities. At the close of the meeting £805 was subscribed and a general appeal made to the inhabitants of the borough for funds. The senior surgeon to this hospital, Mr. Stocks, has just resigned his post after a service of thirty-five years. When he first joined the staff in 1847 there were but ten beds, to-day there are 125; but unless more money be soon forthcoming, many of these must remain empty.

Manchester Guardians.

The Bishop of Manchester and Mrs. Moorhouse recently paid a visit to the workhouse and hospital belonging to the guardians at Crumpsall. They were not content merely with looking, but gauged the quality of the food &c. by tasting. The dinner on the day of the visit chanced to be pea soup, which his lordship pronounced to be excellent. The guardians have for some time past endeavoured to assist the sanitary authorities in their efforts to deal with dirty and insanitary districts. Two of their medical officers have written letters to the guardians, pointing out that in a large number of cases the dirty and careless habits of the people themselves are more to blame than the actual condition of the houses and properties, a conclusion which our late medical officer of health, Mr. Leigh, often arrived at.

Lead Poisoning.

At a large dye works two cases of lead poisoning have occurred, both proving fatal. The victims were young girls, and from the evidence given before the coroner it would seem that the utmost carelessness is shown by the employées, who will not avail themselves of the means provided by the firm to minimise the risk of their work, sitting down to their meals with unwashed hands, often covered with the dangerous lead pigments. It is to be hoped that these two fatalities will serve as a warning, and that more stringent rules will be enforced against those who will not protect themselves.

Removal from the Register.

The removal of Mr. Gunn's name from the Register by the Medical Council has been duly reported in your columns. A petition is being got up and largely signed for presentation to the Medical Council, asking that he may be reinstated, as it is thought that, wrong as his conduct was, many other worse offenders than he, in the matter of covering unqualified practice, go scot free.

Rabies in Lancashire.

Notwithstanding that the muzzling order is supposed to be in force in several parts of the county, more cases of rabies were reported last year than in the previous one, and the Board of Agriculture have addressed a communication to the local authorities of the districts chiefly concerned, suggesting that the regulations should be more stringently and efficiently carried out.

Cremation.

A report referring to the progress of the erection of the crematorium has been issued. It is hoped that in about three months it will be ready for use, and that Sir H. Thompson or the Duke of Westminster will be present at its completion. It is confidently stated that, taken as a whole, it will be one of the most perfect yet constructed, and that when completed the buildings will be of an ornamental character from an architectural standpoint. The cost has exceeded the first estimate, and it will require £7500 to complete the whole scheme, of which £3000 still remains to be raised. Our neighbours at Liverpool, not to be outdone by Manchester, are taking steps to provide themselves with a crematorium, so that we shall not be able to look to that city for any support, as was at first anticipated.

Manchester, Jan. 5th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The High Death-rate in Newcastle.

WITH regard to the recent high death-rate in Newcastle—viz., for the week ending the 26th ult., 44·6 per 1000,—Dr. Armstrong, our city medical officer of health, has presented a lucid report to the sanitary committee of the corporation. He shows that the deaths for the week were 161, against 82 in the corresponding week of last year, or an increase of 79. The principal factors in producing these high figures, Dr. Armstrong shows, are diseases of the respiratory organs 53, whooping-cough 10, while influenza has caused 11 deaths; phthisis has also caused 10 deaths, and measles 9 deaths. Although 51 cases of infectious diseases have been notified by practitioners during the last fortnight, they are not responsible for the high mortality, as the death-rate from scarlet fever and diphtheria has been low. It would appear, then, that our high mortality is to be attributed to the season, its changeable nature and at times low temperature acting with deadly effect on weak and aged persons.

Death from Lead Poisoning in Newcastle.

Another of these very frequent cases of fatal lead poisoning took place in Newcastle last week. It was shown at the inquest that a young married woman had worked at the white lead works for fifty-three days when she was found by the surgeon to the works to be under the influence of lead. On the Sunday before Christmas Day she was seized with convulsions and vomiting, and died on the 31st ult. It was also shown that some of the women at the works neglected to avail themselves of the precautionary measures placed at their disposal at the factory. The jury found that the deceased died from lead poisoning.

Sunderland: Contagious Diseases.

At a late inquest at Monkwearmouth the coroner for the district made some very strong remarks on the prevalence of congenital syphilis in the seaports of Sunderland and Shields. He said if the people who were agitating for the repeal of the Contagious Diseases Act could go round his district with him and see the fearful ravages which these diseases caused, and the hundreds of children born to die in these boroughs from loathsome affections before they had completed a single year of their existence, they would change their minds and hesitate to talk about a subject of which they know nothing.

Influenza.

Influenza is still very prevalent in Newcastle and Gateshead, and in most of the Tyneside and surrounding villages; it is also reported as very prevalent in Richmond, Yorkshire. The death of a very old surgeon, Mr. Richard Bowes, aged eighty-two, is announced as having occurred at the latter place. Mr. Bowes was an M.R.C.S. and L.S.A., 1831, F.R.C.S, 1871.

Sad Accident to a Durham Surgeon.

It is reported that, about nine o'clock on Monday morning last, a serious accident befel Mr. Dunlop, surgeon, of Leamside, near Durham, who by some means got in the way, near Rainton, of a train proceeding from Newcastle to the south, the engine of which struck Mr. Dunlop on the left side and knocked him on the metals, the whole of the train passing over his left leg. He was promptly removed

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to the Durham County Hospital, where (in addition to the terrible injury to the leg, which it was found necessary to amputate) it was found he had received severe scalp wounds; but at the time I write he was reported as doing well.

The Gateshead Disaster.

Another death has taken place arising out of the panic at the Theatre Royal, Gateshead, in the case of a man aged twenty-six, who, in order to get out of the building, jumped from a window of the theatre, fracturing his jaw and injuring one of his legs. He was removed to the Royal Infirmary at Newcastle, where he died last night. This death makes the number of those fatally injured by the panic twelve in all—ten children and two adults.

Newcastle-on-Tyne, Jan. 6th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh Royal Infirmary.

THE statutory general meeting of contributors to the Royal Infirmary was held on Monday, Lord Provost Russell presiding. The annual report was submitted, from which it appears that during the year 8162 patients were admitted, while 610 remained from the previous year. Of these, there were dismissed cured 3840, relieved 2990, dismissed on other grounds 719, and died in the hospital 610. Of the total cases, 3878 were ordinary medical ones, while 4281 were surgical. The greatest number of patients in the hospital on any one date was 694, and the lowest 579. Of the total cases, 3811 were from Edinburgh, 582 from Leith, and 3766 from the country. The mortality was 5·4 per cent. after deducting the cases which died within forty-eight hours after admission, and which were due to severe injury, or were of a hopeless character when admitted. The report then discusses the finances of the institution, and regrets that the Sunday and local contributions are not increasing with the increase of population. It also expresses the hope that the country contributions may increase, and that the north of England may send them help, as several hundreds of patients come from the northern counties for advice and treatment in the infirmary. It then discusses at length the question of the proposed extension of the hospital by adding 200 beds to it. The proposals under this head are similar to those which have already appeared in the columns of Scottish correspondence, and entail an outlay of £70,000 in building &c., and an additional charge of £10,000 per annum for maintenance. The managers are willing to proceed with the extension if the contributors approve, and if the public show their sympathy with the proposal.

Health of Edinburgh.

The mortality last week was 108, and the death-rate 21 per 1000. Diseases of the chest accounted for 50 deaths, and zymotic diseases for 7. The intimations for the week comprised cases of typhoid fever 4, diphtheria 2, scarlet fever 24, and measles 12.

Jan. 7th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The late Mr. Wharton.

MR. WHARTON'S funeral took place on Monday morning, and was largely attended. The College of Surgeons, of which he was an ex-president, was represented by Mr. Gray Croly, President, who was attended by the mace-bearer, carrying the mace draped in black. At St. Peter's Church, where the first portion of the burial service was read, the coffin was carried from the hearse to the church by six former pupils of the deceased. Wreaths were sent by the students of the Meath Hospital, also by the lady superintendent and nursing staff, and by the inmates of the Royal Hospital for Incurables. The late Mr. Wharton was a gentleman who was greatly respected by all classes, and loved and esteemed by his late colleagues of the Meath Hospital. He held some appointments, among the rest that of medical visitor in lunacy under the Court of Chancery, which has now been conferred on Dr. J. M. Finny, President of the Royal College of Physicians.

Death from Hydrophobia.

About two months ago a boy named Beale, living in Kilkenny, was bitten by a dog, which was destroyed, and on examination was found to have been suffering from rabies. Beale and two other children bitten by the same dog were at once sent to Paris and were treated by the Pasteur me thod, and returned home about a fortnight since. On Sunday last symptoms of the dread disease appeared in the case of Beale, and he died the same evening. The other children are still quite well.

Fever in Dublin.

During the last quarter of 1891 the deaths from typhoid fever amounted to 100; from typhus fever, 4; from ill-defined fever, 2; while the mortality from scarlet fever was only 2.

Health of Ireland.

In the September quarter there were 25,834 births registered and 17,076 deaths. The birth-rate was 0·6 under the average rate for the corresponding quarter of the past ten years; and the death-rate 0·2 in excess of the average. The returns of pauperism show a decrease of 652, or 1·6 per cent., in the average number of workhouse inmates on Saturdays during the quarter, and an increase of 681 in the average number of persons on out-door relief. There were no deaths from small-pox, the mortality from measles and scarlet fever was exceptionally low, and although whooping-cough was prevalent in several districts, and enteric fever and autumnal diarrhœa caused a rather large number of deaths in Dublin and Belfast, the general mortality from these diseases was below the average for the September quarter.

New Buildings at Queen's College, Belfast.

On Jan. 4th, the erection of a new suite of buildings of great importance was commenced at Queen's College, Belfast. For many years the accommodation for students of chemistry has been quite inadequate, but this difficulty will soon cease to exist, as the Treasury have sanctioned the erection of the necessary additional buildings required, on which workmen began operations on Monday last. This new erection will form a detached block, built on a line with the north wing of the College towards the east. When completed it will contain a new lecture theatre for the chemistry class, with seats for 250 students, a large and amply fitted practical class-room, laboratories for the students, a private laboratory for the professor, a chemical museum, special rooms for water analysis, combustion, photographic chemistry, and other purposes. It is hoped a portion of the buildings will be ready for use during the next collegiate session. To the exertions of Dr. Hamilton, President of Queen's College, it is due that this grant for the erection of these buildings has been obtained.

The President of Queen's College, Galway, has retired.

Jan. 5th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Gratuitous Disinfection in Paris: a Description of the Modus Operandi.

A FEW years ago the Prefecture of the Seine established three disinfection depôts in this city, and regulations for their efficient working were drawn up. It may prove of interest to the readers of THE LANCET to be made acquainted with the details of these regulations, which are, I believe, strictly conformed to. In order to procure the disinfection of a fever-tainted room and its contents, the doctor or any other interested person addresses an application by telephone, telegraph, or post either directly to one of the above-mentioned establishments, or indirectly through the nearest commissary of police, who communicates at once with the officials charged with this duty, for which no fee whatever is exacted. On the receipt of the summons, a properly equipped vehicle is despatched to the address indicated. The room is first cleared of all portable objects, which are forthwith packed in stout canvas bags brought for the purpose. These packages having been deposited in the van, the room and such of its contents as are non-portable are subjected to a thorough spraying, practised with an apparatus invented by the firm of Geneste and Herscher, the liquid employed being a 1 per 1000 sublimate solution mixed with a 5 per 1000 solution of tartaric acid. The spray generated by

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the apparatus is so fine that it penetrates all stuffs without deteriorating the texture. The van and its contents are then driven to the *bureau de désinfection*, into a special block of which it is admitted by a special entrance. The van is unloaded by the same employés, and the bags are carried to a room adjoining the oven-chamber. The van is then disinfected by means of the spray above mentioned. The disinfecting room is spacious, and contains ovens built into the walls, an incinerator for the destruction of useless contaminated objects, and an enormous vat for the washing of fæces or blood-stained linen before to their introduction into the ovens. This preliminary washing is done in order to prevent the stains becoming permanent. All the tainted objects—clothing, bedding, &c.—are then placed in the ovens, which are composed of vast cylinders filled with steam under a pressure of seven-tenths of an atmosphere, which brings its temperature up to 110°—115° C. or 230°—239° F. A sojourn of fifteen minutes suffices for the complete disinfection of the contents of the ovens. In order to obviate the inconveniences of the phenomenon known to physicists by the name of "calefaction," the temperature is suddenly lowered every five minutes. This manœuvre brings about the liquefaction of a certain quantity of vapour, which, moistening the objects, enables the steam to penetrate them. At the expiration of the fifteen minutes, the articles are removed from the ovens through special openings leading into a room from which all contaminated objects are rigorously excluded, and which is manned by a special *personnel*, who, having packed the purified bedding &c. in a disinfected van, convey them back to their destination. All the *employés* of the *bureau de désinfection* are dressed in canvas, and whenever the exigencies of the services render the passage of the men from the contaminated to the aseptic side of the establishment necessary, they divest themselves of their uniform and undergo a thorough washing with an antiseptic solution. A few figures will illustrate the increasing popularity of this still novel institution. At one of the *bureaux* situated in the Rue des Récollets, 274 disinfections were conducted in November as against 63 in January. During the past year the total number of disinfections for the three *bureaux* was 3414.

Cocaine as an Anæsthetic.

The frequent accidents attending the administration of chloroform render the study of the utility of cocaine employed subcutaneously as a local anæsthetic agent a matter of considerable importance. It is therefore not surprising that a discussion on its merits and demerits should crop up periodically at the meetings of such a body as the Société de Chirurgie. On the 23rd ult. the subject was again revived, and several competent authorities related their experience of this much-abused method of producing anæsthesia. M. Quénu's experience of the drug is limited to sixty operations, the strength of the solution employed being one-fiftieth, and the maximum quantity of cocaine injected in each instance being 7 centigrammes. In three subjects disquieting symptoms manifested themselves; in one (radical cure of hydrocele) these symptoms were formication of the extremities, pains, anæsthesia, and finally cerebral excitement. This surgeon now never exceeds 10 centigrammes as a dose. M. Schwartz's experience extends to 300 operations, in which the drug was employed without accident. Once, however, after the injection of a solution into the tunica vaginalis, a *commencement d'accident* occurred which was promptly obviated by the incision of the serous sac. Following Kummer (experiments on the lower animals), he ascribes great importance to the influence of Esmarch's bandage on the tolerance, in given cases, of the drug, the compression, by retarding diffusion, allowing of larger doses being exhibited. In operations on the limbs his maximum dose is 7 centigrammes; for the tunica vaginalis 10 centigrammes, and for the face and trunk 5 centigrammes. M. Regnier has witnessed two cocaine accidents (dose 1 centigramme) in his surgical practice, both patients being "cardiacs." In one, symptoms of cardiac failure (asystole) developed, and the individual died a month later. M. Moty has employed cocaine in dental practice between 5000 and 6000 times, and only on two occasions, and that quite recently has he experienced any *contretemps*. He opines that the concentration of the solution has much to do with the danger incurred. M. Reclus shares this opinion, and is persuaded that a 1 per cent. solution is strong enough for all purposes. He has utilised cocaine in over 1000 operations without encountering more than a few *alertes*. With injections of from ten to twelve centigrammes, he has frequently performed painlessly such operations as gastrotomy, castration, incision in appendicitis, &c. Care must be taken that the solution be not introduced into a bloodvessel, and the surgeon must be on his guard whenever cocaine is brought in contact with a serous surface. M. Lucas-Championnière deplores the vulgarisation of cocaine, and regards it as a much more dangerous agent than chloroform, seeing that when the latter drug is used the surgeon is present to combat untoward accidents, whereas remote consequences threatening life may follow a cocaine injection.

A New Treatment of Congenital Dislocation of the Hip-joint.

The treatment of this condition has hitherto been one of the *opprobria* of the profession. Within the last ten years, however, various operative procedures have been devised with a view of rendering locomotion more feasible; but it must be conceded that the results have been far from satisfactory. That indefatigable worker, Professor Lannelongue, has recently been led to study this disease, and on the 23rd ult. he announced to his colleagues of the Société de Chirurgie the discovery of what he considers to be a rational remedy for this malady. A dozen pathological specimens in the museum of the Hôpital Trousseau show clearly that the displacement is due to the absence or, at best, rudimentary development of a cotyloid cavity, a like absence of a capsule, and a rudimentary femoral head. By resecting the head of the femur the only result obtained is the subsequent shortening of the limb by interfering with the growth of the femur. Nor is the obvious indication to create a new acetabulum fulfilled by detaching a periostic flap. Mindful of the sclerogenic properties of zinc chloride discovered by him, M. Lannelongue has utilised his method as a means of raising a ridge of new bone round the head of the femur, and so preventing its displacement. On Nov. 17th he performed this operation on a little girl, aged three, the subject of this disease. The patient being under the influence of chloroform, and the limb being maintained in extension, twenty drops of a 10 per cent. solution of $Zn\,Cl_2$ were deposited by means of a syringe on the surface of the bone at eight different spots just above the femoral head. A week later a hard osseous ring was clearly perceptible at this situation. A fortnight after the first operation a second injection of the same solution was practised, with the effect of still further accentuating the acetabular ridge. The tiny subject of this interesting experiment was presented at the meeting. The profession will await with curiosity the ultimate result of this novel essay in the field of constructive surgery.

Death of Professor Richet.

A familiar figure has just disappeared from the surgical arena in the person of Dr. Didier Dominique Alfred Richet, honorary professor of the Faculté de Médecine, who died on the last day of the year at his château of Carqueranne, aged seventy-six. Visitors to the wards of the Hôtel-Dieu will easily recall the tall, upright form of him who was for so many years one of the leading surgical lights of this city. Although he never became really reconciled to modern antiseptic methods, he was undoubtedly a man of original ideas, and as the author of a classical work on Medico-chirurgical Anatomy, still much read by French students his name and fame will survive for many a long day. He was a member of the Institute, and an ex-president of the Académie de Médecine, which body suspended its meeting yesterday as a mark of respect to his memory. M. Richet, who was for many years Professor of Clinical Surgery at the Faculty, leaves a distinguished son, M. Charles Richet, also a professor (of physiology) at the Paris Faculty.

Paris, Jan. 6th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Rohrbeck's Disinfector.

ON the 17th ult. Count Zedlitz, Prussian Minister of Educational, Ecclesiastical, and Medical Affairs, paid a visit to the great Berlin slaughter-house to see a disinfecting apparatus invented by Dr. Hermann Rohrbeck, which has

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been in use there for some time past for experiments bearing on the disinfection and utilisation, or, if necessary, destruction, of the flesh of diseased animals. His Excellency was accompanied by Koch's successor, Professor Rubner; Dr. Schönfeld, Privy Adviser on Medical Affairs; Privy Advisers Pistor and Friedheim, &c. Drs. Rohrbeck and Duncker, the latter of whom is the chemist of the Cattle and Meat Inspection Office, explained the apparatus. It differs very materially from other disinfectors, and completely solves the problem of making condemned meat fit for human food, or of converting it, if that is impossible, into manure-powder. Its peculiarity is that it prevents the access of over-heated steam to the objects to be disinfected; and, secondly, by means of a condensing apparatus drives all remnants of air out of them, thus facilitating the penetration of the steam to their inmost parts. This deep and thorough penetration is of extreme importance, for it is just in the inmost parts of pieces of meat, for instance, that it is specially difficult to raise the temperature to a height sufficient to kill bacteria or animal parasites. With Rohrbeck's apparatus this purpose is attained with comparative ease and rapidity, as is proved by pyrometers placed in the inmost parts of pieces of meat by means of larding pins, and electrically connected with bells outside of the apparatus, which they set a-ringing the moment the temperature in the interior of the meat reaches the requisite degree. Maximum thermometers inserted beside the pyrometers show the highest degree of heat attained. The Minister and the gentlemen who accompanied him followed the demonstration with keen interest, and it is probable that this admirable apparatus, which seems to be one of considerable economic as well as sanitary value, will soon be widely introduced.

Venereal Diseases in Berlin.

At a meeting of the German Society for Public Hygiene, held on Dec. 14th, Dr. A. Blaschko spoke on the diffusion of venereal diseases in Berlin, and arrived at the surprising conclusion, based on comprehensive and mostly official statistics, that since 1860—i.e., four years after the abolition of brothels—there has been a considerable and constant decrease in venereal diseases in Berlin, especially in syphilis; but that, notwithstanding this decrease, the diffusion of these diseases among the population of this city is still very extensive, 10 to 12 per cent. of the population being syphilitic. He criticised the regulations of the Sick Fund Act, and proved that they, far from producing the intended "moral" effect, only gave occasion to dangerous delay, concealment, and further dissemination of syphilis. In the further course of his speech Dr. Blaschko advocated the admission of venereal patients to all public hospitals, and declared that the inhumane treatment of such patients reminded one of mediæval prejudices. It was high time, he said, that these patients should be treated, not as sinners, but as patients.

Salophen.

At a recent meeting of the Berlin Medical Society Dr. Paul Guttmann of the Moabit Hospital recommended a new medicament called Salophen. It is a finely crystalline substance, easily soluble in ether and in alcohol, but not soluble in water. It consists of salicylic acid and acetyl-paramidophenol in almost equal parts. Six to eight grammes can be given daily without injury to the patient. In acute articular rheumatism it soon removes the pain and the swelling. Sometimes, however, it fails to produce these effects, and it does not protect against relapses. In chronic articular rheumatism also it may be tried with success. It has a slight antifebrile effect.

Death of Professor Weber of Bonn.

This eminent aural surgeon died on the 30th ult. He was the first to perform the operation of cutting the tendon of the tensor tympani muscle. This operation fell into discredit for some time, but is now performed by Kessel of Jena and Cholewa of Berlin. Another of Weber's contributions to science is his "experimental demonstration of a free communication of the endolymphatic and perilymphatic chambers of the labyrinth of the human ear with extra-labyrinthic intra-cranial cavities." A third is his treatise on the nature and curability of the most frequent form of progressive dulness of hearing. In the monthly periodical for Otiatrics (*Monatsschrift für Ohrenheilkunde*), which was founded by him in conjunction with Voltolini, Gruber, and Rüdinger in 1867, he published many of his clinical observations. He invented an ear microscope which magnifies the tympanic membrane fifteen times and enables the surgeon to see its power of vibration. He resigned his professorship at Jena in 1885 owing to delicate health, and went to live at Wiesbaden, whence he removed to Bonn.

Professor von Rothmund.

Professor Franz Christof von Rothmund, the oldest of the German surgeons, died at the end of last month, aged eighty-nine. Nussbaum was a pupil of his.

The well-known anatomist, Wilhelm Krause, has resigned his professorship at Göttingen, where he has taught for about thirty years.

Dec. 15th, 1891.

Obituary.

PROFESSOR JOHN WOOD, F.R.S., F.R.C.S. ENG.

WE announced in our last issue that this distinguished anatomist and surgeon died on the 29th ult., at his residence in Wimpole-street. For the past three years he had been obliged to give up his public and private professional engagements in consequence of a slow, but progressive, attack of paralysis agitans. He was born at Bradford, in Yorkshire, in 1825, and was the youngest son in a large family. He was educated at a private school (Mr. E. Capon's) in that town, and was then articled to a solicitor. About this time he had a severe fall and injured his hip, resulting in a permanent shortening and deformity. This accident, combined with a distaste for the law, determined him to leave the legal and to study for the medical profession. He was consequently apprenticed to the senior surgeon of the Bradford Infirmary, and studied there, until in October, 1846, at the age of twenty-one, he entered the medical department of King's College. His studentship was marked by an extraordinary and rapid success, for he obtained the Junior, Second Year, and Senior Scholarships in successive years, in addition to the Warneford prize and some class prizes and certificates of honour. In 1848 he passed the First M.B Examination at the University of London, obtaining the second place in honours in Anatomy and Physiology, and was awarded the gold medal—the scholarship being won by Dr. J. S. Bristowe; he was also placed in honours in Organic Chemistry and in Materia Medica, but he did not further pursue a University career. He became a member of the Royal College of Surgeons and a Licentiate of the Apothecaries' Society in 1849, and in 1850 was appointed house surgeon to King's College Hospital. In the following year John Wood and his friend and contemporary Hyde Salter were selected to fill the valuable posts of demonstrators of anatomy in King's College under Professor Partridge, in succession to William Brinton and Henry Lee. Salter soon gave up the teaching of anatomy, but Wood practically lived in the dissecting-room until 1870, when he followed Sir William Fergusson in the chair of surgery. It was during this period that Mr. Wood made a world-wide reputation by his dissections to elucidate the anatomy of hernia, with a view to its radical cure; by his monograph on the Pelvis, in Todd's Cyclopædia of Anatomy and Physiology, which is one of the ablest articles in that most excellent dictionary, followed by an ingeniously reasoned theory on the cause of Obliquely Ovate Pelvis, at the Pathological Society in 1856; and by his elaborate papers on Muscular Abnormalities, which he read year after year before the Royal Society from 1864 to 1868. The amount of labour involved in the preparation of these papers will be shown by a single quotation: "The total number of abnormalities in the 102 subjects is 981, of which 623 are in the 68 males and 358 in the 34 females. The number found on both sides is 623, of which 414 are in the males and 209 in the females. The number found on the right side only is 176, of which 108 are in the males and 68 in the females. The number found on the left side only is 182, of which 101 are in the males and 81 in the females, making a total of 358 one-sided specimens." In 1870 his more remarkable contribution to abnormal myology, on the "Muscles of the Neck and Shoulder," was published in the Philosophical Transactions, and the close analogy between some of these variations and the regular muscles of the lower animals was emphasised by the numerous dissections made on all kinds of vertebrates by Mr. Wood during a long series of years. He was soon after-

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wards elected a Fellow of the Royal Society, and his observations were referred to by Mr. Darwin in his argument on the descent of man. His knowledge of topographical anatomy is well shown in a paper in the first number of the *Journal of Anatomy and Physiology*, in which he corrected some erroneous opinions on the position of the heart and large vessels then current in the text-books. During the earlier part of this time Mr. Wood was teaching anatomy to private pupils as well as publicly, and nobody could excel him in the steady, careful, and painstaking manner in which he discharged his duties; and in addition to this conscientiousness, every real student was struck by his brilliancy of exposition, his skill in draughtsmanship, and his knowledge of details. Mr. Wood learnt his anatomy from the subject and always taught it on the subject, and frequently—for he was a rapid as well as an able dissector—made the necessary dissections himself for his demonstrations. No one who worked in the dissecting-room of King's College under Mr. Wood could fail to be infused with some of his earnestness. This extended anatomical work mainly led to his success as a surgeon. In 1856 he was elected assistant surgeon to King's College Hospital, in 1870 he became full surgeon, and in 1889, when his health began to fail, he was appointed one of the consulting surgeons, whilst for many years past he had been a member of the committee. He never occupied the chair of anatomy in King's College, for Professor Partridge was still alive when, on the resignation of Sir Wm. Fergusson, the vacant professorship of surgery was offered to Mr. Wood in 1871. His lectures on systematic surgery were models of well-arranged detail and clear exposition, and it was a matter of much regret among his pupils that he should have preferred a joint professorship of clinical surgery with Sir Joseph Lister in 1877 to continuing the systematic teaching for which he was so specially adapted. In 1870 he was elected an honorary Fellow of King's College, and in 1889 Emeritus Professor of Clinical Surgery, after thirty-eight years of assiduous, almost daily, work and teaching at King's College and King's College Hospital. Mr. Wood's most important contribution to practical surgery was the introduction of a special method for the radical cure of hernia—inguinal, crural, and umbilical—for which he obtained the Jacksonian prize essay in 1861, and which he afterwards published in an enlarged form in 1863. This operation was entirely based on his own dissections, and no abler and more precise account of the parts concerned can be found even in our most modern anatomical works. He gained a most extensive reputation through his success in devising and performing this operation—a success so great that boys who had been refused by the naval authorities were afterwards accepted on having had this radical cure performed on them by Mr. Wood. No one can at the present day deal with the subject of hernia without having to estimate the value of Wood's operation, and the departures from it are only modifications which are the natural outcome of the antiseptic methods of treatment now in general use. In the Hunterian Lectures at the Royal College of Surgeons in 1885 Professor Wood referred to the great success which attended the operation, not only in his own practice, but in that of many of his pupils. Professor Wood also devised and performed a new operation for relieving extroversion of the bladder with epispadias, and it was in such cases as these that his ingenuity in planning, his precision in making the incisions, and his skill in dissecting the flaps were so conspicuous. In plastic surgery he was a master, but he performed the ordinary operations of every-day surgery with rare calmness and dexterity. He always described fully the steps of every operation he performed, and his terse and clear exposition, his striking diagrams, and his mastery of anatomical detail gave every visitor to the operating theatre of King's College Hospital an unusual surgical experience. He strongly urged the use of antiseptic dressings in surgery. He largely contributed to Druitt's "Surgical Vade Mecum," especially to the edition of 1878. He became a Fellow of the Royal College of Surgeons by examination in 1854, was elected a member of the Council and of the Court of Examiners in 1879, Hunterian Professor in 1884, and vice president in 1885. He filled at various times the offices of Examiner in Anatomy and afterwards in Surgery at the University of London, and in Surgery at the University of Cambridge, and the Royal Colleges of Physicians and Surgeons of England. He had been the President of the Metropolitan Counties Branch of the British Medical Association, Vice-President of the Medico-Chirurgical and Pathological Societies, and was an Hon. Fellow of the Swedish Medical Society.

He was buried at Kensal Green Cemetery on the 4th inst., Mr. Jonathan Hutchinson representing the Royal College of Surgeons, Mr. F. G. Hallett representing the Conjoint Examining Board in England. Professors Christopher Heath, Henry Smith, Bentley, and many of his former colleagues and pupils were present.

WM. BARR BROWN, M.R.C.S., L.S.A.

THE death on Christmas Day of Mr. Barr Brown at the age of eighty-five removes from among us one of the finest examples of a class of practitioner now fast dying out. To those of his friends who have been in touch with his sufferings of the last two years his death will be more a relief than a surprise. His father was a gentleman farmer in Lincolnshire, and he himself was educated at St. Bartholomew's Hospital. In 1832 he went to Ascot, where for nearly sixty years he was actively engaged in practice. Originally a Court suburb to Windsor, it has since grown into a large residential neighbourhood. So complete was his hold on this important and extensive district that to the time he relinquished practice no one ever attempted to dispute his supremacy. It would be difficult to find a man who, over so great a space of time, obtained and retained such complete confidence, respect, and affection amongst all classes as he did alike in his home, among his patients, neighbours, or brother medical men. Though by nature and education of simple tastes and of rare singleness of mind, the great confidence extended to him by a large *clientèle*, mostly of the upper ranks in society, gave him a very extended knowledge of human nature. This, coupled with an intelligence of no mean order and an honest endeavour to be in touch with all that was practical and sound in his profession, made him prominent as a skilful practitioner, and his independence of thought and action, tempered by his kindliness of disposition and devotion to duty towards both rich and poor alike, will ever mark him as a Christian gentleman. In his earlier days he was a keen sportsman and lover of Nature, and few men fitted a horse better across country, whether riding to hounds or as a short cut to his patient's bedside. As evidence of the appreciation of his qualities and character, when about twelve years ago a desire was evinced on the part of his friends and patients to offer some expression of their sympathy and regard at a time of sore domestic bereavement, it was accompanied by a purse of nearly £1500, and this within a fortnight of the suggestion being made. It is doubtful if ever a more substantial testimonial was received by a general practitioner. Those who have had the privilege of being associated with him in his practice, and the advantage of his example as a guide, will ever hold his name in affectionate remembrance.

JAMES H. WHARTON, M.B. T.C.D., F.R.C.S.I.,

OF DUBLIN.

WE record with regret the death of an eminent Dublin practitioner, which occurred last week at his residence, 28, Upper Merrion-street, at the age of seventy-six. Mr. Wharton had been in failing health for many months past, and had resigned some appointments, but the immediate cause of his death was bronchitis. He graduated in arts in Dublin University in 1837, and in 1868 obtained the degrees of Master of Arts and Bachelor of Medicine, while in 1845 he obtained the Fellowship of the Royal College of Surgeons in Ireland. He acted for many years as a member of council of the College of Surgeons, and was elected president for the year 1871-2. For many years he was associated with the Ledwich School of Medicine, and in 1846 was elected lecturer on materia medica, and in 1858 lecturer on surgery, which post he held until 1880, when he retired. In 1858 he succeeded the late Mr. Thomas Ledwich as surgeon to the Meath Hospital, which appointment he resigned a couple of years since. Mr. Wharton was surgeon to the Royal Hospital for Incurables, to Bloomfield Retreat, Pleasants' Asylum, and a visitor in Lunacy under the Court of Chancery. He was also surgeon to the Cork-street Fever Hospital, and for some time an examiner in surgery in the University of Dublin and the Queen's University in Ireland. Mr. Wharton married a daughter of the late Sir William Brady.

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Medical News.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—Dr. J. H. Skeen, Assistant Medical Officer, Stirling District Asylum, passed the examination on Psychological Medicine held in Aberdeen in December.

LIFE ASSURANCE MEDICAL APPOINTMENTS.—Dr. Arthur T. Davies and Dr. Francis G. Penrose have been appointed medical officers of the Westminster and General Life Assurance Association.

TYPHOID FEVER IN ATHENS.—A serious epidemic of typhoid fever has broken out in Athens, traceable, it is said, to the stoppage of drains, consequent on the construction of the railway tunnel now being run under the lower part of the city.

PRESENTATION TO THE LORD MAYOR.—On the 1st instant the Master (Dr. W. Sedgwick Saunders), the Wardens, and the Court of the Borderers' Livery Company, waited upon the Lord Mayor at the Mansion House, and presented him, as a member of their body, with an address of congratulation on his attaining the dignity of chief magistrate of the city of London. The address, illuminated, was deposited in an oblong silver casket, of the Queen Anne period, bearing a suitable inscription. His Lordship acknowledged the presentation in a few appropriate remarks.

SANITARY INSPECTORS' ASSOCIATION.—The New Year's address to the members of this body was given by Dr. B. W. Richardson, who congratulated them on the position they had attained in the estimation of the public, and on the fact that the Board of Trade had permitted the society to be enrolled as one limited by guarantee, which was equivalent to incorporation. He advised the formation of a school in connexion with the society, in which physiology, natural history, the principles of hygiene &c., might be taught, and concluded by referring to the present improved condition of the public health in the aggregate as compared with that of former generations.

GLOUCESTER INFIRMARY.—At the quarterly meeting of the governors, held on the 31st ult., Mr. A. M. Sydney-Turner resigned his position on the medical staff owing to ill-health. His resignation was accepted, and his valuable services to the institution for thirteen years appreciatingly recognised. Mr. J. D. Birchall passed a high encomium on the chairman of the governors, Dr. Ancrum, stating that he had had Dr. Ancrum's portrait painted by the Hon. J. Collier for presentation to the infirmary. The portrait, a half length one, and an admirable likeness, was then unveiled. On behalf of the institution the portrait was accepted by the officials connected with the infirmary, and by the mayor of the city for the citizens.

THE YELLOW FEVER IN BRAZIL.—The *La Plata*, which arrived at Southampton on the 3rd inst., reports that the yellow fever attacked the chief steward, and also one of the firemen. Both had been buried at sea. Four other members of the crew were sufferers and one passenger, but they were put ashore, and were being treated in hospital. The *La Plata* also brought home a number of English sailors who had been left behind by their vessels through attacks of the fever, and who had been sent home by the English Consul. Reports from Santos give serious accounts of the ravages made by the fever, and the situation is becoming all the more acute because of the crowds of destitute emigrants who are flocking into the port, begging to be sent home.

PRESENTATIONS.—Mr. Richards, on recently resigning his appointment of medical superintendent of the female department of the Hanwell Asylum, after twenty-three years' service, was presented by the nurses with a valuable dressing-bag as a token of the esteem in which he was held by the donors. He was also the recipient of tangible proofs of regard from his brother officers.—Dr. Edward Bland of Sandiacre, Derby, has been presented by the inhabitants of the town and district, in testimony of their high esteem and respect, after practising there for the past forty years, with a handsome brougham, a set of silver-mounted harness, a coachman's livery, a portrait of himself, painted by Mr. Warsop of Nottingham, and a beautifully illuminated address

WELLINGTON COLLEGE.—In connexion with the question of the sanitary condition of this College a meeting of parents and guardians is announced to be held at noon to-day (Friday) in the theatre of the Royal United Service Institution, Whitehall-yard, S.W.

FOOTBALL CASUALTIES.—On Saturday, at Leicester, whilst playing in a match between the London-road Mission and St. John's (Leicester) Club, a youth fractured his leg below the knee and was taken to the Infirmary.—In a Newton Heath and Canadians match a player fractured his leg and was removed to the Royal Infirmary.

DR. E. BOTTINI, whose elevation to the Italian Senate we lately announced, and whose paper on "The Surgical Cure of Cavernous Angioma of the Cheek" (THE LANCET, Sept. 20th, 1890), must be fresh in the remembrance of our readers, lies dangerously ill of influenza at Milan. Drs. Rozzonico, Ferrara, Simonetta, and Gatti have met in frequent consultation, and their latest bulletin was such as to cause the gravest anxiety.

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.—The medical statistics of the 2351 in-patients for the year 1891 are as follows: Diseases of the locomotory system, 1936; morbus coxæ, 4; diseases of the nervous system, 306; diseases of the hæmopoietic system, 40; diseases of the circulatory system, 1; diseases of the respiratory system, 31; diseases of the alimentary system, 10; diseases of the urinary system, 5; diseases of the integumentary system, 18.

THE LATE MR. CONWAY, TIPPERARY.—Mr. Daniel Conway, L.S., L.M. Dub., medical officer of the Tipperary Dispensary, died of pneumonia on the 25th ult., contracted in discharge of his medical duties. On the previous Sunday he visited a patient at Solohedby, where it is believed he contracted the disease. On the following Tuesday night he left his sick bed to attend the same patient, and on Wednesday doctors were called in to attend him, but their efforts were unavailing, and he died early on Christmas Day. He was slightly over twenty-eight years of age.

ROYAL HANTS INFIRMARY.—A specially convened meeting of the governors was held on the 23rd ult., the object being to rescind Rule 58, which had lately been agreed to, the effect of which was, that the five members who had attended the fewest number of meetings of the Committee of Management shall retire annually, and not be eligible for re-election for one year. Some demur had been expressed to this alteration, and the Committee of Management now brought forward an amended proposal, that the five senior members shall retire annually, but shall be eligible for re-election. Considerable discussion ensued, and the committee's recommendation was adopted, adding a rider that the five retiring members should be put up *seriatim* to the vote of the governors instead of *en bloc*, which was formerly the case.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BISDÉE, A. J., M.R.C.S., has been appointed Medical Officer for the Sixth Sanitary District of the Ware Union.

BOOTH, FRED., M.B., C.M. Aberd., has been reappointed Medical Officer of Health for St. Anne's-on-the-Sea.

BRADEN, J. H., M.R.C.S., has been reappointed Medical Officer of Health for the Borough of Lewis.

BREMNER, JAS., M.B., C.M. Aberd., has been appointed a District Medical Officer of the Strand Union.

BROGDEN, J. E., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer to the Castell Caerdydd Lodge of the Manchester Unity of Oddfellows.

BROWN, F. L. H., M.B., C.M. Edin., has been appointed Medical Officer for the No. 1 Sanitary District of the Coventry Union.

BUTTERFIELD, HARRIS, M.R.C.S., has been appointed Medical Officer of Health for the Cranbrook Union.

CLARKSON, H. G. H., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Southern Sanitary District of the Pateley-bridge Union.

EVANS, R. W., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Borough of Wrexham.

FELCE, STAMFORD G., B.A., M.B., B.C. Cantab., has been appointed Assistant Medical Superintendent to the St. Saviour's Union Infirmary, East Dulwich, vice T. Fisher, M.D.

GIBBONS, H., M.B., C.M. Aberd., has been appointed Medical Officer of Health to the Desborough Local Board.

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GREEN, C. D., M.D. Lond., L.R.C.P., M.R.C.S., D.P.H., has been reappointed Medical Officer of Health to the Edmonton Local Board.

HARRISON, JOHN, L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Braintree Sanitary District of the Braintree Union.

HENRY, JOHN P., M.D., B.Ch. Dub., L. & M.R.C.P. Irel., has been appointed Medical Officer to the Blackheath-hill and Cold Bath Districts of the Miller Hospital and Royal Kent Dispensary.

JONES, FELIX F., M.R.C.S., has been reappointed Medical Officer of Health for the Llanfyllin Rural Sanitary District.

JOYNES, F. J., M.R.C.S., has been reappointed Medical Officer of Health for the Dursley Rural Sanitary District.

KIRTON, C. STANLEY, M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer and Vaccination Officer for Leigh, Essex.

LAWRENCE, ALFRED, M.R.C.S., L.R.C.P., L.M., has been appointed Surgeon to the Fever Hospital, East London, Cape of Good Hope.

NAYLOR, W. R., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Middleham Sanitary District of the Leyburn Union.

POLSON, WM., M.B., C.M. Edin., has been appointed Medical Officer for the Felton Sanitary District of the Alnwick Union.

RIDDALL, J., L.F.P.S. Glasg., has been appointed Medical Officer of Health for the Ayr Burgh, vice Dobbie, deceased.

RIDLEY, WALTER, M.B., M.S. Durh., F.R.C.S. Eng., has been appointed Honorary Surgeon to the Hospital for Sick Children, Newcastle-on-Tyne.

RODERICK, SYDNEY JAS., M.B., C.M. Edin., has been appointed Medical Officer of Health for Llanelly.

ROWELL, GEORGE, F.R.C.S., has been appointed Assistant Anæsthetist to the Dental Hospital of London.

SMITH, HENRY, M.B., B.S. Durh., has been reappointed Medical Officer of Health for the Brandon and Byshottles Urban Sanitary Districts.

SOMERVILLE, J. W., M.B., C.M. Edin., has been appointed Medical Officer of Health for Galashiels.

STEPHEN, J. S., M.B., C.M. Edin., has been appointed Medical Officer for the Morland Sanitary District of the West Ward Union.

STONHAM, H. A., M.R.C.S., L.R.C.P., has been appointed Resident Obstetric Assistant Physician to the Westminster Hospital.

SWIFT, T. C., M.R.C.S., has been appointed Medical Officer to the Foundling Hospital, vice H. W. Statham, resigned.

TABOIS, FRED. W., L.D.S. Eng., has been appointed Dental House Surgeon to Guy's Hospital.

TURNER, J. A., M.B., C.M. Edin., D.P.H. Camb., has been reappointed Medical Officer of Health for Melton Mowbray.

VIDLER, A. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of the Workhouse and No. 1 Sanitary District of the Rye Union.

WARD, J. A., M.R.C.S., has been appointed Assistant Medical Officer to the Infirmary of the Parish of St. Luke, Chelsea, vice Lift, resigned.

WILLIAMS, E., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Mold Rural and Urban Sanitary Districts of the Holywell Union.

WRIGHT, J. H., M.B., C.M. Edin., has been appointed Medical Officer of Health for the Borough of Kelso.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Resident House Surgeon. Salary £50, with board and washing.

BOURNEMOUTH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Commencing salary £100. (Apply to Mr, Honerseil, 50, Old Christchurch-road, Bournemouth.)

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, London, S.W.—Clinical Assistantship.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Resident Medical Officer. Salary £100 per annum, with board &c. (Apply to the Secretary, at the Office, 24, Finsbury-circus, E.C.)

DENTAL HOSPITAL OF LONDON.—MEDICAL SCHOOL.—Medical Tutor. Salary £40 per year.

FOLKESTONE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Medical Practitioner. Salary £200 per annum, with an additional fee for midwifery cases. (Apply to the Secretary, 47, St. Michael's-street, Folkestone.)

GENERAL INFIRMARY, Northampton.—House Surgeon. Salary £125 per annum, with furnished apartments, board, attendance, and washing.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, London, W.C.—House Surgeon for one year. Salary £50 per annum, with board and residence in the Hospital.

LONDON THROAT HOSPITAL, 204, Great Portland-street, W.—House Surgeon.

METROPOLITAN ASYLUMS BOARD.—Second Assistant Medical Officer to the Leavesden Asylum for Imbeciles, near Watford, Herts. Salary £120 per annum, rising £10 annually to £150, with board, furnished apartments, and washing. (Apply to the Clerk, Offices, Norfolk House, Norfolk-street, Strand, W.C.)

MIDDLESEX HOSPITAL, W.—Medical Registrar.

QUEEN'S COLLEGE, Belfast.—Lecturer on Pathology.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon. Board and rooms provided.

ROYAL ALBERT HOSPITAL, Devonport.—Assistant House Surgeon for six months. Board, lodging, and washing provided.

STAFFORDSHIRE GENERAL INFIRMARY, Stafford.—Assistant House Surgeon. Board, residence, and washing provided.

ST. GEORGE'S HOSPITAL, W.—Lecturer on Aural Surgery.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W.—House Surgeon to the In-patients. Honorarium £50 per annum, and board and lodging in the hospital provided.

VICTORIA HOSPITAL FOR SICK CHILDREN, Queen's-road, Chelsea, S.W.—House-Physician to the In-patients. Honorarium £50 per annum, with board and lodging in the hospital.

Births, Marriages, and Deaths.

BIRTHS.

BATTISCOMBE.—On Dec. 25th, at Sandlings, St. Mary Cray, Kent, the wife of C. G. Battiscombe, M.B., C.M., of a daughter.

CLARKE.—On Jan. 3rd, at Estcourt-road, Fulham, the wife of William F. Clarke, M.D., B.S. Lond., of a daughter.

KIDD.—On Jan. 1st, at Merrion-square, Dublin, the wife of George H. Kidd, M.D., President of the Royal Academy of Medicine in Ireland, of a daughter.

PESKETT.—On Dec. 31st, at Oakover, Burnham, Somerset, the wife of A. W. Chalmers Peskett, M.A., M.B., B.C. Cantab., of a daughter.

RABAGLIATI.—On Jan. 1st, at Walmer-villas, Bradford, the wife of Andrea Rabagliati, M.D., of a son.

ROWLEY.—On Nov. 26th, 1891, at Te-Awamutu, Auckland, New Zealand, the wife of Charles Rowley, M.R.C.S. Eng., of a son.

SEQUEIRA.—On Jan. 4th, at Arlington-villas, Fairlop-road, Leytonstone, the wife of G. W. Sequeira, M.R.C.S., L.S.A., of a daughter.

MARRIAGES.

DAKIN—LEWIS.—On Jan. 2nd, at St. Cuthbert's, South Kensington, William Radford Dakin, M.D., of Welbeck-street, W., son of the late John Dakin, of Congleton, Cheshire, to Sylvia Concanen, elder daughter of Francis Theodore Lewis, Nevern-square, S.W.

EARLE—ISAACS.—On Nov. 18th, at St. Alban's Church, Santa Cruz Mts., Jamaica, Edward Robert Charles Earle, M.B. Lond., M.R.C.S. Eng., L.R.C.P. Lond., eldest son of Edward Muirhead Earle, Esq., of Jamaica, to Lydia Isabel, second daughter of Charles Earle Isaacs, Esq., of Mount Olivet, Santa Cruz Mts., Jamaica.

GRIFFITHS—WATERS.—On Dec. 31st, at Llangammarch Parish Church, by the Rev. T. Williams, uncle of the bridegroom, assisted by the Rev. W. Williams, Vicar, John Griffiths, surgeon, Oswestry, to Caroline Sarah Winston Waters, youngest daughter of the late Dr. Waters, Waverley Lodge, Jersey.

DEATHS.

ALLAN.—On Jan. 2nd, at St. Leonards-on-Sea, James Allan, F.R.C.S., Surgeon-Major (Retired) Indian Army, aged 63.

BOWES.—On Jan. 1st, at Richmond, Yorkshire, Richard Bowes, M.R.C.S., aged 82.

BRADLEY.—On Jan. 2nd, at Brunswick-place, Brighton, Charles Lawrence Bradley, F.R.C.S., F.L.S., aged 73.

CHRISTIE.—On Jan. 2nd, at Hillhead, Glasgow, James Christie, M.D., F.F.P.S. Glasg., aged 36.

COGSWELL.—On Jan. 2nd, at York-terrace, Regent's-park, Charles Cogswell, M.D., aged 78.

DICKINSON.—On Dec. 31st, at Brook House, Uffculme, Devon, William Wood Dickinson, M.R.C.S. Eng., and L.S.A. Lond., aged 52.

GREENE.—On Dec. 30th, at St. Leonard's-terrace, Chelsea, Edward Campbell Greene, B.A. Oxon., M.R.C.S., L.R.C.P.

RUDDERFORTH.—On New Year's morning, suddenly, at Lyndhurst, Hampton-hill, Dr. E. H. Rudderforth, aged 78.

PRATT.—On Jan. 2nd, at the Willows, Wolverhampton, George Arthur Pratt, M.R.C.S., L.R.C.P., aged 29.

RUSSELL.—On Jan. 1st, at Thurles, Co. Tipperary, John Russell, L.R.C.P. Irel., L.M., M.R.C.S., aged 77.

WYNTER.—On Dec. 26th, at his residence, Winslow, Bucks, John St. Thomas Wynter, M.R.C.S., aged 83.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on January 5th, 1892.

Hospital.	Beds occupied. Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	Total accommodation.
Eastern Hospital	219	52	...	46	2	319	442
North-Western Hospital	268	35	...	15	1	319	413
Western "	96	17	...	21	1	135	224
South-Western "	209	43	...	26	2	280	340
South-Eastern "	202	21	4	80	1	308	456
Northern "	424	29	...	22	...	475	480
Totals	1418	197	4	210	7	1836	2355

SMALL-POX.—*Atlas* hospital ship, 3.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 7th, 1892

Date.		Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Jan.	1	29·82	S.W.	40	38	77	45	39	·07	Bright
,,	2	30·24	N.W.	36	35	53	45	34	—	Hazy
,,	3	30·09	W.	44	42	49	45	35	—	Cloudy
,,	4	30·05	N.W.	32	..	50	37	31	—	Overcast
,,	5	29·99	W.	29	..	..	43	27	..	Hazy
,,	6	29·39	W.	43	41	..	43	29	..	Cloudy
,,	7	29·42	N.W.	32	..	55	37	31	·11	Fine

Medical Diary for the ensuing Week.

Monday, January 11.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq., W.C.).—8 P.M. Mr. Christopher Heath: Epithelioma of the Jaws. Casual Communications The President's Valedictory Address.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. T. Churton (Leeds): Remarks on a case of Cerebral Hæmorrhage, with Demonstration of Brain.—Mr. Bruce Clarke: The Radical Cure of Prostatic Obstruction by the Galvano-cautery.—Dr. Frank J. Wethered: The Diagnostic and Prognostic Value of Tubercle Bacilli in the Sputum.

Tuesday, January 12.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

SOCIETY OF ARTS.—4.30 P.M. Mr. Ernest Satow: The Laos States of Upper Siam.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8.30 P.M. Mrs. French-Sheldon: Customs among the Natives of East Africa from Teita to Kilimegalia, with special reference to their Women and Children (illustrated by optical lantern).

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Dr. John Phillips: On Tetanus as a Complication of Ovariotomy.—Mr. Henry J. Tylden: A Critique on Recent Researches in Diabetes Mellitus, with an Original Note on the Pathology of the Pancreas.

Wednesday, January 13.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST THOMAS'S HOSPITAL.—Operations, 1.30 P.M; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

SOCIETY OF ARTS.—7 P.M. Professor John M. Thomson: Three States of Matter—Solid, Liquid, and Gaseous. (Juvenile Lecture.)

HUNTERIAN SOCIETY.—8.30 P.M. Dr. Patrick Manson: On a Method of Operating in Abscess of the Liver.—Mr. F. R. Humphreys: On a case of severe Renal Hæmorrhage after Parturition, with Phlegmasia Dolens later on.

Thursday, January 14.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Annual Meeting.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. Louis Jones: Electricity as an Aid to Medical and Surgical Diagnosis and Treatment.

Friday, January 15.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, January 16.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department 9.15 A.M.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

FEES UNDER THE NOTIFICATION ACT.

C. W. J.—Our correspondent is entitled to, and can compel payment of, notification fees in *all cases* of the diseases specified under the Act—namely, small-pox, cholera, diphtheria, membranous croup, erysipelas, the disease known as scarlatina or scarlet fever, and the fevers known by any of the following names: typhus, typhoid, enteric, relapsing, continued, or puerperal fever. Of course we infer that the Act has been adopted by the particular district. The poverty or wealth of the patients has nothing to do with the liability of the authority The notification is in the *public* interest, and the public must pay.

Dr. J. Herbert Stowers.—We quite agree with our correspondent that the method of distributing such cards is wrong and to be deprecated, and that it has an undesirable tendency to divert assistance from more desirable institutions. No doubt at the proper time the Hospital Sunday and Saturday Funds will take due note of it.

Dr. Bronner (Bradford).—The paper will appear in an early number.

THE CLIMATE OF JAVA.

To the Editors of THE LANCET.

SIRS,—In the current number of THE LANCET "Viator" asks for information concerning the climate of Java, and asks whether a stay of a few weeks would be injurious to health. From my experience of Java I should say that a visit of such short duration could not possibly injure anyone. The climate is delightful in many respects, and fairly even all the year round as regards the heat. Like most Eastern countries, it has its hill-station, which is fortunately quite close to Batavia, a few hours' run only, where there is a very comfortable hotel. Batavia is a lovely eastern city, rich in tropical foliage, as is the entire island. Samarang and Surrabaya are lovely places, luxuriant in tropical foliage and palms, but very malarious from their low-lying situations. The visitor is all right in Batavia at the Hôtel de Nederlands, where I stayed; and if it is too hot, he may run up the hill—a kind of Javanese Simla. I have travelled all through the East (India, &c.) and Far East (China, Japan, &c.), but saw nothing so beautiful in the way of true tropical scenery as is found in the Malacca Straits and Java—the home of the mangostan, the fruit of all fruits, not obtainable anywhere else, either by natural growth or importation.

I am, Sirs, yours truly,

Albion-road, N.W., Jan. 2nd, 1892. W. SHEPPERSON, F.R.G.S.

SIR W. J. MOORE'S PAPER ON "FAMINE AND DISEASE."

To the Editors of THE LANCET.

SIRS,—I shall be obliged if you will kindly allow me to correct a mistake which occurs in the report of my paper on "Famine and Disease" (THE LANCET, Jan. 2nd). Your report reads as follows:—"From the principality of Malwa alone [which should have been *Marwar*] it is estimated that one million of people emigrated, taking with them one and a half million of cattle. The anti-opiumists had said that the extending cultivation of opium in Malwa had caused the famine in the neighbouring province of Rajpootana; but the fact was that tens of thousands of human beings, and more cattle, found food in the opium-growing state of Malwa." Marwar is the largest and most westerly State of Rajpootana. Then towards the east are the Aravelli range of mountains, separating Marwar from Meywar. Still more easterly is Malwa. The similarity of these names often causes printers' errors; and the substitution of Malwa for Marwar in your report alters what I wished to say, the latter part of the "extract" contradicting the first part.

I am, Sirs, yours faithfully,

London, Jan. 5th, 1892. W. J. MOORE, Surgeon-General.

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DISTRIBUTION OF TRACTS IN HOSPITALS.

THE *Philanthropist* for January gives insertion to communications from writers who draw attention to the annoyance caused to some hospital patients by the persistent efforts of well-meaning persons to pester them with tracts and unasked-for religious counsel and admonition. On the whole, we agree with the writers, that such attempts to administer spiritual aid should be seasoned with discretion, and should be made for the most part subject to the request of the sufferer.

Inquirens.—The questions are purely legal, and can only be answered by a solicitor with the document and all the facts before him. Probably, as the matter is involved, the solicitor would have to consult counsel.

Mr. J. R. Catling.—We have no record of the death of the gentleman named.

VULCANITE DENTURES.

To the Editors of THE LANCET.

SIRS,—In the current number of THE LANCET a short article appears pointing out that in some mouths vulcanite is intolerable, though it does not insist upon the theory that it is owing to the oxide of mercury set free that this irritation is set up. I well remember when with Mr. Catlin in London that we had to make a set of teeth for a lady, when the absorption of the alveolar processes was so great that vulcanite was clearly indicated. These teeth were so uncomfortable that they were eased and eased out of all fit, and no less than six sets were made, with like result. Finally, I carved one out of hippopotamus ivory, fitting in teeth in the old-fashioned way, and this set she was able to wear, but during the last twelve months I have had two cases of intolerance of vulcanite, and in both have got over the difficulty by making gold plates. The vulcanite, being a non-conductor, prevents the natural heat of the palate—and in one case the lower jaw also—*from* diffusing, making the mouth disagreeably hot and sore, which metal plates have instantly relieved. Probably the first case might have been successfully treated in a similar manner. Vulcanite is so very useful in many cases, and especially as a cheaper base for artificial teeth, that it is just possible many might be afraid of failure with vulcanite, and, not being able to afford gold, might deny themselves these important aids to digestion. It is, perhaps, kind to let them know that these cases are extremely rare.

I am, *Sirs*, yours truly,

Nottingham, January, 1892. HENRY BLANDY, L.D.S.Edin.

Pathos.—1. The most remarkable essay on "Saline Injections in Cholera" is in Dr. John Mackintosh's "Principles of Pathology and Practice of Physic," pp. 335-371, published in 1836. In the Drummond Hospital, Edinburgh, Dr. Mackintosh treated 156 patients in extreme collapse with saline injection into the veins, using first the saline solution suggested by Stevens (an author—on the blood—of great repute in his day), and afterwards a more successful modification of that solution made as follows:—Chloride of sodium, one ounce; bicarbonate of soda, eight scruples; water, ten pounds. Before injecting the solution the fluid was heated to 166° F., and in extreme cases to 120°. The results were as striking as those in the case recorded by Dr. Richardson, to whose recent paper in THE LANCET our correspondent refers. Twenty-five of Dr. Mackintosh's patients recovered, under this treatment, from what seemed "the very verge of the grave." He took half an hour to inject the ten pounds of liquid. 2. Dr. Richardson's "automatic syringe," manufactured by Krohne and Sesemann, of Duke-street, Manchester-square, is the latest improvement in syringes for the purpose named by our correspondent.

Mr. Chas. Gayford must pass the examinations for the double diploma. Information concerning those examinations will be found in our Students' Number published in September last.

"A SUGGESTION FOR CHRISTMAS."

To the Editors of THE LANCET.

SIRS,—I have only just noticed a letter in THE LANCET of Dec. 19th, headed as above, appealing to members of the profession at home to give surplus instruments and books for the use of medical missionaries abroad. The calls upon the different missionary societies are so heavy that they are not often able to give their medical missionaries a full outfit of instruments, and often cases have to be sent away from the hospitals for lack of the necessary knife or forceps. Plenty of good work is done at these mission hospitals, as your columns from time to time testify. Only last week I heard from one missionary who had performed twenty-seven cataract operations in one week. The Church Missionary Society are very anxious that their medical missionaries should have all that is needful for their work, and I should be very glad to receive on their behalf any gifts in the shape of money, instruments, drugs, appliances, or books which any of your medical brethren may be able to send. Parcels should be sent to me at the Church Missionary House, Salisbury-square, E.C., or I would arrange for their collection in town.

I am, Sirs, yours truly,

HERBERT LANKESTER, M.D.,

Hon. Sec. C.M.S. Med. Mission Auxiliary Committee.

Salisbury-square, Jan. 6th, 1892.

ICE ACCIDENTS.—A SUGGESTION.

To the Editors of THE LANCET.

SIRS,—Each winter furnishes its quota of deaths from accidents on the ice, when many lives are lost through the needful appliances (ropes, planks, ladders, &c.) not being close at hand or obtainable in time to be of any service. My attention has been drawn to the matter by the accident at St. Helens on Dec. 29th, when the ice suddenly gave way, immersing two of the skaters. Their friends quickly attempted to rescue them, when the ice again collapsed, and six more were immersed. By the aid of ropes and planks all were rescued, though one for a time remained unconscious. My suggestion is that each skater wear a strong rope or cord, of four or five yards in length, either as a girdle around the body or as a sash over one shoulder, on which it may be fixed by a loop and button. Such a cord might be made of similar material to the worsted cord of a dressing-gown, with tassels over a cork float attached to the ends, and of various colours, to harmonise with the dress of the wearer. The skater would not find it any impediment to free action. It would be ornamental as well as useful. Two or more of such cords could be quickly tied together by a reef-knot, and the tasselled end either thrown to those struggling in the water, or tied around the body of anyone attempting the rescue, or might be quickly fastened to the end of a ladder or plank, which should always be at hand where numbers congregate to enjoy the exhilarating pastime of skating. Thus such ready, prompt, and efficient aid could be rendered by ambulance pupils and others as would save many a valuable life. I am, Sirs, yours faithfully,

Mytholmroyd, Jan. 5th, 1892. JOHN H. THOMPSON, L.R.C.P.Ed., &c.

A. E. M.—We believe an institution of the kind exists in New Ormond-street, W.C. It is named the Home for Infirm and Invalid Women, and the terms are very moderate.

A. W. H.—Our correspondent had better consult a solicitor. Any claim he might be advised to make would have to be adjudicated on in the County Court.

Nurse.—We are not aware of any such case having been recorded.

GUINEA-WORM IN SCROTAL CYST.

To the Editors of THE LANCET.

SIRS,—As a sequel to the presence of round worms in a cyst, quoted in your issue of Dec. 26th, 1891, on the authority of an Italian contemporary, I should like to mention the following facts.

Whilst Acting Colonial Surgeon in the Colony of the Gambia, West Africa, my attention was drawn to a convict in the gaol, who had a fluid swelling in the neighbourhood of the left testicle. As the skin over it was thinning, I incised it. The contents proved to be a quantity of watery pus, with much flocculent débris suspended in it, and twenty-two inches of a guinea-worm (*Filaria medinensis*). The patient made a rapid and complete recovery, the cavity closing by granulation. As is generally the case with African natives, no history could be obtained. During 1888, 1889, and 1890 I saw but a few instances of this parasite; but those were sufficient to show me that the natives well understood the method of rolling it over a small piece of stick, with a view to its gradual extraction. I never saw the point of emergence higher than the umbilicus. I am, Sirs, yours faithfully,

Devonshire Club, S.W., Jan. 5th, 1892. PERCY RENDALL, M.D.

A Surgeon would not, we think, be justified in using any remedy the nature of which was not known.

A. W. S.—Certainly; or we shall be glad to receive Dr. Jacob's own description of the distoma.

B. L. T.—The grants, like the rest of the profits, should be equally divided.

Fritz should consult his medical attendant.

INCOME-TAX ASSESSMENT.

To the Editors of THE LANCET.

SIRS,—The matter upon which "Marylebone" has written to you is not a very important one, as should insurance premiums not have been deducted from the assessment, the tax thereon can be claimed at any time within three years following the expiration of the year of assessment. But what is important is that where profits for the year ending previously to April 5th, 1891, have not reached the amount of the assessment upon which income-tax was paid, notice should be given at once to the surveyor of taxes so as to enable the taxpayer to obtain relief and refund of tax. The time for making this claim is strictly limited, and the claim can only be made for one year.

We are, Sirs, yours faithfully,

A. CHAPMAN & Co.

Income Tax Repayment Agency, 25, Colville-terrace, London, W.

ARTIFICIAL TEETH FROM A SANITARY POINT OF VIEW.

To the Editors of THE LANCET.

SIRS,—*Apropos* of your article in THE LANCET of Jan. 2nd, allow me to mention that a lotion composed of equal parts of dilute hydrochloric acid and water, applied about once a week with a dental plate brush, is very efficacious as a purifier of false teeth.

I am, Sirs, yours faithfully,

HENRY SUTHERLAND, M.D.

Richmond-terrace, S.W., January, 1892.

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COMMUNICATIONS not noticed in our present issue will receive attention in our next.

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NEWSPAPERS.—*Shanghai Mercury, Public Opinion, Glasgow Evening Times, Essex Standard, Manchester Guardian, Newcastle Daily Leader West Kent Advertiser, Local Government Chronicle, Glasgow Herald, Dewsbury Chronicle, Hertford Express, Leeds Mercury, Windsor and Eton Gazette, Scotsman, Liverpool Daily Post, Bristol Mercury, Mining Journal, Hertfordshire Mercury, Reading Mercury, Yorkshire Post, West Middlesex Standard, West Middlesex Advertiser, Spectator, Pharmaceutical Journal, City Press, Surrey Advertiser, Architect, Sydney Morning Herald, Insurance Record, Canterbury Times (New Zealand), Windsor and Eton Express, Western Morning News, Roman Herald, Brazilian Republic, Wynberg Times and South African Agriculturist, Herald (London), Preston Guardian, Waterford Standard, Mid Surrey Gazette, North-Eastern Daily Gazette, Halifax Free Press, Western Daily Press, &c.*, have been received.

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The Harveian Lectures
ON
COMMON NEUROSES, OR THE NEUROTIC ELEMENT IN DISEASE AND ITS RATIONAL TREATMENT.

Delivered before the Harveian Society of London, Nov. 19th and 26th and Dec. 2nd, 1891.

BY JAMES F. GOODHART, M.D., F.R.C.P.,
PHYSICIAN TO GUY'S HOSPITAL.

LECTURE I.

GENTLEMEN,—When your President and Council did me the honour to invite me to fill for this year the post of your Lecturer, I accepted with no more than the momentary hesitation that might be the natural physiological reaction of any surprise. And I did so because the reflection of a moment made it clear that the request came, not to *me* personally, so much as to one of the physicians, and therefore to one of the accredited mouthpieces, for the time being, of Guy's Hospital. To have declined such an invitation, however much private inclination so counselled, would have been to run away from an obvious duty, and to cast a slur upon an institution that deserved nothing of that sort at my hands. So I am here to-night relying on, and attempting to personify as best I may, my nursing mother; dear to me, as those other kindred and not less noble institutions where you severally have studied, and spent, it may be, the freshest years of your lives, are dear to you, my hearers. But having thus somewhat impulsively taken up what seemed to be a duty, I am free to confess that it was a case of "marry in haste and repent at leisure," for only when there was no escape did I realise that a matrimonial project of this sort was not to be "enterprised nor taken in hand lightly," and anxiously did my mind range the wide field of medicine for some subject that might prove not only instructive, but also attractive, at this somewhat somnolent evening hour. Ruskin has said in effect, in his "Sesame and Lilies," that in reading a book one should try to get at the author's meaning, rather than let him be interpreted by the light of our own thought. For the poet, the mystic, the moralist, I might allow this to be true, though I am by no means sure that it is so; for the books that have most taken hold of mankind have ever been those in which the author has dealt with subjects for which no language could be precise enough; and that hold has been gained not necessarily by beauty of language, though that has often been conspicuous; not by wealth of idea, though that may have been abounding—but chiefly, as I believe, because individual minds of the most varied type and depth of intelligence have each and all, in attempting to unravel the writer's meaning, unconsciously, it may be, seen in it their own experience, and interpreted it on these lines. Do you believe, by putting Shakespeare on any pinnacle of intellectual acquirement you may please, that any single brain ever had within its compass the half of the ideas that have been found by others in his plays? I believe that if we could piece together all the knowledge that from then till now has been supposed to have been put into his work, of his own purpose and intention, we should build up an individual who even at this advanced period of the nation's history would be a psychological impossibility. Shakespeare is Shakespeare, Milton is Milton, Browning is and will be Browning if you like, it matters not whom of the greatest writers of the past we take, each and all of them, great as they were and are, would yet be comparatively unknown to fame were it not that, in attempting to interpret them, age after age has interpreted itself through them. I question whether it could be otherwise. It is the natural resurrection that a great mind may expect. But let this pass. If what Ruskin says be true for the writers of books, it is hardly so for the audience of a lecturer on medicine, and I seemed to receive *my* mandate from quite another point of view, and from a very different source.

Those of you who have read "Life's Handicap," by Mr. Rudyard Kipling, will remember that in the preface—to my mind the most charming part of the volume—there is a dialogue between an old Indian of eighty years, Gobind the one-eyed, and the author, with reference to the art of telling tales. There are one or two passages in that preface, by-the-bye, that seem to bear upon medical authorship. For instance: "I write," says the author, "of all matters that lie within my understanding, and of many that do not. But chiefly I write of life and death, and men and women, according to the measure of my ability. Then, by the favour of God, the tales are sold, and money accrues to me that I may keep alive." But with more special reference to the work before me he asks, "'In what manner is it best to set about the task, oh chiefest of those who string pearls with their tongue!' 'How do I know?' said Gobind. 'Yet,' he thought for a little, 'how should I not know? Do thou this: tell them first of those things that *thou* hast seen and *they* have seen together. Thus will their knowledge piece out thy imperfections.'" And this is what I have ever found the readiest way to my hearers' attention. This is what I shall now attempt to do. I propose to give you a plain tale of my own experience, feeling sure that in so doing I shall appeal to similar experiences of your own, and I hope that the piecing-out process may prevent the time from being altogether lost. Thinking thus it was that I determined to deal with the subject of neurotic conditions, and here it was that I came across my first difficulty—the question of a title to these lectures. All titles and definitions bind one, and I want to present the neurotic element in disease to you as it has presented itself to me, and that presentation does not well allow of any than the most general definition. "Neurasthenia" would, I think, have been the most fitting term, but that in inviting you to listen to lectures comprehended by that name I feared to seem to limit your vision to massage and stuffing, which I have no wish to do. Included within my horizon are such diseases as asthma and angina pectoris, and indeed the subject is all too wide. The common neuroses of modern life next came to my mind, but some of my friends said that a title of that kind was rather too suggestive of a ticket for the play. So at last the heading stands as it does, and if it be somewhat vague, I at any rate feel that I have a free hand.

But modern life is, after all, my chief theme; and insistance upon it is one of the first points that I wish to make, for it is the very mainspring of my subject; or rather, I ought to say, of my idea of it. As year succeeds to year of life I become more impressed with the widely prevailing influence of the neurotic element in the production and carriage of disease. And it is my own opinion that it is largely more so than in former years. I shall not attempt to prove this, for I feel confident that figures could be made to do service either way according to the bias of the manipulator. I therefore simply give it as my opinion, worth no more, but worth no less, than that of any other individual who has had an equal opportunity of observing. For let me remind you, the conclusion that I had come to has determined the subject of these lectures; it was not formed after I had settled that question. If I look through my notes of cases that I have seen there is no group so large as that of the neurotic in one form or another, and I really do not think I have exaggerated this feature. I believe that insanity is on the increase; but I refuse to be confined, in speaking of mental disease, to those grosser forms that require to be committed to the hospitals set apart for such cases. Incidentally I may say too that I believe that the grit of the English constitution has lessened in robustness; and if the question—Why, then, is the average duration of life longer?—seems at first all too pertinent for the maintenance of that contention, a very little reflection will convince anyone that no great weight attaches to it; for in both cases—physical and mental death to bring both cases at once into the same line—it is more than probable that the last extremity is averted by our greater care of life at the present day, and that the average is lengthened out by the large prevention of preventable diseases. Yet men and women may drag along more self-conscious, more oppressed and weighed down by trivial ailment; less ready to step out with the spontaneity and joyous liberty and power of healthy life, so that if one man might say that to-day there is less of capital punishment there are ten men who would make answer: Even so! but there is more of penal servitude and of the treadmill.

I remember five-and-twenty years ago, when first entering

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the medical profession, that some one, I think the late Sir Thomas Watson, had given expression in public to the opinion that disease had changed its type. I was surprised to see, even at that early date of my career, how much discussion that opinion excited, and even more surprised when, after a time, it was practically recanted. I thought then, and I think still, that unless the world is standing still, disease *must* change its type, that it has changed its type, and is changing it. Some of you at any rate will remember that the discussion had already turned around the former treatment of pneumonia by bleeding and its then and present management without. And, surely, the argument in favour of a change of type on that ground was not wanting in strength. Still, I would maintain that it was not the strongest upon which the contention could be supported, for it was quite open for those who had years enough to say that the pneumonia of a former generation was in all essential features the pneumonia as we know it now, and that was indeed the line taken, and many supposed successfully so. But a quarter of a century has gone by, and almost within that time the doctrine of evolution has come into existence and has grown into robust manhood. In those days change of type conjured up the idea of kangaroo jumps from the disease of one day to that of some successive one. We can understand now, if we could not at first sight then, that no such demonstration is possible, because it is out of the natural order of things. But the absence of gross changes within the span of a century or two does not touch the assertion that disease has changed and is changing. The changes that occur are subtle and gradual—as gradual as those by which man himself must be changing, because this earth is changing, and unless he accommodates himself to his altering circumstances the man of to-day will have to make way for some other being more pliable than he. I see no escape from the absolute certainty of the conclusion based on this *a priori* consideration that disease is changing, and changing, too, in all sorts of directions in correspondence with the manifold modifying circumstances to which it is subjected. I need hardly give any illustrations of this, they are so abounding; but to show the intricacy of the case let me insist on this maxim—"No man liveth to himself, and no man dieth to himself." Apply the principle, for it is a principle, to the exanthemata; and to what we are doing in all directions both preventive and curative at the present day. It is impossible, I take it, to do away with one of these scourges or to render its reaction on the human body less severe, without the change or changes reacting to a wide extent, and probably far wider than we have any idea of, upon a number of other processes of disease which they involve in their unbridled turmoil. For instance—and there could not be a better one considering my subject,—there is many and many a home now bewailing the ravages of disease in one or other of its members relighted, or may be *started*, by quite another disease,—viz., that interesting pest influenza! I suppose there is not one of us who does not see even now almost every day some case or other that dates its initiation from that disease of now wellnigh two years ago. I think it would be difficult to say in how many ways that disease has attacked the human organism and laid it open to attack, or in how many directions its absolute extirpation would better the future of the race. I take it, therefore, that disease is changing its type not only in accordance with the changing circumstances of man and his surroundings, but also in accordance with the modifications that are produced in it in its various phases, as each or any of them are made to submit to the assaults of advancing knowledge.

However this may be, my chief point now is that man himself is changing, and if so, so must his diseases be, and I believe him to be changing chiefly as regards his nervous centres, and that these are becoming more prone to fatigue, more easily the prey of morbid sensations, of morbid thoughts, of morbid action, and so on. But I am not sure that this is so, at any rate equally so, in all the strata of society. I do not think that it is, and my own experience goes strongly to show that the stress of living tells largely against the middle classes of our world. "Liberté, égalité, fraternité" is the prevailing cry of the day; we are all men and brothers, and a savage is as good as the most cultivated man. This may be good sociology or political economy, but it is not sound physiology. There can be nothing more sure in physiology than this, that, as we go upwards in the scale of creation, so the nervous system becomes more sensitive to pain and to disturbing sensations of all sorts. There can be no doubt that operations can be performed on the lower animals without any of the precautions that are taken in the case of ourselves, and that the results are astonishingly good all the same. I think there can also be no doubt—one has seen illustrations of it so often in the out-patient room and elsewhere—that the differences that are seen in this respect between the lower animals and man are seen in a similar, if less marked, way between the lower and upper grades of society. Who does not remember to have seen, and even often seen, patients in the hospital out-patient room, desperately ill and even within a very few hours of death, yet hardly allowing that there can be anything serious the matter? I remember, too, to have seen more than once a man come to the out-patient room for some ailment confessing to nothing else than that for which he had applied, and yet on being overhauled he is found to be the unhappy possessor of some huge ulcer of the leg that would certainly have quite incapacitated anyone in the upper walks of life, but which he called "nothing." It is said that the working man cannot afford to lie up, and therefore he does not call attention to things that are chiefly an inconvenience. But this is no adequate explanation; to my mind, this would not explain the power he possesses of working under such very adverse circumstances. I feel sure that the reason is none such as this, but that it springs from the fact that the working man is generally far less sensitive to depressing conditions than those above him in the social scale; his nervous system is far less sensitive. We see the same thing in the difference in the reaction to drugs that may be seen at the two levels. Give belladonna and nux vomica with an equally free hand to the hospital patient and to the delicate lady, and we soon see the difference. It seems obvious that the one who has had to rough it has become deadened to trivial shocks of all kinds; while the other, pampered in the lap of luxury, has become cultivated into such a state of nervous erythism that the least disturbance upsets her. But more than this. Not only does the neurotic state evolve more, as I think, in one stratum of society than in others—it has its lines of special development in some occupations more than others. I wish there were time to develop this subject, for it strikes me as an important one. I have in mind the neurotic tendency as it shows itself in the clergy, in those whose occupation is to deal in stocks, in those whose occupation is our own. But interesting as this line of observation is, I must confine myself to saying that, for the most part, the clerical neurotic is irritating to others rather than dangerous to himself; the dealing in stocks seems to me to be liable to produce a state of nervous instability, such as would seem to threaten an ending in insanity of some form or other, of the frequency of which I should like to hear something from those who by their practice are more familiar with the professions as they are found in asylums than I am; and of the medical neurotic—well, I am not bound to say anything of my own cloth, so I shall leave him to your kindly judgment, more particularly as he is generally youthful and inexperienced. It is my conviction, then, forced upon me by the experience of now many years, that the maladies which owe their origin to a faulty action of the nervous system are of more frequent occurrence in practice than are even phthisis, heart disease, Bright's disease, or organic hepatic disease, though these are in no small number.

Now, as time goes on and the subject develops some will certainly raise the criticism that the seeing this element in disease largely depends upon the standpoint or the bias of the individual observer, and I shall admit this risk, but to that I shall address myself as I take up particular subjects, more particularly the treatment of the neurotic affections of the stomach. To these particular maladies we must now proceed, and I propose to divide the subject into the following groups: The common neurotic conditions which may be said to be essentially central in their whole course; those that are pulmonary; those that are cardiac and circulatory; and those that are abdominal, concerning themselves with the stomach and bowel and liver and kidney. Of those that are central it is difficult, if not impossible, to give any adequate clinical description, because concerning themselves as they do so much with subjective sensations, they are as various as the variable mental conditions of the individuals in whom they occur. But nevertheless there are certain common methods of disturbance of the healthy cerebral action; and first of these I will mention the curious

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dread that some neurotics have of going into society or into any crowded place. Ladies will come and tell you frequently that they cannot go to church because they are afraid that they will faint or that an attack of what they have generally agreed to call the fidgets will come on, and that they will have to go out. I have known this dread to take possession of men, but in them it is perhaps more often a modification of the same thing—viz., a dread or at first a disinclination to go out and see their friends, which, if it be indulged in, becomes before long an "all-overishness" at going into society of any kind that quickly converts a man into a recluse. In women there is another common phase of the same malady—viz., where the subject describes herself as turning scarlet all over. Some inborn sensation starts what is usually described as some sudden rush of blood upwards, and thus they usually describe themselves as turning colour, although I do not think that they often do. The hot sensation is succeeded by a copious perspiration, and of this sweating there can be no doubt, for I have been repeatedly told by the subjects of such attacks that their underclothing becomes quite wet.

This is a short description, but I think it embraces all the essentials of a large, very large group of cases. Now, how are they usually treated? How are they to be treated? The general plan of dealing with them is, I think, to call them hysterical, and to administer assafœtida and valerianate of ammonia. I have nothing to say against these excellent remedies; they are very good in their way, and I am not prepared to say they are not the best in these cases; but there is a right way and a wrong way of administering even proper remedies, and to offer either as a *cure*, is not the proper way of dealing with any such case as I have depicted. If we should have to do with a frightened horse that will not pass a certain spot, we do not send him to the veterinary surgeon that a bolus may be administered, but he is walked up and down before the object that disturbs him until his self-possession is regained, and he finds that what startled him is, after all, nothing to be alarmed at. So must our patients treat themselves. Their nervous systems revert to a similar state of unreason as that seen in the startled animal, and the only way to cure them is to restore their confidence in themselves. Something may be done by good nerve tonics, sometimes by sedatives judiciously given, to help them to help themselves, but clearly the only way by which they will overcome their weakness is by becoming oblivious to the conditions that are the cause of the self-consciousness and distrust. For instance, in the common dread of doing something foolish or coming over ill in church or society, the difficulty is usually surmounted by staying away, and I say that to deal with it thus is to encourage the malady. The true method is to go and do all that comes to the hand to do, and thus to learn again, that what had been thought impossible, without a catastrophe, is accomplished without any ill result. It is constantly impressed upon us that all this has been done, and without avail; that the patient has struggled against the feeling and has been unable to overcome it, and this is supposed to be an argument against the advice that has been given. But it is nothing of the sort. There are hundreds of neurotics who fight and struggle and try not to give in, who are really consuming themselves in the bearing, and who are all the time by so doing kindling the flame of their neurosis by encouraging their self-consciousness. Surely this was so in a young lady I saw the other day, whose mother remarked to me that her daughter was the most absolutely enduring creature that was ever known. This lady little knew my inward response; that she who goes about the house with sweet resignation set upon her face is ofttimes one of the most incorrigible of neurotics. A neurosis is best treated by the cold shade of neglect. Moreover, to struggle against a feeling you cannot help, and to call yourself hard names for being overcome by a distressing feeling that was none of your own invitation, is equivalent to flogging the frightened horse, and the result in both cases is the same—the state of panic is made worse. The best way of meeting these ailments is to allow to the full the misery that they cause to the individual, but in doing so to insist (1) that they are always transitory, (2) that they are purely subjective and not perceptible to others, and (3) that they never do any real harm or mean any organic disease. As I have said, unconcern at their approach and during their course is the certain cure; but, alas! I must add, even so, that the remedy is easy to preach but difficult to put into practice. Remember, though, that this difficulty does not alter the certainty of the facts.

Next there comes a large group of cases where the morbid sensation is chiefly confined to the head; there is either headache or a clawing inside the head. Some will say their brains feel as if their top storeys were converted into wool; others, again, suffer from what, according to their own descriptions, appears to be a species of mild explosion sensation within the skull; and then there is the very large group of cases that come for noises in the ears. It is perhaps seldom that one sees a typical case of Ménière's disease, but regarding Ménière's description of auditory vertigo, as I do, as a *type*, in the same way as I shall by-and-bye insist that Raynaud's disease and exophthalmic goitre are also of a large group of symptoms, the tinnitus aurium and deafness form the very commonest of the neurotic ailments which come before the physician in his daily work. But someone will perhaps say, Why call this a neurosis? It is a definite affection due to irritative or destructive lesion in the semicircular canals. So it may be, but I am none the less very much concerned to insist that the disease as I know it is very seldom, indeed, if at all, a simply local disease, and it is nearly always found in those of markedly neurotic constitution, either of themselves, or more often, I think, as regards their family history. For instance, this case comes before me: A lady of my acquaintance suffered for years from noises in her ears, which could only feebly be kept in the background of her mental activity by constantly keeping a musical box going. What was her family history? Her brother was in an asylum for some years before his death; another member of the family suffered from harmless delusions, and passed into a state of senile imbecility out of proportion to his years. And this does not tell the half of the neurotic strain in that family, for beyond the gross departures such as these there runs through all the members an indescribable eccentricity such as cannot be put on paper, but which is nevertheless very real and obvious to those with whom they come in contact. Here is another case of a gentleman of sixty-three years who was under Sir William Gull many years "for the nerves of his head." He says that his mother suffered greatly from "bile," and was always under the doctor; a history that I shall by-and-bye contend shows a vice of the nervous system! He has had good health, but every now and again, with complete freedom between the paroxysms, there will come a roaring in his head which he describes as a mill stream going inside him, and he staggers about as if he had been drinking, and he will also occasionally see double.

In another case you only want to look at the man to see that he is liable to nerve-storms of all sorts, for his head goes almost to a point at the forehead, and his whole history is that of a highly neurotic man. He is all right away from business, which is a large one, and in which he has much to do with figures. He had been to an authority, who told him he had a weak heart, which nearly finished him with fright. He appears to have rebounded in consequence into the chair of an ear doctor, who told him he had Ménière's disease, and I suppose that, finding himself between the devil and the deep sea, he came to me for consolation, which I gave him. Once more, as showing that these cases form a large group and have relations with other neurotic states, I note the case of a man of fifty-four, in whom in association with the noises in the head and ears there come on from time to time attacks of faintness, in which he flushes up, his veins stand out, he gets a little giddy, and he breaks out into a profuse perspiration, his account being quite like that of the woman so much more commonly seen with flushings to whom I have already alluded. The attacks in this man, although one cannot but think from his whole demeanour that they are subjective entirely, are nevertheless clearly very real, for they compel him to sit down wherever he may be until they have passed off. Of twenty of these cases taken from my note-books one only had evidence of local ear disease, and all were people whom I should call very nervous. I may also note in favour of a central origin that these symptoms certainly in the large majority of cases are paroxysmal in their occurrence at the onset, and may remain more or less so to the end, for many people will tell you that they get better or worse according as their general health is better; but the tinnitus very generally tends to become confirmed into persistency as years go on. Again, as pointing in the same way, according to my experience there are two classes of cases, the one that makes no more than an inconvenience of the malady; and in these, although it is a serious and, indeed, a dis-

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tressing affection, it does no harm; in the other it is ever present, is nursed, so to speak, and brooded over, and day by day a greater degree of mental wretchedness is produced, until, if not actually insane, the sufferer becomes very much of a mental wreck.

This leads me on to a somewhat different condition, but as regards results a closely allied one—I mean insomnia. Now what is sleeplessness? I have in former years described it as a bad habit of the nervous system, and so it is in most cases; but it is also more, for if we go into the history of this trouble we almost always find that it can be traced back to parental tendencies in the same direction, while it is also one of the commonest forms of the manifestation of nervous fatigue and breakdown. There is therefore ample evidence for regarding it as a vice of the nervous centres. Yet I hold that it is a vice that is too often detrimental to the patient simply because of an inability to rise above it. It is very much with the sleepless as it is with the subjects of Ménière's disease; for if we look at the subject from a physiological point of view there is nothing so very harmful in sleeplessness. There are plenty of people going about who sleep no more than three or four hours; there are many more who are the lightest of sleepers, which means that they wake many times in the course of the night; and those of either class would not dream of considering themselves out of health. They go about and take little heed of what is really not the normal state of things. They take their sleep in snatches, like the heart, and do fairly well upon it. But as soon as we get it on the brain that the sleeplessness is a serious matter, that it indicates serious nervous weakness, and that it will end sooner or later in insanity, then it becomes a very serious thing indeed. Then it is that it does become a dread, and every returning night becomes a hot iron entering into the soul, for it is met with the closed teeth of an expectation that will certainly be fulfilled. It is thus I think that the patient tosses about and arises in the morning in such a dilapidated condition. "I am sleepless, I am sleepless" is the night-long refrain; whereas a dominant thought of this kind should be neutralised by its antagonistic one: "This is very unpleasant, but what does it matter?"

I pass naturally from such subjects as these to others that are still more purely of mental origin. There are many of these that give much anxiety to individuals, and for which they come to the physician to be reassured. A large number come because they are losing their memory, or think they are; others come because, comparing themselves with some others of their acquaintance, they think they cannot do such and such things as well as their wont was, or as well as they. Others, again, there are who have time-honoured fits of the blues, and very curious is the persistency of the idea with which the patient is ofttimes possessed. One of the more recent cases that have come before me was a young man who, although he had been assured that there was nothing the matter with him—that is to say, no organic disease,—and although he professed to have a thorough belief in his doctor, nevertheless came for another opinion, because he was certain that there *must* be something the matter because he perspired so much. I talked to him for some time and carefully went over all his organs, just to satisfy him that everything had been done to make certain that there was no disease. But I feel sure that I made little real impression upon his mental condition, for it is the habit of these patients to be a little more cheerful while they are talking to the doctor, but to speedily relapse as soon as the sound of his voice has passed away. Of other common complaints I have jotted down these: headache, pains in the back of the head and dreadful depression at the top of the head, a sensation of going out of one's mind, inability to concentrate thought, fits of absent-mindedness, clouds of depression and sleeplessness. Pins and needles and numbness claim another large group of victims who die daily in imagination of paralysis; others come because their hands shake, others for fainting fits, others for a feeble circulation. Another group is formed by people who come and tell you that they are hardly ever free from pain. There is an instinctive dislike in most of us, when a person complains of pain, to say there is no disease; and it is necessary in such cases to be very careful that we do not let an idea run away with us. Nevertheless, I think that it must be admitted that there are a fair number of people who are always in pain, and who yet have no disease. I have several times had people make this complaint to me, and I have come to the conclusion that there are some people in whom the ordinary processes of life are conducted with pain, and yet without organic disease. A large number of such seem to affect uterine disease, and find their way into the hands of the gynæcologist; some as having ovaries, others as having flexions, others as having a general lassitude and dull dragging backache, and other ill-defined pains about the pelvis and lower extremities. Another large group affect spines, and lie on their backs for months, and lead their friends and their doctor a fine dance, unless some dire necessity steps in, and, by taking them out of themselves, changes the current of their lives. It may seem hard to say that such people must learn to bear their pain, but so it is. Herein is one of the mysteries of pain—there is no standard by which to gauge it. In the abstract it is part of the common lot of man, but there is nothing that is less common between you and me. What is agony to you may be a mere fleabite to me; and it is obvious, I think, as indeed I have already indicated, that in its higher refinements it is a product or development that marches with the march of the keen nervous susceptibilities of modern life. I cannot believe that pain plays upon the same number of strings in the lower animals as it does in man; I cannot believe that pain conveys the same sense of suffering to the savages of equatorial Africa as it does to our country labourer; I doubt if pain is the same to the country labourer as it is to the working-class toilers in our large industrial centres; I cannot believe it is the same to these as it is to the higher grades of society. And if there are these differences, as I think there must be, so there must be differences between individuals, and inasmuch as I can only judge of your suffering under given conditions by what I have felt myself under such circumstances as happen to have been most similar, we have no common ground, or next to none, and we must therefore deal with pain in the main upon Nature's great principle of strength sufficient for the day. We talk of *treating* pain; but if we think about it, how large a part of physical pain, and all the greater pain of mental anguish, has to be borne. And if this indeed be Nature's law, as it appears to be, that the larger part by far of the sum of human pain is thus without remedy, there can be no unkindness in anyone if he should say that the best cure for many a lesser pain is to learn to bear it. And so it is. The very effort is a tonic with which no drug in the pharmacopœia can, all round, compare; while every potion is a submission to circumstances which, when the next call comes, will necessitate a stronger dose. "The weaker a body is the more it commands; the stronger it is, the more it obeys." I am afraid I am hardly making my meaning clear, but it is this: that pain is, after all, only one form of morbid sensation. I am not sure that it can rightly be called morbid in many cases seeing that it is so often but the fag-end of pleasure. Why, then, should we fly at once to deaden pain by opiates and sedatives any more than we should apply to the same source to relieve some other unusual sensation, such as, for instance, some slight itching of the skin? An intolerable itching we should all agree to try to stop, because it is out of the common, and when controlled one may hope, or even confidently expect, that it will not reappear; but a slight irritation of the skin is so much the lot of all at one time or another that we take it as one of the daily vicissitudes of life. Why do we deal with the slighter forms of pain, as, with some exceptions, I think we are too much in the habit of doing, in a different way? I believe the reason to be that which I have given—that we have no gauge for the degree of pain, and because the advice to grin and bear it is too likely to be resented, unless it be presented with tactful modulations, the power of which we do not all possess. The truth of what I am saying is illustrated well by perhaps the most homely ache that we possess—viz., toothache. He would be a very unwise physician who for every aching tooth advised extraction, because we all know well that a bad tooth will often ache as a barometer of fatigue or worry or ill-health. A dose of quinine, a dose of rest or sleep, sends many an ache of this sort away; while I suppose you must all remember similar cases to the neurotic lady I saw the other day, who, refusing to accept advice and wait for the action of such remedies as these, insisted on having her tooth out, and then came back to me with her ache far worse than it was before.

Now whatever may be the common practice with each of us, it is quite certain that such cases as I have mentioned

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of general aches and pains are made worse by treatment directed only to relieving their pain or abnormal sensations. I will go further, and say are certainly ruined by such treatment, and they are as certainly relieved somewhat, we cannot say by half as much as we could wish oftentimes, because their ailment is the result, one might almost say a part, of their being by other measures. Job's comfort this some will surely say, but I reply that to recognise the reason of a thing is always the first step towards any real cure. And let me enforce my remarks on this head, and perhaps help to make my meaning still clearer, by alluding to another common group of cases. There came into my room one day a year or two ago, on one of the hottest of summer days, a young Cambridge graduate, of whom I had previously heard that he was a martyr to his ill-health. From what had been told to me I was not altogether surprised when a dark-haired, pale-faced, nervous man appeared upon the scene, cloaked in a thick inverness cape and with his collar turned up. But I was surprised, when peering slowly round the room, he espied a window open by a hair's breadth, and immediately asked leave to shut it. This in the middle of summer, mind you. My wonder grew, too, apace as he next proceeded to divest himself of layer after layer of apparel; first his inverness, next his coat, then, I think, more than one waistcoat, a linen shirt, a flannel shirt, a Jaeger, and last of all a chest protector. Can you wonder that he had developed a subserviency to what he was pleased to call draughts and chills, that made his life not worth the living? This poor fellow was leading a wasted life, for he had given up, or deemed himself unfit for, the occupation he had wished, and why? Because, so far as I could find out, he had been nursing his neurotic tendency until he had become a perplexing and anxious burden to himself and his friends. A straight talk on the elements of physiological knowledge came as a revelation to him; so much so that I was enabled to induce him to leave my room without his cape on, though how soon he went further than that I have not been privileged to know. But, at any rate, I hear that not long after seeing me he went to the tropics; has lost all his weakness, and become quite a new man. He is now married, and rushes about, and does anything like an ordinary mortal. But the main point is, How came he to this pass? And I hope I shall not be considered uncharitable in attributing something of the bad result to a want of vigour in the professional advice he had been receiving all these years. We are many of us much too afraid of giving advice to patients that we think they will not like; and in being so, a poor neurotic slides on, year after year, and, only too likely, becomes eventually a wreck at the hands of the profession which should have saved him. And if you doubt it, think only for a minute of the many women who are only too ready to think they have a spine. There is a halo of sanctity attaching to the spine, such as never has been thought of for the skull; and I really believe there are some who regard a weak spine as an evidence of distinction, they nurse it so long, and even in after years still seem to regard its former achings with such affectionate, if not regretful, tenderness. Well, now, I doubt whether there be such a disease as neuralgia of the spine; but no doubt the difficulty lies in distinguishing between the early stages of spinal disease and the mere achiness that is best treated not by rest but by distraction. This must be so, for I could show you a man now who has been cauterised all down the spine, who has had a running sore made and kept open for weeks, who has been roaming the wide world under "the best medical advice," but who has never had a whit the matter with him save a bad set of nerves, and who has been practically well since I told him so.

The next condition that requires mention is a very common one, and I can describe it no otherwise than as simple fatigue. This is of course a vague sort of symptom likely to lead for that very reason to important errors in diagnosis. I feel constrained to dwell upon it because there is no other class of ailments that I find more difficult to make the public understand than this. "I am always so tired," say these men and women, but more often the latter than the former. "I am tired when I get up in the morning, and tired all day, and yet I cannot say that there is anything the matter." Nor is there. "It is better," says the autocrat of the breakfast-table, "to lose a pint of blood from your veins than to have a nerve tapped. Nobody measures your nerve force as it runs away." I suppose that anyone here could give notes of several such cases—people easily knocked up, and yet without any discoverable disease. In such cases it behoves us of course to be very careful not to overlook anything, and it is as well to give several examinations if there be any doubt; but they pursue the even tenour of their languid way too long for serious disease, and the feeling of fatigue is part of the order of their being. These cases all have this other feature in common, that they are neurotics. Let me note the salient features of two or three of such cases. One is a man aged forty-four. He has had rheumatic fever, which in itself is enough to constitute a man a neurotic, for its whole history betokens its affinities. He was in business, but gave that up, and now is a farmer, but he cannot work long. He is not short of breath, and his appetite is as good as ever it was; but he is always tired, and he says he could not walk the ten minutes to his farm if he were given five pounds to do it. In another case it is a woman, again with a history of rheumatic fever, but with no disease. She is a lady of a decidedly intellectual turn, but she declares that she never has any energy for anything, and her daily duties in her house are a regular burden to her. Another case is a young lawyer whose father's family he calls a decidedly nervous one, and his mother is very gouty. He has had indigestion and a liver for twenty years, and wakes up with a coated tongue (I wonder who wakes up with a clean one?). Of late he had lived in the country and had had a lot of exercise, and had been better, but then he got the influenza, and since then he had felt weak. He came to me because, as he expressed it, he was so dead tired from the time he got up in the morning till the time he went to bed at night. He was quite free from disease as far as I could make out, he was not wasting, and I attributed all his ailment to the fact that he was hard at work from nine till six, that all his vital energy was thus consumed, and he had none to give to his muscular system. Now I hope I shall not be understood to say that all those who complain of fatigue and inability to do their ordinary day's work are neurotic. There are of course many causes of muscular fatigue; the man who habitually eats and drinks too much may feel the same lassitude, the habitually constipated the same, the man with an excess of uric acid in his blood the same; but, deducting these and all other causes of muscular malnutrition, such as acute blood poisoning and the like, I will still maintain that there are a large number of people who come complaining of this symptom for which the most probable explanation is that their nervous flow is not produced in sufficient quantity to suffice for the needs of the various organs that require it. There are some who generate enough, but they distribute it unequally, or, rather, the consumption by certain organs is prodigal. The brain holds debenture stock of this investment, and so those who tax their brains unduly, whether by work or worry, are very likely to experience this feeling of fatigue, because their muscular system has not the requisite supply of energy wherewith to make it go. On the other hand, there are others who make little nerve force at the best of times, and although their brain power never shows above mediocrity, or something lower, they yet suffer in the same way as those more highly endowed, but at an altogether lower pressure along the whole line. I shall have to utilise, and I think enforce, this explanation, when I come to the subject of indigestion; but in the meantime I may gain some support for it from another set of cases perhaps similar and only more pronounced, and of which some of you must have seen examples. I mean the curious conditions of complete nervous collapse seen now and again after severe mental strain. Here is such a case. A clergyman aged forty-six, the incumbent of a London parish, first began to have peculiar attacks some three or four years ago after very hard work. He would be suddenly seized with numbness in his hands, his nose, tongue, and mouth, with violent pains in his knees, a feeling as if he were going to die; then a violent fit of crying would come on, and this was succeeded by a sleep of eight or ten hours. He had been well for many months, and, indeed, till just before I saw him, when he had a sudden return of not quite similar attacks, in which *breathlessness* was the chief symptom; but he also had the most acute pain in the right arm, and fainting afterwards, he thinks, from sheer pain. I saw him two or three times, and could not make out much. I never was quite clear about the nature of the attacks; no medical man saw them, and I was therefore obliged to take the statement of the

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patient and of his wife; and the latter described them to me as a mixture of cramp and hysteria, but that they ended in a state of complete exhaustion and drowsiness, and he only slowly regained his strength. I thought at one time that they might have an epileptic taint about them, but I do not now think that such was the case.

Another case was that of a younger man who had always been subject to headaches, which had of late been on the increase. He had had a great deal of worry before the attack I am about to relate, and, his headaches being worse, he was taking a few days' holiday. When out for a ride he suddenly became quite dazed; he found his way home, or his horse took him, for he was not conscious of where he was, and his memory for that period was a complete blank. He slowly came to himself, but was confused till the next day, and when I saw him so late as six days afterwards he still felt stupid and his head heavy. Except for his headaches he has remained well ever since.

Another somewhat different case is as follows. A surveyor of thirty-six years, whose father died of diabetes, while out with the Volunteers one day in August had a sunstroke. In passing I may remark that a sunstroke must be a serious thing, quite apart from the causing hyperpyrexia, for I have seen certainly five or six cases where it seemed to be the starting point of a number of morbid nervous actions. He had never been well since the sunstroke, he had had vertigo since then and curious sensations at the back of the head. Not long afterwards he fell some twelve feet through a trap-door, and this greatly prostrated him. I could make out nothing except that he had a slight buzzing noise in his ears; but he spoke slowly and in a depressed manner, and all his reflexes, knee and wrist, were exaggerated; and his urine contained sugar in small quantity.

Last of all of this class of cases I would take that of the woman whose attack may begin in a variety of ways, either by an attack of colic or seeming colic, or by violent pain in the side that is referred to the heart, but in all probability not correctly so, or, it may be, by some indescribable feeling of illness; but each and all of these are followed by what can only be described as a state of complete exhaustion. Often have I been called to such cases, and found that the medical man in attendance has been sitting with the patient for hours, perhaps all the night, because he was afraid of sudden dissolution, and the heart is the organ that is supposed to be failing; whereas the truth of the matter is that the heart is perfectly sound, and if one may venture to form an opinion after the crisis is over, I do not suppose there has at any time in the progress of the attack been any danger of death whatever. I cannot think that this is a form of neurosis that receives adequate recognition; and I believe the real nature of the malady is often overlooked because the household is in a panic, thinking the trouble one of the heart, and the medical man not quite sure that there may not be some real disease, and not wanting to make a mistake, first for the sake of his patient, and next for his own reputation, acts on the side of caution. There is no danger in these cases; they only need, they and the friends, who generally cause most of the mischief, a decided assurance by the doctor in a tone that shows to them that he knows what he is talking about, that the patient will soon be all right. A little valerianate of ammonia or bromide of ammonium and sal volatile complete the cure.

One other group of this sort I must mention, although it has been so often talked about that there is no need to say much. It comprises the large group of cases born of anxiety for the supposed want of virility, or rather for the loss of health that is supposed to accrue from the too frequent involuntary excitement of the sexual centre and its natural physiological consequence. I do not know who coined the word spermatorrhœa, whether it was a quack or an honest man, but I do know that it figures as a disease on the nomenclature of the Royal College of Physicians, and that there are surgeons of repute, physicians also, perhaps, for aught I know, who still make use of the term, and who treat what they consider to be the disease. There is no such disease, and the occurrences that are supposed to indicate its existence are natural and physiological, the absence of which in some degree would be evidence of feebleness or of ill-health; and the more or less of which is the subject of much variation within the range of health. And I have this to say about seminal discharges, that they are troublesome or complained of in two classes of persons—the very muscularly strong, and in such as work hard and in consequence run into a state of nervous erethism. In either case a continent man is likely to suffer more in this way than is natural, but this is not to say that it is a disease that requires to be treated; it may be allowed to be a matter that admits of one visit to a doctor, but by him it is to be relegated to its proper position in the individual's mind by a short lecture upon the most elementary physiological principles.

Allied, again, to these cases of prostration comes another group, characterised only by emaciation. And here again one has need to be very careful not to overlook anything. But there can be no question that nervous exhaustion, or breakdown, or whatever we choose to call it, is capable of producing the most extreme wasting, quite apart from the existence of any disease. The most extreme instance of this that I have ever seen was in the case of a young man whom I had already known some ten years or more, and who was much given to worrying over trifles. Some sixteen years ago he walked into my room one day, and in doing so produced an electric sensation throughout me which I have never forgotten, for I could not get out of the idea that I had shaken hands with a corpse. He was an absolute skeleton, and his little wizen face had that peculiar appearance of the skin of the forehead that gives the idea that the skull is showing through it. Well, I examined him with the utmost care, and I could find no evidence of disease of any kind. I think that is good evidence that there was not much wrong, so far as gross disease was concerned, for in those early days I fancy that the errors we commit are not so much those of omission, but we often find diseases that have no real existence. Well, I could find nothing, but I did not nevertheless give up my opinion that had consigned him prematurely to the grave. I could not find anything, so much the worse for me; not the better for him. I still held to the idea that, concealed under the thin skirts of his fleshly covering, there lurked a something that was gnawing at his vitals. Indeed I believe I came the nearest I have ever done to believing in the popular notion, that perhaps he had a tapeworm. But in supposing that this man had some hidden disease that could not be discovered, I had overlooked the power of the disordered nervous system to produce the symptom that had alarmed me so much. I realised it afterwards to the full when week after week, sometimes day after day, he would come and talk by the half hour of his ailments, till sometimes I think my visage must have caught the reflection of the sickly light that shone so plain in his. However, his worries wore off, and his business, which was a harassing one, prospered, and his flesh came again to him, if not like the flesh of a little child, yet with sufficient plumpness for his needs, and that man is alive and well to-day. I could give you several others of like kind, if not quite so extreme in degree, but I have not time; but there can be no doubt about the influence of the nervous system in modifying nutrition in this way, and what is more, it is one of the most interesting subjects in the whole range of medicine and physiology. We talk about diet influencing the nutrition, and we diet fat people to make them thin, and thin people to make them fat. But I have never heard of this experiment being carried out yet: the taking twenty consecutive cases of obesity, treating them on the same plan, and publishing the results, and doing the fattening process on the lean kind in similar way. We hear of Mr. So-and-so's diet as a good thing because it has reduced one or perhaps two people, but I make bold to say that there is no diet that has ever been suggested that has not failed, and failed absolutely, in many more cases than it has ever succeeded in. There are some people, ay, many, whom you can never make thin, and there are many people, and those usually, and here is the point of its introduction here, of a nervous temperament whom, do what you will, you can never make fat. I see children, for instance, who are brought to me for an opinion because they are so thin; they are always eating, and yet never do any credit to their victuals, and they are fed up and made to take cod-liver oil, and maltine, and all the latter-day fatteners. But these children are always twitchy, half choreic, or excitable; and they belong, for the most part, to the nervous temperament. No good is done by stuffing them; on the contrary, their urine becomes loaded with solids, their intestine fails to digest properly, and they have repeated bilious attacks. Put them on an ordinary diet, perhaps rather a spare one, and plenty of water to drink, and though they do not get

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fat they keep in much better health, and indeed they cease to give much anxiety to their parents.

And now that I am on the subject of children in this regard another condition comes to my mind that is very common: it is a neurotic condition, and one that is not fully apprehended in many cases. I allude to the pyrexia that is so often produced in young children by falls on the head, or blows of any kind in that region. It is quite common to be called to see a child who has been quite well till a certain day, when it has had an injury to its head by a fall or what not; and thereafter it has, within a day or two, become feverish, and in consequence the onset of meningitis is feared. I have seen cases of this kind repeatedly, and they have always seemed to be of considerable interest, because they may point to the injury of some heat centre or regulator. But I do not think this explanation is so probable as that the injury to the head leads to disordered nerve control over the viscera, which elaborate the blood and depurate it of effete matters, and that in consequence the pyrexia is a direct result of this faulty action of the viscera. And I believe head injuries of this kind are capable of inducing even definite disease in this way. For instance, some three years ago I saw a little boy of two years old who had been quite well. He had a fall on the 5th of the month. On the next day he was quite well, but on the 7th of the month he was very sleepy and wanted to stop in bed. He was seen by Mr. Stokes of Blackheath on the third day after his fall, and he then had a retracted neck, had vomited once, and he was still very drowsy. When I saw him his temperature was 101°, his pupils active, no intolerance, and I regarded it as one of the cases I am discussing. He remained in the same drowsy, irritable, indefinite state for a fortnight, and then slowly developed into a case of apical pneumonia that came on very slowly and obscurely, and which ultimately got quite well. Am I because of the result to alter my opinion of its cerebral origin and say the fall had nothing to do with the attack? Had I seen no other similar attacks I might be inclined to think so, but having seen many of somewhat similar character I stick to my guns, and I really believe that injuries to the head are quite capable, by interfering with the control power of the nervous centres, of leading to disordered function in the first instance, and in the second to such pronounced organic departures even as an acute pneumonia. I doubtless speak to those whose experience can supply other cases to which a like explanation would be not inappropriate. And here I must close for to-night with the remark that it often strikes me when dealing with such conditions as I have spoken of how intimate is their connexion with pronounced insanity. It is a happy thing that one can say for certain that such conditions as these go on for many years; but many of them pass out of notice, and we do not have the opportunity of seeing the result, and one cannot but think that in some of them, at any rate, one must see the beginnings of insanity; and in some of them, probably, the incipient stages of that most terrible of all its forms, the general paralysis of the insane.

THE BEARING OF RECENT BIOLOGICAL RESEARCHES ON THE PRACTICE OF MEDICINE AND SURGERY.

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(*Continued from page 79.*)

WHERE there are no lesions of epithelial surfaces, and where the tissues are moderately healthy, bacteria cannot invade the body; or, if they do find their way in, they are killed off, comparatively rapidly. Accepting this statement, we are still confronted by the fact that patients, especially those treated in our large hospitals, are admitted because they are suffering from such lesions; in addition, from the very fact that they find it necessary to seek hospital shelter, they are often ill-clad, overworked, and badly nourished. Their hygienic surroundings are none of the best, and these acting on a weak constitution have further impaired any general vital powers ever possessed by them. (It must be remembered, however, that in this process a certain immunity by acclimatisation may have been acquired against some forms of disease, although the susceptibility to others may have been materially increased.) Such are the patients for whom antiseptic surgery was originally introduced. Their tissues were not able unaided to combat, the many micro-organismal agents found in our badly ventilated and often permanently infected wards before the system was introduced, and for such, in some form or other, it still remains necessary.

All will admit that patients in perfect health before an accident, if operated upon and kept under good hygienic conditions, supplied with good food and plenty of fresh air, will make a good recovery without excessive, or perhaps with a complete absence of, suppuration, and with no symptoms of pyæmia or even of septic absorption beyond a rise of temperature with other indications of a slight febrile condition. In a similar patient a large accumulation of serous fluid—in the chest, say, or of synovial fluid in the knee, or a mass of bruised and dead tissue—the result of a blow—may be slowly absorbed without the slightest trace of putrefaction or septic change being set up. Should, however, any dust from without or any dirty instruments be introduced into these masses of devitalised tissue, inflammation and more or less severe suppuration are at once set up, and an empyema, a purulent synovitis, or an abscess may be the result. In a weakened or anæmic patient with an open wound or with an accumulation of serum, an extravasation of blood or a mass of dead tissue, most of the conditions favouring septic mischief are present, and as he is placed in a ward with other patients, breathing the same air, dressed by the same hands, and operated on with the same instruments, the risks of septic mischief are enormously increased unless the strictest antiseptic precautions are taken (1) to remove any dead tissue on which the organisms might feed; (2) to prevent the access of micro-organisms to the wound or dead tissue—(*a*) from the cutaneous surface, or (*b*) from the lungs or alimentary canal; (3) to put the tissues under the best possible conditions, so that the phagocytes (or the blood serum, or both) may manifest their special protecting powers—in fact, to allow of what we call the healing power of nature to come into play; (4) to remove from the region of the patient, from dressings, and from instruments all organic and other matter which might possibly harbour putrefactive or septic germs. These I was taught by Lister (although he never spoke of phagocytes) to look upon as the main factors in the antiseptic system of treating surgical cases. Although the methods by which these ends are to be attained have necessarily been modified from time to time as experience has indicated fresh difficulties and suggested better means of obtaining the desired end, and although the kind of antiseptic used may have been altered (not always improved) as experiment and experience seem to have indicated certain advantages to be gained by the use of one or other reagent, the above principles as enunciated by Lister still remain unaltered, and I may be allowed to speak of some of these points.

Of the removal of dead tissue on which the organisms may feed it would at first sight seem unnecessary to speak; this has been so fully insisted on by even those who, "having no faith in antiseptics," all of whom acknowledge the necessity of carrying out this part of the system. The older surgeons, than whom none were more careful in observation, had a horror of all sloughs and dead matter in their wounds; and though many of them were delighted enough to see "healthy laudable pus" (healthy because it showed that the tissues were reacting, and were doing their work of localising the mischief as far as possible), they were glad enough to get rid of it. All accumulations, such as those above mentioned, necrosed bone and the like, once exposed to the air were removed as soon as possible, and even those that were not so exposed were frequently removed by incision or excision. It is now known that these, in weakened and unhealthy patients especially, were sources of danger, because decomposition changes were set up in them by the septic or other organisms which found their way to them, either directly from without through the broken cutaneous surfaces, or indirectly through diseased mucous membranes, and thence conveyed by fluids and cells deprived of their healthy or normal activity.

Let us take the case of puerperal fever, which is now recognised as resulting from the absorption of septic material from the cavity of the uterus. Under normal conditions

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where the placenta is thoroughly detached, and there is no great hæmorrhage, the clots are soon removed, the discharge ceases, or appears to undergo no decomposition changes until the uterine wall has so far healed that a barrier to the absorption of the products of decomposition is built up, and no damage is done. If, on the other hand, fragments of placenta remain adherent and hæmorrhage occurs, the frequently broken surface continues to absorb for some time, and fever is the result. The introduction of scarlatinal, erysipelatous, or septic germs in either case is, as we know, attended with the most disastrous consequences, as even where the amount of hæmorrhage is comparatively small the blood that is present affords sufficient pabulum for the growth of the organisms, which once gaining a foothold have a coign of vantage from which to commence to form their poison, and in some cases from which to invade the tissues of their host. The practice of obstetricians was, *from* our present point of view, for long far in advance of that of surgeons in the matter of douches, cleanliness, and the like, but the general surgeon may certainly claim priority as regards the adoption of antiseptics on any systematic or methodical plan. The first cardinal rule with the obstetrician is that all matter that could possibly harbour germs or afford them sustenance of any kind is most scrupulously removed. The second and third rules, as stated by Lister, are attended to by constant application of antiseptic douches, especially where the wall of the uterus is more injured than usual, and the fourth rule is made much of as in general surgery.

This presence of dead material in wounds has always been looked upon as one of very great importance. Sloughs, masses of dead tissue, synovial fluid, serum, the fluids in the serous cavities, and even blood itself have been, and still are, considered, in the positions and under the conditions in which they are sometimes found, as being detrimental to the healing of wounds, and also as affording a nidus in which micro-organisms might flourish, however they might find their way into the wound or cavity. Lister, recognising the necessity of getting rid of this material, especially in the earlier days of his method, utilised indiarubber drainage-tubes, which in his hands and in the hands of those who followed out his method in all its details gave most admirable results. After a time, however, as the methods became simpler and more reliable, it became evident that there were many cases in which drainage-tubes were unnecessary, and which would be better treated by compression along with strict antiseptic dressing, especially where the parts could be left untouched for a considerable length of time; or by the use of a modified form of drain of chromatised antiseptic catgut, which could be left in position until absorbed, thus doing away with all necessity for disturbing the wound, the catgut being first absorbed in the deeper part, and disappearing entirely as the wound closed from below and just at those points where it was no longer needed. It has been objected that the presence of an indiarubber drainage-tube prevents the sides of the wound from coming together, and that many cases in which healing by first intention might be obtained are kept from so uniting and the recovery of the patient is somewhat retarded. The objections, however, do not end here. Any foreign body, as we have already seen, causes irritation and consequent exudation of both serum and leucocytes, and the tube by its presence keeps up a constant and sometimes prolonged discharge, as a result of which the dressings are saturated, they have to be removed more frequently, the wound is exposed, and the risk of infection is increased in proportion to the increased number of dressings required. Welch[1] points out that in addition to these objections there are two very important ones—viz., (1) That in these tubes any bacteria which may get in find protection against the "bactericidal influence of the tissues and animal juices"; and (2) that "bacteria may travel by continuous growth, or in other ways, down the sides of a drainage-tube, and so penetrate into a wound which they otherwise would not enter"; and he says, "we have repeatedly been able to demonstrate this mode of entrance into a wound of the white staphylococcus found so commonly in the epidermis." Anyone who has had to treat large suppurating wounds in which the granulation tissue has from time to time blocked the lateral holes in a drainage-tube knows how difficult it is to withdraw, clear, and shorten the tube without causing some hæmorrhage, and I remember well the regrets that were given utterance to by Lister and Chiene when they found it necessary to disturb the granulations by which the healing was being brought about, as they were thus compelled to undo part of the work that was already done; and, perhaps, even still more important, they had to disturb nature's barrier of active connective tissue cells well supplied with blood-vessels and leucocytes, set up to prevent the entrance of bacteria or their products from the wound. Drainage-tubes are no doubt necessary in certain cases; but Welch has well summed up as follows: "The advantage from the employment of drainage-tubes is, of course, the removal of secretions, and this indication becomes an urgent one if the cavity with which the tube communicates becomes infected and suppurates. In a given case the surgeon must weigh the advantages and disadvantages, and act according to his judgment. The practice of many surgeons at the present time of restricting within much narrower limits than formerly the use of drainage-tubes and of discarding them for all wounds which offer a fair prospect of primary union is a distinct advance in the technique of antiseptic surgery." Of the various methods of treating wounds without drainage it is now not necessary to speak; but one method of treatment cannot be passed over without something more than a mere reference. It has already been insisted that where there is any danger of micro-organisms finding their way to a blood-clot the very best treatment may be to evacuate the whole mass and then allow the wound to heal by granulation. Then, too, no one would think of leaving blood-clots in any serous cavity if he could possibly remove them without doing any injury to the peritoneum.

In the case of smaller cavities, however, and in healthy patients the removal of blood-clot is not necessary, and under antiseptic treatment the blood, even in considerable quantity, may be of very great value in serving to form a scaffolding (a scaffolding which is said to retain a certain amount of vitality) on which new tissue may be built up. The first two cases I saw of the actual application of what had been suggested by John Hunter were in the wards of Professor Lister and Mr. Chiene in the Edinburgh Royal Infirmary. The experiments were carried on independently, so far as I can remember, and within a very short time of one another. In Lister's case a long deep groove had for some reason or other been made in the front of the tibia. This groove or trough was allowed to fill with blood, after which the wound was dressed with the strictest antiseptic precautions. Each time as the wound was dressed and as the clot contracted fresh blood (obtained by simply pricking the clot) was run in until there had formed a mass of organised tissue which completely filled up the groove; periosteum grew over, and a capital result was obtained. Chiene's case[2] was of a somewhat similar nature. After the removal of a large horn from the heel of a patient a cavity of considerable size, forming a kind of box, with the os calcis as the floor, was left. This cavity, filled with blood and covered with "protective," was dressed antiseptically, and on the sixteenth day organisation had taken place in the clot, and the epithelium had commenced to grow in *from* the margins of the wound. There was, however, a hollow left; this was again filled with blood drawn from the now vascularised clot, and organisation took place. Unless antiseptic precautions are taken it would be impossible to obtain such organisation in blood-clot in an open wound; for although it is quite possible, nay, it has been actually proved, that freshly drawn blood has some power of inhibiting the growth of, or even of killing, certain micro-organisms, this power is soon lost, so that if exposed for any great length of time to the attacks of micro-organisms the clot must ultimately undergo decomposition changes, and so lose its value as a scaffolding into which connective tissue cells and young capillary vessels can make their way. Many surgeons have a dread of blood-clot in any position and under any circumstances, but now, owing to the above observations, and, according to Welch, especially as the result of the later observations of Schede (1886) and Halsted (last year), the filling in of wounds with blood-clot has to be recognised as an extremely useful method of obtaining healing. Lister insisted on the power of freshly drawn blood to resist the advance of putrefactive germs, and he indicated that these powers of resistance are much greater than we are usually inclined to allow. His observations have been confirmed and blood-clot has taken its place as a dressing.

[1] Maryland Medical Journal, Nov. 14th, 1891.

[2] THE LANCET, July, 1875. See also American Practitioner, July, 1879.

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On the other hand, no one will for a moment contend that blood-clot with its contained red blood-corpuscles is equal to the fibrinous lymph such as we obtain on an inflamed serous surface, for example, as a medium in which organisation may take place. It is a soft, plastic material, which, like lymph, may fill every space; by adhesion it keeps parts in apposition; it contains for a time active living cells, and then allows of their immigration, as bloodvessels come near it; and lastly, it is made up principally of a proteid substance which can be readily peptonised and removed as new cells and tissues come forward to take its place. Its great disadvantage, as compared with fibrinous lymph, is that it contains a large number of red blood-corpuscles and much soluble blood pigment, which appear to act as useless foreign bodies, and all of which must be absorbed before healing can take place, and in this process of absorption many active useful phagocytes are occupied when they might be engaged in the removal of effete necessary material. Here, again, it must be remembered that the less work the phagocyte has thrown on it to do the more rapid will be the process of healing. It is for this reason that so many surgeons allow bleeding to stop, then allow serous exudation to go on for some time, and then, and not till then, bring the two free surfaces together. Where spaces have to be filled in, a large enough quantity of coagulable lymph cannot be obtained, and the next best substitute, coagulated blood, is used in its place. This method may be used in any case where antiseptics are employed, and where the tissues of the patient give any help at all; but woe betide the operator who allows blood to get in where it should not be, so that tension is set up, or who allows bacteria to gain a footing on the surface of his clot. The only advice that can then be given is, "get rid of all the unorganised clot as soon as possible, and leave only that in which partial or complete organsation has taken place, or that part in which a protecting layer of granulation tissue has been formed." After saying all this, we may be compelled to come to the conclusion that "under good antiseptic technique[3] wounds will heal even when they are left entirely to themselves, whether drained, obliterated, or filled with blood." "Exudations composed of fluid and cells would greedily accumulate in most of the spaces, and the fluids and cell possess antibacterial properties as well as blood. Granulation tissue would spring up from the sides. I venture to predict that if the surgeon paid no particular attention to the filling or obliteration of many of the smaller spaces in fresh operation wounds, and if the antiseptic technique was good, the process of healing would be as satisfactory as by any of the other methods mentioned."[4]

The aim of Lister's second rule is to prevent the access of micro-organisms to the wound or dead tissue, for, as he pointed out, once there they can only be attacked by means of powerful chemical antiseptics, which necessarily exert a most injurious influence on the tissues which under ordinary circumstances require to retain all their vitality and activity in order that they may deal with the organisms which might under any circumstances find their way into the wound. Everyone knows how chloride of zinc in strong solution interferes with the absorption of septic poison from a septic surface after an operation in which the tissues have been damaged by bruising and cutting. It first acts as a powerful antiseptic, preventing the growth and development of the micro-organisms and the production of their poison in the tissues otherwise prepared for their reception; whilst after a time it also sets up great leucocyte exudation not only at the free surface amongst and beneath the dead tissues, but also beneath the surface, so that the lymph spaces are filled with both fluid and leucocytes, both of which, as we have seen, exert a certain bactericidal effect. We may say in fact that in such a case bacteria are kept in check by the antiseptic until the tissues have had time to throw up defences, a process in which they are assisted by the antiseptic itself, which acts as an irritant foreign body. Strong antiseptics may even be used to render wounds actually aseptic after the introduction of septic material from without. In a case of compound fracture where a large quantity of dirt has been pressed into the wound the thorough flushing out with strong carbolic acid solution has, in Lister's hands, as I have repeatedly seen, given the very best results. Here no doubt the result was effected partially, as above described, but another factor must not be left out of account. The strong irritant, acting on bruised and partially devitalised tissue, continued the devitalising process, rendered sloughing easier and accelerated the removal of all tissue that might interfere with the healing of the wound or that might afford a nidus for the growth of micro-organisms. In these cases special requirements are indicated, and each case has to be treated according to the ingenuity and judgment of the surgeon; and the man who has grasped the principles of treatment most firmly will invariably obtain the most satisfactory results.

It may be accepted that any antiseptic substance in a wound not naturally there is out of place.[5] The spray is not now so generally used as formerly, as its use is thought to be attended with no special advantage at all equal to the trouble that it involves. There can be no doubt, however, that at the time it was used it was a most important factor in the success of antiseptic surgery, and I for one am scarcely convinced even yet that the disfavour into which it has fallen is an unmixed blessing. It is stated that it created currents of air which brought dust into the region of the wound, and that the carbolic acid contained in it was not sufficient to kill organisms that came under its influence. Admitting all that, I cannot help thinking that it acted as a most efficient watering-cart, and that much of the surrounding dust was precipitated, and once down was held there by the carbolised water, and that for this reason, if for no other, its use added to the success of the earlier operations. I am of this opinion especially as I saw the series of experiments carried on by Professor Chiene and Mr. A. W. Hare, in which, out of a large number of vessels containing nutrient broth, some opened under the spray and some without it—all in the same room—the number of those in which growths occurred was far greater in those opened without the spray than in those opened with it. Greater care as to the washing of everything with an antiseptic lotion has in part taken its place, but, I am still inclined to believe, not entirely. Of dressings for the prevention of access of micro-organisms to a wound it has often been said that all that is necessary is to have an "aseptic" substance. Theoretically this is true enough, but practically it is very misleading, for as soon as a dressing becomes damped it becomes an excellent conducting path for the passage of micro-organisms, unless it contains some antiseptic substance which will interfere with the activity of, or actually destroy, the invading micro-organisms. It is an easy matter to keep a culture in a test-tube pure if free evaporation through the sterilised cotton wadding plug is allowed, even when dust is permitted to settle on its surface; but if the moisture is kept in by means of gummed paper, tinfoil, or indiarubber caps it is necessary to take the very greatest care to destroy all micro-organisms beneath the moisture-enclosing substance. Any antiseptic substance will act more or less as an irritant, and cases have been recorded in which the continuous washing out of a wound has kept up irritation and suppuration for a lengthened period. Where wounds are septic we have to choose the lesser of two evils, but where the wound is aseptic all that is necessary is to keep it so, and nature will do the rest. It will be necessary here to speak only of the micro-organisms that may come (1) directly from without, (2) from the skin, and (3) from the cavities and channels within the body.

(To be continued.)

[3] Welch, loc. cit.

[4] This opens up a much wider question, and one on the discussion of which we can scarcely enter at present, but for which we refer those specially interested to Professor Welch's paper.

[5] I well remember the pride with which I received Lister's commendation for reproducing this teaching of his, in a somewhat exaggerated form, in an examination paper sent in when I was a junior student of surgery; whilst later I was much impressed by a dictum of John Duncan's (a thorough believer in the utility of the antiseptic system), that if we thought more of the application of antiseptics to ourselves and less of the application to the wound, the patient would be the gainer.

ROYAL INSTITUTION.—Professor Victor Horsley, F.R.S., will on Tuesday next (January 19th) give the first of a course of twelve lectures on The Brain; Mr. A. S. Murray, LL.D., will on Thursday (Jan. 21st) give the first of a course of three lectures on some aspects of Greek Sculpture in Relief; and Professor J. A. Fleming will on Saturday (Jan. 23rd) give the first of a course of three lectures on the Induction Coil and Alternate Current Transformer. The Friday evening meetings will begin on January 22nd, when the Right Hon. Lord Rayleigh, F.R.S., will give a discourse on the Composition of Water.

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PERINEAL DRAINAGE IN INVETERATE STRICTURE OF THE PENILE PART OF THE URETHRA.

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SURGEON TO THE LONDON HOSPITAL.

IT is a mistake to suppose that strictures of the penile part of the urethra are invariably, or even frequently, the result of cicatrisation. Occasionally the mucous lining is destroyed by injury for more or less of its circumference, or eaten through by ulceration; but nearly always, as Berkeley Hill and others have shown, if the urethra is laid open, the membrane can be dissected off, thinned and discoloured, it is true, but intact, and capable of being unfolded its whole width. The first beginning of a deep-seated stricture is usually either a granular patch on the surface or an inflammatory deposit in the substance of the mucous membrane—sometimes the one, sometimes the other; and it steadily increases little by little as fresh lymph is poured out around and beneath it, involving first the urethral and then the peri-urethral tissues, until at length it forms a definite obstruction. The problem in the treatment of stricture is how to ensure the absorption of this deposit without causing the addition of more.

Temporary relief may be obtained by division or dilatation; and occasionally, if the lymph is still soft and cellular, so that its absorption can be effected without loss of time, this leads to permanent cure. But such good fortune is exceptional; nearly always a hardened patch or an open ring is left in the substance of the wall, less elastic than the tissues near, and unable to yield smoothly and evenly when the folds of the mucous membrane are straightened out by the passage of the urine. There may not be sufficient obstruction to cause any difficulty, but there is enough to keep up irritation and make the stricture relapse. Each act of micturition strains and pulls upon the tender tissues around; fresh lymph is thrown out, and organisation begins and contraction is well established before the original induration has had time to disappear. Strictures relapse and recontract, not because they are formed of scar tissue (with a few exceptions), but because the remains of the old and hard inflammatory deposit act like the little thickened patches, or the papillary granulations that are left after gonorrhœa, and begin again the old vicious circle. What is wanted is something that will hasten the fatty degeneration of the old exudation and help the tissues to remove it before the irritation of its presence can lead to the formation of any more, or cause any fresh trouble.

Unhappily, the means at our disposal for hastening the disappearance of chronic inflammatory exudation from other parts of the body are useless, or worse than useless, when the urethra is involved. Counter irritation, for example, is impossible. Pressure cannot be employed. If a tight-fitting catheter is introduced and left, the stricture tissue softens, it is true, and appears to melt away in the same way and for the same reason that dense fasciæ and ligaments become softened when a joint is acutely inflamed; but the effect is quite as transient; and clinical experience has proved that strictures treated by rapid continuous dilatation alone are usually the first to relapse. The only method is to free the tissues from every source of irritation, and secure for them a long period of complete physiological rest. If this can be done the hardened lymph will slowly disappear, and the walls of the urethra become soft and yielding again. In other parts of the body the absorption of the products of chronic inflammation begins as soon as the irritation that gave rise to it ceases to act, and if only strictures can be placed under the same conditions the same result will follow; at least, in those of them in which there has been no destruction of the mucous membrane. The curability of stricture has been denied. I have already shown[1] that it is by no means uncommon after external urethrotomy, and I am prepared to go further, and assert that not only is this possible, but that, under certain circumstances, strictures of the penile part of the urethra (or at least some of them) are capable of undergoing a process of spontaneous absorption.

The occasional success that attends extreme dilatation after Otis's plan, and after free internal urethrotomy, is probably to be explained in this way: thorough stretching or division of the stricture places the part at rest for a sufficient length of time, and the inflammatory products in the wall undergo fatty degeneration and absorption before they can give rise to sufficient obstruction or irritation to lead to the production of any more; but the result is very uncertain, even in comparatively recent instances. In older ones, especially in those in which there is more than one stricture, there is only one plan by which sufficient rest can be ensured, and that is by opening the urethra behind, in the perineum, and allowing the whole of the urine to escape without coming near the affected part. It is true the measure is a severe one, giving rise to considerable inconvenience for some length of time, but it is not intended to make use of it unless the conditions are severe.

My attention was first drawn to this by noticing the way in which strictures of the urethra sometimes disappear spontaneously in cases of extravasation of urine. In August, 1887, a patient suffering from this complication in an extreme form was admitted into the London Hospital under my care. The history, so far as could be ascertained, was of the ordinary character—several attacks of gonorrhœa, increasing difficulty of micturition, complete retention, and then suddenly, a week before admission, rupture and extravasation. The patient's condition was deplorable: the putrid fluid had spread far above the umbilicus, back into the lumbar region, and even into the ischio-rectal fossæ, Colles' fascia having given way by sloughing. The pulse was very feeble, and it seemed doubtful if the patient could survive the night. However, an anæsthetic was given, the stricture examined, and found to be impassable, at any rate at the time. Free incisions were made wherever the fluid had penetrated, the first in the middle line of the perineum, with the view of opening up the membranous portion of the urethra and giving free exit to the contents of the bladder. Six weeks later, when the patient had rallied and the incisions were closing in, it was thought that the time had come to examine the condition of the urethra. The whole of the urine still passed through the perineal opening, and there was no sign that the obstruction had yielded in any way. However, on trying a small black bougie (No. 2, English) it slipped through almost at the first attempt, and by the end of a week, passing a catheter every day, all obstruction had disappeared and the walls of the urethra were as soft and flexible at the seat of the stricture as they were elsewhere.

I admit the altered behaviour of the stricture may be accounted for, to some extent, by the subsidence of spasm and congestion. Before the rupture occurred the mucous membrane must have been subjected to an extreme degree of pressure and irritation. After the operation, for six weeks it was absolutely at rest. But I do not think, in such a case as this, spasm and congestion are factors of much moment. The real change was in the dense gristly mass that surrounded the urethra and filled up all the interstices in and around the submucous tissue. Left absolutely quiet for six weeks, without anything to irritate it, it had gradually undergone a process of degeneration and been absorbed, so that when at length a bougie was passed the narrow part of the urethra could be unfolded and opened out at once. Whether the cure was permanent or not I am unhappily not in a position to prove; but it may be admitted on *a priori* grounds that even if the chance of this at any time is not very great, it is certainly greatest if the stricture tissue is thoroughly removed by fatty degeneration and absorption, not merely stretched and left.

Such a measure as this is, as I have already said, a severe one for ordinary cases, although, if the patient will spare the time and put up with the inconvenience, he will, I believe, be amply repaid in the future; but it is not uncommon to meet with instances in which a perineal incision is rendered advisable, and even necessary, by the presence of complications, and in which it can be made to assist in the absorption of the indurated mass. All that is required is that it should be kept open for a sufficient length of time. In one case, for example, that was under my care in 1890 there was a number of false passages spreading out in all directions, so that it was scarcely possible to find the orifice; and the urethra behind was so dilated that when it was incised a long cul-de-sac was found running in the corpus spongiosum, far beyond the stricture itself, almost into the glans. In another the median operation was performed for the purpose of extracting the broken end of a bougie. In a third the bladder was drained for severe cystitis and strangury; and in a fourth the whole length of the penile part of the urethra was affected more or less, and there was already the beginning of a peri-urethral abscess.

[1] THE LANCET, Sept. 19th, 1891.

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In two of these internal urethrotomy was performed at the same time; in the others the stricture was simply left alone, and all the urine allowed to escape through the perineal wound. The length of time this was kept open varied from a month to six weeks, but I regard the longer period as usually necessary. In no case did any fistula persist—the difficulty is rather in the opposite direction. It is not easy without maintaining a drainage-tube, or occasionally employing dilatation, to prevent the opening contracting prematurely. In all the stricture tissue disappeared of itself, so far as could be ascertained with a bulbous sound. It was not stretched or dilated; it was merely left alone, and when a catheter was passed it apparently did nothing more than open out again the folds of the mucous membrane, which were still collapsed owing to the way in which they had been so long pressed together by the inflammatory exudation.

Wimpole street, W.

THE VERNACULAR MEDICINE AND SURGERY OF JAPAN.

BY BENJAMIN HOWARD, M.A., M.D., F.R.C.S.E.

IN aptitude, adaptation, and enterprise the Japanese have shown a decided superiority over all other nationalities of the Orient. These qualities added to great delicacy of manipulation have made them in art conspicuous throughout the world. It is but natural to expect, therefore, that they should be found to have arrived at something, both in medicine and surgery, which the nations of the West might find to be an acquisition. The earlier Japanese medicine dates back to the "Shindai," or divine age, many centuries before Christ. The Chinese, as early as 218 B.C., found their way amongst the Japanese doctors with medical books dating back, it is alleged, to 2737 B.C., and the influence of Chinese medicine upon Japanese medicine has continued to be a controlling one up to the recent introduction of European medicine now in vogue. As it is difficult to disentangle that past which is of Chinese origin, I include in the vernacular medicine and surgery of Japan all which pertained to its general practice, say, forty years ago, and which still pertains to the practice of about 30,000 out of the 41,000 physicians now practising throughout the Empire. Of the 30,000 of the old vernacular school one of them is still on the list of the Court physicians and maintains a high reputation.

The impression throughout Europe that coloured papers, exorcisms, &c, are the basis of Chinese and Japanese medicine is erroneous. I have myself seen nearly 2000 books by these people, covering most of the departments of medicine, but amongst which materia medica occupies altogether the leading place. In these books are the doctrines of the successive schools, strikingly like some of those which in past centuries existed amongst our own ancestors. The successive medical colleges have always had a professor of astrology, but the solid fact remains that the materia medica has included amongst its several hundred remedies a large number of those used by ourselves, and these are not only vegetable, but animal and mineral, in the latter class mercury being prominent. Surgery became a separate branch as long since as the seventh or eighth century. Tube acupuncture needles, so comparatively new with us, have been in use here since A.D. 1688. Centuries ago one of their authors wrote: "When medicines are ineffectual as well as acupuncture and the cautery, the abdomen and back may be opened, the stomach and intestines be washed, &c." A narcotic mixture employed on such occasions contained datura alba, aconitum, &c.

As the history of medicine in Japan once included so much which seems substantial I have inquired with much care amongst practitioners of the old or vernacular school—all of whom were in practice before 1876,—hoping to discover something in their practice now which would be a veritable addition to the medical resources of our European brethren. I am sorry to have to say that the result of my search has not met my anticipations. As far as I have been able to discover, the vernacular practice of Japan to-day, over the entire length and breadth of the empire which I have traversed, is entirely empirical. Rachitis being unknown, and the life led by the women being so much more natural than in Europe, obstetrics may scarcely be said to be needed, and certainly does not exist.

Syphilis, which came here from China in 1630, is treated in a manner which is the same in principle as the treatment I have seen practised in Nubia, where the patient for several hours at a time buries all the parts of his body except his head in the hot sands of the desert. In this excessively volcanic country the various hot springs which abound, and some of which are exceptionally hot, are the sovereign remedy. In these baths, some of which are fully exposed to public view, whole families, entirely nude, pass a large part of the time during their visit to the particular spa. In several cases I have not seen, but I have been told by the patients of results from them which certainly seem remarkably good. In acupuncture, which, as I have said, has been practised by the Japanese for many centuries, they exhibit very delicate manipulation. For six seng (3*d.*) one of the blind practitioners of this art will, without pain, insinuate a long needle into your stomach, intestines, arms, legs—almost any part except the eye and the brain. The conditions for which it is held in particularly high esteem are flatuence and colic; next, perhaps, in order for neuralgia and rheumatism of the joints. From my own experience I can say it is almost absolutely painless. The points to be penetrated are not entirely arbitrary, but are determined by astrological indications. It is a noticeable experience to see one of these poor blind men take from the folds of his "kimono," or robe, a case of beautifully bright long needles of gold, steel, or silver, and with the *nonchalance* of the Oriental, and without the slightest pause in his conversation, to see him burying his needles two, four, or six inches in various parts of your person in a way which would astonish a European professor of surgery. I mention this practice only as a pretty display of manual dexterity, not as a practice to be imitated. There is one medical procedure, however, in which the Japanese can teach us something in every particular. I refer to their manner of practising massage. For reasons sufficiently apparent, the number of blind in Japan, as in all Eastern countries, is enormous. Every blind boy or girl is expected to join the one guild which is exclusively their own and be an "ammah." With their small hands and supple limbs they give to massage a variety and a delicacy not approached even in India. To what extent anatomy enters into their training I do not know, but no duly qualified surgeon could seem to be more intimately acquainted with the formation of the joints and the course of the nerves as a guide to manipulation. As to percussion, they obtain it by a semi-rotation of the hand with a velocity so great as to make the movement almost invisible. The deeper structures external to the joints they get at with the olecranon process of the naked elbow, which, by an equally rapid movement of the forearm, reaches every interstice with a force regulated with the greatest delicacy. For the muscles of the back, as in lumbago, the "ammah" frequently use their feet, with which they are almost as dexterous as with their hands. When great force is desired this is very efficient. Plain rubbing, which is the principal part of massage in Europe, would be beneath their dignity. Nearly every one of their various manipulations includes some delicate manœuvre which excites one's surprise and admiration. So common is massage in Japan that on arriving at an hotel—next to the tea, which is always immediately brought—the "ammah" is the individual who will surely appear. For the superficial or general massage at such time the tariff price is six seng (or 3*d.*); but a European is expected to pay two or three times as much as that, unless he can talk Japanese, in which case he generally does not. I have had massage in Sweden, which I thought perfection; I have had it in Turkey, which I thought otherwise; I have had it in India, and found it in most instances too rough and indiscriminate; but with a good "ammah" or masseur in Japan I have had but one regret, which is that my friends at home could not share my advantage.

Another lesson we might learn from the Japanese with probable advantage is the more general use of the moxa. For almost any pain whatsoever, if persistent and if at all deep-seated, the remedy throughout the country is the moxa. Whereas with ourselves the moxa is, even with a surgeon, a very unusual remedy, its use here is one of the female accomplishments in almost every household. A cone of cotton-wool previously saturated with a decoction of the Artemesia vulgaris latifolia is placed upon the part concerned, and being lighted is allowed to slowly smoulder to ashes. It leaves a superficial eschar, which seems to heal without special attention. The performance is often seen going on in passing a house, a woman operating on a man, woman, or child, and dressing the patient's hair, perhaps, at the same time. I have therefore inferred

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the procedure is much less painful than might be supposed. The sore is clean, exactly the size wished, and must often be a very useful counter-irritant. In the public baths I have counted on men, women, and children, as many as thirty or forty discoloured spots from this cause, a row being commonly seen on either side the spine, and many other marks on the limbs, especially in the vicinity of the joints. To get the same amount of counter-irritation, we should certainly disable the patient from any active occupation and compel a good deal of inconvenient dressing, all of which, if the counter-irritation was to be maintained, would require repetition. In hygienic matters the Japanese have everywhere a habit which also may have a lesson for us. In their nightly bath and morning wash the water is never cold, never warm, but always as hot as it can be borne. To foreigners this habit seems very surprising, but the most inveterate Englishman, if he stays in the country long enough, abandons his cold tub in its favour. The cold-taking which it is suspected must follow it is found not to occur if the water has been hot enough. This heat is maintained by a little furnace beneath the bath. In the bath the bather or bathers take a prolonged soaking, the washing proper being done on the bath-room floor; then follows a second and final soaking, drying with towel, and a lounge in bathing wrapper. This habit seems to promote softness and suppleness of the skin, and by persons inclined to rheumatism is soon found to be altogether preferable to the cold bath in every particular. The poorest of the Japanese hear of a cold bath with amazement, and would be sure the man who used it must be a barbarian. With respect to the superiority of the hot bath over the cold, I have come to find that in my own case certainly the Japanese are right.

The Paper Ice-bag.—From a pocket-handkerchief to an umbrella it is difficult to say what is not made out of paper, and everything made out of paper is comparatively cheap. The ice-bag is a very favourite remedy, both in private and in hospital practice. The ice is generally applied in bags suspended so that the patient may get the cold from it without its weight coming upon the affected part. These pretty little bags are always made of thin paper. They are much cheaper than the oil silk used by ourselves that, whether they become broken or not, they can be frequently renewed, and this, in a large hospital with surgical cases, is an important consideration. The texture is softer, it adapts itself better to the parts to which it is applied, and in a private patient one of these paper ice-bags will easily last in constant use for several days. They would be a valuable acquisition in English hospitals. I enclose one of them, that the Editors of THE LANCET may form their own opinion of it.

It will be observed that the only things I have thought worth recommending are rather outside than inside the lines of strict medicine and surgery. It would seem that the decline in medicine must have been as great as the decline in the prevailing religions; hence the alacrity with which the foreign systems of both were seized by this hungry people as soon as presented. The Japanese massage, then, the Japanese bath, and the Japanese paper ice-bag are things which might certainly be regarded in Europe as useful acquisitions.

ON THE ORIGIN AND SPREAD OF LEPROSY AT PARCENT IN SPAIN.

BY GEORGE THIN, M.D.

ONE of the chapters in the book on Leprosy which I have recently published discusses the evidence in favour of the contagiousness of the disease, and refers to a number of facts which I believe to be of great assistance in coming to a decision regarding that very important question. As part of this evidence a brief account is given of the origin and spread of an epidemic of leprosy at Parcent, in the province of Alicante, in Spain. The facts, as stated in my book, are abstracted from the *Annales de Derm. et de Syph.*, vol. ix., p. 390, the information there given constituting part of a memoir presented by Dr. Zuriaga to the Municipal Council of Valencia, and translated into French by Dr. Paul Raymond. As these statements are available to those who are interested in the matter, it is not necessary for me to recapitulate them here in detail. Considering, however, the very important bearing of the evidence and the significance of the whole question, I thought it advisable to obtain independent and confirmatory evidence regarding this outbreak. Dr. Zuriaga relates how a leper from the neighbouring town of Sagra came to reside in Parcent in 1850, where, at the time, there were no cases of leprosy. He there lived on the most intimate terms with a certain Vincent Poquet Andrés, the two friends eating from the same plates, with the same spoon, drinking from the same glass, and sleeping together. Within a year Poquet had acquired leprosy from his friend. From Poquet the disease spread, until up to the date of the memoir there had been about sixty cases of leprosy in the small village of Parcent, of whom forty-five had died.

In a considerable number of those lepers who were affected at an early stage of the epidemic the precise source of contagion was ascertained, and is described in Dr. Zuriaga's paper. Certain individuals were infected by Poquet, and members of their families and their friends, who were living in close association with them, were affected first, until, finally, a sufficient number of persons had become lepers to make it difficult to trace, in new cases, the exact sources of the original infection. By the kindness of my friend, Dr. Garcia Lopez of the mines of Rio Tinto, I have been able to obtain a copy of a report on Leprosy in the province of Alicante, Spain, by Dr. Oswaldo Codina, dated July, 1887, and presented to the Director-General of Public Health in Madrid, by whom he had been commissioned to inquire into the nature of the epidemic. I was unfortunately unable to obtain a copy of this report until after the publication of my book; but its contents are sufficiently important to justify me in now bringing the facts on which it is based before the profession. Dr. Codina, like Dr. Zuriaga, has satisfied himself that leprosy began in Parcent in 1850 by Vincent Poquet Andrés acquiring the disease from a leper from Sagra, who had arrived from the Philippine Islands, and who was known by the nickname of "El Indiano," and with whom Poquet lived on intimate terms. The friends, who were closely associated with these two affected persons, were after them the first to become leprous in Parcent. This entirely verifies the account given in my book. Dr. Codina confirms Dr. Zuriaga's statement that a nephew, who frequented his uncle's house, became leprous; and contributes the additional information that a cousin of Vincent's contracted the disease in 1857. Amongst the instances of contagion given in Dr. Zuriaga's report is that of one Joseph Mora, who was on terms of intimate friendship with Vincent Poquet, a fact that is confirmed by Dr. Codina. Dr. Codina does not relate in detail the further cases which I have abstracted in the book, but he remarks that there is a chain of evidence which links the subsequent cases together, the disease developing itself in those who associated with friends who were already leprous.

Dr. Codina relates how the disease, having once established itself in Parcent, spread to the nearest towns, and shows in the table which he appends to his report how Parcent has been the principal focus of the disease in that neighbourhood. Poquet had numerous connexions, which accounts, Dr. Codina believes, for the considerable number of cases of leprosy which occurred in the family. Those who shunned them, he relates, remained free from the disease. He further relates how, when leprosy spread from Parcent to the neighbouring towns, the first to become leprous was always someone who frequently visited Parcent, such as Frances Sirera in Murla, and Nicolas Poquet in Laguart. A mother gave her son to a wet-nurse who was leprous, and the infant soon showed symptoms of the disease, and at the date of the report was in the last stage of the malady. A brother of this child became leprous and committed suicide in the year previous to the date of the report (1886), being unwilling any longer to endure his sufferings. No case of the disease had occurred previously in this family. Dr. Codina relates that in Pedreguer the development of leprosy has to a considerable extent been arrested on account of an imperfect isolation of the affected persons in country houses. He describes how the isolation is incomplete, as the lepers are allowed to be visited by their children, wives, and friends. The disease was originally imported into Pedreguer in 1809 by the son of a schoolmistress of Denia who came there, and who was a leper; and since that time leprosy has always existed in the town, although from the beginning some steps were taken to attempt to isolate the cases. In other towns of this district which he has visited lepers and persons in good health mingled at church and market, and had their clothes washed in the same places. There is nothing to note clinically regarding the cases of leprosy referred to by Dr. Codina, who describes as an example a severe case in a woman, in whom the distinctive symptoms of developed leprosy were

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present. All the cases, he remarks, are not so pronounced as the one described as an example. He particularly alludes to the common symptoms of loss of the eyebrows, the peculiar dull expression of face, spots on the face, cutaneous tubercles, sometimes prominent, sometimes only to be felt by the finger, shining, parchment-like skin, cracked hands, scabby nails, with ulceration more or less extensive, and occasionally very severe. The invasion of the mucous membranes and special implication of the nerves and eyes are noted.

I do not consider it necessary to take up more space by a full translation of Dr. Codina's account of the symptoms observed by him in the patients at Alicante. The lepers in that district show, he remarks, a tendency to isolate themselves in the country and shun observation, and for this reason it is difficult to ascertain their exact number, more particularly as they do not seek medical assistance. They remain unseen as long as they can, only going out at such hours as will expose them least to observation. Although from the tendency to hide cases of leprosy and other causes it has been found very difficult to trace the history of the disease in this part of Spain, Dr. Codina is of opinion that there has been in recent years a recrudescence of the malady.

The disposition of the disease to adhere to certain families is well known. The following history of leprosy in a particular family, which has been worked out by Dr. Codina, may be given as a fair example of this tendency:—

GENEALOGICAL TREE OF THE FAMILY OF LLORET OF PEGO.

1.
Felipe Lloret, born 17—, died 1830; not leprous.
Vicenta Castaños (his wife); leprous.

2.
Enrique Lloret, born 1814, died 1874; leprous.
His wife (not leprous) died unattacked.

3.

Enrique, born 1832; lives not leprous. His wife (not leprous) lives unattacked.	Pedro (died leprous).	José (died leprous).	Maria (lives leprous).	Vicente (lives not leprous).

4.

Enrique, born 1859; lives not leprous. Encarnacion Sastre (his wife); no leprosy in family lives unattacked.	Encarnacion Lloret, born 1853; leprous for six years. Vicente Ciscar (no leprosy in family); her husband leprous for three years.

5.

Their son, born 1885, lives unattacked.	Maria, born 1887 (not leprous).	Encarnacion, born 1875 (became leprous in 1886).	Enrique, born 1883 (not leprous).

Here is a family in which we know that leprosy has occurred amongst some of its members for five generations. It is interesting to observe that in the third generation a son, who still lives unattacked by the disease, and who has married a wife equally free from it, has a daughter who at the date of the report had been leprous for six years, her husband, in whose family there was no previous case of leprosy, having been then leprous for three years. The history of such a family explains how readily the idea of the disease being hereditary has been adopted. It is only in recent years that a sufficient analysis of facts has shown the fallacies that have led to the acceptance of the idea that leprosy is hereditary, the history of the Norwegian lepers who emigrated to America having, I believe, very clearly shown that the disease propagates itself in certain families on account of the intimate contact which the members have with each other, and that when the conditions of life are such that this intimate contact is avoided the leprosy dies out. It is to Hansen that we chiefly owe the establishment of this fact, and the statistics on which it is based are set forth in my book. I believe that if this family of Lloret had lived under similar conditions to those prevailing amongst well-to-do people in the United States there would have been no leprosy now in this fifth generation, and am convinced that it is only by a general acceptance of this fact, and by the introduction amongst leper families of the habits which are its necessary corollary, that the disease will be exterminated.

Dr. Codina terminates his report to the Director-General of Public Health by submitting to him the following conclusions: "1. Leprosy has existed in the province of Alicante at least since last century. 2. The disease appears to have spread since 1809, and from Parcent especially, since 1850, it has spread to the neighbouring towns in an alarming manner. 3. Leprosy is not at present limited to a small number of towns. Not only are the towns belonging to the district of Parcent infected, but many others in the province; and, spreading over its boundary, the disease has affected some towns in the province of Valencia, where it has made considerable progress. 4. When leprosy has once appeared in a town it remains there, and cases are followed by others in an increasing proportion. 5. Leprosy is transmitted by inheritance, and, although many authors deny its contagious nature, the numerous cases which exist in the sea-coast towns, and its march and manner of propagation, incline us to admit that this cause has been the most powerful one in bringing leprosy to the present state of development. 6. The necessity of building a hospital for lepers should be insisted upon as the only means to prevent the further development of the disease. 7. Whilst lepers are not isolated, it is necessary to prevent all association with them, and oblige them to go out wearing shoes and gloves. All articles for their use or wearing should not be used by anybody else. 8. Inheritance being one of the causes of development of leprosy, lepers should not be allowed to marry. 9. They should be well attended to, and good food procured for them. Care must be taken not to allow them to come into contact, in business or otherwise, with healthy persons. 10. The authorities should give particular attention to the improvement of the sanitary conditions of towns."

The following table, copied literally from Dr. Codina's report, deserves careful study:—

"*Table showing the Cases of Leprosy in the Towns referred to in this Report.*

Towns.	No. of Inhabitants.	Date of Invasion.	Cases up to 1887.	Lepers existing. Males.	Females.	Total.	Remarks.
Parcent ..	150	1850	65	21	7	28	I gathered the data stated in the present table during my visit to the towns in the district of Parcent. Although I have endeavoured to obtain by information as accurately as possible, I am unable to guarantee its correctness. The towns sometimes hide the truth as to the number of lepers existing, and I may perhaps have made some mistakes; but if there are any, they will consist in showing too small, rather than too great, a number of lepers."
Laguart ..	400	1868	31	20	5	25	
Pego	1200	17—	—	14	6	20	
Orba	160	1873	25	12	6	18	
Pedreguer ..	720	1809	79	9	3	12	
Murla	120	1870	14	8	2	10	
Sagra	100	1848	13	5	3	8	
Benidoleig ..	80	1869	7	4	1	5	
Gata	440	1860	8	3	1	4	
Jalon	560	1867	8	2	1	3	
Denia	650	17—	—	3	1	4	
Oudara ..	325	1862	7	2	1	3	
Tounos	80	1860	10	2	1	3	
Beniarbeig ..	130	1871	6	2	—	2	
Sanet	90	1884	3	1	1	2	
Alcahali ..	98	1870	6	2	—	2	
Jalda	320	—	—	2	1	3	
Benichembra	120	1872	3	1	[illegible]	1	
[illegible]	[illegible]	[illegible]	286	124	40	164	

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The towns enumerated in the above table are contained within an area of twenty-four square miles, some of them being situated close together, and some (such as Pego, Laguart, and Alcahali) being isolated to the extent of a two hours' walk.

An examination of this table shows that the proportion of lepers in the towns bears no proportion to the number of the inhabitants. I am assured by the Spanish gentleman to whom I am indebted for a translation of the passages of the report that they are all situated near each other, and that the same hygienic conditions apply to them all. There is nothing in the soil, occupation, food, or race to account for any difference in the number of lepers which are to be found in these towns respectively. It also shows that the proportion of lepers to the population of the towns is not connected with the length of time that the disease has lasted, and therefore is not in relation to the opportunities given by heredity, even if it were assumed that heredity was a cause. Parcent, which is the most striking example, shows in twenty-seven years, in a population of 150 inhabitants, 65 cases of leprosy, of whom 28 were living at the end of that period; whilst Pego, with 1200 inhabitants, and where the disease has lasted since last century, had only 20 living lepers. Pedreguer, in which we know there was leprosy in 1809, with a population of 720, had in about forty years 79 lepers, of whom 12 were living at the date of the report; whilst Murla, with only 120 inhabitants, had had 14 cases in seventeen years, of whom 10 were living at the date of the report.

Excluding heredity as an insufficient cause of these cases, and as otherwise being discredited, the difference of the rate of increase of leprosy in these similarly situated villages is best explained by the assumption that the opportunities for contagion have been greater in some cases than in others, even if we did not have the statements which I have collected from two independent sources—namely, from the Mayor of Parcent, referred to by Dr. Zuriaga, and from Dr. Codina's report to the Director-General at Madrid. Another sad fact comes out from a study of this table—namely, that in many of the towns the appearance of the disease is comparatively recent and that in this part of Spain leprosy is spreading. The necessity for a hospital in Parcent seems to have been realised at last, for we find that a commission visited the neighbourhood in June, 1887, for the purpose of finding a site, and were offered one by the municipal corporation free of cost.

The above abstract is sufficient to show that Dr. Codina has entirely confirmed what has been written by Dr. Zuriaga, although in his report the history of contagion from one person to another is not continued in the same detail. I therefore recommend those who doubt that leprosy is contagious—and it appears there are many such doubters—to read Dr. Raymond's translation of Dr. Zuriaga's original paper or the summary of it which I have given in my book.

Queen Anne-street, W.

THE

TREATMENT OF "ATTIC" SUPPURATION BY EXCISION OF THE MEMBRANA TYMPANI AND AUDITORY OSSICLES.[1]

BY WILLIAM MILLIGAN, M.B., C.M.,

ASSISTANT SURGEON TO THE MANCHESTER INSTITUTION FOR DISEASES OF THE EAR, ASSISTANT PHYSICIAN TO THE MANCHESTER HOSPITAL FOR DISEASES OF THE THROAT.

THE region of the middle ear, known as the tympanic attic, is the space lying above the level of the short process of the malleus. The boundaries are, externally, the flaccid membrane and the outer osseous wall of the drum cavity; internally, the malleus, neck and head, and the anvil; above the superior ligament of the malleus; and below the short process of the malleus. This region is divided by numerous folds of mucous membrane into spaces of varying size, which, although of comparatively small importance anatomically, are most important from a pathological point of view. On account of the want of free communication between these several spaces, great difficulty is encountered in thoroughly cleansing this region when diseased. The spaces are partly closed, partly communicate with one another, and with the remaining portion of the tympanic cavity. Retention of secretion is favoured by the mechanical arrangement of the parts, with the result that caries of the head of the malleus and of the incus or of the surrounding bony parietes is common. Suppuration here is also frequently associated with other lesions—for example, with extensive perforations in other parts of the membrana tympani, with luxations of the ossicular joints, and with disease of the mastoid antrum. The frequency with which suppurative inflammation is found in the tympanic attic is variously stated by different authors. Randall, in an analysis of 500 cases, found attic suppuration present fifteen times; in another analysis of 2000 cases he found it present fifty times. In 375 cases which I have analysed I have found it present twelve times, or in 3½ per cent. of the cases. There is no doubt that it is one of the rarer forms of middle ear disease; but I am inclined to think that its frequency has been underestimated rather than the reverse. Although not of common origin, its importance demands careful consideration.

As regards the etiology of this condition, it has for long been a vexed question as to how suppurative inflammation localises itself in the cells lying behind Shrapnell's membrane. Walb[2] holds that the inflammatory process is propagated along the external auditory meatus. He believes either that an otitis externa circumscripta has affected the point between the membrana flaccida and the wall of the external meatus, or that an otitis externa diffusa has encroached upon Shrapnell's membrane, or that a disease of the external ear accompanied by secretion has produced an infection of the tympanic cavity inside the membrana flaccida through the foramen Rivini. He believes in the existence of this foramen. Most authors, however, hold that the affection is of "tubal" origin, and secondary to pharyngeal or naso-pharyngeal disease. Primary acute inflammation involving Shrapnell's cells is rare. The majority of cases run a chronic course, and, either from the frequent occurrence of a second perforation in a different part of the membrana tympani or from their clinical history, suggest the tubal origin of the disease. Thus it is not uncommon to find an open perforation in Shrapnell's membrane and a cicatrised perforation in some other portion of the drumhead, indicating probably that originally the whole middle ear had been involved, but that, whereas the suppuration had either been cured or had spontaneously ceased in the lower portion of the middle ear, it had remained persistent in the spaces lying behind the membrana flaccida. The fact that we have in this part of the ear a series of spaces not readily communicating with one another, and easily shut off from the general tympanic cavity by inflammatory adhesions, seems to me sufficient to explain how suppuration, if once established here, should tend to become chronic. Kretschmann[3] holds that the tympanic cavity is first involved, and following this the ossicles are attacked with caries owing to retention and decomposition of secretion. The analysis of clinical records also goes far to show that attic suppuration is a secondary affection. Schmiegelow,[4] in 37 cases, could find no immediate cause in 9; in 5 the affection came on during an acute inflammation of the nose and naso-pharynx, and in 4 it began apparently as an acute middle-ear catarrh; 12 patients referred the disease to childhood, but were unable to assign any definite cause; in 2 cases the affection followed scarlet fever, and in 2 cases a box upon the ear. In 12 cases which have recently come under my care, the disease was secondary to scarlet fever in 6, and to naso pharyngeal catarrh in 2. In the other 4 cases no definite cause could be assigned. To accept Walb's theory we are almost bound to admit the presence of the foramen Rivini, a foramen whose existence is denied by most anatomists. In those cases where the disease has lasted a long time, and its course is usually very chronic, the ossicles, although apparently healthy, will frequently be found diseased. Careful exploration with a fine probe will reveal carious spots unnoticed during inspection. The surrounding bony parietes are also often affected. Inflammation of the tympanic mucous membrane leads rapidly to caries as the mucous coat serves also as the periosteal lining. The intimate relations existing between the temporal diploic veins and the cerebral sinuses make bone disease here a serious complication. Of the three ossicles the incus is the one most frequently found diseased.

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[1] A paper read before the Manchester Medical Society, Nov. 4th, 1891.

[2] Archiv für Ohrenheilkunde, Bd. xxvi., p. 202.

[3] Ibid., Bd. xxv., p. 165.

[4] Archives of Otology, vol. xx., No. 3, 1891.

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Ludwig,[5] in 32 cases of hammer-anvil extraction, found the incus carious in 11, or 34 per cent., both malleus and incus in 16, or 50 per cent.; the incus was thus carious in 27, or 84 per cent. of the cases. The stapes is seldom affected.[6] When it is, the disease is usually confined to its arms. The foot-plate having a more intimate blood-supply escapes. The incus unfortunately is frequently not to be detected by the eye or the probe, and hence disease here is not to be diagnosed with certainty. Yet according to some authors disease of this ossicle is frequently the cause of keeping up suppuration. Some surgeons accordingly advise that the two ossicles—the malleus and the incus—should always be removed together.

The treatment of "attic" suppuration is at all times tedious. In fact, no cases of ear disease tax the resources of the surgeon and the patience of the patient so much as do these cases. The importance of thorough eradication of the disease is, however, at once evident when we recollect the relation of this space to the base of the brain, the mastoid antrum, and the lateral sinus. The ordinary methods of treatment by the use of lotions, caustic applications, and the insufflation of various powders will generally be found insufficient, as the source of the disease is seldom reached by any of these means. Thorough irrigation of the attic by means of Hartmann's cannula or Blake's syringe may at times be successful, but the method is tedious and uncertain. Solutions of corrosive sublimate (1 in 2000), resorcin (2-3 per cent.), or peroxide of hydrogen may be used for this purpose. Schubert,[7] however, finds that irrigations into the tympanic attic are in general unsatisfactory. The question of excising one or more of the diseased ossicles and the remaining portions of the membrana tympani was first proposed by Schwartze, and has since been frequently accomplished. The indications for the operation are: (1) chronic purulency of the middle ear, with caries of the ossicles, and (2) the presence of cholesteatomata in the drum cavity. In those cases where carious spots are found in the walls of the middle or external ear careful scraping must at the same time be resorted to. The main points to keep in view are: (1) the thorough removal of all foci of disease, and (2) the establishment of free drainage. The results of the operation are gratifying. Ludwig,[8] in 32 cases operated upon, found suppuration ceased in 20 cases, with regeneration of the membrana tympani five times, without regeneration of the membrane fifteen times. Eleven cases at the time of writing were still under treatment; 1 case had died, but not in consequence of the operation. Burnett[9] records a case of chronic purulency of six years' standing which had resisted all the ordinary methods of treatment. He excised the malleus and the membrana tympani, with the result that the purulent discharge ceased and the hearing power improved. Sexton[10] strongly advises this operation. He records 29 cases where this method of procedure was adopted. Colles[11] relates 13 cases with 8 cures, and 5 in which there was great improvement in hearing, in freedom from earache, tinnitus, and vertigo. Wetzel, Rheinhardt, Kessel, and others also endorse the value of this operation. I have lately had the opportunity of performing this operation four times, in each case with complete cure of the purulency, and in all with subsequent improvement in the hearing power. To perform the operation a strong light is essential. Some surgeons prefer the electric photophore of Trouvé, worn upon the forehead; others prefer Sexton's electric lamp. The ordinary forehead-mirror reflecting the light from a good lime-light apparatus answers every possible requirement. A general anæsthetic is essential. Previous to the operation, the ear should be carefully irrigated with warm carbolic or boracic lotion several times daily. The auricle should be cleaned with turpentine or ether, and kept covered with a carbolised towel. In order to minimise hæmorrhage from the incisions, a 20 per cent. solution of cocaine kept in the external meatus for five minutes previous to operating will be found useful. If the membrana vibrans be intact, which it very rarely is in these cases, a circular incision should be made $\frac{1}{10}$th of an inch from its attachment to the tympanic ring. The tendon of the tensor tympanic muscle is then to be cut close to its insertion into the long process of the malleus. The superior ligament of the malleus is then divided. A curved knife must now be passed, and the ligaments connecting the malleo-incudal joint severed. The malleus will now be free, and may be removed by means of forceps or by the snare. If the incus is also to be removed, it must be drawn down by a fine hook—e.g., that of Kretschmann, Ludwig, or Ferrer,—and the ligaments uniting it to the stapes severed. The ear should then be irrigated with warm boracic lotion and carefully dried. Finely pulverised iodoform should be insufflated into the ear, and the meatus lightly packed with iodoform wool. Slight oozing is apt to follow the operation for the first few days. If the dressings become moist they must be changed. The drier the parts are kept the quicker is the process of repair. In each of the following four cases the malleus alone was removed.

CASE 1.—E. B——, female aged twenty-four, suffered from an attack of scarlet fever eight years ago. During the fever the right middle ear was attacked by suppurative inflammation, and has since then continued discharging. At times the discharge was very fetid, and at times streaked with blood. The patient has been subject to frequent attacks of vertigo, tinnitus, and pain in the ear. The hearing power had gradually become worse and worse. On presenting herself for examination it was found to be $\frac{6}{20}$ of the normal, as tested by the watch. A large, soft, gelatinous polypus was found growing from the upper portion of the tympanic cavity, and protruding through a perforation in Schrapnell's membrane. On being removed the malleus was carefully examined with the probe, and found carious. Injections into the tympanic attic with Hartmann's cannula were first of all made, but without in any way influencing the course of the disease. It was accordingly decided to remove the diseased ossicle and the remaining portion of the membrana tympani. The operation was carried out as previously described. Slight discharge of pus was found in the meatus twelve hours after the operation. The dressings were accordingly changed, and the ear packed lightly with iodoform powder. Since then the ear has remained dry. Ten months after the operation the following condition was found. Springing from the fringe of membrane originally left was a new membrane of a dull, opaque, lustreless appearance. The attacks of pain and vertigo had entirely subsided, and the hearing power, which previous to the operation had been $\frac{6}{20}$ of the normal, was $\frac{15}{20}$. For conversation the hearing had also decidely improved.

CASE 2.—M. W——, female aged thirty-four, had suffered since childhood from purulent middle-ear disease on the left side. Recurrent attacks of pain were frequent, and the discharge was at times very fetid. The hearing power had been considerably damaged, measuring only $\frac{5}{20}$ of the normal. On examination a large, soft polypus was found protruding through the upper part of the membrana tympani. The superior and posterior walls of the tympanic attic and the posterior wall of the external meatus were found carious. The head of the malleus was embedded in soft granulations. It was decided (1) to remove the polypus, (2) to remove the diseased ossicle, and (3) to scrape the diseased bony parietes. The operation was conducted as in the previous case. The process of repair went on uninterruptedly, and now, seven months after the operation, a new membrane has formed and the hearing power has improved wonderfully, measuring $\frac{18}{20}$ of the normal, or practically perfect hearing power.

CASE 3.—M. M——, female aged twenty-six, had suffered from purulent disease of the right middle ear for twenty-one months. There had been previous disease of this ear during childhood, and the patient was unable to state definitely if the discharge had ever really ceased. On the left membrana tympani a cicatrised perforation was found. Constant tinnitus and occasional severe pain were felt upon the right side of the head. On examination the right membrane was found almost completely destroyed. The long process of the malleus was seen hanging free in the meatus, and the short process was embedded in granulations. Local applications of various kinds having failed to arrest the suppuration, the malleus was excised, and the tympanic attic thus freely opened up. Three days after the operation the dressings were changed. Since that time, now eight months ago, there has been no suppuration; the pain and the tinnitus have ceased, and the hearing power has improved. Previous to operation it was $\frac{2}{20}$ of the normal. At the last examination it had improved to $\frac{12}{20}$, or a gain of 18 in. A new membrane is in process of formation.

CASE 4.—E. M——, female aged six, had a severe attack of typhoid fever fifteen months ago. During the fever both

[5] Archiv für Ohrenheilkunde, Bd. xxix., p. 241.
[6] Schwartze: Die Chirurg. Krankheiten des Ohres, p. 389.
[7] Archiv für Ohrenheilkunde, Bd. xxx., May, 1890.
[8] Ibid., Bd. xxix., March, 1890.
[9] Transactions of the American Otological Society, 1890.
[10] Diseases of the Ear.
[11] Deutsche Med. Wochensch., No. 28, 1889.

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middle ears were attacked by suppurative inflammation, and since then have discharged freely, especially the right ear. Pain has been occasional, especially on the child's taking any fresh cold. On examination both membranes were found extensively destroyed. On the right side the long process of the malleus had been almost entirely eaten away by the disease, and the remaining portion was bare and eroded. The ossicle was accordingly removed under chloroform, as in the previous cases, and the tympanic attic carefully cleansed. A considerable serous oozing followed for several days. At the end of a week, however, the ear was perfectly dry, and has remained so since. The operation was done four months ago, but as yet there are no signs of any regeneration of the membrane. In this case I have no accurate record of the hearing power previous to operation, as the child gave most unreliable answers, but judging from the mother's statements there seems to be some material improvement.

In considering the advisability of removing diseased ossicles it must be borne in mind that anything which tends to keep up suppuration from the ear is a source of danger not only to the hearing but also to the life of the patient. Absorption of putrid pus may take place into the systemic circulation, and set up general pyæmic symptoms, or the formation of localised abscesses in the cerebrum, the cerebellum, or the lungs. It becomes, I think, the duty of the surgeon to free the patient from this possible source of danger regardless, one might almost say, of the effect the operation may have upon the hearing power. The result "quoad vitam" should be more highly valued than "quoad functionem." It must be remembered also that in many of these cases of attic suppuration with perforation of the flaccid membrane the hearing power is by no means very poor. The results of the operation, however, show that the hearing power may improve in a remarkable way in many cases. In Ludwig's[12] analysis of 32 cases the hearing power was decidedly improved in 16, remained as before in 9, and was impaired in 3 cases; 4 cases did not undergo a re-examination. In my 4 cases there was improvement in all, especially in the second case. It must be borne in mind that the operation is not altogether free from risks. There is a danger of wounding the chorda tympani nerve in its passage through the middle ear. This accident happened in my first case, and was followed by some defect in taste for a few days. No special regard, however, need be paid to this accident, as the disturbance of taste is merely a temporary phenomenon. Facial paralysis may occur as the result of the operation. In 2 recorded cases in which this accident did occur, it disappeared after treatment by electricity. With due care these accidents may be avoided, and the operation will in most cases be found eminently successful.

Manchester.

[12] Archiv für Ohrenheilkunde, Bd. xxix., p. 241.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

WESTMINSTER HOSPITAL.

SURGICAL CASES.

(Under the care of Mr. COWELL.)

THESE cases are illustrative of two of the rarer kinds of injuries met with in our casualty departments. The first, an incomplete dislocation of the foot at the calcaneo- and scapho-astragaloid joints, is one of the least common of the displacements of the foot: and although described in the text-books this account will bring more forcibly under the notice of our readers the signs which are found. The second case shows the occasional effect of machinery-amputation of part of a finger with rupture of the attachment of the tendon to the muscle, and not at the point of injury. This result of this kind of damage is illustrated in Erichsen's Surgery by plates taken from Morand's paper on the subject. A specimen of similar character was shown at the Pathological Society, in which, however, the tendon had been divided with the terminal phalanx of the thumb, and the nerves had been ruptured some inches from the wound.

Subastragaloid dislocation of the foot. (Reported by Mr. Powell, surgical registrar.)—G. R——, aged thirty-seven, a police sergeant, was admitted on Feb. 21st, 1891, with an outward dislocation of the right foot. He was ascending the steps of an omnibus, and when near the top slipped off, owing to the unexpected starting of the horses. He did not lose hold of the rails, but his feet came violently into contact with the ground, the hands sliding along the rail. Curiously, the foot (left) which first came in contact with the ground was uninjured, but the right sustained the rare accident above mentioned. The signs were obvious and the diagnosis easy. The foot was turned outwards with eversion, the external malleolus sinking into the hollow thus formed. The astragalus was in proper relation with the leg bones, but over its head the skin of the foot was very tightly stretched, so that its outline could be made out with great clearness. The scaphoid bone was drawn slightly beneath the outer part of the head of the astragalus, thus shortening the pre-malleolar portion of the foot. Mr. Cowell happened to enter the hospital a few minutes after the admission of the patient, and no time was lost in giving him an anæsthetic, when reduction was easily effected. Side splints with a foot piece were immediately applied. There was subsequently little swelling, although there was considerable ecchymosis. A week later a plaster-of-Paris case was applied to the ankle, and the patient was allowed to go home on March 5th, twelve days after the accident. He showed himself occasionally, and the plaster case was removed seven weeks later. The patient made an excellent recovery. Mr. Cowell remarked that the majority of the cases of subastragaloid dislocation which had been reported had been in the direction inwards This was a good example of the outward dislocation, and if the joint had given way above the astragalus the case would have been one of the ordinary Pott's fracture.

Avulsion of the terminal phalanx of the right thumb with the whole of the tendon and a portion of the muscular substance of the flexor longus pollicis attached. (Reported by Mr. Green, house surgeon.)—S. S——, an electrical engineer, aged nineteen, was admitted into Northumberland ward under Mr. Cowell on Dec. 17th, 1891. At 1 P.M. the patient was engaged in freeing a rope which had become entangled in a revolving shaft driven by straps, when his right thumb got caught in the rope, and the terminal phalanx, with the whole of the tendon and a portion of the muscular substance of the flexor longus pollicis attached, was torn away. The patient felt very little pain at the time of the accident, and did not faint or lose much blood. He came to the surgery about 1.20 P.M. suffering from the effects of shock, and was admitted at once, the arm being put in a boracic arm-bath. It was subsequently dressed with dry dressing, the forearm being thickly padded with wool over the origin of the muscle, and bandaged to a splint with thumb- and hand-piece. The temperature on admission was 99·4°, and did not rise above that point. There was no swelling at the point of laceration of the muscle.

On Dec. 27th the patient left the hospital with the wound granulating healthily. The tendon was eleven inches and a half in length, and to the upper six inches and a half muscular fibres were attached. The terminal phalanx was torn away at the joint; the skin, though jagged and uneven, was sufficient for the stump without surgical interference.

ROYAL INFIRMARY, NEWCASTLE.

A CASE OF POISONING BY BICHROMATE OF POTASH.

(Under the care of Dr. PHILIPSON.)

THIS substance, bichromate of potash, is so rarely taken, either by accident or design, that the account of a case in which a large amount of the drug was ingested, and in which the bad effects were successfully treated, is of unusual importance. Experiments on animals show that it possesses strong irritant properties, and a dose of two drachms has been known to prove fatal in the adult. In a case recorded by Mr. J. Stewart of Preston, a woman took a large dose of the bichromate dissolved in water, and died forty minutes afterwards. She became rapidly unconscious, with collapse,

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purging, and vomiting; from the first the respiratory centre was markedly affected, and she appeared to die from respiratory failure. The appearances found on post-mortem examination were those produced by a corrosive poison. For the notes of this case we are indebted to Mr. W. Turnbull, acting house physician.

R. H——, aged forty-eight, labourer, was admitted into the Royal Infirmary, Newcastle-on-Tyne, under the care of Dr. Philipson, at eight o'clock on the evening of Sept. 11th, 1891, stating that he had swallowed a quantity of fluid used by cabinet-makers for purposes of staining furniture, and technically termed "red crystal." Having elicited from the patient the fact that the solution was prepared by dissolving a salt in water as well as a rather vague description of the salt itself, it was deemed probable that the poison employed was bichromate of potash. The patient occasionally worked for a master joiner in this city, and on the day in question, whilst in the workshop, he had partaken of the poison under the impression that it was cold tea, some of which stood in a can very similar in appearance to that out of which he drank. He shortly afterwards complained of the bitter taste remaining in his mouth, and on being questioned by his master as to which vessel he had used, the nature of his error became immediately apparent. As soon as it could be procured, about ten ounces of a solution of common salt were given to him, and with the idea of still further promoting or facilitating emesis he ate very freely some fat bacon which happened to be in the workshop at the time. This occurred at 6.45 P.M., and between that hour and his arrival at the hospital the symptoms had been as follows: An intermittent burning sensation over the gastric region, constant desire to vomit but inability to do so, and a general feeling of great bodily prostration; the bowels had also been opened twice.

On admission, beyond the fact that the man kept constantly moaning, but more from fear than from actual bodily suffering, and that the pupils were slightly less than normal, there were no obvious features in the case, either subjective or objective. The pulse was 80 and the respiration normal. Acting on the supposition already arrived at, the case was treated as one of irritant poisoning; the stomach pump was used, but only a small quantity of a viscid, frothy fluid was thus discharged, which, when treated with lead acetate, gave a slight yellow colouration. White of egg was next administered and the patient put to bed, warm bottles placed at the feet, copious draughts of milk, in which magnesium carbonate was suspended, being given internally. He now began to vomit very frequently and freely, some of the ejected matters being streaked with blood, but no other unusual features were noticeable in his condition until 9.30 P.M., when he complained of intense thirst, continuous burning sensation in the mouth and fauces and over the stomach; there was also decided tenderness detected on palpation of the latter area. Half an hour later these symptoms were further added to by a prolonged rigor. The temperature, which had previously been quite normal, quickly rose to 103°, the pulse at the wrist was almost imperceptible, and could not be accurately counted. He was given half an ounce of whisky, ice to suck, and milk with the addition of an equal part of soda-water. About 10.15 P.M. there ensued agonising cramps in the legs, which, commencing in the foot, passed up the thighs, but were of greatest severity in the calves of both legs; the arms were similarly but less markedly involved. Diarrhœa and an augmentation of the other symptoms—viz., vomiting, hæmatemesis, and cramps—serve to characterise the subsequent acute stage of the case. At 6 A.M. on the 12th the use of the magnesium carbonate was discontinued. At 8 A.M. an enema of starch and opium was injected, and this had the effect of allaying the tenesmus and diarrhœa. At 9 A.M. a mixture containing bismuth, opium, and sodium bicarbonate was ordered to be given every four hours. When seen by Dr. Philipson at 10 A.M., although the vomiting was less severe and distressing, the condition of the patient was yet eminently precarious, and justified the unfavourable prognosis given. Pulse 140; respiration 48; temperature 100°. Patient slept for about an hour in the afternoon. There was now a gradual cessation of all the symptoms, and in the evening thirst, faucial pain, and abdominal tenderness alone remained. Pulse 93; respiration 33; temperature 98°.

Sunday, Sept. 13th.—Morning: temperature normal; pulse 80; respiration 21. Evening: temperature normal; pulse 78; respiration 18. During the next three days the patient was only allowed milk or milk and soda-water. Recovery was very rapid, and a week later he left the hospital quite convalescent. Some of the liquid similar to that which he had swallowed was obtained from the workshop, and this when treated with lead acetate and silver nitrate gave the respective yellow and chocolate precipitates indicative of bichromate of potash.

As regards the amount of poison ingested, it was ascertained that the solution is made by dissolving one ounce of the salt in sixteen ounces of water, and as his master stated that the man had drunk not less than ten ounces of the fluid, he had therefore taken about 273 grains of the solid salt.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Tetanus as a Complication of Ovariotomy.

AN ordinary meeting of this Society was held on Jan. 12th, the President, Mr. TIMOTHY HOLMES, in the chair.

Dr. JOHN PHILLIPS communicated a paper on Tetanus as a Complication of Ovariotomy. After calling attention to contributions on this complication by Parvin and Olshausen, he related a case of the kind occurring in his own practice. The results of eighty-one inquiries addressed to various university professors in Europe, and sixty-seven in the British Isles, were given in the form of charts, and complete details of sixty-four cases were furnished. Many operators were found to have met with more than one case. The author, under these circumstances, had endeavoured to find out the reasons by tracing out the sites of operation, times of year, and the general surroundings of the cases. The various theories of the production of tetanus were discussed, and the possible complications in the operation and after-treatment which might be conducive to its onset. Allusion was made to recent bacteriological discoveries on the subject of the tetanus bacillus. A plan of treatment was recommended in consistence with these, and local treatment was thought to be of the first importance. He concluded: 1. That the operation of ovariotomy had elements in it which were conducive to production of tetanus by nerve irritation—i.e., tearing of adhesions and ligature of pedicle; but that tetanus in these cases did not deviate from the usual series of symptoms which were observed when it complicated other surgical operations. 2. That although some cases of tetanus arose *de novo*, and without necessarily the presence of sepsis, yet the usual manner of spreading was by contagion, and was aided by sepsis. 3. That although the "garden-mould" theory of causation was not established, yet that there was sufficient evidence to recommend avoidance of operating in a room recently plastered or situated near lately disturbed garden mould. 4. That on the first symptoms of tetanus arising, a strict local search should be made for irritating cause before proceeding to general treatment. 5. The folding over of a broad pedicle, which had already been ligatured, and then applying a second ligature, was not to be recommended. 6. That the only means of disinfecting instruments was by boiling them for at least an hour.

Mr. DORAN said that four of the cases which had been tabulated were not ovariotomies in the sense in which that word was commonly used. One was an oöphorectomy for fibroid, and if this condition was accompanied by menorrhagia the nerve shock after operating was usually very great. Another of the cases was a small myoma of the fundus uteri, with chronic ovaritis; a third case was one of removal of diseased tube; while in a fourth it was stated that the ovaries were indistinguishable, and it was really an incomplete operation for fibroid. As to the causation of tetanus, he had assisted altogether at 1287 abdominal sections, and had only twice encountered tetanus. One was Mr. Thornton's case, already published, where the operation was done in a windy farmhouse, and another was a case of Dr. Bantock's; the weather was changeable between frost and thaw, and it was windy. The patient one day complained of a draught on the cheek, and this was the beginning of the attack of tetanus. Statistics from abroad were not of much value till recently, for the nursing, as a rule, had been so extremely unsatisfactory. Looking over the cases which had been tabulated,

he observed that in one case the pedicle had been much pulled about, and this, he thought, might be a provocative cause. In other instances the omentum had been a good deal handled, but the latter would certainly not produce tetanus, for extensive adhesions of the omentum were being detached every day. A large number of women in the upper classes suffered wearying pains if they got a little flatulence or at the end of micturition; this was usually due to an adhesion of omentum to the pelvic organs. He would sum up the three principal causes of tetanus as meddling with the pedicle, draughts, and careless nursing.

Sir GEORGE HUMPHRY expressed his gratitude to the author for the careful way in which he had put the cases together. The first case which he himself had witnessed was in 1855, before the days of clamps and of antiseptic treatment. The case was an ordinary one, and on the eighth day he took his leave of the patient, as the wound had nearly healed. The same evening tetanus commenced and went on rapidly to a fatal termination. Another case was that of a lady aged fifty-seven, and though he had not actually operated he saw a good deal of the case; it was treated in the modern fashion by the intra-peritoneal ligature. The wound healed on the eighth day, and then symptoms of tetanus developed, the patient dying within twenty-four hours. In this last case antiseptic precautions were taken. Both these patients had perhaps been kept on too low a diet, and this may have predisposed to the development of tetanus. A good many cases of this affection had been under his own care, and he confessed himself unable to come to any conclusion as to the reason of the development of the attack in in any one of them. The original injury had for the most part been very trivial, such as the lash of a whip on the face &c. He had seen only one result from a cut between the thumb and forefinger, and he did not believe that there was any substantial ground for the common impression that an injury in this region was a fertile source of tetanus. He had seen nothing to suggest that garden mould might be a cause of tetanus, nor did he think that pulling about a wound ministered to its occurrence. He had never seen it follow when it might be most expected, such as after a badly lacerated wound with much damage to nerves &c.; but in all the cases it had supervened when one had no idea that such a result would happen. He had tried every variety of treatment, and he thought they all did more harm than good. He had kept the patient under chloroform for long periods, and this, together with morphia and other remedies, he thought was valueless; chloral and quinine perhaps did a little good. The sheet anchor of treatment was food, and when they could not swallow they always died. An infant, from the back of whose neck he removed a fatty tumour, developed a smart attack of tetanus, but it went on taking its milk well, and it ultimately recovered. He felt that the real nature of the disease was a blood poison, and that that was fast becoming the prevalent opinion. Perhaps something in the shape of an antitoxin might shortly be discovered to combat the poison.

Mr. HULKE, after referring to the uncertain opinions which had prevailed until recently as to the nature of this affection, thought that there was now ample evidence in favour of its being a specific infective condition. Dr. Phillips seemed to attribute it to a mechanical irritation, and at the same time he referred less confidently to the bacillary theory of its origin. The facts were that a bacillus easily recognisable had been discovered in tetanus; that pure cultures of this had been obtained and had been injected into test animals, with the result that tetanus was produced. Bacilli taken from human beings dead of tetanus had likewise produced tetanus in animals. These facts were so convincing that for him all other views fell to the ground. The long period of latency was curious, but the same thing was seen in hydrophobia. He related some cases which had come under his notice. In one a girl who was suffering from tetanus was said to have no wound or external injury, but over the left kidney was seen a healed scar, and from beneath it a large rough, ragged splinter of dirty wood was extracted. In another case there was a healed scar of the eyelid and conjunctiva, and at the back of the orbit was a nest of splinters of dirty wood. The poison seemed in this manner to lie dormant till some condition of the surrounding tissue permitted it to light up. He had tried nerve-section, nerve-stretching, amputation, eserine, &c., and he agreed that simple feeding seemed to be the best treatment; in the acute cases certainly nothing could be done. The last case that had come under his notice was that of a carpenter who had pricked his foot with a dirty nail. Carbolic acid was injected locally without result. He died, and from his blood a chemical substance was isolated, which he understood had produced symptoms of tetanus in animals.

Mr. LOCKWOOD felt that the last speaker had struck the true note, and that tetanus had taken a new position since Kitasato had separated the poison four years ago. He thought that it might be gathered from many of Dr. Phillips's remarks that sepsis as sepsis might produce tetanus; but it should be remembered that the bacillus of tetanus was constantly found with pus, and it speedily died in the presence of oxygen. It was an infective disease, the poison could be carried by dust, and this fact rendered the cases intelligible in which it was stated that draughts appeared to act as a cause. In one case he had investigated no bacilli were found in the tissues at the seat of inoculation. The spinal cord and arachnoid appeared to give better results for the purpose of inoculation than other tissues, and this affinity of the poison for nervous tissues explained many of the clinical symptoms. A spinal cord need not be fresh to give a pure culture, and as the tetanus bacillus would stand a high degree of heat, all instruments, in order to be thoroughly disinfected, should be boiled for some considerable time. He felt sure that the disease was never due to anything else but infection, and usually by means of earth. In one case the wound was inflicted by a stick when the child was playing in a garden; the earth of that garden inoculated under the skin of mice produced tetanus. He knew of two other cases in which the wounds had been caused by wood smeared with earth. He had tried treatment by oxygen inhalation; this ameliorated the spasms, but produced no other result.

Mr. MACNAMARA said that in Calcutta formerly tetanus was extremely prevalent, and it was observed to be most common under certain conditions of wind and temperature, especially a sudden fall of temperature with an east wind; the same influences had been observed to affect the spread of cholera and malaria. Since the introduction of antiseptic treatment in Lower Bengal the number of cases had remarkably diminished. He agreed in the importance of feeding, especially in the more chronic cases, and advocated the administration of full doses of chloral and bromide every evening in order to procure sleep.

Dr. PHILLIPS, in reply, said that his object was to collect all cases in which the ovaries had been removed, whether they were diseased or not. He felt that there was something in the theory that garden mould was indirectly causative of the disease, and believed that the only method of disinfecting instruments was by boiling

MEDICAL SOCIETY OF LONDON.

Cerebral Hæmorrhage—Galvano-cautery for Prostatic Obstruction.

AN ordinary meeting of this Society was held on Jan. 11th, the President, Dr. Douglas Powell, in the chair.

Dr. T. CHURTON of Leeds read the notes of a case of Cerebral Hæmorrhage, and demonstrated the anatomical conditions present by morbid specimens. A woman aged fifty-eight was admitted into the Leeds Infirmary on Sept. 18th, 1891, for right hemiplegia and hemianæsthesia without aphasia. On the 15th she had felt a sudden numbness in the left leg, and in about half an hour numbness in the right leg, which quickly, with the arm and face, became partially paralysed. On the 25th it was found that the left foot was completely anæsthetic; the right foot was then sensitive, a pinch producing exclamation and movement. She was quite conscious. There were signs of femoral phlebitis on the right side; the thigh was distinctly larger than the left. Reflexes: Plantar, slight on right, very brisk on left; patellar, sluggish on right, well marked on left. No ankle clonus. Hæmoptysis and other signs of pulmonary phlebitis appeared; the patient died on Oct. 2nd. A clot was found in the outer part of the left optic thalamus and fibres outside it; a quite dry, dark-red clot of the size of a walnut in the posterior horn of the left lateral ventricle, which was otherwise perfectly normal; no erosion of its surface and no staining; a dark clot in the right calloso-marginal fissure, overlying and slightly eroding the hinder part of

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the gyrus fornicatus. The arteries were rather atheromatous. The brain was shown, with photographs, kindly taken by Dr. Turner at the Neuro-pathological laboratory of King's College. The bearing of this case upon the localisation of tactile sensibility in the brain was discussed, and it was shown that there were no local conditions which could have caused the anæsthesia of the left foot. The right thigh, hand, and cheek were insensitive; left, sensitive. He discussed four points in the case: 1. The occurrence of hæmorrhage in two hemispheres almost simultaneously. 2. The association of femoral phlebitis. 3. The mode of formation of the dry clot in the left lateral ventricle. 4. The anæsthesia of the left foot, which appeared to be due to lesion of the right gyrus fornicatus rather than of the motor area, because (*a*) no paralysis of the foot was observed; (*b*) staining and slight erosion were seen upon the gyrus fornicatus, and none upon the convolutions above the clot; (*c*) in a case (published by himself) of tuberculosis of the same motor area, causing rhythmic muscular movements, there was no pain or other observed sensory disorder.—The PRESIDENT inquired if the vessels in this case had been found to be notably diseased. The presence of phlebitis in so many directions was remarkable. He asked what was considered to be the connexion between the phlebitis and the cerebral hæmorrhage, and if the latter condition had been produced through the former by way of embolism.—Dr. TURNER said that the case, of interest to the general physician, was especially so to the neurologist. He knew of only one other case at all similar to it, which was recorded by Dr. Savill in the last number of *Brain*. It was that of an old man who had hemianæsthesia and trophic changes on the left side. He got better of this, and then three years later he had another attack, of which he died. At the post-mortem examination a cyst was found in the right gyrus fornicatus, extending into the quadrate lobule. Both these cases corroborated the conclusions which had already been arrived at as the result of experiments on monkeys—namely, that if the falciform lobe were destroyed, anæsthesia of the opposite side would ensue. Munck and others abroad held that the Rolandic area comprised the centres of common sensibility, while Ferrier and others in this country maintained that common sensation had a special centre in the falciform lobe. The case related certainly strongly supported the latter view. In the case of Dr. Savill trophic changes had been noted, but they were not present in the instance under discussion.—Dr. CHURTON, in reply, said that at the necropsy a clot was found in the right iliac vein. The left posterior tibial artery was examined and also the femoral, but nothing was found there to account for the anæsthesia of the foot, and the good condition of the superficial reflexes showed that the nerves had not been destroyed. He thought that the phlebitis and hæmorrhage were due to a common cause—the circulation of some irritant in the blood, which set up inflammation both in the arteries and veins; the headache was possibly to be accounted for in the same way. He had not noticed any trophic changes, but then the patient only lived three weeks from the onset of the disease. Judging by analogy from the spinal cord, he thought that trophic changes would be more likely to follow if the damage were to a part of the motor tract.

Dr. CHURTON likewise showed a patient in whom he had diagnosed the existence of a gumma, which extended from the middle of the pons Varolii to the lower part of the medulla oblongata on the right side. The patient had presented paralysis of all the nerves, from the fifth to the twelfth inclusive, but the motor part of the fifth had never been involved. There was marked atrophy of the left half of the tongue and of the left sterno-mastoid and trapezius. He was slowly but distinctly recovering from below upwards under treatment, the fifth nerve being now entirely cured and the seventh partially so. Two years ago he was quite well, and he then lost a large amount of blood from piles; he had had syphilis years ago, and the loss of blood, coupled with deprivation of food, had probably caused the gummatous inflammation to develop. The first symptom noticed was a loud tinnitus aurium, which disappeared after incising the membrana tympani. As soon as the incision healed the tinnitus reappeared; but a fresh incision, together with regular inflation of the Eustachian tube, had rid him again of this trouble.

Mr. BRUCE CLARKE read a paper on the Radical Cure of Prostatic Obstruction by the Galvano-cautery. After briefly discussing the various surgical procedures which had been recently employed for the relief of enlarged prostate, the writer pointed out that there were many slighter conditions which, while they did not merit so extensive an operation as supra-pubic removal involved, were yet quite as annoying and inconvenient to their possessors. Indeed, whether the prostate was very large or not, the actual obstructing portion of it was exceedingly small, and hence the success which might be obtained by the removal of only a small portion of a large mass. He then went on to describe the galvano-cautery of Bottini, and the method by which it was employed, as well as the general results which it yielded, after which notes were read of four cases which had been under his care. From these it appeared that out of four who had suffered from enlarged prostate for some time, and who came under his care with a considerable amount of residual urine in their bladders, all were able to micturate without difficulty, and only one of them had still any residual urine in his bladder. In other words, out of four patients so treated, three were absolutely cured, and had remained so for a period varying from three to six months after operation, and the remaining case was much better, and still improving.—The PRESIDENT asked if any disagreeable cicatricial results had followed, and whether the use of a catheter was necessary in consequence.—Mr. HURRY FENWICK said that he had used this method of treatment both at the London Hospital and at St. Peter's Hospital. He would discuss it under the heads of practicability and applicability. As to its practicability, it was very difficult to get the instrument to work, for it required such a powerful battery to heat it. Two large storage accumulators at least were necessary, and the Italian instrument was so short that it was not at all easy to get it into position. As to its applicability, in very few cases could it yield a good result. In one instance, after use of the instrument, he was obliged to cut down supra-pubically and shell out the middle lobe of the prostate. It was, indeed, only good for the ridge-like form of obstruction, which could be better treated by a perineal incision and division with a blunt knife. Statistics showed that 90 per cent. of the prostatic obstructions were due to middle lobe enlargement, which would not be reached by this instrument, while in only 10 per cent. was the bar obstruction present.—Mr. SWINFORD EDWARDS said that he had had no personal experience of this method, but it appeared to be a good one if it could restore natural micturition. He inquired of the author if he had tried electrolysis puncture through the rectum, which was said to cause shrinkage of the prostate. The cases seemed to have been well selected, for the urine was normal in all. He feared that this operation was likely to set up cystitis and inflammation spreading backwards. He himself had used a modified prostatome, which punched out a portion of the gland. He obtained an immediate good result, though the benefit was only temporary. The supra-pubic operation was undoubtedly a serious one, and as it was usually demanded in broken-down old men, it should never be lightly undertaken.—Mr. BUCKSTON BROWNE said that the ordinary prostatic case was usually such an exceedingly simple one to manage, that we should be very careful before we rushed to new methods of treatment. He regarded supra-pubic prostatectomy as dangerous, and only to be resorted to in extreme cases. He admitted, however, that there were indications for its employment. The operation of Bottini was enticing from its apparent simplicity, and was therefore apt to be employed in unsuitable cases. A man who had only just begun to use a catheter should certainly not be submitted to such an operation. The fourth case appeared to him to be one of bad stricture together with atony of the bladder; he thought it probable that after treatment of the stricture the bladder would have recovered power independently of Bottini's operation, and the good result therefore ought not to be credited to the latter. It should not be forgotten that it was quite possible for a man to regain power absolutely over his bladder after having lost it for a considerable time. He related an instance in which a gentleman, being unable to relieve his bladder, was left afterwards in a condition of retention for sixty hours. Three pints of urine were then drawn off, but for six months afterwards he could pass no urine except by catheter. He was now, however, able to empty the bladder entirely by natural effort. He agreed with Mr. Fenwick that the majority of cases of prostatic obstruction were due to middle lobe enlargement, for which this procedure would be of no avail; in such cases incision from the perineum or urethra

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met with but trifling success.—Mr. CLARKE, in reply, said he had carefully selected his cases. He agreed that, in cases of middle lobe or of irregular enlargement, if any treatment beyond catheterism were indicated, then the supra-pubic operation should be done; but he had not of course advocated Bottini's method for these. One could not expect to get a good result unless the bladder were healthy, and he doubted if the operation were more dangerous than lithotrity in skilful hands. He admitted that an instrument requiring a lighter battery power could be constructed, and would be more convenient; but that did not touch the question of applicability of the method. He held that the question of frequency should not be decided by an appeal to museum specimens; the only statistics of value were those of the post-mortem room.

CLINICAL SOCIETY OF LONDON

Gout of Penis.—Trephining for Hæmorrhage from Middle Meningeal Artery.—Gastro-enterostomy and Jejunostomy.

AN ordinary meeting of the Society was held on Jan. 8th, the President, Sir Dyce Duckworth, in the chair.

The PRESIDENT first alluded in a few touching words to the loss the Society and the profession had sustained by the comparatively sudden decease of Mr. Berkeley Hill.

The report of the committee appointed to ascertain the period of incubation of various diseases was then presented and received.

Sir DYCE DUCKWORTH gave the clinical history of a case of Gout of the Penis. A man aged forty-two, a glass cutter, was admitted into St. Bartholomew's Hospital with gouty arthritis, involving several joints, including those of the great toes. There was moderate pyrexia. The patient had been discharged from a cavalry regiment twenty years previously on account of hernia. Since then he had led a sedentary life, and drank about two pints of beer daily. Sixteen years ago he suffered from lead colic, and was in St. Bartholomew's Hospital for treatment. He was occasionally subject to attacks of articular gout, and inherited the disease from his father. Five days before admission he was awakened by sudden pain in the right wrist and right great toe-joint. The following day he awoke with pain in, and firm erection of, the penis. This continued up to the time of admission. Three days later the left great toe-joint was attacked by gout. The various thoracic and abdominal organs were found healthy. The urine was acid, sp. gr. 1022, and void of albumen. The penis was erect and tense, distressingly painful and turgid. No points of hardness were found in its course. The testes were natural. There was no pain or swelling in the perineum. There was pyrexia, with a temperature varying from 99° to 102°. Aperients and salines with colchicum were administered, and a light diet. The priapism persisted steadily, uninfluenced by internal treatment, by sedative suppositories or lead and opium lotion. A cage had to be placed over the abdomen to prevent impact of the bedclothes. Micturition was painful, and soft catheters had to be passed. From time to time fresh articular attacks of gout occurred in various joints with slight rises of temperature. Priapism persisted for twenty-one days without intermission, and gradually subsided with general amendment of all the symptoms. The noteworthy points in the case were—first, the gouty inheritance; secondly, enforced sedentary habits, with exposure to lead impregnation, and the habitual drinking of beer. The extreme rarity of the case was commented on. While acute gouty inflammation was shown to be not infrequent in the bladder, prostate gland, and testes, gout of the body of the penis in this acute form was practically unknown, and the author had never heard of a similar case. The pathology was believed to be thrombosis of veins in the corpora cavernosa, with some inflammatory condition of the trabecular structure, return of blood being mechanically prevented during the blocked condition of the parts. Smaller thromboses of this nature had been previously noted, but not leading to painful persistent priapism, and entailing the presence of small knots readily perceptible in the body of the penis, which slowly or imperfectly disappeared. Priapism was sometimes met with in elderly men as the result of a very acid condition of the urine, and was readily removed by alkaline treatment. The author classified the condition described as amongst the rarer forms of gout, of which gouty parotitis was another example.—Dr. ORD thanked the author for the record of such a rare clinical condition, which in an acute form he had never met with.

Mr. BLAND SUTTON read notes of a case of Fracture of the Skull complicated with Hæmorrhage from the Middle Meningeal Artery in which trephining led to a successful result. The patient was conveyed to the Middlesex Hospital in an insensible condition, due to falling upon the pavement and striking his head when drunk. Soon after admission the right arm and leg became completely paralysed. From the history of the case Mr. Sutton came to the conclusion that there was an extravasation of the blood due to injury of the middle meningeal artery. Acting on this opinion, the left side of the skull was trephined. A very large clot of blood was found between the dura and the bone. In order to secure the torn artery it was necessary to remove bone freely. By means of an electric search light a fissure in the bone was found to run from the left limb of the lambdoid suture downwards into the tympanum and across the petrous portion of the temporal bone. At this spot the dura was lacerated and the sub-dural space opened. After the operation motor power returned in the paralysed limbs, cerebro-spinal fluid escaped during four days, but the patient quickly became conscious, and made an uneventful recovery.—Mr. CHARTERS SYMONDS said he had performed operations on three of these cases. The first of these had been already published in the Transactions, and was similar to that described in that the bleeding came from a deep source far forwards, necessitating the removal of much bone; the hæmorrhage was controlled by fixing forceps on the bleeding point. The case proved fatal from a limited meningitis round the site of operation, which he thought was due to prolonged exposure and to the use of the spray. Both his other cases terminated successfully. In one the patient, a man, was knocked down by the blow of a crane. He was at first quite conscious, and complained of intense intracranial pain. In an hour and a half he became unconscious, and had universal convulsions. He recovered after trephining. The last case was that of a boy who was brought into the hospital after an accident to the head. He was quite sensible, but in the course of two hours became unconscious, and almost dead. Artificial respiration was carried on, the skull being trephined meanwhile. He soon rallied, and afterwards made a good recovery. During the operation compression of the carotid was practised, and continued for four hours afterwards; this materially checked the hæmorrhage.—Mr. GODLEE said he had operated on three or more cases, and he had seen several. None of those he had dealt with had been successful, and the reason for this was that they were usually left so long before operation that the cerebral tissue had lost its power of expansion after removal of the clot. His opinion was that instances of this lesion were not very rare.—Mr. SUTTON, in reply, said that when he removed the clot the dura and brain were nearly an inch and a half from the surface, but twelve hours afterwards complete expansion had taken place.

Mr. BOWREMAN JESSETT gave the details of five cases on which he had performed Gastro-enterostomy for pyloric carcinoma, and two cases of Jejunostomy on patients who were suffering from carcinoma of the cardiac end of the stomach. Of the five cases of gastro-enterostomy, three had recovered. One case which was shown at the Society in April, 1891, and on whom the operation had been performed in April, 1890, was well at the date of reading the paper, and able to eat and digest ordinary food. A second case which had been operated on fifteen months ago was also well. In neither of these cases had the disease materially increased in size. The third case died nine months after the operation, having lived in comparative comfort until the time of her death. Of the two cases which had died, one succumbed because feeding had not been begun early enough, the patient dying of exhaustion; the other died of septic peritonitis. Since the writing of this paper, Mr. Jessett reported that he had operated on the two other cases, one dying from collapse after the operation, never having rallied from its effects, and the second was a case of combined pylorectomy with gastro-enterostomy, which was shown at the Society in October, having been operated on in the previous July. The patient reported himself now as being well and in the enjoyment of fairly good health. In all these cases the operation was performed by means of decalcified bone-plates. The two cases of jejunostomy were

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both performed in men who were in a terrible state of collapse, pain, and emaciation at the time of operation. Both operations were successful, one man living in comparative ease for nine months, during which time he was free from pain and able to feed himself through the fistulous opening. The other man, although the operation *per se* was successful, succumbed six weeks after from exhaustion. These two operations were performed by a novel method suggested by the author, which was fully described.—Dr. BURNEY YEO said that these cases were very interesting to physicians. It should be remembered that some cases of scirrhus of the pylorus ran a prolonged course under suitable treatment, living in tolerable comfort for many years, and this should make physicians hesitate before recommending operation. In one instance from the commencement of symptoms to the termination of the case seventeen years elapsed, and in another twenty-two years. Success depended on suitable feeding, nothing being given but what the stomach could readily absorb, and under these conditions the patients would often rapidly rally. He held that the stomach rather than the rectum should be trusted for nutrition in these cases. He had seen the greatest benefit result from the persistent administration of creasote, and also from courses of Carlsbad water.—The PRESIDENT concurred in the value of palliative medical treatment in such cases. But if it were found that in spite of careful feeding the patient was losing ground, there could be no doubt that operation should be done at once. It was remarkable how varying was the susceptibility to cancer of various individuals, some being particularly vulnerable, while others apparently possessed the power of resisting its incursions. He asked if in the fatal cases the diagnosis of cancer was confirmed post mortem, and what operation the author would do in a case of closure by malignant growth of the lower part of the œsophagus.—Mr. JESSETT, in reply, said he had never seen a case of pyloric cancer last so long as some of those quoted. He strongly suspected that the diagnosis might be in error, and that they were instances of pyloric fibrous stricture which afterwards underwent malignant degeneration. He agreed as to the value of suitable diet in preserving strength and nutrition. Three of the cases he had related had been under treatment for a long time, and had been going steadily down hill; the last, indeed, never rallied from the operation, which had been postponed too long. He advocated early operation, as then there was a chance of not only doing gastro-enterostomy but pylorectomy as well, if the case should prove one suitable for extirpation of the growth. One of his fatal cases proved to be non-malignant fibrous stricture. In a case of cancer at the lower end of the œsophagus he would do gastrostomy, with the use of Senn's plates.

Reviews and Notices of Books.

Surgery. By C. W. MANSELL MOULLIN, M.A., M.D. OXON., F.R.C.S., Surgeon and Lecturer on Physiology to the London Hospital; formerly Radcliffe Travelling Fellow and Fellow of Pembroke College, Oxford. London: J. & A. Churchill. 1891.

IT is impossible to read this work without realising that certain circumstances may tend to raise a prejudice against it. A volume of over 1400 pages is of necessity very cumbrous, and the reading has been made difficult by the disproportionate margin to the text. This cannot fail to act unfavourably on the mind of a reviewer and to damp the ardour of a student. Of a total of 495 illustrations only 152 are original, while 132 are Mr. Bryant's and 63 are Ferguson's. In a new edition of the list of illustrations the source of the borrowed illustrations is given, but it is not indicated in the text as it ought to have been. We cannot help feeling that to rely so largely as this upon the work of others, and particularly to use for one surgical text-book woodcuts prepared for a previous one, is most undesirable.

The work is designed as a text-book for students, and as such is an ambitious attempt to rival or surpass those of Erichsen, Bryant, and Holmes. The author has displayed great courage in undertaking such a task, for it must be confessed that he is heavily handicapped in the contest. The writers we have named had all had a large experience in the practice and in the teaching of surgery when they published their works, while it is Mr. Mansell Moullin's good fortune to be in a position to anticipate such an experience. And it must be confessed that experience is the highest of all qualifications for the writer of a text-book, and we cannot say that we find evidence in the book before us that other excellent qualities can compensate for its want. Mr. Mansell Moullin has shown great industry, has made good use of surgical literature, and has utilised the researches, writings, and experience of others. The teaching of the book is in general harmony with that of British surgeons, and students will find it a safe guide. The writer's object appears to have been to give an epitome of general surgical knowledge, and not to advance original or the most novel teachings, and in that he has been well advised.

The Book of Climates. By D. H. CULLIMORE, M.D., M.R.C.P. Lond. and Dub. London: Baillière, Tindall, and Cox. 1890.

THE object of this work, we are informed in the preface, is "to give a concise, clear, and useful account, and one which will be acceptable alike to the profession and the public, of the climates of the different countries of the globe, their salubrity, health resorts, mineral springs, and prevailing diseases." In attempting to accomplish these objects within the limits of a small volume of 266 pages, the author has essayed a practically impossible task, and has condemned himself to inevitable incompleteness and superficiality. He seems conscious of this himself, remarking that "the greatest difficulty encountered has been to keep it within the limits prescribed by the publishers and the needs and purchasing capacity of the profession and the public, and to render the descriptions at the same time interesting, intelligible, and useful." Nevertheless, as a slight sketch of the great topic of the world's climates and their influence on health and disease, Dr. Cullimore's work possesses some considerable merits. A very large amount of information is packed into the narrow limits of space allotted to the author. There is no verbiage or padding, and the writer presents his facts in the main accurately and in a readable form. We have, however, noted some curious errors. Thus at page 197 we find the extraordinary statement that "at Cairo, which is a dirty, crowded, low-lying city, the death-rate is about 30 per cent." (*sic*)! The actual death-rate of Cairo during the last seven years, including one cholera year, has been 21·8 per 1000 among Europeans and 46·5 per 1000 among the natives. At page 18 we are informed that "in Switzerland, Austria, and the south of France places ..... above 4000 feet are generally exciting, and often wet, variable, disagreeable, and harsh." This statement requires much qualification. Such statements as that "Penzance possesses the most equable climate in the world" (p. 64), and that "Homburg is perhaps the most popular and amusing bath in Europe" (p. 126), are certainly at least open to serious question. Such errors or questionable statements are, however, exceptional, and though calling for correction or modification, do not seriously detract from the general accuracy of the information presented by Dr. Cullimore.

It will be seen that the author aims at giving a bird's-eye view of *all* the climates of the world without regard to the special merits which some of them possess as sanatoria. The point of view thus assumed is that of the physical geographer rather than of the physician and medical climato-

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logist. It may be questioned whether this is a convenient or practically useful way of handling the subject. It entails relatively long descriptions of countries of no importance therapeutically, while some of the most valuable resorts are too briefly dismissed. Thus Dr. Cullimore devotes five pages and a half to Burmah and adjacent countries, and about the same space to the West Coast of Africa, the Soudan, and the Congo; while Egypt receives rather less than two pages, Algeria a little more than two pages, and Madeira and Tasmania about half a page each. This is a serious detraction from the value of the work regarded as a guide to the profession or to patients seeking a new climate on the ground of health. This plan has the further drawback that it leads the writer to give prominence to mere geographical or physical facts, while the difficult but interesting and vitally important problems of medical climatology receive relatively scant attention. In this department, however, as far as he goes, Dr. Cullimore is, in the main, a safe guide. He appears to have no prejudices and indulges in no hyperboles, and his hints on the therapeutic applications of the various climates, though brief and inadequate, are rarely much at fault.

Dr. Cullimore writes from a considerable personal experience of foreign countries and climates, and his book is a practical one. We cannot help wishing, however, that he had allowed himself wider limits of space and given us a really adequate account of the interesting and important topics with which he deals.

OUR LIBRARY TABLE.

Abdominal Surgery. By J. GREIG SMITH, M.A., F R S E., Surgeon to the Bristol Royal Infirmary, Lecturer on Surgery, Bristol Medical School. Fourth Edition. London: J & A. Churchill; Bristol: J. W. Arrowsmith. 1891.—The fact that in four years as many editions of this work have been called for, and that the present edition is being translated into French, German, and Italian, is the best possible evidence of the high value attached to Mr. Greig Smith's monograph both at home and abroad. The original volume of 600 pages has grown to one of 800 pages, and it has been found necessary to omit the Bibliography, which had grown unmanageably large. But an "Index of Authors," referred to in the text, has been introduced. The book has been brought well up to date, new operations are noticed, and the latest results of treatment are given. The inaccurate term "laparotomy" and the clumsy one "abdominal section" are replaced by "cœliotomy," which was first proposed by Harris of Philadelphia This seems the best suggestion that has yet been made, and it would save confusion in the future if surgeons would agree to use it.

Report of Experiments now being pursued in the Bacteriological Laboratory of the Academy of Natural Sciences of Philadelphia. By SAMUEL G. DIXON, M.D. Philadelphia. 1891.—In this short note Dr. Dixon gives the results of a series of experiments on the growth of tubercle bacilli on special media, and also on the treatment of tuberculosis by subcutaneous injections of dilute sulphuric acid and formic acid. He thinks that the tubercle bacillus loses its virulence in a certain degree when it is cultivated continuously on artificial media, and gives the result of a series of inoculations of such material into young dogs; he hints that the injection of glycerine into the body may interfere with the action of the poisonous products of the bacillus. The report, however, is incomplete, and is apparently only a tentative one.

On Certain Conditions that Modify the Virulence of the Bacillus of Tubercle. Proceedings of the Royal Society vol. xlix. By ARTHUR RANSOME, M.D., F.R.S.—In this short paper a series of observations are given to prove that fresh air and light and a dry, sandy soil have a distinct influence in diminishing the virulence of the tubercle bacillus; that darkness may interfere with this disinfectant action, but that the mere exposure to light in otherwise bad sanitary conditions does not destroy their virulence. The data on which these conclusions are based are somewhat scanty—a fact which is acknowledged by the author, who, however, promises a series of further observations, and also a note of the examination as to the pathological conditions met with in the specimens he obtained.

Outline of a Course of Lectures on Human Physiology. By ERNEST ALBERT PARKYN, M.A. London: Allman and Son. 1891. Pp. 167.—In the compass of a very small book Mr. Parkyn has managed to condense a considerable number not only of physiological, but of histological, anatomical, and chemical facts. In the compass of less than 200 pages it is not possible to give more than an outline of the mode in which the various functions of the body are performed; but what is here given is at least correct, and the treatise might well be used in schools of either sex as a reliable exposition of the main facts in physiology.

The Philosophy of Clothing. By W. MATTIEU WILLIAMS, F.R.A.S, F.C S London: Thomas Laurie, Paternoster-row. 1890.—We find in this little book a series of well-written chapters on the why and wherefore which ought to regulate our choice of clothing. The experiments of Baron Rumford on heat conduction and evaporation, which form the text of these remarks, are explained in brief detail and with admirable clearness. Not a few suggestive particulars, moreover, have been added by the author's own thoughtful originality. His appeal for woollen or other porous underwear, his dislike of the warm and close overcoat, his advocacy of down as a wholesome but still untried clothing material, will each and all bear the test of skilled criticism. Let us not forget to notice a recommendation of dark underclothing for the tropics, founded on Surgeon-Major Alcock's theory of heat-stroke by cutaneous impression. After a careful perusal we have no hesitation in saying that the reader will find in these pages much to instruct and entertain him, much that he can safely endorse, and little occasion for serious dispute.

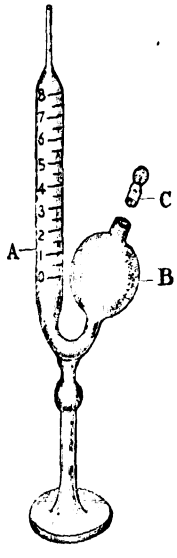
We have before us the *Veterinary Journal* and *Annals of Comparative Pathology* for November and December. In the former number is an account of some recent experiments with "mallein" made by Mr. Leonard Pearson, V.S., V.M.D., Pennsylvania University. This mallein is a filtered broth and glycerine culture of the glanders bacillus. He finds that in those cases in which repeated injections were made the mallein had not the least deterrent effect on the development of the glanders process. He believes, however, that this substance will be useful as a diagnostic in doubtful cases of glanders. The same author contributes a short article on recent foreign investigations of swine disease, from which he argues that there is but one swine pest in America — that is, that hog-cholera and swine-plague are the same. Reports of meetings, class lists, and introductory addresses make up the remainder of this number. In the December number Mr. E E. Bennett, F R.C.V.S., A.V.D., follows up Mr. Pearson's notes, and gives records of a number of sets of experiments from which he also argues that mallein may be useful as a diagnostic agent. Professor M'Fadyean continues a most interesting article on Tuberculosis, and Professor Fred. Smith of the Army Veterinary School, Aldershot, who has recently protested against the overloading of our cavalry horses, has an exhaustive paper on Veterinary Hygiene. Reports of the various colleges and veterinary associations complete this number.

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New Inventions.

A SIMPLE INSTRUMENT FOR THE QUANTITATIVE ESTIMATION OF SUGAR IN THE URINE.

DR. EDGAR GANS of Carlsbad has recently called the attention of the profession at Berlin to a simple instrument for the quantitative estimation of sugar in the urine which is particularly adapted to the wants of the general practitioner, on account of its accuracy and easy manipulation. It consists of a U-shaped glass tube about six inches high, the longer leg (A) of which is graduated, as the annexed sketch shows, the shorter leg (B) terminating in a glass bulb, on the extremity of which fits a glass stopper (C).



The sides of the bulb and of the stopper are pierced in corresponding diameters by two fine holes, so that the exit of air can be prevented by a slight turn of the latter. To use the instrument, first mix in a flask 10 cc. of the urine to be examined with 90 cc. of clean water, and shake up with a piece of yeast about the size of a coffee bean till there are no longer fragments of yeast floating about in the vessel. Then pour 10 cc. of this mixture into the bulb (B), and adjust the stopper (C) so that the holes in the bulb and stopper coincide. Now tilt the tube to the left, so that the level of the fluid in A corresponds with the zero on the scale, and by a slight turn of the stopper shut off communication with the atmosphere. Leave the instrument in an ordinary room-temperature (about 65° F.) for eighteen to twenty hours, and, fermentation going on, the liquid in tube A will rise from the point 0 in proportion to the amount of carbonic acid given off—that is, in proportion to the amount of sugar in the urine. The instrument is so graduated that the points on the scale correspond to the percentage of sugar, so that if the fluid in A rises to 2·5 the percentage of sugar is 2·5. After repeated experiments Dr. Gans found that in accuracy it almost equalled the method of polarisation, while in cases of the simultaneous presence of sugar and albumen in the urine it could be used when the polarimeter could not. The instrument can be obtained at a nominal cost from Fiebig, Alexandrinenstrasse, 27, Berlin.

L. M. SCOTT, M.A., M.B., D.P.H. Aberd.

THE GEM FILTER.

FOR the removal of suspended matter in water this little filter answers admirably. On passing through it a sample of turbid and dirty water, which failed to deposit even after several days, a perfectly clear and bright filtrate was obtained. The gem filter, made by the Gem Water Filter Co., 21, York-place, Leeds, consists of a plated metal cylinder about two inches in diameter and two inches in length, provided with a screw thread at either end, so as to make it convenient for attaching to the ordinary supply tap. The cylinder contains pure coarse quartz, bounded top and bottom by a small sieve of fine mesh. By reversing the filter any sediment that may have accumulated can be removed. Quartz serves as an efficient filtering medium as regards the removal of suspended matter, but other media, such as well-prepared coke, might be used with equal effect, and with the additional advantage that it would also remove a part at least of the organic matter in solution, as well as, according to Frankland's experiments, certain low forms of life.

AN EXPERIMENT IN SEWAGE IRRIGATION.

MEADOWS irrigated by the town sewage to the extent of some eight acres have been worked at Crieff for at least sixty years: part on the Broich estate, where the ground was gravel and flat; part on the Crieff estate, on moorland with a steep slope. The grass was a coarse meadow grass, mixed with many water plants and weeds. The grass was cut and sold.

In 1870, Dr. Andrew Smart of Edinburgh writes, a new water-supply was introduced to Crieff equal to 450,000 gallons per day. After some years it was found that the small meadows were drowned by so much water of a depth equal to twenty feet a year. At Broich the sanitary state of the dwelling-houses was seriously injured, and the irrigated area was reduced, and the sewage run to waste into the river Earn. On the Crieff estate most of the sewage was run to waste. It was then found necessary to investigate the question with a view to utilise such a large quantity of weak sewage. Crieff is fortunately situated on a hill with a southern exposure. The ground is naturally steep, and very favourable for drainage and irrigation. In fact, few towns have the advantages of a south aspect, with hills to keep off the north and east winds, extensive views, and a large area of land of several hundreds of acres, all at a level suitable for irrigation. After mature consideration, it was decided to carry out an entirely new scheme.

Instead of trying how much sewage could be run on an acre, it was determined to try how thin the sewage could be spread, and over how large an area it could be used. Some sixty acres were available to treat about one-fourth of the sewage. This sewage includes the rain water. Two sewers were laid, one a high-level, six inches in diameter, and a low-level sewer twelve inches in diameter, as a gradient of only 1 in 200 was obtainable, and this low sewer was liable to floods. These sewers are so arranged as to have a valve for irrigating each field quite independently of the others; the sewers are at least three feet below the surface, and any field can be irrigated at pleasure. The fields were all tile-drained some forty years ago. The soil is a poor, moor soil. The old meadow system of cutting the grass in summer was entirely given up; none of the grass is cut. The fields are laid down with fine pasture grasses; the sewage is distributed over the surface by catch-water gutters cut in the sod. During summer the grass is grazed by milk cows and other cattle; in winter sheep graze on it. It is found best to shift the sewage after a week; there being such a large area available, this is easily done. A discharge of one gallon per square yard per day for a week together produces a good result; it is then shut off that field and put on to another field; a field should not have sewage run on for more than a week continuously. It is found that weak, thin sewage is easily carried and distributed. The surface gutters require raking out occasionally. The financial result is satisfactory, and no difficulty has been experienced in the working. Turnips have been successfully grown by running sewage continuously for three months, but turnips have very little effect in purifying the sewage. The drainage from turnips and all other crops should be run over pasture, which alone has the power of extracting manure out of water.

ORPHAN WORKING SCHOOL, HAVERSTOCK-HILL.—These schools, which usually have over 500 children in occupation, have had to be closed and the children removed owing to defects in the sanitary condition of the buildings, and the Estates Committee instructed their architect, Mr. Chas. Bell, to prepare plans and specifications for putting matters in order. Mr. Bell prepared two schemes, one for improving the existing sanitary arrangements in their present positions, and another for building detached sanitary blocks. As either of the schemes was likely to entail considerable expense, it was decided to consult some sanitary expert on the matter, and Mr. Edward Tidman, C.E., F.S.I., of Westminster, was instructed, and has just reported to the committee, advising the adoption of the separate detached blocks, with certain modifications. Mr. Tidman's report was adopted, and the architect instructed to obtain estimates strictly on the lines of Mr. Tidman's report and recommendations, and it is proposed to carry out the work without delay.

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THE LANCET.

LONDON: SATURDAY, JANUARY 16, 1892.

THE DEATH OF THE DUKE OF CLARENCE AND AVONDALE.

IN common with every subject of the QUEEN the members of our profession have been profoundly saddened by the severe blow that has fallen on the Royal Family in the death of the eldest son of the Heir Apparent after an illness of very brief duration. The circumstances of this sad bereavement are especially painful in the cutting off of the life of one who was about to enter on a new phase of domestic happiness, with such brilliant prospects. This is not the place or the occasion to dwell on the vanity of earthly things or the bitterness of unfulfilled hopes; but we may at least tender to their Royal Highnesses the Prince and Princess of WALES and the members of their family our heartfelt sympathy; and especially should we include in this tribute of condolence the name of the young Princess who has been bereft of him to whom she had plighted her troth, and with whom she might one day have shared the highest station in the realm. The English nation has during the present reign often evinced the depth and tenderness of its affection for Her Majesty and her family, and since the fateful December, thirty years ago, when the greatest blow that woman or Queen could suffer was inflicted upon her, there have been several occasions on which this bond of sympathy has been made manifest. Never, indeed, since the death of the Prince CONSORT has such universal sorrow been expressed throughout the land, its intensity being, perhaps, heightened by the suddenness with which the tidings of the fatal illness of the young Prince became known.

His Royal Highness the Duke of CLARENCE AND AVONDALE was attacked by influenza on Thursday, Jan. 7th, but first felt really ill on Friday, Jan. 8th, when he was unable to attend the birthday dinner given in his honour. On Saturday evening, Jan. 9th, a patch of pneumonic consolidation was discovered at the base of the left lung; there had been no distinct rigor, but his Royal Highness appears to have had some shivering on Thursday, the 7th. On Sunday morning, Jan. 10th, dulness on percussion and tubular breathing were present up to the level of the dorsum of the scapula, and in the afternoon as high as the spine of the scapula on the left side, while at the right base also these signs had appeared, and were found up to the angle of the scapula. No crepitation was heard at any time, and the consolidation did not extend far on the lateral aspect of the chest. The temperature was 103·4°; the pulse about 90 and of good character; the respiration 30; and the intellect was perfectly clear. During the night of the 9th the Prince was very restless; on that of the 10th there were snatches of sleep, and at one time the temperature fell below 102°. No material change took place in the condition of his Royal Highness on Monday, the 11th, but there was copious expectoration of yellow colour, occasionally blood-stained, not very viscid or frothy. The left base cleared up considerably, but the right middle lobe became implicated. During the night from the 11th to the 12th there was not much sleep, and his Royal Highness's condition in the morning was not very satisfactory. The physical signs gave evidence of further clearing up of the lungs in the course of the day; nourishment was taken well, and the pulse continued good, but in the evening the patient became more excited, and during the night very delirious. The delirium continued throughout the day, and this constituted the dominant feature of the illness. The consolidation of the lungs had almost entirely disappeared on Wednesday, but fine crepitation was present. Marked improvement took place in the early part of the night of the 13th; the delirium was less violent and less continuous, with intervals of sleep, but about 2 A.M. on the 14th collapse suddenly supervened, with unconsciousness and absence of conjunctival reflex. A rally from this condition took place, but his Royal Highness gradually sank and died about 9.10 A.M.

The details of the illness are thus in agreement with the now familar fact that when pneumonia supervenes upon influenza it is mostly insidious in its onset, and very serious in its course. To some extent this is doubtless due to the effect which the influenza virus has in depressing the vital powers, and it sufficiently accounts for the exceptional fatality of pneumonia after influenza. It will be observed that the illness did not begin with any definite rigor, and that the signs of consolidation only appeared on the 9th inst. Thus it is somewhat difficult to determine the precise duration of the pulmonary affection; but it is probable that the pneumonic fever was approaching the crisis—the period at which death mostly occurs. The pneumonic consolidation, which was limited at first to the lower lobe of the left lung, involved on the 10th also the base of the right lung. Moreover, it began to clear up from the former organ whilst it was extending in the latter. The rapidity with which this resolution was taking place is one of the remarkable features of the attack; whilst the character of the expectoration, the degree of fever, and the pulse rate did not seem to indicate any special gravity. But there appears to have been a serious change for the worse during the night of the 12th, which was announced in the somewhat alarming bulletin issued the following morning. His Royal Highness appears to have become very delirious, and these cerebral symptoms persisted throughout the 13th, constituting the chief feature of the case, for the signs of pulmonary inflammation were subsiding, and the fever was abating. Moreover, his pulse remained fairly good, and in the evening of the 13th a rally took place which must have considerably raised the hopes of his medical attendants as to his recovery, seeing that the period of crisis must then have been nearly reached. That rally, unhappily, proved to be delusive, and a rapid failure of the vital powers set in early in the morning of the 14th.

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PERHAPS it is not unnatural that the public should feel a little impatience of the influenza, and of the medical profession for not more effectively curtailing its prevalence and the mischief which it works. Under the influence of medicine in its sanitary and curative work epidemics have been greatly restrained as respects both their area and their mortality. We have almost ceased to dread cholera since Dr. SNOW, Mr. JOHN NETTEN RADCLIFFE, and others showed how its diffusion is accomplished, and therefore how it can be avoided. Typhus fever is a curiosity in London, and even in Dublin it is becoming a rarity. No one need die of small-pox; indeed, no one need have it unless he likes—that is to say, he can be absolutely protected by vaccination, once repeated. It is so scarce for the moment that foolish people think it has been permanently altered or weakened by fresh air or good drainage, and are putting on an air of contempt for vaccination which will not long survive a veritable resuscitation of this very serious and horrible disease. But, lest we should be unduly exalted, an epidemic of influenza reappears for the third time; and the criticism of some of the public and of the newspapers is uncomplimentary. The alleged discovery of a bacillus is treated with playful incredulity or something worse, and the general action of the profession in regard to the disease is abused. We venture to say that this view of the subject is not quite reasonable. The public is asking for what cannot in the nature of things be expected. Here is a disease which on its appearance in 1890 was new to the great body of men now in practice, undergoing a natural process and tending, under good conditions and judicious treatment, to a favourable issue in the majority of cases. The discovery of a bacillus is not yet confirmed; but it is highly probable. It is childish impatience in these circumstances to cry out all at once, "What is the good of such a discovery? What has come of the discovery of the tubercle bacillus? Are we to go once more through the dreary ordeal of the delusion experienced for the cure of tuberculosis by the injection of KOCH'S fluid?" If there be a specific organism at the root of influenza and its efficient cause, surely it is well that we should know it. We must catch our hare before we can cook it. We gain immensely in clearness if we can but establish the fact of such an organism, having the same relation to influenza as the tubercle bacillus has to tuberculosis or the bacillus anthracis to anthrax. We do not hear the same petulant complaint against typhoid fever or small-pox, because they have to run a definite course, generally much longer and much graver than is the case with influenza. The medical profession is not ridiculed and abused because it cannot stop abruptly the course of these diseases. It is recognised to be doing a great service to mankind in studying the chief risks of such diseases, the best way of avoiding such risks and of conducting the patients safely through them. The profession is doing the same with reference to influenza, and in many ways mitigating the suffering which it causes and limiting the mischief which it is apt to do. The rapid diffusion of the disease as compared with that of other contagions is a fact which requires further elucidation. But that is largely in the hands of the public, who have not yet learned to regard cases of it with that dread with which they regard small-pox or scarlet fever, and who refuse to take the same precautions which they adopt in regard to these diseases. The want of a wholesome fear of the disease does harm in two ways. It leads those who have the premonitory symptoms to disregard them, and to use insufficient means of saving and protecting themselves; and secondly, to carelessness with regard to risks of infection. Early application for medical advice and the diligent observance of such advice would save patients from many complications of the disease which tend to make it long or grave, and would have the further effect of limiting the spread of the infection—for there can be no longer any doubt of the infectious nature of the disease. It is not our object here to enlarge on the treatment of influenza or on the undoubted value of many measures and remedies at different stages of the disease, but rather to assure the public through the profession that medical practitioners are deeply engaged in the systematic study of the malady in all its personal and public bearings.

THE reports which have just been issued as to the prevalence of diphtheria and allied sickness at Wellington College hardly raise any points that have not long been before the public. In January, 1884, precisely the same subject was under discussion in the pages of THE LANCET. During the preceding year 175 cases of throat illness had occurred; 93 were set down as "diphtheritic throats," and 82 as "sore-throats." It was then pointed out that underneath a surface soil of sand there was a bed of clay and an "iron-pan," an iron oxide concretion between the clay and the surface, which seriously affected the natural drainage; mists and fogs prevailed in the valley, whilst "mirk bottom" was supposed to tell the tale of its damp hollow by its characteristic name; and the opinion was expressed that there was ample, apart from certain sewage defects, "to give the diphtheritic character to what would otherwise be a simple sore-throat." And by way of proof, another school near by was referred to where these conditions did not obtain, and it was asserted that for fourteen years no case of diphtheritic throat and no single case of acute lung disease had occurred. These opinions were set out by Mr. BARFORD, medical officer to the College, and they were the result of twenty-two years of observation. Much controversy arose at the time, but even those who denied that the physical circumstances, combined with certain sanitary defects, had concern in the production of the throat mischief and in the special characters which it tended to assume were agreed that alterations were needed in the direction of doing away with the circumstances which had been complained of and certain works were in consequence carried out.

Once again reports relating to Wellington College are before the public; again they relate to diphtheria and to throat disease; again the general sanitary circumstances of the College and of its surroundings are in question; and again Mr. BARFORD calls attention to conditions similar to those prevailing in 1884. His communication will be found elsewhere. During the concluding term of last year no fewer than 244 boys were received into the sanatorium before the school was prematurely closed, by the advice of Sir ANDREW CLARK, on Dec. 2nd. The prevailing disease is believed to have been

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influenza in the first instance; but later on, according to Dr. BRISTOWE'S report, Mr. ARMSTRONG, the medical officer to the College, said that either some aggravation of local conditions must be affecting the health of the boys injuriously or some new specific malady had been introduced. Dr. BRISTOWE is not a believer in the progressive development of the property of infectiveness as exemplified by diphtheria, and it will be immaterial for our present purposes to endeavour to explain precisely how the change came about which suddenly caused so much alarm. It is sufficient that a change did come, that febrile symptoms, inflamed throat, and swollen glands in the neck, with swelling or ulceration of the fauces, were followed by cases that were regarded "as malignant or phagedænic ulceration of the throat," and that these latter cases at least were "true diphtheria." Indeed, Dr. BRISTOWE goes further. He has no reasonable doubt that most, if not all, of the cases which, from the similarity and gravity of their symptoms, had caused alarm, were also cases of diphtheria.

But what were the conditions with which this occurrence was associated? Here we seem carried back again to 1884. Dr. BRISTOWE, speaking of the condition of the soil, says that from its peculiar conformation and character there is no doubt but that it tends to become saturated with water and to remain sodden. Here we have a prominent condition with which such recurrences of throat illness and diphtheria are now known to have some intimate relation; and the condition is one which tends to be aggravated by every wet autumnal season of the character of the last three or four months of last year. "It constitutes," says Dr. BRISTOWE, "a grave sanitary defect.' And it is the more grave because it is one of the principal defects that were pointed out in 1884, and which some were at pains to deny. But unfortunately this is not the only defect; mere rainfall is not the cause of diphtheria. "The drainage and other sanitary appliances of the College estate" turn out "to be exceedingly defective," and what with the reconstruction of drains and the deepening of dykes to carry away subsoil water, Mr. ROGERS FIELD, who has the engineering works committed to him, cannot undertake to authorise the College to be reopened until Easter next, and measures are under consideration for tiding over the intervening period.

We are thus face to face with the fact that diphtheria and an allied throat disease have again been prevalent at Wellington College; that the essential conditions which were found to be faulty when the same disease prevailed eight years ago—namely, dampness of site, with its fogs and soil emanations, together with defective drainage arrangements—still prevail on the estate; and that much that was written on the subject in 1884 still applies in the present day. Under these circumstances, it matters very little by what stages, if any, the disease passed from a comparatively innocent to the "malignant" form. Influenza may possibly have been associated with symptoms which, aided by prevailing moisture and faulty sanitation, led to a special condition of fauces which fitted them to receive the diphtheria infection; for, quite apart from the influenza, it may be that one or more of the defective sanitary circumstances referred to in the reports may themselves have induced that "simple follicular tonsillitis" which so commonly precedes recognised diphtheria, and which forms a soil in which the diphtheria organism seems to have a special faculty for developing. However the conditions arose, they present nothing peculiar. The Wellington College outbreak takes its place as one of many very similar ones; and unless the conditions to which prominence is once more given can be effectually removed, it is highly probable that diphtheria will before very long be again heard of in the locality.

Had it not been for Sir ANDREW CLARK'S wise decision to close the school, the mischief might have been much more serious. The disease had apparently just reached that stage when, judging from other outbreaks, it could so easily have been transformed by school aggregations and unhealthy surroundings into a very serious and very fatal diffusion, and it is highly probable that the sudden school closure did much to prevent this taking place. We trust we are right in inferring that the College officials do now seem alive to the real need of doing away with all the faulty conditions that have been prevailing for so many years, and we would again urge that it would be more satisfactory to all concerned to have the College inspected and reported on by some perfectly independent authorities efore the structural works that have been decided on are completed.

AMONGST the many services rendered by thermometry to clinical medicine must be reckoned the discovery of febrile states in certain affections which were previously regarded as running an apyrexial course; and just as systematic observations on the temperature have furnished us with abundant information concerning the type of pyrexia that characterises each one of the specific fevers, so it may eventually prove that certain special types of fever are associated with diseases that run more or less a chronic course. The last contribution made by the late Dr. MURCHISON to clinical medicine, of which he was so ardent and sagacious a follower, was to illustrate from his wide experience the conditions under which intermittent or paroxysmal fever is met with. The clinical lecture in which he adduced these facts was published in these columns just after his death,[1] and in it he dealt, among other affections, with the characteristic pyrexia of lymphadenoma. Since then there have not been wanting many records of cases of malignant disease—mostly of the class of sarcoma—in which irregular pyrexia, often to a very marked degree, has been a notable feature of their clinical course. Indeed, it may be accepted as a clinical fact that the more malignant and diffused forms of sarcoma—those which have been designated by the general term "sarcomatosis"—are invariably accompanied by pyrexia. In 1887 W. EBSTEIN published[2] details of a very remarkable and apparently unique case, which he termed "chronic relapsing fever." It was characterised by alternating periods of high fever and apyrexia, lasting for months; and when, exhausted by increasing weakness, the patient eventually succumbed, the underlying condition was found to be one of malignant lymphosarcoma. Similar types of fever were subsequently recorded by other writers; some in HODGKIN'S disease, as in the examples cited by

1 THE LANCET, vol. i. 1879, p. 617.
2 Berl. Klin. Wochensch., No. 31.

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MURCHISON, some in internal sarcoma, independent of the lymphatic system.

The latest contribution to this subject—which has given rise to the above remarks, and has also impressed us with the desire that a careful collection and study of cases of this class should be undertaken—is by C. PURITZ, who records a case observed in the clinic of Dr. TSCHUDNOWSKY at St. Petersburg.[3] The patient was a young man twenty-two years of age, who in the autumn of 1889 began to suffer from increasing weakness, dyspnœa, and enlargement of the abdomen. Examination showed the presence of some nodular masses in the abdomen, contiguous to the liver, but it could not be determined whether they were actually connected with that organ—some enlargement of the spleen, and of the axillary and cervical glands. There was also marked anæmia. Four years previously he had acquired a sore on the penis, but this had not been followed by any syphilitic signs, and it may at once be said that the supposition that the conditions were due to syphilitic infection was negatived by the failure of antisyphilitic treatment to modify the cause of his illness. In February, 1890, he began to be febrile, and during the next six months he had several attacks of fever, uninfluenced by quinine, with intervals of freedom from pyrexia. It was in August that he came to the St. Petersburg clinic, and the case was carefully observed to its close in November. It was throughout marked by a high degree of fever of an irregularly remittent and intermittent type wholly uncontrolled by antipyretic remedies, arsenic and other drugs. The masses in the abdomen were thought to be connected with mesenteric and retroperitoneal glands, and the diagnosis of lymphosarcoma was made. The anæmia and weakness increased, and death was preceded by peritonitis. At the post-mortem examination the liver was found to be enormously enlarged, reaching to the pelvis, and the seat of numerous soft whitish masses of new growth, some of which had broken down, whilst the lymphatic glands in the abdomen were unaffected. The spleen was enlarged, as also were the cervical and axillary glands, which had been noticed during life. Such a case must be placed in the category to which EBSTEIN drew attention, although the "relapsing" type of the fever, from which the patient had undoubtedly suffered in the earlier part of his illness, was not maintained to the close. But the category must be enlarged, far beyond the limits conceived of by EBSTEIN, to include a great variety of cases of so-called malignant disease associated with pyrexia. Of course all cases complicated with inflammatory or suppurating processes must be excluded, and yet we doubt not the class of febrile sarcomatosis will remain very considerable. Nor must the association of irregular pyrexia with neoplastic formations be confined to the class of lympho-sarcomata alone. This class, which, on the one hand, comes closely into relation with simple lymphatic hyperplasms, and with HODGKIN'S disease (or "pseudo-leukæmic," as it is termed in Germany), passes, on the other, into what may be regarded as true sarcoma of the lymphatic glands, and, as we see in PURITZ'S case, sarcoma of other internal viscera. It becomes a question for the pathologist to determine how far he is justified in making a distinction on histological grounds between affections which clinically seem to be so closely linked.

This brings us to the interesting speculation as to the possible dependence of "sarcomatosis" upon the growth of infective micro-organisms. It may be straining analogies too much to in any way ally this form of neoplasm with the granulomata that are caused by the microbes of tubercle and syphilis. But there is a growing feeling that malignant growths (so called) are very analogous to infective diseases generally, and that time may eventually reveal their dependence upon parasitic microbes. That these microbes belong to the bacterial class seems improbable, in view of the negative results attending all attempts at the cultivation of such organisms from cancerous formations. But—and the curious association of psorosperms with some forms of epithelial cancer suggests it—it is by no means improbable that organisms of a protozoal kind have to do with the initiation of these malignant formations. This hint is thrown out by PURITZ, who says that sections of the growth from his case exhibited some granules and masses in the protoplasm of some of the cells, which stained very deeply with methyl blue and might be of extrinsic origin. This, however, is a pathological problem which remains for solution, and until methods be discovered for the isolation and cultivation of protozoic organisms analogous to those introduced by KOCH for protophytic microbes, which have yielded such marvellous results, it is difficult to see how the question can be determined. Meanwhile the careful clinical record of such cases, and in particular the observation of all those features in which they resemble infective disease, is likely to be of much service. And, in respect to diagnosis, the occurrence of pyrexia of the type mentioned is something to be borne in mind as characteristic of sarcomatous disease of the internal organs.

[3] Virchow's Archiv, Bd. 126, No. 2.

IT will be seen from an article in another page that the wave of reform in medical education, so far as its practical teaching and results are concerned, has at length reached the Scottish capital. In Edinburgh, in spite of many efforts to restore the balance, during the past ten years, theoretical teaching still largely takes the place of practical work, from even the natural history studies in the first examination to the final requirements in medicine, surgery, and midwifery, for the degree of M.B. and C.M. This defect is largely due, not only to the excessive number of students who have in recent years flocked to the University of Edinburgh either for the purpose of obtaining a degree instead of a diploma or because of the deserved renown of its professoriate, but also because Edinburgh, like Oxford and Cambridge, not being a large manufacturing centre, and not having special means like London for attracting a large roving population, has never been able to furnish an adequate anatomical supply or a sufficiency of clinical cases for the due practical education of its students. This is an old story, and the confirmation of it is strikingly shown in the debates on Practical Midwifery in the General Medical Council. It was there plainly stated that Scotch medical students could not attend the number of cases of midwifery which were judged to be adequate because of the impossibility of finding a sufficient number of cases in

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proportion to the number of students. It is satisfactory, therefore, to notice that an association, mainly of younger lecturers and teachers, has been formed to increase the practical element in the teaching of the Edinburgh school. With large classes and few assistants, and these relatively very badly paid, it is clear that all personal supervision and instruction are impossible, and it is especially in these respects that the London medical schools have lately been making such rapid strides. Tutorial teaching to small classes is now in nearly every subject superadded to, or even has largely displaced, the more formal lecture. The number of lectures is being reduced to a minimum, and the amount of practical work duly increased, and it will become even more extensive under the five years' curriculum which is now introduced. It is only in accord with the spirit of the modern method of education that practical work in every practical subject—and there is nothing but what is practical in medical art and science—should displace mere theoretical orations. We are therefore all the more pleased to find that the younger members of the University see the necessity of such a reform, and are desirous of initiating it themselves rather than leaving it to be enforced from without. Education and examination can both be improved at Edinburgh by a more liberal introduction of the practical element. The days of professorial teaching to huge classes without knowledge of, or attention to, the wants and ambitions of the individual student are doomed, and the sooner the necessary rearrangements are made so as to secure the instruction of the individual unit the more secure and lasting will be the reputation of the great Edinburgh medical school.

Annotations.

"Ne quid nimis.'

OLD AGE, DISEASE, AND COLD.

IT is only consistent with analogy in natural law that the period of old age should be known as a time of failing vital power. The fact, indeed, may not be accentuated or localised by any striking evidence of deficiency. In many cases the course of change is, like that of the ebbing tide, gradual, observable only by general indications and by comparison with past conditions. The body becomes weaker, less active, its tissues wearing out, but still remaining fairly healthy, preserving well the natural interdependence of different organs, and maintained by a slow but sufficient process of repair and even of development. In aged women more particularly do we note this orderly transitional alteration. In aged men there is, partly from habit of life and partly also, it would seem, as a mere constitutional and sexual characteristic, a tendency to greater organic variation, to degenerative changes in special organs, in the heart, arteries, or urinary organs for example. Some of these changes, indeed, must be regarded as in their way conservative. The flagging heart has a proportionate relation to bloodvessels hardened by senile atheroma. There is greater safety in the double abnormality than if the central pump drove its fluid contents with unabated force through channels which might at any time give way under the pressure. Cerebral deficiency, in like manner, if indicative in itself of progressive nervous degeneration, is from this very circumstance protective against the costly wear of tissue caused by worry. There is another aspect of the case, however, and we cannot doubt that impairment of vitality has much to do with the known readiness of the aged framework to give way under the strain of sudden exposure or of acute illness. We should duly take account of this before we describe as extraordinary or irregular even such marked mortality among the aged as that which has been associated with the recent severe weather. The condition of sluggish and enfeebled life to which we have referred possesses no such power of rapid reaction as is needful to withstand a frost of continuous duration, accompanied in many places by an epidemic of influenza. Death under such conditions is in fact an almost natural consequence In a more primitive era it would have wrought out practically unchecked its part in the physical order, and would have illustrated far more exactly the force of that law which determines the survival of the fittest. Where it has not so wrought we must attribute the result, as a rule, not to ordinary or individual vitality, but rather to the preservative arrangements of civilised intelligence, which provide for suitable food, warmth, and the timely care of apparently trifling signs of illness.

OATH ADMINISTRATION.

UNDER the heading "Kissing the Book," a northern contemporary recently dealt at length with the present mode of oath administration in English courts of law. The subject has been so often alluded to in the pages of THE LANCET that it is only necessary to repeat in brief what has already appeared. Members of the medical profession are more frequently called upon as witnesses than clergymen, members of the bar, solicitors, or indeed members of any other profession. Some have complained of the necessity of having to apply to their lips a book which has been handled and kissed by so many previous witnesses as to become an unclean thing. Others minimise the evil by kissing the open page. A third class conclude that what cannot be cured must be endured, and so submit meekly to what is really not such a trifle as may appear at first sight. The same remark applies to jurors, interpreters, and others. The only persons who are spared the infliction are Quakers and Separatists, and unbelievers, who, however, form but a small proportion of the whole number of jurors or witnesses. It is to be hoped that those with whom rests the responsibility of the continuance of the objectionable practice are not waiting for absolute proof of infection being conveyed by this means—a contingency by no means remote. The loving cup which is handed round at the Lord Mayor's and other banquets may be accepted or refused, but the book must be kissed by the witness, and it is the duty of the person administering the oath to see that this is duly done. It has been suggested that witnesses, especially those whose appearance in the box is frequent, should have their own books, which, as a glance would verify the fact that it was a copy of the Gospels or of the Pentateuch, seems reasonable enough. Another suggestion, however, is that kissing the book should be dispensed with altogether, the form of adjuration being the holding up of the right hand. It is very remarkable that while the kissing of the book has held its own with such persistency in England, Wales, and Ireland, the Scotch have with equal persistency maintained their mode of oath administration, which is by the uplifted right hand, the necessity for handling and kissing a dirty greasy book being thus altogether dispensed with. The superiority of the Scotch mode of adjuration is in this respect manifest. But this is not all. Those who have to frequent courts of law must have been painfully impressed by the total absence of solemnity or reverence too often shown by the person who administers the oath. To the younger members of the medical profession the proceeding savours of a farce, and familiarity does not improve this feeling, but literally and truly breeds contempt.

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Here, again, the Scotch method is superior. The presiding officer of the court, whether judge or sheriff, rises and holds up his right hand; the witness does the same. The judge repeats the words of the oath, which, it may be added, are simpler but more solemn than the English form, the witness repeating them after the judge. Those who have seen witnesses sworn in both countries unhesitatingly pronounce in favour of that used in Scotland. It is not only more cleanly, but also more solemn and impressive. There will no doubt be difficulties to overcome in the face of established usage; but it is, to say the least, anomalous that two such totally different modes of adjuration should prevail in the same kingdom. Why should there not be some approach to uniformity, that mode being adopted which is in all respects preferable? Judges have complained of the English form as not being simple enough for witnesses of tender age. This cannot be urged against the Scotch form, which is simplicity itself. More recently the oath has been administered by the judge's marshal instead of the court crier, a proceeding suggestive of a gradual approach to the presiding judge, and it is to be hoped to a more radical change. In these pages the matter has been dealt with in the aspect in which it would occur to medical minds. Under no other circumstances are men and women called upon to handle and kiss anything in common. This, however, is only part of the question, the other part of which we have no wish to ignore. On the contrary, it is of the greatest importance that members of the medical profession should when they become witnesses be duly impressed with the solemnity of taking an oath, and have no reason (as they have at present) to regard it with contempt, or even with disgust. A short Act of Parliament, substituting the uplifted right hand for kissing the book and the repetition of the form of words by the witness, is all that is required. It would have much support, and probably little or no opposition. We commend the suggestion to members of Parliament.

INFLUENZA AND LONGEVITY.

WHENEVER a period of low temperature or of fog, or of both in combination, unfavourably affects our rate of mortality, the death-rate of the aged and of elderly persons shows a far higher rate of increase than the death-rate of the young or middle-aged, or even of infants. The veriest tyro of mortality statistics would recognise this as the natural result of the meteorological conditions above referred to. It may be noted, however, that as often as these conditions prevail, and the obituary notices in *The Times*, for instance, consequently show an unduly excessive proportion of deaths of elderly persons, some industrious paragraphist is sure to compile a statistical return showing the number of old people whose deaths have been advertised out of a given number of death notices announced during a given week. These figures are harmless enough in themselves, and useless enough, since no figures are ever given showing what are the normal proportions of the ages of the well-to-do classes whose deaths are so announced. The figures are, however, absolutely mischievous when the paragraphist or correspondent is allowed to draw inferences to the effect that this excessive and exceptional mortality among the aged affords evidence of increasing longevity. It is, however, a fact that during the past fortnight more correspondents than one in our lay contemporaries have referred to the fatal effect of influenza among the aged, judged by the obituary notices in *The Times*, as evidence of increased longevity. It is undoubtedly true that the proportion of deaths of elderly persons under the combined influence of low temperature, fog, and influenza has been abnormally high in recent weeks; but it is impossible to recognise any reasonable grounds on which this influenza mortality can afford evidence of increased longevity. Against such a misuse of statistics we feel bound to record our emphatic protest.

THE LATE CARDINAL MANNING.

UP till recently his Eminence Cardinal Manning, at the age of eighty-four, was in the enjoyment of his usual health and engaged actively in the discharge of the multiform duties belonging to his position. A few days ago he took cold, and on the 11th inst. Mr. Tegart was called in. On seeing the condition of the patient he at once recognised the gravity of the case, and Sir Andrew Clark was asked to see the venerable Cardinal. Dr. Gasquet, who was related to Dr. Manning by marriage, and was his usual attendant, had seen him a week previously, and advised that his Eminence should take to his bed. He suffered a good deal from cough, and on Monday, the 11th, symptoms of bronchitis supervened, accompanied by inability to take food and great prostration of strength. Although the Cardinal was always sparing in his diet and never took wine or stimulants of any kind, he nevertheless had up to this point relished his food. Now, however, he exhibited the greatest repugnance to it. Evidence of slight congestion first of the left lung and afterwards of the right appeared on Tuesday, the 12th, and on Wednesday morning there were further evidences of prostration of strength, with an irregularity of the pulse and increased difficulty of breathing, which continued to increase during the day, and in the evening of Wednesday his failure of strength was seriously marked, and medicine failed to promote the expectoration of the secretion which was filling the bronchial tubes. During the night he was quiet, but gradually got weaker and weaker, and he died at 8 o'clock on Thursday morning. Sir Andrew Clark found the bases of both lungs congested and the heart showed signs of failure by some intermission and irregularity of the pulse. Always ascetic, it was difficult to persuade the Cardinal to take the requisite amount of food and stimulants necessary to his sustenance in the circumstances. The progress of failure was so rapid that it may fairly be doubted whether either food or remedies would have had much good effect. On Wednesday evening the heart became much weaker, and it was obvious that his end was at hand. Nevertheless his intellect remained quite clear. He transacted a considerable amount of business, and enjoyed afterwards a placid sleep On the 14th inst., at 8 o'clock, the heart having failed, his Eminence, as already stated, died, free from suffering and conscious to the last.

EFFECTS OF TIGHT-LACING.

IN the number of the *Edinburgh Medical Journal* for the current month Dr. Johnson Symington describes the conditions which were found in the body of a woman of fifty in whom the effects of tight lacing were very obvious. As regards the chest, he found that down to the level of the fourth costal cartilages the sternum was convex and prominent and the intercostal spaces large. This part of the chest was flattened from side to side, the antero-posterior diameter opposite the third costal cartilage being 8 in.; while the transverse was only 7½ in. The lower part of the thoracic wall was greatly contracted, the lower costal cartilages being pushed inwards, so that the right and left seventh cartilages were in close contact with each other from their attachment to the sternum downwards for 2½ in. There they touched the tips of the eighth costal cartilages which not only approximated in the middle line, but slightly overlapped each other. At the level of the fourth costal cartilages the circumference of the chest after removal of the integuments was 27 in., while opposite the lowest part of

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the eighth costal cartilage it was only 17 in., and with slight pressure this could be reduced to 16 in. The liver was less altered than is usually described. The lower part of the right lobe was pushed inwards, and the right and anterior surfaces showed a distinct depression running outwards and upwards for 2½ in. In this the tenth rib was lodged. Almost the whole of the gall-bladder projected beyond the lower edge of the liver. When the stomach was filled with air it showed a distinct constriction about the middle of its vertical portion, and the pylorus was not overlapped, as it usually is, by the liver. Both large and small intestines were distinctly lower than normal, but the kidneys and spleen had undergone no material change in position or form. The careful study of such a case from the anatomist's point of view is of the utmost importance, and the changes, both in position and form, evident in important organs in the case just described will, we hope, emphasise the evils of an absurd and silly custom.

CURIOUS NERVOUS DISEASE IN MEMBERS OF THE SAME FAMILY.

IN the last number of the *Neurologisches Centralblatt* there is an abstract of a paper by Bernhardt in Virchow's *Archiv* describing a curious and interesting condition which he found in several members of the same family. The parents were apparently healthy. They had in all eight children—six boys and two girls. One of the girls died at an early age, and suffered in a similar way to that about to be described as affecting two brothers. The second sister was neurotic, but otherwise free from signs of organic disease. Her children and grandchild were healthy. Two of the six brothers died before they were thirty, and did not suffer from the affection. The only child of one who died is healthy; the two children of the other brother who died are imbeciles. A third brother also died, but after attaining a greater age, and he apparently suffered in the same way as the three surviving brothers. These developed about the thirtieth year a very slowly progressive paralysis limited to the lower limbs, and consisting in muscular rigidity with increased reflexes, but without any sensory or trophic disturbances. The functions of bladder and bowel were retained, and intelligence was not interfered with. In one of the three in whom symptoms have been present for over ten years there have been added more lately symptoms indicating that the process has spread to the medulla and pons, and perhaps also has invaded the cerebrum itself. These symptoms are disturbance of articulation, paresis of isolated eye muscles, and nystagmus. The symptoms, it will be seen, resemble in some particulars those of disseminated sclerosis, but in the mode in which it attacks several members of a family it bears a close analogy to the ataxy of Friederich.

THE GREENING OF PEAS WITH SULPHATE OF COPPER.

THOSE who have maintained that peas coloured with sulphate of copper are injurious to health will hear with disappointment the decision given by Sheriff Birnie at the conclusion of the recent appeal suit in Glasgow. The case has occupied the attention of the court over an extended period, and much evidence of a conflicting kind has been heard. The experts engaged for the prosecution held sulphate of copper to be a cumulative poison, and they further argued that the albuminate formed by the copper salt with the legumen of the pea was soluble in the digestive juices. For the defence, on the other hand, statements were made to the effect that several tins of the brand of peas in question were used in certain families without any ill effects resulting, and experiments were cited which went to show that the compound of legumen of peas with sulphate of copper was practically insoluble, and did not enter the system, and was therefore to be considered inert and harmless. The sheriff, in giving judgment, said he expected that in this case he would have had evidence on the two points obviously desiderated—first, of practical injury from eating these peas; and secondly, of the difference between 1·4 and 2·5. (It was stated in the mass of evidence that while 1·4 grains might be innocuous, 2·5 grains were positively poisonous.) He had had none of that, and the facts remained precisely as in the previous case. It had not been proved that these peas had been injurious to health, and he therefore assoilzied the respondent. If it be true, as stated in the evidence for the defence, that the valuable nitrogenous constituent of peas—viz., legumen—combines with the copper, it follows that peas so treated are not rendered any more digestible or nutritious, since it is distinctly affirmed that the copper albuminate formed was practically insoluble, and therefore did not enter the system. In spite of this decision, analysts would do well, as hitherto, to report the fact of the presence of copper in any article of food which they may happen to examine. But of course as long as it is accepted by our legal authorities that small quantities of copper are not injurious to health, all attempts to prosecute on this ground must prove abortive. Meantime it would seem desirable that vendors of such coloured articles should be compelled to state with what substance, and to what extent, food materials are coloured. It cannot be denied that even small quantities of copper in food, though comparatively harmless to healthy adults, may not improbably give rise to unpleasant consequences in an invalid or child.

THE DEATH OF THE KHEDIVE OF EGYPT.

THE account given by Dr. Salem Pasha of the fatal illness of the late Khedive of Egypt, and published in the *Daily Telegraph* of the 13th inst., leaves unfortunately but little doubt that his death was accelerated by mistaken treatment. Dr. Salem Pasha was called to the Khedive on Jan. 1st, and found him suffering from influenza and bronchitis. For a few days he improved, but on the 5th there was a relapse of fever and increased catarrh, with much weakness. In the early morning of the 6th Dr. Salem Pasha was hastily summoned to the patient, and found him unconscious, suffering from great dyspnœa, and a temperature of 104° F. He learnt that the Khedive's aide-de-camp had at 9 P.M. administered a hypodermic injection of morphia, and the European physicians who had been summoned were unable to arrive until shortly after Dr. Salem Pasha. Death was attributed to uræmia, but Dr. Salem Pasha asserts that he was not made aware of the fact that his Highness had renal disease. His report is certainly not very clear; but we fear that if nephritis really existed, the injection must have materially aided in bringing about the fatal result.

THE EXTRACTION OF TEETH FOR DENTAL IRREGULARITIES.

MR. ALEX. KIRBY'S paper on Extraction considered as a Means of Correcting Dental Irregularity, read before the Eastern Counties Branch of the British Dental Association, deals with a subject of both importance and interest. As to the causes of irregularity, he says that the first thing which suggests itself to the mind is the crowding of more teeth into the dental arch than it can properly contain; and there can be little doubt that the maxillæ of the present day are relatively smaller, when compared with the size of the teeth, than was the case in the well-developed heads during the early history of the human race, and that the teeth themselves have undergone during the same period far less degeneration in size than have the maxillæ. Crowding being the great

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evil to be combated, it frequently becomes a question of removing a tooth or teeth to make room for the remainder; and if a regulation can be brought about by the forceps alone, it is the best practice to employ. If the deformity can be removed by the extraction of one tooth only, such as a supernumerary, decision as to procedure is simple. A lateral or even a canine may sometimes be removed and give an immediately good result, but great care ought to be exercised and judgment brought to bear before a canine is removed, as it is a tooth little liable to decay. Of course, where practicable a decayed tooth should be removed in preference to a sound one. In the majority of cases Mr. Kirby is of opinion that the six-year-old molars should be sacrificed rather than the bicuspids, because this treatment gives more room; no gaps are left in the mouth, since if the whole space is greater than that required by the irregular teeth the second molar will come forward, and approximate to the bicuspid; and, further, the six-year-old molar has a bad history, according to statistics it being far more prone to decay than any other tooth. He thought that, although no hard-and-fast rule could be laid down, the best time for this operation was between nine and eleven years of age; then a considerable interval should be allowed to elapse before any mechanical treatment is adopted, and in many instances so much improvement will follow as to render it unnecessary to do anything further.

MICROBES IN THE SOIL.

ALMOST daily fresh evidence is accumulating as to our dependence upon microbial action for the supply of vegetable food and for the conversion of refuse matter into nutriment for the various plants which supply us with vegetable food. Only a fortnight ago we gave insertion to a paper by Dr. F. B. Wells and Dr. Poore which showed in a conclusive way the extraordinary power which common earth has of retaining the organic and inorganic constituents of urine and converting them by a process of nitrification into food available for plants. Further papers bearing upon the same subject will be found in the current number of the Journal of the Royal Agricultural Society, a journal which, in the hands of its present editor, Mr. Ernest Clarke, has made rapid strides, and bids fair to be of the greatest value in disseminating a scientific spirit among our agriculturists. The paper by Dr. Munro on the nitrifying ferments of the soil is a most excellent summary of the subject, which should be read by all who are interested in the matters discussed. It shows, what is being shown almost daily, how strictly scientific have been some of the processes which have been familiar for ages, although the explanation of the process may not have been apparent. "To the natural process of nitrification as it occurs in the nitre-producing villages of India, Europe has been, and still is, largely indebted for a supply of nitrate of potash wherewith to make gunpowder. The heaps of nitre earth found near the sites of former habitations consist of house refuse mixed with porous soil, ashes from the fires, urine, &c. After long-continued exposure to Indian warmth lixiviation of this nitre earth with water furnishes a solution from which saltpetre is extracted by evaporation and crystallisation. In 1877, when France could not import saltpetre, the Government caused to be printed 'Instructions for the Establishment of Nitre Heaps,' which Boussingault makes the subject of one of his essays. ..... Heaps of soil, mixed with ashes and animal refuse arranged in layers separated by loose straw, kept under cover freely exposed to air, and watered as often as possible with urine, turned and removed once or twice if practicable, furnished in the course of some months a notable supply of nitre. If treated after the manner prescribed we learn that about 450 tons of material would in two years furnish about four tons and a half of crude saltpetre." The other paper to which we have alluded is also one of great importance, and shows again how agricultural practice has been right, although the explanation was not forthcoming. The custom to which we allude is that of sowing leguminous plants for the purpose of enriching the soil, and following the leguminous crop with one of the cereals. This custom, practised by the Romans 2000 years ago, is one which the most recent advances in bacteriology show to be correct. The paper on the Sources of Nitrogen of our Leguminous Crops, by Sir John Lawes and Dr. Gilbert, not only gives an excellent summary of what has been done by previous workers, but also affords details of their own most important experiments. It has long been known that the addition of nitrogenous manures had very little effect upon the growth of the leguminosæ, and it has now, we think, been conclusively shown that many at least of the papilionaceous leguminosæ (peas, beans, lupins, &c.) derive their nitrogen from the air circulating in the earth around their roots, and that the appropriation of this nitrogen is due to nodules growing upon the roots, which nodules are in a sense parasitic and are largely composed of bacilli. The experiment of growing leguminosæ in sterilised soil, and of showing that no vigorous growth takes place until such soil has been "seeded" with the washings of a leguminous soil containing the necessary microbes, has been repeated by Sir John Lawes and Dr. Gilbert with complete success. This dependence of plant growth upon the existence of parasitic bacillary nodules upon the roots is a fact of great interest, and indications are not wanting that this may be only the first demonstration of such dependence, and that further investigations will show that microbes minister to the nutrition of other plants in more direct ways than hitherto we have had any idea of. This paper by Sir John Lawes and Dr. Gilbert is one of some length, and we have only been able to give the baldest possible indication of its scope and importance.

CHINA MEDICAL REPORTS.

WE would call the attention of medical officers and such of our readers as are now practising, or likely to practise, abroad to the Medical Reports from China, published half-yearly by order of the Inspector-General of Customs. These reports are furnished by the Customs medical officers, and contain a large amount of useful information, some of which is not elsewhere obtainable. That for the half-year ending March 31st, 1889, for example, is one of a special series of reports. Besides dealing with the health of the communities—European and native—in the districts of Tientsin, Canton, Wuhu, and Shanghai, it contains an excellent summary of observations on enteric fever as it is encountered abroad. Under the head of clinical studies of disease as observed in China this form of fever, of course, comes under notice, and the contribution to its study embodies the consideration of a number of interesting points which are deserving of attention on account of their practical nature and the judicious way in which they are generally discussed.

THE RECENT COMPLAINT AGAINST CORONERS' COURTS.

MR. LAWSON TAIT has done good service in directing public attention to two illustrations of the tendency of coroners and their juries to exceed their functions or to forget their duties. There cannot be a more obvious duty for a coroner than to insist that no man shall be condemned in his court without being heard. Yet Mr. Tait shows without any doubt that in the case of Mr. Haynes, on which we commented at the time, the coroner, against

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his own better sense, allowed the jury to censure a medical man who did not know of the inquest being held, who was, in fact, many miles distant, and who had done all that could be done for the patient. One of our contemporaries seems to think that it is a rare circumstance for a coroner to dispense with medical evidence. But it is no rare occurrence, and coroners and juries, especially where the coroner is not a medical coroner, arrive, without such evidence, but with dangerous facility, at a verdict of the cause of death. In the other case to which Mr. Tait has directed attention the inquiry had reference to the death of a young woman who some time previously had given birth to an illegitimate child. There was nothing in the medical evidence to connect the death with the birth of the child, yet the coroner thought it his duty to inquire from the sister of the woman into the delicate question of the paternity of the child, declaring it to be absolutely wrong that the father should be spared when the poor unfortunate young woman lost her life. It is true that many men escape in such case, and elude the punishment of their meanness and sin, while the woman has all the shame and the hardship to bear; and doubtless any practicable law that would tend to expose such iniquity should be welcomed. But what are we to think of a coroner who could allow his jury, or rather himself, to go into such matters, especially in the absence of the accused person, and to mix up a simple question of the cause of death with the delicate one of the cause of the birth of another person altogether. Such roving excursions bring the coroner's court into disrespect, and convince us more and more of the necessity for medical coroners.

PATIENTS AND THEIR FEES.

THE *St. James's Gazette* of the 8th inst. has a playful article on the subject of "Patients and their Fees, from the Doctor's Point of View," concluding "that if there were no patients' and relatives' whims to consider, and no bills to send in, medicine would be a delightful profession; but it is not." No doubt bills are a nuisance, though a sad necessity; but we shall not admit that they spoil "a delightful profession," and "even the whims of patients and relatives" have their uses. The study of them is often extremely interesting, and affords one of the best clues to the management and treatment of cases.

INFLUENZA A HUNDRED AND SIXTY YEARS AGO.

AN Italian correspondent reminds us of the historic epidemic of influenza in Milan between the years 1730–33, described by the contemporary physicians, Drs. Gagliardi, Bellegatta, and Crivelli. The last named, a Milanese practitioner in advance of his time, found in the air the "chief and efficient cause of the influenza visitation." In 1730 and 1733 the climatic conditions were as nearly as possible the same as those prevalent in the last two epidemics in Italy; that is to say, a mild temperature, the sirocco wind predominant, and much humidity, with fog and rainfall alternating. Dr. Crivelli's description of the symptoms of an influenza patient might (our correspondent says) be transcribed from the phenomena of to-day: "Gravedo and coryza, general languor with indisposition to exertion of any kind, loss of appetite even in presence of the daintiest viands, pain in the sinciput, giddiness, dimness of eyesight, high fever with rigors and *horripilatio* extending over the whole body; cough sometimes moist, sometimes dry enough to induce a choking sensation." These symptoms, not very grave in themselves, says Dr. Crivelli, are apt to reach an acute and even pernicious stage — "the patient finding himself suddenly oppressed with a suffocating catarrh (*un catarro soffocativo*), or, in other cases, with a pleurisy, or a pleuro-pneumonia. One patient falls as by an apoplectic stroke, another complains of intolerable cephalalgia—the old, the phthisical, the asthmatic rarely outriding the storm." It would be difficult to give a truer account of the course and issue of the influenza cases now occurring at this hour in the Alta Italia. Dr. Crivelli further shows himself ahead of his age in his severe condemnation of indiscriminate venesection, stigmatises the abuse of diluents, and rests his system of treatment on vigilantly regulated diet and the support of nature. Of course, he used heroic measures when time was precious—even bloodletting when engorgement of the circulation was a distressing symptom,—and he found great efficacy in the Hippocratic prescription: "Alvus curanda est per clysterem subducentem et frigefacientem." Other less rational measures he also recommends, taken from a pharmacopœia happily superseded. But, according to the lights available at the time, he seems to have been a thoughtful and ingenious clinician, and his treatise has a quite special interest for the student of the history of medicine.

THE DEFECTS OF SCOTCH SANITARY LAW.

SCOTCH sanitarians have certain very obvious grievances, and they have recently taken the opportunity of bringing some of them before the Lord Advocate, who has promised to lay them before the Marquis of Lothian, H.M. Secretary of State for Scotland. One relates to the impossibility of properly getting rid of accumulations of excreta and filth, a well-recognised and a fertile source of preventable disease; and their demand is that districts for cleansing should be made for this purpose in the same way as is done for the purposes of water-supply and drainage. The two latter are largely arranged with a view to local conditions of topographical formation, with which a mere question of cleansing would have little or no concern; and we believe that in this country difficulty has arisen in dividing parishes for mere purposes of scavenging in the same way as has been done where special drainage districts have been formed, the new area being financially and rateably distinct for the particular purpose specified. But the Lord Advocate, whilst hinting at such difficulties, practically admitted that the only alternative was to allow the nuisance to occur, then to seek its abatement, and then let it recur. No one in the present day would for a moment contend that this constituted sanitary administration, and hence the difficulty is one which ought to be faced and dealt with. Another grievance is that, unlike their English colleagues, the Scotch medical officers of health are not periodically provided with the necessary statistical data from registrars of births and deaths as to the births and causes of death, which would enable them properly to compile the statistics required, not only for their own purposes, but for the purposes of the Board of Supervision. This should certainly be attended to, and it would be well if, in any amendment of law as to this, registrars in England could be compelled to give to medical officers of health more details as to births, such as the question of sex, than is now required by the English Registrar-General. Accurate statistics giving details such as these are often not procurable, even by English health officers. Another grievance is that whereas three English permissive Acts were passed in 1889 and 1890—namely, those relating to compulsory notification, the Infectious Diseases Prevention Act, 1890, and the Public Health Amendments Acts, 1890—and whereas the former of these was made applicable to Scotland, the two latter were not extended in the same way. The Scotch sanitarians, whose views were advocated by Dr. Littlejohn, Dr. J. B. Russell, Dr. J. C. McVail, and Dr. Campbell Munro, declare that many of the clauses in the latter Acts had already been adopted in local Acts with

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the approval of the Board of Supervision; that the advantages of the Act relating to notification cannot be reaped without the further benefit of the other Acts, and yet that Scotland was, without explanation, excluded from their benefits. One thing is certain, and that is that those who know the real sanitary needs of Scotland have now indicated to the Scotch Secretary of State a few simple expedients by which the sanitary administration of their country could be materially benefited, and without which Scotch public health must necessarily suffer to an extent that is no longer permissible in England; and it certainly behoves those who are in authority to see that the comparatively simple, although very important, demands made should be granted with a view to the removal of conditions tending to ensure nuisances and disease and to the prevention of those forms of sickness and death which are now proved to come within the scope of efficient sanitary administration.

DR. COLLIE AND THE ASYLUMS BOARD.

WE are glad to state that, notwithstanding an apparently organised and ungracious opposition, the Metropolitan Asylums Board have recognised the fairness of awarding a pension to Dr. Collie for the eminent services he has rendered to the profession and the public while at the Eastern Hospital and elsewhere in connexion with diseases of an epidemic nature. Dr. Collie has been granted the sum of £210 annually as a pension. It is to be hoped that the good work he has done in organising the methods of combating small-pox and of investigating the nature of virulent epidemic diseases will be only preliminary to further efforts on his part to elucidate some of the obscurity with which they are still surrounded.

THE ANALYSIS OF PEPTONES.

THE compounds obtained in the digestion of meat by acid pepsin, although similar in composition, are by no means identical in chemical properties or nutritive value. Any analytical method therefore which gives a tolerably accurate account of the composition of commercial peptone preparations must prove one of importance and value to the practitioner, seeing that peptones are largely employed as nutrients in cases of enfeebled digestion and in wasting diseases. At the last meeting of the Society of Public Analysts held at Burlington House, Messrs. C. W. Heaton and S. A. Vasey of Charing-cross Hospital contributed an interesting paper on this subject. These chemists have devoted their attention to the methods which have from time to time been proposed, and while they recognise in Denaeyer's method[1] the best that has been devised, and one by which they have been mainly guided, yet they are led to think from their own experimental observations that the process of which the following is an outline is simpler and more satisfactory. A convenient quantity of liquid peptone is gradually dropped into strong alcohol. The precipitate, consisting of albumens, gelatine (coagulable), albumose, and peptone, is dried and weighed. The filtrate, containing meat bases, creatine, &c., and uncoagulable gelatine, is decanted and reserved for further treatment. After weighing the alcoholic precipitate, it is dissolved in water, and the insoluble albumens filtered off and weighed. An aliquot portion of the filtrate, which now contains only albumose, gelatine, and peptone, is next treated with saturated ammonium sulphate solution and the precipitated albumose and gelatine weighed on a tared filter. The adherent sulphate is estimated by means of barium chloride and deducted, together with the filter, from the total weight. Another portion of the filtrate is treated with specially prepared copper hydrate emulsion, which, with albumose, forms an insoluble compound. The precipitate is treated for nitrogen by the Kjeldahl process. Multiplied by the factor 6·33, this gives albumose. The filtrate from the copper emulsion, now free from albumose, is concentrated, and then treated with ammonium sulphate, heated and cooled. By careful manipulation the gelatine which separates may be made to adhere to the sides of the beaker, washed with ice-cold water, and weighed. Adherent sulphate is estimated and deducted as before. The quantity of gelatine and albumose being ascertained, that of peptone may obviously be gained by difference. Part of the alcohol filtrate (*vide supra*) is evaporated to dryness, taken up with water, and treated with ammonium sulphate for the separation of uncoagulable gelatine. Another portion may be evaporated to dryness and weighed, and another taken for the estimation of nitrogen. The following data are furnished by this process: albumens coagulated by alcohol, gelatine (uncoagulable and coagulable), albumose, peptone, and substances soluble in alcohol, such as creatine, urea, &c. Total nitrogen, water, organic matter, and mineral matter are estimated in the usual way. The authors give to Denaeyer the credit of first recognising in peptones a variety of gelatine soluble in alcohol, and they also add that his process was the first to provide for the estimation of gelatine, or glue-peptone. A knowledge of the presence and amount of this body is desirable, inasmuch as it is said not to present the nutritive value of either the albumens or their peptones.

[1] See THE LANCET, May 2nd, 1891.

DEATH OF PROFESSOR VON BRÜCKE.

IN the death of Ernst Wilhelm von Brücke, which took place from influenza at Vienna on Jan. 5th, physiology has lost one of its most illustrious followers. Professor Brücke was born in 1819, and had therefore attained his seventy-third year. He studied medicine at Heidelberg and Berlin, and in 1843 became assistant in the Museum of Comparative Anatomy at the latter University under the direction of Johannes Müller. In 1848 he succeeded Burdach as Extraordinary Professor of Physiology at Königsberg, and the following year became Professor of Physiology at the University of Vienna. There he has remained, steadily working in the sphere of science, and becoming the recipient of many honours. Professor Brücke contributed considerably to physiological literature as well as to anatomy, his works comprising two volumes of lectures on physiology, researches on the blood, on electrotonus, on the function of speech, on colour-vision and other optical questions, as well as anatomical studies of the eye, and, quite recently, a handbook of artistic anatomy.

YELLOW FEVER.

YELLOW FEVER is a disease which prevails in the tropics principally between 25° north latitude and 10° south. It is always found more or less on the Guinea coast of Africa, in Brazil, Mexico, and in the southern part of the United States. Its infectious nature is supposed to be shown by the fact that it overflows these tropical limits every now and again and reaches subtropical regions. It is not known, however, in temperate climates. Certain cities like New Orleans, Rio Janeiro, and Santos are frequently scourged with this disease. Lord Salisbury has received a despatch from the British Consul at Santos depicting the state of affairs prevalent there, and pointing out that yellow fever, together with small-pox, largely prevails. It states that "the former is chiefly caused by the unhealthy state of the harbour, and the monstrous delays experienced in unloading vessels. Nearly two-thirds of the cases attacked end fatally." It is difficult to ascertain the exact etiology of

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the disease, whether, for instance, it is due to malarial or atmospheric conditions, or to faecal accumulations, and consequently no treatment which is known is able to adequately cope with it. Mr. Edwin Lawrence, in a communication we have received, points out that it is known that at New Orleans so soon as the first frost appears yellow fever disappears, and sea captains know that if they can steam for colder regions the patients on board recover and no fresh cases arise; and he has suggested a mode of treatment by placing the patients, even in tropical countries, in an artificial ice atmosphere on board ships, to place ice in the patients' mouths, and to ice all foods and drinks. The idea seems at least worthy of a trial, especially as it is not difficult in any climate to keep a chamber at freezing-point, or at any temperature below it, and the expense is comparatively small. It is unfortunately the case that the etiology of this fatal disease is as little known now as it was at the time of Columbus, and its effects have been scarcely, if at all, alleviated. It forms one of those unexplored regions of the dark continent of medical science concerning which much investigation is still required by the scientific minds in the profession.

THE FOLKESTONE HEALTH OFFICER.

THE attitude adopted by the majority of the Folkestone Town Council in regard to the appointment of a medical officer of health is not one which is calculated to inspire confidence in the minds of the many visitors who have been in the habit of frequenting that town in quest of health and recreation. The discussion has related to the question of salary, and the dispute has had to do with either a remuneration just sufficient to compensate for a perfunctory performance of the ordinary duties of the office—that is to say, as one member put it, to secure one hour's services for six days in the week,—or, on the other hand, to indicate by a somewhat higher salary that Folkestone desires to attract to the office some skilled practitioner who will really make the health requirements of the place a constant care and study. The majority prefer the former class of appointment, and decline to pay more than "6*s.* or 7*s.* an hour" for one hour's services every week-day. More than once the Local Government Board have had to intervene in connexion with preventable disease in and around Folkestone; and it would certainly conduce to the sanitary interests of the place if it were understood that the Town Council desire for the future to place their town above suspicion as regards its sanitary administration.

THE PHRENIC NERVE.

IN the recent number of *Brain* Dr. John Ferguson of Toronto has a note on the function of this nerve. He had under observation some time ago a patient suffering from progressive muscular atrophy, in whom there was an affection of the diaphragm. The phrenic nerve was examined after the patient's death, and while some fibres were found to be completely degenerated, others were undergoing degeneration, and a third set were quite healthy. He drew the inference that the phrenic nerve was not wholly motor, but in part sensory. To support his hypothesis, he examined the condition in a cat after division of the right phrenic nerve, and three weeks later, on opening the abdomen, the sensibility of the diaphragm was found much impaired. The nerve was completely degenerated. In another experiment the posterior roots of the third, fourth, fifth, and sixth cervical nerves were divided, and subsequent examination of the nerve showed that there was well-marked degeneration of about a third of its fibres. Before the animal was killed it was found to be anæsthetic on the side of its diaphragm corresponding to which the posterior roots had been divided. Dr. Ferguson concludes from these facts that the phrenic is to be regarded as a mixed nerve, and that in inflammations involving the diaphragm or the serous membranes attached to it we may look for sensory disturbances, often of wide distribution. The phrenic being sensory, from irritation of that nerve, pain in the cervical region where it arises is to be looked for, and in this way he accounts for severe pain at the back of the neck and in the shoulder in a patient whom he had under his care suffering from an abscess of the liver which subsequently proved fatal.

HOSPITAL SUNDAY IN LIVERPOOL.

THE second Sunday in the new year has since the year 1871 been observed as Hospital Sunday in Liverpool. Its recurrence this year was therefore invested with unusual importance, Hospital Sunday having thus completed its majority in Liverpool. The day, though cold, was fine and bright, but the state of the streets, frozen and slippery in the extreme, had a marked effect in reducing the number of church and chapel-goers. Still it is gratifying to note that the collections show their usual munificence. At the head of the list is the Sefton Park Presbyterian Church, the minister of which is the Rev. John Watson, one of the Honorary Secretaries of the Hospital Sunday Committee. Here the collection amounted to the excellent total of £666, an increase of £25 over the amount realised last year. Next comes the Renshaw street Unitarian Chapel, which contributed £639. Up to Monday evening the treasurer had been advised of collections amounting to upwards of £2000, and so far as can be ascertained the total amount promises to be a fair average of those of recent years.

THE PHYSIOLOGICAL EFFECTS OF PARACENTESIS.

THE physiological effects of tapping the abdomen in cases of ascites from atrophic cirrhosis of the liver have been studied by Dr. Gravirovski, who gives the details of his observations in a recent thesis for the degree of M.D. in the Medico-Chirurgical Academy in St. Petersburg. He found that the assimilation of nitrogen was increased by the operation, but that of the fatty elements of food was diminished; the metabolism of the nitrogenous principles was also increased, and the loss of albumen in the blood was soon compensated by the greater assimilative power for this nutritive principle. He comes to the conclusion, too, that more is gained by early than by late paracentesis.

EXPERIMENTS AT THE PHARMACOLOGICAL INSTITUTE AT DORPAT.

A RECENT volume of the Transactions of the Pharmacological Institute at Dorpat, edited by Professor R. Kobert, contains two experiments by Nicolai Kruskal, one on some combinations with saponin, and the other on the corn cockle (Agrostemma githago). The former partially concludes a series of experiments by the editor himself, and contains a number of new and important observations in chemistry, toxicology, and hygiene. Dr. Kobert had found that saponin, as described by various authors, especially the saponin extracted from quillaja bark, is not an elementary body, but a mixture of two substances, which are both poisonous, and which he calls respectively quillaja acid and sapotoxin. The researches of Kruskal are a valuable addition to our knowledge, as they have shown that the so-called saponins are a whole series of bodies, corresponding to several different general formulæ. Every series contains several members which, though they are identical as far as elementary analysis goes, and give the same chemical reactions, yet on pharmacological examination show a

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marked difference in their toxic intensity. The sapotoxin of the corn cockle possesses a further physiological characteristic distinguishing it from all other kinds of saponin in the fact that it may be absorbed both by subcutaneous tissue and by the alimentary canal. The seed of the corn cockle contains, however, as is well known, besides its poison, a large proportion of nutrient matter, and attempts have therefore been made for many years past to introduce it as an article of food for beast and man. Such a use of the seed has become quite possible since Lehmann and Mori demonstrated that the poison may be rendered innocuous by the simple process of roasting the meal in iron pans. Natanson has also shown by his experiments in Kobert's laboratory that the non-poisonous kernel, which gives a particularly fine meal, is almost enveloped by the poisonous portion of the seed. The practical value of this question is best exhibited by the concluding paragraph of Kruskal's observations on his experiments on agrostemma. He informs us that the Russian military authorities permit the purchase of bread containing an addition of half per cent. of corn cockle, so that the soldier, in his daily ration of 1200 grammes of bread, takes 6 grammes of it, a quantity which may have a seriously toxic effect.

INFLUENZA IN ITALY.

AT Milan one hundred and five deaths from influenza between Saturday, the 2nd inst., at 4 P.M. and Sunday at 4 P.M., were registered on the latter of these days. The registration office is hardly equal to the task of entering the cases reported to it; funeral carriages are insufficient in number; and the gravediggers at the cemeteries, in spite of repeated reinforcements, are still calling for more hands. The Ospedale Maggiore is filled to repletion, and the same is announced from all the branch hospitals and lazarettos. At Como the mortality is almost as high, though, singularly enough, at the resorts on the lake itself the disease is inconsiderable. At Venice scarcely a family has escaped, and most of the public offices have their *personnel* reduced by one-half. At Bologna the malady is equally diffused, though the mortality is not so great in other cities. At Rome it is spreading, several thousand cases occurring daily, and in the Carceri Nuove (new prisons) four-fifths of the inmates, convicts and keepers, are on the sick list. Hitherto, however, the deaths have been comparatively few. Florence, which suffered so severely in 1890, has proportionately few cases, and these comparatively mild.

NEW RESEARCHES ON VARIOLA VACCINE.

IN connexion with the commission now being held on the efficacy of vaccination Chauveau's experiments are interesting. An abstract of them is given in the *Boston Medical and Surgical Journal* for Dec. 3rd, 1891. His experiments were made with the product of the eighth transmission from heifer to heifer, and were exclusively performed on subjects of the bovine species. The results of his investigations are briefly as follows: 1. Vaccine virus never gives small-pox to man. 2. Variolic virus never gives vaccinia to the cow or horse. 3. Vaccine is not even attenuated small-pox, and cannot be compared to the benign anthracoid infection which is communicated to animals by inoculation with attenuated anthracoid virus. 4. If vaccinia is a derivative of small-pox, it is by reason of a radical transformation of the variolic virus, a transformation thus far unattainable by experimenters. 5. These last propositions lead to another more general one, which is this: the attenuation of virus is not a physical process which can be identified with the transformation of virus. If these views are correct it may very naturally be asked, How does vaccine virus confer immunity from small-pox? On consideration of the results of experimental preventive inoculation we may divide them into three methods, as follows: (*a*) Fabrication of prophylactic substances by pathogenic agents outside of the organism which is to be rendered immune, and the introduction into this organism of the said substances in sufficient quantity to confer immunity, these substances having been by the proper manipulations freed from the virulent elements, properly so-called, and rendered inoffensive. (*b*) Fabrication, in the organism to be protected, of prophylactic substances by the pathogenic agents, with the germs of which inoculation has been made under conditions which ensure the benignity of their infectious effects. (*c*) Fabrication of the vaccinal substance by a virus very like the virus against which immunity is sought, but belonging to another species. In this latter category Chauveau places the microbe of chicken cholera, in its function of conferring immunity against charbon. Here also he would place the virus employed as a preservative from small-pox. Whatever, in fact, may be the origin of vaccine, though we were to admit it to be a derivative of small-pox, it none the less constitutes in reality a morbid species distinct from the latter. The two viruses—vaccinal and variolic—are irreducible into one and the same infectious entity.

DESTRUCTION OF THE CUNEUS.

A CASE in which the cuneus on one side was destroyed with almost the accuracy of a physiological experiment is related by Dr. Eskridge in the *Medical News* (Philadelphia). The patient was a strong and healthy man, who had received a bullet two and a half inches in front of the occipital protuberance, and half an inch to the left of the middle line. It was extracted a few hours after the accident, and was found lying just beneath the cortex. Two days later there was right homonymous hemianopsia up to the middle line, but the pupils reacted normally and the fundi appeared healthy. Mentally the patient was dull and slow, and he gradually sank into coma, and died on the fifth day. At the necropsy the wound was found healthy, but a good deal of hæmorrhage had taken place about it. The wound in the brain was two inches in diameter. Behind, it extended to within an inch and a half of the tip of the occipital lobe. On the median surface a thin layer of brain substance remained, slightly thicker anteriorly than posteriorly. The cuneus was in fact almost completely destroyed; and while the superficial part of the angular gyrus was uninjured, there was some damage to a part of its substance beneath the surface. The case is interesting as lending support to the view that the cuneus of one side represents the half of each retina on the same side, and consequently the opposite half of each field of vision.

SUBCORTICAL LESIONS AND SPASTICITY.

IN the *American Journal of Nervous Diseases* Dr. C. K. Mills records a case of some interest and one which supports the view that an extreme spastic condition of the limbs is usually associated with a subcortical brain lesion. The patient was a man who two or three years before he came under observation had an attack in which he lost the use of his right arm and leg. He did not become unconscious, but he was never able to stand afterwards. About a month later he had a fit commencing in the right arm during which he lost consciousness. Subsequently he had several similar attacks. He had some tremor of the tongue. The faradaic and galvanic irritability of the muscles on the affected side were retained. The knee-jerk on the right side was much exaggerated, and there was foot clonus, but the most persistent and marked symptom was a continuous spasticity of both arm and leg, especially the latter, on the paralysed side. He died of a hæmorrhage into the right hemi-

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sphere which burst into the lateral ventricles, but the condition of the left hemisphere, which gave rise to the old attack, and was the cause of the paralysis of the right arm and leg, was the most important. To external examination nothing was evident except a dark spot, about one-fifth of an inch in diameter, at the bottom of the upper extremity of the central fissure, but on exploring the lateral ventricle a yellowish black area one-third of an inch in length was noticed in the white substance composing the curved roof of the ventricle, about the middle of its antero-posterior extent. This was found to be a hæmorrhagic cyst, lying in the part of the sub-cortex related to the middle and upper thirds of the anterior central convolution, and it was an arm of this cyst which extended to the spot of degeneration already described in the fissure of Rolando. Dr. Mills records the case as lending support to the idea that the predominant symptom in cases of subcortical lesion is persistent tonic spasm, and that a lesion such as existed in this case—partly destructive and partly irritative—has such a condition as its most characteristic accompaniment.

IODINE INJECTIONS IN MALIGNANT PUSTULE.

DON A. M. AYUSO publishes in *El Siglo Médico* three interesting cases of malignant pustule, which he successfully treated by means of hypodermic injections of iodine. In two of the cases the seat of the affection was the neck, which is usually considered a particularly dangerous situation. In one of them, indeed, there were symptoms of pressure on the larynx. In both cases incisions and powerful caustics had been previously applied without appearing to have any effect before the iodine treatment was resorted to on the fourth day from the commencement of the symptoms. The pure tincture was used in one case, while in the other it was diluted to half strength. The injections were made around the tumour at intervals of from two to three centimetres, and were not repeated. In a third case, which was that of a little child, the solution used was composed of four parts of the tincture of iodine, one of iodide of potassium, and eight of water, about seventy-five drops being injected altogether around the pustule, which was situated on the forehead. In this case and in one of the others an attack of convulsions followed the injections. Notwithstanding this, Dr. Ayuso is in favour of giving the injections of a considerable strength, so as to kill the virus at once. The needle should be inserted to the depth of from two or three centimetres in the œdematous zone bordering upon the indurated tissue. It is well, too, to press the piston of the syringe down at once rather than gradually.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Professor Jolly has been made a Medical Privy Councillor. Dr. Strassmann has taken temporary charge of the Pharmacological Institute. Dr. Hans Thierfelder has been recognised as *privat-docent* in Chemical Physiology.

Breslau.—Professor Kast of Hamburg has been offered the Directorship of the Medical Clinic, in succession to Dr. Birmer, who is retiring on account of his health.

Halle.—Dr. Bunge will probably succeed Professor Alfred Graefe, who is retiring, and to whom he has been for many years principal assistant.

Kieff.—Dr. Yakimovich has been promoted to an Extraordinary Professorship of Histology and Embryology.

Pavia.—Dr. T. Clivio has been recognised as *privat-docent* in Midwifery and Gynæcology.

Pisa.—Dr. F. Denti has been recognised as *privat-docent* in Ophthalmology.

Prague.—German University: Dr. F. Hueppe has been promoted to the Professorship of Hygiene. *Bohemian University:* Dr. F. Michl has been promoted to an Extraordinary Professorship of Surgery.

Rome.—Dr. E. Manara has been recognised as *privat-docent* in Ophthalmology.

Strasburg.—Dr. Jacobj has been recognised as *privat-docent* in Pharmacology.

Valencia.—Dr. Sloker y de la Pola, Professor of Anatomy, has been appointed to the Professorship of General Pathology.

Vienna.—Dr. Max Gruber has been promoted to the Ordinary Professorship of Hygiene.

Zurich.—Dr. Hugo Ribbert of Bonn has been appointed to succeed Professor Klebs in the chair of Pathology and Pathological Anatomy.

MR. ALBERT JAMES BERNAYS, Ph.D., Professor of Chemistry at St. Thomas's Hospital, who died on the 5th inst., at his residence, Acre House, Brixton, S.W., after a few days' illness from bronchitis, as already briefly recorded, was born in London in 1823, and was educated at King's College School and at the University of Giessen. He was Doctor of Philosophy of Giessen, Fellow of the Chemical Society, Fellow of the Institute of Chemistry, Lecturer on Agricultural Chemistry, 1845, and Lecturer on Chemistry and Practical Chemistry at St. Mary's Hospital Medical School, 1854-60. He had been Lecturer on Chemistry, Practical Chemistry, and Practical Toxicology at St. Thomas's Hospital since 1860; he was Public Analyst for St. Giles's, Camberwell, and St. Saviour's, Southwark; and late Examiner in Chemistry to the Colleges of Surgeons and Physicians. Dr. Bernays was the author of many works on Chemistry. He was cremated at Woking.

MANY officers of the Medical Staff will hear with great regret of the death of Brigade Surgeon Lieutenant-Colonel S. E. Maunsell, in the Jamaica command. The deceased officer had completed his tour of service and was about to embark for home, in anticipation of his early promotion, when he was attacked with yellow fever, of which he died. He was an excellent officer in every way, and enjoyed a considerable reputation professionally, more especially in ophthalmology. His skill as an operator was considerable, and he unostentatiously effected a large amount of good among the natives in the Umballa division of the Punjab, India, an account of which and other matters he embodied in a modest little work, entitled "Notes of Medical Experiences in India, principally with reference to Diseases of the Eye." Surgeon Lieut.-Colonel R. N. Malley has been appointed senior medical officer on the staff at Jamaica.

WM. CHARLES HENRY, M.D., F.R.S., who was a chemist and physician of great distinction, and for many years connected with the Manchester Infirmary, has died at the age of eighty-eight years. He was born on March 31st, 1804, took his academical degree at Edinburgh University in 1827, and spent some time in the study of medicine on the Continent. He was the author of certain works on the physiology of the nervous system, and of many papers and pamphlets relating to his studies in chemistry.

WE regret that, through an inadvertence, the name of Mr. Bryant, who attended as President and representative of the Royal College of Surgeons, was omitted in the account published in our last issue of Professor John Wood's funeral.

THE first session of the Congrès Périodique International de Gynécologie et d'Obstétrique will be held at Brussels, Sept. 14th to 19th, 1892. Mr. Alban Doran has been chosen to act as secretary for England.

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THE death has been announced of M. de Quatrefages, the eminent ethnologist, aged eighty-two. He was author of "Crania Ethnica," and the standard work "Études des Races Humaines."

SIR ANDREW CLARK will resume his instructions in Clinical Medicine at the London Hospital on Tuesday, 19th inst., at 2 o'clock.

WELLINGTON COLLEGE SORE-THROAT.

BY J. G. BARFORD.

DURING the twenty-four years I acted as medical officer to Wellington College I had numerous opportunities of watching the progress of epidemic diseases as they affect schoolboys and the particular form of sore-throat occurring from time to time at Wellington College, which has puzzled the best physicians and surgeons of the latter half of the nineteenth century, from London and elsewhere, whom it was my privilege to meet and coöperate with from the first year of the opening of the College in 1859 to the end of 1883. But at no period of these twenty-four years does it appear that the boys have suffered in such numbers, nor, apparently from Dr. Bristowe's report, more severely than they have during the third term of the past year. The admission of 244 boys into the sanatorium, as stated in the report—that is, more than half of the school—is an occurrence, I believe, unprecedented in the history of the College. When it is remembered that the boys did not reassemble till the latter half of September and were dispersed at the beginning of December, the actual period of residence amounted only to ten weeks, making an average admission into the sanatorium of from twenty-four to twenty-five a week. The governors of the College express their satisfaction that, in the opinion of Dr. Bristowe, "the recent outbreak of illness cannot be attributed to defective drainage or water-supply, but rather to the almost unprecedented rainfall."

The chief importance of this sentence turns on the "almost," for it is a candid admission that there have been previous heavy rainfalls, but on these occasions the heavy rainfall has not been productive of the same illness or fatality among the boys. Three deaths in one year from diseases or their complications believed to be preventable, and which cannot be referred, according to Dr. Bristowe, to defective drainage or water-supply, are probably unprecedented in the history of our public schools. Is it possible that more or less rainfall can make this difference? I would ask, Can Dr. Bristowe be in earnest in leading the governors to entertain such an idea? Dr. Bristowe states in his book on "The Theory and Practice of Medicine" that "diphtheria is a disease of all countries and all seasons" (heavy rainfall or not), and that "there is reason to believe that the sanitary state of houses or localities, and the condition of health of those who are exposed to its poison, have much influence over its development." How can Dr. Bristowe reconcile the teaching in his book with the opinion he has expressed to the governors of Wellington College? I have read the article on Diphtheria in Dr. Bristowe's book (1884 edition), and cannot find a syllable on the influence of rainfall in the production of diphtheria. It is evident that Dr. Bristowe has attached no importance to rainfall in the past; or, as a lecturer on medicine and the author of a book on the "Theory and Practice of Medicine," he would have made some reference to it before. It appears to me most unfortunate for the reputation of Wellington College that Dr. Bristowe can find nothing further than this to explain the outbreak. Does the poison or germ which sets up diphtheria, in Dr. Bristowe's judgment, come down from the clouds with the rain to Wellington College? or is it that he would have us believe that the rainfall has some peculiar disturbing influence on the soil at Wellington College, creating it thereby into a cultivating medium for the poison which has recently presented itself in so virulent a form? Dr. Bristowe seems to me to be on the horns of a dilemma, and has to admit one or the other cause. Any theory he may have of the possible introduction of the disease from the village without is shaken by the fact that its occurrence in the College appears to be anterior to two cases outside the College grounds. In the past I have seen septic throats going on to diphtheria occur over and over again among the boys when no trace of the disease could be found among the residents outside the College boundaries. My twenty-four years' experience at Wellington College taught me that the boys conveyed infectious illness to the residents around rather than the reverse. Dr. Bristowe states that he cannot fix the date of the occurrence of the first case at the College; but if he will go into dates accurately he will find, I think, that the boys were infected before any case whatever occurred among the residents disconnected with the College. The Notification Act is in operation in the district, and definite information available for Dr. Bristowe. If he will go carefully into the notes, and especially the temperature charts, of each case admitted into the sanatorium during the term, he will have no difficulty in fixing the date of the first case in which the specific virus displayed itself. Anyhow, by this method I have in the past found no difficulty in fixing approximately the date of the first occurrence of septic sore-throat in the form it presents at Wellington College, which in the first instance does not present definite signs of diphtheria, for the diphtheria is engrafted on to septic throats as a secondary disease. A comparison of this approximate date with the date of the case first notified from the village would settle the point which Dr. Bristowe's report leaves so obscure. In his book he admits the elevation of temperature as a marked feature at the onset of this disease, and I find from the comparison of 100 charts that the temperature at the onset is very uniform. Here there is reliable data for comparison, of which he does not appear to have availed himself. The report leaves Wellington College uncertain as to the origin of a disease, and would teach that whenever the rainfall is in excess of an average, the inmates of Wellington College may have again to seek a home elsewhere.

(To be continued.)

INFLUENZA.

SELDOM in the records of previous pandemics of influenza has a third annual recurrence of this remarkable disorder exhibited such virulence as at the present time. Indeed, previous experience has mostly been to show that after the first outbreak the malady may recur in a more or less sporadic manner, and then disappear almost entirely. But there is no question now that the recurrence of this winter, which commenced in this country in Cornwall and in Scotland, has equalled in severity the first outbreak of the winter of 1889–90, as well as in the extraordinary diffusion of the disease which has taken place during the past fortnight. So widespread has this extension been that it is difficult and bewildering to follow its course from day to day, so as to give any coherent account of the progress of the pandemic wave.

There is no question that the influenza has once more gained a marked foothold in the metropolis. For weeks past, it is true, the Registrar-General's returns have given a certain number of deaths directly attributed to the disease, but last week this number rose remarkably, reaching 95, as compared with 37 in the preceding week, and 19 in the one before that. Medical practitioners are again overburdened with engagements, and nursing institutions are being taxed far beyond their resources. In Kensington an outbreak has occurred in the infirmary, just as last week at the Fulham Infirmary, and the disease is very prevalent in the neighbourhood. In the southern and western suburbs it is also rapidly extending, especially in Hounslow, Isleworth, and Ealing. Cases have occurred in the Hampstead Workhouse, and in the Chelsea and Wellington Barracks. The General Post Office departments, which suffered so severely two years ago, are again crippled by the sickness.

The general mortality of London for the past week was 32·8 per 1000, which is about the average for the past three weeks, the deaths referred to diseases of the respiratory organs amounting to 1084, or 455 in excess of the average.

In the home counties influenza is still very prevalent. It continues to spread in Berkshire and in Bucks; in Surrey it still persists in Chertsey and Walton; in Herts it is very

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prevalent in Watford, and most severe in Kent and Essex. In these latter counties the outbreak seems to be especially virulent. Canterbury has suffered more than on the two previous occasions; and the agricultural as well as the urban communities in that district, and in and around Maidstone and Ashford, are also widely attacked. It prevails, further, in Chatham and Rochester, and still exists in Dover, Walmer, and other parts of the coast. In Essex it is generally prevalent, the villages on the coast suffering especially, but the epidemic has caused many deaths in Chelmsford, Colchester, Halstead, and other places.

In the southern counties, Sussex and Hampshire, especially Porchester, Portsmouth, and Southampton, have suffered severely; whilst in Dorset the outbreak has been attended with great fatality.

In Norfolk the epidemic has appeared at Norwich, King's Lynn, and many of the country districts; in Suffolk, at Lowestoft and Bury St. Edmunds, where the mortality has been very high. It is very prevalent in Cambs and Hunts, and in Northamptonshire, especially around Peterborough. At Leicester we are informed by Dr. Tomkins, the medical officer of health, that "for more than three weeks scattered cases of influenza have occurred, but only during the last week has it become at all prevalent, and at present the epidemic has not spread to anything like the extent of last year, nor is the type of so severe a character. Only one death has hitherto been reported." This mildness of type, which unfortunately has not been the case generally, is also noted in the outbreak at Birmingham and in South Lincolnshire.

In Worcestershire cases are very numerous at Kidderminster and its vicinity; in Staffordshire, at Tipton (chiefly among children) and Stafford and neighbourhood. Further north we find that the outbreak—which a month back was so prevalent in Newcastle—is now spreading through Yorkshire, especially around Richmond, Darlington, and Leeds; and it has appeared in Lancashire at Bolton and Liverpool. In Cheshire there is much sickness; and in Mold, in Flintshire, and other parts of North Wales.

The epidemic is subsiding in the towns and villages of South Wales—as at Cardiff, Aberdare, Carmarthen, Tredegar, and Abergavenny, but it still prevails in Monmouth. It has appeared in Bath, and still exists in an aggravated form in Somerset, Wilts, and Devon. Thus it will be seen that the disease prevails over the greater part of the country.

From Scotland it has practically disappeared. In Ireland it prevails at Limerick, Fermoy, and Baltimore. Of the Channel Islands, Guernsey has been the most seriously attacked.

The accounts furnished from the Continent show that influenza is still raging in many parts, and, indeed, in some towns—e.g., Hamburg—it has reappeared after a month's abeyance. In France it prevails in all parts, from the Pas de Calais in the North, where it is extremely severe, to Marseilles and the Riviera in the South, where its type seems to be milder. In Paris it continues to spread; at Montpellier it is largely on the increase. In Germany the epidemic has been present for several weeks at Berlin, where it is now on the decline, but where it has attacked the horses. At Munich it has only recently broken out, and is spreading rapidly. Of other cities where it has prevailed or is still occurring may be mentioned Kiel, Breslau, Dresden, Magdeburg, Brunswick, Stettin, and Cologne. In Denmark the outbreak has been especially severe; at Copenhagen itself the number of cases has been enormous, and the attacks have been characterised by great suddenness of onset. In Belgium it is very general, being severe at Brussels and Luxemburg, and seriously interfering with trade at Mechlin and Ghent. It is still causing great mortality in the lunatic colony of Gheel. In Austro-Hungary it still exists in Vienna, and at Pesth it seems to be unusually virulent. In Italy, where it has hitherto chiefly attacked the northern cities, it is spreading in Florence, Venice, and Rome, and is getting much worse in Naples. It has reached Turkey and Greece, for many cases have occurred at Constantinople and Athens. At Malta the Mediterranean Squadron has suffered severely from its effects. It has ceased to occur at Gibraltar, but prevails in many parts of Spain and Portugal, where, however, it is on the decline.

Across the Atlantic influenza is at present widely diffused over the United States, both in the north and south. It spread rapidly at the opening of the New Year in New York, Boston, and Philadelphia; has prevailed, but not with its former severity, in Chicago; and is especially rife at St. Louis, Kansas City, and Memphis. In Canada the type of the outbreak, which is now subsiding, has been mostly mild.

MEDICAL DEFENCE UNION, LIMITED.

THE Secretary of the Union sends us for publication the following report:—

A representative and well-attended meeting of the members of the Medical Defence Union was held at the registered offices of the company on Jan. 7th, for the purpose of confirming a resolution altering some of the articles of association. Mr. Lawson Tait presided, and in moving the confirmatory resolution explained that the proposed alterations, unanimously decided upon by the members on Dec 15th last after much deliberation, had been improperly described as a reconstruction of the company. They were nothing of the sort, but simply an example of an every-day occurrence of a company finding it desirable to alter some of its working rules, and doing so.—Dr. H. Woods opposed the resolution, and urged that the first meeting was technically illegal. In a short but censorious speech he reflected generally upon the President and Council, who, he said, sought to alter the articles in such a way as would enable them, if they thought fit, to decline to defend anyone but themselves and their friends; he referred particularly to the proposals as to election of the Council.—Dr. Saundby regretted that Dr. Woods saw things in a false light and in a way that the vast majority of his professional brethren did not and could not view them. The course Dr. Woods was adopting in the present instance was on a par with that which he had taken in connexion with the affairs of the British Medical Association and in other matters. It was an unfortunate attitude of mind which led him to impute *mala fides* to his colleagues on the simplest matters, and, after making unfounded assumptions against his professional brethren, to proceed to build up a casuistical superstructure thereon.—Mr. Lawson Tait, in reply, referring to the technical objection, pointed out that Dr. Woods had already been informed that the Court of Appeal, in a similar case, had decided the very point that Dr. Woods had raised, and decided it exactly opposite to his contention. The present proceedings were quite in order. The members of the Union perfectly well understood Dr. Woods; and that they were capable of managing their own affairs in their best interests was shown by the fact that, while two proxies only had been lodged in favour of Dr. Woods, more than 900 had been lodged in favour of the proposed changes.

The resolution was then put and passed, Dr. Woods alone dissenting.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Nottingham Urban District.—Dr. Boobbyer's report comes late, but the cause is one that will be appreciated, and especially in his own district. It is practically a second edition, in which he has utilised the returns of last year's census, and has thus dealt with the large statistical discrepancies which those returns divulged. The Registrar-General's estimate of the population of Nottingham turned out, in fact, to be no less than 40,233 in excess of the actual figures given by the census, and this accounts for a death-rate of 1·5 per 1000 higher than that which the estimated returns indicated; the real corrected rate for 1890 being 19·2 per 1000 living. The zymotic rate was low as compared with that for the large towns, being 1·8 per 1000, and it is reported that the new hospital at Bagthorpe, erected by the corporation, is now completed. During 1890, the notified cases of disease included 984 of scarlet fever, 348 of enteric fever, and 64 of diphtheria; and it is a somewhat remarkable fact that, in the case of scarlet fever, the percentage

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of cases removed to hospital, which was only 12 per cent. of the known attacks in 1885, has steadily risen, until it reached 81 per cent. last year. Few things could afford a better testimony to the value and character of the work done towards the prevention of infectious diseases in the borough. To this may be added the information, that no less than 27,620 articles were submitted to a process of disinfection.

Birkenhead Urban District.—On a population which numbered 99,249 at the date of the census, the general death-rate for 1890 was 21·24 per 1000 in Birkenhead. Both as regards measles and the continued fevers there was excess of mortality as compared with the average, and the latter disease included typhus, of which sixty-four cases were notified. The total diseases notified were 2166 in number, and ninety-seven cases were removed to the very imperfect isolation hospital which has alone been available for so many years. Lately the subject of providing a hospital more adapted to the requirements of the borough has again been under consideration, and it has been referred to the Health Subcommittee for report. A large amount of disinfection, of current sanitary work, and a number of special inspections are referred to in Mr. Vacher's report; the subject of the housing of the labouring classes is receiving attention, and there is a proposal to deal with the midden refuse by destruction in a cremator.

Merthyr-Tydfil Urban District.—Mr. Thomas J. Dyke may almost claim the post of *doyen* in the public health service. He now submits his twenty-sixth report on the sanitary condition of Merthyr-Tydfil, a town where his labours have been followed by many improvements bearing on the health and comfort of the inhabitants. The population now exceeds 58,000, and during 1890 the death-rate was some 26 per 1000, as opposed to a mean of 23, influenza having contributed to the increase. Typhus appeared during the year; but by means of isolation, disinfection, and other precautions the disease did not extend beyond ten cases and one death. Enteric fever also caused some anxiety, and its distribution seemed to be associated with some pollution of water used in connexion with dairy processes. Reverting to his earlier labours, Mr. Dyke points out how, between 1845–55, the general death-rate for Merthyr was no less than 33 per 1000, and that when special groups of diseases are examined the diminution which has taken place is as striking as in the general rate. Deaths under one year of age, deaths from typhoid fever, and deaths from phthisis were at the rate of 80, 21·5, and 38 per 10,000 respectively; they now stand at 63, 3⅔, and 38 respectively. And whereas the average age at death was 17½ years, it has now been prolonged to 27½ years.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6862 births and 5612 deaths were registered during the week ending Jan. 9th. The annual rate of mortality in these towns was equal to 28·7 per 1000; in London the rate was 32·8, while it averaged 25·8 in the thirty-two provincial towns. The lowest rates in these towns last week were 15·7 in Croydon, 16·2 in Leicester, 16·6 in Bradford, 17·8 in Huddersfield, and 18·6 in Halifax; the highest rates were 35·0 in Wolverhampton, 36·0 in Portsmouth, 36·3 in Liverpool, 37·2 in Brighton, and 43·7 in Newcastle-upon-Tyne. The 5612 deaths included 549 which were referred to the principal zymotic diseases; of these 248 resulted from whooping-cough, 165 from measles, 44 from scarlet fever, 37 from diarrhœa, 32 from diphtheria, 23 from "fever" (principally enteric), and not one from small-pox. No fatal case of any of these diseases was registered in Brighton, in Plymouth, or in Huddersfield; while they caused the highest rates in Oldham, Sheffield, Cardiff, Newcastle-upon-Tyne, and Swansea. The greatest mortality from measles occurred in Liverpool, Cardiff, Gateshead, Newcastle-upon-Tyne, Norwich, and Swansea; scarlet fever in Halifax and Swansea; whooping-cough in London, West Ham, Sheffield, Swansea, Blackburn, and Oldham; and diarrhœa in Preston and Swansea. The mortality from "fever" showed no marked excess in any of the thirty-three towns. The 32 deaths from diphtheria included 25 in London, 2 in Sheffield, and 2 in Newcastle-upon-Tyne. No fatal case of small-pox was registered in any of the thirty-three large towns; four small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and 1 in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1435, against numbers declining from 1554 to 1471 at the end of the preceding five weeks; 104 new cases were admitted during the week, against 90 and 101 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 337, 553, and 1317 in the preceding three weeks, declined last week to 1084, but exceeded by 455 the corrected average. The causes of 122, or 2·2 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Croydon, Bolton, Blackburn, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Leicester, Birkenhead, Preston, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 27·1 and 26·0 per 1000 in the preceding two weeks, further declined to 24·9 during the week ending Jan. 9th, and was 3·8 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·7 in Greenock and 22·2 in Perth to 30·5 in Dundee and 32·2 in Aberdeen. The 694 deaths in these towns included 22 which were referred to whooping-cough, 9 from measles, 9 from diarrhœa, 8 from diphtheria, 6 from "fever," 4 from scarlet fever, and not one from small-pox. In all, 58 deaths resulted from these principal zymotic diseases, against 41 and 69 in the preceding two weeks. These 58 deaths were equal to an annual rate of 2·1 per 1000, which was 0·7 below the mean rate last week from the same diseases in the thirty-three English towns. The fatal cases of whooping-cough, which had increased in the preceding three weeks from 12 to 22, were again 22 last week, of which 10 occurred in Glasgow, 5 in Aberdeen, 3 in Paisley, and 3 in Greenock. The 9 deaths from measles showed a further increase upon recent weekly numbers, and were all recorded in Glasgow. The fatal cases of diphtheria, which had been 4 and 11 in the preceding two weeks, declined to 8 last week, of which 5 occurred in Glasgow and 2 in Perth. The 6 deaths referred to different forms of "fever" showed a decline of 4 from the number in the previous week, and included 2 in Glasgow and 2 in Aberdeen. The 4 fatal cases of scarlet fever showed a marked decline from recent weekly numbers, and included 3 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 254 and 203 in the preceding two weeks, were 200 last week, and were 40 below the number in the corresponding week of last year. The causes of 79, or more than 11 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 29·1 and 45·8 per 1000 in the preceding two weeks, declined again to 35·0 during the week ending Jan. 9th. During the thirteen weeks of last quarter the death-rate in the city averaged 29·8 per 1000, against 20·5 in London and 25·5 in Edinburgh. The 235 deaths in Dublin during the week under notice showed a decline of 70 from the number in the previous week, and included 10 which were referred to whooping-cough, 5 to different forms of "fever," 1 to diphtheria, 1 to diarrhœa, and not one either to small-pox, measles, or scarlet fever. In all, 17 deaths resulted from these principal zymotic diseases, equal to an annual rate of 2·5 per 1000, the rate during the same period being 3·6 in London and 1·4 in Edinburgh. The fatal cases of whooping-cough, which had steadily increased in the preceding five weeks from 2 to 8, further rose to 10 last week. The deaths referred to "fever," which had increased from 7 to 10 in the previous three weeks, declined again to 5 last week. The fatal case of diphtheria was the first recorded in the city since November last. The 235 deaths registered in Dublin last week included 35 of infants under one year of age, and 72 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a decline from the numbers in the preceding week. Seven inquest cases and 7 deaths from

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violence were registered; and 37, or nearly 16 per cent., of the deaths occurred in public institutions. The causes of 24, or more than 10 per cent., of the deaths in the city were not certified.

INFLUENZA MORTALITY IN 1890.

The Registrar-General's fifty-third annual report recently issued deals with the mortality statistics of England and Wales for 1890. The report specially refers to the recorded mortality from influenza. It appears that the total number of deaths directly referred to influenza in 1890 was 4523. It is pointed out, however, that this number gives no trustworthy indication of the true mortality from influenza, since an unknown but certainly large proportion of the deaths due to this epidemic are invariably returned under bronchitis, pneumonia, and other similar headings. The first epidemic of influenza since 1837, when civil registration of deaths was established in this country, occurred in 1841, whereas the most fatal visitation was that in 1847, which lasted into 1848 and 1849; the disease also showed fatal prevalence in 1851, 1853, and 1858, whereas it did not figure conspicuously in the death register after 1858 until 1890, although the outbreak really commenced in the latter part of 1889. As regards 1890, however, the epidemic, which in London began to subside before the end of January, had, generally speaking, disappeared from all parts of the country by the end of March. With regard to the enormous increase in the mortality returned under other headings, especially under pneumonia and bronchitis, it is pointed out that it could not be attributed to the usual cause of increase under these headings—namely, low temperature—since the mean temperature of January, when the epidemic was most fatal in London, was 6·8° F., and that of the whole first quarter of the year 2·5° F., above the average. On the presumption "that the increased mortality from pneumonia, bronchitis, and diseases of the organs of circulation, compared with the average of the nine preceding years of the decennium, was due to the same cause as were the deaths directly ascribed to influenza," the number of deaths due indirectly to influenza is calculated to have been 22,551, which, added to the 4523 directly referred to the epidemic, raises the total mortality directly and indirectly due to influenza from 4523 to 27,074, equal to 941 per million persons living. The tables in the report under notice show that of the 4523 deaths ascribed to influenza 2415 were of males and 2108 of females; the disease was most fatal among males aged from fifty-five to sixty-five, whereas the most fatal incidence among females was during the age period sixty-five to seventy-five.

THE SERVICES.

ARMY MEDICAL STAFF.—Surgeon-Colonel W. Collis has been selected for the appointment of Principal Medical Officer to the troops in Ireland; Surgeon-Major-General Sir James Hanbury, M.B., F.R.C.S.I., having attained the age of sixty, has been placed on retired pay; Surgeon-Major-General Duncan A. C. Faser, M.D., is placed on retired pay (dated Dec. 27th, 1891); Surgeon-Lieutenant-Colonel Richard M. Craig retires on retired pay (dated Jan. 13th, 1892); Surgeon-Major John E. V. Foss, M.D., is placed upon temporary half-pay on account of ill-health (dated Jan. 12th, 1892); Surgeon-Captain M. T. Yarr, has been selected for temporary attachment to the Coldstream Guards, vice Surgeon-Captain Philip H. Whiston, who has accepted employment with the Egyptian Army.

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Surgeon Michael OBrien, M.D., to the *Northampton* (dated Jan. 9th, 1892); Surgeons and Agents: Mr. Henry Guy-Edwards to Bangor, North Wales, and Mr. James Trant to Knightstown and Port Magee (both dated Jan. 9th, 1892).

VOLUNTEER CORPS.—*Rifle:* 2nd Volunteer Battalion, the Duke of Cambridge's Own (Middlesex Regiment): Henry George Gastrill Wilkins, Gent., to be Surgeon-Lieutenant (dated Jan. 9th, 1892).—2nd Cadet Battalion, the Queen's (Royal West Surrey Regiment): Acting Surgeon C. S. Smith resigns his appointment (dated Jan. 9th, 1892).—1st Cadet Battalion, the Royal Warwickshire Regiment: Acting Surgeon F. W. Underhill resigns his appointment (dated Jan. 9th, 1892).

Correspondence.

"Audi alteram partem."

THE TREATMENT OF CHLOROFORM ACCIDENTS.

To the Editors of THE LANCET.

SIRS,—In your annotation upon the case of chloroform poisoning at the Middlesex Hospital I find that amongst the very numerous methods resorted to by the administrators in their efforts to restore animation there is no mention made of galvanism. This omission induces me to place on record a case in which I believe life was saved by the application of the faradaic current. I was about to excise the upper jaw in a man aged thirty-seven for an extensive sarcomatous growth. Complete anæsthesia having been produced without unusual incident by means of ether, I opened the trachea, introduced a cannula, and plugged the fauces, as a preliminary step to the operation itself. My assistant, Mr. Harrison, who has had considerable experience as an administrator of anæsthetics, proceeded to maintain the narcotism by means of chloroform dropped from time to time upon a small piece of lint held in forceps near the tracheal opening. Very shortly, and before the operation had been commenced, the patient suddenly ceased to breathe, and at the same time became ghastly pale. Meanwhile his pupils did not dilate, and his heart was found to continue its pulsations, though in a feeble and slower manner. Dashing the face with a cold wet towel and Silvester's artificial respiration were at once resorted to, and perseveringly continued for some minutes—Mr. Teale of Leeds and Mr. Greenwood of Ossett, as well as my assistant, giving me all the help they could. Air went in and out of the tracheal opening with great freedom, but on ceasing our efforts the patient gave no sign of breathing, his chest remaining quite motionless. It was here observed that the heart's pulsations were feebler and fewer. When matters were thus becoming very serious the faradaic battery, which for many years past has always been kept in readiness in my operating room, was brought into use, one electrode being pressed upon the left side of the neck and the other beneath the lower margin of the ribs. In immediate response to the current the patient made a deep inspiration, and from that moment respiration went on without further interruption to the completion of the operation. A prettier experiment I never witnessed. I am, Sirs, yours faithfully,

Leeds, Jan. 11th 1892. T. R. JESSOP.

"THE BEARING OF RECENT BIOLOGICAL RESEARCH ON THE PRACTICE OF MEDICINE AND SURGERY."

To the Editors of THE LANCET.

SIRS,—In Dr. G. Sims Woodhead's article in your issue of the 2nd inst. on the above subject, he states that "they (Drs. Wood and Maxwell Ross) decided to use iodine as a local irritant," applying it "in the form of a ring slightly beyond that portion which is already affected" in cases of erysipelas, with a view to bringing more leucocytes and an increased amount of oxygenated blood to the affected tissues, and so enable them to withstand the attacks of the micrococci and to overcome them. And, further, he states that Dr. Alex. Miles has treated in this way a large number of cases of erysipelas with marvellously successful results.

This is certainly a very gratifying result from the practical application of knowledge derived by a process of induction from the study of biology and bacteriology, and I do not wish for a moment to insinuate that such results are not to be expected even in increased number in the future; but it is a very interesting fact that in the year of grace 1892 Dr. G. Sims Woodhead is presenting to us, as new and scientifically bred, a method of treatment which one John Higginbottom of Nottingham, and afterwards of London, published and practised in the year 1829, the only difference being that he employed as his local irritant nitrate of silver, and here is his prescription:—℞. Argenti nitratis, ℈iv.; aquæ, f. ℥ ss. M. I am indebted to Dr. E. H. Bennett, Professor of Surgery in the University of Dublin, for the date (1829) of the *second* edition of Mr. Higginbottom's "Observations on the Use of Nitrate of Silver.

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In the third edition of "A System of Practical Surgery," by William Fergusson, F.R.S., published in 1852, speaking of erysipelas, he says on page 117: "I have myself little faith in those (local measures) which are said by some to check the progress of the disease in a sudden, specific, and mysterious manner, such as the free use of nitrate of silver—a practice first inculcated by Mr. Higginbottom of Nottingham—applied either on the inflamed surface, by way of dispelling the affection at once, or in the vicinity, to check its progress and prevent its extending further on the surface than the line marked out by the caustic." Again, in Billroth's "Surgery," New Sydenham Society's Series, published in 1878, we read on page 15, vol. ii.: "As regards local treatment, a variety of measures has been adopted in order to stay the spread of the erysipelatous inflammation, and to bring it to a standstill. For this purpose the margin has been painted with a solution of nitrate of silver, or with a strong solution of iodine." Here we have Dr. Woodhead's own remedy mentioned, and that, too, in a way that would lead us to think it was an old—nay, a decrepit—remedy; for later on Billroth says: "According to my own experience, this is of no avail, so that latterly I have quite left off the practice." Mr. Erichsen, in his seventh edition of the "Science and Art of Surgery," vol. i., page 698, says: "A boundary line of nitrate of silver is occasionally drawn round the inflamed part with a view of checking the extension of the disease. I have often done this and seen it done by others, but never apparently with any benefit; and have now discontinued it as a useless source of irritation." So Mr. Erichsen speaks, too, in 1877, as though this treatment was as ancient, shall I say, as it was useless. Painting a ring with either nitrate of silver, tincture of iodine, or liquor ferri perchloridi fortior (B. P.) beyond the margin of the area of inflammation in cases of erysipelas was frequently mentioned as one of the suggested methods of treatment, both in lectures and at the bedside, in Dublin; and I remember the late Dr. Thomas Evelyn Little, whose opinion on matters surgical was greatly valued then, spoke highly of the use of nitrate of silver in this way, but the general impression was that the treatment was useless. It was my recollection of this procedure being spoken of as very antiquated indeed that caused me to look the matter up, when I saw it, to my surprise, set forth as a boon from the bacteriologists.

It is a curious example of the truth of the saying, "There is nothing new under the sun," and if it is such a wonderful remedy as Dr. Alex. Miles' results will doubtless (when they are published) lead us to suppose, it should make us have more respect for an empiricism that can find and lay aside as useless a mode of treatment which science disinters only after a lapse of sixty-three years, and then fondly imagines it has originated. In conclusion, I trust Dr. Alex. Miles' experience with his iodine will be more hopeful than was that of Fergusson, Billroth, and Erichsen with it or nitrate of silver. Mayhap the leucocytes have so benefited by the strides of science during the past sixty-three years that, knowing now what is expected of them, Dr. Alex. Miles' iodine will act upon them as a red rag is said to act upon a bull. I am, Sirs, yours faithfully,

LEONARD G. S. MOLLOY, B.A., M.D. Univ. Dub.

Blackpool, Jan. 6th, 1892.

THE COUNTY INFIRMARIES OF IRELAND.

To the Editors of THE LANCET.

SIRS,—I notice that a short time ago a deputation from the surgeons of county infirmaries in Ireland waited upon the Chief Secretary for the purpose of reminding him of the necessity of providing in the coming Irish Local Government Bill some sort of protection for these institutions against the anticipated determination of the popular party (who will form the chief power in the projected County Councils) to disestablish and disendow the infirmaries. With the administration of these hospitals I have nothing for the present to do; but it seems to me an opportune time to point out that provision should be made in the coming Bill for the amalgamation of county infirmaries and the workhouse hospitals, for once we get an Irish Local Government Bill the fate of the hated workhouse is sure to be sealed.

The provision I would point out as being amongst those which any future Bill should contain would be such as I pointed out to the Lurgan Board of Guardians in January, 1888, when I brought forward a resolution calling upon the Government "to cause a searching inquiry to be held into the working of the Poor-law system with a view to its entire abolition, or such changes in it as would be more in accordance with the wishes of the people." In the course of my address in support of this resolution, I gave a brief outline of an alternative system, an idea of which may be gathered from the subsequent portion of this letter. Though the guardians neglected this resolution without adducing a single reason or argument against it, yet when I subsequently got the remarks I ventured to make in support of my resolution printed in pamphlet form, and sent a copy to most of the principal papers in the United Kingdom representing every shade of politics, every one of the papers I had an opportunity of seeing devoted leading articles to the subject, and criticised my remarks most favourably, and all were agreed that the Poor-law system at present in vogue demanded reformation. In the course of my address I pointed out that the poor in our workhouses might be divided into three classes; the lunatics I did not include, as they should be sent to the asylums proper. In the first class I placed the sick infirm—by infirm I meant those incapacitated by old age—and children under three years. For these I proposed that "Cottage Hospitals" or "Homes for the Sick and Infirm" should be established. In the second class I included children over three years and under thirteen years of age. These I suggested should be kept out at nurse, as at present. The third class embraced the casuals and able-bodied paupers. The relief of casuals I considered should be placed under police control, as they could better discriminate the dishonest, scheming, or idle but able-bodied paupers, and be in a position to detect criminals. My rule for them, I pointed out, would be "work or bread-and-water." The police could have tickets for lodgings and tickets for food, for which, on being presented to the lodging-house keepers, equivalents by the way of lodging and food would be given. These tickets could be purchased by charitably disposed persons and given away, but in each case the recipient would be required to present himself at the barracks to have the ticket stamped by the constabulary. For the others of this class I suggested we should do as the Americans do—viz., appoint work masters or superintendents of labour. Their duties would be more comprehensive than those of our relieving officers; they could keep registry offices for the unemployed and employers of labour. They should have power to afford provisional relief to those in distress or difficulty, or afford loans recoverable by an easy process at law. All this to be under the control of a small elected committee. Such is a brief outline of the system I suggested.

Now if such a system as the foregoing were adopted, those embraced in my first class—viz., the sick and infirm, as well as those treated in county infirmaries—could be housed in the "cottage hospitals" or "homes for the sick and infirm." Having pay wards attached to them, this would do away with the objections which those who are able and willing to pay have to enter the hospitals connected with the present workhouse. In any case I can see no reason for the coexistence of county infirmaries and workhouse hospitals. The voice of the people must be attended to, and the Poor-law system is bound to be reformed. With that reformation will, I hope, come the solution of the present difficulty in connexion with the county infirmaries of Ireland.—I am, Sirs, yours faithfully,

E. MAGENNIS, M.D., D.P.H., J.P.

Lurgan, Jan. 11th, 1892.

THE DUKES AND CARPENTER FUND.

To the Editors of THE LANCET.

SIRS,—I am pleased to see the action of the Croydon Medical Reading Society in coming forward so promptly and generously to the rescue of their unfortunate brethren, Drs. Dukes and Carpenter, who have innocently fallen into the pit prepared for them by the anomalies of the Lunacy Act. In some of its clauses for the extreme protection of the poor lunatic the red-tapeism of the Act borders on the ridiculous. Take, for instance, the written statement to be handed to the patient, signifying his right to be taken before a judicial authority. What an opportunity for a high-flown, imperious patient to excite himself and worry his attendants! While every effort is made to afford the lunatic protection, and to satisfy the suspicious public who are so jealous of the liberty of the individual, the safety, the dignity, and the convenience of the general practitioner are ignored or deemed

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of small account. The lunatic is the point to which all kinds of public sympathy—mistaken, misdirected, and sentimental—converge. He is the precious individual to be fenced in by the tangles and barbs of a fearful and wonderful piece of legislation. The numerous protecting arms of sections, clauses, and enactments are his shelter from the designing knaves interested in his confinement in an asylum or elsewhere. But the only defence of the medical man bold enough to put his name to a lunacy certificate is a gingerbread fabric, which any aggrieved lunatic, especially when backed by mischief or misdirected zeal, can easily knock down.

It is perfectly right to remind Drs. Dukes and Carpenter that there is such an institution as the Medical Defence Union, and to point out the folly of not having joined it. Let us, however, give them the help first and the lecture afterwards. I may add that Drs. Dukes and Carpenter are personally unknown to me, and that my interest in their behalf arises simply from a strong sense of the injustice and wrong to which they have been subjected, and of our obligation as members of a noble profession to help one another in trouble.

I am, Sirs, yours obediently,

West Norwood, Jan. 9th, 1892. J. A. AUSTIN, M.D.

LONDON CONSULTANTS AND GENERAL PRACTITIONERS.

To the Editors of THE LANCET.

SIRS,—In the somewhat fitful and discursive correspondence on the above subject, which has now been carried on for some years past in your columns without an apparently satisfactory conclusion having been reached, some points have been left out of sight which appear to me of importance, and should go far to settle this question amicably; and I therefore beg your insertion of the following lines. The general practitioners always assume that they confer unmixed blessings on the consultants, but receive none in return from them, and are, in fact, treated with the blackest ingratitude. They entirely forget that if the consultant benefits by the practitioner, the latter benefits quite as much by the former. Thousands of patients are annually sent down to the country and seaside by London consultants, with introductory letters to local practitioners, who attend to those patients sometimes for months together. Not only this, but the consultant often recommends friends of his, who may be off and on his patients, to a particular practitioner, when they go to live in one of the suburbs or out of town. I have frequently found, after having done so, my friends so satisfied with the choice I had made for them that I have never seen them again professionally. Let us, therefore, cease squabbling, and adhere cheerfully to the right principle of "give and take," which, when carried out consistently and without any afterthought, is sure to lead in the end to the satisfaction of both sides.

I am, Sirs, yours faithfully,

Harley-street, W., Jan. 4th, 1892. A LONDON CONSULTANT.

EPIDEMIC INFLUENZA.

To the Editors of THE LANCET.

SIRS,—It is now over a decade since I wrote you a letter under the title of "Medicus." The circumstance was the obstruction I had in the completion of my observations on the epidemic fever of a peculiar type which, to my mind, then appeared much like the hunger pest. This was simply on account of the relapsing feature of the disease. The observations which I then began have been steadily kept up, and I am in a position to prove the continuity of repeated epidemics of the same fever at intervals of two and three years, until in 1888 it decidedly almost died out.

When the great pandemic of the epidemic influenza spread all over the world I made it a study to keep up to the literature of the disease, and it is some consolation to know that what others failed to show me has now been taught the world by the great scourge of 1889–90. I traced the disease to Afghanistan in 1882–83, and I feel sure that the epidemic fever of Calcutta found its way to Russia through the Caucasian track and revealed itself to the Western world, and was only then recognised as the epidemic influenza. I have the history and origin of the epidemic in Calcutta, and it will be an uncomfortable surprise to the world to know that the insanitary Gangetic delta in which Calcutta exists can develop such formidable epidemics.

A word with reference to the illness of Prince George of Wales. You will not consider me too bold if I say that I possess notes and clinical observations of similar cases in our epidemics to which I have alluded. The spots go for nothing. The great nervous prostration and the subnormal temperature, as well as the sweat, are characteristic of the remittent type of epidemic influenza cases. There are cases much like the typhus, too, and a variety of others. It is a protean disease, and in this the epidemic influenza is closely allied to that formidable disease syphilis

I am, Sirs, yours faithfully,

Calcutta, Dec. 23rd, 1891. MEDICUS.

ANTISEPTICS IN OPHTHALMIC SURGERY

To the Editors of THE LANCET.

SIRS,—I regret that I still fail to see the object of Dr. Bullar's experiment on the rabbit's eye; he surely must have expected the result to have been what it was—viz, that in a few days it stank abominably. He must have known the eye would not be prevented decomposing by a 1 in 4000 perchloride solution. Beef-steaks &c. have been kept sweet and free from decomposition for many weeks by the antiseptic method, but by stronger measures than a 1 in 4000 solution of perchloride. I do not wish to push the matter too far, but I contend a living human eye *can* be operated on and dressed afterwards perfectly well in a way more likely to destroy germs, and also to exclude them, than the method adopted by Dr. Bullar with his rabbit's eye. Many surgeons dress the eye after cataract extraction with a thick and elastic layer of sublimate wool, which is frequently impregnated with a 1 in 500 corrosive sublimate. I fancy a germ would find it no easy matter to dodge through the interstices of a couple of inches or so of ordinary cotton wool, and the addition of the sublimate would not lighten his exertions.

We must, I think, put Dr. Bullar's experiment aside; for all practical purposes it is useless. The only method left to us is by comparing results, as Dr. Bullar has himself suggested. To that method there are also objections, but there can be nothing perfectly free from objections. Personally, I very much wish the matter could be decisively and once for all settled, and that the conclusion would be adverse to all antiseptic methods; what a lot of time and trouble it would save us! I have seen, and frequently seen, what Dr. Bullar would, I believe, admit to be a very fair sample of ophthalmic surgeons operate—viz., the staff of Moorfields hospital, where I was a clinical assistant off and on for about three years, Professor Fuchs of Vienna, the ophthalmic staff of St. Thomas's Hospital and of the Edinburgh Infirmary, and Dr. Bell Taylor, and all to a man use antiseptic methods, or did so when I last saw them. I admit that does not prove there is anything in the method, but it is suggestive at least. Most of these operators are old enough to have experienced the pre-antiseptic age; but somehow, after a pretty fair trial, they do not seem to give up antiseptic precautions. It may not be a point quite on the same level, but if Dr. Bullar had to operate straight off on a cataract with a mucocele on the same side, which method, the antiseptic or the other, does he think would give that eye the best chance? In conclusion, let me assure your correspondent it is not my intention to engage in wordy warfare with him or anyone else on the antiseptic or any other system; it is so easy to criticise, so difficult to construct. This correspondence is closed so far as I am concerned. I only hope some practical outcome of Dr. Bullar's suggestion may be reached ere long, and few things would gratify me more than to feel assured that the antiseptic method—not our civilisation—is a failure, it would save no end of bother. At present, I reluctantly admit, I cannot think so.

I am, Sirs, yours faithfully,

S. JOHNSON TAYLOR, M.B., M.R.C.S.

Norwich, Jan. 11th, 1892.

PERCENTAGE OF FIBRIN IN THE BLOOD OF LEPERS.

To the Editors of THE LANCET.

SIRS,—Dr. Beaven Rake states in the current number of THE LANCET that he has found the amount of fibrin in leprous blood much increased; in some cases the percentage found being as much as seven or eight times the normal. Without wishing to dispute the general conclusion at which he has arrived may I be permitted to point out the rough

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method of analysis that he has adopted. If Dr. Rake has further opportunities of prosecuting his research I would suggest that he might adopt a method by which his results can be more accurately compared with those obtained from normal blood which he quotes. The particular points to which his attention should be directed are: (1) Soaking fibrin in water for some hours is not sufficient to free it from corpuscles (it is better to place it under a running stream of water, kneading it frequently in order that all parts of the coagulum are exposed to its action); (2) fibrin dried on blotting-paper cannot be accurately spoken of as dried fibrin—dried fibrin is fibrin which has been exposed in a hot-air oven at 110° C. for some hours until it loses no further weight from evaporation of water; (3) after this the mineral admixture has still to be deducted, this being ascertained by weighing the ash left after ignition.

I remain, Sirs, yours truly,

King's College, Jan. 9th, 1892. W. D. HALLIBURTON.

THE ROYAL MEDICAL BENEVOLENT COLLEGE.

To the Editors of THE LANCET.

SIRS,—I thank you for your notice of the claims of the Royal Medical Benevolent College at Epsom for professional and public support. Since speaking at the festival in 1890, I have been advised that if I can now collect £26,000, and can show a strong subscription list for the foundationers, in addition to a good, sound, successful school, I shall have but little difficulty in obtaining an amended Act of Parliament to secure the benefits we desire for our pensioners. In doing this great charity to the aged, we shall be doing an incalculable good to the school, to foundationers, as well as to the sons of medical men or other boys attracted to the College by the excellent education we offer.—I am, Sirs, yours faithfully,

C. HOLMAN,

Reigate, Jan. 11th, 1892. Treasurer to Epsom College.

SHAKESPEARE'S DEATH.

To the Editors of THE LANCET.

SIRS,—With reference to the correspondence lately contributed to your columns respecting the cause of Shakespeare's death, let me be allowed to state that on two occasions on which I had occasion to witness the testament of soldiers affected with delirium tremens, or, as they themselves say, "delirium tremendous," both of whom, however, recovered, I was particularly struck with the resemblance of their signatures to that appended to the similar document of the great dramatist. I can see nothing disgraceful or unlikely in the fact that a retired poet, actor, and playwright in the age of James I., and much later, having died from a debauch, aggravated by the medical treatment in vogue down almost to our own times, and indeed not unusual within my own memory. Ben Jonson we know, from the testimony of Drummond, of Hawthornden, and other witnesses, to have been a habitual abuser of alcoholic stimulants. "Drink," says the above writer, "was the element in which he lived." And from other evidence, and even from his own doggrel, we know that Shakespeare, both in London and after his retirement to Stratford-on-Avon, had the reputation of being a boon companion. No doubt the disease *may* have been intensified not only by antiphlogistic medical treatment, but also by the malaria of an insanitary English village of the period. Marlowe's case is not dissimilar. I am, Sirs, yours truly,

R. LEWINS, M.D.,
Surgeon Lieutenant-Colonel.

Army and Navy Club, Pall Mall, Jan. 5th, 1892.

COMMUNICABILITY OF PHTHISIS FROM MAN TO LOWER ANIMALS.

To the Editors of THE LANCET.

SIRS,—A patient of mine, with a tubercular family history, died at the age of fourteen of acute tuberculosis. His two pets, a dog and a rabbit, which were often to be seen in his bedroom, and very frequently on his bed, died a short time afterwards of what appeared to be phthisis, a prominent symptom being a constant cough. A veterinary surgeon who examined the dog pronounced the cause of death to be consumption. From the facts stated I think it might fairly be inferred that the disease was communicated from the patient to the dog and rabbit.

I am, Sirs, yours truly,

J. ARMSTRONG, M.B. Edin.,
Late Senior Physician, Liverpool Infirmary for Children.

Liverpool, Jan. 12th, 1892.

REMOVAL OF THE GREAT TOE-NAIL.

To the Editors of THE LANCET.

SIRS,—I am frequently called upon to remove the great toe-nail by surgical operation. Till within the last year or two I have followed the usual method by dividing the nail down the middle with a pair of scissors, and tearing away each half separately with forceps. Of late I have adopted another plan, which I venture to recommend as much better. Observing, as all must have done, the readiness with which a splinter of wood inserts itself beneath the nail, I take a piece of ordinary deal lath about four inches in length, pare one end thin, and adapt it to the size and shape of the particular nail. The thin edge, previously oiled, is passed rapidly beneath the nail down to its root and the hand raised, thus completely detaching the nail from its bed in about two seconds of time. The advantages claimed for this simple operation are threefold—its extreme ease of execution, its rapidity, and the very slight injury inflicted on the soft parts. I am justified in recommending its adoption by the approbation of others who have tried it.

I am, Sirs, your obedient servant,

Benson, Oxon., Jan. 8th, 1892. A. G. FIELD, F.R.C.S.

SMALL-POX AT DEWSBURY AND BATLEY.

To the Editors of THE LANCET.

SIRS,—In an editorial note of last week's issue you comment severely on the inaction of the sanitary authorities in Dewsbury and Batley. I wish to put you right as far as Dewsbury is concerned. A corporation hospital for the reception of infectious disease was erected four years ago. All cases of small-pox occurring in this sanitary district, whether paupers or otherwise, are treated there. Your note anent the action of the guardians is not a whit too strong. I am, Sirs, yours truly,

Dewsbury, Jan. 11th, 1892. W. F. WATTS, M.O.H.

THE PREVENTION OF INFLUENZA.

To the Editors of THE LANCET.

SIRS,—The value of small doses of quinine as a prophylactic during outbreaks of influenza has been so marked in my hands, both in 1890 and at the present day, that I deem it worthy of extensive trial, and trust that it will prove itself in other hands as reliable a means of prevention as it has done in mine. I prescribe a three-grain sulphate of quinine tabloid to be taken daily at breakfast, and to be continued until the epidemic disappears from the locality.

I am, Sirs, yours truly,

Cannes, Jan. 6th, 1892. H. BLANC, M.D., F.R.C.P.

THE EDINBURGH ASSOCIATION FOR THE PROMOTION OF REFORM IN MEDICAL EDUCATION.

(BY A CORRESPONDENT.)

THIS Association has quite recently been called into existence by the fact that the draft ordinances in medicine issued by the Scottish Universities Commissioners are unsatisfactory and the reforms proposed by them inadequate. The Association consists mainly, but not entirely, of the younger men who are lecturing or teaching in the school, and also of graduates interested in the advancement of medical education; it also includes a few University assistants. Already the Edinburgh Colleges and the Association of Extra-mural Lecturers have presented statements to the commissioners which have in the main dealt rather with the relations of the intra-mural and extra-mural schools than with what might be regarded more purely as reform or advance in the methods of teaching and the curriculum of study. The members of the new Association are men who

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are acquainted with the newer methods which have already been introduced into some of the English schools, and who recognise the importance of a thorough training in practical detail, and the absolute necessity of this side of medical education in the University being entirely remodelled if the reputation of Edinburgh is to be maintained. These were the circumstances and the motives which resulted in the formation of this Association.

The outcome, so far, of its deliberations is that a statement was prepared and sent to the commissioners at the end of the year. The statement is so important, and deals so directly with some of the faults of the present condition of things, that a somewhat detailed abstract of it will be interesting to many readers of THE LANCET, graduates of Edinburgh. It begins by stating that the number of students in 1870-71 was 678, and rose to 1603 in 1880-81. This increase is accounted for by the influence of distinguished teachers in the school, by the fact that in England the only entrance to the profession for the average student was by a college diploma, and by the Edinburgh school being distinguished for the excellence of the practical instruction given in it, and that in this last respect it was not surpassed by anything then obtainable in England. During the eighties the number of students continued to rise, and reached in 1889-90 to 2003. During the eighties no corresponding increase to the teaching power or adequate improvement in the medical curriculum of the University was made, notwithstanding the fact that, owing to public support, the medical school of the University had been accommodated in a building which it was anticipated would fulfil all modern requirements. As a result of the increase in the number of students, they were taught in systematic classes, sometimes of nearly five hundred, a condition under which it was of course impossible for the vast majority of students to see and personally examine the details of experiments or practical demonstrations, so that little practical value could be derived from the lecture over and above what could have been obtained from the well-written and easily accessible text-books issued in all the departments of medical science. At the same time the numbers attending the practical classes increased so greatly that satisfactory personal supervision by the authorised teachers became impossible. It is then pointed out that during this period changes took place in the English schools which it is not desirable to under-estimate—changes both in the extent of the English curricula of studies and in the methods and means of teaching. Some of these changes are referred to and need not be given in detail here, the point being that the tendency has been to minimise the number of systematic lectures and to extend in a marked degree the practical training. A table is given comparing the compulsory number of lectures and the number of hours of practical work a student has to attend to qualify for the Edinburgh and London Universities and the Victoria University. They are roughly as follows: Edinburgh requires ninety lectures more than London, and twenty less than Victoria; Edinburgh requires 200 hours of practical work, London 510, and Victoria 600. From this it is pointed out that the Edinburgh school, once distinguished by the prominence given to practical studies, is now being outstripped by its English competitors in this very particular. As regards the entry of freshmen, they have gone down from 590 in 1888-89 to 446 in 1890-91, while London has gone up from 980 in 1888-89 to 1097 in 1890-91. The statement goes on to say that in view of these facts it was hoped that some thorough and far-reaching plan of reform would be introduced into the University, but that no measure of reform is introduced which in the opinion of the Association is at all sufficient to save the future of the Edinburgh school.

The statement then suggests the line of reform which ought to be followed. It is not proposed to suddenly raise the standard of the ordinary degree, but to materially improve it in various ways and to introduce an honours school. By this means it is thought that the men who are content with the pass examinations will be retained in the school, while it would also attract and keep the more ambitious and capable men. By an honours' school is meant one in which an extended training is given and an extended knowledge is required in some or all of the subjects of the curriculum. Then follow specific suggestions regarding the pass degree. The present system of dictating lectures is animadverted on, and it is suggested that a syllabus of the requirements for the pass degree should be issued so that the task allotted to the average student would be reasonably within his powers. It is also recommended that the number of systematic lectures in all the departments might be materially reduced. Materia medica has been placed in the draft ordinance in far too prominent a position, and the Association consider it a mistake to make practical pharmacognosy and pharmacy the sole subjects in the second professional examination (or any other special examination) of students who in their after-life will, as a rule, be largely relieved by the retail druggist from the consideration of such subjects. They also suggest that the number of lectures on this subject should be reduced from 100 to 50. It is further deemed essential that the first three years be devoted to the study of the medical sciences, including pathology and materia medica, and that the last two years be retained for the subjects of the final examination, the last year being kept as clear as possible for clinical work. The extension of practical teaching is then dealt with, and its importance impressed upon the Commission; and it is suggested that the difficulties in carrying out improvements in this direction might be facilitated by recognising the extra-mural teachers. Meanwhile they make the following suggestions: In natural history they advocate the institution of an improved "educational museum"; in it, botany and chemistry, the number of lectures should be reduced and the practical teaching extended, and they might be specially adapted to the requirements of students of medicine. In anatomy, that the number of lectures be reduced to eighty, and such subjects as the detailed anatomy of bones and muscle insertions be relegated to a junior teacher, who would demonstrate them to small classes. In physiology, that embryology be discontinued as belonging to anatomy, and that histology be left to the class of practical histology, and that a more extended course of chemical physiology be instituted, with ten additional hours for simple experimental work. In pathology, that, as in the other subjects, the lectures be reduced in number and increased facilities be given for naked-eye pathology, and attendance for three months at the post-mortem theatre should be insisted on. In medicine and surgery, in addition to curtailing the number of lectures, short courses should be given on the eye, ear, and throat, diseases of children, &c. In midwifery, that fifty lectures be devoted to obstetrics and thirty to gynæcology, and in addition ten or twelve practical demonstrations. That a course of fifty lectures and demonstrations be given on medical jurisprudence and toxicology, and a separate course upon public health. And lastly, that all practical classes should be limited by the University Court to such number of students as, in their opinion, an experienced teacher can efficiently teach.

Then follow suggestions respecting the proposed honours school. While admitting that there might be differences of opinion as to the details of such a school, the reformers hold that the candidates should pass through a more extended practical training. In the first professional examination the candidate might present himself for honours in natural history and botany, or physics and chemistry; in the second examination, in anatomy or physiology; in the third, in pathology, including practical bacteriology, or materia medica, including pharmacology; while in the final, he would have to present himself for honours in medicine, including diseases of children, tropical diseases, insanity, medical ophthalmoscopy, and medical laryngology; or surgery, including operative surgery, the eye, ear, and throat; or in midwifery, including gynæcology and abdominal surgery. In order to graduate in the honours school the candidate would require to select for honours one department in the final examination, and any three departments in the previous part of his course, but he must attend the whole of the classes of the honours school and undergo pass examinations in those subjects which he does not select for honours. The statement dwells upon the importance and necessity of introducing new subjects, and also of having more advanced classes in the subjects already taught and required for examination. The Association further urges the necessity of a largely increased staff of examiners. In their opinion the present number of examiners is totally inadequate, and as a result the examinations are not carried out with due care and deliberation. In conclusion, the Association assure the commissioners of their conviction that improvements on the lines suggested by them would meet with general acceptance. The plan of reform indicated would remove defects which have long been acknowledged and would enable the University to maintain its position among the foremost medical schools.

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THE PSYCHOLOGICAL MUSEUM AT FLORENCE.

(FROM OUR OWN CORRESPONDENT.)

TO-DAY in the Reale Istituto di Studi Superiori was inaugurated the Museo Psichologico collected by the distinguished biologist and man of letters, Professor Paolo Mantegazza. There was a large attendance of the scientific, literary, and artistic worlds—medicine being numerously represented—while a prominent figure was that of the Commendatore Luigi Borg de Balzan, to whose liberality are due not only the donation which enabled Professor Mantegazza to add to his collection, but also the permanent fund which will help still further to enrich it, and to maintain the museum itself, with all its *personnel*, for the use of the public, professional and non-professional.

The museum is replete with objects of every conceivable kind, which serve to illustrate the play of the sentiments and passions of every people, in every age. The most savage races are not left out, and the implements connected with their religious worship, as well as the armoury of torture, of personal vanity, of voluptuous pursuits of all kinds, form the starting-point of an ascending scale of psychological manifestation culminating in the latest fads of the *fin de siècle* school.

Professor Mantegazza did the honours of the inauguration, and in the course of his address explained the idea that underlay the project now put into shape. "The Museo Psichologico," he said, "is a collection of every article and document that can throw any light on the genesis and evolution of human passion, exclusive of the ethnological element. While in the museum of ethnography we have the manifestation of thought, of art, of industry among all the peoples of the world, we aim at representing in this museum the facts which illustrate the individual varieties of psychical development in health and in disease. The question to be solved was one of method in the arrangement of *matériel* rather than of the *matériel* itself. For in science the question of method is not less important than the question of subject matter. I would like to see a 'Museo d'Etnografia' arranged in the psychical order and not in the ethnological order, and certainly the same things disposed on a different system would speak differently to our minds. Instead of seeing in the compartment devoted to Australia, for example, how the Australians clothe and feed, how they hunt and slay, we should find in one hall everything that bears upon the vesture of all peoples, in another everything that illustrates the chase, war, and so forth. This psychical arrangement was already tried and to a partial extent carried out in some museums; but the majority of ethnologists prefer the geographical or ethnological system, because more convenient, more easy, and more comprehensive. I, too, in my 'Museo d'Etnologia' debated long with myself as to the method I should adopt in the arrangement of my collection, and I chose the geographical.

"There are, however, many objects which refuse to be classified under the geographical or the ethnical relation, and which I wished to gather together as a first nucleus—as first specimens—of a psychological museum. I present some of these to you now: a hair shirt (of penance); a pack of cards fabricated by galley slaves for secret gaming; a Corsican stiletto (for *vendetta*); the necklace of a woman of the Andaman Islands, made with the bones of her infant boy; the jaw-bone of another boy, worn as a bracelet by a woman of New Guinea. Every department of my psychological museum will in time illustrate in this way the passions or sentiments of mankind. In the department of love you will find amatory offerings, instruments for safeguarding the purity of the female sex, love philtres, and such like. In that of pride will be exhibited the insignia of power, of social class distinctions, and court decoration. In that of religious sentiment we shall have on view the amulets, the idols, and the vast diversity of the *matériel* of different cults."

Professor Mantegazza concluded by declaring the museum open to the public, and may be congratulated on having added another to the many attractions of Florence.

Florence, Dec. 28th, 1891.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Influenza in Northern Counties.

I BELIEVE that since the cholera epidemic there has never been such illness or mortality in the north of England as at the present. In Richmond and the surrounding villages it is computed that there are over 1000 cases, and many deaths have taken place. At Middlesbrough, the medical officer of health, Dr. Malcomson, reporting on the sudden rise of the death-rate, said the cause had been twofold—viz., the exceedingly inclement weather experienced about the middle and latter part of the month, fogs and severe frosts prevailing, and the return in a very virulent form of the influenza, so that the mortality was greatly out of the ordinary proportions amongst infants and old persons. It might, Dr. Malcomson said, "be taken as a general truth that cold killed the infants, and the influenza and its complications were fatal to the aged," and he thought that there was no doubt that many of the deaths under other heads had their starting-point in this malady. It was pointed out by a speaker at the Sanitary Committee that there was also at present a large amount of destitution in the town, and that insufficient food and clothing had a great deal to do with the increase.

Notification of Whooping-cough and Measles at Newcastle.

An important discussion took place last week at a special meeting of the Newcastle Sanitary Committee as to the notification of whooping-cough and measles. Dr. Armstrong, the city health officer, reported that since the notification of scarlet fever there had been a decided decrease in the number of cases. Measles had now assumed a serious aspect, no fewer than ninety-five deaths having taken place during the last quarter alone from this disease. It was maintained by some members of the committee that the improvement with respect to scarlet fever was due more to the action of the Sanitary Committee than to notification. Others were rather inclined to think that notification had done a good deal to bring the medical officer and his staff into close connexion with the people; and this, with the instructions issued regarding isolation and other matters of importance, had proved of immense benefit to the people themselves. This important discussion was adjourned for a fortnight. Meantime there is a feeling growing in the profession that measles and whooping-cough might well be included in the schedule of infectious diseases, seeing how rapidly these affections are disseminated by school children. Before I leave this subject, as showing the exceptionally high death-rate of late prevailing in Newcastle, I may say that at a late meeting of the Elswick Burial Board it was stated that as regards the Elswick cemetery, the interments in December (235) were fifty in excess of any previous month since the opening of the cemetery in 1857.

Carlisle: Death of Dr. D. Scott Carlyle.

I regret to record the death of Dr. D. S. Carlyle, which took place on the 4th inst. at Warwick House, near Carlisle, in his sixty-fifth year. Dr. Carlyle was a mycologist of repute and a devoted collector of fungi of all descriptions, and up to the time of his last illness he was constantly sending specimens to Kew, many of them rare, and some of them occasionally new to Cumberland and to Great Britain. He lectured frequently on his favourite theme at meetings of the Carlisle Microscopical Society and the Carlisle Scientific and Naturalists' Field Club. His cabinets were filled with specimens, and it has been suggested that a place should be reserved for them in the new Carlisle Museum. Dr. Carlyle was physician to the Carlisle Fever Hospital and to the Dispensary, and during the many years he lived in the city he had a large practice, and was a great favourite with the rural population in the neighbourhood.

With regard to the sad accident to Mr. Dunlop, surgeon, of Leamside, noted last week in this correspondence, I am happy to say that the reports as to his condition continue favourable.

Newcastle-on-Tyne, Jan. 12th.

EPSOM COLLEGE.—F. G. Thomson, a pupil in the sixth form of the college, has gained a scholarship of £40 for Natural Science at Sidney Sussex, Cambridge.

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SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Medico-Chirurgical Society of Edinburgh.

A SPECIAL meeting of this Society was held on Wednesday of last week, and was occupied by a demonstration from Mr. Harold Stiles, with limelight views, of the changes in the mammary gland in cancer with special reference to operative procedure. The first point he took up was that the gland was larger and extended over a greater area than was taught in the books, extending both higher and further into the axilla than was usually described. He had introduced a simple and practical test which indicated whether all the gland was removed or not. This was by placing the removed gland in a 5 per cent. solution of nitric acid; this solution had the effect of giving the glandular epithelium a yellow colour, and if this showed on the cut surface it indicated that the gland had been cut across and not removed at that part. He showed a number of slides illustrating this point, the glands being from operation cases. As to the mode of extension of cancer in the breast, he held wholly to the view that it took place by the lymphatics. He insisted on the importance of removing the whole gland and leaving no remnant of it behind. Passing from the mamma itself, he then dealt with the structure of parts in the axilla, and showed that they might be so slightly affected that no indication of involvement was present save by microscopic examination, and he therefore argued that in all cases the axilla ought to be cleared.

Edinburgh Association for the Reform of Medical Education.

A statement prepared by this Association for presentation to the Universities Commission has appeared in the local newspapers, and has been followed by a number of letters bearing upon the points raised by the statement, and most of these advocate even more forcibly than the statement itself the necessity for reform. The general tone is one of thorough dissatisfaction, and there promises to be even more plain speaking. The professoriate feel acutely the rebellion against their actions and judgment, for they are not accustomed to the strictures and criticisms now being hurled against methods and systems which have in the past been so remunerative, and with which they were abundantly satisfied.

Glasgow Medico-Chirurgical Society and Tuberculosis.

A memorial has been drawn up by the Medico-Chirurgical Society of Glasgow for presentation to the Police Commissioners, on the subject of the danger existing from the infectious nature of consumption or tuberculosis in man. The memorialists urge the necessity of preventing the sale of tuberculous meat, and dwell upon the danger arising from the use of milk given by cows kept in town byres. A rigid cleansing and disinfecting of byres and condemnation of carcases of animals known to be tuberculous are recommended. The Society suggest that the authorities should make widely known the fact that consumption is infectious, and suggest that the sanitary staff should extend its disinfecting operations to the houses of those suffering from the disease.

Health of Edinburgh.

The mortality last week was 114, making the death-rate 22 per 1000. Diseases of the chest accounted for 46 deaths, and zymotic diseases for 3. The intimations for the week were: Typhus fever, 4; typhoid fever, 4; diphtheria, 2; scarlatina, 16; and measles, 23.

Jan. 11th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The late J. H. Wharton, F.R.C.S.I., &c.

AT a meeting of the Standing Committee of the Meath Hospital, held last Monday, the following resolution was unanimously adopted: "That this committee, at their first meeting held after the lamented decease of their esteemed friend and colleague, Mr. James H. Wharton, desire to express their sincere sympathy with his family in their sore bereavement, and their unfeigned sorrow at the great loss which they have sustained. They also desire to record their grateful appreciation of the great interest which Mr. Wharton took in this institution, and the invaluable services which he rendered to it during a period of nearly forty years."

The Influenza Epidemic.

The epidemic shows no signs of abating, but on the contrary has increased in Dublin and various parts of Ireland. In Newry the cases have been exceedingly numerous, and churches have been closed because the officiating ministers were victims of the epidemic. Influenza is spreading rapidly throughout East Tyrone; it is very prevalent in Cookstown, and is on the increase in Dungannon, Coalisland, Coogh, and Pomeroy. A large number of deaths have occurred in these towns, and a large percentage of the inhabitants in the rural districts are affected. Mr. Z. Johnson, F.R.C.S.I., of Kilkenny, one of the oldest medical practitioners in this county, is seriously ill with influenza.

The Vartry Water-supply.

A special meeting of the Dublin Corporation was held on Monday to consider the allegations made against the water-supply of that city. Several members had visited Roundwood, and examined every drain and sewer in the village, and they asserted that there was no contamination entering the Vartry reservoir from any service. If any contamination did leave the village it would pass through 200 yards of a stream before it could get to the Vartry supply. Five samples of the water, all taken before the water entered the reservoir, were examined by Sir C. Cameron, medical officer of health and city analyst, who made careful observations of the surroundings of the reservoir. The filtered Vartry water contained no suspended matters, and included a few unimportant micro organisms. It contained per imperial gallon albuminoid ammonia 0·006 grain, and saline ammonia 0·001 grain. The liquid from the upper part of the "Roundwood Drain" was slightly yellow, contained various micro-organisms, and had a slightly unpleasant odour; an imperial gallon yielded 0·027 grain of albuminoid ammonia and 0·012 grain of free ammonia. A specimen taken at the end of the drain contained per gallon 0·024 grain of albuminoid ammonia and 0·008 grain of free ammonia, while a specimen taken from the upper end of the drain yielded 0·013 grain of albuminoid ammonia and 0·011 grain of free ammonia. These facts and analyses are reassuring as to the quality of the water which supplies the city of Dublin, and it is to be hoped that we have heard the last of the damaging reports which of late have been circulated as to the alleged impurity of the Vartry.

Proposed Hospital for Consumption.

It is proposed to establish a National Hospital for Consumption for Ireland, and a provisional committee composed of influential members of the community has been formed. The matter is one of considerable importance, and I shall have something further to say about it in a future letter.

The Progress of Belfast.

The city of Belfast continues to increase by leaps and bounds, and its progress during the past year is quite remarkable, and altogether beyond that of any other town in Ireland. During the last twelve months 2215 new houses have been built in Belfast, and ninety new streets have come into existence. The buildings erected in 1891 exceed those of 1890 by 221, or about 9½ per cent. Taking the total buildings erected during the past thirty years, the average number per annum has been 1300, so that 1891 is about 71 per cent. above the average. The total valuation of Belfast in January, 1862, was £279,057; it is now £717,077. The rated wealth has therefore more than doubled. This increase has annually been about £14,600. This year that increase has nearly doubled. Of no other towns in Ireland—and it is doubtful if indeed of any in England or Scotland—can it be said that during the past thirty years the valuation has all but trebled, as in Belfast. I regret to say that the report presented by the medical officer of health at the meeting of the City Council on Jan. 1st shows that the health of Belfast is far from satisfactory. In the four weeks ending Dec. 19th there were 596 births and 813 deaths—that is, the death-rate so far exceeded the number of births that there was an actual decrease in the number of the population of 217. The death-rate was 41·4 per 1000; while for the corresponding four weeks in 1890 the mortality was only 25·3. The death-rate from diseases of the respiratory organs has been more than doubled by the influenza epidemic. It is now generally believed the maximum virulence of this disease has been

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passed. It is a curious fact that typhus fever, which had almost died out, has again appeared, and is not confined to any particular district. The medical officer of health (Dr. Whitaker) says he cannot assign any cause for its reappearance. At the present time a great many horses are suffering from influenza. So much is this the case that the tram-service in consequence has been to a certain extent curtailed; and several other companies, employing large numbers of horses, have been much inconvenienced by the illness of their horses. This malady in horses is known as "pink-eye"; and although practically the whole stud of the Tramway Company (800 horses) has been infected, the rate of mortality has been very low—only 1½ per cent.

The Lord Chancellor has appointed Dr. Magee Finny, President of the Royal College of Physicians, to be Medical Visitor in Lunacy, in the place of the late Mr. Wharton.

Mr. Digby Ffrench, F.R.C.S.I., died on the 10th inst. at his residence, Clarinda Park, Kingstown, at the ripe age of eighty-five years. Mr. Ffrench formerly practised at Monivea, co. Galway, but retired many years since. Mr. Ffrench leaves three sons, all members of the profession.

Mr. Dunne, joint secretary of the Royal University of Ireland, died on Sunday last, after a short illness.

Jan. 12th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Recent Census in France.

THE last census gives the total population as 38 343,192, while that of the previous census was given as 38,218,903, thus showing an augmentation of the total population of the French Republic of 124,289 since 1886. During the period between 1881 and 1886—1881 being the epoch of the previous census—the increase was considerably greater—viz., 545,855—and this is noteworthy especially when it is remembered that the last census embraced a period which was longer by five months and a half than the period of the census before. The gravity of this decrease in the eyes of patriotic Frenchmen is not denied, but some plausible explanations are put forward by the compilers of statistics in the department of the Ministry of Commerce. It is submitted that in a certain measure the decrease may be largely accounted for by certain epidemics which visited the country in 1890, and by the crisis which affected the births thirty-six years ago, and which was considerably aggravated by the high mortality in 1854 and 1855. Moreover, it is further pleaded that as another factor in the causation of the diminution must be added the losses sustained in 1870-71. The men who died at this period were mostly able-bodied and young, and it is not unreasonably held that their disappearance in thousands would now be felt to influence the census in a downward direction. But however this may be, the Minister of the Interior is obliged to admit with regret that the population of "la Patrie" appears to be at a standstill. Others go further, and predict that the present quantity, although still a *plus* one, is destined ere long to become a minus one.

Massage in Headache.

M. Norstrom records twenty observations of cases of headache, which had proved refractory to all manner of treatment, successfully treated by massage. The patients were the subjects, not of migraine in the ordinary sense of the term, but of acute pain returning in paroxysms. M. Norstrom further records that he found in these cases numerous small indurations—which were generally overlooked—in the substance of the muscles of the neck. These indurations were very sensitive to the touch; he considers them as rheumatic in character, and believes they are the chief factor in the cause of the kind of headache under consideration. They are generally to be met with on the sterno-mastoid and trapezius, sometimes in the scalp itself. He believes that it is by the pressure they exert on the nerve filaments that they induce headache. For such cases he speaks highly of massage properly carried out. This should be gentle and long continued.

Laryngismus Stridulus treated by forcibly dilating the Larynx.

At a recent meeting of the Société de Thérapeutique M Constantin Paul read notes of a case of laryngismus stridulus which was successfully treated as follows:—The patient was a child of fourteen months old, which had for three nights in succession such severe attacks of laryngismus stridulus that its life was in danger and tracheotomy was thought to be necessary. This operation being, however, often fatal in children under two years, M. Paul requested his house physician to practise forcible dilatation of the larynx should another paroxysm supervene. The occasion arising, M. Malbec, the house physician, did forcibly dilate the child's larynx by means of a long polypus forceps, with the result that the attack was averted, and has not, moreover, since then recurred. M. Paul therefore recommends the manœuvre for trial at the hands of others.

Association of Foreign Physicians.

Another association of foreign medical men practising in France, on broader lines than the one already in existence, and which for various reasons cannot be called a brilliant success, has just been started. The number of foreigners practising in this country is difficult to estimate, but it is believed that Paris alone can boast of no fewer than 250, more than a tenth of the total number of Parisian practitioners.

Paris, Jan. 13th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Influenza Bacillus.

THE discovery of the germ of influenza was publicly announced on the 7th inst. in the lecture hall of Koch's Institute for Infectious Diseases. The discovery was made by two Berlin investigators, who worked independently and at different places: first by Dr. Richard Pfeiffer, head of the scientific department of the above-mentioned Institute; and then, a short time later, by Dr. Canon of the Moabit Hospital. The identity of Canon's bacillus with Pfeiffer's has been certified by Koch. Dr. Pfeiffer spoke first. When the influenza broke out again last November, Koch had entrusted him with the task of studying the disease, with a view to ascertaining whether it was caused by a micro-organism. Favoured by fortunate circumstances, he was able to solve the problem in a fortnight. He examined the sputum of influenza patients, first sterilising and cleansing it by Koch's methods, and then treating it with Ziehl's solution or Loeffler's hot methylene blue. A large number of micro-organisms then became visible under the microscope, and it soon appeared that they were mostly of the same kind. This was always the case with the sputum of patients suffering from influenza alone. When the disease was accompanied by other pulmonary disorders other bacteria were also visible in the sputum. The sputum of a large number of patients suffering from pulmonary and other diseases, but not from influenza, was examined, but no micro-organism possessing the qualities which characterised that found by Pfeiffer in influenza was found. It was intelligible that this bacillus had so long escaped detection, for it was far smaller than any micro-organism hitherto known, and the circumstance that its two extremities stained more intensely than the intervening parts gave them a striking resemblance to diplococci and streptococci. The bacilli were found copiously in the mucus and cells of the sputum; in the latter often degenerated. One of their characters was immobility. Dr. Pfeiffer's next task was to cultivate the bacillus in pure cultures, and here a new explanation of the lateness of its detection came to light. The colonies were so small that they could easily be overlooked. At first they were visible only under the magnifying glass. Glycerine agar had proved the best nutritive medium. The most characteristic thing about this bacillus was that the colonies did not flow together, but remained separate. The results of the examination of the sputum had been entirely confirmed by post-mortem examinations made by Pfeiffer in the bodies of six patients who had died of influenza. In all the influenza bacilli were found in the parts affected. He then tried to produce influenza in monkeys, rabbits, guinea-pigs, rats, pigeons, and mice by inoculating the bacilli, but had succeeded as yet only with monkeys and rabbits. In conclusion, Dr. Pfeiffer referred to the prophylactic measures indicated by his discovery, laying special stress on the importance of carefully removing the sputum of influenza patients. After Dr. Kitasato, who had assisted Dr. Pfeiffer in his researches, had said a few words, Dr. Canon reported on his independent discovery of the bacillus. He examined under the micro-

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scope blood taken from influenza patients during fever, and found organisms hitherto unknown, which attracted special attention by the circumstances that they were found only in the case of feverish influenza patients, and disappeared from the blood as soon as recovery took place. Their number varied considerably. An examination of his discovery by Koch and Pfeiffer showed that his bacilli were the same as Pfeiffer's. Dr. Canon is of opinion that the detection of this bacillus in the blood of a feverish patient completely suffices to justify the diagnosis of influenza. It is interesting to note that Dr. Pfeiffer saw and even photographed the bacilli now recognised as the germs of influenza two years ago. Dr. Kirchner of Hanover believed that he had discovered the germ of influenza then. It was not so; but the genuine bacteria were in the photographs made for him by Pfeiffer. Their importance was not even guessed at that time.

Berlin, Dec. 12th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

The Drainage of Cairo.

IT will be remembered that the Egyptian Government employed Mr. Baldwin Latham two years ago to elaborate a scheme for the drainage of the capital, for which the fee of 800 guineas was paid. The native Ministry at that time was opposed to reform, and no further step could be taken until last spring, when the more enlightened Prime Minister of to-day came into power. Egypt begged the six great European Powers, without whose consent she is powerless to effect any new expenditure of her own savings, to authorise her to set apart half the octroi duties of Cairo to pay for the city's drainage scheme. France, pursuing her usual policy in this country, refused her consent; but has now imposed the following conditions which have been forced on unwilling Egypt. Any projects for the sewerage of Cairo must be submitted before Jan. 31st, 1892, to a committee of three engineers, English, French, and German, who are to report upon them to Egypt. If these three are not unanimous their difference is to be submitted to a fourth engineer, as arbitrator. The arbitrator may be chosen by them, provided he is not an Egyptian employé, and provided he is not of the nationality of any of the three. If they reject all the submitted schemes, they are empowered to prepare their own project; if, however, they select one of the proffered plans, its originator is to receive £200. The terms have been already advertised in three English journals, and are a ludicrous and ingenious device on the part of the French Government to delay a much-longed-for reform, the only objection to which is that it has been proposed by Englishmen. The £200 prize is absurdly small, and will hardly tempt English sanitary engineers of repute to compete; but, on the other hand, the various plans for dealing with Cairo sewerage which have been already brought before and rejected by the Egyptian Government will all be represented. The names of the three judges are not yet known, but it is said that France will nominate the chief engineer of the Paris drainage works.

The Tourist Season.

In spite of the absence of all drains, Cairo is exceptionally healthy, and the other towns of Egypt have a comparatively low rate of mortality. The weather has been more than usually bright and sunny since the beginning of November, though for two hours on the morning of Dec. 7th we had not only rain, but passing hail and thunder. Exactly half an inch of rain fell on this occasion, and owing to the absence of all street drains some of the lower parts of the town were flooded for two or three days, requiring the service of water-carts to empty the pools. A new market has lately been erected by the Wakfs under the supervision of the Public Works Department, a reform which has been greatly needed for years. Some energetic attempts on the part of sanitary and veterinary employés to examine the meat sold by European butchers were met with such determined opposition by French and Greek salesmen that the practice had to be abandoned. A native butcher selling unsound meat can be suitably punished, but the European, protected by his consul, cannot even be fined. Some cooked pork bought from a European last week was found to contain the Cysticercus cellulosæ, and this is, I believe, the first time it has been reported in Egypt.

Quarantine Congress at Venice.

The three delegates from Egypt have left for Venice. They are Boutros Pacha, the Coptic Under-Secretary of Justice, Mr. Miéville, the English President of the Alexandria Quarantine Board, and Dr. Mahmoud Pacha Sidki, the Egyptian Vice-Director of the Sanitary Department. Egypt's cause may possibly be further aided by one of the English representatives, Dr. Mackie of Alexandria. The Congress meets on the invitation of Austria, and will probably resolve itself into a duel between French and English, upon the vexed question of suspected ships passing through the Suez Canal without delay. The members for France are a very powerful trio, M. Camille Barrère, who was French Minister in Egypt some five years ago, Dr. Brouardel, who has already officiated at many congresses, and Dr. Pronst, the eminent professor of hygiene. The constitution of the motley quarantine board at Alexandria is to be discussed, and it is to be hoped that some of its farcical proceedings will be put a stop to. A new tariff of taxation is to be proposed, raising the present fees almost three times what they now are. This will have the effect of enriching the finances of the Board and of relieving Egypt, while the Board itself will probably become even more international than it is at present. I may mention here that an English gentleman who reached Alexandria at the end of October from Syria was kept for eight days in quarantine there, for fear of cholera. He was then in the third week of a typical attack of enteric fever, which was not discovered by the doctor and other officials who visited him every day. He and his friends were afraid to declare the nature of his illness lest the whole number of passengers should be suspected of being cholera-stricken, and their imprisonment extended indefinitely. An inspection system which cannot detect enteric fever is not likely to be very efficacious against cholera. On the other hand, quarantine regulations against unclean pilgrims returning from Mecca to Egypt are, as the only method of enforcing cleanliness, of some value.

Cairo, Dec. 29th, 1891.

NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

MR. F. C. BATCHELOR has published a very interesting paper in the *New Zealand Medical Journal* on "A Year's Work in Abdominal Surgery." The paper was originally read before the Otago Branch of the Association at the Dunedin Hospital. During this period Mr. Batchelor's connexion with the hospital has been practically severed, and the paper in its present form is the result mainly of private cases. Mr. Batchelor opened the abdominal cavity in twenty-nine instances. They may be thus classified: Ovariotomies, 7; Tait's operation, 6; Hegar's, 1; Battey's, 5; hysterectomies—abdominal, 2; vaginal, 1; laparotomy (for various reasons), 7. These operations have been most successfully performed, for they have been conducted without a single fatality, the patients making, according to the detailed table which accompanies the paper, excellent and rapid recoveries. Under the heading of the ovariotomy operations Mr. Batchelor remarks that in the whole series the highest registered temperature was 100·4° on the third day. Tait's operation was performed six times. In every case the original condition of the patient was found to be so serious that the operation was considered absolutely necessary to save life or to render it bearable, and each case had previously undergone prolonged medical treatment without relief. As Mr. Batchelor very justly remarks, it is the operation for the removal of the ovaries, normal or abnormal, to induce the climacteric that is so open to debate. It is in this class of case that the enthusiastic gynæcologist in all parts of the world is so apt to overstep the bounds of prudence. The symptoms necessitating operation in Mr. Batchelor's opinion are described in detail, and every case seems to have been very carefully weighed. The result of these six cases shows a cure in one instance, no apparent advantage gained in one case, and improvement more or less in the remaining four. Mr. Batchelor remarks that during the past year he has taken no new or extraordinary antiseptic precautions, but has simply, as heretofore, endeavoured to carry out strict cleanliness in all surgical proceedings, which it would be impossible to do in the wards of a general hospital in an admittedly insanitary condition.

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St. John Ambulance Association.

This Association has a flourishing branch in Christchurch. Mr. Hacon is to be congratulated on the results of his efforts to promote the Association, for it has now been doing excellent work for six years past. Branches, too, have been started in the principal towns of the colony, and much public benefit must accrue. There is, however, urgent need for good nurses throughout the colony, and medical men in practice experience great difficulty in obtaining really good nurses. A "Nurses' Directory" has been started in Auckland, and other parts of the colony would do well to follow the lead thus given. Good nurses receive good pay in this colony, and they are sure of obtaining employment; for anyone who has once gained the reputation of being an efficient nurse is eagerly sought after. Nurses coming to this colony from England I should strongly advise to go through the course of training such as is obtained at Queen Charlotte's Hospital, London. Nurses holding these certificates are not too readily found here.

Wanganui.

Tourists will be glad to learn that the Wanganui river, which has gained such a reputation for the beauty of its scenery, is now provided with a new steamer specially built for the tourist demands. The steamer is owned by Mr. Hamrick, and is subsidised by the Government. It is believed that she will do the journey to Pipiriki easily in the day, thus meeting a want which has long been felt. She has just made her initial trip, doing twelve miles an hour, and gave every satisfaction. She was built by Messrs. Yarrow and Co. of Poplar, and is so constructed that she draws only sixteen inches of water, and can be depended on to run regularly to Pipiriki, to which place and back to Wanganui makes 120 miles of river travelling. She runs in connexion with Messrs. Cook and Sons, and this enables tourists to readily visit the hot lakes from the west coast or *vice versâ*.

Obituary.

PROFESSOR BERKELEY HILL, F.R.C.S.

IT is with great regret that we record the death of Professor Berkeley Hill, which occurred on Jan. 7th at his residence in Wimpole-street. Mr. Hill's death is a great loss to the profession, and those who knew him best will mourn him most. Matthew Berkeley Hill, the youngest son of Matthew Davenport Hill, the first Recorder of Birmingham, was born on June 12th, 1834, at the Vale of Health, Hampstead. Berkeley Hill was educated at University College School, London, under Mr. Key, and also at Bruce Castle, Tottenham, the family school, which, at the time he was a scholar there, had passed from the management of his uncle, the late Sir Rowland Hill, into the hands of his (Sir Rowland's) brother, Arthur Hill. On his father's removal to the neighbourhood of Bristol, in 1851, Berkeley Hill took up the study of chemistry under Mr. Thornton Herapath, intending to take up the profession of analytical chemist; but eventually turned his attention to the study of surgery. He studied medicine at University College, with which he was connected during the whole remaining period of his life. Having taken the degree of M.B. and the Fellowship of the Royal College of Surgeons, and having passed a year as house surgeon in the Ormond-street Children's Hospital, he went abroad in 1861 for further study at Berlin (where he made the friendship of Virchow), Vienna, and Paris. He also visited several of the Italian hospitals, especially the one at Naples, which he described as being then much behindhand.

At the end of 1862 he commenced practice in Weymouth-street, and shortly after was appointed assistant surgeon to University College Hospital. In the spring of 1863 he "sat" for Sir Henry Thompson, who had been called to Brussels to operate upon the late King of the Belgians. In 1864, 1866, and 1869 he took a great part in promoting the passing of the various measures relating to contagious diseases. In 1870 the storm began which ended in their temporary abrogation. Berkeley Hill, as secretary to the Society (in conjunction with Mr. Curgenven) for the extension of these Acts to the civil population, spared neither strength, time, professional prospects, nor anything else in the cause. The abuse that was poured on him, in common with every one who tried to diminish human suffering, especially of the innocent, by means of this legislation; the falsehood which assailed him on every side, never caused him for a moment to swerve from what he knew to be right. The labour was enormous, but was cheerfully undertaken and persevered in for years. At one time he debated whether he should not devote himself entirely to this work, and relinquish practice altogether. In the autumn of 1870 he went to the districts devastated by the Franco-Prussian War to distribute the stores of the Red Cross Society, of which Colonel Lloyd Lindsay, now Lord Wantage, was the active chief. Berkeley Hill was elected on the Council of the College of Surgeons in 1884, and in 1886 was chosen one of the examiners for the College, and in 1891 Vice-President of the Council. Both in face and in character he greatly resembled his uncle, Sir Rowland Hill, especially in indomitable perseverance, in fertility of resource, and in the ability to grasp the salient points of every subject. In 1868 he married the youngest daughter of the late Sir Thomas Howell, of the War Office, by whom he had six children, five of whom survive him. Throughout his last illness he was attended by devoted professional friends, among whom may be mentioned Dr. Barlow, Dr. Eustace Smith, Mr. Marcus Beck, Mr. W. Meredith, and Mr. Charles Stonham, whose care and skill were employed to save him from all possible suffering.

Like his father and his uncle, Berkeley Hill was really public-spirited—ready, that is, to sacrifice energy, time, and money without a thought of self-seeking or the gratification of personal vanity. This was abundantly recognised by his colleagues at University College, who elected him Dean of the Faculty of Medicine for three years in succession, a term of office which is unprecedented, and who selected him to be the first representative of the Faculty upon the Council of the College so soon as the much-needed reform of admitting professors to the Council Board had been conceded. The improvement of the discipline of the College, the proposed rebuilding of the Hospital, and the establishment of a teaching university in London were among the questions which Berkeley Hill had much at heart, and in the furtherance of which he took a large part.

It was the recognition of his unselfish public spiritedness, in addition to his surgical and scientific eminence, which made doubly certain his election to the Council of the College of Surgeons in 1884. As a councillor or committeeman he was invaluable. His attendance could always be relied upon, and his clear-headedness, attention to business, and impartiality in decisions were certain. Another strong characteristic was tenacity of purpose. Having put his hand to the plough, Berkeley Hill was the last man to look back. His noble attitude with regard to the Contagious Diseases Acts was the best evidence of this, but it was also abundantly shown in many minor actions. His enthusiasm was easily aroused in what he regarded as a righteous cause, and although his decisions were at times impetuously taken, once arrived at he was not easily turned from them. When it has been said that a man was public-spirited and tenacious of his purpose, it is almost unnecessary to allude to his honesty; and yet in this instance it is well to do so, for Berkeley Hill's honesty was absolute. He was incapable of deception by look, word, or deed; and although his practice was a large one, and he retained the confidence of his patients in a manner quite unusual, it is well to place on record that his success was due to his sterling qualities as a practitioner, and in no degree to the arts and little artifices known as professional "side," for which, in all its forms, Berkeley Hill had a good-humoured contempt. In concluding this review of the moral qualities of the deceased, his kindliness and generosity must hold the place of honour. How many students and professional friends have experienced his goodness and generosity when stricken by illness or misfortune it would be hard to say. Though rather impassive on the surface, he had nevertheless a keenly sensitive nature, apt to be stirred by generous emotions, which evoked in him the neighbourly actions of a true Christian and the hospitable instincts of a thorough Englishman. No greater proof of this could be given than in the tokens of personal regard and of genuine grief shown in the wreaths which at the funeral lay on the coffin. Some of them were from men who, young and careless, were in danger of wrecking their life had not the wise counsel and the timely help of the elder man arrested and turned them back again into the path he himself pursued. The pleasure he felt when such a young man gave evidence that the exertion had not been in vain was keen

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indeed; but the secret had been so strictly kept that letters of gratitude, written by those who received this friendly help, only now reveal (even to his nearest relatives) what he had done. Of his intellectual endowments, his writings and his high professional status are the best evidence. That Mr. Berkeley Hill was in the very front rank of European syphilographers goes without saying, for his works are read and appreciated wherever surgery is studied. Not only is his great work, "Syphilis and Local Contagious Disorders," prepared with characteristic thoroughness and great clinical experience, accepted as a sound and exhaustive text-book, but it will be acknowledged that Berkeley Hill's enterprise and industry have done much to advance the surgery of the genito-urinary system in this country. The question of internal urethrotomy received his early thought, and not only did he call attention to the work of Otis in this direction, but he perfected methods and devised an operation and instrument of his own. In 1888 he was appointed Hunterian Professor of Surgery and Pathology at the College of Surgeons, when he chose Endoscopy as his subject—a subject which he was largely instrumental in bringing to the notice of the profession in this country.

In 1881 he communicated a case of the removal of a tumour from the female bladder by means of an écraseur through the dilated urethra. At this time only twenty-eight similar cases had been recorded. It must be borne in mind that Berkeley Hill was no mere specialist. His education had been liberal and broad. His knowledge of the classical and European languages was exceptionally good. He had travelled extensively throughout Europe, and had studied in Vienna, Paris, and Berlin. Having passed an honourable career as a student, he became demonstrator of anatomy, and during the time that he was acting as assistant surgeon at University College he produced a successful work on Bandaging, and made many contributions to general surgery. After his appointment to the Lock Hospital his attention became more and more restricted to his special subject; but his specialism was due entirely to the trust reposed in him by the profession and the eagerness with which his opinion was sought by those who appreciated his scientific acumen, clinical experience, carefulness, and honesty.

JAMES CHRISTIE, M.A., M.D.

DR. JAMES CHRISTIE was born at Strathaven in May, 1829. Trained and educated at the Glasgow University, he was ordained in 1856 as a dissenting minister, but a weakness in his throat led to his retirement from that field of labour, and in 1860 he obtained his degree of M.D. from the University of Glasgow. He was a general practitioner, not in the ordinary sense of the term, but in the widest sense—a man of extended knowledge, of erudite mind, and a painstaking and earnest seeker after truth. His views on the subject of medical education were very pronounced, and much in advance of his time. His residence as assistant physician at Gartnavel gave him an insight into psychological medicine which few general practitioners could hope to equal, and few alienists to surpass. He continued to take an interest in cases of insanity until the end of his career. He held the appointment of physician to the Sultan of Zanzibar, where he brought his acute observation and literary powers into action, with the result that on his return to Glasgow in 1875 he produced a much-esteemed book entitled "Cholera Epidemics in East Africa from 1821 till 1872." He wrote also on other tropical diseases, and on some of the great epidemics. A joint production of his with H. A. Fraser and Bishop Tozer appeared in London in 1871 on "The East African Slave Trade and the Measures proposed for its Abolition." While at Zanzibar he became acquainted with Dr. Livingstone, and it is said that Dr. Christie was the last white man the great traveller saw on his departure for his final exploration. The servant who embalmed Livingstone's body was one who had worked under Dr. Christie, and had probably acquired technical knowledge with him sufficient to enable him to do so. In 1876 he was appointed one of the surgeons to the out-patient department of the Glasgow Western Infirmary, being transferred a few years ago to the post of assistant physician in that institution. His special aptitude lay in the direction of literature. He wrote for the "Globe Encyclopædia"; he edited the *Sanitary Journal* almost from its commencement, a congenial work, and consequently carried out in a style worthy of a master in the science of sanitation. Dr. Christie was a corresponding member of the Medical and Physical Society of Bombay; an associate of the Society of Hygiene of France; secretary of the Epidemological Society of London for the district of the Indian Ocean and East Africa; and a number of various other learned societies.

His special knowledge of tropical diseases led to his being asked to write the articles on some of these subjects in Dr. M'Call Anderson's "Treatise on Skin Diseases" (1887). Another little production of his pen, on which he had expended much time, was "Epidemics of Dengue Fever: their Diffusion and Etiology." This appeared in the *Glasgow Medical Journal* in 1881. It has a special interest at the present time, when various authorities allege the relationship or the identity of our prevalent influenza with this peculiar disease. His connexion with Anderson's College, in which his interest was deep, began with his appointment to the chair of public health in that institution in the year 1878. In 1884 he was appointed to the chair of Physiology in that College. In that capacity he was a teacher of the few rather than of the many. He invariably kept up the attention of diligent students who were really anxious to learn, not by the aid of happy illustrations and appropriate anecdotes, but by the quantity and quality of the instruction which he conveyed. For those of an inferior class his lectures were almost too good, and delivered almost in too classical a style. Their literary merits were extremely high, and many note books are in existence from which his lectures might be printed almost without revision. Hampered as he was in many ways, he spared no pains and no personal expense to advance and attract the dilatory students. His sympathy with the class of students for which Anderson's College primarily existed was unbounded, and his generosity great almost to a fault. "I have," he said to the writer of this obituary notice, "very great sympathy with those students who have brains and but little money to enable them to advance. "But," he added confidingly and encouragingly, "if there are any I pity more it is those who have money and but little brains." He was beloved by his pupils and his colleagues for his unfailing kindness. His utterances at all times were listened to with the attention and the respect which a cultured mind and a gentlemanly bearing command. His death will be felt to be a distinct loss to the medical profession, and more especially to Anderson's College, in which, if not the greatest, he was certainly not the least, ornament. He was one of those

> "Whose good is quick and mighty, far and near,
> So that fruits follow it."

DR. G. D'ANCONA.

EGYPT was the principal scene of this eminent physician's life work, and, particularly at Cairo, he was the promoter of much that has since fructified to advantage in the teaching and the practice of medicine. A Tuscan by birth, Giacomo D'Ancona studied at Florence, his native city; thence he repaired to Pisa for systematic training in medicine and surgery, finally returning to Florence for the completion of his curriculum, with a view to graduation. After taking his degree, which he did with much distinction, having, among other honours, gained the Tacchini prize, he went to Paris, and there devoted himself sedulously to clinical observation and treatment. His reputation as an accomplished physician was now established, and he was chosen to fill the chair of pathology in the Medico-Chirurgical School, which, at the instance of Abbas Pasha, was to have been founded in Cairo, under the presidency of Professor Ranzi of Pisa. The school never actually took shape; but Dr. D'Ancona remained in Egypt for many years, promoting medical education in every way open to him, and filling the post of body-physician to the son of the Khedive. It was at this time that he made his well-known researches into the eye diseases peculiar to Egypt; but a call to Paris prevented his completing the publication he had begun on that theme. In the French capital he soon rose to a high position in the Italian colony, and also in general society, recommended as he was, not only by professional skill, but by quite a diplomatic finish of manner and address. He assisted the celebrated Dr. De Mars in his consultations on eye diseases and in the more delicate operations; while he had a *clientèle* of his own, scarcely less numerous, in other departments of practice. True to the interest he always

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took in the profession, he represented Italy at many Congresses, medical and surgical, and superintended the Italian sections of not a few expositions of a scientific kind. For these and similar services he received the Orders of St. Maurice and of the Crown of Italy. Many benevolent institutions will miss his ever-ready sympathy and help, not least among them the "Società Italiana di Beneficenza" at Paris. His death took place quite suddenly at Pisa on the 8th inst., in his sixty-sixth year. He had returned in his usual health from Florence, where he had been the guest of his brother, the Senator D'Ancona, when he succumbed to an apoplectic seizure.

ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary comitia of the College took place on the 14th inst., the President, Sir Andrew Clark, Bart., in the chair. At the commencement of the proceedings the President alluded in feeling terms to the public calamity which had just fallen on the nation in the death of H.R.H. the Duke of Clarence, and, at his suggestion, the College, on the motion of Sir Joseph Fayrer, seconded by Dr. G. Harley, resolved to transmit an address of sympathy and condolence to Her Majesty the Queen, and their Royal Highnesses the Prince and Princess of Wales.

The President nominated Dr. Gee to be Bradshaw Lecturer for the present year.

Letters were read from the Royal College of Surgeons, the Registrar of the Branch Medical Council for Ireland, and the General Medical Council.

Permission was granted to Dr. S. Martin to deliver the Goulstonian lectures in the Theatre at the Examination Hall.

A report from the Committee of Delegates of the two Royal Colleges on the Scheme for a Five Years' Curriculum and the revised Regulations for Examinations were adopted, on the motion of Sir R. Quain, seconded by Dr. N. Moore. The President eulogised the labours of the Committee, which had been thus brought to a successful close.

The opinions of the Attorney-General and Sir Arthur Watson, Bart., Q.C., on the question of the non-registration of the licence and membership of the College as complete qualifications were read; and other questions in relation to the same subject were reported to the College by the registrar. The recommendation of the Committee of Management that the course of operative surgery given by Mr. Thomas Cooke be recognised for the ensuing year was adopted.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a quarterly meeting of the Council of the above College, held on Thursday, the 14th inst., the minutes of the ordinary Council on Dec. 10th were read and confirmed.

On the announcement of the death of the Duke of Clarence and Avondale, as in the proceedings of the Royal College of Physicians, a vote of sympathy and condolence with Her Majesty and the Prince and Princess of Wales was unanimously agreed to.

The Secretary reported the death on the 29th ult. of Mr. John Wood, F.R.S., past Vice-President, member of Council, and member of the Court of Examiners of the College. The Secretary also reported the death on the 7th inst. of Mr. Matthew Berkeley Hill, Junior Vice-President, member of Council, and member of the Court of Examiners of the College. In each instance the Council unanimously passed a vote of condolence with the family of the deceased.

The vacancy in the Council caused by the death of Mr. Hill will be filled in July next, at the annual election. A Vice-President for the remaining period of the collegiate year will be elected at the next meeting of the Council in February, and the vacancy in the Court of Examiners will also be filled up at that meeting.

It was agreed that, as recommended by the Museum Committee, Mr. R. H. Burne, B.A. Oxford, be appointed anatomical assistant in the museum, at a salary of £150 per annum, subject to annual re-election at the Quarterly Council in July.

The report, dated Jan. 7th, 1892, from the delegates of the two Colleges, on the five years' course of medical study and examination, was read, approved, and adopted.

The Secretary reported that no dissertation had been received on "The Pathology and Treatment of Diseases of the Knee-joint," the subject of the Jacksonian Prize for the past year; or on "The Anatomy of the Third, Fourth, Fifth, and Sixth Cranial Nerves in the Vertebrata," the subject of the Collegial Triennial Prize.

The resignation of the Morton Lectureship by Mr. O. Pemberton was accepted, and the lecture will be given by Dr. G. Sims Woodhead on the 5th of May next.

A letter of the 14th ult. from Mr. C. S. Sherrington, hon. secretary of the Physiological Society, deprecating any curtailment in the proposed five years' curriculum of the extent or scope of the courses of Physiology already enforced by the existing requirements of the two Colleges, was read and laid before the Council.

A letter of the 4th inst. addressed to the President, from Sir Ralph Thompson, K.C.B., requesting, by direction of the Secretary of State for War, to be favoured with the views of the President on the suggestions for the mode of conducting the competitive examinations for admission to the medical staff of the army, was read and referred to a committee, consisting of the President, the Vice-president, Sir W. Savory, Bart., Sir W. Mac Cormac, and Mr. Macnamara.

At the request of the hon. sec. of the National Leprosy Fund, the Council authorised Mr. Hutchinson and Mr. Macnamara to continue to serve as its representatives on the Special Committee.

A letter of the 12th inst. from Mr. H. G Howse was read, resigning, in anticipation of the termination of his period of office on Feb. 10th next, his appointment as a member of the Court of Examiners, his resignation to take effect from the completion of the Pass Examination for the membership, commencing on the 15th instant, and stating that he is a candidate for re-election.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the Examiners on the 11th inst.:—

Anatomy and Physiology.—Michael J. Halton, student of Yorkshire College, Leeds; William W. Hoare, Extra-mural Academy, Edinburgh; Redmond J. Roche, Royal College of Surgeons, Ireland; William Tregenza, of Sheffield Medical School; Wm. H. Rowlands and John W. Pridmore, of Queen's College, Birmingham; James Fleming Baxter, of Westminster Hospital; and Claude F. Druitt, of Bristol School of Medicine and Mr. Cooke's School of Anatomy and Physiology.

Anatomy only.—George G. Oakley, of St. Bartholomew's Hospital: Basil Pares, of St. Mary's Hospital; Thomas H. Agnew, of University College, Liverpool; Daniel Fogarty, of Ledwich School, Dublin and Mr. Cooke's School of Anatomy and Physiology; Frederick A. L. E. Burgess, of Queen's College, Birmingham; Gerald G. Joynson, Thomas L. Webster, and William J. Bowden, of Owens College, Manchester; Frank Husband, of Bristol Medical School and Mr. Cooke's School of Anatomy and Physiology; Wilford Mettam, of Sheffield Medical School; Moses J. Reubens, of Grant Medical College, Bombay, and Mr. Cooke's School of Anatomy and Physiology; Oswald Challis, of St. George's Hospital; Arthur Emlyn, of University College; and Augustus P. Dantes, of Charing-cross Hospital.

Physiology only.—William C. Gent, of Bristol Medical School; Edward J. E. Coop, Horatio C. W. Wood, and Karl F. Cherry, of Queen's College, Birmingham; Matthias Bailey and John D. McD. Newlands, of University College, Liverpool; Edward Brabazon, of Trinity College, Dublin; William Mansergh, of Owens College, Manchester; Richard A. Fegan, of St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology; Richard B. Power, of St. Thomas's Hospital; John W. Sweetlove, of Guy's Hospital; and William B. Murray, of King's College.

Passed on the 12th inst.:—

Anatomy and Physiology.—Arthur F. A. Flower, Gilbert H. W. Ellacombe, and Frederick W. Gale, of St. Bartholomew's Hospital; Stanley S. Argyle, of Melbourne University; Harry F. W. Armstrong and Frederick S. Collard, of St. George's Hospital; Allen Hair, of University College; Francis J. Brakenridge and Thos. G. Nicholson, of St. Thomas's Hospital; Henry R. Walker, of King's College; and Austin C. Fry, of Guy's Hospital.

Anatomy only.—Alfred N. Wilde and Percy W. G. Shelley, of St. Bartholomew's Hospital; Arthur S. Matthews, of St. Thomas's Hospital; Charles N. Barton, of St. George's Hospital and Mr. Cooke's School of Anatomy and Physiology; and Sylvestre A. Francisco, of King's College.

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Physiology only.—Morgan D. Blake, of Owens College, Manchester, St. George's Hospital, and Mr. Cooke's School of Anatomy and Physiology; Edward A. McAnally, of St. George's Hospital; Thomas S. Farncomb, of Trinity College, Toronto, and Mr. Cooke's School of Anatomy and Physiology: and Sydney M. Meyrick, of St. Mary's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having previously passed the necessary examinations, and having now attained the legal age of twenty-five years, were at the quarterly meeting of the Council on the 14th inst. admitted Fellows of the College:—

Edmund Wilkinson, L.R.C.P. Lond., Queen's-terrace, W. Diploma of Member dated Aug. 2nd, 1888.

Ernest William Gurney Masterman, L.R.C.P. Lond., St. Bartholomew's Hospital. Diploma of Member dated Feb. 12th, 1891.

SOCIETY OF APOTHECARIES OF LONDON.—At the recent Primary Examination the following candidates passed in the subjects indicated:—

Part I.

Chemistry, Materia Medica, Botany, and Pharmacy.—A. W. Fyffe, Galway and Belfast; J. Scarr, Littlebrough; G. H. Wilkinson, Queen's College, Birmingham.

Chemistry.—L. M. Blake, Royal Free Hospital.

Materia Medica, Botany, and Pharmacy.—A. Hilton, Owens College, Manchester; A. W. Taylor, Edinburgh University; E. Wright, Queen's College, Birmingham.

Materia Medica and Botany.—F. T. Cole, King's College.

Pharmacy.—E. C. Bond and E. E. Evans, Royal Free Hospital; F. Mannin, Dublin.

Part II.

Anatomy and Physiology.—R. R. P. S. Bowker, Middlesex Hospital; W. J. H. Dawson, St. Thomas's Hospital; G. H. Pooley, Cambridge University and St. George's Hospital; G. H. Proctor, London Hospital; S. Smith, Middlesex Hospital; W. E. Stanton, Cambridge University and London Hospital; E. P. Staples, Cambridge University and St. Mary's Hospital; F. W. Sell, Cambridge University; F. A. Storr, Yorkshire College, Leeds; S. A. Stride, London Hospital; A. W. Taylor, Edinburgh; J. Thornton, London Hospital.

Anatomy.—S. Foster, St. Bartholomew's Hospital; A. E. Freer, St. Mary's Hospital; E. Grange, Edinburgh University; F. R. Heap, Bristol; T. Hopps, Owens College, Manchester; F. H. Humphris, Edinburgh University; T. E. Johnson, London Hospital; J. Joule, London Hospital; G. W. Pauli, Bristol; A. J. Pollard, Leeds; C. J. Underwood, Charing-cross and London Hospitals; A. Whitby, Dublin.

Physiology.—R. K. Bayley, St. Mary's Hospital; E. T. Fitzpatrick, Dublin; T. Gregg, St. Bartholomew's Hospital; F. R. Hargreaves, Owens College, Manchester; J. A. F. Hatch, Dublin; A. Hilton, Owens College, Manchester; E. S. L. Lovell, Charing-cross Hospital; A. C. McLean, King's College; J. B. D. St. Cyr, St. Bartholomew's Hospital; J. J. Winn, London Hospital.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors held on the 12th inst., T. Russel Pickthorne, Esq., Inspector-General, in the chair, the sum of £56 was distributed among the several applicants.

THE REVENUES OF LONDON CHARITIES.—According to the "Classified Directory to the Metropolitan Charities," the total revenue for the past year of the charitable institutions having their headquarters in London amounted to over six millions sterling—or, to be precise, £6,060,763. This total included £2,658,212 for home and foreign missions; £200,251 raised on behalf of the blind, deaf and dumb, incurables, and idiots: £655,790 for hospitals; £504,423 for pensions and relief of the aged; £750,000 for the Salvation Army, and £130,000 for the Darkest England Fund.

CLERICAL, MEDICAL, AND GENERAL LIFE ASSURANCE COMPANY.—The directors of this company have issued a bonus report announcing the thirteenth division of profits among the members and policyholders of the Society. The valuation has upon this occasion been made upon the extraordinarily stringent basis of interest assumed to be earned as 2½ per cent., and mortality assumed to be conformable to that exhibited by the tables known as H^{M} and H^{M} 5. The funds of the Society have during the past quinquennium actually earned a little over 4 per cent., and the deaths actually recorded have numbered fewer than 72 per cent. of the number which might upon the assumed basis have been expected to occur. In respect of both these matters, therefore, it is confidently anticipated that the next quinquennium will exhibit a great improvement upon the calculated figures, and that future surpluses will be commensurately large. On the present occasion the directors are able, notwithstanding the very conservative policy which they have adopted, to divide a large sum by way of bonus, and the share in this division which falls to the policyholders is increased by the circumstance that the shareholders have consented to a limitation of the amount of their share in the divisible surplus.

FOOTBALL CASUALTIES.—A youth aged eighteen, whilst playing football last week on the Wilford Grove football ground, fractured his leg, and was conveyed to the Nottingham General Hospital.

ESSEX COUNTY COUNCIL.—Mr. Edward Tidman, C.E., F.S.I., of Westminster, has just been appointed by the Technical Education Committee of the Essex County Council lecturer on Hygiene, and will shortly commence a course of lectures under their auspices.

CLIMATOLOGY.—The council of the Royal Meteorological Society have arranged to hold at 25, Great George-street, S.W. (by permission of the president and council of the Institution of Civil Engineers), from March 15th to 18th, an exhibition of instruments, charts, maps, and photographs relating to climatology.

OLDHAM INFIRMARY.—The Board of Governors of this institution have opened an Eye Department, and at a recent meeting Griffith Apthomas, M.B., C.M. Edin., was elected eye surgeon. There is an honorarium of £30 per annum attached to the office, which is tenable for eight years, with the privilege of re-election.

DIPHTHERIA AT FINSBURY BARRACKS.—In consequence of many cases of diphtheria having occurred since last August amongst the permanent staff of the 4th Battalion Royal Fusiliers (City of London Militia) and their families, quartered in the Finsbury Barracks, the War Office has ordered the whole of the men and other occupants of the place to be moved to the Milton Barracks, near Gravesend.

UNIVERSITY OF CAMBRIDGE: DIPLOMA IN PUBLIC HEALTH.—Mr. Robinson announces a course of practical instruction in Hygiene for the Public Health diploma examination in the Lent term, beginning Jan. 20th; and also a six months' course in the same subject, beginning April 20th. Applications may be made to Mr. Robinson at the University Chemical Laboratory, Cambridge.

GENERAL PRACTITIONERS' ALLIANCE.—The committee appointed at a meeting of the General Practitioners' Alliance to arrange the details for a complimentary dinner to Dr. F. H. Alderson and Mr. George Brown, president of the Alliance, in recognition of their services in contesting the recent election of direct representatives to the General Medical Council, have decided that the dinner shall take place at the Holborn Restaurant on Thursday, the 28th inst., at 7.30 P.M. We are requested to state that members of the profession who wish to be present should send their names before the 25th inst. to the hon. secretary, Mr. Campbell Boyd, 108, Denmark-hill, S.E.

PRESENTATION.—Mr. William Francis, L.R.C.P. Lond., M.R.C.S., on his relinquishing the position of resident house surgeon at the West Ham Hospital, Stratford, which he had held for upwards of ten years, has been presented by his medical colleagues on the staff and friends with a handsome operation case and a purse containing thirty-two guineas, as tokens of esteem.—Mr. F. H. Forshall, L.R.C.P. Lond., M.R.C.S., M.R.C.P. Edin., of Highgate, has been presented by his patients and friends with several pieces of old silver plate, and an artistically illuminated address in an album form, bearing the names of all the subscribers, as tokens of their esteem, and as a recognition of his unfailing generosity to the poor during a residence and professional career in Highgate for nearly thirty years.

IMPORTANT SHIPPING CASES.—Capt. J. L. Parfitt, master of the ss. *Clyde*, appeared at Bow-street police-court on Friday last to summonses taken out at the instance of the Board of Trade for contraventions of the Merchant Shipping Act, by neglecting to make entries in the official log-book in cases of illness, and the nature and treatment thereof. From the evidence adduced it appeared that the *Clyde* was bound from Bombay to Plymouth, and that an outbreak of influenza occurred amongst the crew, owing to which some of them were incapacitated from duty from three to seventeen or eighteen days. The surgeon reported the matter to the captain, but the latter failed to record it. Mr. Vaughan imposed penalties of £1 and costs in three cases, and £5 and costs in a fourth. He was asked to state a case, but declined.—A similar action to the above is being taken by the committee of the Cardiff Port Sanitary Authority against the captain of a vessel for discharging a man suffering from small-pox without giving notice to the authorities.

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THE SANITARY INSTITUTE.—The programme has been issued of the thirteenth course of lectures and demonstrations for sanitary officers. These lectures, which are specially adapted for candidates preparing for the Institute's examinations for Inspectors of Nuisances, will be delivered on Tuesdays and Fridays at 8 P.M. The first lecture will be given on Friday, Jan. 29th.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BEADLES, CECIL F, M.R.C.S., L.R.C.P., has been appointed, *pro tem.*, Assistant Medical Officer to Colney Hatch Lunatic Asylum, vice H. G. Shaw, on sick leave.

BURKITT, J. C. S., M.D., M.Ch. Irel., has been reappointed Medical Officer of Health for the Whitwick Urban Sanitary District of the Leicester Union.

BYLES, J. B., L.R.C.P. Lond., M.R.C.S., has been appointed Junior House Physician to Westminster Hospital.

CHEETHAM, W. H., M.D., M.R.C.S., L.S.Sc., of Guiseley, has been appointed Certifying Surgeon under the Factory Acts for the Guiseley, Yeadon, and Baildon Districts, vice Hepworth, deceased.

FOXCROFT, FREDERICK W., M.B., C.M., has been appointed Assistant House Surgeon to the General Hospital, Birmingham.

FOX, E. L., M.A., M.D. Camb., M.R.C.P. Lond., has been appointed Physician to the Plymouth Public Dispensary.

FULLER, J. REGINALD, M.R.C.S., L.R.C.P., L.S.A. Lond., has been appointed Fifth Assistant Medical Officer to the London County Lunatic Asylum, Hanwell.

HAMILTON, R. J., M.R.C.S., has been appointed an additional Honorary Surgeon to the Stanley Hospital, Liverpool.

HUGHES, S. H., M.R.C.S., L.R.C.P., L.S.A. Lond., &c., has been appointed Junior Resident Medical Officer to the Royal Free Hospital, vice E. Trevethick, M.B. Cantab., resigned.

JACKSON, GEORGE, F.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Officer of Health for the Compton Gifford Urban Sanitary District.

JONES, R. L., M.R.C.S., has been appointed Honorary Physician to the Carnarvonshire and Anglesey Infirmary.

MILLS, H. H., L.R.C.P. Lond., M.R.C.S., has been appointed Junior House Surgeon to Westminster Hospital.

MOXEY, VINCENT, M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Surgeon to the Oldham Infirmary.

OWEN, ARTHUR DEAKER, M.R.C.S., L.S.A. Lond., has been appointed a Government District Surgeon of Perak, Straits Settlements.

PERNET, GEO., M.R.C.S., L.R.C.P. Lond., Assistant to Out-patients, has been appointed Surgeon and Physician to University College Hospital.

SIMCOCK, J., M.B., B.Ch. Vict., has been appointed Resident Medical Officer to the St. Mary's Hospital, Manchester, and the Manchester and Salford Lying-in Institution.

STONHAM, H. A., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Obstetric Assistant to Westminster Hospital.

SWIFT, W. J. C., M.R.C.S., has been appointed Medical Officer to the Foundling Hospital, vice H. W. Starnam, resigned.

TEBBS, W. H. A., L.R.C.P. Lond., M.R.C.S., has been appointed Senior House Surgeon to Westminster Hospital.

VAUDREY, E., M.D., C.M. Edin., M.R.C.S., has been appointed Physician to the Derbyshire Royal Infirmary, vice Ogle, resigned.

YULE, R. M., M.D., C.M. Aberd., has been appointed Medical Officer for Lerwick, vice Skae.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Resident House Surgeon. Salary £80, with board and washing.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary £40 per annum, with board, washing, and attendance.

CHELSEA, BELGRAVE, AND BROMPTON DISPENSARY, 41, Sloane-square, S.W.—Surgeon.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Medical Officer for two years. Salary £80 per annum, with board, lodging, and washing.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Surgeon. Board and lodging provided.

ECCLES AND DISTRICT MEDICAL ASSOCIATION.—Medical Officer. (Apply to the Secretary, 15, Byron-street, Patricroft.)

GENERAL HOSPITAL, Birmingham.—Assistant Surgeon for three years. Honorarium £100 per annum.

GENERAL HOSPITAL, Birmingham.—Three Assistant House Surgeons for six months each. Residence, board, and washing provided.

GENERAL INFIRMARY, Northampton.—House Surgeon. Salary £125 per annum, with furnished apartments, board, attendance, and washing.

LIVERPOOL DISPENSARIES.—Head Surgeon. Salary £200 per annum, with apartments, board, and attendance. (Apply to the Secretary, Leith Offices, 34, Moorfields, Liverpool.)

LONDON THROAT HOSPITAL, 204, Great Portland-street, W.—House Surgeon.

NORFOLK AND NORWICH HOSPITAL.—Assistant to the House Surgeon for six months. Board, lodging, and washing provided.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone, N.W.—Resident Medical Officer. Salary £60 per annum, with board and residence in the hospital.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon. Board and rooms provided.

ROYAL SOUTH LONDON DISPENSARY.—Surgeon-in-Ordinary. Honorarium £20 per annum. (Apply to Resident Officer, St. George's Cross, S.E.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Assistant House Surgeon for six months. Board, residence, and washing, and an honorarium of 15 guineas at expiration of term of office.

ST. LUKE'S HOSPITAL.—Resident Clinical Assistant for six months. Board and residence provided.

ST. OLAVE'S UNION.—Dispenser of Medicines and Medical Officer's Clerk (non-resident). Salary at the rate of £80 per annum. (Apply to Mr. Fenton, Clerk's Offices, St. Olave's Union, 30, Tanner-street, Bermondsey, S.E.)

ST. JOHN'S-WOOD AND PORTLAND TOWN PROVIDENT DISPENSARY, 1, Henstridge-villas, N.W.—Medical Officer.

THE COPPICE, Nottingham.—Assistant Medical Officer. Salary £120 per annum, with furnished apartments, board, washing, and attendance.

TRUSTEES, care of H. Ellis, Esq., 4, Pettycury, Cambridge.—Resident Medical Superintendent for a Private Asylum. Salary £150 to £200 per annum, with board and residence in the Asylum.

WEST DERBY UNION.—Resident Assistant Medical Officer at Belmont-road Workhouse. Salary £100 per annum, with rations. (Apply to the Union Clerk, Brougham, West Derby-road, Liverpool.)

Births, Marriages, and Deaths.

BIRTHS.

BARRINGTON.—On Jan. 11th, at Meerut, India, the wife of Surgeon-Major Barrington, of a daughter.

BEAUCHAMP.—On Dec. 8th, at Cromwell-road, S.W., the wife of Dr. Sydney Beauchamp, of a daughter.

BOND.—On Jan. 9th, at Leyton, Essex, the wife of Mayston Bond, M.R.C.S., L.R.C.P., of a daughter.

CRONK.—On Jan. 8th, at Repton, Derbyshire, the wife of Herbert Geo. Cronk, M.B., of a son (Arnold George), who only survived his birth three days.

DAVIES.—On Jan. 8th, at 23, Finsbury-square, the wife of Arthur Templer Davies, B.A., M.D., M.R.C.P., of a daughter.

ELKINGTON.—On Jan. 8th, at Newport, Salop, the wife of E. A. Elkington, M.B. Lond., of a daughter.

ROBINSON.—On Jan. 4th, at High-street, Lewisham, S.E., the wife of Louis Robinson, M.D., M.R.C.S., of a son.

SPOOR.—On Jan. 12th, at The Hydro', College-green, Bristol, the wife of Dr. Spoor, of a son.

WALLER.—On Dec. 29th, the wife of Augustus D. Waller, M.D., of a son.

MARRIAGES.

CLARKE—COX.—On Jan. 9th, at Woolwich, Charles Frederick Clarke, M.R.C.S., L.S.A., M.A.I., of Huxley House, Park-road, Plumstead, to Minnie, youngest daughter of Joseph Cox, of Woolwich.

KANE—HAMILTON-JONES.—On Jan. 7th, at Monkstown Church, county Dublin, J. G. Auriol Kane, Esq., M.D., of Exmouth, Devon, only son of W. F. De Vismes Kane, Esq., J.P., of Drumreaske House, Monaghan, and Sloperton Lodge, Kingstown, to Adeline Ida Sara, youngest daughter of the late Thomas Morris Hamilton-Jones, D.L., of Moneyglass House, county Antrim.

LOVELL—TURLE.—On Jan. 6th, at St. Mary's, Wimbledon, Charles P. Lovell, M.A., M.B., B.Ch. Oxon., M.R.C.S., only son of Samuel Lovell, Gloucester-gardens, to Clara Jane, the only daughter of the late Henry Turle, of Taunton.

WHITE—WILLETT.—On Jan. 7th, at St. Andrew's, Wells-street, by the Rev. Frederic Willett, M.A., assisted by the Rev. C. H. Simpkinson, M.A., Vicar of St. Paul's, Walworth, and the Rev. Sir William Hyde Parker, Bart., Charles Percival White, M.A., M.B., of 144, Sloane-street, S.W., younger son of Robert Owen White, Esq., of 180, Cromwell-road, S.W., to Marian Irene, daughter of the late C. V. Willett, Esq., and granddaughter of the late William Willett, Esq., of West House, Brighton.

DEATHS.

BAKER.—On Jan. 4th, at Rostherne, Wimbledon, Jas. Edmund Baker, M.R.C.S., aged 52.

GILBERT.—On Jan. 7th, suddenly, at his residence, Oxford-street, Bilston, Staffordshire, H. Gilbert, M.R.C.S.

HILL.—On Jan. 7th, at Wimpole-street, Matthew Berkeley Hill, M.B., F.R.C.S., youngest son of Matthew Davenport Hill, Q.C.

PARSON.—On Dec. 21st, at White Ladies'-road, Clifton, Thomas Cooke Parson, M.R.C.S., L.D.S., aged 49.

POWELL.—On Jan. 9th, at City-road, E.C., Josiah Taylor Powell, M.D.

SCOTT.—On Jan. 9th, at the residence of his brother, Lingfield-road, Wimbledon, Dr. Geo. Scott, of Lower Prospect-place, Southampton, in his 63rd year.

SLAUGHTER.—On Jan. 9th, at Alderden Manor, Sandhurst, Kent, George Monlas Slaughter, Surgeon-General M.S., of Farningham and Sandhurst, aged 60.

TIMINS.—On Jan. 8th, at Somerset-place, Bath, Chas. Timins, F.R.C.S., H.E.I.C.S., aged 77.

WILSON.—On Jan. 9th, at Alexandria, Perth, Brigade-Surgeon Frederick Robert Wilson, eldest surviving son of the late Robert Wilson, of Waterloo-road, Dublin.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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BOOKS ETC. RECEIVED.

BAUSCH & LOMB OPTICAL COMPANY, Rochester, New York; and W. P. COLLINS, Great Portland-street, London, W.
Manipulation of the Microscope. By Edwd. Bausch. Illustrated. Tenth Thousand. 1891. pp. 127.

CHURCHILL, J. & A., New Burlington-street, London.
A Treatise on Diseases of the Lungs and Pleura. By the late Wilson Fox, M.D., F.R.S. Edited by Sidney Coupland, M.D., F.R.C.P. 1891. pp. 1200.

HUMBOLDT PUBLISHING COMPANY, New York.
Mental Suggestion. By Dr. J. Ochorowicz. With a Preface by Charles Richet. Translated from the French by J. Fitzgerald, M.A. pp. 360. Price 10s. 6d.

JARROLD & SONS, Paternoster Buildings, E.C.
Medical Notes and Essays. Fasciculus II. By Sir Peter Eade, M.D. Lond. 1891. pp. 84.

LAYTON, C. & E., Farringdon street, London.
The Law of Life Assurance. By C. J. Bunyon, M.A. Third Edition. By the Author and J. V. Vesey Fitzgerald, Barrister-at-Law. 1891. pp. 643.

LONGMANS, GREEN, & Co., London.
Richard Wiseman, Surgeon and Sergeant Surgeon to Charles II. A Biographical Study. By Surgeon-General Sir T. Longmore (retired), C.B., Q.H.S., F.R.C.S. Illustrated. 1891. pp. 210. Price 10s. 6d.
New Fragments. By John Tyndall, F.R.S. 1892. pp. 500. Price 10s. 6d.

MACMILLAN & Co., London and New York.
A Treatise on the Ligation of the Great Arteries in Continuity. By C. A. Ballance, M.B., M.S. Lond., F.R.C.S., and Walter Edmunds, M.A., M.C. Cantab., F.R.C.S. Illustrated. 1891. pp. 568.

NEW SYDENHAM SOCIETY, London.
Lectures on Diseases of the Digestive Organs. By Dr. C. A. Ewald. Translated from the German Edition by Robert Saundby, M.D. Edin., F.R.C.P. Lond. Vol. I.: Lectures on Digestion. 1891. pp. 214.
The New Sydenham Society's Lexicon of Medicine and the Allied Sciences. Part XVIII. Mit—Nec.

RENSHAW, HENRY, 356, Strand, London.
A Dictionary of Treatment. By Wm. Whitla, M.D. 1892. pp. 948.

UNWIN, T. F., Paternoster-square, London.
Power and Force, Spiritual and Natural. By J. B. Keene. 1891. pp. 94. Price 3s. 6d.

Essays on Acromegaly; by Dr. P. Marie and Dr. Souza-Leite (1891).—Mikrophotographischer Atlas der Bakterienkunde; von Dr. C. Fraenkel und Dr. R. Pfeiffer (August Hirschwald, Berlin, 1891).—Die Quarantane Station El Tor; von Dr. P. Kaufmann (A. Hirschwald, Berlin, 1892).—Introduction to the Antiseptic Treatment of Wounds; by Surgeon Captain C. R. Kilkelly, M.B (Percival & Co., London, 1891); price 2s.—Chemische Untersuchung der Trink- oder Bergquelle des Königlichen Bades Bertrich (C. W. Kreidel's, Wiesbaden, 1891).—Sull'Acetonuria: Sperimentale Ricerche del Prof. A. Lustig.—On Certain Arrangements made in the City of Glasgow, 1866, with a view to the Prevention of Epidemic Cholera: with an Appendix; by W. T. Gairdner, M.D., LL.D. (reprint, 1891).—Atlas of Clinical Medicine; by B. Bramwell, M.D., F.R.C.P. Edin. Vol. I., Part III. (T. & A. Constable, Edinburgh, 1891).—The Strange History of a Dynamo; by T. E. Gatehouse (H. Alabaster, Gatehouse, & Co., London); price 1s.—Parturition rendered Safe and comparatively Painless: the Atmospheric Tractor and the Uterine Safety-tube; by P. McCahey, M.D. (J. T. O'Callahan, Philadelphia, 1891).—Bulletins et Mémoires de la Société de Médecine Pratique de Paris. No. 20, Octobre, 1891 (Palais des Sociétés Savantes, Paris).—A Hint to the Literary Men of the Profession; by C. P. Fisher, Philadelphia (reprint).

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on January 12th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital .. —	212	59	..	45	3	319	442
North-Western Hospital	262	32	..	16	..	310	411
Western ,,	98	22	..	19	1	140	224
South-Western ,,	107	41	..	27	2	267	350
South-Eastern ,,	205	18	4	71	5	301	424
Northern ,,	416	20	..	25	...	461	480
Totals	1388	192	4	203	11	1798	2331

SMALL-POX.—*Atlas* hospital ship, 4.

Medical Diary for the ensuing Week.

Monday, January 18.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL. Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. R. M. Gunn: External Examination of the Eye.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Heart, Valvular Lesions.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Professor W. Rose: The Surgical Treatment of Trigeminal Neuralgia. (Second Lettsomian Lecture.)

Tuesday, January 19.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor V. Horsley: The Brain.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. J. Hutchinson: Contagion in Diseases of the Skin. Bethlem Hospital: 2 P.M., Dr. Percy Smith: Hypochondriasis and Melancholia.—Charing-cross Medical School: 8 P.M., Dr. Playfair: On the Removal of the Uterine Appendages.
PATHOLOGICAL SOCIETY OF LONDON.—Dr. A. A. Kanthack: Two Specimens of Fungoid Disease (Madura Disease) of Hand and Foot.—Mr. J. J. Clarke: Fibroma of Small Omentum.—Dr. Arnold Chaplin: Ulcerative Endocarditis affecting the Pulmonary Valve.—Mr. C. P. Lockwood: Polypus of the Small Intestine associated with Intussusception.—Dr. Leonard Guthrie: A Toad whose Mouth and Nostrils were attacked during life with the Larvæ of Blow Flies.—Dr. H. D. Rolleston: Thrombosis of Splenic Vein associated with Infarcts. Card Specimen:—Dr. F. C. Turner: Malformed Heart.

Wednesday, January 20.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.: Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. H. Mackenzie: Mitral Valvular Disease.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Q. Silcock: Glaucoma. Parkes Museum: 1 P.M., Dr. Louis C. Parkes: Water.
EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Brigade-Surgeon Dr. R. Pringle: What is Efficient Vaccination?
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Annual Meeting. President's (Dr. R. Braithwaite) Address.

Thursday, January 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
ROYAL INSTITUTION.—3 P.M. Mr. A. S. Murray: Some Aspects of Greek Sculpture in Relief.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. O. Sturges: Illustrations of Heart Disease in Children.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Tooth: Anatomy of the Spinal Cord.—London Throat Hospital, Great Portland-st.: 8 P.M., Mr. W. R. H. Stewart: The Examination of Ear Cases.

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Friday, January 22.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. H. Mackenzie: Aortic Valvular Disease.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: The Microscope (Types of Bacteria).—Charing-cross Medical School: 8 P.M., Dr. Playfair: Chronic Endometritis.

CLINICAL SOCIETY OF LONDON.—Living Specimens at 8 P.M.: Dr. Frederick Taylor: A case of Tracheal Tugging in Aneurysm of the Arch of the Aorta.—Mr. Bernard Pitts: (1) After-operation for Double Inguinal Hernia and Ectopia Vesicæ: (2) After-treatment for Double Ankylosis of Hip (scissor-legged deformity).—Dr. Coutts and Mr. L. A. Dunn: A case of Hypertrophy of the Left Lower Extremity.—Dr. Hadden: A case of Aphasia.—Mr. C. Mansell Moullin: A case of Laminectomy for Fracture of the Lumbar Spine. Mr. Openshaw: A case of Intra-uterine Amputation of both Legs, with Symmetrical Malformation of Fingers and Toes, and Talipes Varus on the Side. Papers at 9 P.M.:—Mr. Herbert Allingham: A case of Punctured Wound of the Thigh; Femoral Artery and Vein Divided; Ligature of Proximal and Distal Ends; Gangrene of Leg; Amputation through Knee joint.—Dr. W. M. Ord and Mr. H. B. Robinson: A case of Suppurating Hydatid of Lung treated by Incision.—Mr. C. Mansell Moullin: A case of Hydatid Cysts of Liver; Rupture into Peritoneal Cavity; Abdominal Section.

ROYAL INSTITUTION.—3 P.M. Lord Rayleigh: The Composition of Water.

Saturday, January 23.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith; Insanity of Adolescence.

ROYAL INSTITUTION.—3 P.M. Professor J. A. Fleming: The Induction Coil and Alternate-Current Transformer.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 14th, 1892

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Jan. 8	29·43	N.W.	31	..	50	37	30	..	Overcast
„ 9	29·42	N.W.	32	..	38	33	30	·02	Overcast
„ 10	29·51	N.W.	30	..	49	35	26	..	Overcast
„ 11	29·81	N.W.	36	35	47	38	30	·04	Overcast
„ 12	29·92	N.W.	28	..	41	38	23	·01	Cloudy
„ 13	29·76	N.W.	36	34	41	38	28	..	Overcast
„ 14	29·49	N.W.	34	32	44	36	32	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

CARPENTER AND DUKES FUND.

THE following additional subscriptions to the above fund have been received:—

Drs. Bowes and Norton	£2	2	0	Mr. Major	£1	1	0
Drs. Ord, Harrison, and Burgess	3	3	0	Surgeon-Major Poole	0	10	0
Dr. Neale	0	10	6	Dr. Green	0	10	6
Dr. Rand	2	2	0	Mr. H. Cleaver	2	2	0
Mr. Wilson	2	2	0	Mr. S. B. Mesquita	0	10	6

16, George-st., Croydon, Jan. 12th, 1892. WM. F. COLES, Treasurer.

Etiquette.—We recognise our correspondent's motives in his question. We strongly advise him not to insert such additions and descriptions in his bills. They are unusual, and would look like advertising.

A. W.—We have no special information to give. Our advertising columns might be consulted.

J. W. F. is referred to a general notice given above.

ACUTE RHEUMATISM AND THE TEMPORO-MAXILLARY ARTICULATION.

Mr. Hugh Lane of Bath writes on this subject, in reply to Mr. Flemming, as follows:—

"What I hoped to convey was that in a very large number of observations I found that the temporo-maxillary joint was never implicated in our rheumatic arthritis—an arthritis having its origin in acute or subacute rheumatism, whether gradually merging into the arthritis or occurring some considerable time after. This disease possesses positive and incontestable features of its own sufficient to justify me in placing it under a different heading from chronic rheumatoid arthritis, which we have shown to have no connexion with rheumatism, but which is closely allied to struma and phthisis, and often with hereditary history of gout. In this disease it is a common thing to find the temporo-maxillary joint affected, and when monarthritis exists especially is this the case (monarthritis being rare in our rheumatic arthritis, except in the form following gonorrhœal rheumatism)—so much so that I have now begun to look upon the disease as diagnosed with a comparative degree of certainty by calling it rheumatoid arthritis, should the temporo-maxillary joint be at all implicated. This is what we have seen to be the case by actual experience. We have, in fact, proved that an important connexion exists between this joint and rheumatoid arthritis. The value of correct differentiation between these conditions is paramount when the question of treatment arises—as, for instance, in the great difference in the dietetic treatment of rheumatic and rheumatoid arthritis. In the former it is advisable to refrain from nitrogenous articles of diet—sugar, porter, beer, &c.; but in the latter there seems to be no indication for their interdiction, rather the reverse—in fact, the diet should be generous. Discrimination should be exercised more in rheumatoid arthritis; and not following out this system has, I feel convinced, occasioned much harm. The idea that rheumatism plays a part and is treated accordingly exerts to an enormous degree a very baneful effect in cases of rheumatoid arthritis; while, on the other hand, treating the strumous tendency by cod-liver oil, arsenic, steel, &c., is productive of the very best results. Therefore I still think that the prominence given to connexion between this joint and rheumatism is a step in the wrong direction, and liable to do harm and cause confusion by connecting with rheumatism the only joint that appears to enjoy immunity from the results of the disease, but which, on the contrary, is a most valuable diagnostic agent of rheumatoid arthritis."

Mr. Josiah C. Carter.—Our correspondent should have been called, as far as we can gather from his statement. The coroner has discretion in the selection of medical witnesses in such cases. But it is reasonable to call the practitioner who was sent for and saw the case first. We blame the coroner rather than the police-surgeon.

"SPIRIT WRITING."

To the Editors of THE LANCET.

SIRS,—The paragraph entitled "Spirit Writing in the Fifteenth Century" in your issue of the 2nd inst. induces me to think that you may find the following notice interesting.

In a work entitled "Introductio in Chaldaicum Linguam, &c.," by Theseus Ambrosius, 1539, fol. 212 b, is given the form of conjuration by which Ludovicus Spoletanus invoked the devil to answer clearly and intelligibly a certain question about treasure and where it was to be found. Hardly had the magician laid down his pen when it was taken up into the air, and certain characters were swiftly written on the same paper—"Scribentis vero manum nullus comprehendere poterat." The author states that this was told him by one who was present, and who, moreover, left him the actual archetype, a facsimile of which he gives. Unfortunately, it was not clear and intelligible, and threw no light on the question. I believe the Bodleian Library has a copy of the book, in which the page with the devil's autograph has been pasted over, doubtless as something uncanny.

I am, Sirs, yours faithfully,

Jan. 7th, 1892. T. K. A.

INFLUENZA OR EPIDEMIC COLD.

WE are indebted to a correspondent for the following extract from the *European Magazine* of December, 1813:—

"Influenza or epidemic cold. Such is the term given by medical gentlemen to the disorder now so prevalent in this country—sometimes fatal in its results among children. 1st. Its general symptoms are rigor, or shivering, as in an ague, intense sneezing, running at the eyes and nose, hoarseness of voice, pains in the head, chest, and limbs, oppression on the lungs, and astonishingly rapid respiration at night, with intermittent fever and spasmodic affections during sleep. 2nd. Its certain cure is effected by a gentle emetic of ipecacuanha, frequently aided by small cups of some warm tea or plain water, and a dose of strong infusion of senna on the following day. An ounce of manna dissolved in half a pint of spring water may be taken in a tablespoonful at one time whenever the cough is troublesome. 3rd. The diet should be roasted apples, broths, barley-water, sago, tapioca, or weak gruel. 4th. The clothing warm, but not heavy. Flannel underdresses are highly beneficial; a flannel shift at night has proved essentially useful also. A slight coal fire in the nursery and in the bedroom is indispensable—not to heat, but to dry the air of the chamber."

Dr. Barrs.—We know of no trustworthy work on the subject.

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KING'S COLLEGE.

WE are desired by the Dean of the Medical School to ask any old students who may receive applications for pecuniary assistance to communicate with him.

Misnomer.—Our correspondent need scarcely send either a written or lithographed letter on the subject. It will suffice to explain to his friends that he is not responsible for the description, and to correct the same for next year. It would be hard to blame medical men for what appears in local directories.

Lex.—The reasonable fee per visit would be one guinea.

ERRATUM.—The name of the writer of the short paper on p. 86 of our last issue is Richard Lake, F.R.C.S., not *Robert* Lake.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Auld, Glasgow; Dr. Austin; Dr. Armstrong, Liverpool; Messrs. Allen and Hanburys, London; Mr. J. G. Barford, Wokingham; Messrs Back and Co., Bishopsgate; Mr. G. S. Bigg, London; Messrs. Bell and Son, London; Mr. Birchall, Liverpool; Mr. Burgoyne; Mr. Bamster, Darwen; M. Berthier, Paris; Dr. Barr, Liverpool; Dr. E. Blake, London; Dr. Blanc, Cannes; Dr. Barrs, Leeds; Dr. Boyd, Dublin; Mr. Brook, Swansea; Mr. Claxton, Bournemouth; Rev. Mr. Cole, Maldon; Dr. Chambers, Calcutta; Mr. Clark, London; Mr. Coghill, Birmingham; Mr. Crerar, Maryport; Mr. Clark, Seaham; Dr. Coles, Croydon; Messrs. Clark, Wolverhampton; Messrs. Capper and Newton, London; Mr. Churchill, Cumberland; Mr. David, Rhondda Valley; Dr. Dukes, Rugby; Mr. A. Doran, London; Messrs Dawson and Sons, London; Dr. Drummond, Bristol; Mr. Edmunds, London; Mr. A. G. Field; Mr. Foley, co. Galway; Mr. Ferguson, Camden-town; Mr. Foley, Wombwell; Mr. Givens, Idaho, U.S.A.; Dr. W. T. Gairdner, Glasgow; Dr. Gappy, Falmouth; Mr. Graham, Madeira; Mr. Grun, Putney; Dr. Hellier, Leeds; Dr. Haig, London; Mr. L. Humphry, Cambridge; Mr. Hodgson, Bloomsbury; Dr. Horrocks, London; Dr. Holman, Reigate; Dr. Howard, Oldham; Mr Hensley, Jersey; Dr. Haviland, Douglas; Mr. Hicks, London; Dr. Halliburton, London; Mr. Jessett, London; Mr. Jessop, Leeds; Mr. A. O. Jones, Harrogate; Mr. W. H. Knight, Nottingham; Mr. C. G. Lee, Liverpool; Mr. H. Lane, Bath; Mr. Langston, London; Mr. Linklater, London; Mr. Lawrence-Hamilton, London; Mr. Mackenzie, Broughty Ferry; Dr. Molloy, Blackpool; Mr. Maudsley; Messrs. M'Geachy and Co., Glasgow; Dr. MacDonald, Washington; Messrs. McFarlan and Co., London; Mr. Macaskio, Northumberland; Mr. MacCulloch, Guernsey; Dr. H. Menzies, London; Mr. Marriott, London; Mr. J. L. Moore, Welshpool; Mr. Mansell Moullin, London; Dr. Magennis, Lurgan; Mrs. Nash, London; Mr. E. Owen, London; Messrs. Orridge and Co., London; Dr. Parkinson, Liverpool; Dr. Phillips, Virginia Water; Mrs. Pringle, London; Dr. L. Phillips, Birmingham; Dr. Inglis Parsons, London; Dr. Pye-Smith, London; Messrs. Reynolds and Branson, Leeds; Dr. Robertson, Newcastle-on-Tyne; Mr. F. de Rause, Paris; Mr. T. A. Richardson, Croydon; Messrs. Richardson and Co., Leicester; Mr. Russell, Liverpool; Mr. A. Roche, Dublin; Dr. Ridge, Enfield; Mr. Stilliard, Birmingham; Messrs. Street and Co., London; Mr. Spink, London; Mr. Summer, Liverpool; Mr. J. C. Swift, London; Dr. A. Smart, Edinburgh; Dr. Stearnes, Hartford, U.S.A.; Mrs. Scott, Brighton; Dr. J. E. Sinclair, London; Mr. F. T. Simson, London; Dr. C. Smith, Glasgow; Signor Tempestini, Montecatini; Dr. S. J. Taylor, Norwich; Dr. Tyson, Folkestone; Dr. Dawson Turner, Edinburgh; Mr. Thin, Edinburgh; Mr. Tate, Nottingham; Mr. W. H. White, London; Mr. Wright, Stafford; Messrs. Waterlow and Sons, London; Mr. W. F. Watts, Dewsbury; Mr. C. J. B. Wallis, London; Mr. Woodland, London; Dr. Whitla, Belfast; An Old Retired Surgeon; Scrutator; T. K. A.; J. W. F.; The Clerk, Salford Union; Purchaser; Misnomer; Etiquette; Hon. Secretary, Victoria Infirmary, Northwich; Doctor, London; Secretary, East London Hospital, Stockwell; G. F., London; Secretary, Royal Portsmouth Hospital; Rotunda, London; L.R.C.P., London; Publisher, *British and Colonial Druggist*, London; Alpha, London; Secretary, Halifax Infirmary; Secretary, Royal Infirmary, Manchester; W.; Aspinall's Enamel Co., New-cross; W. B., Bridgwater; Partner, London; Sanitas Co., London; Secretary, Ancoats Hospital, Manchester.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Mygind, Denmark; Mr. Hannah, Ashton-in-Makerfield; Messrs. Margrave Bros., Llanelly; Mrs. Tyte, Minchinhampton; Mr. Pizzala, Hatton Garden; Mr. Roberts, Ludlow; Mr. Mason, Hull; Mr. Ellis, Bishop Auckland; Mr. Gilbert, Berlin; Dr. Jones, Ruabon; Dr. Adam, West Malling; Mr. Mainwaring, Kensington; Mr. Kirkham, Downham Market; Mr. Read, Bedford; Mr. Corby, Paris; Messrs. Rowntree and Co., York; Mr. Meacham, Manchester; Mr. Greenwood, Kirkby Stephen; Dr. Mongall, Glasgow; Mr. Cleveland; Messrs. Salamon and Co., Rainham; Miss Luttichau, Holloway; Mr. Williams, Market Drayton; Dr. Davies, London; Mr. Menier, London; Mr Bourke, Earl's Court; Mr. Kemp, Castleford; Mr. Lucas, Burwell; Mr. Tredennick, Salop; Mr. Ross, Guisboro'; Mr. Jenkins, Cardiff; Mr. Childs, Weymouth; Mr. Coupland, Guiseley; Mr. Jamieson, Colne; Mr. Collins, London; Mrs. Griffiths, Oswestry; Mr. Beddoe, Hereford; Mr. Roden, co. Leitrim; Mr. Garnett, Windermere; Dr. Gondoux, Villeneuve; Mr. Norman, Criccieth; Mr. Ramsdale, Patricroft; Dr. Appleton, Cornwall; Mr. Morton, Glasgow; Dr. Sellers, Rochdale; Mr. Winter, Norfolk; Mr. Macintyre, Glasgow; Miss Candy, Brixton; Mr. Drake, Launceston; Mr. Stevenson, Tientsin; Mr. Pilbeam; Mr. Ferguson, Beamish; Dr. Fraenkel, Baden; Mr. Forward, Ledbury; Mr. Moore, Folkestone; Dr. McGowan, Manchester; Mr. Halford, sen., Upper Tollington-park; Mr. Heywood, Manchester; Messrs. Hunter and Gordon, Aberdeen; Mr. Goodman, Taunton; Messrs. Greenberg and Co., London; Dr. Simpson, Islington; Professor Buchanan, Glasgow; Mr. Griffiths, Blayney; Miss Cushney, Cobham; Mr. Finlay, Longford; Mr. Johnston, Carada; Dr. Fowler, Coventry; Mr. Connop, Reading; Dr. Scott, Bewdley; Mr. Agnew, Lurgan; Mr. Bourne, Brighton; Vernon, Sheffield; M.R.C.S., London; Graduate, South Hackney; Medico, London; T. F., Oldham; Sanitas, London; Lady Superintendent, Manchester; Assistant, London; Lex; Brutus, New Cross; Homo; Manager, National Provincial Bank, Portsea; Bona Fides, London; Gabriel, Nice; L., Brecon; Secretary, Loughborough District General Hospital; Assistant, Homerton; Anderson's College Medical School, Glasgow; T. E. H., London; S. B., London; Class Rooms, Edinburgh; M.D., Sheffield; A. B., Oxford; Jeyes' Sanitary Compound Co., London; Surgeon, Devon; Miss B. T. W., Tunbridge Wells; Felixstowe, London; R., Leeds; Secretary, Wolverhampton Hospital; R., Abergele; Ego, London; F. L., London; M.D., Oldham; Medicus, Woodford; Surgeon, London.

NEWSPAPERS—*Phrenological Journal, Natural Food, Leicester Daily Post, Nottingham Evening News, East Anglian Times, Sidcup Times, Manchester Courier, Western Daily Press, Sheffield Independent, Dundee Advertiser, Bradford Observer, Western Daily Mercury, Eastern Morning News (Hull), Guy's Hospital Gazette, National Bulletin, Le Petit Journal (Paris), Melbourne Argus, Folkestone Herald, Huddersfield Examiner, Derbyshire Advertiser, Sussex Advertiser, North Birmingham News, Leeds Mercury, &c.*, have been received.

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Half a Page	2	15	0
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An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

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Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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INFLUENZA:
APPROVED THERAPY.

HOOKER'S CHLORIDE OF AMMONIUM INHALER.



THE beneficial effect of inhalations of Ammonium Chloride have been long known to the Medical Profession, and the only objection to its more extensive use has been the high cost of instruments for the inhalation of Ammonium Chloride Vapour. We have, however, at the instance of Dr. HOOKER, introduced a portable pipe inhaler. It is composed throughout of earthenware. The bowl of the pipe contains an inner vessel, perforated at the base, to promote combination of the vapours, and is divided down the middle by a septum. In the base of the bowl itself there is placed a sponge which, when saturated with water, thoroughly washes the fumes. This Inhaler possesses the following advantages over any temporary apparatus. It is extremely portable, and not liable to get out of order easily. It may be thoroughly cleansed by washing, and is moderate in price. This Inhaler may be employed by patients in any position, or while walking, sitting, or reclining. The Inhaler, together with two stoppered bottles, containing Hydrochloric Acid and Solution of Ammonium, for use with the instrument, is supplied to the profession at 5s. each.

The VEREKER CHLORIDE of AMMONIUM INHALER has been reduced in size, and is now supplied packed in an elegant little leatherette case, which makes it very convenient for patients travelling. The special advantages of this inhaler, as pointed out by Dr. MACNAUGHTON JONES (vide "Diseases of the Ear and Naso-pharynx"), are that it may be employed continuously without recharging at each time of using. It yields absolutely neutral vapour, and being simple in construction is easily manipulated by the most ignorant patient. The Vereker Chloride of Ammonium Inhaler is supplied to the profession at 5s. each.

THE MENTHOL ORO-NASAL INHALER.

This little instrument consists of a forked glass tube, fitted with vulcanite nozzle pieces. The thick part of the tube is filled with absorbent pinewood, the menthol solution or other volatile medicament being poured in at the wide end until saturation. The nasal pieces having been inserted in the nostrils, an inspiration is taken, and the air is drawn through the wide tube and becomes impregnated with the volatile inhalant. Inhalations of menthol (menthol ised air) are of the greatest value in the treatment of Hay Fever, Rhinitis, Coryza, Nasal Catarrh, &c. The Menthol Oro-Nasal Inhaler is supplied complete in case with menthol solution and camel hair brush at 3s.

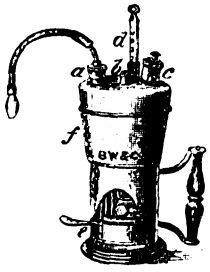




THE HOT AIR INHALER.
AS SUGGESTED BY SIR MORELL MACKENZIE.

Recommended in dry pharyngitis, *Influenza*, laryngitis, bronchial catarrh, ozæna, phthisis, &c.

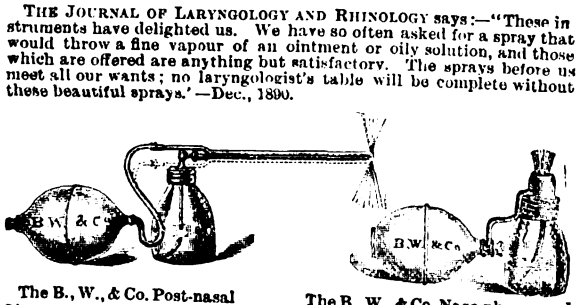
EXPLANATION.—*a*. Box with sponge for inhalants. *b*. Inlet for air. *c*. Safety valve. *d*. Thermometer. *e*. Spirit lamp. *f*. Boiler.



Sir MORELL MACKENZIE has observed in a very large number of cases that where inhalations of medicaments combined with steam are taken by patients the vapour condenses on the tongue and palate, and seldom reaches the pharynx, trachea, and larynx. Observing this defect, he has designed a simple method whereby patients can inhale volatile medicaments together with the heated air from the instrument figured in the annexed drawing. Patients who have taken inhalations of terebene and terebinthinates evidently inhale these volatile substances into the air cells of the lungs as the distinctive odour characteristic of the absorption of these has been observed in the urine four hours after inhalation. The Hot Air Inhaler (B., W., & Co.) is supplied to the Medical Profession at 14s. each.

THE B., W., & CO. OINTMENT ATOMISER.

THE JOURNAL OF LARYNGOLOGY AND RHINOLOGY says:—"These instruments have delighted us. We have so often asked for a spray that would throw a fine vapour of an ointment or oily solution, and those which are offered are anything but satisfactory. The sprays before us meet all our wants; no laryngologist's table will be complete without these beautiful sprays."—Dec., 1890.



The B., W., & Co. Post-nasal Ointment Atomiser, 8s. 6d. each.

The B., W., & Co. Naso-pharyngeal Ointment Atomiser, 5s. 6d. each.

Mr. LENNOX BROWNE recommends inhalations of menthol by these means in INFLUENZA, rhinitis, and irritable or inflamed conditions of the naso-pharynx.

Dr. MACNAUGHTON JONES ("Subjective Noises in the Head and Ears") says:—"A solution of menthol may be made by dissolving one part of menthol in Paroleine (B., W., & Co.), 7 parts; this is preferable, as it does not turn rancid by keeping. This bland, neutral, and tasteless oil is a ready solvent for all essential oils—menthol, thymol, salol, iodoform, and creosote."

Paroleine is supplied to the Medical Profession in 4-oz. bottles at 9d. each.

ICHTHYOL.

Dr. LORENZ, of the German Army Hospital Department, records in the DEU. MED. WOCH. for 1890 the remarkable preventive influence of Ichthyol in the treatment of Influenza during that epidemic. The plan adopted by this author was to make a 2 per cent. solution of Ichthyol in boiling water, and the person attacked to inhale the vapour for a period of from five to ten minutes frequently, at the same time administering internally Ichthyol in capsules (four minims each), two thrice daily. This treatment never fails to abort an attack, and at the present time in this country has proved of decided advantage for the same purpose. Ichthyol is supplied in 1-oz. bottles, at 1s. 4d. each; and the capsules (4 minims each) in bottles of 50, at 2s. 3d. per bottle.

A complete Price List and full particulars will be sent to Medical Men post free on application.

In prescribing these products please specify B., W., & Co.—e.g.,

℞ Tabloidi Ammonii Chloridi, grs. iii. Mitte xxv. (B., W., & Co.). Or,

The B., W., & Co. Naso-pharyngeal Ointment Atomiser.

BURROUGHS, WELLCOME, & CO., SNOW HILL BUILDINGS, LONDON, E.C.

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The Harveian Lectures

ON

COMMON NEUROSES, OR THE NEUROTIC ELEMENT IN DISEASE AND ITS RATIONAL TREATMENT.

Delivered before the Harveian Society of London, Nov. 19th and 26th and Dec. 2nd, 1891.

BY JAMES F. GOODHART, M.D., F.R.C.P.,
PHYSICIAN TO GUY'S HOSPITAL.

LECTURE II.

GENTLEMEN,—To-night we pass from the neurotic conditions that concern the sentient being as a whole, and which I have in consequence termed "cerebral neuroses" for want of a better term, to others that have for the most part a more local bearing. The distinction is of course an artificial one, but it enables me to group the cases better, and has other conveniences as well. We shall concern ourselves, then, to-night with troubles of the thoracic cavity, or rather with respiratory and circulatory neuroses. And the first group of cases that I have to mention is distinguished by a disposition to more or less severe attacks of paroxysmal sneezing. Such cases are by no means uncommon, and they are very troublesome. I give a short note of some. A young lady comes of highly neurotic stock. Her mother suffers from bad sick headaches, and as these have become less severe they have been replaced by other neuralgic turns. This patient's brother, whom I saw, has had curious neuralgic pains in the abdomen when a child, the diagnosis of which was only arrived at after some long period of watching. Two other of the children have bad nightmare. This child is aged fifteen; she is growing fast. She is brought for what are called bad colds, but when the account of them is detailed, the attack appears to consist of sudden severe paroxsyms of sneezing, and her nose runs freely. The attacks of sneezing are so severe that they make her quite ill, and she has to go to bed for a day or two, by which time she recovers herself, and she is well for a time. She has a thin skin, and easily gets chilblains. A second case is that of a lady of thirty, who is much troubled with violent fits of sneezing and nose-running, which last about two hours every morning. There is no doubt that she is a neurotic: she has bad headaches and noises in the ears, and she already has grey hair. Two others were women, and both were asthmatic. Another case, a man, has his attacks almost every morning, more in the cold weather than in the warm, and the cold passes off as the morning wears on, mostly soon after breakfast; but before that time is reached he has used up a couple of handkerchiefs. In a little girl of six "such bad colds come on quite suddenly in her nose" A lady of forty is always taking cold. She has been to no end of doctors about her throat, and has used all sorts of vapours and inhalations. Her fingers "die" occasionally, and when her body is warm her fingers and toes are cold. She has most bothering attacks of sneezing, and is often hoarse. The sneezing comes on mostly at night, and in consequence of it she wraps her head in a shawl whenever she goes out, and takes great care of herself; but whenever she is in a good climate she is quite well. Another case is a woman aged twenty-nine. Her maternal grandfather had hay fever and asthma. She has had bad sneezing attacks for years. The attacks commence in the early morning and go on till about 11 A.M., and then cease suddenly; she has of late had much asthma. The last case I shall allude to is that of a gentleman who has been long in India. He has had malaria once or twice, and an attack of eczema once in India, and for twenty years or more he has had severe periodical attacks of sneezing. He was sent to me for transient glycosuria, and he did not allude to his nose much. I fancy he had had enough treatment for that affection, for he had fallen (unluckily, as I think, for him) into the hands of someone who had done despite to his nasal mucous membrane by means of the galvano-cautery.

These cases are very interesting; they are closely allied to hay fever, if they be not part of the disease that goes by that name. They are closely related also to spasmodic asthma, as this case will show. A man of twenty-six has had asthma since three years old. His attack often begins in the early morning by passing from a warm to a cold room, which brings on a violent attack of sneezing. This may last from thirty minutes to two or three hours, and sooner or later seems to pass down his bronchial tubes to his lungs, and then to produce a short attack of asthma, which, however, generally passes off on taking a cup of hot coffee. I am not sure, too, that they may not have some relation with Raynaud's disease. But however this may be, the affection is a purely neurotic one, and in no one of these cases was there any local disease of the nose. Nor, indeed, if we look at the history of the attack, was there likely to be, for the attack comes on in almost all the cases with the greatest suddenness, reminding one much more of the suddenness of the explosion of a nervous discharge than of the onset of an inflammation. And I think, if we study the nature of these attacks, the more one becomes convinced that the real disease cannot be any local organic change, it comes and goes so rapidly. It has been said indeed, and I dare say with truth, that this state is immediately due to an erectile condition of the mucous membrane of the turbinated bones; but if we allow that this is so, such a state of things is, after all, only an exaggeration of a physiological condition, and in no sense a local disease. I make a great point of this, because these cases are in the present day being treated by local measures of some considerable severity. I hear of turbinated bones being removed for such symptoms as I have narrated, and more often of the galvano-cautery being applied. Now I must not say that treatment of this kind is never necessary, for "never" is a word that seems to have crept into the language of men by mistake, and almost the only time it has justified its existence, and can be used with absolute appropriateness, is when we say of it that it is never absolutely true. But I think we should remember, in making use of severe measures of this kind, that we are only treating a symptom, and from the nature of the case adopting a means that is very unlikely to prove of any permanent good. I feel bound to add that in my own opinion all means of this kind are meddlesome and bad surgery, and will never bring us any credit; I will go further, and say that they come perilously near trailing an honourable calling in the mire of quackery. In saying this I pass to another neighbouring neurosis that is not altogether above a similar suspicion—the disease that goes by the name of "clergyman's sore-throat." I must apologise to the laryngologists for putting them so much in the forefront of my offence, but I dare say they will consider what I have to say is only the result of ignorance. I suppose we all come more or less across this affection, and if your experience is at all like mine, it is of this kind: it occurs in nervous persons; they are often overworked, and want a holiday. That is a very common complaint, and requires no advice from a specialist; but it often enough occurs in the country parson who has an easy life and less than enough to do. Now I have talked to several of these people, and the complaint they make is that after a simple reading exercise such as is required by the church services, the voice goes, or more commonly, I think, that they feel exhausted. I do not remember to have seen it in anyone who has been a long-winded preacher, or in one who has the gift of energetic extempore discourse; it is a disease of the feeble lack-lustre man or of the highly nervous. From talking to them I have come to the conclusion that there are some who look upon the exercise of the voice as an exhausting thing, and that when they had gone through the very modest exertion of reading the prayers they were somehow used up and virtue had gone out of them. The idea is expressed in this extract of a letter received only the other day from a young effeminate man, who has a good voice, and is going in for singing: "I forgot to ask you," he writes, "if I may bathe and swim in the season, because I have been told that it is a very weakening pastime for one who wishes to cultivate the voice." The idea obviously is that the act of singing uses up the vital energy, and that there is no sufficiency for any expenditure on other calls. So far as my experience goes, I have examined these throats many times, and have never seen anything the matter with them; and I am certain I have seen these people having a nice time of it on the Riviera, nursing their throats, and with an air of respectable delicacy about them, when all they required was a good tonic, with the reassurance that they

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might with perfect safety return to their work if only they would take care to make it a work of their *will* and not of their *emotions*.

Now these are emphatically not the cases to put through a course of inhalations, of paints, of electric tickling—worse still, of galvano-cautery. They will go in for anything we advise them, and it is marvellous to me how docile, not to say imbecile, some of these patients are in abdicating all the seat of their reason. But in saying thus much it may perhaps be thought that I am speaking in an exaggerated way; for, after all, the voice and the throat are sensitive parts, and we have abundant evidence in great singers that most trivial causes may upset them. I do not think what I have said touches that question. A singing voice brought to the perfection of a great public singer is a very touchy thing no doubt, but the ordinary avocations of those who suffer from their throats—and though I have given it the common name, yet it is by no means confined to the clergy—ask no service that can be compared to the evolutions that a larynx of that kind goes through. The ordinary work of the voice, even for those who are called to address public meetings or talk much, is no such excessive tax. Moreover, it is no uncommon thing to find ordinary people become hoarse after reading or singing for a short time. But if their nerves are of proper string, they do not for that reason rush off to the throat doctor; rather do they bear the ills they have than fly to others that they know not of. Nor do these things mean any real delicacy: I assert most positively that they are absolutely independent of the general health, and are due no doubt to some local incoördination of the several structures concerned. This may arise from several causes. It may be from fatigue of the muscles; may be from inability to adapt the parts properly; it may be from some little swelling of the mucous surface under the stimulus of use; from a little hypersecretion under like circumstances, and so on. My own conception of the disease would perhaps be that it is a mild hybrid between a costermonger's throat on the one hand and the functional aphonia of women on the other. I mean to say that there are, perhaps, about it both the elements concerned in these diseases—a mild, very mild catarrh, we may call it, on the one hand, and a want of nerve force on the other. The former element is so slight that treatment for it is not required: and for the latter nothing more is necessary than a good nerve tonic. I have no objection to a poor hard-worked man of business or a clergyman having a health-giving time on the Riviera, or anywhere else. By all means let them have it if it be necessary; only let it be the remedy for what it is, for a general nerve fatigue. The advice could be then taken or rejected on its merits; but to say you have a delicate throat and must go here or there according as the latest fashion dictates (if it means anything), is a sort of verdict of consumption by innuendo that does not allow the man to be a free agent, and he obeys, often at the greatest inconvenience to others as well as himself, and often at considerable sacrifice. And while I am on this subject I will say that advice with reference to residence seems to be given often in the most reckless and ill-considered fashion, when we remember how little we really *know* about such matters.

I must next allude to the people who are always "catching cold." They are common enough, but here is one such: A man of thirty-nine years. He had ague in his youth when he lived down in Essex, but he has got rid of that, and has had very good health until he went to the East a year or two ago and got fever (he thinks not malarial) on his way home at Athens. Ever since then he has been subject to colds, and his subjection in this respect gets worse and worse. Sometimes he has cold in the head and sometimes it is a sore-throat. The slightest chill brings on an attack. Now colds, or rather a tendency thereto, are due to a neurotic susceptibility in almost all cases. The usual treatment for them is shielding the patient in all possible ways from all changes of temperature; and what is the result? It must inevitably be that, kept from all experience of changes of temperature, the surface loses its accommodative power, and in consequence becomes unduly sensitive to any change. Thus instead of a cure an ever-increasing liability to "colds" results. The man who attempts to keep himself in a uniform temperature in the English climate engages himself in a struggle with his environment in which he will inevitably get the worst of it, and sooner or later he will be crushed if he does not give up the fight. There cannot be any question that the diseases of which I am speaking are the products of civilisation, and that they are gradually evolved out of the trivial ills and troublesome sensations that are the common lot of mankind, by giving way to them in the first instance instead of learning to bear them, which in the end would mean not to mind them. In so far as the inability to bear them is an indication, as it often is, of an enfeebled nervous tone, so far they are proper cases for drugs; but bear in mind that it is always to be medicine *plus* good advice and rudimentary lessons in physiology, and that the latter part of the treatment is the more radical of the two.

And from this I pass to a closely allied disease, to another product of civilisation—viz., spasmodic asthma. Of course this disease may be produced in several ways, but I shall not be misunderstood when discussing it to speak of the several organic causes by which it is brought about, but simply of what is sometimes called true spasmodic asthma, because, forsooth, no definite organic cause can be discovered for its existence. I say, again, no true definite organic cause can be discovered for its production. To say that implies that we have searched for one—and I would not say have searched wrongly,—but what I would say is that in searching for a cause of this kind let us beware of becoming engrossed with the idea that there is a structural change if only we could but find it. In these latter days the search for tangible causes is so successful that it has become absorbing, and there is a definite intolerance abroad of those who talk of functional disease. No doubt, from the point of view of those who attack the citadel of ignorance *ab extra*, functional disease is a cloak for ignorance, and it is too often made the pretext for the wildest notions, the most shameless quackery, and at the best is too often obstructive to material progress. Nevertheless, grounded as I have been in the coarser facts of morbid anatomy by thirteen years' work in the post-mortem room, I consider I have a right to say that there is still a large place in the practice of medicine that is legitimately filled by functional diseases, and that probably there always will be. The huge lunatic asylums that may be seen growing up all around us go a long way towards proving the truth of such a contention, but there are many other diseases along the lines of my present subject, and spasmodic asthma is one of them. When I study this disease in a comprehensive way, it seems to me as nearly certain as can be that it is the direct result of cultivation, and in its worst forms often of our methods of its *treatment*. Asthma can be fostered and nursed into a very terrible disease, and often is so. And, on the other hand, I believe that much may be done to mitigate its severity, to eradicate it altogether, or, at any rate, to divert it into more general paths of explosion, if we make ourselves familiar with its history.

What is the history of spasmodic asthma? The first thing that I learn about it is that it largely occurs in those who have in one form or another a neurotic inheritance, or are themselves clearly of that temperament. I have gone over my own cases from this point of view, and this is the result. Of fifty-one cases (twenty-seven males and twenty-four females), nine only were not evidently neurotic. In eight the disease was hereditary; in ten there was rheumatism in the family; in five a pronounced history of megrim. In others I have noted the existence of diabetes and somnambulism in the relatives. In the patients I note such things as chorea; "a highly nervous and crotchety lady." "If anything goes wrong in business the man is sure to have an attack"; "the attack comes on after any little excitement." A girl of seventeen had convulsions when an infant; another young lady had hysterical aphonia and urticaria, and bad rheumatism at other times; another patient has had urticaria, headache, and asthma. And so the story goes all through the list. I need not take up time by going more into details. But as an amusing illustration of the extraordinary mental feebleness that may be sometimes reached where our ailments are in question, I cannot forbear to tell the following. A lady came to me for asthma, and in the course of conversation said she thought she ought to tell me everything. The confession she had to make was that she had put herself under someone who undertakes to treat disease by correspondence. I asked her what had led her to seek advice from so unreliable a source, and her reply was: "Well, I knew he must be a good man because he advertises in the '*christian*'"!

Another point about asthma has often struck me, too—

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viz., how seldom, comparatively speaking, it occurs in the lower classes of society. It is chiefly a disease of the middle and upper strata—a disease, I believe, of infancy and childhood as much as of adult life, and, I would add, ought to be confined to those stages of existence. A case of pure spasmodic asthma is quite uncommon in the wards of a hospital, and in so being may be offered as a fact in support of what I advanced in my last lecture—that it is probable that the evolution of neurotic tendencies is proceeding faster in some strata of the people than in others. And when I say this of asthma, I am not sure that in all of what I am going to call its stages of evolution it is much more often absent in the lower than in the upper classes; and, if this is true, then it may go to support my contention that the pronounced disease is eradicated in no small number of cases by the gradual hardening of the nervous system that takes place under the conditions of the struggle for existence that prevail amongst the lower sons of toil. But to make my meaning clear, I must now explain what I consider to be the different phases of spasmodic asthma.

As I look along the seven stages of human life, from its cradle to its grave, I find nothing that at first sight resembles spasmodic asthma at the early periods of life; that is under, say, three or four years. And not finding it, and, further, not seeing any evident reason for its absence, for there is nothing in its symptoms that would betoken it was a disease of a special period, one not unnaturally scans the wide plain of infantile disease, to see if perchance from this point of view some rudiment or embryonic form of the malady can be discovered. I cannot but think that a disease is soon discovered which has points of great similarity, although wanting the most characteristic feature of the mature malady, if so I may speak of it. The disease I have in my mind you all know well. I mean the common gastro-pulmonary fever that any practitioner sees once or twice in every day. Here is the sort of case I mean. A little boy four years old, who comes of a decidedly neurotic stock, and who, moreover, has shown decided evidences that as was his mother in this respect so is he, is quite well on a certain day, and ails a little towards night. His mother says he has got a chill; his father knowing more of the world, perhaps, and altogether having a more critical disposition, is not so sure that the child has not overeaten himself. Anyhow his so-called cold gets worse, a cough comes on, and he develops a sharp fever. The disease, whatever it is, quickly rolls along the bronchial tubes, and when the doctor arrives he has all the appearance of being seriously ill with a sharp attack of bronchitis. To make matters worse, apparently, he is sick several times in the course of the first twenty-four hours, and at the end of that time he is still breathing rapidly and seems very ill. Within a day or two, however, the temperature drops, the acuteness of the chest disturbance subsides, and within three or four days the whole affair is at an end, leaving the little patient hardly worse than he was before the attack commenced. Now, one acute illness of this sort tells us nothing; the disease still might be many things, and the field is left still contested. "My dear," still says the wife, "I am sure the child caught a chill," and a host of reasons are given to prove it, but the father keeps also to his opinion, and declares that the buns he saw his little glutton eating were enough to do a great deal more damage than was the case here, had not the destroying angel stayed his hand. The doctor looks on at this domestic strife and shrugs his shoulders, and departs well satisfied that the illness that threatened so seriously has proved abortive. But by-and-bye the same scene comes over again, and yet again, and the doctor at any rate grows wiser, for he learns then to know his patient's constitution, and he knows that whatever may be the *exciting* cause, the real one lies far deeper in the primordial tendencies of the child. And the experiences of general practice will tell many that I am not drawing upon my imagination in the least, but that the picture is one of the commonest that is met with in the daily round. There can be no question that these sort of attacks occur in particular families and belong to particular children; and, as I have said elsewhere, they are to my mind paroxysmal neuroses, and they are the representatives in babyhood of spasmodic asthma. For some reason or other, which I shall not even attempt to guess at, the respiratory paroxysmal neuroses put on this form in infancy and early life; while that of spasmodic asthma is characteristic of older children and adults. I think, to repeat what I said just now, that in comparison with spasmodic asthma the gastro-pulmonary fever of infancy is quite a common affection; and well it may be, if, as I say, it is the special reaction of the infantile respiratory system to nerve storms of all sorts. But its prevalence also admits of other explanations; one being that as the embryo nervous system grows in health and education it becomes less explosive, and thus the tendency vanishes. Another, that as development goes on other viscera come more into the field, the cyclone is drawn into other regions, and the pulmonary tract escapes.

Now dealing first with the treatment of these infantile cases, over and over again these children have been brought to me because their proper treatment has not been rightly apprehended, because their nature has not been recognised. They have been supposed to be due to cold and chills, and the *disease* has been *treated*, and not the *patient*. But to shield these children from every possible draught, and to keep them at home when there is the least suspicion of the wind being in the east, are not the means to cure them; such only make them worse. It is because they have been getting worse, in spite of treatment, that they are for the most part brought to me. Treatment of this kind begets a more irritable state of nervous centres, and the only way to cure them is to harden them. I need hardly go into the details of their management, they are so common sense and plain; but, in short, they are to have their bath regularly, to be warmly but lightly clad; they are to be taken out into the air as much as possible; and they are, in fact, to undergo a process of hardening and education by which their nervous susceptibilities are to be made less susceptible. As regards drugs, if they have any at all, they are to be such as give tone to the nervous system, such as nux vomica and iron. The treatment of asthma is not otherwise. You will never cure asthma by coddling. It is a local expression of an undue sensitiveness of the nervous system to the changing circumstances of its environment; a phlegmatic power of accommodation that, reacting slowly, reacts too late; and in the meantime the higher centres left unguarded by the laggard signal, and bereft of their natural protection, are stimulated too strongly, and a storm or spasm is the result. Put it in what language you like, that, I take it, is in effect what happens in spasmodic asthma. Supposing, now, that we elect to treat the disease according to the common fashion: we prescribe some local inhalation to the respiratory mucous membrane, which in some one of several ways leads to the cessation of the spasm. What happens is best illustrated, I think, by the infant, who, for each new toy, drops all its old ones; or, perhaps, by the old adage, you cannot do two things at once. The bronchial mucous membrane, stimulated by some powerful aromatic, forgets all about its previous excitement, and between the two stools the patient happily sinks to his much-needed rest. But whether stimulant or sedative, so far as regards the nervous system, the same result accrues—viz., that a sugar plum is put in its mouth and it is told not to be a bad boy again; and with the usual result—that when the sweet is gone it is soon on the look out for another, and another it gets, and so on. In more prosaic language, the mucous surface receives a something that for the time being causes it to ignore the conditions of the environment, at which it had taken offence; but the effect of the drug having passed off, it is more alive than ever to the original discomfort, and again a spasm is set up. Again the drug is repeated and the same order is observed, and so on again, and again, and again, with, however, this important difference, that the interval between the spasmodic attacks grows shorter and shorter as the mucous surface grows more hungry. I take it that the nervous circuit from lung to brain of the old asthmatic who has been addicted to Himrod's treatment or such similar compounds is the exact counterpart of the nervous circuit from nose to brain of the chronic snuffer; but the pangs of the bronchia are the more urgent.

As regards children there is something else to be said. They are not quite so often as adults treated by these patent powders; but they are very generally treated by looking on the disease as the result of cold, and they are boxed up in an over-warm apartment; they are smothered in clothes; they are not allowed to have a decent romp for fear they may get hot and take a chill; and altogether they are only too liable to live a most unhealthy life. Their most saving power, that of accommodating themselves to their environment, is nursed

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into imbecility, and then the wonder is that they grow worse instead of better. I would venture to point to a more excellent way than that; more excellent, because it is assuredly founded upon a physiological basis; and it is this, to find out by experiment where the child can live best. It is always a matter of experiment this; not the greatest authority in all the world can say for certain, for I say asthma is a functional disease of the nervous system, and it is in diseases of this sort that the individualism of the patient most crops up. Having found a place of residence, turn the child out to grass, in place of keeping it in-doors on all doubtful days; gradually accustom it to be out in all weathers, and make it as perfect an animal as can be in these days, when conventionality is part of the air we breathe, has penetrated to the inmost recesses of our homesteads, and, for aught I know, perhaps even to the pigstye. It is difficult indeed to be a healthy animal in these days; but that is the way to cure asthma in the child, and it meets with a large measure of success. I have seen ample evidence of the ill success of the coddling method to have no doubt which is the better plan, had I no other grounds; but I do believe that those other grounds that I have pressed upon your attention are not unworthy of it.

(To be concluded.)

ABSTRACT OF THE
Lettsomian Lectures
ON THE
SURGICAL TREATMENT OF TRIGEMINAL NEURALGIA.

By WILLIAM ROSE, F.R.C.S.,

JOINT PROFESSOR OF SURGERY IN KING'S COLLEGE, AND SURGEON TO KING'S COLLEGE HOSPITAL.

LECTURE II.

THIS lecture was entirely devoted to a consideration of the various operations on the different branches of the fifth nerve, Mr. Rose passing each procedure rapidly under review. The topographical and deep surgical anatomy of the parts concerned was also discussed, and the various methods of dealing with the division of the fifth nerve were explained at length. Regarding the superior maxillary division, the lecturer described the orbital method and the antral method of exposing and removing large portions of this branch of the fifth nerve. He stated that the third means of dealing with this division of the fifth nerve—viz., the *pterygo-maxillary operation*—was originally suggested by Professor Lücke. He made an oval incision extending from the outer canthus first backwards, and then downwards and forwards; the masseter muscle is then detached from the lower border of the zygoma, and turned down, whilst the zygoma itself is sawn through in front and fractured behind; so that it, together with the temporal fascia attached, could be turned upwards. By carefully dissecting down in front of the tendon of the temporal muscle the spheno-maxillary fossa was reached, and the nerve divided. The parts were then replaced, the muscle being sutured to the zygoma. The results of this method of dealing with the zygoma were extremely unsatisfactory, from the fact that the muscle usually did not unite with the bone, and hence cicatricial deformity and functional weakness were produced. Professors Braun and Lossen introduced a plan to obviate this—viz., by detaching the temporal fascia from the bone, and turning the latter downwards together with the masseter. This procedure removed one of the objections to reaching Meckel's ganglion by this route, but in order to remove the infra-orbital nerve it is necessary to make an additional incision over the site of the infra-orbital foramen. The great advantages claimed for this operation are that the cicatrix will be less obvious on looking at the patient full-face, and the hæmorrhage will be less in that the internal maxillary artery can be secured before the fossa is opened. Moreover the antrum is not opened, and the risk of septic contamination of the wound considerably diminished.

The lecturer, whilst admitting that he had never attacked the second division of the trigeminal in this way, mentioned that an opportunity had recently occurred to him whilst dealing with a case of ankylosis of the jaw of investigating on the living subject its practicability, and he had been much impressed by the ease with which it could be accomplished. He also commented on the statistics which have been published by Segond[1] of eleven cases which had been dealt with in this way by Czerny,[2] Madelung,[3] and himself, though the relief given had not been of long duration.

The third division.—After describing the surgical anatomy of the *third* or *inferior maxillary division* of the fifth nerve, Mr. Rose proceeded as follows:—

"The *inferior dental nerve* can be exposed in three situations—at its exit from the mental foramen, in the dental canal, and above the dental canal. *At the mental foramen* it may be divided by a submucous operation. Its position is easily ascertained—viz., between the bicuspid teeth. The operation, however, is not to be recommended, as the pain invariably returns. The nerve can be reached *in the dental canal* by removing a disc of bone comprising the outer layer of the jaw by means of a three quarter-inch trephine applied over its course about the junction of the ascending and horizontal rami. If the circle of bone be skilfully removed, the nerve and the artery can be seen running together in the bone, and the former lifted on an aneurysm needle. The skin incision for this operation should be made along the line of the jaw, and about half an inch behind it, never over the part to be trephined. Another somewhat similar method of dealing with the nerve is that of Velpeau, who through the same kind of incision trephined the jaw through the ascending ramus, immediately over the dental foramen. At this spot the bone is much thicker below than above, and hence the trephine should not be used when the upper part of the jaw has been divided; the remaining half circle of bone is best detached by means of elevator and chisel. Linhart operates in much the same way, but detaches the masseter by a vertical incision, which is liable, I should fear, to divide all the branches of the facial nerve there present, and consequently lead to paralysis and subsequent facial disfigurement. Gross has recommended the use of the dentist's drill as a means of destroying the nerve in the canal by perforating the jaw. The results of these operations are unsatisfactory, and I have therefore entirely abandoned this method of treating neuralgia of this nerve, always having recourse to the higher operation. The inferior dental nerve has been attacked *just above* its entrance to *the dental canal* in the lower jaw by three different methods, which we may fairly describe as—(*a*) the intra-buccal method; (*b*) the retro-maxillary; and (c) the transmaxillary.

"The *intra-buccal* method is the form the operation originally took; it was proposed originally by Lizars, and performed for the first time by Michel of Nancy in 1856. More recently it has been again advocated by Billroth, but it is commonly known as that of Paravicini." After alluding to the course taken by the nerve under the mucous membrane of the mouth, the operation was described in detail. In criticising it, the following objections were noted: first, the communication of the wound with the mouth, leading to septic contamination, and in one recorded case (Michel) to death from septicæmia; secondly, the limited portion of the nerve which can be excised (Billroth says one inch); thirdly, the difficulty of the operation owing to the want of space; and finally, the possibility of serious hæmorrhage, necessitating, in a few recorded instances, ligature of the external carotid.

The *retro maxillary* operation, or, as it is commonly called, the Lücke-Sonnenburg method, after the two surgeons who originated it, is described by Ullman, who has recently advocated its use, as follows:—The head is allowed to rest on the sound side, or even hanging down over the end of the operating table. An incision is now made along the posterior border of the jaw, and from 1·5 centimetres above the angle to the centre of the horizontal ramus. The branches of the facial nerve to the neck are the only ones of importance divided, but of course the facial vessels will need to be ligatured. The parotid fascia is now incised, and the gland drawn upwards as far as possible. The internal pterygoid muscle is detached by scissors from the mandible, and the entrance to the inferior dental canal is

[1] Revue de Chirurg., March 10th, 1890.
[2] Cent. f. Chirurg., 1882, No. 16.
[3] Berl. Klin. Wochenschrift, Dec. 21st, 1887.

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indicated by the spine of Spix, which should be carefully sought for. The nerve is isolated and divided with scissors peripherally; it is held tense with forceps, and serves, if necessary, as a ready guide to the foramen ovale.

The *transmaxillary operation* is that which promises to be the most effectual, and is, perhaps, that most generally adopted in the present day. It is usually accomplished by deepening the sigmoid notch. Inasmuch, however, as the lingual nerve can also be dealt with by this method, and since both nerves usually need simultaneous division close to the base of the skull, the description of this operation was deferred until the discussion of the methods of reaching the trunk of the nerve at the foramen ovale.

The lingual nerve.—After briefly describing the anatomical relations of this nerve, the method of reaching it through the mouth was mentioned, and unfavourably criticised, although it might be justifiable in some cases of malignant disease of the tongue. Luschka's method of reaching the nerve through the submaxillary region was detailed; but the depth at which the nerve lies was stated to constitute a serious bar to the adoption of this operation. The Lücke-Sonnenburg plan described above could also be applied to this nerve. The lecturer, however, emphatically maintained that all measures directed to this nerve alone are ineffectual, and hold out little prospect of permanent relief.

Division of the nerve at the base of the skull.—Mr. Rose continued as follows:—"Previous to describing the different methods of reaching the foramen ovale which have been proposed and practised, it may be well to examine its chief anatomical relations.

"*Surgical anatomy.*—The foramen ovale is an aperture at the root of the great wing of the sphenoid, close to its junction with the external pterygoid plate. It lies immediately behind and external to this process, and is on a level with the eminentia articularis of the temporo-maxillary joint, being placed at a depth of about one inch and a half to two inches from the surface of the face. The long axis of the foramen is directed backwards and outwards, and at its postero-external margin it is only separated by a narrow neck of bone from the foramen spinosum, which lies at the base of the sphenoidal spine, and through which the middle meningeal artery passes. It will be seen, therefore, that the foramen ovale lies midway between the base of the external pterygoid plate and the spine of the sphenoid, being covered by the origin of the external pterygoid muscle. The internal maxillary artery is superficial to both pterygoid muscles in the majority of instances, lying between the external pterygoid and the jaw and passing into the spheno-maxillary fossa through its two heads. Occasionally the vessel passes between the two muscles and thence to the fossa. This point should be kept in view in any operation upon these parts, as the early ligature of the vessel is most desirable. There is also a large plexus of veins in this region, from which troublesome hæmorrhage is sure to arise. But, however variable the vascular distribution, the dental and gustatory nerves are quite regular in the position which has been already described; emerging from beneath the external pterygoid muscle, they lie upon and are superficial to the internal. To expose these nerves in some way or other must be the first aim of the surgeon, and, this done, they can be traced to the base of the skull with comparative ease and there divided. Three different plans have been suggested and practised for reaching the foramen ovale—viz. (*a*), Pancoast's method, with various modifications as suggested by Salzer, Krönlein, &c.; (*b*) the Lücke-Sonnenburg method; and (*c*) the plan of deepening the sigmoid notch as practised by Mr. Horsley, myself, and others.

"(*a*) Pancoast was the pioneer in this department of surgery, and his first operation was performed nearly twenty years ago. It appears that only one case was treated in this way, but the operation was an important step, and is greatly deserving of record, in that it has served as a basis upon which many modifications have been grafted. He dissected up a rectangular flap comprised of the skin and masseter muscle, and with its base at the zygoma, exposing by this means the temporal tendon, which was then detached from the coronoid process. This process was next removed by cutting pliers close to the ramus of the jaw, and the pterygo-maxillary fossa opened up. The attachment of the external pterygoid muscle was then divided, the internal maxillary artery having been, if possible, previously tied. The third division of the trigeminal could thus be reached as it emerged from the foramen ovale. The disadvantages of this method are that the temporal muscle is very widely detached from the underlying bone, and that the coronoid process is removed. The operator also must have been considerably cramped in his manipulations, as the zygoma was left intact. Its removal or temporary displacement was soon added as an additional step in the operation. Again, the incision was devised irrespective of the distribution of the facial nerve, and the integrity of the duct of Stenson must have been seriously threatened. Of necessity the resulting cicatrix was extremely unsightly. Salzer operated through a curved incision, having its convexity upwards; it extended from just in front of the tragus above the zygoma, and terminated anteriorly at the lower border of the malar bone. This incision passed directly to the bones, and the zygoma was divided by the saw anteriorly at its attachment to the malar, and posteriorly in a line with the eminentia articularis. The temporal muscle was divided by a transverse incision across its fibres a little above the zygomatic arch, and the whole flap of soft tissues, including the loose piece of bone, was drawn down by scraping away with a blunt raspatory the lower fibres of attachment of the temporal muscle to the squamous bone until the pterygoid ridge of the great wing of the sphenoid was reached. Still, keeping close to the bone, by detaching the external pterygoid muscle access was gained to the foramen ovale; this was much facilitated by keeping the mouth open, as by this means the coronoid process was depressed and kept out of the way. There are obvious objections to this procedure; the operator has to work down on the nerve from above, and his manipulations are much hampered by the limited space at his disposal. Necrosis of the zygoma has moreover occurred, but it can be avoided by adopting the precautions suggested in my next lecture.

"Another modification of Pancoast's original plan is that originated by Krönlein[4] in order to reach and divide both the second and third divisions of the nerve at the base of the skull. Inasmuch, however, as this method, with the exception of the skin incision, is practically identical with the preliminary steps of my present operation for removing the Gasserian ganglion, I shall defer a full description of it until my next lecture. In brief, it consists in dividing the zygoma in front and behind, and turning it down with the masseter after releasing it from the temporal fascia; and in dividing the coronoid process with the chisel and turning it up, together with the temporal tendon. The external pterygoid muscle is then detached from the skull and the foramen ovale exposed. The foramen rotundum may be reached afterwards through the pterygo-maxillary fissure, somewhat according to Lücke's method already described. The same objection applies to this as to the former operation, in that it is an unnecessarily severe proceeding when the third division alone is to be dealt with; a similar result can be obtained by the simpler operation of deepening the sigmoid notch. But if it be requisite to divide the second division simultaneously with the third, then this plan may be advantageously employed. Such a step, however, will be rendered unnecessary if the Gasserian ganglion can be safely reached within the skull.

"(*b*) The foramen ovale has also been reached by the Lücke-Sonnenburg, or retro-maxillary operation. Ullmal[5] has recently recorded two cases in which he made use of this measure, and speaks most highly of it, inasmuch as the bones of the face are not interfered with except that it is occasionally necessary to divide the angle of the jaw and turn it temporarily outwards, wiring it subsequently; the superficial nerves divided are of no importance, the scar is placed well out of view, and the movements of the jaw subsequently are less disturbed. I have had no personal experience of this. Mikulicz and Obalinski have proposed to reach the foramen ovale in a somewhat similar way. The former makes an incision from the mastoid process along the anterior border of the sterno-mastoid to the level of the hyoid bone, and then upwards and forwards to the border of the jaw. The skin is now dissected up, and the bone, carefully stripped of its periosteum, is divided by a chain saw behind the wisdom tooth, great care being taken not to open the mouth cavity. The internal pterygoid muscle is now to be detached, and the vertical ramus can then be drawn well outwards, leaving a funnel-shaped opening with its apex at the base of the skull in which

[4] Deutsche Zeitschrift für Chirurg., xx., p. 484.
[5] Wiener Klinik Wochenschrift, June 20th, 1889.

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the nerves are readily found and traced to the foramen.

"(c) The third method, and that which I consider the best, not only for reaching the foramen ovale, but also for removing the largest extent of these trunks, is that of *deepening the sigmoid notch*, a proceeding modified by Mr. Victor Horsley from Velpeau's original method of trephining the jaw. The following description of the way in which I perform the operation is similar to Mr. Horsley's with a few exceptions, my skin flaps being curved, while his are angular, &c. It may be described as follows:—The skin is first rendered perfectly pure by previous washing with a 1-20 carbolic lotion, and any hair or down removed, the razor being carried for a short distance into the temporal region. The auditory meatus and external ear are purified thoroughly, and the former plugged with a piece of salicylic wool or cyanide gauze. The skin incision is so planned as to leave a scar as unobtrusive as possible. Commencing about the middle of the zygoma, the knife is carried backwards and downwards over the parotid region to the angle of the jaw, and then for a short distance along the horizontal ramus. A semilunar flap consisting of skin and subcutaneous tissue only should be raised and turned forwards, and for convenience temporarily stitched across the opposite side. This flap must be carefully dissected up so as not to injure any of the branches of the facial nerve. By this means are exposed the masseteric fascia, the branches of the facial nerve passing across Stenson's duct and a portion of the parotid gland. The deep fascia and masseter muscle are then divided by a transverse incision below and parallel to Stenson's duct, cutting directly down to the bone about a centimetre below the sigmoid notch. Great care must be taken not to wound any lobules of the parotid in so doing, for even though the main duct be not divided a salivary fistula may ensue, leading to interference with the healing of the wound. The outer surface of the jaw is next denuded of periosteum by means of raspatories, and the soft parts held aside by suitable retractors to allow of the application of a trephine, the diameter of which should not be less than three-quarters of an inch. It should be so applied as to leave between it and the sigmoid notch a narrow bridge of bone which can be subsequently clipped away by cutting pliers, and a sufficient thickness of bone in front and behind to preserve the continuity of the jaw with the articular and coronoid processes. Great care should be exercised in consequence of the varying thickness of the bone, the lower part being thicker than the upper; otherwise the inferior dental artery may be cut through by the trephine and give rise to troublesome hæmorrhage at a time when it would be extremely inconvenient. The disc of bone having been lifted out and the bridge of bone between the condyle and coronoid process clipped through with bone pliers, some loose fatty tissue presents and should be carefully picked away with two pairs of dissecting forceps. The tendon of the temporal muscle is thus more clearly defined, and must be held forwards if necessary. Narrow spatulæ are useful at this stage, not only to keep the wound open, but also by their pressure to arrest hæmorrhage from divided muscular branches. If the bleeding is troublesome the wound should be packed for a few moments with small pieces of sponge wrung out of hot 1 in 40 carbolic lotion, any obvious bleeding point being secured by ligature. The inferior dental artery is usually first seen, and may be secured by passing two ligatures around it with an aneurysm needle and dividing it between them. The lowest fibres of the external pterygoid muscle are seen running transversely across the wound, and require to be held upwards or carefully divided, to demonstrate the two nerves passing down from behind it. The trunk of the inferior dental nerve can then be raised upon an aneurysm needle, and the lingual found a little internal and in front of it. It occasionally happens that the nerves lie in such close proximity to one another that they are picked up together. It is advantageous to pass a silk or catgut ligature around them in order to be able to make traction upon them. It is now easy by a little manipulation with the handle of a scalpel to separate them right up to the foramen ovale, which can even be seen if the external pterygoid muscle be held out of the way. The nerves can then be divided close to the skull either by scissors or knife, and the meningeal artery should be in no danger if the nerves have been carefully isolated. Peripheral traction is also employed so as to draw up as much of the nerve as is possible, and thus a considerable portion—more than an inch—of the trunks can be readily removed. All bleeding having been arrested, the wound is carefully irrigated with some 1 in 40 carbolic lotion, and the skin flap neatly brought together with a continuous suture. There is no need to insert a drainage-tube, and as a rule healing by first intention is readily obtained. I have performed this operation repeatedly during the last seven or eight years, with comparative ease, with relief to the patient for the time being, but I must also confess that in by far the majority of the cases the pain recurred at the end of a year or two, necessitating those further measures which I shall detail in my next lecture."

(This lecture, like the former, was illustrated by diagrams representing the position of the different divisions of the nerve, and by drawings of the different operative measures alluded to.)

Clinical Lectures
ON
STRICTURE OF THE ŒSOPHAGUS,
WITH FOURTEEN ILLUSTRATIVE CASES, IN FOUR OF WHICH GASTROSTOMY WAS SUCCESSFULLY PERFORMED.

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LECTURE II.

GENTLEMEN,—In the last lecture I discussed with you fully, and illustrated to you by cases, the most common and therefore most important variety of œsophageal obstruction—namely, carcinomatous disease. To-day I will merely allude to sarcoma of the œsophagus, make a few remarks regarding benign tumours, then consider cicatricial stricture, and, subsequently, the general question of prognosis. Sarcomatous disease of the œsophagus is very seldom met with as a primary lesion, but frequently the gullet becomes implicated secondarily. This is most commonly observed in sarcoma of the lungs, mediastinal or cervical glands, thyroid gland, larynx, and of the vertebræ. Rosenbach has reported a case in which a soft, transparent, and lobulated tumour about the size of a hen's egg was attached to the upper end of the œsophagus on the right side, and which, on microscopic examination proved to be a small round-celled sarcoma. A case is also recorded by Dr. Chapman[1] and another by Dr. Lauriston Shaw.[2] In the latter case the sarcoma appeared as an ulcer with well-defined margins, and, destroying an extensive area of the mucous membrane of the gullet, eventually it perforated the posterior wall of the trachea just above the bifurcation.

Benign tumours of the œsophagus are very seldom met with in practice. It is a remarkable fact, and one not easily explained, that while the pharynx, larynx, and posterior nares are all liable to be occupied by non-malignant neoplasms, the gullet very seldom is. Indeed, benign tumours are so seldom seen in the latter situation that I do not purpose to occupy time by referring to the cases which have been recorded further than to say that cases of papillomata, cysts, fibromata, adenomata, and lipomata have been published as curiosities, and I have in this jar a remarkable example of a very large myoma of the gullet. This tumour, as exhibited in the preparation, is situated in the lower part of the œsophagus, its inferior extremity just reaching the cardiac orifice of the stomach. The tumour measures four inches and three-quarters from above downwards, one inch to one inch and a quarter from before backwards, and on an average about two inches laterally. It lies mostly free, but is attached to the posterior wall of the passage by a very thin fibrous band about an inch and three-quarters in length, and with its upper edge about two inches beneath the superior margin of the tumour. The œsophagus, at the

[1] American Journal of Medical Science, 1877, p. 433.
[2] THE LANCET, March 21st, 1891, p. 660.

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part occupied by the tumour, was much dilated, and its mucous membrane presented considerable ulceration. On microscopic examination the tissue was found to be composed of elongated spindle-shaped cells presenting the character of the smooth muscular fibre cell. The tumour was thus concluded to be a myoma or muscular tumour. With the exception of the œsophagus, all the organs of the body were normal. During life the patient, who was under the late Dr. Steven in ward 5, complained chiefly of difficulty and pain in swallowing, which, as he stated, were first experienced about two months before death. There was no actual vomiting, but when an attempt was made to swallow, the food soon regurgitated. During his stay of two months in the hospital, examination with the bougie detected an obstruction in the œsophagus. The patient, who on admission had a good complexion and was not emaciated, began after a fortnight's residence to lose flesh rapidly, till at death he was extremely emaciated.[3] Again, this other specimen, also from the museum, is an example of a simple papilloma of the œsophagus. The tumour is situated on the anterior wall of the gullet, immediately behind the cricoid cartilage, and only involves the superficial structures of the mucous membrane. During life it caused considerable obstruction to swallowing, although it is not larger than half a grape. The patient died of Bright's disease, but for a short time before death he was unable to swallow solid food, and even fluids passed with difficulty.

The diagnosis of benign tumours, unless when they are so high up as to be visible, is by no means easy. The slow development of symptoms, the absence of pain, and no involvement of the lymphatic glands, distinguish benign from malignant neoplasms, and the history of the case in respect to injury usually prevents traumatic stricture from being overlooked. When the tumour is situated high up, as in the specimen of papilloma I have just shown you, dysphagia develops rapidly; while if the growth is situated low down, as in cases of myoma, a compensatory dilatation of the gullet may occur, so that food passes, even although the tumour may have attained an enormous size.

The next form of obstruction which falls for our consideration is cicatricial stricture of the gullet. The etiology of this form of stricture is fully demonstrated by the specimens and cases which you have seen. When the mucous membrane is injured in any way, either by a wound or by the action of severe inflammation, the abraded surface separates, and granulation tissue fills the vacant space; and, as a consequence of the development of the round-celled into more highly developed tissue, contraction takes place, and the lumen of the gullet is diminished. I have here a specimen which was removed from the subject of a very distressing group of cases. Three children were left by their mother, and on the table of the house a cream jug was placed, the contents of which the young ones proceeded to divide amongst themselves, believing that it contained cream. Their ages were three, five, and ten years respectively. They divided the contents of the jug equally, and all drank it at the same time. Instead of being cream, the contents of the vessel were a mixture of sulphuric acid and ground pumice-stone used for cleaning brass. The youngest child died, but the two others recovered.[4] This preparation shows you the destructive action of the poison. I may say that when the patient was admitted the mucous membrane of the inside of the lips, dorsum of the tongue, and palate had a white appearance, as if burned by a corrosive acid, and the patient was vomiting a thick tarry-looking substance, which had a strong acid reaction. The peritoneal cavity contained several ounces of fluid, which had the appearance of a mixture of chocolate and milk, and was devoid of fæcal odour. The peritoneum also contained a quantity of gas. The stomach had been completely charred and thrown into large irregular folds, and when the slough was removed an eroded and bleeding surface was exposed. The duodenum contained a quantity of coffee-like fluid, but there was no destruction of its mucous membrane. The two other children recovered from the immediate effects of the poison, but subsequently they suffered from stricture of the œsophagus. To these cases I shall refer when speaking of treatment.

[3] The full account of this case is recorded by Dr. Joseph Coats in the Glasgow Medical Journal for February, 1872.

[4] The patients were in the first instance admitted into Dr. Wood Smith's ward, and I treated the two eldest for cicatricial stricture afterwards.

During this session you have had brought under your notice at the demonstrations four cases of cicatricial stricture, and in all of these the contraction has been caused by injury from swallowing chemicals or hot fluids. When the injury is severe or the poison concentrated, the gullet and stomach may be so destroyed that death results within a few hours. You have here two specimens of sulphuric acid and one of nitric acid poisoning. In the first two mentioned cases the acid was taken in considerable quantity and in a concentrated form, so that the œsophagus is denuded of its epithelium, and the longitudinal muscular fasciculi are exposed. In both cases death occurred within twenty-four hours. When, however, the injury is less extensive or severe, an acute œsophagitis follows, the destroyed mucous membrane becomes replaced by granulation tissue, and, as healing progresses, the cicatricial tissue contracts. The extent of the stricture depends upon the primary injury. Contraction takes place slowly, so that the usual history of the case is that while the patient suffers severe pain, and experiences great difficulty in swallowing immediately after the accident, within a few days relief comes, and he is able to swallow food easily for weeks. Then the granulation tissue begins to contract, and the patient complains of steadily increasing dysphagia. The stricture may only occupy a small area of the gullet, as in this specimen. Here a portion of the œsophagus is laid open, and a stricture is seen at its centre, where the muscular fibres are very much contracted. The stricture is caused by cicatricial contraction extending through a small area of the long axis of the œsophagus, the contracted portion not including more than a quarter of an inch of the length of the gullet. The walls are normal both above and below the stricture. In other cases the contraction may extend throughout the entire length of the tube, or there may be several smaller strictures. In all cases of cicatricial stenosis of the œsophagus, the most pronounced and characteristic symptom is difficulty in swallowing, but it must be remembered that the closeness of the stricture cannot always be judged by the amount of dysphagia. Not uncommonly, as in the cases of G. R—— and D. McA——, whom you saw at the beginning of the session, the organic stricture is accompanied by spasm.

CASE 10.—G. R——, aged thirty-one, was first seen by me in September, 1889, and since then he has been coming to the ward regularly to have a bougie passed. The history of the case is very simple and short. About two months previous to admission—that is to say, in the middle of July, 1889—he swallowed, by mistake for cream, a tablespoonful of a mixture of caustic soda and lime used for cleaning brass. Immediately after swallowing this he was seized with a severe pain in the mouth, throat, and stomach, and at once vomited the contents of the stomach. For the first fortnight he suffered from the ordinary symptoms of acute inflammation of the œsophagus and mouth — namely, painful dysphagia, dyspnœa, and expectoration of blood-stained mucus and shreds of mucous membrane. When admitted to hospital the pain was relieved somewhat, although still occasionally present in a paroxysmal form. At this time it was found almost impossible to pass a bougie, partly on account of the suffering which it caused the patient, and partly by reason of spasm induced by the presence of the instrument. For some time he had to be nourished by rectal injections, but after a fortnight's rest to the œsophagus I succeeded in introducing a small-sized bougie (No. 6), and from that time till now (March, 1891) he has had instruments passed at regular intervals, and he is thereby enabled to take a good quantity of solid and fluid food; he has gained his normal weight, and follows his occupation. In this case the obstruction includes the whole or nearly the whole length of the gullet, so that in introducing an instrument no localised stricture is detected, but if the patient fails to have a bougie introduced, say, for a fortnight, he is soon reminded of his condition by finding that he is unable to swallow solid food.

In another case which you have seen this session the stricture, although caused in much the same way, is very limited in extent.

CASE 11.—G. T——, aged forty-nine, was admitted into the Royal Infirmary on Sept. 10th, 1890. Eight months previous to admission he swallowed a small quantity of caustic soda solution, which was vomited immediately, but nevertheless he suffered soon after from a very acute attack of œsophagitis, and from that time till admission dysphagia steadily increased; so that when he came before you for the first time he could only take fluid or semi-fluid food. On

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introducing a bougie a distinct and well-defined stricture could be made out at the level of the bifurcation of the trachea. The treatment resorted to was gradual dilatation, which has been so successful that by the end of the year the patient only required an instrument passed once a month in order to enable him to swallow with perfect ease.

CASE 12.—The last case of well-defined organic stricture of the œsophagus you saw was D. McA——, aged fifty-one. He was admitted to the ward on Jan. 20th, 1891, complaining of great difficulty in swallowing, of seven weeks' duration. He states that seven weeks previous to admission he swallowed by mistake for whisky a burning liquid said to be vitriol. Indeed he had been in the habit, as a railway porter, of seeking for whisky in "returned empties," and on that particular occasion he failed to distinguish the nature of the contents of the jar until it had burned his throat, tongue, and mouth so severely that, as he says, "a skin peeled off those parts." Immediately on finding out his mistake he swallowed a large quantity of cold water, which was at once vomited, and he describes the vomited matter as being very acid in taste and consisting of "phlegm and a skin." For a fortnight after the accident he suffered from acute inflammation of the mouth and œsophagus, and the only food he took was milk and soda-water. On admission he was able to take semolina and milk, but was quite unable to swallow any solid food. On passing a bougie a long narrow stricture was found, extending from the level of the cricoid cartilage to the bifurcation of the trachea. The introduction even of a small instrument was attended with great pain and spasm. The patient was therefore fed exclusively per rectum for ten days, no food being given by the mouth, and no instruments were introduced during that time. After rest for these ten days a successful attempt was made to pass a No. 8 bougie, and two days thereafter a No. 9 was easily introduced, and so on; every second day a larger size was passed until a No. 17 was got through the stenosis. By this time the patient was able to take solid food with freedom, and was soon after dismissed, but he still comes to the hospital once a week to have a bougie introduced.

(To be concluded.)

THE BEARING OF RECENT BIOLOGICAL RESEARCHES ON THE PRACTICE OF MEDICINE AND SURGERY.

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(Continued from page 131.)

IT has often been suspected that bacteria from imperfectly sterilised skin surrounding a wound which an attempt has been made to keep aseptic were accountable for the putrefactive and septic changes that are specially prone to occur in wounds of certain parts of the body. Lister and Watson Cheyne have both insisted that this may occur, and other surgeons have arrived at the same conclusion. So important has this question become that Geppert and several workers in the Johns Hopkins University pathological laboratories have paid considerable attention to the methods of sterilisation not only of the hands of the operator, but of the skin surrounding any incision or wound. I have also carried out a number of experiments with the view of determining how far the various methods of sterilising the skin are efficacious.

Let us consider the enormous number of micro-organisms that have been described as occurring in the skin; Eisenberg[1] describes about thirty; whilst, counting all those that have been described by various observers, the number amounts to something over one hundred. These organisms have been found in and beneath the dead epithelium, around the hairs, and, more important still, embedded in the fatty material of the sebaceous ducts and follicles, and it is often a matter of the very greatest difficulty to wash away even a small quantity of the organism-holding substances. It is a matter for little wonder, therefore, that with merely ordinary precautions suppurating points should occur where stitches have been introduced, or even at the lips of the larger wound itself. Many of these organisms, of course, have little or no effect in producing suppuration; but, as we learn from those who are specially interested in the study of skin diseases, the staphylococcus pyogenes albus and the staphylococcus pyogenes aureus and certain other pus-producing organisms are very frequently met with in the skin, and under certain conditions play a very important part in the production of pustular eruptions. I myself have frequently separated from the cloudy serum of herpes vesicles both of the above forms; whilst only the other day I was told by Dr. Eddowes that previous to the examination of a patient suffering from an impetiginous eczema he had wrenched one of his nails slightly from the matrix. He examined the patient, washed his hands carefully, but took no special antiseptic precautions, with the result that a small abscess formed very rapidly, from which he obtained an almost pure culture of staphylococcus pyogenes aureus. These organisms, then, present in the skin may be the cause of some of the unexplained suppurations that now and again occur. I should here like to point out that even this danger may be guarded against by the use, first of all, of a liberal application of soap and warm water, followed by a good scrubbing with a mixture of alcohol and ether, and then by the use of some ethereal antiseptic before the operation is begun.[2]

As yet, however, there is not a practical method of keeping the skin perfectly aseptic for any lengthened time, and for this reason any method of dressing that allows of free evaporation of moisture from the cutaneous surface will probably give better results, in some cases at any rate, than where the moisture is kept in and has to pass over a considerable surface before it comes in contact with the atmosphere. Welch[3] and Halsted maintain that many of the small stitch suppurations are due not to tension, but rather to the presence of a staphylococcus, which they speak of as the staphylococcus epidermidis albus, which is very frequently present in the skin, an organism which is assumed to be very like, though probably not identical with, the staphylococcus pyogenes albus; there can be little doubt that in some cases at least this or some similar organism is accountable for the suppuration that is set up.

On the other hand, Surgeon W. Grant Macpherson, A.M.D., in a series of experiments carried on with what were supplied as aseptic sutures, has shown that even in the hands of the best instrument makers aseptic sutures contain various micro-organisms, and he maintains that the organisms in these sutures may in some cases be accountable for the small stitch abscesses that occur around wounds. So frequently has this occurred that some surgeons have recommended the use of deep sutures, first of all to take the strain off the superficial stitches, and more recently because it was thought that the abscesses were due to the presence of pyogenic organisms in the skin around the sutures, along which, as the distance was short, the organisms could readily pass to the main wound. Of course it is only in exceptional cases that we have to deal with such points; but the exceptional cases are those which present most difficulty, often taxing to the utmost the skill and ingenuity of the surgeon; and the more these exceptional cases can be brought under general rules for treatment, the greater will be the improvement in surgical treatment, and especially in conservative surgery.

I have already spoken of the invasion of the blood and of the tissue by micro-organisms from the alimentary canal and from the respiratory tract. As there are as many organisms described in these positions as on the skin, it is not to be wondered at that surgeons have often suspected the entrance of organisms into their wounds by these tracts. There have been at least one hundred organisms described by different observers

[1] Bakteriologisch-Dignostik. Hamburg and Leipzig, 1891.

[2] The want of knowledge of the difficulty that is involved in this cleansing of the skin has on several occasions led to very erroneous conclusions, especially where attempts have been made to isolate the organisms associated with special diseases, the mistakes made in two series of observations (at least) depending on imperfect cleansing of the skin where it has been necessary to obtain blood or fluid through punctures of the skin, and we are compelled to come to the conclusion that some of the so-called scarlatina and leprosy bacilli are nothing more than forms of bacteria that are frequently found in the skin under perfectly normal conditions.

[3] Loc. cit

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as being found at some time or another in the mouth alone, whilst others have been found under different conditions in different parts of the alimentary canal and in the lungs. So important a part do they play that it is now maintained that the ring of lymphoid tissue at the upper end of the pharynx, the most highly developed part of which is the pharyngeal tonsil, is placed specially to act as a kind of defensive outwork to prevent the entrance of a large number of micro-organisms that are present in the mouth; whilst it is further maintained that the lymphoid tissue so universally present throughout the alimentary tract is placed there for a similar purpose. Whilst these are acting normally no micro-organisms can make their way into the tissues, but once this tissue is removed, or by disease is rendered incapable of doing its work, the entrance of micro-organisms is allowed, and if the tissues are below par, or if there are dead tissues at any point in the body, an abscess may be the result. To indicate the importance of this, "the first line of defence," one has only to recall cases resulting from necrosis or suppuration of the pharyngeal glandular tissue in scarlet fever, diphtheria, and similar diseases, conditions which are often followed either by acute septic poisoning or by regular pyæmic conditions; or those cases of enteric inflammation where there is destruction of the lymphoid tissues—a condition which is so frequently followed by similar septic and pyæmic conditions. It may be accepted as a general rule that in no surgical cases should bacteria or their products be allowed to remain unchanged for any length of time in the alimentary canal. The older surgeons had great belief in the use of purgatives; it was said that purging was an antiphlogistic treatment, and so it is. Not only are the effete products of the body removed, but the bacteria and their products which flourish in this effete matter are also got rid of by judicious purgation. On the other hand, it must be remembered that any over-stimulation of the intestine exhausts the cells and so weakens them as defensive agents. Whilst on this subject, though it properly comes in under the next heading, it may be pointed out that the maintenance of the excretory organs in good working conditions is one of the most important elements in the success of antiseptic surgical treatment. Even from the point of view of the most ardent believer in phagocytosis this will be admitted; whilst those who believe in the microbicidal action of the fluid elements of the serum will be equally ready to accept it. Not only do the effete substances of the tissues, if retained for any length of time, exert a poisonous action on the tissues themselves, but all poisonous products of certain bacteria formed within the body, and certain poisonous substances taken into the body from without, are all excreted in the same manner; for instance, if cholera poison is injected subcutaneously or intravenously, hæmorrhages will be found to occur in parts of the alimentary tract; whilst following the exhibition of other poisons, although no regular hæmorrhages occur, intense congestion is found, and the poisonous substance is found in the alimentary canal, showing that in both cases an effort has been made on the part of the organism to get rid of the poison by the ordinary excretory channels. This being the case, it is of the very greatest importance that the intestinal tract especially should be kept free from accumulations of effete matter: first, in order that such matter may not be reabsorbed; and secondly, to allow of a free passage outwards of any substance which may interfere (a) with the free action of the leucocytes and of the other cellular tissues, and (b) with the normal constitution of the fluids of the body.[4]

The third factor in antiseptic surgery is the cultivation of the *vis medicatrix naturæ* by which the tissues are to be placed under the best possible conditions, so that the phagocytes or the blood serum may exert, to the full, their special protecting powers. As is well known, anæmia (where the quantity of blood is small, or the blood is vitiated) may be a powerful factor, indirectly, in the production of pyæmic and septic processes, and any method of preventing the loss of blood, short of depriving the tissues of their blood-supply for lengthened periods, is of direct assistance to the surgeon who wishes to keep his wounds aseptic. Similarly, good ventilation acts not only directly in interfering with the growth of pathogenic or pyogenic organisms from wards, but also by improving the general health of the patient; whilst good nutrition and efficient excretion, as already mentioned, play an equally important part in maintaining the resistant powers of the tissues or of the cells of which they are composed. There can be no doubt that this element of tissue nutrition had been early grasped; and Sir James Paget, from his enormous experience and keen observation, came to the conclusion thirty years ago that septicæmic patients treated in the open air, in tents, stood a far better chance of recovery than those treated under ordinary conditions; whilst in our own time physicians who have ordered their patients suffering from phthisis to live out in the open air as much as possible—as, for instance, in Egypt, or camping out in the Adirondack—have obtained better results than by any other method of treatment. In all cases the object is so far to nourish and strengthen the tissues that they are able to carry on their functions, to destroy and eliminate invading organisms and their poisons, and under stimulation to form new organising tissues instead of undergoing retrogressive and degenerative changes.

Lastly, in antiseptic surgery it is necessary to remove and keep from the region of the patient, from dressings, from the instruments used—in fact, from everything which may come in contact with the wounded tissues, from the hands of the surgeon downward—all organic and other matter which might possibly harbour putrefactive or septic germs. The first end may be obtained by thorough cleanliness and the use of hot water and alkalies, either in the form of soaps or lyes, to get rid of all fatty or other organic matter which may have accumulated. (It must be remembered, however, that where blood or other albuminoid substance is present careful washing with cold water will be much more effective than when hot water is used.) It is a somewhat difficult matter to apply moist heat to instruments because of the difficulty of preventing rust in the presence of moist air maintained at a high temperature; whilst, on the other hand, if dry heat be employed, a temperature of 150° C. is necessary for the destruction of spores in the dry condition, and this plays such havoc with the handles of instruments that even those who have appreciated its other advantages have been compelled to relinquish its use. Now, however, many sterilisers, in which steam is used for this purpose, have been perfected.[5] The greatest attention should also be paid to the cleansing and disinfecting of the hands of the surgeon, and here it may be pointed out that any amount of washing with chemical antiseptics cannot take the place of soap and water and other material used for the removal of dead epithelium and sebaceous or other fatty material, both of which, as we have seen, form such a favourable nidus for the harbouring and development of micro-organisms. As regards ligatures and sutures, from observation of a large number of experiments carried on by Surgeon Macpherson, I am satisfied that many of the so-called aseptic ligatures are thoroughly unreliable, and that such a substance as silk, for instance, is a better ligature before it has been treated by special methods than afterwards, from the simple fact that the men who use perfectly good methods of sterilisation do not understand the object to be attained, and therefore introduce some slight modification or manipulation of their own which vitiates the whole process. I agree, therefore, with those surgeons who hold that, in order to obtain good results, ligatures should be prepared under the supervision of the surgeon himself or of someone in whom he has the utmost confidence. It is for this reason that those who use boiled silk or pure silk direct from the hands of the manufacturers by whom the fibre has been submitted to the action of most powerful chemical substances, such as acids, chlorine, &c., often obtain better results than where special antiseptic substances have been used. As regards sponges, the difficulty of getting nurses and dressers to pay strict attention to the directions given for sterilising and keeping

[4] It was supposed at one time that these hæmorrhages found in cases of acute poisoning were due to the direct action of the poison on the mucous membrane as it passed from the stomach and along the alimentary canal, but it has now been proved that these poisonous substances are frequently absorbed in the first part of the alimentary canal, and that they are again excreted lower down, where they give rise to the conditions above described.

[5] Of all those I have seen tried, the most convenient and at the same time one of the best and most economical is that devised by Mr. C. W. Cathcart, F.R.C.S., of Edinburgh. Instruments cleansed and heated therein and then placed in a tray containing weak carbolic acid solution may be used without fear of their bringing any contamination to the wound.

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them sterile are so great that I believe the plan now adopted by many surgeons of using pledgets of cotton wadding which have been wrapped up in paper and subjected to a dry temperature of 150° C., and then wrung out in dilute antiseptic solution, is preferable to any other that has been suggested.

When we come to the consideration of the dressing of the wounds and of keeping the surroundings of the wound aseptic during operation, another factor enters into our calculations; a dressing must be aseptic in order that nothing coming in contact with the wound may introduce septic material, but to be a perfect dressing it must also be permeated with a quantity of an antiseptic substance sufficient to saturate the fluids which come from the wound through the dressing, and to render these albuminous fluids when they arrive at the surface incapable of serving as nutrient media for the growth of organisms. For this reason, and from experience of a considerable number of cases both in wards and in experimental work, I am satisfied that the very best results are obtained where the following points are attended to—viz., a dressing should be as absorbent as possible; all material used in its manufacture should be thoroughly sterilised; it should then be impregnated with a soluble antiseptic; it should be of sufficient thickness to absorb in its deeper layers all fluid discharge; and it should be changed or added to whenever the discharge comes near the superficial layers. Evaporation should be allowed to go on freely from the outer surface in in order that the moisture, without which organisms are placed at a great disadvantage both as regards development and power of movement and facilities for transportation, may be carried off, in order that the conditions of healing under the scab may be approached as nearly as possible under these artificial conditions. It is, at this date, scarcely necessary to point out that everything around the patient during an operation should be perfectly aseptic, and should be so saturated with antiseptics that when an instrument is laid down it will not be contaminated, and that anything settling thereon shall not only be acted on by the antiseptic, but shall be prevented from making fresh excursions during which it might possibly reach the wound. If these points are attended to, flushings and sprays may be of little additional use; but we must bear in mind that both these agents help in no small degree to the keeping up of those antiseptic surroundings which are so important a feature in the successful treatment of wounds. Of course it has been objected, and will be objected, that many surgeons are able to obtain a large proportion of successful results without the use of antiseptics; some even maintain that antiseptics do more harm by their presence in the tissues than they do good outside; and so they may when not properly used, though against those who understand the principles of antiseptic surgery this is a reproach that can never be substantiated. Those who disavow antiseptic surgery frequently use, without exception, one of the most potent antiseptic agents that we have at our command—heat; they heat their instruments most carefully, and many of them boil the water used for cleansing and flushing purposes. They are also impressed with the necessity there is for cleanliness, for very fortunately no school of surgery can claim a monopoly of this; the only claim that antiseptic surgery can make on this head being that it makes a demand for a more detailed cleanliness than does any other school. As regards damaging the tissues and interfering with their antiseptic powers, many of our brilliant operators who do not believe in antiseptic surgery, undoubtedly reduce this to a minimum, and thus in comparatively healthy operation cases obtain favourable results, and with less suppuration than where antiseptic substances are introduced into the wound, irritating the tissues and impairing their vitality. There is no system of aseptic surgery which is not based on the use of antiseptics in some form or other, and the more completely we recognise this principle, however we may have to modify the methods and detail (discarding the term aseptic as too narrow and incomplete), the more satisfactory will be the results obtained.

(To be continued.)

WELLINGTON COLLEGE.—Owing to the present insanitary condition of Wellington College the next term will be carried on at Ilfracombe, where it is contemplated to secure two large hotels for the accommodation of the staff and students.

CASE OF A BRONCHIECTATIC ABSCESS DUE TO THE IMPACTION OF AN O'DWYER'S TUBE.

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AT the end of March, 1891, P. P——, male, aged seventeen years and a half, came to me with the following history. On the previous day he had been walking behind a van which tilted over on one side owing to a wheel getting into a rut, and a projecting piece of wood struck him on the front of the neck and the under surface of the chin. He had had pain in the throat since and some difficulty in swallowing. There was a small cut through the skin over the lower surface of the symphysis menti, but no other mark of injury. A week later the pain was more severe, and was referred to the region of the thyroid cartilage. There was tenderness on pressure over this area, and the voice was husky. The temperature was 101°, and a cough had set in accompanied by mucoid expectoration. A week later he was much worse. The breathing was loud, quite audible across the room, and was evidently due to some tracheal obstruction; a slight laryngeal stridor was also present. At times there were suffocative attacks, especially during the night. The temperature continued between 101° and 102°; the cough was frequent, of a very exhausting type, and there was expectoration of frothy mucus in large quantity. Sweating was frequent. There was nothing abnormal found in the lungs, heart, or other organs. He was sent to a general hospital, where laryngotomy was performed on the morning after admission, with partial relief to the dyspnœa. His condition remained very critical for some weeks, but eventually the laryngotomy tube was removed, and intubation of the larynx was employed for the relief of stenosis, which had supervened. During a fit of coughing the string attached to the tube broke, and the tube passed down into the trachea. Several efforts were made to remove it, but unsuccessfully, and he became an out-patient at the end of July.

On August 14th he came to me again. He had been at the seaside for ten days, had put on flesh rapidly, and was looking strong and robust. The breathing was loud, of a combined laryngeal and tracheal type, quite audible across the room, and louder after exertion or coughing. The voice was very husky. He had a frequent cough, accompanied by expectoration of pure pus, sometimes amounting to fifteen ounces per diem, not offensive, and in which no tubercle bacilli could be found. Laryngoscopic examination showed marked narrowing in the region of both the false and the true vocal cords, the latter forming a small oval aperture which did not increase or diminish in size during respiration. The anterior end of the opening lay rather to the left of the middle line. As regards the chest, the respiration was regular and easy; expansion was equal and good on both sides; the note was hyper-resonant all over; the breathing was loud blowing, evidently conducted from the upper air passages, and more marked on the right side; and a few scattered râles were occasionally heard. The only evidences of acute mischief were the coughing, which was at times accompanied by attacks of dyspnœa, and the profuse expectoration of pus. Apart from these, he expressed himself as being in the best of health, and was out in the open air the whole day when the weather was favourable.

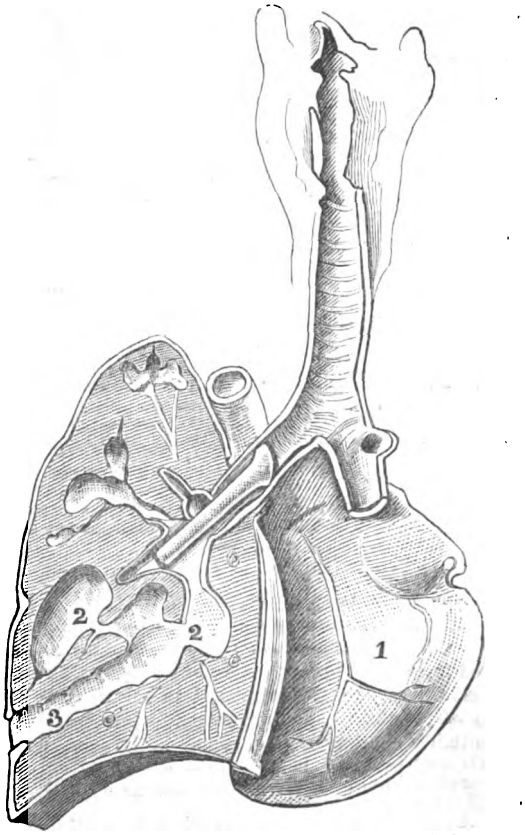
On my return to town on Sept. 23rd, I found him to be much worse, and obtained the following history: Until fourteen days ago he had continued very well, when he was seized at night with a violent fit of coughing which lasted three hours. During this attack he felt something move in his chest, and the breathing suddenly became quiet. He had not been out of bed since, and had lost flesh rapidly. The cough had been more constant, with profuse purulent expectoration, sweating, and sometimes sickness. The decubitus was entirely dorsal. If he sat up or lay on his right side violent continuous coughing set in; if he lay on the left side, he felt as if his heart were stopping. The breathing was very much quieter, with the tracheal

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element quite gone, and, after coughing, rather wheezing in type. The voice was husky as before. The temperature was 102°, and there was much sweating at night. There was some flattening and drawing in of the left side of the chest, specially marked in the axilla, and expansion was very much diminished on the same side. He stated that he had felt something move in his chest on the left side, slightly to the left of the sternum and about three inches from its lower end. He had pain occasionally in the same spot still. There was a distinct wave of pulsation over the whole cardiac area with each beat, and the apex was felt in the fourth intercostal space, just outside the nipple. Over the whole of the left side of the chest there was dulness, well marked, with bronchial breathing which was most intense over the upper lobe, No accompaniments were heard, and vocal resonance was slightly increased. The right lung was hyper-resonant on percussion, and the breathing was harsh vesicular, with occasional rhonchi. The general symptoms continued, and further examination of the chest showed loud blowing breathing at the inferior angle of the left scapula, with metallic râles and whispering pectoriloquy. Dr. Leonard Guthrie kindly saw the case, and diagnosed a bronchiectatic cavity in the lower lobe of the left lung. The expectoration was intermittent; at times a large quantity of pus would be brought up with severe paroxysms of coughing, and there would be a cessation of both expectoration and cough for some hours. He continued to lose flesh and strength. The expectoration at times was very fetid; the temperature was very irregular, often up to 101·4°; and operation was decided on. As he absolutely refused to go into hospital, Mr. H. L. Lack kindly undertook to operate at the patient's house. On Oct. 10th, the patient being under chloroform, Mr. Lack resected three inches of the sixth rib on the left side in the axillary region. On opening the pleura a very small quantity of clear fluid escaped; the lung was very collapsed, and there were no pleural adhesions around the opening. It was resolved accordingly to wait until adhesions had formed. On the 19th the patient was again chloroformed, and Mr. Lack proceeded to explore the lung. Having made a small slit through the visceral pleura, he introduced an aspirating needle in different directions. On passing it backwards some offensive pus was obtained, and on enlarging this opening he was able to introduce his finger into an abscess cavity. It seemed to pass backwards and upwards, but extended beyond reach of the finger. No foreign body could be felt with the finger or probe. The cavity was packed with cyanide gauze, as was also the pleura around the wound, the recent adhesions having given way under manipulation. There was very little bleeding, and the patient stood the operation well. On the first dressing, a large drainage-tube, four inches long, was introduced into the abscess cavity. The temperature improved after the operation, and remained under 100°. The drainage was good, and the expectoration and cough were very much lessened. Mr. Lack again examined for a foreign body in the lung, but failed to find any. On the 30th there was some hæmorrhage into the dressing, and the cough was more troublesome owing to a bronchitic attack. There was very severe hæmorrhage from the lung on removing the drainage-tube three days later; and on Nov. 7th, while he was lying quietly in bed, the bleeding recurred, and proved fatal almost immediately.

A post-mortem examination was made on the following day. There was marked stenosis of the glottis, with congestion all along the trachea, but no marks of injury or abscess apart from the cicatricial tissue at the site of the laryngotomy wound. The right lung was much hypertrophied, somewhat emphysematous, and passed well over to the left of the middle line. On the left side there were pleuritic adhesions round the lung, very firm around the upper lobe and the base of the lower. The left lung was very small and dark in colour. On opening the left bronchus an O'Dwyer's tube was found (size No. 3, length two inches and a quarter), the head lying three-quarters of an inch below the bifurcation of the trachea, and the body passing down into the bronchus leading to the lower lobe. On passing a finger into the operation wound, it entered directly a large cavity in the lower lobe, and touched at the upper part the inferior extremity of the O'Dwyer's tube. The greater part of the lower lobe was destroyed by the abscess, and the part remaining was collapsed and airless. The abscess was smooth at the upper part, the wall of which was formed of the dilated bronchus, and soft and irregular in the lower part; the smaller bronchi around were dilated and surrounded by soft and easily broken-down lung tissue. The tube was lying free in the bronchus; and on removal it was seen that the head had eroded through the bronchial wall, and was separated from the pulmonary artery by a thin layer of fibrous tissue. The left upper lobe was collapsed and solid. The bronchus leading to it was blocked by the side of the tube, which lay immediately over it, and the smaller bronchi were dilated. The abscess cavity and upper air passages were filled with blood, but the exact site of the hæmorrhage could not be determined. The other organs presented no special points of interest.

On looking at the above case in the light of the post-mortem evidence some of the difficulties are cleared up, but others still remain. The original injury, trifling to all appearance, was followed by pharyngitis, laryngitis, and tracheitis, accompanied by cough, dyspnœa, and profuse mucoid expectoration. What was the lesion? On surgical examination, nothing abnormal was found about the region



Vertical transverse section of left lung, viewed posteriorly, showing the tube *in situ*. 1, Heart. 2, Bronchiectatic abscess. 3, Track of operation wound.

of the neck. There was no evidence post mortem of sufficient disease in the upper air passages to produce these symptoms. Dr. Lees has suggested to me that there might have been an injury to the vagus or its branches at the time of the accident. This, along with a traumatic inflammation of the larynx and trachea, seems the most probable explanation. The lesion of the vagus or its branches would explain the profuse exudation of mucus into the larynx and trachea, where, even after laryngotomy, it accumulated to such an extent as to threaten the patient's life, and necessitated on more than one occasion the use of artificial respiration. The audible breathing, which came on about a fortnight after the accident, was evidently due to tracheal obstruction, being of the type most commonly heard in connexion with aneurysm of the aorta. It persisted after laryngotomy was performed, and was probably caused by the accumulation of viscid mucus in the trachea. Another point of interest is that for

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three months the O'Dwyer's tube lay in the air passages without causing any symptoms by which its presence could be recognised. When he was sent out of hospital, the entire absence of any sign of it, after a most careful examination of the chest, led the authorities to believe that it had been coughed up and swallowed; and when he came to me a month later the chest condition was the same, and it was only from the purulent expectoration, the cough, and the loud breathing that I concluded that the tube was still there. Where was the tube at this time? I believe it was in the trachea. In support of this view there are the following facts:—(1) The audible breathing, the source of which could be localised by auscultation in the trachea; (2) the entire absence of signs pointing to its presence in a bronchus; (3) the sudden cessation of the loud breathing, which never recurred, after a severe fit of coughing; and (4) the onset immediately after of signs pointing to a block in the bronchus and collapse of the lung. On the other hand, it must be stated that in hospital the trachea was explored through the laryngotomy wound both by the finger and a probe, and that inversion was employed, with, in all cases, a negative result. As regards the operation, Mr. Lack proposed the resection of several ribs so as to allow of a thorough examination of the lungs, but I considered that the weakness of the patient was such as to render this unadvisable. Had the tube been reached through the operation wound, it would have been impossible to remove it by the same route without great danger of rupturing the important adjacent vessels. I have to express my great indebtedness to Dr. Leonard Guthrie and Mr. H. L. Lack for their generous and valuable assistance, and to Dr. H. G. Adamson for the drawing of the above engraving.

Carlton Hill, N.W.

EXPERIMENTAL RESEARCH ON TINNED PEAS, GREENED WITH SULPHATE OF COPPER, AND THE PHYSIOLOGICAL ACTION OF THIS SALT ON ANIMALS.

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AND
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WE received for the purpose of this research four tins of peas from the sanitary authorities of Glasgow on Dec. 1st last, and on the same day commenced our examination of these on the following lines: 1. To determine that copper existed in the samples of peas we had obtained. 2. To find out their digestibility when placed in solutions similar to those of (*a*) gastric and (*b*) pancreatic juices, and also the digestibility of albuminate of copper in the same solutions. 3. To ascertain the physiological action of sulphate of copper on animals. Under these headings we will now give details of our experiments.

1. A tablespoonful of peas was taken from a tin which had been kept for ten minutes in boiling water and placed in a glass mortar. They were then acidulated with a little hydrochloric acid and crushed to a pulpy consistence by a glass pestle. The mass was then transferred to a platinum crucible and a zinc rod inserted through it, so as to touch the bottom of the crucible. A distinct deposit of copper was observed on the crucible, when, after the expiration of four hours, it was emptied and washed.

2. A tablespoonful of peas from the same tin, after being masticated, was placed in a glass vessel containing 4 oz. of water. To this were added 0·7 per cent. of pepsin and 0·2 per cent. of dilute hydrochloric acid. A tablespoonful of peas from the same tin was also masticated, placed in a vessel containing the same quantity of water, and to this was added a solution of pancreatin and carbonate of sodium. Both vessels were put on a sand bath and a uniform temperature of 99° F. maintained. At the end of an hour in the case of the gastric solution, and after an hour and a half the pancreatic solution was tested for peptone by the biuret test. In both cases a distinct red colour was observed, thus showing that digestion had taken place. A control experiment, in which no digestion had taken place, similarly tested, showed only a violet colour. The filtered fluid from the gastric solution was tested for copper by the insertion of a steel knife. After three hours this was taken out, and a distinct deposit of copper was observed on both sides of the blade. Mr. Tatlock, analyst for the city of Glasgow, testifies "that when an ounce of coppered green peas in a solution of ten grains of a peptonising powder and ten ounces of water is digested, the copper is dissolved out to the extent of 0·52 grain per lb. of the peas, which is equal to 2·05 grains of crystallised sulphate of copper." Mr. Clarke's analysis indicates a similar result. Doubtless sulphate of copper, however administered by the mouth, forms in the stomach an albuminate of copper which is rendered soluble by the digestive process. Yet as some strong statements have been made denying the possibility of this occurring, we now resolved to try the digestibility of an artificial albuminate of copper made (*a*) from white of egg and a weak solution of sulphate of copper, (*b*) made from curdled milk and a weak solution of sulphate of copper. These albuminates were dried, and a piece of each about the size of a lentil was placed in (*a*) solutions of pepsin and hydrochloric acid, (*β*) solutions of pancreatin and carbonate of sodium. The solutions were placed on a sand bath, and a temperature of 99° F. maintained.

Egg albuminate of copper.—Evidence of digestion commenced almost immediately in the acid solution, the blue colour first gradually disappearing, and at the end of one hour and ten minutes the digestion was complete. In the alkaline solution the disappearance of the blue colour was also observed, but the digestion was longer—viz., two hours.

Casein albuminate of copper.—With this albuminate the rapidity of the process was reversed, for it was completed in an hour in the alkaline solution, and at the expiration of two hours in the acid solution. Neither of these albuminates dissolved in strong acids, and this obvious fact has been by some observers brought forward as a test of their insolubility.

3. *Physiological action of sulphate of copper on animals.*—On Dec. 8th a full-grown rabbit was put into a basket, and a piece of bread spread with a paste of albuminate of copper was placed beside it. No other food was given. On the 9th the animal had eaten the greater part of the bread, and we calculated had taken seven grains of sulphate of copper. It was sickly, refused food, and dragged its hind extremities when it attempted to cross the room. The same day it was killed, the liver and kidneys taken out, cut up into small pieces, and two ounces of water and one drachm of sulphuric acid were added to the comminuted organs. Heat was applied for half an hour, and the fluid was filtered. A portion of this fluid was placed in a platinum crucible, and heat was used until the organic matter was burnt off. Strong nitric acid was added to the residue until it became of a pasty consistence, and a distinct deposit of copper was observed on the top of a steel knife which was placed in it. On Dec. 11th a full-grown rabbit was fed with greens over which a solution of sulphate of copper, seven grains to the ounce of water, was sprinkled, the greens being subsequently dried. By the next day the animal had taken the greater part of the greens. It was sickly and refused food, and did not move about easily. On the same day it was killed, and the organs similarly treated as in the former experiment. A copper deposit was also observed on a steel knife placed on the paste after the organic matter had been burnt off, and the residue treated with nitric acid. Into a portion of the filtrate kept for this purpose a needle was inserted, and at the expiration of twenty-four hours a deposit of copper was observed. The needle was again inserted and withdrawn after forty-eight hours, when it was found to be completely covered with copper.

We were, so far, satisfied with the results which accrued from its administration when given to rabbits, as these evidenced its absorption into the system; but as these animals are rather dainty in regard to their food, we resolved to try its action on a pig, which, as everyone knows, will swallow almost anything placed before it. As our time was somewhat limited, we gave sixty grains of the sulphate of copper in milk and meal to a young pig weighing nine pounds; but, contrary to our expectations, the animal refused this food for twenty-four hours. Therefore on Dec. 12th we made a weaker solution (ten grains to the ounce of water), and when this quantity was added to the milk and meal it was taken easily. The same quantity, ten grains, was taken for four days, and then the animal was killed. The liver and kidneys were boiled with water and

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strong sulphuric acid, and a knife was placed in the filtrate. At the end of eighteen hours the knife showed, to the extent of its immersion, two inches, a complete covering of copper on both sides. The evidence of experiments 1, 2, and 3 was shown in court and their significance explained to Sheriff Birnie, who tried the case at the instance of the sanitary authority of Glasgow. The evidence for the prosecution and the defence is fully and correctly given in the *Chemist and Druggist*, in its issues of Jan. 1st and Jan. 15th. A careful reading of each shows that the evidence for the defence in no way traversed what we had done, and which was supplemented by such well-known chemists as Messrs. Tatlock and Clarke. Yet, in deciding for the defence, the Sheriff stated that "no new evidence had been brought forward." By his decision he sanctioned the use of a strong irritant metallic poison in food intended for consumption by human beings, the amount of which is not fixed, but is left to the discretion of foreign manufacturers over whom the authorities of our country have no control.

Glasgow.

ON

TWO CASES OF ANTHRAX SUCCESSFULLY TREATED BY EXCISING THE PUSTULE.[1]

BY T. PAGAN LOWE, M.R.C.S.,
HONORARY MEDICAL OFFICER TO THE EASTERN DISPENSARY, BATH.

THESE two cases occurred in March of last year. This is the first time, so far as I am aware, that the disease has been known in Bath.

A man named W——, aged thirty-eight, was first attacked, his wife contracting the disease fourteen days later. I saw him for the first time on March 11th, the seventh day of the disease. I found him suffering from a large malignant pustule on the right side of the neck, about the middle of the posterior triangle. The pustule consisted of a central dark-brown eschar, surrounded by a zone of flattened vesicles, outside of which was an inflammatory zone, the whole of the right side of the neck being enormously swollen and œdematous. The treatment I adopted was that of removing the pustule by an elliptical incision; and this included the whole area of vesiculation, together with a considerable portion of healthy skin on each side and the deep tissues beneath, so as to ensure complete eradication. The wound was freely irrigated with hot perchloride solution, and well dusted with iodoform before its margins were brought together by sutures. The patient made a satisfactory and uninterrupted recovery. Mr. Arthur Barker kindly examined the specimen and confirmed the diagnosis.

Mrs. W——, the wife, aged forty, who was assiduous in her attentions upon her husband, and to whom were entrusted the evening dressings, was attacked by the same disease fourteen days later. In her case the pustule appeared on the cheek. In the absence of proper home nursing I was obliged to send the case into hospital, where the pustule was excised by Mr. Stockwell, and its base freely cauterised. The operation in this case was performed on the fourth day, and was followed by rapid convalescence. In both instances the disease was inoculated by the finger nail, the husband having scratched his neck after washing some buffalo hide, and his wife her cheek after dressing her husband's wound. Both cases suggest that anthrax, when it attacks the skin, may remain local for a considerable time, and produce a mild affection as compared with the same disease when attacking internal organs. The bacilli of anthrax are known to have a marked preference for the superficial layers of the dermis, slowly penetrating into the deeper parts. Nevertheless, it seems very extraordinary that, in the case of anthrax, the excision of the focus of inoculation should arrest the progress of the disease. It may be explained on the hypothesis that the behaviour of the tissues towards the bacillus is very different from that towards most other infective micro-organisms, and an illustration is obtained of one form of tissue resistance. Very valuable information may yet be gleaned from observing more closely the strange sequence of events. One fact may be claimed as having been well established—i.e., that theoretical considerations should never deter anyone from operating, not only during the early stages, but at whatever period of the disease the cases present themselves. In fact, we have on record an ample number of instances in which complete success has followed excision during the later stages. It seems, moreover, that we have in the pustule a manufactory which supplies bacilli in unlimited quantities, and that, when this manufactory is removed, the microphages are well able to cope successfully with any organisms which may have escaped into the blood stream. The bacilli anthracis, although offering powerful resistance to cold and to strong solutions of carbolic acid, are quickly destroyed by low degrees of heat, a temperature of 120° F. being amply sufficient for the purpose. The disease in many localities is sufficiently common and dangerous to warrant legislative interference to prevent the importation of hides, except on the condition that, prior to distribution, they undergo a process of heating at, say, 120° F., for a given length of time. This process, whilst it would effectually stamp out the disease, would in no respect prejudice the commercial interest involved.

Bath.

[1] A paper read before the Bath and Bristol Branch of the British Medical Association, Oct. 28th, 1891.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

RUPTURE OF THE DUODENUM.

BY R. HEELIS, M.D. DURH., L.R.C.P.L.

RUPTURE of the duodenum is said by Mr. Morris in Treves's Surgery to be of rare occurrence. Out of sixty-four recorded cases of ruptured gut only four were in that situation. Erichsen, on the other hand, considers it the most common position for a rupture, and accounts for this, first, by the fixity of that part of the gut and its consequent inability to escape pressure against the spine; and, secondly, by the fact of its not being protected by the costal cartilages. Bryant says rupture of the duodenum is very rare, but that it is most common at the upper end of the jejunum, on account of its fixture to the duodenum. In view of this diversity of opinion, a report of a case of rupture of the duodenum which I have recently examined may be interesting.

On July 23rd, about 3.30 P.M., a boy aged sixteen years, employed at a neighbouring colliery, whilst playing about on the bank was caught between a post and a tub drawn by a horse, the side of the tub hitting him in the right loin and forcing his abdomen against the post. In his belt he wore a bull's-eye lantern which caught against the post and was doubled up by the force of the collision, and driven against his abdomen and right groin. He fell down screaming with pain, and after having been given some brandy-and-water was driven home. I did not see him until three or four hours after the accident, when I found him lying in bed on his left side with his legs drawn up, groaning. He was not collapsed, and had a steady pulse; the abdomen was rigid and concave; there was a slight swelling in the right groin; no bruise in the loin or over the abdomen. He had vomited once before I saw him, there was no blood in the vomit; he had also passed urine, which did not contain blood. The principal tenderness was just above the right groin. He was given full doses of opium, under which the pain disappeared to a great extent.—July 24th: Had passed a fairly good night, but had vomited once or twice. On my visit I was surprised to find him downstairs, and still more so to hear that he had walked down. His pulse was good; his abdomen not distended; chief tenderness above the right groin as yesterday. Vomited bilious matter during the day, but ceased vomiting after he had had some ice. During the following night he died comatose, thirty-seven hours after the receipt of the injury.

Necropsy, thirty hours after death.—Advanced decomposition. The abdomen was greatly distended; there were gas in the abdominal cavity and some extravasation of blood between the muscles in the right loin. The peritoneal cavity contained a small quantity of bloody serous fluid and the intestines were not adherent or lymph-coated. The small intestines below the duodenum were removed in order to

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get a view of the seat of injury. The colon, where it was in relation with the duodenum, was constricted for three or four inches and slightly bruised. Between it and the duodenum there was an oozing of bile-stained fluid through several small holes in the peritoneum, and on removing that membrane from the front of the bowel a large rent was revealed at the junction of the second and third portions on the right side of the second lumbar vertebra, involving fully two-thirds of its circumference. The edges of the rent were ragged and the bowel was bruised for about two inches above it.

The noteworthy points about the case seem to be the slight amount of shock in proportion to the gravity of the injury, and the delay in the setting up of severe general peritonitis. They are both explained by the fact of the rent being retro-peritoneal, the small holes in the peritoneum admitting only of a small and gradual extravasation of bowel contents. The absence of severe shock may have been also due to the escape from pressure of the great sympathetic ganglia. If the patient had been kept entirely at rest and supplied sooner with ice, I believe he might have survived the injury a good while longer, though the case was beyond the help of even present-day abdominal surgery.

Nottingham.

THE ADMINISTRATION OF CHLOROFORM.

BY ARTHUR COURT, M.B. CAMB.

IN view of the recent lamentable number of deaths from chloroform reported in the medical journals, I wish to bring forward this case of primary heart failure occurring during its administration, thinking it may possibly be of interest to the readers of THE LANCET.

The patient, H. B——, aged thirty, was the wife of a farmer. She had previously enjoyed good health. She had borne four children and was at the time of operation four months pregnant. On Nov. 6th, 1891, she pricked the index finger of her left hand with a rusty pin. This was followed by destructive inflammation of the tendon and metacarpo-phalangeal joint, the inflammation afterwards spreading into the palm of the hand; she had a sharp attack of septicæmia, and it was considered necessary to amputate the useless finger. The temperature having been normal for a week, on Dec. 22nd, at 10 A.M., I attended to give chloroform. She had had no solid food since the previous day, but was allowed some egg and brandy before my arrival. The heart was normal, with the exception of the sounds at the apex, which were remarkably sharp and clear. Pulse 80, small and easily compressible. The patient being placed in the supine position, I proceeded to administer chloroform on a Skinner's inhaler, commencing with half a drachm of chloroform, and after that a drachm of a mixture of equal parts of chloroform and ether. The breathing was regular and deep, and she came under the full influence of the anæsthetic in about three minutes. My father, who was operating, quickly amputated the finger. At the same time she suddenly became blanched, the pupils widely dilated, and the pulse ceased to be felt either at the temples or wrist. The breathing was, however, maintained. My father at the same instant saw that all was not right, for nothing but a little venous oozing escaped from the stump. I immediately hung her head over the edge of the table and pulled out the tongue, and then the breathing ceased. Fortunately I had at hand a hypodermic syringe filled with ether, which was quickly injected. We then took her by the waist and suspended her head downwards, and the colour gradually returned to her face, and the breathing became short and gasping. We replaced her on the table; but she at once relapsed into her former state, and the suspension had to be repeated. Again she rallied, and at last we succeeded in getting her round. The pulse remained very feeble, and she had several severe syncopal attacks during the day. She eventually got quite well.

I have no doubt that in this case the heart was primarily at fault, enfeebled by an attack of septicæmia in a pregnant woman, and that ether should have been the anæsthetic chosen in place of chloroform. I certainly believe that the suspension of the patient was the means of bringing about a satisfactory result.

Staveley, Chesterfield.

A CASE OF DOUBLE INTERNAL STRANGULATION BY THREE ADVENTITIOUS BANDS; ABDOMINAL SECTION; DEATH.

BY R. MUZIO WILLIAMS, M.D. LOND.,
AND
JOHN R. LUNN, F.R.C.S. EDIN.

THE curious condition found at the necropsy of the above case makes us venture to offer a brief *résumé* of it, especially as it illustrates to a remarkable degree the extreme difficulties to be contended against in the correct treatment of these formidable cases—difficulties principally arising from the impossibility of diagnosing correctly the exact anatomical lesions which have caused the strangulation, for they differ in almost every individual so affected.

T. B——, aged fifteen, came under our care on May 9th, 1891, with the following history:—He had always enjoyed good health until a fortnight ago, when he was attacked with severe diarrhœa, great abdominal pain, and frequent vomiting. He said that the attack commenced very soon after he had carried thirty-two rolls of paper (42 lb. weight) a distance of four miles. On first being seen the patient proved to be a well-nourished boy. The face showed great signs of suffering. Pulse small and rapid; temperature subnormal; pupils dilated; legs drawn up; abdomen much distended and tympanitic on percussion; some feeling of resistance in the right iliac fossa (the bowels had not been opened for two days); vomiting after all food. By May 12th the patient had become much worse in spite of treatment. Bowels still obstructed; vomited matters now dark brown. A distinct swelling could be felt in the right iliac region, which moved somewhat on change of position. It was decided that the patient's only chance of life was to make an abdominal exploration. On the abdomen being opened by a four-inch incision, and the much-distended gut being pushed to one side and covered by hot sponges, a broad inflammatory band was noticed passing to the right iliac fossa, all the parts in that region being much matted together; the band was an inch and a half broad and quarter of an inch thick, and was constricting the small gut beneath. On endeavouring with great difficulty to get it free some adhesions gave way, disclosing a collection of pus deep seated amongst the intestines and shut off by by adhesions. Into this pus-containing cavity the gut had sloughed and was very black. The patient having become very collapsed, the ragged opening was hastily made into an artificial anus by being stitched to the abdominal wound. The peritoneum was washed out and the wound dressed in the usual antiseptic way. The patient died the following night. At the necropsy the band noticed during the operation was found to arise from the mesocolon; it was seven inches long and constricted the small gut at a point eight feet from the stomach. About two feet below this was a second band, arising from a portion of the small intestine and passing to the right iliac fossa. It constricted the bowel by causing a sharp bend, and thus helped to form the first strangulated loop, part of which was protruding into the abscess cavity, and was gangrenous. There was a second strangulated loop about a foot in length, situated six feet from the stomach—dark, congested, and slightly gangrenous, with a small sloughing ulcer on its internal surface. It had become pushed beneath a third band, four inches long, passing from the great omentum to the cæcum.

St. Mark's-road, North Kensington, W.

A CASE OF ANÆMIA, CONSEQUENT UPON LUNG DISEASE AND STARVATION, TREATED BY TRANSFUSION OF BLOOD AND SALINE FLUID.

BY JOHN R. PHILPOTS, L.R.C.P. & S. EDIN.

MRS. H——, aged sixty-six, but looking older, first came under my care on Aug. 31st, in a weak and emaciated condition, weighing about 7½ st., and with a history of antecedent lung mischief and hæmoptysis. Her appetite was bad, and became worse, although a variety of different

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foods were presented to her. At the commencement of October, 1891, she took only about one pint of milk, one egg, half a plateful of soup, half a wing of chicken, or an equivalent quantity of meat, about a tablespoonful of pudding, three cups of tea, a slice of bread-and-butter, and a teaspoonful of brandy. These quantities were diminished by Oct. 8th, when the pulse was flickering and 98 per minute, the patient refusing to take food. Transfusion of blood and saline fluid was then performed by Dr. C. E. Jennings, assisted by Dr. Masters and myself, the blood being furnished by a son of the patient, a robust man aged thirty-five. The operation was performed after the method described in Dr. Jennings's book,[1] the skin over the veins of the arms of the giver and receiver being cocainised. Twenty-six ounces of saline fluid were used, the major portion being infused into the giver's veins as a substitute for the blood transfused into the receiver. The wounded veins were ligatured with catgut, and the incisions have healed by first intention. As the result of this operation, the giver's face became perceptibly paler in colour, whilst the pallor disappeared from the face of the receiver. Scarcely any pain was felt during the operation by either person, and the giver was talking as though nothing were happening whilst the saline fluid was replacing his blood. After the operation the receiver's pulse fell to 80, and became full and strong, the improvement being maintained. Temperature normal. She is better in every respect, and takes as much food as is offered her now—viz, half a pint of new milk at 7.45 A.M.; a breakfast-cupful of bread-and-milk at 9.30 A.M.; a teacupful of bovril at 11.30 A.M.; a glass of milk with an egg beaten in it, and milk pudding, at 1.30 P.M.; a breakfast-cupful of Benger's food at 4 P.M.; a breakfast-cupful of bovril and milk at 6 P.M.; bread-and-milk at 8.30 P.M.; beef-tea and toast at 10.30 P.M. On Oct. 15th a whiting, instead of milk-pudding, at 1.30 P.M. During the night the patient took a quarter of a pint of egg-and-milk and a tea-cupful of bovril. She walks well and sleeps fairly. Since Oct. 8th five sleeping-draughts have been administered. There are crepitations over the front of the left lung, and tubular breathing posteriorly.

Parkstone.

ORCHITIS FOLLOWING INFLUENZA.

By J. E. BRISCOE, M.R.C.S.

THE following case is of interest in connexion with that of acute orchitis following influenza, reported by Mr. Harris.[2]

On Dec. 20th, 1891, I was called to a patient, W. W——, aged thirty-two, out-door labourer. He had been ailing for five days, worse the last two, but had continued working up to the afternoon of the previous day. He complained of pain in the joints and back, and had a white coated tongue. Temperature 101·6° F. He had had no headache; and a chronic cough, which had been worse some days before, was now much better. Bowels open; lungs and heart normal. He mentioned that two days previously he noticed pain in the right testicle, and the day before (Dec. 19th) found it swollen. On examination I found it enlarged and tender, but neither so large nor so tender as is often observed in cases of acute orchitis, there being no effusion into the sac, and no epididymitis. In the absence of symptoms or likelihood of gonorrhœa, of history of injury, and of parotitis, I was at a loss to explain the orchitis, except as an unusual but possible concomitant of rheumatism. The patient was ordered to support the scrotum, to take light diet, and given salicylate of sodium in ten-grain doses every four hours.—Dec. 22nd: Patient up; pain in back gone; temperature normal; testicle improving, but still slightly painful on pressure. I omitted the salicylate and gave a mixture of tincture of nux vomica, compound spirit of ammonia, and chloroform water.—27th: Convalescent but weak; all swelling and pain in testicle gone.—Jan. 4th, 1892: Returned to work.

This was, after all, probably a case of influenza, and the orchitis similar to that described by Mr. Harris. The absence of headache throughout (in which he persists) is unusual.

Leeds.

[1] Transfusion of Blood and Saline Fluid. Baillière, Tindall, and Cox.
[2] Vide THE LANCET, Jan. 2nd.

A Mirror of HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

METROPOLITAN HOSPITAL.

A CASE OF PORTAL PYÆMIA; NECROPSY.

(Under the care of Dr. HOWARD TOOTH.)

THE following case is an illustration of pyæmic infection, the source of which was only discovered at the post-mortem examination, and presented no clue during life. The disease was evidently caused by the suppurating mesenteric glands, and the limitation of the secondary abscesses to the portal system is noteworthy. It is remarkable that no ulceration or other cause for infection was found in the intestines. The case was at first supposed to be one of enteric fever, but the temperature was more irregular and remittent than is usually found in this disease, even in children. The frequent rigors were also against this view. For the notes of the case we are indebted to the house physician, Dr. C. F. Marshall.

Ernest B——, aged six years, was admitted to the Metropolitan Hospital on Oct. 20th, 1891, with a history of ten days' headache, abdominal pain, and rigors. The rigors had occurred several times a day, and were followed by profuse sweating. The bowels had been confined until three or four days before admission, when diarrhœa began.

On admission, the child was pale, and rather wasted. The tongue was red and beefy, with a central glazed strip on the dorsum. Pulse 120, regular, rather small, and dicrotic. Temperature 103·4°. In the lungs were some subcrepitant râles, but no other signs. The abdomen was somewhat distended; the spleen was felt about an inch below the ribs. There were no spots. No albuminuria. There was a soft systolic murmur, apparently functional in character.

The progress of the case was as follows:—

Oct. 25th.—Condition much the same; no further signs or symptoms. Several rigors since admission. Temperature 105°. Diarrhœa. Pulse 104.

30th.—Diarrhœa improved; tongue cleaning. Temperature 101°; pulse 120.

Nov. 4th.—Tympanites. Has lost flesh since admission. Slight jaundice. Temperature 101°; pulse 140.

5th.—Jaundice increased. Tympanites not so great. Liver enlarged and very tender. Spleen unaltered. General condition worse. About 11 P.M. the child rapidly got worse, and died about 1.30 A.M. on the 6th. During the day the breath had a distinct pyæmic odour.

The temperature chart was very irregular, and with frequent remissions. Rigors were frequent during the first week, after this not so frequent.

Necropsy.—The liver was uniformly enlarged and completely riddled with pyæmic abscesses, some of which were nearly bursting on the surface. The branches of the portal vein were full of pus. The mesentery was thickened and all the mesenteric glands much enlarged, resembling the condition in tabes mesenterica, but none of the glands were tubercular. Several glands near the cæcum were suppurating, and one gland near the duodenum was in the same condition. The whole of the alimentary canal was carefully examined for ulceration, but no trace of this was found at any part. There was no sign of typhlitis or perityphlitis, and the Peyer's patches were normal. The spleen was much enlarged; all other organs normal. No abscesses were found in any other part.

LONDON COUNTY ASYLUM, HANWELL.

A FATAL CASE OF ABSCESS OF THE LIVER CAUSED BY THE PRESENCE OF A NEEDLE.

(Under the care of Mr. J. PEEKE RICHARDS, Medical Superintendent of the Female Department.)

THE cause for the formation of the suppuration in the liver in this patient must certainly be put down amongst the rarest of those met with in practice. Lunatics appear to

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recover at times from injuries of considerable severity with greater ease than people who are not affected mentally. It is often impossible to prevent the self-infliction of minor injuries such as that described, or to find evidence of them afterwards, and usually they can be inflicted with impunity. This case is evidence of the serious consequences which may ensue, and, curiously, Mr. Richards recorded in our columns last year[1] the account of a case in which the patient died from pericarditis and hæmorrhage into the pericardium, the result of the lodgment of a needle, the presence of which was unsuspected until the necropsy revealed it.

T. G——, aged fifty-two, a widow, was admitted into the asylum on May 4th, 1888, having been transferred here from another asylum, where she had been for a little over a year. She was labouring under chronic melancholia, and had distressing delusions, fancying that someone was going to tear her to pieces. She had hallucinations of hearing, at times keeping up long conversations with imaginary persons. She was very industrious, employing herself at needlework nearly all day long; in fact, if she had no work to do she became very unsettled and used bad language. Nothing unusual was noticed about her until the morning of Oct. 9th, 1891, when she complained of pain under the left clavicle and in the left supra-scapular region. These parts were examined, but nothing wrong was detected. In the afternoon of the same day she told the charge nurse of her ward that on the previous night when she went to bed she had run a needle into her chest, and when asked why she had done so, replied that "she had felt all day whilst at needlework that every stitch she made she ought to have run the needle into herself instead of the work." The circumstance was at once reported to Mr. Richards, and both he and Mr. Holderness examined her, but no trace of a needle could be found, nor was there any mark or spot which would indicate that anything had been inserted into the part where the patient said she had pushed in the needle. She complained of pain on pressure over the fifth left intercostal space, just below the heart. She was ordered to bed in the infirmary, and placed under constant supervision day and night.

On Oct 10th her temperature began to rise, but it did not exceed 100° for six days. On the 17th the thermometer recorded 102°, and it mounted gradually higher and higher until the 20th, when it reached 104°. She complained from the time of her admission to the infirmary of her inability to swallow solid food, as it caused her much pain. On October 20th fluctuation was perceptible over the spot where she always said there was pain on pressure. An abscess gradually formed there, and on the 22nd it was opened, when about four ounces of thick blood-stained pus were let out. The opportunity was then taken of thoroughly exploring the abscess cavity, but no trace of a needle could be found. She appeared to improve for a few days, the temperature dropping slightly, but on the 26th it was noticed that the area of cardiac dulness had increased, and that there was marked dulness over the lower part of the left chest, and increased vocal fremitus over the upper portion. About this time a change was noticed in her mental condition: she developed the delusion that she had murdered her husband, and she became very restless and excited. The abscess continued to discharge pus, and she gradually sank, and died on Oct. 28th, twenty days from the time she said she had inserted the needle.

At the post mortem examination a needle an inch and three-quarters in length was found embedded in the left lobe of the liver, the blunt end being on a level with the upper surface of the organ. The whole liver was very much enlarged, weighing 87 oz., the left lobe alone weighing 29½ oz. The whole of this portion of the liver was occupied by innumerable abscesses, from the size of a pea to that of a walnut. They all seemed to be distinct and not to communicate with each other, and they contained thick creamy pus. The needle itself was surrounded by one of the larger collections of matter. There were no abscesses in the right lobe, and the left lobe was so enlarged that it extended quite across the abdomen, and came in contact with the ribs on the left side. There was a large abscess cavity over the left lower ribs in the mammary region, and in the fifth intercostal space was a minute aperture communicating with an abscess the size of an orange, situated between the under surface of the ribs and the upper surface of the left lobe of the liver, and communicating through the diaphragm with the abscesses in the liver. The upper part of the left pleura contained a large quantity of clear fluid, which had considerably compressed the lung. The lower portion of the pleural cavity had become obliterated by the adhesion of its costal and parietal pleuræ. The pericardium contained about three ounces of clear fluid.

Remarks by Mr. RICHARDS.—In this case all through I was extremely doubtful as to whether the needle had really been inserted at all, as there was only the patient's word for it; but I thought that perhaps, as frequently occurs in the insane, the woman had experienced some amount of pain in the formation of the abscess in the submammary region, and from this uneasiness she had originated the delusion about running in the needle. I am very doubtful as to whether the act was committed with any suicidal intent; but I am inclined to think that she was prompted to do so by one of those sudden impulses so extremely common in those of unsound mind, and in her case particularly so, as she had well-marked hallucinations of hearing, and may be a "voice" had instigated her to commit the act which caused her death.

[1] THE LANCET, vol. i., p. 1151.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

SUPRA-PUBIC DISLOCATION OF HEAD OF FEMUR; FAILURE OF ATTEMPTS AT REDUCTION; LATER EXCISION OF HEAD OF FEMUR.

(Under the care of Mr. R. H. HUGHES.)

THE account of this case describes a displacement of the femur which differs so remarkably from the ordinary pubic one as to almost require a separate term to describe it. Instead of the head of the bone lying in one of the usual situations, (*a*) on the pubic bone, or (*b*) beneath the anterior inferior spine of the ilium, it was forced by the blow high up into the abdominal wall, to such an extent that, although the patient was only eleven years old, the amount of shortening exceeded that usually found in the adult by an inch and a half. Such an amount of displacement, permitting as it did both trochanters to be felt from the front, implied a considerable laceration of the soft parts attached to the upper end of the femur, and indicated to some extent the severity of the injury which caused the dislocation. Excision of the head of the femur has not been performed for irreducible dislocation of that bone in many recorded instances. Kirn[1] found only twelve such. Of these, nine recovered and three died. The majority of the operations have been performed on patients the subject of dorsal dislocation, and nothing short of removal of the head of the bone permitted reduction to be effected. For the notes of this case we are indebted to Mr. W. Gifford Nash, late house surgeon.

T. B——, a boy aged eleven, was admitted on Sept. 20th, 1890. He stated that he was running behind and pushing a swinging boat that afternoon when he slipped under it. On its return the boat struck his right knee, dislocating the hip. He was seen by Mr. Hughes, who, with Mr. Lucy's help, attempted reduction under chloroform. This failing, he was brought to the hospital for a further attempt with the pulleys.

On admission there was a contusion over the front of the right knee. The right leg was everted, abducted, and shortened to the extent of two inches and a half or three inches. The head of the bone could be seen and felt lying half-way between the umbilicus and Poupart's ligament. Both trochanters could easily be felt on rotating the limb. There was considerable blood effusion into the soft tissues around the joint. The femoral artery could be felt pulsating on the inner side of the small trochanter. Methylene was given, and reduction again attempted by means of pulleys and manipulation. The head of the bone could not be got below the pelvic brim by any means. He was then put to bed with a weight extension applied to the dislocated limb. In a few days there was widespread ecchymosis over the lower half of the abdomen, scrotum, perineum, and right thigh. Whilst awaiting absorption of the effusion he developed an attack of acute rheumatism, which delayed the operation until

[1] Beiträge für Klin. Chir., 1890.

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Dec. 5th, when methylene was given, and an incision four inches long made over the neck of the femur. The head was exposed, and all the ligamentous and muscular attachments to the neck and great trochanter were divided. Traction was then applied without effect. The tip of the great trochanter was found to be separated, and a large amount of periosteum stripped off the back of the femur. At the back of the femur, connecting the shaft with the back of the acetabulum, was an elongated mass of bone, formed by the periosteum which was stripped from the back of the femur. The neck of the femur was sawn through and the head removed. Traction was again applied without result. The wound was then closed. Six weeks later, when he got up, there was two inches of shortening. In July he was seen, and was then able to walk well with a high boot. The hip was quite stiff, and about two inches of shortening present.

Remarks by W. G. NASH.—Not being able to find any record of a similar dislocation, I think this worth recording. The cause of irreducibility was never determined. The head of the femur could be brought down so that the neck rested on the ilio-pubic ridge, but the head itself could neither be dragged nor manipulated over it. The great force which produced the dislocation is shown by the large amount of periosteum stripped off the back of the femur. It was unfortunate that the resection of the head had to be delayed so long, as it gave time for so much new bone to be thrown out, but it would not have been safe to have operated early after the accident, when the tissues were so bruised and full of extravasated blood.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Madura Disease of Hand and Foot.—Ulcerative Endocarditis of Pulmonary Valve.—Toad attacked by Blow-fly Larvæ.—Thrombosis of Splenic Vein associated with Infarcts.

AN ordinary meeting of this Society was held on Jan. 19th, the President, Sir George Humphry, in the chair.

MR. A. A. KANTHACK exhibited a hand and foot affected with Fungoid Disease. They had both been amputated by Dr. Browning of Madura. There were two varieties of Madura disease: one, the yellow or pale variety, in which in the hollows formed by the disease there were found little yellow particles, looking like fish-roe; and the black, or melanoid kind, in which the hollows were filled with brownish-black masses. The two forms otherwise resembled each other closely in that there were numerous cavities in the soft tissues of the part, the bones likewise undergoing softening. The disease was undoubtedly due to a fungus, and the second, or black variety, seemed to be a degeneration of the first. If portions of the growth were placed in ether or chloroform, and afterwards well washed in caustic potash, small rounded bodies would be left which showed rays under the microscope, and which closely resembled actinomycosis. Outside the ray-like mass was an area of round cells, and this again was enclosed in a fibrous ring. Its reaction to staining was identical with actinomyces. In the black masses the central reticulated structure was present, but the rays or fringes had not been found.—Mr. D'ARCY POWER referred to a specimen of the yellow variety of Madura foot which was in St. Bartholomew's Hospital museum.—Dr. ROLLESTON said there was a foot of the black variety in St. George's Hospital museum, which he had examined, but was unable to make out satisfactorily the structure of the black bodies.—Dr. WHEATON asked if these fungi could be stained by Gram's method; if they could not be so stained they were not actinomyces. Last year he showed a fungus affecting the lung which could not be stained by Gram's method, and which was not actinomyces.—Mr. KANTHACK, in reply, said that the specimen stained easily with aniline dyes. It was quite impossible to stain actinomycosis bovis with Gram's method, unless the saponaceous and calcareous matter were removed. And when actinomyces had undergone degeneration it could not be stained by Gram's method, though this was easily effected by Ehrlich's hæmatoxylin. Black masses of actinomyces had been found in the œsophagus, but their colour was easily discharged by spirit.

Dr. ARNOLD CHAPLIN read a paper on a case of Ulcerative Endocarditis affecting the Pulmonary Valve, taken from a girl under the care of Dr. Sainsbury at the Victoria Park Hospital. The patient was a waitress aged eighteen; she was admitted to the hospital on Aug. 11th, complaining of great dyspnœa and palpitation. On admission she was found to be very anæmic, and the temperature was between 99° and 100° every evening. The pulse was 126, the respiration 30, and the urine natural. On auscultating the heart there was heard at the apex a blowing systolic murmur, conducted round some way into the axilla; and over the pulmonary artery there was a loud systolic bruit, followed by a short diastolic murmur, which was conducted across the sternum to the right. The right side of the heart seemed to be enlarged; the lungs were healthy. On Aug. 25th severe pyrexia set in, the temperature rising to 104° or 105° every night, and this hectic character of the temperature was persistent until the end of the case. On Sept. 1st the spleen was noticed to be enlarged; on the 23rd and several times afterwards the skin became spotted with a petechial rash, which disappeared after a few days. The murmur at the base altered from time to time, sometimes becoming more distinct than at others. On Oct. 14th the patient had hæmoptysis, half an ounce of blood being brought up, and crepitations now appeared at the bases of both lungs. The pulse and respiration increased in frequency, and the patient died on Nov. 11th. At the necropsy the pulmonary artery was found filled with a vegetation adherent to the wall of the artery and joined to a small vegetation upon the pulmonary valves. There was a small vegetation also on the mitral and aortic valves. The lungs showed puckered scars at the base and a recent infarct at the right base. There were no infarcts in the spleen or kidney.—Dr. TURNER said that three years ago a case came under his care in the Children's Hospital with a similar lesion. The child was eleven years of age, and had fallen ill two months before. She was short of breath on exertion, cyanosed, and there was pyrexia. Over the pulmonary artery there was a loud bruit, and a diagnosis was made of congenital malformation of the pulmonary valve, together with pulmonary tuberculosis. The temperature suggested either a septic condition or tuberculosis. While under observation she had attacks, during which she became livid, cold, and torpid for a time, then coming round, the pulse being very feeble. At the necropsy a condition was found very similar to that in the specimen shown, but more severe. There was a congenital stricture behind the valve and a communication between the ventricles. The attacks, he thought, were due to increase in the thrombotic mass. Dr. Peacock has likewise described a similar case.—Dr. HECTOR MACKENZIE two years ago showed a card specimen much like that shown, and there was also a communication between the ventricles. At St. Thomas's Hospital, out of thirty-eight cases of ulcerative endocarditis only two occurred on the right side. In both of these the left side was likewise affected to a less degree; both were in females, and one was associated with pelvic inflammation.—Dr. BRADFORD asked if there were any history of injury, bone disease, or other septic trouble. One or other of these conditions had often been found in association with right-sided disease.—Dr. CHAPLIN, in reply, said there was nothing to account for the disease; the only other lesion was an old lateral curve of the spine.

Dr. LEONARD GUTHRIE showed a Toad whose mouth and nostrils had been attacked by the larvæ of blowflies, causing the death of the animal. Mounted specimens of the larvæ were also shown, with drawings of their structure. The toad when found seemed in fairly healthy condition, but the tip of the nose was discoloured, the nostrils were slightly enlarged and ragged, and emitted a frothy discharge. Within them could be indistinctly seen a mass of moving larvæ. Within thirty hours of capture the nostrils formed one large cavity, separated only by a thin septum of skin anteriorly, both eyes were collapsed, and their empty tunics lay in the cavity of the mouth, whilst the whole of the soft palate had been devoured by the larvæ, leaving the bones picked bare. Between three and four dozen larvæ were removed after the death of the toad. It was well known that toads and frogs were subject to such ravages, but until the present time no attempt to identify the larvæ had been successful. Dr. T. S. Cobbold had referred to the subject in the *Veterinarian* for 1880, but had been unable to name the maggots. Prof. Brauer of Vienna had kindly examined the larvæ now exhibited, and had pronounced them to be of the genus

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Calliphoræ. The species was indeterminate, but was probably Erythrocephala magna or Vomitoria. The structure of the larvæ was described, and their mode of feeding and progression. They were not true parasites (such as the Batrachomyia of McLeay), for they speedily destroyed the life of their host. Yet it was difficult to explain why the mouth and nostrils of batrachians were always the sole parts attacked. It was obviously impossible for the fly to lay its eggs directly in the toad's nostrils, and the probable explanation was that the eggs were laid in the toad's mouth whilst a pregnant fly was being swallowed. Evidence was given to show that the number of toads in certain years was largely reduced by means of the blow-fly's larva. Parallel instances in which human beings had been attacked by the larvæ of these and other flies were given. Amongst others, Messrs. Coquerel and St. Paix of Cayenne had recorded many cases of convicts whose nostrils and eyes had been almost entirely devoured by the larvæ of the golden fly (Lucilia hominivorax) with fatal results.—Dr. PENROSE had seen a gamekeeper with a swelling on the wrist. On incising it the larva of a blowfly escaped.—Dr. BEAVAN RAKE said that in tropical countries maggots in the nose were not at all uncommon, and they were seen also in the meatus of the ear, especially in lepers; but they were also occasionally found in people in higher stations of life. He related an instance in which an engineer, while on a visit to Venezuela, was stung by a fly; a swelling formed at the side of the chin, and later a large larva was expressed from it. Several cases had also been published from Central America. One so seldon saw flies about these patients that it was very difficult to trace the way in which they became affected.—Dr. GUTHRIE, in reply, said that there was a specimen in the museum of the College of Surgeons which had been taken from the leg of Dr. Livingstone. Cases in which human beings had been affected were not at all rare, the larva of nearly every known fly having been found.

Dr. ROLLESTON showed a specimen in which the Splenic Vein was occluded with firm adherent decolourised clot. The superior mesenteric vein contained a thrombus which had softened down in the centre so as to be canalised. The inferior mesenteric vein was occluded with ante-mortem clot. Adherent clot extended into but only partially occupied the lumen of the portal vein. There was softened clot in the internal and external iliac veins on the left side. The thrombosis of the superior mesenteric and iliac veins was the oldest. The spleen weighed thirty-six ounces, and had large pale firm anæmic areas in the periphery separated from the rest of the organ by a zone of congestion of the shape and general appearance of infarcts, and which microscopically showed coagulation necrosis. The splenic artery was normal. The points of pathological interest in the specimen were: (1) The association of complete thrombosis of the splenic vein with death of limited portions of the spleen, so as to produce the appearance of infarcts due to embolism of the splenic artery; (2) the fact that these infarcts were anæmic and not hæmorrhagic, as from venous stasis would naturally have been expected. From a man aged twenty-nine, who died in St. George's Hospital under Dr. Ewart. He was admitted with profuse hæmatemesis; while convalescent ascites and œdema of the left leg came on and death from asthenia. During life the blood was examined without finding any evidence of leucocythæmia.—Dr. TURNER thought that there must have been vessels other than the splenic vein, by which a certain amount of blood could get away from the spleen, and there was evidence also that some of the splenic arteries were blocked. He explained the occurrence of the lesions in the following manner: When the splenic vein became thrombosed, increased vascular pressure in the spleen resulted; this produced interference with the circulation through the whole organ, and consequent interference with nutrition. In certain weaker branches of the splenic artery which became injured by this process thrombosis took place, and thus the areas of anæmia would be produced.—Dr. NORMAN MOORE remarked that the patient had had hæmatemesis, and asked if it had been often repeated. He related the case of a woman who had been under observation for twenty years, having first been in University College Hospital, under Sir William Jenner, for a severe hæmatemesis. The spleen was at that time enlarged, though it diminished under observation. On three subsequent occasions she was admitted into St. Bartholomew's Hospital with copious hæmatemesis, and after the bleeding it was noticed that the spleen became reduced in size. Later she had such a severe hæmorrhage that she died in syncope. At the necropsy there was a partial clot in the splenic vein and a complete clot in the portal vein.—Dr. WHEATON said that a young man was recently admitted into St. Thomas's Hospital with an umbilical sinus. He had been in the tropics. The spleen was very large, and at the necropsy a large infarct in a state of suppuration was found in its lower end. There were also two smaller white infarcts in the organ. There was no disease of the arteries there or elsewhere.—Dr. ROLLESTON, in reply, said that he accepted Dr. Turner's explanation. The patient had suffered from hæmoptysis only once on admission; he had had none previously or afterwards. The cirrhosis of the liver present was very slight, and did not seem to account for the hæmatemesis.

The following card specimens were shown:—

Dr. F. C. TURNER: (1) Malformed Heart; (2) Partial Hydronephrosis of Right Kidney.

OBSTETRICAL SOCIETY OF LONDON.

The relation between Backward Displacements of the Uterus and Prolonged Hæmorrhage after Delivery and Abortion.—Dr. Apostoli's Method.

A MEETING of this Society was held on Wednesday, Jan. 6th, Dr. Watt Black, President, in the chair.

Dr. HERMAN read a paper on Backward Displacements, based on an analysis of 3641 consecutive out-patients at the London Hospital. The author showed by figures that backward displacements of the uterus are more common in multiparous women than in those who have not had children, that they are more common in those seeking advice soon after delivery or abortion than in those not applying for treatment until long after childbirth or abortion, that they are more frequent among those in whom delivery or abortion has been followed by prolonged hæmorrhage than in those in whom it has not, that prolonged hæmorrhage after delivery or abortion is more frequent in cases of backward displacement of the uterus than in cases without such displacements; therefore that there is a relation between backward displacement of the uterus and prolonged hæmorrhage after delivery and abortion. It was shown that these statements applied both to hæmorrhage after delivery and to hæmorrhage after abortion.

Dr. INGLIS PARSONS read a paper entitled "Twenty Cases of Fibroma and other Morbid Conditions of the Uterus treated by Apostoli's Method." Electrolysis, he stated, exerts two actions, a polar and interpolar. The former extracts acids and bases from the tissues near the poles, and produces a secondary caustic action; while the latter causes an exchange of atoms between molecules, some polarisation, and possibly slight osmosis. The electrical resistance of tumours varies greatly. It may be higher or lower than healthy tissue, and the results of treatment differ in consequence. Fibrous tissue and old hard tumours have a high resistance, while soft œdematous tumours are good conductors. The position and size of the tumour are important. If submucous it can be treated by the polar action, but if intra-mural by the interpolar only. A large tumour conducts better than a small one. The following points must be considered:—(1) The position of the tumour; (2) its relation to the abdominal wall; (3) its age and consistence; (4) its sectional area. Of fourteen cases of fibro-myomata hæmorrhage was stopped in all. The subsequent history, traced out for some years, showed no relapse in six cases, although in two of them the hæmorrhage threatened life. One patient always relapsed in a few months. Removal of the appendages was advised, but refused. In many cases the flow rather increased at first, but in one it was arrested by only six applications. Relief of pressure symptoms was obtained in most cases. One patient unable to walk recovered her power after a few applications; while another with bladder symptoms showed no improvement; the tumour was too hard to be affected by the current. Diminution in size only took place to a limited extent in most cases, but one tumour entirely disappeared, and pregnancy subsequently occurred, a result that could not possibly be obtained by removal of the appendages. Hysterectomy was afterwards performed on another patient, on account of the size of the tumour. Pain sometimes followed strong applications for a day or two, but soon went off,

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while pressure pains were relieved. For galvano-puncture greater care was required on account of the risk of sepsis, and only an insulated trocar should be used so as to leave no sinus. The risk appeared to be very little, as no ill result ever followed in any of the cases. Unsuitable cases were—(1) Fibro-cystic tumours; (2) associated disease of the ovaries or tubes; (3) very old and hard tumours; (4) some which require no treatment of any kind. A case of hæmatocele showed no appreciable alteration after six applications. Two cases of dysmenorrhœa, due to anteflexion, remained unbenefited by the current. One case of neuralgic dysmenorrhœa was apparently cured. Menstruation was established in a girl of nineteen who suffered from primary amenorrhœa. The author concluded that Apostoli's treatment was of value in a large proportion of cases, because (1) it arrested growth, and might reduce the size, and even cause absorption, of an entire tumour; (2) it arrested hæmorrhage in most cases; (3) it relieved pain and pressure symptoms; (4) it did not prevent pregnancy.—Dr. PETER HORROCKS said there was no scientific evidence of interpolar action in the case of tumours. He said that clinically the negative pole was stronger than the positive; nasty ulcers might be produced if the negative wire touched the skin. He gathered from the context of the paper that by fibroma was meant fibro-myoma. He pointed out the difficulties of diagnosis, especially in small tumours, and he thought it was quite fair to doubt the accuracy of the author's diagnosis in Cases 1 and 8, and in the case in which he alleged that a tumour had entirely disappeared. Such disappearance, he thought, was greatly against its being a tumour in a pathological sense, and probably it was of an inflammatory nature. He pointed out that there was nothing mysterious about the action of electricity. It was a caustic, and any other caustic, especially heat, applied in the same manner and degree, would have equally good results; so that, whilst admitting that electricity was useful in some cases, he could not agree with the author's conclusions. What proof was there that electricity would arrest the growth of a fibro-myoma? He agreed that it would stop hæmorrhage and would not prevent subsequent pregnancy, but he was not equally sure that it would relieve pain and pressure symptoms in the majority of cases where these were present. But when this method was tried it was often so painful in itself that patients refused to continue it and would leave the hospital.—Dr. HERMAN agreed with most that Dr. Horrocks had said. He also could not agree to the diagnosis in the case in which a fibroid was said to have disappeared. The history seemed more like that of a hæmatocele from extra-uterine gestation, ending in natural recovery. The diversity of opinion in regard to the effects of electricity upon fibroids was in striking contrast to the unanimity about the results of removal of the appendages. He objected to the galvanising of the uterus in a girl nineteen because she had not menstruated.—Mr. DORAN offered remarks.—Dr. PLAYFAIR said some writers had undoubtedly exaggerated the claims of electricity, and probably this was the cause of the prejudice against it; but he pointed out that the opposition came chiefly from those who had given no time or trouble to mastering the undoubtedly difficult technique of its application. He had visited Apostoli, and had assiduously tried his method. Increasing knowledge and experience had not led him very materially to modify the conclusions he had already formulated elsewhere. He still believed electricity a substantial gain to gynæcology, though the process was complex, difficult and tedious, and not adapted for general use. That it possessed the power of promoting the absorption of fibro-myomata to a certain though limited extent he believed to be beyond question. He did not consider it to be an absolutely safe procedure. Electro-puncture was very different from electro-cauterisation. The number of cases in which mere diminution of size was of importance was very limited; hence he had practically abandoned this application of electricity, though he still thought it applicable in certain cases of fibroids impacted in the pelvis. He could not agree with Dr. Horrocks' attempt to minimise the value of Dr. Parsons' cases by questioning their diagnosis. He found the hæmostatic effect of the positive pole admirable in many cases, but not in all, and he thought this was due to the actual contact of the pole with the endometrium. Curetting and the application of caustics were quite inapplicable to most cases of hæmorrhagic fibroid where there existed a largely elongated endometrium. He quoted a case where caustics and the curette had been thoroughly applied, but always with temporary benefit. He tried electricity, and the lady, although only between thirty and forty years of age, had never menstruated since. He believed that theoretically electricity should be tried first in all bad cases of hæmorrhagic fibroid; but it was too costly and tedious in some cases, and then removal of uterine appendages should be performed. He was surprised Dr. Parsons had not mentioned the use of electricity in chronic uterine catarrh and other morbid conditions, such as membranous dysmenorrhœa.—Dr. ROUTH thought the entire disappearance of fibroids by electricity had been exaggerated. Soft ones disappeared more readily than hard ones. Electricity certainly did good and enabled persons to get about as if the fibroids did not exist. Applied to the cavity of the uterus the negative pole produced dilatation of the cavity and very often induced menstruation; the positive pole arrested hæmorrhage. He thought it scarcely kind to doubt the diagnosis of the cases brought forward by Dr. Parsons.—Mr. SKENE KEITH thought it hardly fair to cast doubts on the electrical treatment by suggesting that mistakes in diagnosis were sometimes made. He agreed very much with Dr. Parsons' conclusions, but thought in some cases surgical interference might be the better treatment.—Dr. INGLIS PARSONS, in his reply, said that he had in 1888 opposed the theory of interpolar electrolysis. In his experience the anode was more destructive than the cathode. The diagnosis in the majority of these cases was, from the size of the tumour, beyond a doubt. They had been seen by his colleagues. In one case he had stated in the paper that the diagnosis was an open question. He thought the tumour which disappeared was undoubtedly a soft fibro-myoma. She did not have amenorrhœa, but menorrhagia persisted for two years. He agreed with Dr. Herman regarding the treatment of primary amenorrhœa, but in this case the mother was very anxious for menstruation to begin. In fibro-myoma the menopause was often delayed five years or even more. He thought that acupuncture was much less dangerous when done with his own insulated trocar, because it did not leave a sinus as Apostoli's did. He had only lately used electricity for endometritis, but he had found that it would cure cases when all other means had failed.

The following specimens were shown:—

Dr. SHAW MACKENZIE: Sarcoma of both Ovaries.

Dr. HEYWOOD SMITH: An Abscess connected with the Left Ovary removed by Abdominal Section (Actinomycosis?).

Mr. BLAND SUTTON: (1) Dermoid Cyst showing Baldness of the Wall; (2) Dermoid Cyst associated with Fat in the Broad Ligament; (3) Hydrosalpinx.

Dr. BOXALL: Rupture of the Uterus.

SOCIETY OF MEDICAL OFFICERS OF HEALTH

Mr. SHIRLEY F. MURPHY, President, in the chair.

Building By-laws.

AT a meeting held on Dec. 21st last a discussion was opened by Dr. LONGSTAFF, chairman of the Building Acts Committee of the London County Council, on Building By-laws in relation to the Air and Light around Buildings. The present law, he said, fixed the width of all new streets at not less than 49 ft., but in one 50 ft. wide the buildings on each side might be 90 ft. high. This height the committee would reduce to 75 ft., or not more than one and a half times the width of the street, though they were not prepared to raise the minimum street width, as had been done in the model by-laws of the Local Government Board, which fixed it at 66 ft. The space in the rear of every house they would increase from 100 to 150 square feet; but as hitherto this might be covered over by a building of one storey, the model by-laws required a space 25 ft. deep, free from all buildings and extending through the entire width of the premises; this was better, but no regard had ever been paid to the different height of buildings. The committee had, however, drafted an amendment which they hoped to have introduced into the Bill, presenting the advantage of adapting itself to the varying height of houses. It was that an open space 10 ft. deep, and free from any buildings be reserved along the entire width of the rear of the site, and that no part of the buildings, chimneys alone excepted, rise above a line drawn at an angle of 45° from the ground at the further boundary

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of the space in the rear to the eaves or most prominent point of the main body of the building. This was the angle established by custom in the question of "ancient lights," which, however, applied only to old houses, but was found to work satisfactorily. In dealing with existing buildings which were not in accordance with the new regulations they were willing to respect rights of which the owner might be in actual enjoyment, permitting their re-erection to the same height as before; but they would not recognise the potential right to put up a building of 90 ft. high on the site of one of 20 ft. They did not, however, propose to deal with "wells" or courts enclosed within large blocks of houses. —Dr. ARMSTRONG said that in Newcastle all new streets must be at least 40 ft. wide, and have in their rear a "back street" or thoroughfare 20 ft. wide on which no houses might face.—Dr. L. PARKES deprecated the practice of building huge blocks of artisans' dwellings, or of mansions separated only by narrow, ill-ventilated spaces or courts, maintaining that the intervals should be equal in width to the full height of the houses. He thought that a clause might be introduced into the Bill requiring plans and elevations of all proposed new buildings to be submitted to the local authorities, and that if they considered them likely to be dangerous to health the County Council should refuse their sanction. At present nothing could be done until they were occupied.—Mr. WYNTER BLYTH held that, while the County Council might well make by-laws, the actual supervision could be efficiently carried out only by the local authorities. If all plans were submitted to the local medical officer of health, to be reported on by him to the local authority, the annoyance and expense consequent on the refusal of certificates under the Customs and Inland Revenue Act would be saved. —The PRESIDENT considered that the width of streets should be one and a half times the height of the houses, and that the application of the angle of 45° in the case of all rooms used for habitation would meet the difficulty of enclosed courts. The amount of light, apart from air, depended on the orientation or aspect of the house, and he gave Vogt's formula for determining the possible illumination under all circumstances:—

$$\frac{L}{H} = \theta \times (30^\circ + \delta)\cos a.$$

When H = height of house. L = width of street &c. θ = angle of solar light. δ = angle of direction of street with the meridian.

It was then unanimously resolved that the Society represent to the President of the Local Government Board the urgent need for the amendment of the London Building Act so as to secure an adequate supply of air and light around and within all buildings, and that the amendment proposed by the County Council be accepted and introduced into the Bill.

HARVEIAN SOCIETY OF LONDON.

THE President (Mr. H. Cripps Lawrence) delivered the annual presidential address, in the course of which he gave an account of the main objects of the Harveian Society, and spoke of the means by which these might be best accomplished. Dealing with the salient points of Harvey's scientific work, which suggested to the individual members of the Harveian Society how best to carry out the work of the Society, he said:—

"One of the most important of these in reference to scientific investigations is to be found in a letter from Harvey to John Riolan the younger, 'in opposition to those who repudiate the circulation because they cannot see the efficient or final cause of it, and who exclaim, *Cui bono?*' wherein he propounds these axioms: 'Our first duty is to inquire whether the thing be or not, before asking wherefore it is.' Again, 'He who truly desires to be informed of the question in hand, and whether the facts alleged be sensible, visible, or not, must be held bound either to look for himself or to take on trust the conclusions to which they have come who have looked;' and assuming the witnesses to be credible, he adds, 'there is no higher method of attaining to assurance and certainty.'[1] Next to scientific *caution*, Harvey exhibited *toleration*. Aikin refers to this when he tells us that Harvey was 'cheerful, candid, and upright; he was not the prey of any mean or ungentle passion. He was as little disposed by nature to detract from the merits of others, or make an ostentatious display of his own.' Again, 'the many antagonists whom his renown and the novelty of his opinions excited were, in general, treated by him with modest, temperate language, very different from their own; and while he refuted their arguments he decorated them with all due praises.'[2] So, too, Dr. Ent,[3] in his preface to 'Harvey's Researches on Generation,' adds, 'and we have evidence of his singular candour in this, that he never hostilely attacks any previous writer, but ever courteously sets down and comments upon the opinions of each,' regarding it as 'argument of an indifferent cause, when it is contended for with violence and distemper, and that truth scarce wants an advocate.' Harvey's character, too, was *modest* and *generous*. Of the truth of this we have evidence in his solicitude for the welfare of the College of Physicians. Having built for the college 'a library and a repository for simples and rarities,' on Feb. 2nd, 1653, 'Harvey was present on the opening occasion, having provided a handsome entertainment and formally handed over the title-deeds and entire interest of the building in a speech of the utmost benevolence and good-will.'[4] On Sept. 30th, 1654, being elected President of the College in his absence, 'he declined on the next day, owing to his age and infirmities, recommending the continuance in office of Dr. Prujean, under whose prudent management and fostering care the affairs of the College had greatly prospered.'[5]

Once more, Harvey was not only the greatest scientist of his day, for he had 'the rare distinction of standing at the head of three departments of science in England—comparative anatomy, physiology, and medicine,'[6]—but he was a man of widely cultivated mind outside his professional work, fond of reading the classics; and still a learning mathematician in his old age. Harvey knew the men of letters and science of his day, as Dr. Dickinson, in his recent Harveian oration pointed out.[7] 'It is worth noting that Harvey's long life made him the contemporary of the four greatest men whom England has produced—Shakespeare, Bacon, Milton, and Newton,' and of others such as Hobbes, Dryden, Boyle, and Cowley. With all this culture he was an independent searcher after truth, and albeit vivisection became necessary thereto, he was reverent in the use of that means. Harvey, though by no means eager in the pursuit of wealth, set a good example to his professional brethren in making a will while in the possession of his faculties, and reading it over even within six months of his death, at eighty years of age. Active in religious sentiment, 'he evinces,' as Dr. Willis tells us, 'true and elevated piety throughout the whole course of his work on Generation, and seizes every opportunity of giving utterance to his sense of the immediate agency and omnipotence of the Deity.' So lived, so died, one of the great men whom God, in virtue of His eternal laws, bids to appear on earth from time to time, to enlighten and ennoble mankind.'

[1] Bettany: Eminent Doctors, vol. i., pp. 33-34.

[2] Ibid., p. 47. [3] Ibid., p. 41.

[4] Ibid., vol. i., p. 45, et seq.

[5] Dr. Willis' Introduction to Harvey's Life (New Sydenham Society), p. 35.

[6] Willis, ut supra.

[7] Harveian Oration, Dr. Dickinson: British Medical Journal, Oct. 24th, 1891

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Obstetrical Section was held on Nov. 27th, Dr. Atthill in the chair.

Cæsarean Section.—The PRESIDENT (Dr. Horne), having returned his warmest and best thanks to the Fellows of the Royal Academy of Medicine for having elected him as president of the Section of Obstetrics, read an address on this subject. His firm conviction was that there are many infants annually sacrificed who might be saved if the medical profession would recognise the fact that a majority of such cases could be saved by prompt surgical interference. He gave a short *résumé* of the history of the operation, and did not consider it required more than ordinary surgical skill for its performance. He laid special stress on the treatment of the uterine wound, as advocated by Sänger of Leipzig, and paid a

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tribute of respect to Lister, as having restored the Cæsarean section from the limbo to which it was consigned to its proper place in the surgical art by means of antiseptics. On the early recognition of pelvic deformity depended the success of Cæsarean section.

Removal of a Pin from the Bladder.—Dr. LANE exhibited a pin about two inches in length which he had removed from the bladder of a young lady. The patient was seen on the day the pin escaped into the bladder, and was with ease felt by examination per vaginam. The head was resting against the posterior wall of the bladder and to the right of the uterus, the point being directed forwards and to the left side of the orifice of the urethra. Owing to certain reasons the attempt to remove the pin had to be postponed for three days, and when the patient was under ether the pin was found to be lying transverse and some distance above the inner orifice of the urethra. Previous to any examination the vagina was washed out, and prior to attempting to remove the pin the bladder was injected with water. The pin was caught and withdrawn. There was a very slight amount of blood in the urine that day, none afterwards, but the urine was turbid. On the fifth day the patient had a severe rigor and also pyelitis of both kidneys. Cause not quite certain, as temperature and pulse had been perfect, unless it was due to cold, as the patient had the day previously been sitting up in bed at an open window, without much covering. Symptoms gradually subsided, and the patient made a perfect recovery.—Dr. MORE MADDEN was certain that the Academy would appreciate the intent of Dr. Lane's communication, both as regards the comparative rarity of the accident described and the efficacy of the treatment adopted in the case just referred to. The bladder has in many instances been found to be the receptacle for a most extraordinary and heterogeneous assortment of misplaced articles, an occurrence of which several instances were long since related by the late Sir Benjamin Brodie,[1] as well as by Sir Philip Crampton, and more recently by Dr. Barton of Dublin.

Two Cases of Cæsarean Section.—Dr. SMYLY exhibited two patients upon whom he had performed Cæsarean section in the Rotunda Hospital. Both cases presented an extreme degree of pelvic deformity, and the birth of a living child by any other method than abdominal section would have been impossible. One case was a well-marked example of a rare deformity the result of a kyphosis in the lower lumbar and upper sacral regions of the spine, in which the narrowing was most marked in the transverse diameters, and especially at the pelvic outlet, and the other was an example of the generally contracted flat rachitic pelvis, in which the narrowing was most marked in the conjugate diameters, and especially at the pelvic brim.—Dr. MORE MADDEN pointed out that five-and-twenty years ago craniotomy was invariably resorted to in those cases of difficult or obstructed labour in which a living child might now be delivered from a living mother with safety to both. Dr. Murdoch Cameron of Glasgow, as well as Dr. Smyly and others, had abundantly demonstrated the possibility, and with due precautions the safety in proper cases, of the Cæsarean section. It was a great satisfaction to him to find that most of the leading obstetricians of the present day now probably agreed that child-destroying operations should be eliminated from midwifery practice, and that the only question in extreme cases of difficult labour should be which one of the two suggested child-saving operations—viz., Cæsarean section or Porro's operation—should be resorted to.

Dystocia due to a Cyst in the Liver of a Fœtus.—Dr. BAGOT read a paper under the above title. He considered the case of extreme interest from a pathological as well as from an obstetrical point of view. Records of cases where congenital cysts of any size had been found in the liver were very rare, as were also records of such, or indeed any, tumour of the fœtal liver causing dystocia. Dr. Bagot had been able to find only four cases, besides that recorded by Witzel, where dystocia had been caused by any form of liver tumour—viz.: (1) Haase (N. Z. xi., 262); (2) Müller (Hohl., p. 286); (3) Naggereth (Deutsche Klinik, 1854, No. 44; Wochenschr., iv., 458); (4) Schlesinger (Hohl., p. 289). The first three, according to Winchel, "resolve themselves into either hepatic physconia or a lymphatic tumour of the liver." The tumour in Naggereth's case was a carcinoma.

[1] See Brodie's Works, vol. iii., p. 508.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

AT the meeting on Friday, Jan. 8th, 1892 (Mr. Roberts, President, in the chair), Dr. DUNDAS GRANT gave a demonstration on several New Instruments used in the Treatment of Ear, Throat, and Nose Diseases. Amongst others he exhibited and described his Eustachian self-inflater, a safe endo-laryngeal forceps, and an apparatus for exploration of the antrum of Highmore.—The President; Drs. MacGavin, Tayler, Wainewright, and Clarke joined in the discussion which followed.

Reviews and Notices of Books.

Colour-blindness and Colour Perception. By F. W. EDRIDGE-GREEN. With Three Coloured Plates. Pp. 311. (Vol. LXXI. of the International Scientific Series.) London: Kegan Paul. 1891.

IN this work Dr. Edridge-Green presents to the reader the existing state of our knowledge of that defect of vision which consists in imperfect perception of colour, based on personal examination of 116 cases of colour-blindness and of all accessible recorded cases. After a short introductory section on the physical basis of colour, he gives an explanation of the terms he employs in the subsequent chapters. The most important of these is the term "psycho-physical unit," by which he means the recognition of distinct differences between different objects, and therefore in this case the perception of the several colours that an observer is capable of recognising in the solar spectrum. This number is found to vary; most observers can distinguish six units of colour—red, orange, yellow, green, blue, and violet; whilst some, like Newton, see seven, indigo being introduced between blue and violet. Latterly it appears some writers on colour have demurred to the insertion of indigo, and especially to its insertion between blue and violet. If a "six-unit" were asked to make seven colours, he would add greenish-yellow to the list. It has also been pointed out that indigo is a green-blue and not a violet-blue, and therefore could not be placed between the blue and the violet. He considers that impressions of sight may be divided into four sets—those of colour, form, size, and shade. We should be inclined to add a fifth, movement. In accordance with the theory of psycho-physical perception Dr. Edridge-Green states that the normal sighted will perceive any mixture of colours as a unit, a modified unit, or as white. It is not, therefore, surprising that the mixture of two colours representing the whole of the spectrum should make white. "The complementary of any colour can be obtained by the subtraction of the colour itself from white light. It therefore follows that the complementary of any colour consists of a mixture of the remaining rays of the spectrum." He gives the following list of true spectral complementaries: red, blue-green; orange, green-blue; yellow, blue; yellow-green, violet; green, rose.

In regard to the prevalence of colour-blindness, the results of Dr. Edridge-Green's observations give a rather higher percentage than those of other inquirers, with the exception of Dr. Wilson, for he finds the percentage of the two-unit to be about 2, of the three-unit about 1 5, and the percentage of the four-unit about 3. But as the four- and five-unit are, for all practical purposes, normal sighted, he does not include them, though they have really diminished colour perception. By the ordinarily used lists about one woman in 2000 is colour-blind. It is a rather more common defect in the uneducated than in the educated, and it is interesting to note that the author has found more colour-blind persons amongst musicians than in any other class or profession. He

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holds the chief causes of colour-blindness to be diminution in the number of psycho-physical colour units and shortening o one or both ends of the spectrum; and whilst he proposes to name the normal sighted hexachromic, he terms those who are colour-blind from the former cause pentachromic, tetrachromic, trichromic, and so on, according to the number of the colour units they are capable of perceiving. A considerable section of the book is occupied with the classification of the colour-blind and with an account of the various methods that have been used and of those that should be used in testing colour-blindness.

Speaking of after-images, the account given of the after images seen after a momentary gaze at the sun corresponds with our experience in the succession of colours which become visible. First a positive yellow image of the sun is seen surrounded by pure green; the whole then changes into pure green, which becomes blue-green, then blue, then violet, and then very dark (black). A red element then comes in, and the after-image becomes purple, and then gradually fades away. He does not mention, however, the fact that when the image has nearly died away movement of the eye or pressure upon the globe causes its resuscitation to a condition of considerable brilliancy. Dr. Edridge-Green, believing, as above stated, that there is evidence to show that whilst most people see only six units of colour in the spectrum there is a class who see seven, constructed an ingenious test for the faculty in the following way. He painted a ground of prussian blue, and when the colour was dry put an after-tint of another colour over it, keeping a careful record of what he had done. In most instances he placed the second tint over only one half of the disc. On looking at these coloured discs he found that he was unable to tell, without referring to his note-book, the colour of the after-tint. He now took the discs to a well-known artist, but he failed to tell the colour of the after-tints. A pupil of his, however, a boy of fourteen, looked at the discs and told the colour of the after-tint correctly in each case. It is not surprising, then, that some artists render the tints of nature better than others; and it is somewhat amusing to read that in this case the boy apologised for seeing colours like this (his master being incredulous) by saying that he had something the matter with his eyes when he was a child. He raises some very strong objections both to the Young-Helmholtz theory of colour perception and to the theory of Hering.

Many points are noticed that we do not remember to have elsewhere seen. For instance, the author observes there is a variety of colour defect which is quite distinct from diminution in the number of the psycho-physical units—namely, a shortening of the spectrum,—and this may occur either for bright light or in the case of light of diminished intensity. A very common mistake, due to shortening of the red end of the spectrum, is the confusion of pink and blue. This Dr. Edridge-Green ingeniously explains in the following way. If a person with considerable shortening of the red end of the spectrum is shown a pink which is composed of red and violet the red rays are not perceived, and hence the pink appears as violet without a trace of red, and the pink is consequently matched with a violet or blue very much darker than itself. He has collected from various sources many instances of accidents at sea and on railways resulting from colour-blindness in captains and the drivers of engines; and there can be no doubt that the present mode of examination is unsatisfactory, and that before being promoted to such important and responsible posts the candidates should pass a skilled examiner well supplied with appropriate means of testing the existence of a normal power of discriminating colour.

OUR LIBRARY TABLE.

Practical Pathology and Morbid Histology.—By HENEAGE GIBBES, M.D., Professor of Pathology in the University of Michigan. Edinburgh and London: Young J. Pentland. 1891.—This is, in part, an expansion of the little work published by the author some years ago, and his acknowledged skill as a practical microscopist will doubtless give weight to his instructions. Indeed, in fulness of directions as to the modes of investigating morbid tissues the book leaves little to be desired. The ensuing chapters, which deal with morbid changes, seem, however, to lack something in respect both of detail and pathogeny. For instance, to ascribe the hyaline fibroid change often met with in the ovary to "chronic irritation of a neurotic character" is not only novel, but would require much cogent evidence before it could be accepted. The descriptions of tumours are for the most part brief and do not contain any new facts. The account of endocarditis is inadequate, and there does not seem to be sufficient justification for separating syphilitic endarteritis from endarteritis obliterans. Dr. Gibbes holds special views upon the lesions of acute tuberculosis, and maintains a distinction between "reticular miliary tuberculosis" and "disseminated catarrhal pneumonia," the latter consisting only of disintegrated products of inflammation, but containing numerous bacilli, the former yielding very few, if any, bacilli. The naked-eye characters of the two varieties are, he states, identical. He further seems to maintain a distinction between true tuberculosis of the lungs and pulmonary phthisis, and herein he occupies almost a solitary position among modern pathologists. The morbid lesions of the nervous system are but cursorily treated; but when we come once more to the technical part of his writing, as in the description of "photography with the microscope," we find the author at his best. He is most enthusiastic upon this latter subject, and the work itself is throughout profusely illustrated with reproductions of micro-photographs, some of which are admirable, others less clear. On the whole we may say that the practical histologist will gain much useful information from the book.

Die Protozoen als Krankheitserreger. Von Dr. L. PFEIFFER, Geh. Med.-Rath. und Vorstand des Grossh. Sachs. Impfinstituts in Weimar. Zweite sehr erweiterte Auflage. Jena: Gustav Fischer. 1891.—In November last, when we reviewed the first edition of this excellent work, we drew attention to the rapid strides that had been made in our knowledge of the protozoa related to diseased processes in man and animals. The appearance of a second edition of Pfeiffer's work so shortly after the first bears out most fully what we then stated, as the present edition is almost twice as large as its predecessor. The whole work is interesting, and an enormous number of new facts have been collected; but the second part relating to the occurrence of parasitic diseases of protozoan origin will have a special interest for our readers. Chapters on Malaria, on Vesicular Eruptions, and on Contagious Epithelioma and Darier's and Paget's Disease are especially interesting, and the short note on the Amœba Coli, which has been made familiar to English readers by Cunningham, Osler, and Simon, is also interesting. Even those who have read the first edition of this work will find it well worth their while to go through the second edition, as several mistakes have been corrected, and, as we have already stated, much new and important matter has been added.

Intubation of the Larynx. By JAMES B. BALL, M.D Lond., M.R C.P., Physician to the Department for Diseases of the Throat and Nose, and Senior Assistant Physician, West London Hospital. With Illustrations. London: H. K. Lewis. 1891.—This is in the main the

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reprint of an article contributed in 1889 to a medical periodical. But it has been brought up to date by the addition of later statistical results and certain other details. It is a short account of the history of intubation, of the method of inserting and withdrawing the tubes, and of the results hitherto obtained by their use. Those unacquainted with this treatment will find in Dr. Ball's book a lucid description of it, unmarred by the exaggerations to which enthusiasm for their subject, especially when a "new" one, often leads authors.

Bibliographie der Klinischen Helminthologie: Heft I., Echinococcus Cysticus. Von Medicinalrath Dr. J. Ch. HUBER. Munchen: J. F. Lehmann. 1891.—This, apparently the first instalment of what should be an exceedingly useful series of bibliographical references, gives at a glance an index to the most important literature that has been published on hydatid cysts. First, there is a general list; then comes a classified list of the papers dealing with the echinococcus as it occurs in the different organs and systems of the body; then the distribution or geography is taken up to date; and, lastly, a list of 136 German dissertations, dating from 1808 to 1891, with a similar list of Paris theses—eighty-five in number—completes the work, which occupies about forty pages. It would be well if those working at other directions would take the same trouble to collect and arrange the literature of their subjects for future reference by other workers. This bibliography would have been still more valuable had a short abstract (two or three lines) of each paper been given along with some indication of the relative importance of the work.

Clinical Lectures on Surgical Subjects delivered in University College Hospital. By CHRISTOPHER HEATH, Holme Professor of Clinical Surgery in University College, London. J. & A. Churchill. 1891.—These lectures have all been previously published in medical periodicals, and eight out of the total of seventeen have appeared in our columns. Our readers are well acquainted, therefore, with Mr. Heath's style as a lecturer. He is eminently simple and practical, and it is these features which have led to his success as a teacher, and they will commend these lectures to a large class of readers. Old University College men, in particular, will be very glad to have such a book as this to recall the lessons often impressed upon them by Mr. Heath.

Archives de Physiologie. Série 5, tome iv. No. 1. Janvier, 1892. E. Masson.—This number opens the new year well, containing a large number of articles, some of which are of considerable interest. Among these we may mention the following:—1. Inversion of the Blastodermic Laminæ, by M. H. Cristiani, which gives the results of investigations made upon more than 600 embryos of rats, showing that the effects of the inversion which occurs in the layers of the blastoderm in some rodents is not of any great importance in the development of these animals. 2. A curious paper on the Toxicity of the Urine of the Insane when injected into the veins of dogs and rabbits. 3. Mr. Roger gives the details of experiments, showing that the Liver is an important agent in preventing the Toxic Action of certain Drugs, as strychnine, as may be easily shown by the difference in the effect of that poison in animals possessing a liver as compared with those from which the liver has been removed. 4. M. Hénocque gives the results of his observations on the treatment of Phthisis by Injections of the fluid expressed from the Testes. 5. MM. Morat and Doyon give the results of their experiments to determine the Vaso-motor Nerves of the Eyes, which show that these nerves run exclusively in the cervico-thoracic sympathetic and in the fifth nerve. The great sympathetic plays in regard to the vessels of the fundus or posterior segment of the eye, the double part of constrictor and dilator. The fifth is the dilator of the vessels of both the anterior and posterior segments. 6. M. Gley supplies contributions on the Effects of Extirpation of the Thyroid in the Dog and in the Rabbit 7. MM. Wertheimer and Magnin give a paper on the Action of Ergotine and Ergotinin. 8. M. François-Franck shows a new Method of exposing and examining the Heart of Mammals. 9. Dr. Brown-Séquard shows that life can continue in certain regions of the spinal cord and in certain muscles andn erves for a considerable period after general death. 10. A Note on a Change hitherto unobserved in the Lens during Accommodation, by M. Tscherning.

Ophthalmic Charts. Devised by FRANK HAYDON, L.R.C.P. Published by Down Brothers, St. Thomas's-street, London, S.E.—These are charts of a convenient size (about three inches square), presenting a red ground with a white circle in the centre for the optic disc. By means of this anyone who is able to recognise the details of the fundus of the eye and has moderate skill in sketching can easily insert the vessels of the retina and depict any marked lesions of the retina or choroid. A legend below facilitates the recognition of the case by giving space for name, age, date, disease, vision R. and L., tension, and reading power. Another chart gives outline figures of the eye in full, in profile, and in section, which will save much trouble and at the same time prove very serviceable to the busy practitioner. We commend the charts to our readers.

Habit and Health: a Book of Golden Hints for Middle Age. Edited by GUY BEDDOES. London: Swan Sonnenschein and Co., Paternoster-square. 1890.—Though we cannot fix by any term of years the limit between youth and middle age, there comes a time in every life when, without apparent weakness, the abundant energies of the earlier period become set in a state of more moderate activity. There is good working power, and usually much to do, but a lessening of constitutional activity. The object of a series of hints on self-management at this critical period must commend itself to all thoughtful readers. Notwithstanding that a certain dryness attaches to this work in common with most others which are mere compilations of recorded opinion, it contains a good deal that is readable and instructive. More discrimination might, indeed, have been used in excluding views which have long since become antiquated; but one may still gather from this volume wise counsel as to personal guidance amid the work and worry of a busy life. Among other noteworthy quotations we may mention those from Abernethy and Sir Henry Thompson on diet, with some on exercise by Wilson Philip, as deserving of attention.

The *Veterinarian* for December contains reports of some of the papers which were read, and the discussions thereon, at the Seventh International Congress of Hygiene and Demography, a paper by Professor Walley, one by Mr. Gerald E. Griffin, D.V.S., on Porrigo (Texas Mange) in Horses, and an article on Tetanus by Dr. Claude D. Morris of New York. It also contains reports of the meetings of the Royal Agricultural Society of England, of the Central Veterinary Society, and the Scottish Metropolitan Veterinary Medical Society, before which Professor De Jong read a paper on Animal Parasites of the Skin.

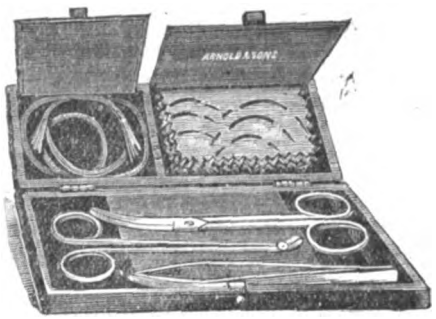
SMALL-POX AT BATLEY.—Despite the precautions which the Sanitary Committee and officials are taking with respect to the small-pox outbreak in Batley, fresh cases occur daily, and the accommodation at the Isolation Hospital is now fully utilised. One death has occurred there since its opening, and another is reported to have taken place in High-street, making a total of fourteen. The majority of the cases are stated to be in the unvaccinated, and mainly those of children.

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New Inventions.

AN IMMEDIATE PERINEORRHAPHY CASE.

THE accompanying illustration shows a case, made by Messrs. Arnold and Sons according to my design, containing all that is necessary for the suture, immediately after labour, of perineal ruptures. The contents are: 1. A supply of large full-curved needles of various sizes. In the circumstances under which the operation often has to be performed, unmounted needles appear to me to be more easily used than mounted needles, which need threading after passing.

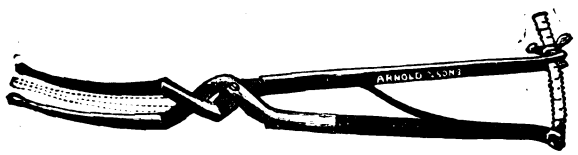


2. Wells's needle-holder. This has no catch, and is the simplest and best for most purposes. 3. Curved scissors to trim off any loose shreds of tissue. 4. Dissecting forceps. 5. Supply of wire or gut suture. The above can of course be modified to suit individual preference, but probably the plan of combining in compact and portable form the requisites for the operation, and thus securing that they are always complete, clean, and ready for use, will be a convenience to many practitioners, and will encourage the more frequent performance of immediate perineorrhaphy.

Leeds. JOHN BENJ. HELLIER, M.D. Lond.

A NEW UTERINE DILATOR.

THE accompanying engraving represents a new dilator designed by me, on the principle of my phimosis dilator figured in THE LANCET. The advantages of the dilator are its simplicity of action and its applicability for different uses. Not only does it allow the cervical canal to be evenly dilated throughout its whole extent, but by an arrangement at the end of the handles of a rack and screw, working on a scale marked in eighths of an inch, the



operator may correctly estimate the amount of dilatation he is producing, and may also keep the blades fixed by the same rack and screw while he makes his application to the interior of the uterus. In many cases of abortion it is necessary to dilate the only partially opened os uteri, in order to abstract the ovum or placenta. In such cases the dilator is of particular use, as it can be employed to first dilate the os uteri and the cervical canal, and then as an ovum forceps, to remove the uterine contents. The instrument has been made by Messrs. Arnold and Sons.

Boscombe. FREDERICK GARDNER.

BRITISH MEDICAL BENEVOLENT FUND.

THE annual general meeting of subscribers to this Fund was held at the residence of the treasurer on Thursday, Jan. 14th, Sir James Paget, Bart., F.R.S., President, in the chair. Amongst the subscribers present were Drs. Baines, Steele, Ince, and Felce, and Messrs. Mould (chairman of committee), Field, Churchill, Page, with Dr. Sidney Phillips and Mr. Edward East (hon. secs.). In the absence of the treasurer the financial statement and the report of the committee were submitted to the meeting by the hon. secretaries. From these it appears that in administering the British Medical Benevolent Fund during the past year the committee have constantly kept in view the objects for which the Fund was founded—of affording immediate pecuniary relief to distressed qualified members of the medical profession, their widows or orphans, and of granting annuities to such after they have attained sixty years of age. The Fund has received during the year the sum of £4968 in legacies, together with income resulting from previous investments, and £3892 14*s.* 6*d.* subscriptions and donations. With regard to the legacies, the sum of £4968 includes the last instalment—£1450—of the Chapman bequest, making in all £14,750 from that estate; also £3500 from the estate of the late Dr. Marris Wilson, and £17 19*s.* 2*d.* from that of Miss M. A. Pretty. The income from dividends shows again a considerable increase owing to the large additions to capital made during the last three years. Subscriptions for 1891 have shown a marked increase, being £1312 2*s.* 1*d*, as compared with £1208 18*s.* 6*d.* in 1890, an increase of over £100. The donations, which stood at £576 in 1890, slightly exceeded that amount in 1891, being £580, independently of a generous donation of £2000 from "J. S.," bringing the total up to £2580. The total receipts, therefore, in subscriptions and donations was £3892 14*s.* 6*d.*, as compared with £1785 in 1890. The beneficiaires of the Fund have been relieved, as usual, either by grants or annuities. Grant department: The number relieved was 159, the same as in 1890, the grants varying in amount from £5 to £20, and, as in former years, these were in most cases distributed in instalments by honorary local secretaries and other members of the committee, or through the agency of the Cheque Bank, the amount distributed being £1768. Annuity Department: In this department £2000 of the donations, as well as £4871 received from legacies, were invested, and the special fund for raising £20 annuities to medical men to £26 was increased by the investment of £50 in Midland Debenture Stock. The sum of £1763 6*s.* 8*d.* was distributed in annuities to 99 recipients, these annuities being as usual paid monthly. There were altogether 25 new annuitants elected during 1891, 4 at £10 and 21 at £20 each, and two medical men were placed upon the special fund. Annuitants at the end of the year numbered 93. One honorary local secretary was elected during the year in place of Dr. Fernie—viz., Dr. Averill, for Macclesfield; and the services of gentlemen willing to act in that useful capacity would be welcomed by the committee. Of vice-presidents the committee have had to deplore the loss by death of Sir Prescott Hewett, Bart., F.R.C.S., and of Mr. John Morgan, F.R.C.S.; and Dr. Bissett Hawkins, F.R.S., and Mr. David Taylor were elected to fill the vacancies. Mr. J. H. Morgan, F.R.C.S., was added to the committee, the members of which, together with the officers, were re-elected. Votes of thanks to the chairman of committee, auditors, treasurer, and hon. secretaries, the medical press, and to Sir James Paget, the chairman, were accorded and suitably acknowledged. The committee would observe that the entire work of this charity is voluntary, only printing and stationery costing anything; so that, excepting collectors' commission, every penny subscribed is available for the purposes of the Fund; and they would earnestly solicit the attention of the profession to the work and invite subscriptions, which may be sent to any member of the committee, and especially to the honorary financial secretary, Sidney Phillips, M.D., F.R.C.P., 62, Upper Berkeley-street, W.

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THE LANCET.

LONDON: SATURDAY, JANUARY 23, 1892.

THE great political event of the day in the politics of the world is the famine in Russia. There can scarcely be a doubt that the event threatens to be appalling. Out of it, if it progresses, we are condemned almost of necessity to experience one of two additional calamities—war or pestilence; nay, perhaps a combination of these lamentable evils. The immediate cause of the famine it is not easy to divine; the full extent of it is difficult to define; so many unsatisfactory and inextricable causes or descriptions have been stated, on what is called authority, but authority of little value. It is, however, a fact that, despite the domestic economy of the peasantry of Russia, and in most instances of the noble families, there has been a steady dearth of food. Before the war between Russia and our own country in combination with France, the surface of the Russian Empire embraced 1,675,492,948 acres of land, rather more than one-fifth of which was under cultivation. About 24,000,000 acres were private domains; 218,387,516 were devoted exclusively to arable purposes; 107,971,138 were pasture land; 393,277,413 acres were covered with forest wood, and 932,052,138 were waste. Deducting the waste and forest lands from the whole, there were left 350,163,397 acres of cultivated soil, which, on a uniform distribution to population, would have given a proportion of more than six acres and a half to each one of the 53,000,000 of the then existing inhabitants. From these resources it was calculated that the produce of the empire was sufficient to supply all the people with the elements of food that were just sufficient for life. There the produce ended; for beyond the production of food very little indeed was done with the soil. A few years before the war it seemed as if Russia were contemplating the opening up of her mineral resources, and a man of science from Russia, the Count ST. ALDEGONDE, who knew the then reigning Czar, came over to this country to see how we developed our mineral wealth, and sought interviews with some of our leading engineers in order to ascertain what help they could give towards realising the splendid conception. SOPWITH, one of our men of science whom the Count consulted—and a better authority he could not have selected,—was much taken with the design; he considered that in such vast tracts of country the most precious mineral wealth must lie concealed, especially in the southern districts, and he thought that the whole question of advancement of the Russian peasants lay in making them miners on their own soil rather than residents in Siberia.

Every historical student knows that this beneficent project was never carried out, but that instead the great empire was setting its teeth for war. Not to develop peace and plenty at home, but to try to seize plenty abroad by the instrumentality of an overwhelming armed force was the policy pursued—a policy as decisive as it was fatal. Within fifteen years the difficulty with the unspeakable Turk came again forward, followed by the Crimean campaign, the humiliation of Russia, the triumph of England and France, and a patched-up peace. From that moment the Russian peasant lost, in some degree, even the former quota of the miserable black bread on which he had previously held body and soul together. All heart for engineering enterprise failed, except when the manufacture of weapons of destruction was concerned. She fought again, and for once to conquer, but only to impoverish herself the more. We have known for some time past that her cargoes of grain as export produce have grown smaller and smaller; we have heard from travellers in her domain, like that bold and fine observer the Rev. Dr. LANSDELL, that, however fair her exterior, she was in danger on every hand; and now we realise where her chief danger lies,—not primarily, as many have supposed, in Nihilist conspiracies, nor in wars on foreign soil, but in plague, pestilence, and famine on Russian soil itself—famine set by Russian hands that might now have been opening the vast treasures which the soil only conceals, and by which, with less ambition for the conquest of men and more ambition for the conquest of nature, her Government might long ago have converted a starving people into one of the wealthiest and happiest on the face of the globe.

Let bygones be bygones; we are now in the presence of a great calamity, and it is our duty, as men of humanitarian science, to do all we can to enlighten everyone whom we are able to influence on a subject that must come home practically, to some extent, to everyone. The danger of famine is famine fever, and famine fever, when once it is established, is a disease which shows no respect to distinctions. It spreads from the famished to the unfamished. As we have seen it, famine fever is a special pestilence of the remittent type, very fatal, easily communicable, and running a course, when once it is lighted up, uninfluenced by any specific remedy. It is as if the starving people generated it, as the neglected occupants of the gaol, before the time of HOWARD, generated the malignant typhus which made the "Black Assize" and many more assizes equally black, the histories of which have never been told. It is a fever very unmanageable in respect to individual sufferers, and when it has gained its ground it is as unmanageable, in respect to its ravages, in communities. The grand sanitary manœuvre is to prevent its commencement. In the Irish famine we did not prevent its birth, and we know the cost that was paid for our negligence. In the cotton famine of Lancashire we succeeded in preventing its inception, and we have ever since felt the triumph of science in that success. We learned also in that triumph how comparatively easy a thing it is to accomplish success, even under great pressure. Whether the Russian authorities have the means at hand to follow our example let the special report we this day publish tell. The Russian peasant living on such bread as we have subjected to analysis and describe to-day must already be on the verge of starvation before his exposure to actual starvation begins. His tastes, moreover, are little cultivated for any new supplies that may be sent to him from abroad. These are ominous facts; but they should not stand in our way in the attempts to stop at its

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beginning a disaster the end of which, if it be allowed to go on, must be perilous in these days of intercommunication to the whole world. How the assistance of this country can be best administered is a difficulty of supreme importance. Money we can raise; but money, like the bag of gold which the starving traveller found in the desert, hoping for his life-sake that the rich coins were dried nuts, may be more easily thrown away than usefully applied. For our part, we admit that at the present we do not see any method of application of means other than by the transportation of food. But what food can be sent to supplant the stuff we have analysed, and, in the face of the obstacles which lie in the way of distribution, how can the starving people be fed with what is offered to them?

THE severity and extent of the present outbreak of influenza are well calculated to excite apprehension, but to give way to unreasoning panic is foolish and reprehensible. Some of the comments made by irresponsible writers on the apparent impotence of medicine to allay this scourge seem almost akin to those ignorant outbursts of fury which in time of plague have led in some countries to the infliction of personal violence upon those engaged in caring for the sick. It is perhaps hard to maintain a philosophic calm when the people are perishing, presumably from "lack of knowledge," but at least credit should be given to the guardians of the public health for sparing no endeavour to understand the true nature of the malady that has so many singular features and visits the globe at such rare intervals. When the Italians gave the name "influenza" to the affection they did so in the belief that its visitations were connected with astral conditions, and doubtless at the time such an explanation was deemed sufficient. At any rate, it relieved men from the labour of seeking for mundane sources of origin. And it is possible that if some ingenious philosopher could formulate a theory of the disease somewhat more in harmony with science, and would adhere to it as the true and only explanation, many would feel satisfied with his explanation without further proof. Such a mode of solving pathological problems would not, however, be in accord with the spirit of modern research. The inquiry into the nature of so rare and remarkable a malady is complicated by so many circumstances that it requires a patience which is not invariably shown by those who clamour for more knowledge. The latest bacteriological investigations by Drs. PFEIFFER, KITASATO, and CANON have led to the discovery in the expectoration and in the blood of influenza patients of a hitherto undescribed microbe of very minute size and special properties, which so far has responded to the tests requisite to determine the pathogenic nature of such organisms, and has been successfully cultivated in nutrient media. The importance of this discovery is heightened by the now fairly general belief in the infectiousness of influenza.

Still it must not be forgotten that until the present pandemic, which began in the autumn of 1889, opinion was not only much divided as to the contagiousness of the disease, but rather, we would say, predominantly opposed to this view of its nature. Miasm rather than contagion, certain obscure atmospheric agencies rather than direct transmission of germs from individual to individual, were held to be most fitting to explain the remarkable phenomena it exhibits. The extreme rapidity with which the malady spreads over the surface of the globe, the simultaneity of outbreaks in widely separated countries, the similar general incidence upon large numbers of people at one and the same time, these and many other considerations weighed in favour of its non-contagiousness. Nor is it possible to entirely divest the mind of the idea that the disease is spread in other ways than by direct or indirect infection, although Dr. SISLEY—who is a leading exponent of the infectious doctrine—considers that general susceptibility or vulnerability, added to marked brevity of an incubation period, can explain all these apparent anomalies. Whether it be miasmatic or not, it is, however, indubitably infectious, and the resolution passed at the recent meeting of the Society of Medical Officers of Health conveyed this opinion in an authoritative manner, being thereby in harmony with the conclusion arrived at by Dr. PARSONS in his inquiry on behalf of the Local Government Board, and that which is said to have been reached by the German Collective Investigation Committee. It may therefore be taken as a postulate that one, if not the sole, mode of spread of influenza is by infection. What, then, is the logical outcome of such an admission? Clearly, some would say—and Dr. SISLEY himself advocates this in his interesting monograph—schedule the disease in the Public Health and Notification of Diseases Acts, and enforce the provisions of those Acts with all the rigour that the law demands. Unfortunately, from the very nature of the disease, the spread of influenza is not likely to be controlled by such a step. The meshes of the Act—although sufficient, doubtless, to arrest the progress of epidemics of other known contagious disorders—are not fine enough to retain within them so subtle a malady as this. It will elude them as easily as water will escape from a sieve; and it needs no extraordinary foresight to see that were the country to act, in respect to influenza, on the principles laid down in those enactments, the result would be a costly and disheartening failure. On a smaller scale, even, much disappointment might attend such isolation and measures of disinfection as can be practised in a household, and the adoption of which may be recommended. The "shortness of the period of incubation," adduced by Dr. SISLEY as one reason for its rapid diffusion, may evince itself in successive attacks of other members of the family, and render all such precautions of no avail, except as protecting new comers to the infected house. In his excellent exposition of the legislation in force in this country on infective diseases, in the paper read before the Society of Medical Officers of Health (*vide The Times*, Jan. 20th), Dr. SISLEY considers that had influenza been declared among the scheduled diseases before the prevailing outbreak much might have been done to limit its spread; but he also shows plainly that in the midst of an epidemic the time involved in the legal formalities of placing it on the list would render it practically impossible for the sanitary authorities to exercise any adequate influence on the spread of the disease. Dr. SISLEY is far more confident than at present we feel that we can be of the possibility of coping with influenza by prophylactic measures.

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Although, then, there may be legitimate ground for disputing the efficacy of the ordinary measures of prophylaxis, there is a practical consensus of opinion as to the general lines of treatment to be adopted in the developed attack. There can be no question as to the advantage of having prompt recourse to rest in bed and a persevering administration of easily assimilable food, together with such special remedies as may be called for by the type of the disorder. Every practitioner knows that the manifestations of influenza are by no means uniform, that in some the headache, pains, and prostration, in others gastric or pulmonary catarrh, predominate, and he has to regulate his choice of remedies accordingly. Few are prepared to admit that, even with the adoption of all precautions, it is possible to ward off the supervention of severe bronchitis or pneumonia, which carries off so many of the weakly and the aged, or to prevent the protracted convalescence and the nervous sequelæ that characterise a certain number of cases. When, however, we attempt to realise the extent to which influenza prevails, and estimate its gravity in proportion to its morbidity, even the long list of fatalities dwindles to almost insignificant proportions. Still this is but small consolation, and the demand for some truly specific or antidotal remedy is perhaps natural. Many such have been introduced—some, to be sure, with little reason, and all based more or less upon theoretical considerations. There is, however, one remedy which, from its simplicity and from the very confident opinion expressed by its introducer, may be singled out, in order, if possible, to get some more general opinion as to its merits. We refer to the use of large and repeated doses (thirty grains every two or three hours of potassium bicarbonate, which Mr. CRERAR of Maryport introduced to the notice of his fellow practitioners in an address he delivered as president of the Border Counties Branch of the British Medical Association (and which appeared in abstract in these pages on Dec. 19th, 1891). We need not concern ourselves with the somewhat strained analogies and arguments adduced by Mr. CRERAR in that paper, or dwell on the fact that it is not possible from his address to perceive why he should have come to the conclusion that the influenza poison could be neutralised by increasing the alkalinity of the blood. We may fail to be convinced of his logic, and yet not refuse to accept his facts; and the evident sincerity of his statements, which, in a paper he has just forwarded to us, are supported by the experience of others, and particularly by the personal testimony of a well-known teacher in Edinburgh University, together with the results of the treatment in the wards of the Edinburgh Infirmary, seem to warrant some attention being paid to them. It is not necessary to give the text of this paper, which mainly consists in the citation of such testimony, but in justice to its author we may quote his conclusions as to the advantages of the method. They are:—

"1. If used before the attack it prevents the disease. 2. It destroys the power of the disease within twenty-four hours, generally within four or six hours. 3. The strength is conserved, and the convalescence is short and satisfactory. 4. Sequelæ are conspicuous by their absence. 5. The death-rate is reduced to a minimum. I have not had any death in more than one thousand cases. 6. It has more power over influenza than I have ever seen exerted by any method of treatment over any other disease, and I have had an extensive practice for upwards of a quarter of a century. 7. If adopted by the whole profession it would make influenza non-existent in one week. 8. It rests upon a sound scientific foundation."

The last two conclusions may be open to question, but the preceding are statements which no medical practitioner of standing would venture to put forward without good cause. Therefore, without in any way desiring to bias opinion, we have, after due consideration, deemed it only right to call attention to these statements in order that they may be put to the test. No doubt one's first impulse is towards incredulity, but *primâ facie* it can hardly be asserted that the method is unreasonable, although the administration of such large doses of a salt that has undoubtedly a depressing action on the circulation is surely a step to be taken with circumspection and care, especially in a disease so characterised by depression as influenza.

IT is now nearly nine years since the operations of the Contagious Diseases Acts were suspended in their most important feature, and seven years since they were wholly repealed. A sufficient interval has therefore elapsed to enable both their supporters and opponents to judge how far their action was justified. In THE LANCET of Feb. 7th and 14th, 1891, the results were given so far as regarded the reduction of disease in the army and navy, and, so far as could be ascertained from death statistics, among the civil population. These showed that, making every reasonable deduction for increase or decrease accountable for in other ways, or for fluctuations which affected all the military stations whether protected or unprotected, the reduction of disease at the fourteen protected stations was from the first persistently and markedly lower than in the other stations, whether the ratio of reduction was compared with that of fourteen unprotected stations selected for the purpose of comparison or with that of all the stations never under the Acts. In the naval stations the reduction was well marked in the ports protected by the Acts as compared with those which were not protected. With regard to the civil population, there was a remarkable diminution in the ratio of deaths from syphilis in those districts of the Registrar-General which contained the protected stations. Since the Acts were repealed all this has changed, and the diseases which these Acts were passed to prevent have reverted to the extent and severity which they showed prior to the passing of the Acts. But this reduction of disease, though it accomplished the purpose for which the Acts were passed, though of great importance to all interested in the wellbeing of the army and navy and of the State at large, is by no means the only good effects of these much-maligned and now repealed Acts. As one evil leads to another, so does an honest effort act in its good results far beyond its original designs. The object of those by whose efforts the Acts were passed was the honest desire to reduce the amount of venereal, and particularly of syphilitic, diseases, which then prevailed to an extent which a Select Committee of the House of Commons described as "appalling." This strong expression was not applied to any of the other diseases from which soldiers and sailors suffer in common with civilians,

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from which it may be concluded that syphilitic diseases had gradually increased to such an extent and severity as to seriously alarm the authorities. Hence followed the Select Committee of the House of Commons in 1862, the first Contagious Diseases Act of 1864, the appointment in that year of the Select Committee of Physicians and Surgeons, of which the late Mr. SKEY was chairman, and later on the amended Acts of 1866 and 1869, and the Royal Commission of 1870.

The women who then surrounded the camps and abounded in the naval seaports were described in the report of the Royal Commission as "miserable creatures, who were mere masses of rottenness and vehicles of disease;" while one of the witnesses described the "soldiers' women" admitted into one of the metropolitan workhouses as "a very low, dirty class, the shame of humanity." It is not surprising, therefore, that the first Act contemplated rather the prevention of disease among them than their reclamation. But this omission was only temporary. These women, brought, some from their miserable dwellings and others who had no homes at all from their haunts, to hospitals where they were cared for and kindly treated, were first humanised, and thus rendered capable of receiving the benefit of religious influences. Their reclamation soon became a recognised part of the system, and the influence brought to bear upon these women by the chaplains, the matrons, and the medical officers was most successful. The Acts were not only successful directly in preventing, and reducing disease, but also, indirectly, in reclaiming from a vicious life women whom society had left to perish, and whom even philanthropy had failed to reach.

Those, therefore, who have supported these Acts through evil report and good report may very fairly ask their opponents, You have closed ten Government lock hospitals; have you provided others in their stead? You have disestablished the chaplains, the matrons, and the medical officers, who were instrumental in reclaiming so many of these poor outcasts; have you provided any substitute for these? Is the "social evil" less rife in and around Aldershot, Chatham, Portsmouth, Plymouth, Cork, and the Curragh since the Acts were repealed? Is it better or worse in London, Birmingham, Manchester, or Liverpool, where the Acts have never been applied?

As the recent case of the Spinning House at Cambridge is still *sub judice*, any comment would be improper. But let it be supposed that a serious and earnest effort were made to prevent or diminish venereal diseases in the metropolis or any large centre, how could this be accomplished. There can be no doubt that these diseases are largely propagated by those women who make prostitution their means of livelihood. Many of these women, notably those of the lowest class, might still be called the shame of humanity. Would it not be to them a humane act to reach them by the aid of some machinery, whether by police or other aid, to ascertain by medical examination whether they are or are not diseased, to have the diseased conveyed to hospital and detained there till their maladies are cured, and to subject them to moral and religious influences? That some would be reclaimed cannot be doubted; that others would return to their old life is too probable. But there would be this difference between the proposed new and the present system, that at least something had been done to benefit their bodies directly, and their souls indirectly. THE LANCET has so repeatedly urged the importance of chastity in men, that the insinuation of wishing to make vice safe is one which, if raised, can be disregarded. The social evil has always existed, and it is to be feared will exist, so long as poor human nature remains frail and sinful. Much, however, might be done to diminish its worst features without in the slightest degree encouragin immorality.

Annotations.

"Ne quid nimis."

THE INTERNATIONAL SANITARY CONFERENCE AND THE SUEZ CANAL.

IT is not yet clear what will be the outcome of the International Sanitary Conference at Venice. A great deal of misconception appears to exist in regard to the subject of epidemic cholera. The current doctrine seems to be that India is its great home and manufactory, and the starting place of European epidemics, and that a system of maritime quarantine is consequently especially necessary and easy of application in the case of India, seeing that the Suez Canal is the channel of communication between that country and Europe. Now, what are the facts? A paper written by Dr. W. J. Simpson, the health officer at Calcutta, for the International Hygienic Congress of 1891, on "Maritime Quarantine and Sanitation in relation to Cholera," which has appeared in the *Indian Medical Gazette* for December last, puts these very clearly. Dr. Simpson fully believes that cholera, under certain conditions, is a communicable disease, and that its history in Europe and America shows that it has been carried in ships; but he nevertheless contends that it has never been carried from India to Europe by shipping, and that the chances against its being so conveyed to Europe through the Suez Canal are very slight indeed, for the simple reason that the population which is chiefly affected by epidemic cholera in India never travel by ships. The fact is that the religious and social conditions prevailing among the inhabitants of India enforce upon them a far more rigorous system than is imposed by any methods of quarantine. The native population of India mainly consists of persons of the Hindoo and Mussulman faiths, and it is among these that cholera epidemics occur. Now the Hindoo is prohibited by his religion from making a sea voyage to Europe. He would be excommunicated and cut off from Hindoo society in its social, religious, and political aspects. As regards the Mahomedans, on the other hand, they are not a migratory or maritime race and as a matter of fact are, as far as regards trade, as isolated by sea from Europe as the Hindoos who never stir from India. It follows therefore that the risk of cholera being imported from India into Europe is practically confined to the Europeans—civil and military—among whom cholera rarely prevails. Cases of cholera, no doubt, do occur, however, among the passengers by troopships and steamers; but the disease commonly ceases before the ships reach Suez; and, anyway, there is no record of an epidemic or outbreak of cholera in Europe having been traced back to India *viâ* the Suez Canal. That is not the way by which the disease has reached Egypt or Europe. On the contrary, there is every reason to believe that Dr. Simpson is right when he says we must not look to India, but to Mecca, as the place whence, and to the pilgrims assembling there annually from Europe, Asia, and Africa, by land and by sea, as the chan-

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nels by which cholera is transmitted, and apply our sanitary regulations and precautions there. Be this as it may, it still seems to us that on the grounds of common sense and practicability it would be safer to send a cholera infected vessel straight through the canal to her destination without touching anywhere than to detain her at Suez in quarantine, for the disinfection of personal linen, &c., under conditions that would be likely to augment the risk of an outbreak rather than otherwise. It is assumed, of course, that the ships would pass through the Suez Canal as if it were an arm of the sea, and without any communication whatever with the shore. As regards Malta and Gibraltar, the fear lest the commercial relations of these places with other maritime countries would be jeopardised, to say nothing of the timidity of their native populations, would probably lead to all the cholera-infected vessels being put in quarantine at those stations.

HOW TO IMPROVE THE POSITION OF THE PROFESSION.

DR. ORLANDO JONES, in his presidential address to the Harrogate Medical Society, took for his subject the Possibility of Improving the Position of the Medical Profession. He infers from the writings of Pliny, the medical learning of the Druids, and from those of Ptolemy that their wealth was equal to their learning. Such being the honoured and happy case of the ancient representatives of medicine, he argues that it should not be otherwise with its present practitioners. He does not seem to look for any amelioration in the position of the profession by attacking the Council of the Royal College of Surgeons, or by a mere increase in the direct representation of the profession in the Medical Council. These are his negative views. The first of his positive suggestions for improving the tone of the profession is the introduction of a law enforcing at least one year's apprenticeship before the commencement of medical study; the second is the formation of a fund for the benefit of the profession, encouraging thrift among the active and giving help to the less fortunate. There is something to be said for both suggestions, but we confess to thinking them entirely inadequate as the sole levers by which the positive tone and power of the profession are to be raised.

A FRAUDULENT UNDERTAKER.

IT is much to the credit of the large class of men and women who conduct funerals, and have many opportunities of resorting to irregular practices for the sake of gain, that so comparatively few charges are brought against them. The few irregularities which do occur generally come to light sooner or later, and the exposure, together with the fine or imprisonment which follows, must mean ruin to the prisoner so far as his calling is concerned. The most recent case is that of an undertaker who was summoned before Mr. Baggallay at the West Ham Police-court, at the instance of the local superintendent registrar of births and deaths, for burying the body of a child aged ten days in the coffin containing the body of another child sixteen days old. Mr. Lynch, the barrister, who prosecuted, described the case as a cruel fraud upon poor people, and the worthy magistrate emphasised this even more strongly. It appeared that a woman named Healey lost her child on Oct. 8th last. It was only ten days old, and its mother, who was still ill, saw the body of the child placed in the coffin, which was brought to the house, screwed down, and taken away. The birth and death were registered, and the burial order was sent to the defendant's place of business, and on the 10th he sent her word that the child had been buried in the East London Cemetery, giving her the number of the grave. Later on Mrs. Healey went to the cemetery to visit the grave of her child, and not being able to find the number of the grave she communicated the fact to the cemetery authorities, who subsequently found that the body of Mrs. Healey's child had been buried with a child named Walker. The defendant had therefore defrauded the cemetery authorities and acted in contravention of the Registration Act, which requires the burial order to be delivered to the cemetery authorities. But this was not all, since in this as in similar cases one fraud leads to another. The child Walker being sixteen days old, the defendant had altered the figures in the burial order to eleven days, his object being to save 2*s.* 6*d.*—the difference between a child under twelve days and above that age. The defendant wanted to hush up the matter by paying a few shillings, and when this was refused he declined to say in which of three cemeteries the child's body had been buried. He also said that he had done the same thing many times, and that all undertakers did it, which we hope and believe is untrue. He was fined £10, with £2 14*s.* costs, with the alternative of two months' imprisonment. The fine was paid. Some years ago the bodies of four newly born infants were found in the coffin of an adult, and it is chiefly with newly-born children, stillborn or surviving their births from a few minutes to a few weeks, that these frauds and breaches of the Act occur. A sliding scale of fees is indispensable, but it would be more reasonable if it referred rather to the space occupied by the body than to its age. To poor people it must seem inexplicable why they should have to pay what to them is a very serious sum because a child lived a few minutes or because it died on the twelfth instead of the eleventh day after birth. Many a stillborn infant weighs and measures much more than a prematurely deceased infant, and yet the fees for the latter are often double those of the former. Perhaps some scheme may be adopted which will not hold out inducements for fraud in the burial of infants, and appear less arbitrary to those upon whom the expense falls.

THE CENTRE FOR HEARING.

A CASE of no little interest and importance in this connexion is recorded by Dr. C. K. Mills in the current number of *Brain*. The patient, a woman of forty-six, was admitted to hospital in August, 1891. Her history made it probable that she had suffered from specific disease. She was right-handed. Fifteen years before she had a "stroke," which left her word-deaf, but not paralysed. She could hear musical and other sounds, but she could not understand words; yet she could apparently read and understand a paper, although in an attempt at reading aloud she made a jumble of the words, and a similar imperfection was present during ordinary attempts at speaking. She was able to write, but wrote wrong words. Six years later she had another stroke affecting the left side of the body, and leaving her partially paralysed on that side, and then her hearing was much impaired, so that there was not only word-deafness, but deafness also for ordinary sounds. Her condition, when examined by Dr. Mills, was one of almost complete helplessness. It was impossible to make her understand what was said to her, and after repeated tests the conclusion was come to that she was totally deaf. She died of exhaustion, and at the necropsy the left superior temporal convolution was found to be much atrophied, except anteriorly. In the posterior fourth of the second temporal convolution and the parallel fissure was a depression or cavity, at the bottom of which was a small mass of shrivelled tissue, which was regarded by Dr. Mills as the remains of an old patch of softening. The rest of the temporal lobe was normal, but there was a considerable amount of atrophy around the ascending branch of the Sylvian fissure and the bases of the two central convolutions, as well as in the hinder part of the third frontal. In the right hemisphere was an old haemorrhagic cyst, completely destroying the first and almost

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completely the second temporal gyrus, the island of Reil, and the convolutions behind, as well as part of the ascending convolutions and of the central substance. The auditory nerves were atrophied, and the striæ acousticæ are said to have been invisible to the naked eye. From this case Dr. Mills thinks he is justified in contending that the centre for word hearing is situated in the hinder thirds of the first and second temporal convolutions, and is possibly restricted to the second, and that although the auditory cerebral arrangements have their chief development in the left temporal lobe, destruction of the opposite centre is necessary in order to abolish hearing entirely. Several minor conclusions are also drawn, but the above are the most obvious.

NEW WATER-SUPPLY FOR DANBURY.

AN excellent water-supply has been provided for Danbury in Essex, and the arrangements have been ingeniously and skilfully carried out. Spring-water, certified as pure by Dr. Thresh, is first collected in a reservoir, and it is then passed down to a hydraulic ram, by means of which it is lifted 180 feet through a rising main of about one mile in length. Thus, by gravitation, the inhabitants are supplied with some twenty-five gallons a head per day of wholesome water at a cost which will be entirely covered by a small and reasonable water-charge. It is stated that there is not another ram in England working with a 27 feet head and throwing water to such a height as has been effected with success at Danbury. The scheme is, from this point of view, worthy of the attention of the sanitary authorities of rural and small urban districts.

EXPERIMENTS WITH THE PNEUMOCOCCUS.

AT the present time, when pneumonia is exceptionally prevalent, it may be well to recall the investigations conducted last year by Drs. G. and F. Klemperer, and published in the *Berliner Klin. Wochenschrift*[1] in August last. They then detailed experiments, the practical outcome of which may possibly be of real therapeutic importance. It is known that in most cases pneumonia, after having during from five to seven days caused grave general symptoms, terminates abruptly by crisis. At this period there has been little or no change in the state of the lungs, which still remain infiltrated with fibrinous exudation, or in the properties of the pneumococci, which are found in great numbers in the sputa and retain all their virulence. On what, then, does the pneumonic crisis depend? Only one explanation seems possible: the crisis is due to the products of the organisms, which, by their accumulation, modify the soil on which the microbes develop. In their experiments made on rabbits, the investigators observed that any nutritive substance which had served as a culture medium for the pneumococci, even if it had been separated from the microbes by filtration, conferred on the animal immunity against the pneumonic infection. They next proved experimentally that the blood serum of a rabbit "vaccinated" against the pneumococcus may cure an animal infected with pneumonia. An intravenous injection of eight cubic centimetres of serum of an animal rendered refractory, practised twenty-four hours after the infection, produces a gradual fall in the febrile temperature, and hastens the recovery of the animal. In another series of researches, devoted to the study of the cause of the remedial action of the serum of inoculated animals, the same observers found that the pneumococcus, when introduced into the body of an animal, gives rise to the production of a "pneumotoxine," which may be isolated. This pneumotoxine produces a febrile reaction of several days' duration, after which they have noted in the fluids of the animal another substance, "anti-pneumotoxine," which has the power of neutralising pneumotoxine. The blood serum of an animal on which immunity has been conferred contains anti-pneumotoxine, and it is this which seems to forward the recovery from the pneumonic infection. In the blood serum of patients affected with croupous pneumonia, they have also found pneumotoxine and anti-pneumotoxine, the former chiefly during the febrile period of the disease, the latter after the crisis. They also claim to have treated successfully rabbits suffering from pneumonia by injecting into these animals blood serum taken from a pneumonic patient after the crisis. Being assured by experiments made on themselves that man may support with impunity and without any local and general reaction injections of the serum of animals rendered refractory to Fraenkel's pneumococcus, the investigators treated six patients affected with pneumonia. Although the number treated was small, the result has been very encouraging. In fact, in all these patients a hypodermic injection of from four to six cubic centimetres of serum was followed at the end of from six to twelve hours by a considerable fall in the temperature, with slowing of the pulse and respiration. These observations are especially noteworthy as confirming those made by Emmerich and Fowitzky, who claim that they have conferred immunity on the rabbit by means of hypodermic injections of attenuated cultures of the pneumococcus; but this immunity, they say, is incomplete. On rabbits infected by pneumococci, on the other hand, full immunity is obtained by intravenous injections of a culture having its entire virulence, but largely diluted. The liquid obtained by crushing the organs of an animal thus rendered refractory exercises on the pneumonic infection a sure remedial action when it is injected under the skin or into the abdominal cavity, and especially when it is thrown into the veins of the infected animal.

[1] Abstract in the Boston Medical and Surgical Journal, Nov. 12th, 1891.

THE MILITARY HOSPITALS IN UPPER EGYPT.

AT the conclusion of his recent tour of inspection in Upper Egypt, Major-General Walker, commanding the army of occupation, directed a letter to be written to the officer commanding the frontier field force in which General Walker, among other subjects connected with his inspection, referred to the condition of the hospitals with which, he said, he was particularly pleased.

THE PASTEUR INSTITUTE AT MILAN.

WE have before us the committee's report of the working of this institution—"Istituto Antirabico Milanese," as it is officially called—for the two years that have elapsed since its foundation, and a most interesting document it is. Financially, the Institute is in a flourishing condition, thanks mainly to the liberality of local business houses, seconded by careful management. Therapeutically it has more than justified its establishment. Dr. Remo Segré, its director, having passed in review the various methods of combating the canine virus in the human subject, decides most emphatically in favour of that of Pasteur. His statistics, checked in every possible way, certainly bear out his decision—the one modification he ventures to make on the method of his master being as to the dose of the matter inoculated. This he would certainly increase, even in the case of children. Dr. Segré uses a syringe of two grammes and a half, and employs an entire centimetre of marrow for each patient. He obtains an emulsion much denser, and therefore richer in the remedial principle. "It is notorious," he adds, "that children form the larger contingent of our patients and have a greater receptivity for the canine virus than adults. A more energetic action of the remedy being therefore required, he gives the child as large a dose as the grown man. On the system of the parent Institute at Paris,

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he divides the patients under treatment into four categories. The first, in his report, includes 108 persons bitten by hydrophobic animals whose rabies was confirmed by experiment in the laboratory, or bitten by animals whose bite was followed by death from hydrophobia in other persons. In this category, out of 108, there were but two deaths. The second category comprises 121 cases of persons bitten by animals whose rabies was tested and reported by a medical man or a veterinary surgeon. In this again, out of the 121, the deaths were only two. The third category contains nine doubtful cases. In this no death occurred. The fourth and last category is made up of cases "remanded"—that is, of persons bitten by dogs or animals, but in whose cases the evidence of being bitten was not sufficiently complete to justify their being subjected to the Pasteur treatment. This, of course, includes no deaths in Dr. Segré's report. He claims a lower percentage of mortality than can be shown by any other Pasteur Institute on the Continent, and some of his remarks are of interest as evincing the care he bestows on the subjects brought under treatment. Having shown that male cases are more numerous than female, and that children are more often bitten than adults, he observes that the more the bites on a patient and the more various the parts bitten, the more probability is there that the animal is hydrophobic. With regard to the four deaths that occurred after treatment, he says that cauterisation had been practised on all, and without loss of time; with the actual cautery, moreover, which is considered the best in such lesions. This fact of the greater mortality occurring among the cauterised is in absolute keeping with the statistics of the Pasteur Institute at Paris. Dr. Segré adds that a prompt cauterisation, made within half an hour after the bite, has always a certain value, but it must be a liberal cauterisation, deep and, above all, immediate; otherwise it is useless or worse. He concludes by saying that the Pasteur method is not absolute. It does not save all hydrophobic patients, just as quinine does not cure all malarias, or salicylate of soda all rheumatisms, or mercury all cases of syphilis; while each of these remedies has a specific action which no one doubts. In like manner the Pasteur method, though not invariably successful, has the incontestable merit of having greatly lowered the mortality from hydrophobia, and may yet be so far perfected as to reduce the victims to the fell malady to an almost inappreciable minimum.

THE LONDON WATER-SUPPLY.

MESSRS. CROOKES, ODLING, and TIDY, on behalf of the directors of the water companies, report that during the month of November of the 175 samples examined all were found to be clear, bright, and efficiently filtered. Throughout November the condition of the water-supply to the metropolis, although, by reason of the continued exceptionally flooded state of the rivers, falling short of the standard usually maintained at this season of the year, showed an appreciable improvement on that prevailing during the latter part of the preceding month. This improvement is greater than would appear from a mere comparison of the mean results afforded by the examination of the two months' respective supplies, the means afforded by the previous month's supply having been kept down by the good results furnished in the early part of the month, before the effect of the floods began to be seriously felt. Dr. Frankland, on behalf of the Local Government Board, says in his report that the water abstracted from the Thames by all the companies, except the Chelsea, was, in respect of organic contamination, of much better quality than that reported upon last month; but the water delivered by the Chelsea Company, which was by far the best in October, was the worst in November, and contained no less than 73 per cent. more organic matter than that supplied by the Lambeth Company on the same day. All these waters were efficiently filtered. The water taken chiefly from the Lea by the New River Company was only slightly better than the best of the Thames waters, whilst that obtained from the same river, but lower down the stream, by the East London Company was inferior to all the Thames waters, except that supplied by the Chelsea Company. Both companies sent out efficiently filtered water. The deep-well waters of the Kent, Colne Valley, and East London Companies, and of the Tottenham Local Board of Health, were, as usual, of excellent quality for dietetic purposes.

THE SICKNESS AMONG THE TROOPS IN BURMAH.

WE gather from a telegram to *The Times* of the 18th inst. that much sickness prevails in Upper Burmah. The Cornwall Regiment at Meiktila have suffered severely from enteric fever. Cholera is stated to have broken out amongst the coolies accompanying the columns in the Chin hills; and glanders is prevalent among the transport mules, much embarrassing the commissariat arrangements. We also gather from the same source that General Sir James Dormer has published a district order since his inspection of the garrison in Burmah, in which he finds fault with the medical arrangements for the care and comfort of the sick in the military hospitals. The *personnel* of the military medical service is wholly insufficient for the wants of Burmah. We are glad to learn that the present unsatisfactory state of affairs is not attributable to any want of energy or devotion on the part of the medical staff, but to the fact that they are short-handed and altogether overworked. It appears the administrative districts in the Burmah command are of enormous extent, and the medical staff is quite inadequate to the requirements. The Indian Government, it is alleged, cannot plead ignorance of the facts, for they have been repeatedly, but vainly, brought to notice; and the Government recently refused to add another administrative medical officer to one of the districts. Assuming the facts to be as stated, of which we fear there is little doubt, they speak for themselves, and require no comment.

EFFECTS OF SULPHONAL.

IN the *Journal of Mental Science* for the current month Dr. Carlyle Johnstone records his observations on the effects of sulphonal on fifty patients suffering from various kinds of mental disorder, including general paralysis, melancholia, and mania. His experiences with the drug point to the conclusion that in properly regulated doses it is an efficient hypnotic, and, compared with that of other hypnotics, its action is fairly certain and constant. The sleep produced by it is natural and undisturbed by dreams; it has no injurious effect on the appetite, circulation, respiration, or temperature, and the general health does not suffer under its use. After a time the dose may be reduced, or it may even be discontinued, and the patient still continue to sleep well. Dr. Johnstone also found that it had a distinct sedative action in mental excitement and distress, and could be employed with great benefit in cases of insanity, especially such as are of recent or acute character. Its complete tastelessness also is a recommendation in such cases, allowing its combination with food or in milk in such a way as to escape the notice of the patient. The chief drawbacks were found to be its slowness of action, and often the persistence of its soporific effect during the succeeding day, together with at times confusion, giddiness, and fatigue. After repeated doses a dreamy confusion was noticeable, and subsequently slight weariness and fatigue, followed in a few cases by enfeeblement and shakiness of

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locomotion; but nothing occurred which could be called an alarming symptom. As a rule, indeed, the mental condition improved, the excitement, irritability, and motor restlessness being diminished and the wretchedness dispelled. It will thus be seen that the writer's conclusions are in accord with the majority of those already published, and that, while regarding sulphonal as by no means a perfect hypnotic, he is inclined to give it a very important place in the treatment of sleeplessness and restlessness generally. The best doses he found to be between thirty and forty grains, and it should be given just before the patient lies down. The freedom of the drug from taste and smell, as has been said, is one of its advantages, and renders its administration easy.

THE PREVENTION OF RABIES.

WERE it not that experience has fully proved, both in England and on the Continent, the efficiency of the muzzle as a preventive of the spread of hydrophobia, we might excuse the delusion that the disease lately so prevalent in this country has died a natural death. The facts mentioned in THE LANCET of April 5th, 1890, however, show too close a connexion between the prophylactic method and its effect to admit of any real doubt upon the subject. The past year has been a period of probation. The immunity conferred by the muzzling order has not, perhaps, unnaturally been taken as justifying its discontinuance in favour of the less irksome system of collar registration, and so far, there is every reason to believe, with fairly satisfactory results. In this way such cases of rabies at least as arise among stray dogs, and they comprise the greater number, should, if the regulations are stringently enforced, be held in check. Of the efficiency of the muzzling system and the justice of its application two years ago we cannot entertain a doubt. In its absence registration is and must remain for some time to come quite indispensable. It is difficult indeed to see how, without some such preventive arrangement, security against the disease can be relied upon. We trust, moreover, that, on the least sign of a recrudescence of the disease, in the interest of our faithful friends the dogs as well as of the human race, muzzling may again be strictly enforced.

DEATH FROM ATTENDING FUNERALS.

IT is one of the privileges of members of the medical profession that they have the opportunities of seeing the various abuses incidental to our everyday life, and of suggesting the remedies, which, however, are not generally heeded. By the death of the Duke of Clarence and Avondale the public mind has been thoroughly aroused to the danger which has for years past been repeatedly pointed out in these pages. All the various suggestions now made as to keeping the head covered and shortening the service at the graveside, so far from being original, as the various correspondents would appear to imply, were suggested in THE LANCET years ago. Our local correspondent forwarded to us details of the death of a leading Liverpool citizen whose death was the direct result of a chill caught while standing bareheaded at a funeral, and at his own funeral, which followed but a fortnight after, the attendant relatives and friends were requested to remain covered. Now that attention is strongly drawn to this painfully important matter it may be profitable to supplement the preceding with some further remarks. None should attend funerals in such weather as now prevails except those who are in robust health; the aged and those whose health is in any degree delicate should be absolutely forbidden to do so. It is not only at the graveside that fatal chills are acquired. Cemetery chapels are proverbially chilly places, and it is to be feared that care is not taken to sufficiently warm them previously. This is all the more imperative, since in cold and inclement weather the whole of the service (except what must necessarily be said at the grave), and particularly any address or panegyric on the deceased, should be said in the chapel. Some clergymen who wish strictly to obey the rubrics may object to saying in the chapel what is ordered to be said at the graveside. We would point out, however, that there is one rubric which it is necessary to disregard—viz., the dipping of an infant into the water at baptism. In spite of the plainest words which a rubric can have no child is dipped however "discreetly and warily," and the attendants are not even asked whether the child "may well endure it." Whether the rubric was ever obeyed is a question which has never been satisfactorily answered; it is enough that no infant should be subjected to such a risk. By a parity of reasoning it may be urged that the attendants at funerals ought not to be exposed to a similar danger.

CARDIFF AND IMPORTED INFECTION.

A PROPOSAL is before the Cardiff corporation, in their capacity as port sanitary authority, to place on a more permanent and efficient footing the sanitary inspection of vessels entering the port, the more especially with a view to prevent the importation of infection. To fulfil the various requirements which are held to be necessary by Dr. Walford, the port medical officer of health, it would be requisite to employ a steamer, which should be constantly at the disposal of the port sanitary staff, and to add one or more inspectors to the staff. Cardiff has more than once been thus compelled temporarily to widen the scope of port inspection, and has doubtless found the hire of a steamer costly; but, if such an arrangement as is now proposed were adopted as a permanent measure, the port would be much more secure as regards imported infection, always a source of expense and of possible panic, and hindrances to commerce would, to the utmost, be prevented. Other ports, such as the Tyne port, have long since adopted a similar system, and it can hardly be otherwise than an advantage at Cardiff, where the circumstances of the port in relation to the Bristol Channel tend to present somewhat exceptional difficulties under the system now in operation.

PROFESSOR GAIRDNER ON CLINICAL INSTRUCTION.

PROFESSOR GAIRDNER, whose interest in clinical medicine, and especially in clinical teaching, is unsleeping, has been reading Sir Andrew Clark's lecture and our leading article on the subject, and kindly forwards us a lecture, introductory to a course of clinical medicine, which has never been published, but which is a type of one he is in the habit of giving to his students in printed form. It treats of the real import and method of clinical instruction, and, we need not say, goes thoroughly to the root of the matter, insisting that both instructor and instructed are to be in the presence of the patient, and learning the lessons of disease together from the absolute source of all real and final knowledge in respect to disease—*the sick man*. The lessons of a practitioner to his apprentices in the days when apprenticeship still existed were true clinical instruction; and with such a man as Abercrombie, who practised this method exclusively, they must have afforded clinical instruction of the best and highest kind. Dr. Gairdner adds that a well-conducted dispensary, in which the physicians not only see the patients at the dispensary, but follow them up at their own homes and along with their pupils, is also a very fruitful and admirable field for true clinical instruction, and one which only requires competent and devoted men to make it at least equal, if not superior, to any other. Strange to say, however, neither of these is

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counted as formal clinical instruction in the curriculum of study. Dr. Gairdner affirms such kind of instruction to be desirable, and regards it as a modification of the German *Poliklinik*, or clinique of the town. With his usual precision, he indicates the only limitations to the usefulness of this mode of instruction. The one is the limited number of men fit for such work, and the other is the risk of "hurry-scurrying" through thirty or forty cases in an hour, as sometimes must occur in the out-practice of hospitals. It is one of the recommendations of more private lessons, as in dispensary or general practice, that, being given in the very homes and houses of the patients, there is the more guarantee for that humane and considerate treatment of the patient and for a certain amount of thoroughness on which both Sir Andrew Clark and Professor Gairdner so properly insist. There are surely among the many thousand practitioners of Great Britain not a few who could give most valuable lessons in the art of detecting and treating disease. The remainder of Dr. Gairdner's lecture deals with the importance of right methods of clinical instruction, the place of clinical lectures, the physician and the patient and the ethics of a clinical course, the details of clinical work, the verification of details, and the composition of clinical lectures proper. He thinks that a hospital patient, as compared with a rich man, derives immense benefit from the methodical investigation of his case. He allows that "lecturing" is often overdone in clinical teaching, and he insists, as all good teachers do, on treating the student and even his mistakes with respect. It is clear that the methods of clinical instruction are about to receive more attention than ever, and they both deserve and need such attention.

BURIAL REFORM AND THE CITY CHURCHES.

AT a recent meeting of the Church of England Burial Reform Association, held in the vestry of St. Edmund the King, Lombard-street, under the presidency of Archdeacon Sinclair, allusion was naturally made to the recent disclosures at the neighbouring church of St. Mary, Woolnoth. The Rev. F. Lawrence, the indefatigable secretary of the Association, observed that all the officials of the last-named church had suffered from sore-throats in consequence of the foul air in the church arising from the large number of dead bodies in the vaults beneath. He quoted the words of Sir John Simon, to the effect that the most successful hermetical sealing of dead bodies might retard, but could not possibly prevent, the escape of poisonous gases which mingled with the air in the church above, to the great detriment of those assembled there. The experience at St. Mary's only added another example to the several other City churches which had been rendered equally unwholesome. The bodies entombed beneath that church will have to be removed and buried in some suburban cemetery, as is generally done now, and as should have been done always.

PERITONITIS FROM PERFORATION OF THE INTESTINE IN UTERO.

DR. ANTON GENERSICH of Clausenburg recently exhibited at a meeting of a Hungarian Pathological Society a case of peritonitis occurring in an infant which had doubtless originated from perforation of the small intestine before birth. He referred to Dr. Zillner's report of several somewhat similar cases where the sigmoid flexure had been ruptured, the explanation proposed by Dr. Zillner being that the rupture was due to distension by meconium of a coil of intestine fixed between the vertebral column and the abdominal walls. He considered that pressure and distension of this kind must occur even in normal parturition; but this view is combated by Dr. Plataut, who insists that the rupture is due to fæcal accumulation without any external mechanical cause, such as the pressure exerted in labour. In Dr. Genersich's case an abscess containing meconium had formed under the umbilicus, this abscess communicating with the ileum by means of an infundibuliform passage. The extent and character of the granulations, which had become calcareous in some places, and the firm adhesions in the neighbourhood of the lesion, showed that the perforation must have taken place some time before birth, as the child only lived forty-five hours. It is probable that the pressure during birth and the entrance subsequently of pathogenic bacilli through the alimentary canal caused a sudden increase of the peritonitis as well as the phlegmonous inflammation of the abdominal walls. The spontaneous perforation of the ileum is, as has been well pointed out in this country in somewhat similar cases by Mr. Bland Sutton, intelligible only by referring to the embryology of the intestines. A small Meckel's diverticulum may have been split on the spontaneous reduction of the normal umbilical hernia, or the obliteration of the physiological umbilicus may have remained incomplete, so that on the retrogression of the umbilical coil of intestine a small aperture was left, from which the meconium percolated into the peritoneal cavity, subsequently becoming encapsulated by adhesions between the intestines, the omentum, and the abdominal walls. The latter view is the one which Dr. Genersich considers the most applicable in the present case, as a most minute examination resulted in finding no vestige of a diverticulum, while the large intestines were found to be rather thin.

IS CHELMSFORD WATER-LOGGED?

AN increase of diphtheria in the town of Chelmsford, taken together with the now admitted circumstance that the diffusion and maintenance of that disease are in some way related to damp and cold soils, has raised the question as to whether this Essex town is water-logged or not. This is a matter which ought long ago to have been set at rest, for it is no less than twenty-six years since Dr. Buchanan presented to the Privy Council Office his classical report on the relation of phthisis to subsoil wetness, and in this he quoted the case of Chelmsford as one of the crucial proofs of his contention. He then showed that in a number of towns where deep sewerage had lowered the subsoil water there had been a remarkable diminution in the rate of phthisis mortality; but when he came to Chelmsford, where works of equal importance had been carried out, no vestige of any corresponding diminution of the phthisis death-rate could be discovered. The explanation, he maintained, lay in the fact that mill-rights, with their corresponding flood-gates below the town, held up the river water, and so prevented any reduction of subsoil wetness beneath the town. If ever there was a case for immediately securing the benefits elsewhere obtained by the result of deep drainage it was at Chelmsford, and many have doubtless come to the conclusion that the story of 1866 is a matter of curious past sanitary history. Such observers will be astonished to find that a discussion has recently taken place in the Town Council on the subject, "Is the town water-logged?" and that the question still arises in 1892 whether the heading-back of the river water at such places as Moulsham Mill shall be prevented by purchasing the mill rights. The most that could be said at the meeting was that the whole of the soil beneath the town was not water-logged, the South Ward standing upon a comparatively dry surface. But, as regards the remainder of the town, it would seem that matters stand just where they have done all these twenty-six years in which Chelmsford has served as witness to the injurious effects of a maintained high level of subsoil water. Now that the matter is again

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to the fore it is to be hoped that there will be no hesitation in dealing with it; and in the meantime it would be interesting if those who are fully acquainted with the actual facts affecting the South Ward from a hydro geological point of view, and who have access to the vital statistics, were to work out the incidence of the phthisis mortality between 1866 and 1892 on the South Ward and the remainder of the town on the same lines as Dr. Buchanan did in his original report.

POVERTY OF HOSPITALS.

THE *City Press* draws a doleful picture of the shrinking subscriptions to the metropolitan hospitals, and prophesies that, unless both the existing deficit be wiped off and the annual subscriptions increased, these noble and voluntary institutions will soon become State hospitals supported by public rates. It takes a gloomy view of the change of spirit and administration which will follow this radical change of support. There is, no doubt, too much reason in the fears of our contemporary, and we earnestly trust that its comments may be so studied by the rich men of the City that this dire misfortune may be averted, and that the voluntarily supported hospitals may continue to be among the "glories of England." It will contribute to this end if all promoters of new hospitals be discouraged, and the charity of the metropolis concentrated on the maintenance of the existing ones.

CREMATION, BURIAL, AND EXHUMATIONS.

IN THE LANCET of Jan. 2nd, page 42, in an annotation on burial reform and its legal regulations, it was observed that "no other method can ever so fully satisfy the possible needs of a criminal investigation as that which allows the exhumation of the body." While fully maintaining the soundness of this position, it is at the same time most important that this should not be made any excuse for haste, carelessness, or an undue desire to oblige in the giving of a certificate of death on the part of medical practitioners, in registering a death on the part of registrars, or in burying without a burial order on the part of cemetery or churchyard officials. For although the body may remain in the ground and be available for exhumation, post-mortem examination, and chemical analysis, all these may be in vain, and a medical certificate given with an imperfect knowledge of all the circumstances surrounding the last illness, followed by a hasty burial, may defeat justice as completely as if the body had been cremated. This must be rendered more probable if burial reform grows in favour as it is hoped it will. For although much valuable information may be obtained by an examination of bodies even in an advanced state of decomposition, and though toxicological science may detect poison after months and even years of burial, still pathological and chemical research both have their limits, and some poisons could be named which would defy detection even within a short period after death. In every or any case of death from poison or other unfair means, it is much better to detect this before rather than after the body has been committed to the grave. The two following cases will prove the truth of the preceding remarks. For obvious reasons the names of persons and localities are suppressed. Some years ago a man went to his work in his usual health at his usual hour one morning. He returned to his dinner, after eating which he was seized with convulsions and died. A surgeon examined the body and gave a certificate, and the body was buried. Some weeks after suspicious circumstances came to the knowledge of another surgeon, who succeeded in causing the exhumation of the body, its examination, and the despatch of the viscera to an eminent analytical chemist. Strychnine was indicated by the symptoms as the poison which had caused death, but it could not be detected even by the most refined processes adopted by the analyst first employed, nor by a second one to whom the viscera were also sent. The bodies of two children whose deaths occurred previously were also exhumed, but the chemical inspection of the viscera was also negative. A person was put upon trial for murder, but although the case was a most suspicious one, the non-detection of poison was fatal to a conviction, and the prisoner was acquitted. In the second case a child died under circumstances which aroused the suspicions of one of the two medical attendants, who were respectively a retiring and a remaining partner. The former was dissatisfied with the mother's manner and puzzled with the symptoms, which were not those of any natural form of disease incidental to childhood. A second child died very soon after, and a certificate was given and the body buried. Later on the husband and father was taken seriously ill with similar symptoms, but fortunately was saved by copious vomiting and violent walking exercise. Lastly, the wife and mother was also suddenly seized with similar symptoms and arrested on a charge of attempted suicide. Then followed a full inquiry, with exhumation of the two bodies and the detection of morphia. The prosecution had to contend with the difficulties which will always arise where a charge of murder is preferred some time after the death of the victim and when the circumstances are not fresh in the memories of the various witnesses, and the woman was acquitted. Still greater is the difficulty when a medical witness has to avow having given a certificate of the cause of death which was palpably incorrect, when those who make the necropsy have to deal with a decomposed corpse, and when the analyst endeavours to detect a vegetable alkaloid under circumstances very unfavourable to its discovery.

MATERNAL IMPRESSIONS AND DEFORMITIES IN CHILDREN.

THIS always interesting subject is again discussed in an article in the *Glasgow Medical Journal* by Dr. Halket. He first of all enumerates the cases of congenital deformity which had occurred in his own practice, and then some of these are discussed with reference to their connexion with experiences of the mother during her pregnancy. While fully recognising the great difficulty there is in reasonably regarding deformities as definitely connected with maternal impressions, Dr. Halket is strongly impressed with the cases which have been put on record by men of undoubted standing and unimpeachable veracity in which such a connexion seemed extremely probable, and his own experience has strengthened the impression that the connexion between certain deformities and mental states which the pregnant mother has experienced is occasionally at least something more than a mere coincidence. In one of his cases the child was a boy, the second child of his mother, and the first child was healthy and well-formed. The child under consideration had his nose only partially developed, there being only one nostril. The right eye was situated much further back and at a lower level than the left eye, and the child was unable to close it. On the right side of the forehead there was a small growth half an inch long, tipped with bone, which looked like a small horn. The child was otherwise strong and healthy, and lived till it was fifteen months old, when it died of acute bronchitis. This child's mother was the wife of a drunken husband, who was not unaccustomed to kicking and otherwise maltreating her, and to the mechanical effect of this violence, and not so much to mental effects, Dr. Halket is inclined to attribute this deformity. But perhaps the most interesting case of all is one in which the child was born alive without the index and middle fingers of one of its hands. The mother was a young woman, who knew nothing about maternal impressions, and as soon as she knew of the deformity she

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volunteered the information that she had to work for some months after her marriage, and that the foreman under whom she worked had lost two fingers through an accident, and that when she saw his hand for the first time she had a "grueing" or shivering, and that every time she saw him she could not keep from thinking of his deformed hand. The other cases which Dr. Halket relates are for the most part deformities which he ascribes not so much apparently to some actual isolated impression made on the mother as to habits of intemperance, to prolonged grief, or to anxiety which would in all probability have a very bad effect on the child in utero as well as upon the mother, but why a certain deformity should result, such as cleft palate or harelip, seems to be rather difficult of explanation. The subject is an obscure one, though interesting. If these deformities following mental impressions are only coincidences, they are very striking in some cases; and if, on the other hand, there is any causal connexion between the impression and the deformity, it is very difficult, if not impossible in the present state of our knowledge, to explain its *rationale*.

THE CLAIMS OF SANITARY SCIENCE UPON THE CLERGY.

IN the physical world we look in vain for sudden transitions in structural arrangement. Changes and differences abound, indeed, but all is relative and gradual. So likewise it will doubtless be found that the more we learn of its spiritual counterpart the clearer will be our evidence that there too the same rule holds good. Facts which on their occurrence may appear singular, and even startling, will exhibit relationships with others previously known, though not till then in all their bearings. It were strange, therefore, if men and their works, essentially natural as they are, did not illustrate the same principle of mutual relation and interchange. We are constantly learning that they do so, and however we may map out our life-work by social limitations, as doubtless we must for the sake of mere efficiency, there will always be borderlands where its provinces merge within each other and claim a common interest. The scope of such a borderland is sketched with simplicity, clearness, and moderation by the Rev. C. G. K. Gillespie, in a brief paper which discusses the Claims of Sanitary Science upon the Clergy. The author's intention is to show that the principles of elementary sanitation lie almost as much within the sphere of clerical duty as of medicine or sanitation. Matters of household hygiene may thus be regarded as common property, and a due appreciation of their importance would doubtless go far to maintain the just influence of parish clergy. In advocating the addition of a course of instruction in the outlines of sanitary science to the plan of clerical study the author (who is himself a certified inspector) is conscious of some interest in a field inseparable from that of morals, while duly conserving the stronger claims of medical neighbours.

ACROMEGALY.

M. GABRIEL GAUTHIER records the details of the post-mortem examination of a case of acromegaly in the current number of *Le Progrès Médical*, the clinical facts of the case having been published in the same journal two years ago. The patient died, "like most acromegalics," from marasmus and syncope, and during the last month of his life he had some attacks of pseudo-erysipelas on the forehead, nose, and cheeks. The post-mortem examination showed thickening of the cranium at the occipital protuberance, but not elsewhere. The vessels of the pia mater were voluminous and engorged, and in removing the brain from the cranial cavity it was found that the pituitary body was replaced by a tumour the size of two thumbs, filling the sella turcica and overlapping it. The tumour was nearly spherical, and was enclosed in a special envelope of dura mater, tense and thinned. On incising this, some pulpy material escaped, the whole mass weighing thirteen grammes. Microscopically, no other elements than those of cerebral tissue could be found in it. The optic and ocular nerves in contact with the tumour were unaltered, the circular and cavernous sinuses were especially compressed, whilst the coronary sinus was hardly to be seen. The pituitary fossa was considerably enlarged and the clinoid processes partly destroyed, whilst the shell of bone over the sphenoidal sinuses was very thin. There was no lesion of the brain itself, or of its nerves, or of the sympathetic. The thyroid body was normal. As to the viscera, there was some degeneration of the myocardium, and the valves of the heart were normal, but the orifices large; the kidneys were large and soft; the liver, spleen, and lungs normal. It was impossible to examine the whole skeleton, but the observation of the condition of the fingers noted during life was verified by dissection, the phalangeal joints of the left ring finger showing marked changes, such as wasting of the articular ends of the phalanges and ankylosis of the terminal and middle phalanges.

DRUNKENNESS AND CRIME.

THE *Daily News* of the 18th inst. gives the chief details of the new Government Bill for the suppression of drunkenness in Germany, of which we have already given some particulars. Amongst other provisions, publicans will not be allowed to turn drunken persons out of their houses without providing for their safe conduct home, the expenses to be paid by the drinkers. The Bill provides for the appointment of guardians to habitual drunkards. The measure is likely to be much opposed. But it is a Government Bill, and the Emperor's interest in it will count for much in the attention it will receive. Sir Lyon Playfair has induced Sir Henry James to try to define the bearing of the element of drunkenness in criminality. Even Sir Henry James has found it difficult to do so. The following is a summary of his conclusions:—

"In determining the legal character of the offence committed, drunkenness may be taken into account—1. Where it has established a condition of positive and well-defined insanity. 2. If it produces a sudden outbreak of passion occasioning the commission of crime under circumstances which, in the case of a sober person, would reduce the offence of murder to manslaughter. 3. In the case of minor assaults and acts of violence it never can form any legal answer to the charge preferred, but it may either aggravate or mitigate the character of the act committed—probably the former. 4. As to the effect that should be given to drunkenness when determining the amount of punishment to be inflicted, no general rule can be laid down. Its existence may be considered, and may tend either in the direction of increasing or diminishing the punishment imposed. This is all the help I can give you. I am afraid I have done but little to solve the problem you have placed before me."

One thing seems clear in the tendency of civilisation, that drunkenness itself should be made more definitely an offence than we have been accustomed to regard it.

PLASTIC BRONCHITIS.

DR JÓZEFOWICZ describes in the *Gazeta Lekarska* an interesting case of that somewhat rare disease, plastic bronchitis, occurring during the course of acute articular rheumatism. The patient was a student, nineteen years of age, who complained of a troublesome cough with lancinating pains in the chest. The expectoration was muco-purulent, and contained some blood and fibrin. In the course of the disease one night a sudden paroxysm of cough occurred, with copious bleeding from mouth and nose, and expectoration

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of flesh-like masses. Dr. Józefowicz, on examining the expectoration, found in it masses of coagulated fibrin, partly presenting ramifications, as if coming from the smallest bronchi, and partly cylindrical, corresponding with the shape of the larger bronchi. Shreds of membrane of various thickness were also found, probably coming from the largest bronchi, or possibly from the larynx and nose. The microscope also discovered numerous pus-corpuscles, epithelial cells, and red blood-corpuscles. The etiology of plastic bronchitis is not sufficiently known. Phthisis, bronchial catarrh, general debility, atmospheric influences, diphtheria, and typhoid fever are mentioned as causes of the disease, and it is also found associated with mitral insufficiency or stenosis of the auriculo-ventricular orifice. This connexion existed in the present case, as, even during an early period of the rheumatic affection, both these heart symptoms were diagnosed. Another symptom to be taken into serious account was the infiltration of the lung parenchyma, which could not be referred to an existing fibrinous pneumonia. Probably it was due to an exudation of blood, or possibly of fibrin, into the pulmonary vesicles. Hæmoptysis is generally insignificant and very rarely profuse.

THE EPIDEMIC AND THE DEMAND FOR NURSES.

IT is inevitable that one of the natural consequences arising out of a widespread and serious epidemic should be the extraordinary demand which it creates for the services of all whose part it is to attend upon the sick. Our readers are familiar with the numerous proofs of such a dearth afforded by experience of the present visitation of influenza, especially as regards the provision of trained nurses. The valuable assistance rendered to the sick by these latter was never probably so fully recognised as now, nor its absence in urgent need so deeply felt. Happily, however, we are not quite without resource in the circumstances. We cannot, indeed, fall back upon any reserve establishment. It were well if we could, and the lesson of prudence in this matter taught by the present nursing difficulties will *not*, we hope, be forgotten. Meanwhile there is much to be said for the proposal to create a temporary central bureau which would arrange with friends of the sick for the ready transfer of nurses wherever available. We must also look to medical men for some help in the present emergency. The needs of all sufferers are not equally great. The care of some who may prefer a trained nurse, though not seriously ill, may very fairly be entrusted to judicious relatives. Others will find the attendance of careful and sensible persons acting under the guidance of practitioners, though not specially skilled, quite equal to all their needs. In either case the nursing capacity of men and women more perfectly trained for service in the sick room would be freed for duties of greater responsibility. It is for the practitioner to use his influence with due discrimination in seeking to secure this result. We should remember, too, that such irregular aid as we have mentioned is often very far from inefficient. It was upon this that our progenitors relied, and not in vain, since qualities like obedience, kindness, and good sense prove of great value in nursing, even without technical instruction. Supervision on the part of the medical man in charge will make up for some deficiency in the latter desideratum.

BACK-TO-BACK HOUSES.

THE question of back-to-back houses continues to be one of discussion in several of our northern towns where this method of house construction has been carried out. From a few persons it receives support. Dr. J. H. Bell of Bradford has, in a communication to the Yorkshire branch of the Society of Medical Officers of Health, brought forward certain statistics to show that by comparison of certain areas in that borough the general rate of mortality was small in continuous rows of back-to-back houses, and distinctly higher in "through houses." What the explanation of this circumstance in the three localities chosen was we do not profess to know; but we are quite certain that the absence of means of through ventilation in the one set of dwellings and the facilities afforded for through ventilation in the other did not cause the difference referred to. And it is equally certain that no one of any intelligence has assumed that the rate of mortality in dwellings is governed by this one consideration of through ventilation only. The age and character of the population inhabiting such areas may have a most important effect in determining the amount of death; the question of soil and wholesomeness generally of sites and buildings may also have some effect; but one thing is sure—namely, that given dwellings and a population in every respect alike, except as regards the question of the through ventilation of the houses, those dwellings which have such means of ventilation will unquestionably be found more healthy than those lacking it. A very different view of the subject to that suggested by Dr. Bell was taken by his audience, both at the recent gathering at Hull and at the Leeds conference in October last. Indeed, at the latter it was decided to express to the Local Government Board the decision of the Society, to the effect that back-to-back houses, which do not admit of through ventilation from opposite sides, are essentially insanitary, and have been proved by experience to be prejudicial to the health of their occupants; that every effort should be made to convert them into "through houses"; and that their erection in the future should be prohibited. They further petitioned the Board to obtain an Act of Parliament embodying this prohibition, fixing a minimum width of front and back streets, and requiring for every new house a separate back yard and closet. The latter is a provision of the utmost importance; indeed, the absence of decency and privacy in connexion with the closet accommodation of back-to-back houses is one of the gravest defects attaching to that highly objectionable method of house construction.

FOREIGN UNIVERSITY INTELLIGENCE.

Bologna.—Dr. Maiocchi of Parma has been appointed to the chair of Dermatology and Syphilography.

Heidelberg.—Dr. Knauff has been promoted to the Professorship of Forensic Medicine and Hygiene.

Kiel.—Drs. Kosegarten and von Starck have been recognised as *privat-docenten* of Otology and Medicine respectively.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. E. Lipp, Professor of Dermatology in the University of Gratz.—Dr. L. de la Pascua, formerly Professor of Hygiene in Mexico.

THE Belgian Society of Gynæcology and Obstetrics is about to institute an International Congress for the discussion of questions cognate to the above subjects. The first meeting will be held at Brussels in September next, from the 14th to the 19th, and will concern itself with the following topics: Pelvic suppuration, extra-uterine fœtation, and placenta prævia. The meetings will be held every fourth year, and will take place alternately in Switzerland and Belgium. Communications to be addressed to the general secretary, Dr. Jacobs, 12, Rue des Petits-Carmes, Brussels.

MR. A. H. WILSON, L.R.C.P.Lond., has been selected as chief medical officer to the General Post Office, vice Mr. G. C. Steet, F.R.C.S., retired.

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WE regret to record the death of Surgeon-General G. M. Slaughter at Alderen Manor, Sandhurst, on the 9th inst. The late surgeon-general was the principal medical officer at Portsmouth at the time of his comparatively recent retirement from the service, and was sixty years of age at the time of his death. He joined the army in December, 1865, and passed through the several ranks of the department, being promoted to that of surgeon-general in January, 1890. He served with the 7th Hussars in the Indian campaign from February, 1858, to March, 1859, and was present at all the principal engagements, including the siege and capture of Lucknow. The late surgeon-general was a very industrious and conscientious officer, and an able and popular administrator, and his death so soon after his retirement will be much regretted by the officers of the medical staff.

A CORRESPONDENT draws our attention to the monthly official Portsmouth and Southern District Directory for the month of January, edited by the Deputy Assistant Adjutant-General, in which he considers a somewhat invidious distinction is made in the use of the compound titles of the Army Medical Staff and those of the veterinary surgeons. The medical officers are described by the compound titles, whilst under the heading "Army Veterinary Department" is the following entry: "Veterinary Officer—Major——" The distinction thus made has been construed in some quarters as an instance in which the military element is intentionally denied to the medical staff in contrast to the Veterinary Department. May not the printer be responsible for the discrepancy?

AT the Medical Society of London, on Monday last, before the commencement of the second Lettsomian lecture, the President alluded in feeling terms to the death of the Duke of Clarence and Avondale. Sir Joseph Fayrer proposed that a vote of condolence and sympathy should be forwarded to the Prince and Princess of Wales, and this was seconded by Professor Wm. Rose, and carried *nem. con.* This vote of the oldest medical society is a fitting expression by the members of the profession of a feeling that we are sure is shared by every practitioner of medicine, and to which we ventured to anticipate at the earliest possible opportunity in our leading article of last week.

IN a paragraph in THE LANCET of last week (page 159) we stated that Sir Andrew Clark will resume his instructions in Clinical Medicine at the London Hospital on Jan. 19th at 2 o'clock. We understand that this announcement was not quite correct. The instructions will be given on Tuesdays at 3 P.M., commencing with Tuesday next, the 26th inst.

THERE will be a debate on Phagocytosis at the Pathological Society of London on February 16th. Members and others wishing to take part in it are requested to give notice to Dr. Charlewood Turner, the medical secretary.

YELLOW FEVER IN BRAZILIAN PORTS.—The Cunard mail steamer *Bothnia*, which arrived at Queenstown on the 19th inst. from New York, brings intelligence of the arrival at that port of the Liverpool steamers *Plato* and *Ptolemy* from Rio Janeiro, *viâ* St. Lucia. While at the former port several of the crews of both vessels were stricken with yellow fever, and while on the passage to New York the chief steward of the *Ptolemy* and a fireman of the *Plato* died of yellow fever and were buried at sea.

THE RUSSIAN FAMINE.

ANALYSIS OF THE BREAD IN USE.

AN unparalleled disaster has befallen a great people. A famine is laying waste fifteen to eighteen provinces of the Russian empire. Each of these provinces is as large as England, though, fortunately, not so densely populated. This disaster cannot be compared even with the Irish famine of 1846, for the present Russian famine affects a much larger population and its consequences will be more far-reaching. Indeed, this famine is a stupendous event. It is impossible to exaggerate its importance, whether we look upon it only from our own restricted point of view—namely, as affecting the public health,—or whether it be considered in its political and economical bearings. Official statistics give us some idea of the magnitude of the disaster; and it is most essential, in dealing with this question, to thoroughly understand that this is no mere local trouble, but that whole nations, as it were, are being struck down; for a Russian province is large enough to make a nation in itself. According to these statistics, we find that the wheat sown in autumn gave, in sixty Russian provinces, from the years 1883 to 1887, an average yield of 26,000,000 hectolitres. The present year the yield has been equal to 25,000,000 hectolitres; but when we come to the wheat sown in the spring we find that instead of an average harvest of 63,000,000 hectolitres there were only 38,000,000 hectolitres gathered. So far as the food of the great mass of the people is concerned, the rye crop is of much more importance. The average yield of rye for the sixty provinces is 249,000,000 hectolitres; this year only 190,000,000 hectolitres were gathered in. For oats there were 169,000,000, instead of 195,000,000, hectolitres. The aggregate of all crops was 517,000,000 hectolitres, instead of 645,000,000, thus showing a deficit of 128,000,000 hectolitres.

To the Western European this may not seem an insurmountable disaster. In France the harvest of 1879 yielded only 209,000,000 hectolitres, instead of 260,000 000. Roughly speaking, the proportion in both cases is the same—there was a falling off in the harvest of one-fifth; yet there was no famine whatsoever in France, while in Russia thousands are now dying for want of food. But in France there was money enough to import from abroad sufficient corn to make up the deficiency, and there were railways and roads by which this imported corn could be conveyed to the districts where it was wanted. Then, again, if the deficit were spread all over Russia the evil would not be so great; but it is concentrated, and, out of a population of about 100,000,000, affects some 27,000,000. The average production of corn of the famine-stricken districts is equal to 240,000,000 hectolitres, or 37 per cent. of the whole Russian harvests. The harvest in 1891 was of 141,000,000 hectolitres, or 45 per cent., less than the average harvest. Then if we consider individual provinces the disaster becomes still more apparent. Thus in Voronej the harvest amounted to 28,000 000 hectolitres in 1888; to 13,000,000 hectolitres in 1889, to 31,000,000 in 1890, and to less than 4 000,000 in 1891. To import from abroad the 128,000,000 hectolitres of grain would cost, it is said, £60,000,000, and require about 6400 ships. The people of France actually spent about this sum from 1879 to 1880 so as to purchase the 86,000,000 hectolitres of wheat and flour which they needed to make up for their bad harvests; but then in France there are 64 kilometres of railway lines to every 1000 kilometres square of land, while in Russia there are but 5 kilometres of railway to the same amount of land. Thus it is extremely difficult—in some cases absolutely impossible—to convey relief to the distressed districts. Also this relief must be given—it cannot be sold; for there is a money famine as well as a rye famine. Since 1879 Russia has exported annually some 100,000,000 hectolitres of grain, for which it has received about 300,000,000 roubles. But exports have been prohibited, and this, though done somewhat late in the day, will reduce the flow of foreign money into Russia to the extent of some 200,000,000 roubles.

As in Russia private initiative is not tolerated, and societies formed for the purpose of relieving the victims of

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the famine are declared to be illegal, we can only look to the Government to cope with the famine. But the Government so far has not devoted to this purpose as many paper roubles as there are pounds sterling required. Indeed, the Government itself is in sore difficulties. As one instance, we may mention that in 1890 some 4,000,000 hectolitres of grain were used for distilling purposes, and the tax on the alcohol thus made amounted to 270,000,000 roubles. But this prolific source of income is now checked. It is difficult to obtain the grain to distil, and the prevailing poverty naturally reduces the consumption of alcohol. Such briefly and in broad lines are the main features of the present famine.

Perhaps, in this long story of woe, what has most shocked the English public is the account of the cruel, heartless frauds practised by those who have adulterated the flour bought for the relief of the famine. Anything seems good enough for a Russian peasant to eat; and not only is adulteration practised in a wholesale, but also in a most unintelligible, manner. We have had sent to us a specimen of bread from the famine district of Nijni-Novgorod. According to our information this sample is a good illustration of the extraordinary submissiveness and the contented disposition of the Russian moudjic. Hearing that there were friends in England who wanted to see some of their bread, these people made it a matter of pride to send as good a specimen as possible. Perhaps they thought their English friends meant to eat it, but any other person excepting a Russian would, under the circumstances, have sent the worst and not the best sample. Also it should be noted that this bread was made at the end of the month of November, and by this time the distress must be much more acute. Consequently it can only be looked upon as exceptionally good, rather than particularly bad bread; yet many persons to whom we showed the sample failed to recognise that it was bread at all. It is dirty-brown in colour, and looks like coarse peat. It was evidently rye bread, and as such could not be otherwise than dark in colour. On fracture a slightly earthy and sour smell was observed, but with the features which characterise rye meal. Coarse particles of husk, leaves, and small seeds could be seen with an ordinary lens. An analysis of the bread gave the following results expressed in parts per cent.

ANALYSIS OF RUSSIAN BREAD.

		Per cent.
Moisture		22·22
Organic matters—		
Starch	35·33	
Sugar, gum, &c.	10·01	
Nitrogenous substances	14·81	
Woody fibre	10·40	
Fat	1·60	
		72·15
Mineral matters—		
Silica, sand, &c.	2·50	
Alkaline carbonate, with small quantity of phosphate and chloride	2·00	
Lime salts (phosphate)	1·13	
		5·63
		100·00

To admit of easy comparison the following published analyses of rye flour, well prepared rye bread, and wheaten bread are appended. In order that the analyses may be fairly contrasted, the results are calculated (except in the case of rye flour) on the assumption that the moisture is the same as that contained in the Russian sample—viz., 22·22 per cent.

ANALYSIS OF RYE FLOUR.

		Per cent.
Moisture		14·24
Organic matters—		
Starch	58·73	
Sugar, gum, &c.	11·01	
Nitrogenous substances	10·97	
Woody fibre	1·62	
Fat	1·95	
		84·28
Mineral matters—		
Alkaline phosphate	1·20	
Lime and magnesium phosphates	0·28	
		1·48
		100·00

ANALYSIS OF RYE BREAD.

		Per cent.
Moisture		22·22
Organic matters—		
Starch	63·00	
Sugar, gum, &c.	3·54	
Nitrogenous substances	8·40	
Woody fibre	0·40	
Fat	0·61	
		75·95
Mineral matters—		
Alkaline phosphate	1·50	
Lime and magnesium phosphates	0·33	
		1·83
		100·00

ANALYSIS OF WHEATEN BREAD.

		Per cent.
Moisture		22·22
Organic matters—		
Starch	63·44	
Sugar, gum, &c.	3·00	
Nitrogenous substances	8·42	
Woody fibre	0·50	
Fat	1·00	
		76·36
Mineral matters—		
Phosphates of potassium, magnesium, and lime		1·42
		100·00

These analyses show that the main differences existing between the Russian sample and the samples of rye flour and good rye bread in the kind and amount of its constituents are as follows:—

Starch.—The amount of this carbo-hydrate in the Russian bread is evidently very low—in truth, nearly 30 per cent. less than that contained in good rye or wheaten bread. Considering the fact that the carbo-hydrates, including starch, contribute largely by their capacity for rapid metabolism to the production of heat and mechanical work, and also that their use greatly favours an increase in the body, and especially of albumen and fat, the food value of the bread in this respect is seriously affected and materially reduced.

Now turning to the *Sugars, Gum, &c.*, it will be seen that these substances, which include the non-nitrogenous principles soluble in cold water, are present in larger proportion than in rye bread, although they do not exceed what we find in the rye flour. The poverty in starch is therefore partly, but by no means fully, compensated.

It must also be acknowledged that the *nitrogenous matter* in this sample of Russian bread is certainly high; but due regard must be paid to the fact that the leaves and woody tissue which, as will be seen, are present may probably not only introduce some nitrogen, but this in an indigestible form. This brings us to the strange and unjustifiable presence of woody fibre, husk, &c., which occurs to a very large extent. The proportion of this adulteration as compared with good rye reaches the very high figure of 10 per cent. It possesses no food value whatever. Worse still, it is not only itself incapable of digestion by man, but it hinders the digestion of the other constituents associated with it. It is well known that hard ligneous substances, such as the bran of black and brown bread, provoke by mechanical irritation active intestinal peristalsis. Moreover, the addition of cellulose or woody tissue to a meat diet is known to cause an imperfect assimilation of whatever meat may be consumed at the same time. On incineration of the separated fibre a strong smell, very like that produced in an ordinary bonfire or when garden refuse is burned, was evolved. The microscope showed fragments of plant leaves, with husk as well as mineral particles, and small seeds resembling rape. All these substances are of course foreign to genuine bread.

In respect to the *fat*, this item includes also colouring matter. The residue from the ether used in the extraction was of a bright green colour, probably derived from the chlorophyll in the leaves of some plant with which the bread is apparently admixed.

No less than 5·63 per cent. of the Russian bread consists of *mineral matter*, of which nearly one-half is silica and sand, about one-third alkaline carbonate (derived no doubt

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from the woody matter), and not more than one-fifth valuable phosphatic constituents. The total mineral matter of genuine bread seldom exceeds 1·5 per cent., or 1·8 per cent. at most, while it never contains carbonate. Bread containing as much mineral matter as that in the Russian specimen would be regarded in England as grossly adulterated, and legal proceedings would be immediately and, it might be added, successfully taken in accordance with the requirements of the Food and Drugs Adulteration Act. The husk and leaves in the bread would account for this abnormal result.

Our examination indicates, in short, the addition in round figures of not less, and probably more, than ten pounds of foreign substances to every hundredweight of rye flour. The foreign substances would appear to consist of certain leafy matter and seeds, including woody fibre and husk.

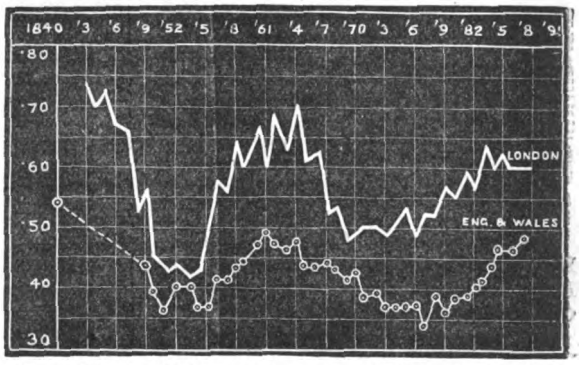
Thus, to make the flour a little heavier, and to increase its volume, we have foreign matter, husk, leaves, &c., which are not only of no use in themselves, but destroy a portion of the nutritive value of what remains. How much better would it have been to have had in bulk 10 per cent. less bread. A Russian, writing from the same province from which the sample of bread we have analysed was obtained, speaks of much worse specimens than this. He says: "I found in many cases that this so-called bread contained no rye-flour whatever, but was composed of revega (wild arrock), potatoes, chaff, and leaves." Then he adds the terribly significant announcement that "within two versts of my house there are more than 130 cases of typhus. Hunger and cold in their severest forms are daily gaining ground, and pestilence even now is devastating the districts." The Government relief, where it is given, only amounts to 30 lb. of rye-meal per head per month, excluding from each family the father and two of the children, who, according to the Government theory, ought to be able to keep themselves. Most of the cattle has been sold, and this for derisive sums. It will be almost impossible to carry on agricultural operations as in the past. If the weather this year favours a good harvest, there will nevertheless be a renewal of the famine next winter; for, in many cases, it is impossible to procure seed for sowing. For instance, from Volskaya, near Suratoff, we hear there are 280 cultivators, and that not ten among them will have seed. The best of weather, therefore, will fail to produce a good harvest at Volskaya, and there are any number of other places in a similar predicament. We sincerely trust there will be a good harvest this summer, but we fear it will not prevent a renewal of the distress next winter. Doubtless next year's famine will not afflict so many provinces; but the people, so sorely tried now, will be less able to support it. Therefore, in looking upon this question, it is unhappily necessary to make provision for the long continuance of the present suffering. That it will engender plague and pestilence in Russia is but too likely, and it is a question whether these terrible evils may not travel farther, and Russia become a centre of contagion that will spread to other parts of Europe, or perhaps of Asia.

Not the least distressing among all these sad facts is our inability to efficaciously help in this moment of sore distress. We are convinced that the English people would take especial pleasure in showing that no political consideration could in any way lessen their feeling of intense sympathy for the suffering of the Russian people. Unfortunately the oft-demonstrated venality of Russian officials has prevented the sending of subscriptions to the Russian Government; while, on the other hand, the Russian authorities will not allow private charitable organisations to take the matter in hand. Consequently no general appeal has been made, though so many feel that it is the duty of all Europe to come to the rescue of Russia in her present trouble. The Russian Government assumes a heavy responsibility in checking all spontaneous efforts at assistance. It is in the same position as the Spanish Government during the great cholera epidemic of 1885. The Spanish Government officials were not trusted, and little or no money was placed in the hands of the Spanish Government for the relief of the distress. But charitable organisations were formed in Spain by private enterprise, and these commanded the confidence of all. They were the means of relieving much distress, and received liberal support. Nothing of the sort is possible under the Russian autocracy. Thus the few subscriptions which, in spite of these unpromising circumstances, can be collected in England, must be sent, not to a large representative and responsible society, but to individuals, such as Count Tolstoï, or to such Protestant and other clergymen as may be known in England, or to some individual county council or zemstov which the subscriber has special reason to trust. All this is most deplorable, as otherwise it would have been possible to render efficacious relief. In America and in France large sums could be obtained. The Germans have already offered help, and therefore we may most assuredly conclude that many thousand lives could be saved by assistance from England and other countries This would have lessened the danger of epidemics that may not be confined to Russia, and would have done much to soften the antagonisms which unfortunately exist between different countries, and which we must all deplore

ON VARIATIONS IN THE DEATH-RATE OF MEASLES.

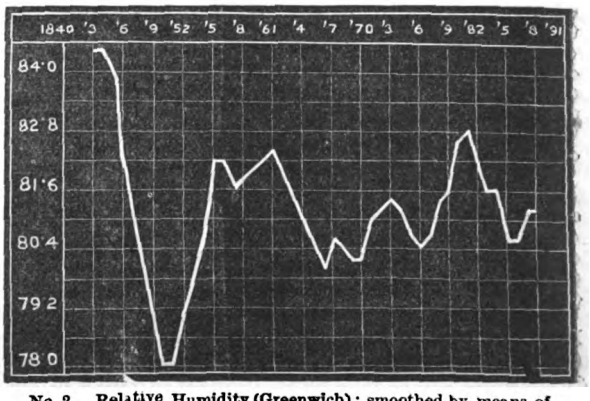
BY ALEX. B. MACDOWALL.

IF we take the annual death-rates of measles in London since 1841, and smooth the values by means of five-year-averages, we get the upper curve in the accompanying chart (No. 1). Dealing similarly with the measles death-



No. 1.—Measles Death-rate for London and for England and Wales: smoothed by means of five-year averages. The upper curve refers to London: the lower curve to England and Wales.

rate for England and Wales, we get the second curve. (This series begins in 1838, but there is an interruption from 1843 to 1846.) It will be understood that each year-point represents an average of five years. These curves reveal a curious fluctuation in the death-rate. At



No. 2. Relative Humidity (Greenwich): smoothed by means of five-year averages.

about twenty years' interval, in the case of London (say, in 1843, 1864, and 1883), maxima seem to have been reached, while minima appear in 1853 and 1869. The curve for England and Wales also presents long waves, with

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apparently somewhat longer intervals between the maxima, one of which was in 1861. We appear to have been lately near the crest of one of those waves, and might perhaps expect the curve now to go down, on the whole, for some years.

Unfortunately we cannot go further back than the dates indicated for exact data regarding the death-rate, but it might be well to study, on the one hand, the relative prevalence of measles in the years previous to 1840 for indications of like intervals, and to watch the future course of the curves in the light of what they indicate during those fifty years.

The third curve (second chart) is one of humidity. The annual figures denoting relative humidity at Greenwich are smoothed in the same way as the death rates. A certain degree of correspondence to the upper curves will be noted. The phases of the London death-rate curve appear, however, to lag somewhat behind those of the humidity curve, as might, perhaps, be expected from the relationship between these two phenomena.

For the sake of comparison I append a few figures, showing the London measles death-rate in two groups of five years, each having a maximum year central, and in two groups, each having a minimum year central.

DEATH-RATES.

	Maximum.					Average.
1864	0·82	0·56	0·94	0·43	0·73	0·70
1883	0·66	0·60	0·62	0·56	0·71	0·63
	Minimum.					**Average.**
1853	0·55	0·25	0·40	0·56	0·35	0·42
1869	0·37	0·62	0·46	0·45	0·44	0·47

UNIVERSITY OF LONDON.

MEETING OF CONVOCATION.

AT the meeting of Convocation of the University of London on the 19th inst. the chair was taken by Mr. E. H. Bush, in the absence through illness of the Chairman of Convocation, Dr. Wood.

A vote of condolence to the Queen and the Prince and Princess of Wales on the occasion of the lamented death of the Duke of Clarence and Avondale was proposed from the chair and unanimously passed.

Dr. W. J. COLLINS, M.D., presented the report of the Annual Committee, and moved its reception. This having been agreed to, Dr. Collins moved the adoption of the following motion (*a*) recommended in Paragraph 8 of the report of the Annual Committee: "That, having regard to certain changes in the regulations for the Honours Examination in Chemistry at the B.Sc Examination, whereby the production of the student's MS. book of laboratory work is required, signed by the teacher, if any, whose course he has attended as evidence of work done under the teacher's direction and supervision, this House is of opinion that such regulation imports into examinations considerations which should be excluded, and is liable to place at a disadvantage the non-collegiate candidates."

Dr. O'REILLY, D.Sc., seconded the motion.

Dr. TILDEN, D.Sc., moved, and Dr. CURNOW, M.D., seconded, an amendment to the effect that Clause 8 of the report should be referred back to the committee for further consideration. After some discussion the amendment was declared to be lost, and Dr. Collins's motion was subsequently carried.

Dr. T. B. NAPIER, LL.D., moved:—"(1) That this House, while not expressing any opinion as to the proposed new Charter for the Albert University generally, yet considers that the absence of any sufficient provision in the Charter for securing a fixed period and definite course of study by candidates for its degrees is likely to prove injurious both to the interests of higher education and of this University; (2) that the annual committee be requested to take such steps as in their opinion may be desirable to obtain a modification of the Charter in this direction; (3) that the annual committee be further requested to represent the views and guard the interests of Convocation generally in all matters connected with the proposed charter, and that for this purpose they be empowered to confer and to take joint action with the Senate, and to act otherwise as may seem expedient." He said that many objected to the proposed Charter of the Albert University as creating a university one-half of which was likely to be of a denominational character. It was opposed to the interests of higher education and also to the interests of their own University. There was no need for another examining University of London. Many might think the matter was really so serious that the Senate should have taken steps against such a Charter, or at least ask that the whole matter should be referred back to the Royal Commission. He was perfectly certain that Convocation had always looked, and would always look, to the Senate to guard its interests, and it was only when Convocation found the Senate listening to every voice, when it found it yielding all the privileges which had made that University such a success as it was at present, that it said it would go no further. He was sure Convocation would unite with the Senate to prevent that obnoxious Charter from becoming law.

Dr. O'REILLY seconded the resolution.

Dr. COLLINS moved as an amendment to Clauses 1 and 2 of the resolution, "That this House is of opinion that the Albert University Charter, if granted, would neither supply a Teaching University for London, as recommended by the Royal Commission, nor tend to promote the interests of higher education, while it might interfere with the work of the University of London. That the chairman be asked to convey a copy of this resolution to Sir John Lubbock, M.P., with the request that he will bring it to the notice of Parliament."

Mr. BUSK seconded the amendment, which was accepted by Dr. Napier in the place of his own motion, and carried as a substantive motion. Clause 3 of the resolution was also carried.

TUBERCULOSIS.

THE Medico-Chirurgical Society of Glasgow have, in pursuance of a resolution passed at a meeting of the Society on Dec. 18th, 1891, addressed a memorial to the Lord Provost, Magistrates, and Town Council of Glasgow in respect to the infectious character of tuberculosis and the need for prophylactic measures.

The following is the main text of the memorial:—

"1. Tuberculosis is an infectious disease in the sense that in all cases of this disease the one constant and necessary element in the causation is a microbe. This microbe grows and multiplies in the bodies of certain animals and of man when introduced from without, and in so doing it produces an intensely active poison which is the more direct agent in bringing about the morbid changes in the living structures. There are doubtless other elements in the causation, such as inherited and acquired susceptibility, but the microbe is the only essential and constant one, and there is evidence to show that, without any special susceptibility, it may produce the disease if introduced in sufficient quantity.

"2. As the microbe will not grow except at a temperature almost identical with that of the body, the living bodies of men and animals affected are the great propagating places of it. They are the sources of the supply, and constitute the centres from which the infection is derived. But the microbe is not retained in the bodies of the persons affected. Most of the forms of tuberculosis are characterised by discharges of matter from the affected parts of the body, and these discharges contain the microbe—often in very large quantities. The most frequent form of tuberculosis is consumption of the lungs, and persons affected with this disease almost constantly spit up matter which is loaded with the infective microbe. The sputum of such persons when dry is liable to be pulverised into fine dust, and this in its dissemination carries the still living microbe with it.

"3. It is believed that tuberculosis is fairly to be compared, as regards its infectious quality, if not with typhus and small-pox at least with typhoid or enteric fever, although the mode and channel of the infection may be so different

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as to make it much less obviously dangerous to live in the same house or room with a case of consumption than it would be in the case of one of the well-known contagious fevers. Tuberculosis, however, is much more disastrous in its results than all the other infectious diseases put together. According to the annual report of the Registrar-General for 1888, the deaths registered as due to tuberculosis in Glasgow numbered 1824, and those assigned to all other miasmatic—that is, infectious—diseases, including measles, scarlet fever, whooping-cough, &c., were 1089. For reasons know to us, it seems certain that the mortality from tuberculosis considerably exceeds that which appears in the Registrar-General's returns, but even these figures are sufficiently striking. The deaths registered as tuberculous made up 15·5 per cent. of the total deaths in Glasgow in 1888. These facts imply a large amount of what may be called 'floating infection' in our midst.

"4. The Town Council by its action in prohibiting the sale of tuberculous meat and milk has, in our opinion very properly, endeavoured to grapple with one source of the infection. It may be said that the great prevalence of tuberculosis in cattle, especially in milk cows kept in town byres, and therefore both more likely to be infected with tuberculosis and to become in turn sources of infection through their milk, has justly been already considered by the authorities. We recognise the wisdom of a policy having for its object the removal of this source of infection, which is dangerous for man as well as for animals. It should be possible by rigid cleansing and disinfecting of byres, and by the condemnation of all carcases or animals known to be tuberculous, to stop this source of infection.

"5. It is not for us to prescribe the mode in which the infection should be dealt with in the case of man. The Council has skilled officials whom it can consult on the matter. But we venture to suggest that a beginning should be made with a definite attempt to stay the infection. If the public were authoritatively informed of the harmful nature of all discharges from tuberculous persons, and more particularly from cases of consumption of the lungs, and if they were encouraged to have these discharges rendered innocuous, and also to submit their houses and clothing to disinfetcion at intervals during the currency of the disease, and again at its close, it is believed that much good would result. With the splendid sanitary organisation which Glasgow possesses, it should be possible to do much to cleanse our city from some of the principal causes of the widespread prevalence of this its greatest plague."

The document is signed on behalf of the society by

JOSEPH COATS, M.D., President.
W. T. GAIRDNER, M.D.
HUGH THOMSON, M.D.
JOHN LINDSAY STEVEN, M.D.
CHAS. WORKMAN, M.D.
J. WALKER DOWNIE, M.D., Secretary.

UNIVERSITY LIFE IN AUSTRALASIA.

IN the lecture delivered by Professor Anderson Stuart, M.D., Professor of Physiology in the University of Sydney, the other evening at the Royal Colonial Institute, there was much to interest the profession of medicine, but we shall content ourselves with emphasising one or two points that appear to us well worthy of notice. The universities of Australasia are teaching universities, each one having its staff of professors and other teachers, and in medicine there is no such thing as exemption from lectures. There are at the present moment altogether 141 teachers and 2049 students actively engaged in the work of the universities. The former are for the most part graduates of European universities. The duration of the curriculum in medicine has never been less than five years, and, in Sydney at least, physics, ophthalmic medicine and surgery, psychological medicine and logic, and the principles of science are necessary for the bachelor's degree. The standard of examination is a high one, and nowhere in Australasia is there anything like a "cheap" degree. Dr. Anderson Stuart speaks highly of the work of the students, and says that they "have a definite aim and take a serious view of life." In the University grounds is a general hospital, the Prince Alfred, which is the clinical school for the University. No difference is made between the sexes; there are no separate courses of instruction in Sydney, and no difficulty has made itself felt. The last third of the lecture is exclusively occupied with what appears to be the burning question of the day—viz., that of government. It appears that at present in all the four universities the body of graduates has, or soon may have, the entire management in their hands, inasmuch as they elect the governing body, which controls not only such matters as finance and appointments, but even actively busies itself with questions of internal administration, discipline, and purely educational matters, which it would do very much better to leave to the teachers, whose daily work is concerned with such things. It is proposed, it seems, in some quarters to get rid of the present representatives of the teachers, who sit on the governing body, so that then all the members of the governing body would receive their mandate directly from the graduates. The lecturer argued against the graduates being necessarily fit and proper persons to exercise this power, and spoke in favour of the adequate representation of all the interests concerned—viz: (1) The public, through the Government representatives, all the more since the greater part of the funds come from the State, which at present has no voice in their expenditure; (2) the educated public, through the graduates' representatives; (3) the teachers; (4) the body of students, as in Scotland; and (5) perhaps the affiliated colleges in Sydney and Melbourne. The first three certainly constitute great and important interests, which should be represented in the governing body. With regard to the other two the case is not so clear. The presence of purely business men in the governing body is strongly advocated, and, indeed, the above scheme is largely to that end, for it seems that only professional men at present have any chance of election. Of the expediency of business men being there to advise on the many important business questions that arise there can be no question. Lastly, the lecturer urged that the body of teachers should be more trusted in the actual work of teaching than they are; and he was right. It is very easy to govern too much; and if a governing body is constantly interfering in such matters nothing but mischief can result. The resignation of the Professor of Law and Dean of the Faculty of Law in Melbourne, of which we have just read, comes to give point to the lecturer's words. But still there is no place that is perfect, and, said the lecturer, "Taking it all in all then, so far as our immediate surroundings are concerned, one *may* be very happy in a Colonial University chair. People will certainly be very kindly disposed to one, the authorities will do their best for one according to their lights, and, in a word, here, as so often elsewhere, the place is very much what one makes it. *Es hallt aus dem Walde wieder, wie man hineinruft.*"

INFLUENZA.

THE mortality returns for the week ending Jan. 16th exhibit some curious departures from the usual comparative death-rates in the large towns, which may doubtless be taken as indicating the places where influenza and its concomitants are prevailing or otherwise. Thus in London the death-rate has risen to 40 per 1000, but this proportion is exceeded by Liverpool (42), Wolverhampton (48·1), Brighton (51·5), and Portsmouth (57·5). Four weeks ago the rates at the two last-named places were only 18·0 and 17·9 respectively. The lowest death-rate for the week is at Huddersfield (14·6) and Bradford (15·7).

The deaths directly attributed to influenza in the metropolis for the week amounted to 271, and in addition to these there were 63 cases in which influenza was noted as a secondary cause. The number of deaths from diseases of the respiratory organs was 1248, or 594 above the corrected average. It is noteworthy that in London the total mortality was 1193 above the average numbers in the corresponding weeks of the last ten years, and that the unusual circumstance of there being more deaths (3271) registered than births (2680) is recorded.

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As regards the prevalence of the disease in this country, we regret not to be able to record any appreciable diminution in its extent, although in some districts it seems to be of a far milder type than in others, or than in the previous outbreak. The accounts from all quarters are much to the same effect—namely, that the disease is still very prevalent. Indeed, it is in marked contrast with the more rapid subsidence of outbreaks noted last year and two years ago that in some places it has persisted, almost undiminished, for the past month or six weeks. Newcastle and Aberdeen are instances of this, the latter city experiencing of late a somewhat serious extension. From Manchester we learn that "cases of influenza have been met with here and in the surrounding districts, but compared with last year's epidemic it is mild and far less prevalent; neither amongst the patients at the hospitals and dispensaries nor in private practice has it assumed anything like serious proportions. At present it has not affected our local mortality to any appreciable extent, and our death-rate has been below rather than above the average." It seems to be more severe at Liverpool, and it has broken out in the Isle of Man, but in mild form. At Carlisle it is very prevalent. In Yorkshire there is also much sickness; and cases continue to occur in Lincolnshire There seems to be no appreciable abatement in Norfolk and Suffolk, Norwich and Bury being especially attacked. Similar reports come from Cambridgeshire, Northamptonshire, Hertfordshire, and Essex. At Leicester the type is mild; but Dr. Tomkins, the energetic medical officer, has issued a circular warning the public of a possible visitation, and giving directions for prompt resort to care and medical advice. At Worcester, Birmingham, Stafford, and other midland districts it is very prevalent. In London and the suburbs it continues unchecked, and the public services are being greatly incommoded, magistrates, police, postal servants, and members of the Fire Brigade being amongst the sufferers. Nor is there apparently any notable diminution in the Kentish towns and villages, especially in the Maidstone and Ashford districts; whilst Sussex and Hampshire (especially Portsmouth and Southampton) are still the seat of the disease. Further west, we hear of its continued prevalence in South Devon, and its outbreak in Somersetshire.

Abroad the epidemic, which had subsided somewhat at Marseilles, has again appeared in severe form; also at Lyons and Chalons. It is abating at Milan, but spreading in Rome. Germany is gradually getting free from it, but its seaports have suffered severely. In Silesia, however, it is very severe. It is about the same at Vienna and is extending in Roumania. In Denmark and Sweden, where it has been exceptionally severe, it is now declining.

DR. BACCELLI ON INFLUENZA.

ON Friday, the 15th inst., writes our Italian correspondent, the amphitheatre of the Santo Spirito Hospital in Rome was crowded by an audience of more than three hundred to hear Dr. Baccelli deliver a lecture on influenza. Besides his own students, there were present the *personnel* of the public sanitary service, medical officers of the army and navy, and many lady nurses, professional and non-professional. The lecture, which lasted an hour (from 11 A.M. till 12), was illustrated as to symptoms and diagnosis by a typical case, carried in on his bed from the wards. Among the salient points of the lecture were the following:—For the last two centuries influenza has appeared in epidemic form about once in every ten years, but in varying degrees of diffusion and severity, and presenting by no means the same features or running the same course. Concurrent cold and wet have in Italy been its favouring conditions, and where it has been milder in its incidence there has been a humid atmosphere, without cold, as in Rome; or a cold atmosphere, without humidity, as in the sub-alpine towns. Rome, indeed, has in the past enjoyed greater immunity from the severer forms of the disease than any other city of the same latitude, thanks to the stillness of her air, as well as to her bland, if moist, climate in winter. Even in this last visitation she has escaped more lightly than any other populous centre of the same size in Europe. The pathogenic microbe recently discovered is the same for all cases of influenza, but its favouring conditions are diverse, and among these must be noted the resisting power of the patient. During the epidemic of the last three years the catarrhal or rheumatoid forms of the disease have been less significant than the neurosal—this latter, indeed, constituting its true culminating character (*vero carattere culminante*). This neurosal character betrays itself not only in the usual points of least resistance—the respiratory and circulatory apparatus, as well as in the alimentary tract,—but throughout the whole system (*per tutto l'organismo*); and it is in subjects who have passed the meridian of life ("*il mezzo del cammin di nostra vita*"), whose breathing and blood-diffusing, as well as blood-forming, apparatus are enfeebled by time and use, that influenza finds its aptest prey. Having described some typical cases of influenza and reviewed the symptoms in the ascending scale of their severity, Dr. Baccelli took one in which there was bronchial distress concurrently with debilitated heart, and indicated the treatment to which the response was most satisfactory. Camphor, whether for its action on the nervous system or its microbicidal virtue, is of marked benefit at the first stage. The labouring heart, announced by the enfeebled, often faltering and irregular pulse, is reinforced by injections of oil of camphor every three or four hours, in doses of twenty-five centigrammes of camphor to one gramme of oil. When the gravity of the symptoms is still unrelieved, or when by previous use of the remedy the patient does not satisfactorily respond to it, the injection of ether often succeeds admirably. In other cases, when impending cardiac failure calls for it, the injection of strychnine, beginning with two milligrammes and ascending to six milligrammes in the twelve hours, will often tide over this crisis and gain precious time. In this direction the neutral sulphate of strychnine has succeeded where the ethereal tincture of castoreum has failed. To sustain the powers, wine (preferably white Capri or Rhenish) taken very hot, in small quantities and at frequent intervals, should be given, and manifest good has been derived from a few centigrammes of Kermes in combination with quinine and camphor. It is not only the mucous, but the gastro-intestinal, zone that may be affected by influenza. In the last epidemic we have had true gastro-enteric forms; and in these we must feel our way with caution. If the patient is young and strong, then there can be no hesitation in employing an emetic—ipecacuanha in small doses by preference. The nervous symptoms are really more formidable than the gastro-enteric. In the acoustic cavities of the head the mucous tract is equally affected, as in other passages; delirium often supervenes, and in these cases, particularly in advanced life, the closest attention must be paid to the heart. When the respiration is embarrassed, striking benefit is often derived from the inhalation of oxygen. This, supplementing the subcutaneous injection of strychnine, is an addition to therapeutics which does honour to the Roman school, where it has long been practised with signal success.

The lecture, of which the above abstract gives but a meagre impression, will, at the request of the students, be made *publici juris*.

CONGRESS OF INTERNAL MEDICINE.

THE programme of the Eleventh Annual German Congress of Internal Medicine, which assembles this year at Leipzig on April 20th, has just been issued. Professor Curschmann is the president, and the permanent secretary is Dr. Emil Pfeiffer of Wiesbaden. Two subjects for general discussion are announced—the one on "The Severe Anæmic Conditions," is to be opened by Dr. Biermer (Breslau) and Dr. Ehrlich (Berlin); the other, on "Chronic Inflammation of the Liver," opened by Dr. Rosenstein (Leyden) and Dr. Stadelmann (Dorpat). There is a long list of papers, which includes the following:—Dr. Emmerich (Munich), Causes of Immunity and Recovery from Infectious Diseases; Dr. Peiper (Greifswald), Uræmia; Dr. R. Binswanger (Krewzling), Results of Treatment by Suggestion; Dr. Goltz (Strassburg), Results of Excision of Large Portions of the Spinal Cord; Dr. Schott (Nauheim), Etio-

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logy of Chronic Heart Disease; Dr. Fürbringer (Berlin), on so-called Hepatic Colic and Pseudo-calculi (Biliary); Dr. Minkowski (Strasburg), Diabetes Mellitus following Extirpation of Pancreas; Dr. Adamkiewicz (Cracow), Treatment of Carcinoma; Dr. Finkler (Bonn), the Varieties of Pneumonia; Dr. Israel (Berlin), Secondary Changes of Circulatory Organs in Renal Insufficiency; Dr. Landois (Greifswald), Therapeutic Value of Blood-Transfusion in Man; Dr. Rütimeyer (Basel), Bilharzia Disease; Dr. Grawitz (Greifswald), Hæmorrhagic Infarcts in the Lung; Dr. Klebs (Zurich), Recovery from Tuberculosis and Biology of Tubercle Bacilli; Drs. G. and F. Klemperer (Berlin and Strasburg), Researches on Causes of Immunity and Recovery, especially in Pneumonia; Dr. Buchner (Munich), Immunity against Infectious Diseases; Dr. von Ziemssen (Munich). Subcutaneous Transfusion of Blood; Dr. H. Leo (Bonn), Diabetes Mellitus; Dr. Schreiber (Königsberg), Disorders of the Renal Circulation. Other papers are promised by Drs. Gerhardt, Geppert, Wolft, Löffler, Stern, von Jaksch, and Vucetic. The local secretary of the Congress is Dr. Krehl, Leipzig, Thalstrasse, 31.

RAILWAY ACCIDENTS IN 1891.

THE report upon railway accidents recently issued from the Board of Trade shows that the casualties attending this industry have been happily both fewer and less serious in their consequences than has been the case on many previous occasions. Indeed, when the record of six months contains no single instance of a railway passenger killed in any accident due to the movement of trains, it is possible to take a very pleasing view of the degree of perfection to which the working of our railway system has been brought. Nor is it only in respect of the immunity from accident which the present return exhibits that matter of congratulation may be found. It is only less gratifying to discover from an examination of the record of accidents that the lesson of experience has been taken to heart, and that errors which have proved to be the fruitful sources of disaster are being one by one corrected. Thus it is eminently satisfactory to find in the present record much less evidence than has usually been forthcoming of the literally fatal effects of overwork and protracted hours of labour. The examiners very properly are careful to inquire into this point and systematically to report the result of their inquiries. But it does not appear that the accidents which have formed the subject matter of the inquiries dealt with in the Blue-book have been in any appreciable manner attributable to this cause. In one or two instances the inquiry on this head has elicited the fact that railway servants are still to some extent overworked, but the extent of this overwork has not been great, nor has it in any instance been a manifestly contributing cause of accident. It is therefore very evident that in this respect the expression of public opinion has had a most salutary effect, and it may be hoped that at no distant date the chronicler of railway annals will be able to report the practical removal of what was at one time the most serious grievance of railway men and the most formidable danger to the public to which the railway system had given rise.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6420 births and 6455 deaths were registered during the week ending Jan. 16th. The annual rate of mortality in these towns was equal to 33·0 per 1000, against 28·7 in the preceding week; in London the rate was as high as 40·0 per 1000, while it averaged 28·0 in the thirty-two provincial towns. The lowest rates in these towns last week were 14·6 in Huddersfield, 15·7 in Bradford, 17·1 in Leicester, and 19·2 in Halifax; the highest rates were 42·0 in Liverpool, 48·1 in Wolverhampton, 51·5 in Brighton, and 57·0 in Portsmouth. The 6455 deaths included 604 which were referred to the principal zymotic diseases, against 549 in the preceding week; of these 265 resulted from whooping-cough, 161 from measles, 53 from diarrhœa, 52 from "fever" (principally enteric), 43 from diphtheria, 29 from scarlet fever, and one from small-pox. No fatal case of any of these diseases was registered in Plymouth, in Huddersfield, or in Halifax; while they caused the highest rates in Bolton, Sunderland, Newcastle-upon-Tyne, and Swansea The greatest mortality from measles occurred in Burnley, Liverpool, Gateshead, Derby, Swansea, Sunderland, and Newcastle-upon-Tyne; from scarlet fever in Swansea; from whooping-cough in West Ham, Wolverhampton, London, Swansea, Bolton, and Newcastle-upon-Tyne; from "fever" in Norwich, Salford, Derby, and Bolton; and from diarrhœa in Sunderland. The 43 deaths from diphtheria included 29 in London, 2 in Birkenhead, 2 in Leeds, and 2 in Newcastle-upon-Tyne. One fatal case of small-pox was registered in London, but not one in any other of the thirty-three great towns; five small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and 1 in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum and the London Fever Hospitals at the end of the week was 1391, against numbers declining from 1554 to 1435 at the end of the preceding six weeks; 92 new cases were admitted during the week, against 101 and 104 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 553, 1317, and 1084 in the preceding three weeks, rose last week to 1248, and exceeded by 594 the corrected average. The causes of 129, or 2·0 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Bolton, Burnley, Sunderland, and in three other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Preston, Bradford, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the preceding three weeks from 27·1 to 24·9 per 1000, further fell to 23·9 during the week ending Jan. 16th, and was 9·1 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 16·1 in Paisley and 17·1 in Leith to 31·4 in Greenock and 38·1 in Perth. The 664 deaths in these towns included 16 which were referred to whooping-cough, 12 to diarrhœa, 7 to scarlet fever, 6 to "fever," 5 to diphtheria, 4 to measles, and not one to small-pox. In all, 50 deaths resulted from these principal zymotic diseases, against 69 and 58 in the preceding two weeks. These 50 deaths were equal to an annual rate of 1·8 per 1000, which was 1·3 below the mean rate last week from the same diseases in the thirty-three English towns. The fatal cases of whooping-cough, which had been 22 in each of the preceding two weeks, declined to 16 last week, of which 9 occurred in Glasgow and 5 in Aberdeen. The 12 deaths from diarrhœa exceeded the number in any recent week, and included 7 in Glasgow. The fatal cases of scarlet fever, which had been 9 and 4 in the previous two weeks, rose again to 7 last week, of which 5 occurred in Glasgow. The 6 deaths referred to "fever" corresponded with the number in the preceding week, and included 2 in Edinburgh. The fatal cases of diphtheria, which had been 11 and 8 in the previous two weeks, further declined to 5 last week, of which 3 occurred in Leith. The 4 deaths from measles were all recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had declined from 254 to 200 in the preceding three weeks, rose again to 226 last week, and were within 2 of the number in the corresponding week of last year. The causes of 67, or 10 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 45·8 and 35·0 per 1000 in the preceding two weeks, rose again to 43·8 during the week ending Jan. 16th. During the thirteen weeks of last quarter the death-rate in the city averaged 29·8 per 1000, against 20·5 in London and 25·5 in Edinburgh. The 294 deaths in Dublin during the week

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under notice exceeded by 59 the number in the previous week, and included 5 which were referred to whooping-cough, 3 to diarrhœa, 2 to "fever," and not one either to small-pox, measles, scarlet fever, or diphtheria. In all, 10 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1·5 per 1000, the rate during the same period being 4·1 in London and 1·2 in Edinburgh. The fatal cases of whooping-cough, which had steadily increased in the preceding six weeks from 2 to 10, declined again to 5 last week. The deaths referred to different forms of "fever" (principally enteric), which had been 10 and 5 in the previous two weeks, further declined to 2 last week, a lower number than has been recorded in any week since the beginning of September last. The 294 deaths registered in Dublin last week included 48 of infants under one year of age, and 107 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons considerably exceeded those recorded in the preceding week. Ten inquest cases and 9 deaths from violence were registered; and 80, or more than a fourth, of the deaths occurred in public institutions. The causes of 31, or nearly 11 per cent., of the deaths in the city were not certified.

THE SERVICES.

Surgeon-Captain M. T. Yarr has joined the 2nd Battalion Coldstream Guards for duty as an attached medical officer.

INDIAN MEDICAL SERVICE.—*Bengal:* To be Brigade Surgeon-Lieutenant-Colonels: Surgeon-Lieutenant-Colonel Denis Francis Keegan, M.D. (dated Aug. 11th, 1891); Surgeon-Lieutenant-Colonel Stephen Coull Mackenzie, M.D., (dated Aug. 13th, 1891) (these promotions cancel those made in the *London Gazette* of Nov. 27th, 1891); Surgeon-Lieutenant-Colonel Thomas French-Mullen, M.D. (dated Sept. 2nd, 1891).—Surgeon-Captains to be Surgeon-Majors (dated Oct. 31st, 1891): George William Patrick Dennys, John William Unthank Macnamara, M.D., Joseph Sykes, and John Francis Tuohy, M.D.—*Madras:* To be Brigade Surgeon: Surgeon-Major James Byers Thomas (dated April 30th, 1889) —Surgeon-Captains to be Surgeon-Majors (dated Oct. 31st, 1891): James Cort Marsden, Francis Casement Reeves, John Leopold Poynder, and John Hoey.—*Bombay:* Surgeon-Captains to be Surgeon-Majors (dated Oct. 31st, 1891): Frederick Burness and Charles Fancourt Willis, M.D.

BENGAL MEDICAL ESTABLISHMENT.—The Queen has approved of the retirement from the Service of the undermentioned Officers:—Brigade Surgeon John Duncan, M.D. (dated June 16th, 1891); Brigade Surgeon-Lieutenant-Colonel Henry Potter, M.D. (dated Nov. 2nd, 1891); Brigade Surgeon-Lieutenant-Colonel Rajendra Chandra Chandra (dated Oct. 18th, 1891).

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Surgeons: Geo. Edmunds to the *Assaye*, and Richard C. Munday to the *Plassy* (both dated Jan. 23rd, 1892); Mr. Philip G. Borrowman to be Surgeon and Agent to the *Elie*, Fife, N.B. (dated Jan. 14th, 1892).

VOLUNTEER CORPS.—*Artillery:* 3rd Middlesex: Surgeon-Captain and Honorary Surgeon-Major J. Cook, M.D., to be Surgeon-Major (dated Jan. 16th, 1892).—*Royal Engineers* (Fortress and Railway Forces): 1st Aberdeenshire: Surgeon-Lieutenant J. J. Y. Dalgarno, M.B., to be Surgeon-Captain (dated Jan. 16th, 1892).—1st Volunteer Battalion, the Buffs (East Kent Regiment): Surgeon-Lieutenant S. Wacher to be Surgeon-Captain (dated Jan. 16th, 1892).—*Rifle:* 3rd (Dundee Highland) Volunteer Battalion, the Black Watch (Royal Highlanders): Surgeon-Lieutenant W. Kinnear, M.B., to be Surgeon-Captain (dated Jan. 16th, 1892).—2nd Volunteer Battalion, the Manchester Regiment: Surgeon-Lieutenant T. Carr to be Surgeon-Captain (dated Jan. 16th, 1892).

SUPERANNUATION.—Dr. Junius Hardwicke, of Chilton Lodge, Rotherham, ex-medical officer of the workhouse, has been awarded by the Rotherham Board of Guardians a retiring pension of £40 a year.

Correspondence.

"Audi alteram partem."

THE BEARING OF RECENT BIOLOGICAL RESEARCH ON THE PRACTICE OF MEDICINE AND SURGERY.

To the Editors of THE LANCET.

SIRS,—Dr. Molloy really supplies his own answers to the question or objection propounded in his letter addressed to THE LANCET of Jan. 16th. It may, however, be pointed out that the passage quoted at the top of the second column of page 13 might have explained this matter in itself had it been read with even moderate care—viz., "We must ascribe the statement so frequently made, that although the treatment with iodine and with other irritants exerts a checking influence as a whole, yet at some point or other the affection still continues to spread." This surely makes it clear enough that the old fashioned remedies, iodine and nitrate of silver, are not thought of as being used for the first time in the treatment of erysipelas; whilst the context shows that what it is specially wished to bring out is that the *rationale* of the treatment by caustic rings was not then understood, and that such treatment frequently failed even in the hands of most experienced surgeons because the pathology of the disease had not been properly worked out; but that now this has been done and the remedy can be properly applied, the results obtained, instead of being irregular and to a great extent accidental, are in the highest degree satisfactory. All I am contending for is that every fresh advance in biological (using the term in its widest sense) research has its influence on the treatment of disease.

I am, Sirs, yours truly,
GERMAN SIMS WOODHEAD.

SIRS,—In common with Dr. Molloy, I had been taught to regard painting the edge of the inflammatory area of erysipelas as valueless, save for showing how much the inflammation spread or receded in the course of a definite number of hours. Personally, I believed it to have as little effect on the erysipelatous process itself as Sydney Smith's famous patting the dome of St. Paul's would please the Dean and Chapter. The external treatment of erysipelas which has seemed to act most powerfully and beneficially on the career of erysipelas has been that recommended by Dr. Royston Fairbank (quoted by Dr. Ringer) of making an application of digitalis in some form or other to the inflamed surface. I generally paint freely with the tincture, and have several times seen how the part painted has shrunk while the other unpainted parts have gone on swelling. Also it affords considerable comfort to the patient, and demands no skilled attention. The action depends, I suppose, on the contraction of the arterioles by the drug, thus controlling and checking the inflammation. How this can be brought into line with recent bacteriological research will be interesting to see.

I am, Sirs, yours very faithfully,
Lincoln. E. MANSEL SYMPSON, M.D.

PATHOLOGICAL CONDITIONS IN THE MAMMA ASSOCIATED WITH CANCER.

To the Editors of THE LANCET.

SIRS,—The valuable contributions to our knowledge of the pathological conditions of the breast associated with cancer given at the last meeting of the Pathological Society by Messrs. Johnson and Beadles would, I think, have been more complete had reference been made to the work of previous investigators, the accuracy of whose observations they have so fully confirmed. Mr. Beadles' remark that, after careful research into the literature of the subject, he had only found some allusions to it by Cornil and Creighton surprises me. These conditions—to which, since Heidenhain's classical researches, so much attention has been directed—were perfectly familiar to Sir Astley Cooper. He says[1]: "I would observe that the scirrhous

[1] Lectures on Surgery, 1819, p. 386

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tumour is not all the disease; there are roots which extend to a considerable distance, and those who gave this disease the name of cancer probably knew more of its nature than we are disposed to give them credit for. It is supposed by some that this name was given on account of the appearance of the surrounding veins. I should rather say that it was from the appearances on dissection than from anything without. When you dissect a scirrhous tumour you see a number of roots proceeding to a considerable distance, and if you remove the tumour only, and not the roots, there will be little advantage from the operation."

Moreover, Sir Astley Cooper was also well aware that mammary cancers not unfrequently originate in outlying or sequestrated lobules of the glands. On this subject he says[2]: "The margins of the breast do not form a regular disc, but the secreting structure often projects into the surrounding fibrous and adipose tissue, so as to produce radii from the nipple of very unequal lengths; hence a circular sweep of the knife cuts off many of its projections, spoils the breast for dissection, and in surgical operations leaves much of the disease unremoved." I have shown elsewhere[3] that 9·8 per cent. of all breast cancers and 14 per cent. of adenomas originate in this way, quite outside the normal mammæ. Heidenhain[4] has conclusively demonstrated that every mamma containing a cancerous tumour is diseased throughout. Its secreting cells are unduly numerous, and they everywhere show signs of excessive reproductive activity; while the peri-acinous connective tissue is much increased and infiltrated with small round cells. Heidenhain maintains that proliferating acini of this kind left behind at the primary operation are the germs whence late recurrences originate. Moreover, he has shown that the loose areolar tissue which separates the mammary gland from the pectoralis major muscle contains numerous glandular offshoots and lymphatics which in cases of cancer are nearly always diseased. Heidenhain found, on careful examination after removal, that the disease had not been completely extirpated from this situation in twelve out of eighteen breasts consecutively amputated for cancer, and he therefore predicted recurrences, which soon followed. To obviate this he recommends that the fascia over the pectoralis major muscle and a layer of the subjacent muscular fibres should be removed in every case destined for operation, and I have no doubt whatever that his recommendation ought to be regarded as an essential feature of the operation. I am, Sirs, yours truly,

W. ROGER WILLIAMS, F.R.C.S.

Winckley-square, Preston, Jan. 18th, 1892.

[2] The Anatomy of the Breast. London, 1840, p. 13.
[3] The Journal of Anatomy and Physiology, vol. xxv., 1891, p. 244.
[4] Ueber die Ursachen der lokalen Krebsrecidiven nach Amputatio Mammæ. Arch. fur Klin. Chir., Bd. xxxiv., 1889, S. 97.

THE LATE DEATH UNDER CHLOROFORM AT UNIVERSITY COLLEGE HOSPITAL.

To the Editors of THE LANCET.

SIRS,—I beg to hand you the following particulars of the case of death under chloroform which occurred at University College Hospital on the 6th inst.:—Patient was a man aged forty-eight years, very large build, with an immense amount of adipose tissue. In December, 1889, he had the anterior part of the tongue and a portion of the jaw removed by Mr. Barker for cancer. On that occasion he took the chloroform very well. Patient was readmitted on the 4th inst. for recurrence of the disease in the root of the tongue and in the floor of the mouth. On the 6th inst., patient's general condition being fairly good, chloroform was administered on lint. Patient did not breathe well from the first, but held his breath and strained a good deal. When partially under the influence of the chloroform Junker's apparatus was substituted for the lint. Shortly after this the breathing suddenly failed, the respiratory movements becoming shallower, and cyanosis very marked. The anæsthetic was at once stopped, and after a minute or two the breathing and colour improved. The anæsthetic was again given, but in a very short time the breathing again became difficult, there being slight stertor at first with marked cyanosis, and then very rapidly the respiratory movements ceased altogether. The mouth was opened and the root of the tongue with difficulty pulled forwards and the chin drawn up. This did not cause any attempt at respiratory movement. The back of the throat was sponged out and some blood and mucus cleared from it. Artificial respiration was resorted to, and afterwards laryngotomy was performed, but owing to the patient's large build and rigid thorax the former procedure was not very satisfactory. The pulse could be felt in the temporal artery at the time the respirations ceased. It seems probable that some blood from the growth in the mouth got into the upper part of the larynx at the beginning of the patient's serious symptoms, and that this was followed by respiratory failure. At the post-mortem examination marked fatty degeneration of the heart and cirrhosis of the liver were found.

I am, Sirs, yours faithfully,

WALTER W. H. TATE,
Resident Medical Officer.

London, W.C., Jan 10th, 1892.

A SUGGESTION FOR THE TREATMENT OF IRREDUCIBLE INTUSSUSCEPTION OF THE BOWELS.

To the Editors of THE LANCET.

SIRS,—I have read with much interest Mr. Arthur Barker's paper upon the above subject, the more so as it describes an operation for the relief of certain forms of intussusception of the intestine which is in principle the same as I have advocated in my lectures on intestinal obstruction for the last two or three years, and which, in my work on "Surgical Diseases of the Intestine," now in the press, I have fully described and illustrated. Mr. A. Barker will be interested to hear that last year, in conjunction with Dr. Morrotti, I made a series of experiments with a view of testing the feasibility of the operation. All these experiments, three in number, were successful. The steps I adopted were as follows: In the first place, I created an artificial intussusception, and allowed this to exist from six to ten days before operating for its relief; at the end of this time I found the invagination firmly adherent at the point at which the intussuscipiens receives the intussusceptum; the former was somewhat congested and œdematous. I made a longitudinal incision into the intussuscipiens on the side furthest from the mesentery, directly over the intussusceptum, about an inch and a half long, so as to allow of my being able to have a good view of, and sufficient room to cut, the intussusceptum across through the opening. I next seized the invaginated piece of intestine with vulsellum forceps and snipped it across about half an inch from the proximal end, catching up and tying any vessel that needed it, then with a series of interrupted sutures stitched the divided ends of the stump around, and returned it into the intestine, closing the longitudinal opening in the intussuscipiens with a double row of chromic gut sutures. This operation, although the same in principle as that described by Mr. Barker, differs in one or two material points. First I used no sutures to unite the bowel at the point at which the intussuscipiens receives the intussusceptum, as I found the intestine firmly adherent at this point already; even if this should not be the case, three or four quill sutures would, I think, be quite sufficient to prevent any fear of accident arising from the slipping out of the intussusceptum, as the divided ends were firmly united by a number of interrupted sutures, which should be quite sufficient to secure firm union. With respect to sutures, I invariably use chromic gut for all intestinal suturing, whereas Mr. Barker still uses silk sutures, and for suturing the stump he used stout silk. This, in my opinion, is not devoid of danger in the future. The chromic gut, in my experience, lasts quite long enough to allow of firm union of the peritoneal surfaces. It is then absorbed, and no further trouble can arise, whereas silk will remain an indefinite time, or until it ulcerates out and passes away. This has been proved in one case of gastro-enterostomy, which died over four months after the operation, and the silk sutures were found hanging in the stomach. The same thing were found in Mr. Barker's case of gastro-enterostomy, when 2¾ in. of silk thread were found hanging from the artificial opening into the stomach seven weeks after the operation of gastro-enterostomy. I think the method of dividing the intussusceptum *in situ* is preferable to attempting to draw it out of the incision in the intussuscipiens and then dividing it, as there is less risk of

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injuring the intestine, already weakened, by tearing or bruising.

To Mr. Arthur Barker undoubtedly is due the credit for having suggested this operation at the Royal Medical and Chirurgical Society in 1887, although until he drew attention to it I was unaware of his suggestion. Professor Senn, also, in the *Canadian Practitioner* for August, 1891, has suggested a similar plan of treating certain forms of irreducible intussusception.—I am, Sirs, yours faithfully,

FREDK. BOWREMAN JESSETT.

Upper Wimpole-street, W., Jan. 11th, 1892.

INFLUENZA.

To the Editors of THE LANCET.

SIRS,—I shall feel obliged if you will allow me to state, in answer to numerous inquiries from medical practitioners, that I consider salipyrin (salicylate of antipyrin) the most effective remedy for combating the feverish attack of influenza. Salipyrin, the properties of which have been studied chiefly by P. Guttmann, Von Mosengeil, Hennig, and others, is a white crystalline powder which is nearly insoluble in water, but soluble in alcohol, and has the composition $C_{18}H_{19}N_2O_4$. It may be given in powder or in a mixture, which should be well shaken, with tincture and syrup of orange peel. The average dose is fifteen grains, which should be repeated at first every two hours. After four or five such doses have been given, there is in most cases an extraordinary change for the better; and if continued afterwards at less frequent intervals, the patient progresses rapidly towards recovery. I have given it chiefly in protracted and alarming cases where antipyrin and phenacetin had already been administered, and where, in spite of these remedies, the fever, prostration, and somnolence were becoming aggravated. The drug appears to have no injurious influence on the heart and other important organs; indeed its beneficial effects on the pulse have been most marked. I need not add that every case has to be treated on its own individual aspects, but think that salipyrin will be found to prove our sheet-anchor in the treatment of the feverish attack of grip. I am, Sirs, yours faithfully,

Jan. 15th, 1892. JULIUS ALTHAUS, M.D.

To the Editors of THE LANCET.

SIRS,—Seeing in your columns a theory put forward by Dr. Althaus, to the effect that the influenza poison attacks chiefly the centres of the bulb, I tried to imagine a clinical picture of such a disease, with this result. The patient is suddenly seized with one or a combination of the following symptoms: choking, loss of voice, fainting, dyspnœa, general flushing or pallor of skin, perverted action of iris, glycosuria. In the cases of recovery from the first seizure the symptoms begin to remit, and during their cessation the patient feels quite well and is desirous and capable of performing acts of great mental and physical exertion. The total absence of pain throughout is a remarkable feature of the disease. It is difficult to recognise any likeness between such an attack and the present epidemic. Yet there is little doubt that influenza does act with disproportionate severity upon the nerve centres compared with other fevers. But this it does generally pretty much inversely according to their stability, the vital centres being as a rule least affected, for influenza is usually a mild disorder. When, however, bulbar symptoms do occur, they are very striking, and are apt to draw the attention from te hmore typical and common symptoms. With respect to treatment, considering the depressing nature of the disease, is the routine prescription of such depressing drugs as antipyrin and salicylate of soda justifiable? The pains of the disease are usually quite bearable when the patient is at rest, as he should be, and pyrexia is seldom a cause of alarm. I would contend, therefore, that the use of antipyrin as a rule should be restricted to those cases in which the pain is unbearable or when hyperpyrexia is present. I am, Sirs, yours faithfully,

THOS. GLOVER LYON.

To the Editors of THE LANCET.

SIRS,—The almost undisputed fact that influenza is contagious seems to be drawing us away from the, to my mind, equally incontrovertible fact that the contagium is air borne, and, though hitherto not indubitably detected, is nevertheless almost certainly a pathogenic germ. The practical consequence of any such error in our efforts to combat the ravages of this disease is obvious. I have already several times (thanks to your courtesy) recapitulated the evidence in favour of an air-borne contagium; the suddenness of invasion, the numbers simultaneously attacked, the fact of crews far out at sea being affected, all point to this conclusion. But a curious misapprehension seems to exist that this theory is incompatible with personal infection. So far from this being the case, the two theories—or, rather, facts—fit one another exactly. The contagium is at first always air borne, but each person as he is infected becomes a fresh nidus, or hotbed of contagion, because fresh spores are generated in enormous numbers in his body, and are of course most numerous and virulent in his immediate vicinity. In this sense influenza is undoubtedly infectious, but not the less is the contagium aerial. Another fact which is in danger of being overlooked is the extreme frequency, I had almost said universality, of pneumonic congestion in influenza. One would naturally expect in an air-borne contagium that the respiratory tract would be the first affected, and this is precisely what occurs, I believe, in almost every instance—a typical pneumonic dulness, a slight hepatisation, may be detected, if only it be diligently sought; so frequently is this the case that I am disposed to regard influenza as an epidemic pneumonia. When the lungs are not implicated the bronchial passages or the mucous surfaces of the eyes or nose are often affected, and not unfrequently the intestinal tract. The intense nervous prostration which is so characteristic of true influenza is not, I believe, the primary affection, but rather the result of the poisonous action of the pathogenic spores on the organism. The interesting letter of Dr. Alfred Carpenter, in your issue of Nov. 21st, affords evidence strongly confirmatory of that quoted in my communication of Nov. 14th on the etiology of influenza as to the mycotic origin of the disease. Another interesting point to which I should like again to call attention is the profound effect produced by the influenzal poison on other concurrent illness. It will be found that during epidemics of influenza all diseases are liable to assume a lower, graver, and more adynamic type, the nervous system being especially depressed. It is for this reason that so long and varied a list of symptoms have been ascribed to influenza. These ought rather to have been assigned to an infinite variety of diseases modified by the depressing action of the superimposed influenza. I am, Sirs, yours truly,

Folkestone. CHARLES EGERTON FITZGERALD, M.D.

To the Editors of THE LANCET.

SIRS,—It is said, and most truly, that the experience of most in our profession is lost because it is never given publicity, and we carry our knowledge to our graves and bury it with our bodies. I am therefore induced to relate the following case. Last April I had a sharp attack of influenza and had to go away, leaving my son in charge of my practice. He took the disease, and worked very hard for ten days with it, when I returned; then he caught a chill, was attacked with severe catarrh of the bowels, with copious diarrhœa; this lasted for forty-eight hours. Then suddenly he was seized with double pneumonia and pleurisy in left side; great cardiac disturbance, with irregular, running pulse, which could not be counted; respiration 40, temperature 103°; countenance anxious, features pale, pinched. I applied immediately a large liquid fly blister to the left side, prescribed sulphate of ether and digitalis, with brandy and beef-tea, and sent for a medical friend at once. He gave me little hope; the case looked desperate. I proposed hypodermic injection of morphia and atropia. This, he said, would kill him, and he implored me not to venture on such a strong measure under the circumstances. There was great restlessness, and my son asked for the morphia to be given. My friend said "This life is so valuable, and is in such terrible danger, I wish to send for Dr. ——," and telegraphed for him to come as soon as possible; but meantime something must be done, and done at once. I believe with Dr. Samuel Wilks in the power and value of opium in all acute inflammatory conditions, and on my own responsibility I injected one-third of a grain of morphia and one-hundredth of atropia at 10 o'clock; every hour or hour and a half he

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had one ounce of brandy, with four ounces of strong soup. The blister acted splendidly, and the morphia allayed the general irritability almost immediately. Pulse improved; respiration slower; lungs no better; consolidated to a large extent. During the following twenty-four hours he had about three-quarters of a bottle of the very finest brandy. The following morning we three doctors met. The case still looked hopeless, and my conduct regarding the morphia was spoken of as being bold, and that they dared not have used it. That night I injected half a grain of morphia and one-hundredth of a grain of atropia at 10 P.M. At 1 A.M. he awoke greatly relieved, after a quiet, refreshing sleep, all symptoms yielding; expectoration very difficult, the matter being tenacious, mucous, and bloody. Slept till four, and felt so much better that I left him with his experienced nurse. For a week he expectorated large quantities of bloody mucus, which was only dislodged by violent efforts. He made a perfect recovery, and in a month's time there was not a trace of any of the fearful symptoms he had suffered from. I am as convinced that the morphia injections saved life in this case as I am of the fact that I am writing at this moment; had I followed the advice of my *confrère*, which was to administer thirty grains of sulphonal and wait for two hours, I firmly believe death must have followed. In such a case sulphonal or sawdust would have been of very much the same value, and I question if the usual dose of morphia would have been of greater. The large dose acted not only as a sedative to the brain, but as a tonic to the pneumonic and cardiac nerves, and thereby gave the heart and lungs the help they stood so much in need of.

I am, SIRS, yours truly,

Harrogate, Jan. 19th, 1892. A. S. MYRTLE, M.D.

THE INFLUENZA AND SMOKE.

To the Editors of THE LANCET.

SIRS,—Having at the commencement of the present month suffered from a very severe attack of influenza, which for some days confined me to my bed, and for many days to my room, I was led for the sake of occupation to take out my microscope with a view to the examination of the bronchial secretions. Using a Zeiss $\frac{1}{12}$ oil immersion, I found that micrococci, which may not infrequently be found in small numbers, were exceedingly prevalent in the discharge. What, however, I desire particularly to call attention to is the following fact. I live in a very smoky district of a very smoky city, and naturally much carbon enters the lungs in the form of finely divided smoke and coal-dust. For some reason this carbon is not equally scattered throughout the bronchial secretions, but becomes aggregated into comparatively dense patches. Now, wherever these carbon patches were the most dense, there were the micrococci most numerous, sometimes being concentrated in such quantities as to form a zooglœa-like mass of carbon and cocci mixed.

The conclusion I drew from these examinations, which were frequently repeated, was the fact that carbon in a very minute state of subdivision may, and probably does, favour the development of certain forms of micro-organisms. I am not prepared to say that the micrococci I saw were pathogenic, but it is clear that if they were so the conditions favouring their development are specially to be found in our large and smoky cities; and thus we may to some extent account for the increased mortality from epidemic diseases of the respiratory organs when they occur in these localities. For instance, last week in Newcastle-on-Tyne the mortality reached the appalling figure of 45 per 1000, there being an increase in the number of deaths from diseases of the respiratory organs in the proportion of 53 to 17, which was the weekly average for 1890. Living amongst a mining and coal working population I have long had an idea that there was some cause which rendered them specially liable to diseases of the respiratory tract, especially when these occur in an epidemic form; also to other infectious and suppurative diseases which are now generally supposed to bear some relation to the existence of certain micro-organisms. Perhaps it is in the direction above suggested that it may be found. My attention is daily being directed to the extraordinary frequency with which the most trivial corneal wounds lead to destructive suppuration, not in the subjects of broken down and diseased constitutions only, but in vigorous young men in the prime of life. These disastrous results are quite out of proportion to anything we meet with in the same class of accidents occurring in the ordinary civil population, and must have some special cause, if we could but find it out. Possibly it may lie in the direction of the influence of carbon in a state of minute subdivision upon the development of micro-organisms, if this can be established as a fact. I do not know if anyone has already made such a suggestion, but I think it is a subject which might repay the attention of some experienced practical bacteriologist.

I am, Sirs, yours faithfully,

CHRISTOPHER S. JEAFFRESON, M.D., F.R.C.S.EDIN., F.R.M.S.

Newcastle-on-Tyne, Dec. 31st, 1891.

FOOD INTEMPERANCE: HYPERPHAGY, POLYPHAGY, OPSOMANIA, SITOMANIA.

To the Editors of THE LANCET.

SIRS,—My attention having been a good deal directed of late to various abnormalities in the matter of taking food (independently of the Christmas season), I venture to think that the following few remarks on some of them may prove to be not without interest to your readers. So important a subject as intemperance in food, and the consequences which ensue thereon, has not hitherto, so far as I am aware, received the attention which it deserves, although the kindred vice or malady—call it as you will,—intemperance in drink, has probably received more than its due share of public attention. The columns of the leading journal lately bore voluminous testimony to this, and although the subject is quiescent for the time, we shall probably not have long to wait for a renewal of newspaper strife, and an attempt to determine the acceptability and the virtues, or otherwise, of the two-ounce allowance. A consideration of the subject of food intemperance somewhat naturally leads to the sub-division which I have placed at the top of this letter. Abstinence from food and the various causes which conduce to it, having already been dealt with by me elsewhere, are here omitted.

The hyperphagist is met with every day and everywhere; indeed, I fear we are all more or less hyperphagists, and consume a great deal more food at each meal than is at all good for us, or necessary for the physiological requirements of repairing waste and maintaining nutrition at its proper standard. Few of us have the courage to stop short of satiety, and no doubt many minor ailments—nay, even some of the major—are directly due to hyperphagy.

The pronounced glutton—the polyphagist, as I venture to name him—is, fortunately, more rarely met with. The man who gorges himself with food for the mere pleasure of doing it is not a desirable object to witness, but in its many and more modified forms polyphagy, as everyone knows, is not an uncommon vice.

Closely allied to polyphagy is another, and, as many will think, a more excusable vicious practice, to which I would refer as opsomania. It is an overpowering desire to indulge in dainties and sweets to excess. It is often surmised—I am sure with injustice—that ladies are especially prone to this malady.

But perhaps the most rare as well as the most interesting food abnormality, or intemperance, from a psychological point of view, is that which remains to be described, and which for want of a better name I shall call sitomania. Some such definition as the following may be applied to it. "A mania occurring periodically, characterised by loss of volition and an overwhelming desire to partake of food to an unlimited extent, followed by remorse, depression, and tendency to suicide." In many respects this form of disease resembles the now well-known and defined disease dipsomania. In both there are intervals, often prolonged, during which an entirely normal state prevails; there is no undue desire in the one case for excess of food, in the other case for drink. Then, often suddenly, there ensues a wholly uncontrollable desire in the one case for a food gorge, in the other for a drink excess; in both the essence of the disease is the secretiveness with which the orgie is conducted; there also ensues in both, when the orgie is over, the same feeling of intense depression and remorse, and in some cases a tendency to

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suicide. The sitomaniac adopts much the same means of gratifying his desires as those adopted by the dipsomaniac. When the attack is impending, he, a gentleman of high honour at all other times, will condescend to acts of indescribable meanness and deceit; he will rob his best friends, indulge in petty pilfering, even sell the clothes off his back, and reduce himself to absolute poverty to find the means for this morbid indulgence in food.

I am, Sirs, your obedient servant,

West Malling, Kent, Jan. 9th, 1892. JAMES ADAM, M.D.

THE MEDICAL DEFENCE UNION.

To the Editors of THE LANCET.

SIRS,—The report of the meeting of the Medical Defence Union on Jan. 7th, sent to you by Dr. Leslie Phillips, is very inaccurate, to say no more. The meeting was as far as possible from being "representative," and was very badly attended, consisting almost exclusively of a handful of local doctors. Again, the statement that I "reflected upon the president and council" &c. is simply untrue. With regard also to the statement put into the mouth of Dr. Saundby, accusing me of imputing "mala fides" (which, being interpreted, is bad faith) to my colleagues and making unfounded assumptions against my professional brethren, I do not remember his saying anything of the kind; but if he did say so, he stated what was false. I feel sure that, as a gentleman, he will either repudiate or substantiate the charge. In reply to Mr. Lawson Tait's statement "that the Court of Appeal, in a similar case, decided it exactly opposite to my contention," I can only say that if he will condescend to cite the case to which he alludes I will soon convince him that he mistakes the drift of the decision. The only reply to my arguments, further than this inaccurate statement of law, is a reference to the above insignificant meeting, and to the proxies on either side. With regard to the latter, I discouraged the sending to me of proxies, of which I had a good many offers; while Mr. Lawson Tait issued to those members whom he did not know to be hostile stamped proxy papers printed in his favour. With regard to these, I ask Mr. Lawson Tait whether they were issued at the expense of the Union. I should consider the use of the funds of the Union for such a purpose unjustifiable in the extreme. At the meeting on Jan. 7th Dr. Saundby and others assured me that they would be very glad if a few hundreds would leave the Union, as it was getting inconveniently large, and they did not at all wish it to increase. With such views as these I am hopelessly at variance. The annual meeting of the Union has been in London hitherto. I presume it will be in Birmingham this year. If the opinion of the majority of the Union had been desired, one of the meetings altering the articles would have been called in London. When I know the actual opinion of the Union I shall know whether I can continue to serve on its council and to contribute to its funds.

I am, Sirs, yours faithfully,

Highgate, Jan. 19th, 1892. HUGH WOODS.

THE TREATMENT OF ERYSIPELAS.

To the Editors of THE LANCET.

SIRS,—The recent correspondence in your columns on erysipelas induces me to recall a method of treating this disease, invented in the pre-microbic era 1874-5, when antiseptic surgery was only practised in out-of-the-way places and the phagocyte unknown. The method simply consists in applying constriction, in some suitable way, above or beyond the rash. The original paper, a thesis for the M.B. Cantab. 1875, was deposited in the defunct *Medical Times and Gazette* on April 18th, 1885, and I now resuscitate it partly because I think the results obtained by the treatment advocated therein deserve to be more widely known, but partly also because I am curious to learn how extreme phagocytists would explain results obtained by merely mechanical means.

I am, Sirs, yours truly,

Suffolk-street, S.W., Jan. 16th, 1892. R. G. HEBB.

LITERARY INTELLIGENCE.—Messrs. Cassell and Company have announced the publication in a few days of "The Year-book of Treatment" for 1892.

MEDICAL FOLK LORE IN THE HIGHLANDS OF SCOTLAND.

(FROM A CORRESPONDENT.)

THE student in any branch of knowledge has always open two main sources of information: on the one hand current Science, on the other popular Lore. The first gives him, in definite compass, by recognised authority, certain accepted views tinged always by the general interpretations of the time. The second, if he extend to it his inquiries, he will find to be a vast repository of bygone views and interpretations. The shades of former orthodoxies, ideas long dead to latter-day science, here actually survive in our midst, embodied in numberless proverbs, beliefs, and observances. Of this vast mass of folk lore, and especially of that which relates to Medicine, it is obvious that the essential part is a collection of *acts* and not words. It is essentially an embodiment of custom and usage, and is constantly fluctuating and altering in character. One may regard it at any time as the last term of a long series stretching back since folk began, and yet, with all its antiquity, continually subject to additions and subtractions. Many old cures die out for want of support in the popular mind, whilst on the other hand no great lapse of time is required to remove a new idea, and the practices founded upon it, from its favoured place in the medical mind to the traditions of the people. The springs of science constantly follow that course, taking up the characters of the strata through which they percolate, and, issuing in mingled forms, supply, if not the genesis, at least the constant replenishment of popular knowledge and practice.

The most cursory examination of medical folk lore reveals an infinite variety of means and modes of cure, many no doubt of great antiquity. The following examples are taken from one limited district of the Highlands. It is not easy in some instances to form any opinion of their origin, but for the most part they fall naturally into a few groups, according to the main principle or ruling idea on which they seem to be founded.

1. Beginning with the most rational of these principles, there is first a very large group of practices resting on a basis of empiricism or experience. This much-abused principle grows in dignity when it is remembered that experience, however rude, passes by insensible degrees into the scientific method of precise experiment, on which modern medicine endeavours with more or less success to establish its practice. For examples of this most rational group: Some recommend that in whooping-cough the child should be taken across a ferry; others that he should above all go to live in another property; others that he should go to a house where master and mistress have possessed the same surname. All these procedures involve change of air, which has in such cases no doubt been found beneficial. On the same general principle, colt's-foot is used in asthma, warts are washed in pig's blood, and a person with weak lungs takes with great advantage a preparation of twenty-four different herbs, which occupied several weeks to collect. "Holy wells" come under the same class of remedies, for, in the first place, they are esteemed "holy" because curative, and only subsequently curative because "holy." With respect to the treatment of sprains, the very diverse and prevalent practices used under the name of "bone-setting" clearly come under this head; but another, and in this district equally common, mode of treating sprains is to tie a piece of red thread (some prefer white) around the injured part. The curative virtue of the thread or "strivan" is implicitly believed in. Considerable force is often used in applying it, and sometimes it seems to exercise a certain amount of support; so that probably this practice also, like manipulation, rests on an experiential basis.

2. The second principle, *similia similibus curentur*, underlies many popular curative practices of great antiquity, and is still frequently illustrated in contemporary medical lore. Common erysipelas (called by the Highlanders "the rose") is a case in point. "The doctors is verra ready," said one old patient, "but they've no sense wi' the rose." She went

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on to say that a bit of red cloth certainly prevents the return of the malady. "I wear a bit scarlet comin' doon ower mi' head for that verra purpose itsel' every day o' the year." An infusion of adders' heads is used as a dressing in snakebite, and, it is said, with excellent results. Another supposed remedy of a somewhat extraordinary character appears to rest on the same principle. It is for epilepsy ("falling sickness"); and in two cases known to the writer has been actually put in practice in recent years. This is no other than the scrapings of the inside of the skull of a man recently dead, in the one case of epilepsy, and in the other by suicide. The directions are to "scrab it wi' a knife, and tak' it in water, as much as a pooder o't." In the second case the patient himself, a man from the far north, procured the necessary material by exhuming the body of the suicide at night.

3. We come now, in the third place, to a large group of practices based on the principle of substitution or imagery, and on the seductive habit of reasoning from imagery. This principle has not been without an influence on medical opinion, and is probably the ancestor of the doctrine of *similia similibus*. It underlies the customs and beliefs of pre-scientific men to an astonishing extent. It is exhibited in numberless rites, from propitiatory offerings and sacrifices downwards; and it is important to observe that all early ideas of imagery, even in practices affecting the human body, imply the exercise of what we call "supernatural" power. There is therefore in all cures coming under this head a belief, generally ill defined and sometimes unconscious, in the coöperation of unseen powers. For warts a small piece of meat (some prefer three knots from a stalk of barley) is buried with certain formalities. As the meat decays the warts disappear. For epilepsy a famous cure is to bury a black cock alive, if possible at the spot where the first fit occurred. This is clearly propitiatory, and is paralleled by closely similar rites among different tribes. Of this barbarous proceeding the writer is now aware of six modern instances. One of the latest was accompanied by the prayers of an esteemed elder, who is said to have attended the ceremony for the purpose. Some say that it is necessary to inter with the cock some of the patient's hair and nail parings, and, according to one account, a small bird known as the "cnag" must share the same fate. It is also stated that a black cat would do if the cock were a-wanting; and that the place of burial must never afterwards be disturbed or the complaint would return. *Apropos* of epilepsy, although it is a departure from the order of discussion, one or two curious beliefs may be noted. The epileptic who has fallen into fire or water can never be cured. If a child or even grown person pass between the patient and the fire he will run the risk of taking the disease. Even if a dog or cat passes in the same manner, the animal may carry the disease to a healthy person. One who has been cured may not touch a dead body or even see a funeral without endangering the return of the disease. In the two following incidents, although there was no question of epilepsy, the same curious ideas find a place. An old neighbour lost his "good-father" some years ago after a long illness during which a favourite cat had been much attached to the sick man. The night he died the two sons thought it needful to drown the cat, lest after approaching the remains it should carry evil to others. In the second case the informant relates that her grandfather was in a house where someone had just died. The window was unfortunately left open, and the cat leaped into the room over the dead body. The animal then approached the old man, with the result that he soon after took a severe fit. "They put the cock under him" (!), but all was unavailing.

The most perfect example of practices founded upon imagery and substitution is afforded by the use in witchcraft of *Cuirp Creadh*, or clay bodies. Nearly half a dozen instances have now been met with in this district in which women with malignant purpose have fashioned clay images representing the person to whom they desired ill, and then subjected the work of their hands to slow destruction. Some years ago a fine healthy lad fell sick. Witchcraft was thought of, and suspicion fell on an old woman to whom the young man had behaved disrespectfully. Advice was therefore taken in Inverness of an ancient dame who was generally credited with uncanny powers, and she, without leaving her own door, directed the friends to return home and look behind the house in a certain stream. This they did, and found a clay image partly destroyed by running water. Moreover, to make destruction doubly sure the end of an old sword blade had been driven into its side. They removed the *cuirp creadh* with great care and took it into the house, but the damage had gone too far and the man died. In most of these cases the image has been stuck over with pins, and in one instance the victim complained during his illness, which was fatal, that he had pain as if all the pins in Dingwall were stuck into him. Closely similar practices, even to the minutest detail, are found to be almost world wide.[1] The ruling idea of imagery is illustrated in the rude curative practices of all nations. The Philistines of old sought relief by forming golden images of the tumours that afflicted them, and the physicians among the North American Indians fashion a representation of their patients' disease, and carry it off to the woods and bury it. So in all ages to walk by sight for a little space helps faith on a long journey.

4. There is still another group in which the practices of healing are founded simply and solely on the possession or assumption of supernatural power. It is worthy of note that here the cure is always subject to the observance of certain definite rules. Persons gifted with powers of this kind will not under any circumstances accept payment for their services. Again, some secret words or form of prayer appear to form a necessary part of the method, and this secret the possessor dare not divulge. At the same time he may not die without transmitting it to another, and this other must always be of the opposite sex. Usually the power of any individual is limited to a particular complaint, or group of associated complaints, and there is hence great variety of gifts. The man who killed the cat on the night of his father's death is credited with special powers for stanching the flow of blood. This he does without seeing the sufferer; he has simply to know the name. Another has similar powers in regard to toothache, and a third in affections of the throat or eyes. It is said that nobody in this region would dream of consulting a medical man for rickets. A wise woman is called in and goes through a succession of movements variously described, accompanied by certain words. For sprains, and perhaps for fractures, there likewise seems to be special gift to special persons. These are not to be confounded with ordinary bonesetters, in whom the practice rests, as we have seen, on a different footing. For scrofula (King's evil) there is the great and much-prized instrumentality of the "seventh son," who is regarded in the Highlands as gifted with altogether exceptional powers of healing. The writer has known of three of these individuals. Common water, when drawn and given by such a one, is reckoned an infallible cure for this complaint. Any seventh son will possess the power if certain formalities are observed at his birth, and provided also—and this is a suggestive circumstance—that he has not been convicted of serious sin. A further curious instance of the purely supernatural in a curative practice is the use of "silver water"—water in which silver has been dipped, with certain observances—to remove the effects of the "evil eye." One more example must conclude the series. Not long since a shepherd, from motives of revenge, was laid under the enchantment of a woman. Having been ill two years, and becoming worse, his friends consulted another wise woman. She pitted her power, so to speak, against that of the first, and succeeded, by the use of certain procedures, in breaking the spell and removing the evil! This is certainly an extreme case, in which we have proceedings founded on the idea of one supernatural power counteracting and defeating another; but to these extreme cases there is an easy gradation from the simplest and commonest modes.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Influenza in the North of England and the Borders.

THERE is scarcely anything of note to write about except influenza and its ravages as regards the northern counties, and over the borders it may be said to be everywhere, and almost in every house. A large number are affected at Langholm, including a large percentage of those employed at the woollen mills. Masters and men have been down,

[1] See Sir John Lubbock's History of Civilisation &c.

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and in many houses all members of the family have been stricken simultaneously. Coming on to Carlisle, it is said to be more widely prevalent than ever. Most of the Church of England clergymen have been already down with it and are on the road to recovery. It is said now that most of the Methodist ministers in the town are also stricken. The places of worship are so poorly attended that it is evident that a great proportion of the inhabitants are afflicted with the scourge. The death-rate of the city of Carlisle has been very high for the past two weeks—nearly double the average. Upon the various large works of the city and in the post-office and other institutions work is severely crippled by the large number of hands on sick leave. At Hexham the medical officer of health, Dr. Jackson, reported that the death-rate of the last quarter of 1891 was equal to 42 per 1000, and was the highest noted since 1875. This high rate was principally due to whooping-cough, measles, and various diseases of the respiratory organs. At Kendal and Wigton influenza is reported to be very bad.

Influenza is prevalent about Middlesbrough, and Dr. Ketchen, one of the oldest practitioners in the town, fell a victim to pneumonia following influenza after a brief illness. Dr. Ketchen was attended by various medical friends, and was also seen by Dr. Eddison of Leeds. Medical men are so low now in their stock of vitality from continued overwork that they stand a poor chance of recovery when attacked with pneumonia. It would be well for them to remember that the strain is very great to their constitutions, and the epidemic exceptional, and they should in the case of large practices secure efficient assistance in time. A horse even cannot be kept running continuously, nor can a medical man go on without rest, food, and sleep. I mention this because many have told me of the large amount of work they are doing just now, often single-handed, or with their ordinary assistance—but at what a cost to health and risk to life!

With regard to the importation of influenza from foreign ports, it was mentioned at the last meeting of the Tees sanitary authority that 179 vessels had been inspected during the past month, and that no case of influenza or infectious disease had been noticed. This, it was mentioned, was contrary to the popular opinion that it was imported by vessels from foreign ports. The outbreak of the disease in isolated dwellings shows, I think, very clearly that it is malarious or atmospheric, and the prevalence of the disease amongst the lower animals supports this view.

Newcastle-on-Tyne, Jan. 21st.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Death of H.R.H. the Duke of Clarence.

TO-MORROW (Wednesday) being the funeral day of H.R.H. the Duke of Clarence, the classes will not meet either in the University or in the Extra-mural School of Medicine.

Edinburgh Royal Infirmary.

An adjourned meeting of the contributors to the Royal Infirmary was held on Monday last, to consider the plan, of which an outline has already been given here, for the extension of the infirmary buildings as proposed by the managers. A good deal of discussion took place, and the plans and proposals were objected to, and it was finally agreed that the plans be recommitted to the managers for consideration, their report to be laid before a meeting of contributors to be specially convened to consider them a month hence.

Health of Edinburgh.

The mortality last week was 93, making the death-rate 18 per 1000. Diseases of the chest accounted for 51 deaths, and zymotic diseases for 4. The intimations for the week were typhoid fever 6, diphtheria 5, scarlatina 24, and measles 20.

Examinerships in Edinburgh University.

Of the examinerships which fell to be filled by the University Court the following are among the appointments:—Prof. Stirling to Physiology, Dr. W. Craig to Materia Medica, Dr. A. Bruce to Pathology, and Dr. Beatson to Surgery.

Aberdeen City Hospital.

The sub committee of the Public Health Committee of the Aberdeen Town Council appointed to investigate into certain charges made against the City Hospital, have submitted their report to the Town Council, and conclude that they have every reason to believe that the management of the hospital is thoroughly efficient, and that, as far as possible, every care is exercised for the purpose of seeing that both children and adult patients are kindly and properly treated. The whole of the patients who were examined bore testimony in favour of their kindly treatment in the hospital.

Jan. 19th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Dublin Hospital Sunday Fund.

THE total receipts for the collections in aid of the Dublin Hospital Sunday Fund held last November amounted to £3982 19*s.* 5*d.*, which includes a sum of £66 17*s.*, the proceeds of a match between the Leinster Branch of the Irish Rugby Football Union and the Hospitals' Team. The total shows a falling off of £205 3*s.* 6*d.* as compared with the year previous.

Proposed National Hospital for Consumption for Ireland.

The promoters of the proposed hospital for phthisis point out the necessity for a hospital of the kind in the vicinity of Dublin. During the last few years great advances have been made in the knowledge of this disease; its method of spreading infection has been clearly demonstrated, and its treatment has been much improved. It follows that there is great need of a hospital where phthisis can be properly treated, and which will be both a curative and preventive institution. The malady is a very common and very fatal one in Ireland, accounting for about one-tenth of the deaths from all causes. It is proposed that the scheme shall include the establishment of a hospital for at least 100 beds, which shall be vested in a Board of Trustees appointed by contributors to the building fund. If the scheme is carried it will materially benefit the general hospitals, relieving them of their phthisical cases, the treatment of which, necessarily of a lengthy and costly character, cannot be successfully carried out in such hospitals.

Poor-law Returns for 1891.

By a recent return of the Local Government Board it appears that the total expenditure in 1891 for the poor-law services was £1,407,886, or an increase of £6014 over 1890. The expenditure was under the heads of in-maintenance, out-door relief, expenses under the Medical Charities Act and under the Public Health and Superannuation Acts, &c.

Death of Mr. Zachariah Johnson, A.M., F.R.C.S.I., of Kilkenny.

I referred last week to the serious condition of this gentleman, who at a very advanced age was a sufferer from influenza. I regret to state that his death took place on the 12th inst., at the age of eighty years. Mr. Johnson was surgeon for many years to the County Infirmary.

Cork Poor-law Medical Officers Association.

A meeting of this Association was held on Saturday last to consider what action should be taken in reference to the Bill entitled Medical Charities Amendment Bill, 1892, about to be brought in by the Irish Medical Association. Mr. Keating proposed the following resolution: "That we regard the draft Bill of the Irish Medical Association (entitled Medical Charities Amendment Bill, 1892) as an attempt to delay useful legislation on the subject of poor-law medical reform in Ireland; if such a Bill be introduced into Parliament we pledge ourselves to give it every opposition in our power; and we decline to accept any Bill as a settlement of our claims which does not deal with the questions of pay, pension, and annual holiday." Dr. Sandiford also spoke in opposition to the proposed Bill, and seconded the resolution, which was adopted. The Association now numbers over seventy members.

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Barrington Hospital, Limerick.

The efficiency and increasing benefits bestowed by this Charity are well maintained. During the past year 501 patients were received into the hospital (the highest record of intern patients), and 2530 were treated as extern cases in the dispensary. The parts of the house and ground which were formerly held by the City Dispensary have been improved and put in good order. The old dispensary rooms have undergone necessary renovation and cleansing, and, as soon as the furniture has been supplied, will be ready for the reception of private patients.

Union Medical Officers.

At a largely attended meeting of the County Limerick Branch of the Irish Medical Association, Dr. Thomas Hayes (Rathkeale) in the chair, the following resolutions were passed without dissent:—"That union medical officers should be permitted to retire on a pension of two-thirds of salary and emoluments at twenty years, and upon full value at thirty years' service. That the fees for registration and vaccination should be equalised with those obtaining in England and Scotland. That we are unanimously of opinion that the present salaries of Poor-law medical officers are wholly inadequate, and should be increased by 75 per cent."

Jan. 19th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Influenza in France.

ALTHOUGH Paris itself may be congratulated on being comparatively exempt from thescourge which is playing such sad havoc in different parts of England, other districts of France have not been so fortunate. In the coal-mining department of the Pas-de-Calais quite a fifth of the population is *hors de combat*. At Cherbourg, seventy-three persons succumbed to influenza in the first week of this month, and at Saint-Etienne the mortality has increased 45 per cent. Lille, Roubaix, Tourcoing, and Dunkerque are being severely tried; and at Prades, in the Pyrénées-Orientales, the mean mortality is tripled, in one instance four out of a family of five persons having died. I may mention that in the few mild cases I have been called upon to treat lately in Paris, I have found five-grain doses of phenacetin every four hours answer capitally, the pain ceasing and the temperature being lowered rapidly.

The Length of the Urethra.

To judge by the varying figures given by different authorities, it would seem to be advisable to allow a large margin when asked at an examination to state the length of the male urethra. The *Union Méd. du Nord-Est* publishes a list of measurements gathered from the writings of twenty-one different anatomists, from which it appears that while Richet gives the length as 15 centimetres, Heister allows more than its double—viz, 33·5. Sappey states that the length varies not only in different individuals, but also with age. Richet denies this latter assertion. A definite understanding on this moot point is urgently required, seeing the popularity of Guyon's instillation method of treatment for gleet.

Yet another New Medical Society in Paris.

In last week's correspondence it was announced that an association of foreign doctors practising in Paris had been recently founded, and reference was made to the two-year-old Continental Anglo-American Medical Society. It is felt by English practitioners residing in this city that both the above bodies are open to the same reproach in being somewhat too heterogeneous in the matter of membership, and it is thought that some effort should be made to bring more closely together those British practitioners residing in France who, in addition to being subjects of Her Majesty, are possessed of British diplomas. It is accordingly in contemplation to create an association whose business it shall be to give such information to the public through its published official list as to enable them to distinguish between the real and the pseudo-English physicians, as also to promote good-fellowship between men hailing from the London, Edinburgh, Dublin, and provincial schools of medicine in the old country. I heartily wish the new society the success it deserves.

Breton Ignorance.

M. Renan's compatriots enjoy, rightly or wrongly, the reputation of being rather behindhand in civilisation. A local doctor has just addressed a report to the Préfet of Morbihan, from which it would appear that these primitive people have not been altogether maligned, at least in so far as ignorance of the laws of health are concerned. In 1884 typhoid fever made its appearance in the commune of Langoëlan, whose inhabitants, distributed over numerous hamlets, number 1350. Twenty-three hamlets and the market town have been visited by the scourge, some of them several times in succession since the first outbreak, and typhoid fever has evidently taken up permanent quarters in the unlucky commune. Add to this that the mortality is enormous (at Kervoten seven cases with four deaths, and at Cosquer eight with five deaths), and it will be conceded that the state of affairs is serious. The reason is not far to seek; I give it in Dr. Langlais' own words: "Les déjections sont répandues à la porte, sur le fumier de la cour; au milieu de cette cour est creusé le puits, véritable drain qui pompe tous les liquides et tous les germes. Chaque malade est un objet de curiosité qu'il faut visiter, à qu'il faut serrer la main, qu'on doit embrasser, et l'on boit au même verre que lui." What a happy hunting ground for the lively typhoid bacillus, and what scope for the sanitary reformer!

Paris, Jan. 20th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Influenza.

ACCORDING to official statistics, only 25 persons died in Berlin of influenza between 1878 and 1889. Of these years 1887 had the highest influenza mortality—namely, 7. The number of deaths in 1889 was 54, in 1890 90, and in 1891, before Dec. 12th, 286. Those are all the cases in which influenza was expressly given as the cause of death in the death certificates. In 1890 only June and November had no deaths from influenza; in 1891 only July and September. There were 5 deaths from this cause in the second week of last November, 36 in the next, 61 in the next, 88 in the next, and 80 in the next. The Berlin horses are said to be suffering pretty severely from influenza. Kitasato, who works under Pfeiffer in the scientific department of Koch's institute, has succeeded in cultivating Pfeiffer's influenza bacillus in pure cultures to the tenth generation. In several uncertain cases the diagnosis of influenza has been confirmed by the finding of Pfeiffer's bacillus in the blood.

An Explanation of the Effect of Quinine.

An explanation of the therapeutic effect of quinine in malaria has at last been found. So long ago as 1867 Dr. Karl Binz, professor of pharmacology at Bonn, gave an explanation which was little noticed at the time, but has now been signally confirmed by the discovery of the germ of malaria. He showed that quinine hydrochlorate, with neutral or slightly basic reaction, is a strong poison for the protoplasms of decomposing plants, and greatly hinders many fermenting and putrescent processes. A. Laveran, the discoverer of the plasmodium malariæ, has demonstrated that this organism disappears from the blood of malaria patients after the administering of quinine, and that quinine, if permitted to act upon it directly, kills it.

The Berlin Medical Society.

At the general meeting of the Berlin Medical Society on the 12th inst. Professor Virchow was appointed President by an enormous majority. Of 137 votes, 135 were given for him, one for Professor von Bergmann, and one for Professor von Bardeleben.

New Books.

"Evolution" (a new view of Darwinism), by Wilhelm Russbüldt; "On the threatening Physical Degeneration of civilised Mankind and the Nationalisation of the Medical Profession," by Dr. Schallmayer; "The Tasks and Aims of Hygiene," by Dr. Krocker; "On the Sanitation of Heligoland in the years 1886–1889," by Dr. Lindemann; "On the recently proposed Measures of Sanitary Police for

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preventing the Spread of Tuberculosis," by Dr. Behrens; "The Prevention of Mortality in Childbed and of Several Diseases of Women," by Dr. Eberhart (second edition); "How can we Preserve Ourselves and our Children from Nervous Diseases?" by Professor Seeligmüller (second edition); "Take Care of the Health of School Children" (Berlin: Wilhelm Issleil); "Protection against Diphtheria," by Dr. Panse; "The Diseases of the Hair," by Dr. Pohl-Pincus (fourth edition); "Ex Malis Minima": reflections on prostitution, by a University Teacher; "The Riddle of Hypnotism and its Solution," by Dr. Jordan; and "The Fundamental Features of Natural Medicine," by Dr. Sturm (second edition).

Notes on Appointments, &c.

One of Professor von Bardeleben's Christmas presents which came from the Berlin Medical Society was an artistically adorned address of congratulation on the recent attainment of the fiftieth anniversary of his graduation as doctor of medicine.—Professor Klebs of Zurich has resigned his professorship in order to devote himself to private study. His successor is Professor Ribbert of Bonn.—Professor Biermer of Breslau, one of the most eminent clinical teachers in Germany, has resigned his professorship, and will be succeeded by Professor Kast, head physician of the large new hospital in Hamburg, to whom, along with the chemist Baumann, we owe sulphonal.—Dr. Ferdinand Hueppe of Prague, one of the oldest and most eminent of Robert Koch's pupils, has been appointed Ordinary Professor.—Dr. Hermann Reinhard, Privy Medical Counsellor and President of the Medical Board of Saxony, died on the 10th inst. at Dresden. — Professor Knauff of Heidelberg has been appointed Ordinary Professor of Hygiene and Forensic Medicine there.—Dr. Rosegarten, Private Lecturer on Otiatrics in the University of Kiel, has been appointed Extraordinary Professor there.—Dr. von Starck, Assistant in the Medical Policlinic in Kiel, has been appointed Prof. Elessen's successor in that institution, and Extraordinary Professor.—Dr. Erich Peiper, private lecturer in the University of Greifswald, has been appointed Extraordinary Professor in the Medical Faculty there.—Dr. Reinhold Schmaltz, lecturer on histology and embryology in the Veterinary Academy here, has been appointed Professor.

Berlin, Jan. 18th.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

Death of his Highness the Khedive.

So many stories have been circulated about the illness of the Khedive, which ended so suddenly and so disastrously, that it may be well to give the true account as gleaned from eye witnesses. It appears that the Khedive gave a dinner on Dec. 29th to Prince Damrong of Siam, who was then here, and that this was followed by a visit to the opera, after which his Highness, contrary to his usual custom, returned to Helouan, a desert suburb some three-quarters of an hour by train from Cairo. On Dec. 30th he was tired, but came to his Cairo palace as usual. On Dec. 31st he evidently had influenza, but nothing was known of this until a few days later, when a bulletin was published to the effect that his Highness was confined to his room with a severe cold, and that his temperature was 98°. His illness was considered by everyone to be very trifling until the night of Jan. 6th, when the patient complained of severe pain, for which one of his two Egyptian medical attendants injected morphia. As there was no relief he twice repeated the injection, giving four-fifths of a grain within about twenty minutes. The doctor then went to bed himself, but was roused later by the servants, who were frightened at the Khedive's state. This doctor then told the Vice-Reine there ought to be a consultation that night, but his colleague tried to oppose this, and said he took all the responsibility of the illness upon himself. The Vice-Reine, however, sent a special train to Cairo to summon Dr. Hess (Swiss) and Dr. Comanos (Greek), a translation of whose report is subjoined below. When they reached the Royal patient they found him almost dying, with two servants rubbing his legs and a native doctor rubbing his back. They at once ordered brandy or champagne, but none could be found in the palace. They seem to have been somewhat misled by their native colleagues, who stated that they had examined the urine and found it free from albumen, the real truth being (it is said) that there was already suppression of urine, and no analysis of it had been made. The two European doctors would seem to have hardly appreciated the gravity of the situation, for they returned to Cairo for some hours and paid a second visit about noon. They were then compelled to eject ether and caffeine, the drugs being obtained from a good German chemist in Helouan. I may here say that no one seems to have had any confidence during the illness in two Egyptian dispensers who were attached to the palace. The European doctors determined to obtain a specimen of urine by catheter, and sent a special messenger to Cairo for an instrument. One of them, however, in the meantime discovered some catheters at the house of a European colleague resident at Helouan, who refused to lend them, but was quite willing to bring them to the bedside of the dying Khedive. The urine when drawn off was examined by the German chemist, who found some blood from the catheterisation, and about one-twelfth albumen. The specific gravity of the urine was not taken, and there was no microscopical examination. All this time the two native doctors continued to affirm that the patient was better, and could hardly be made to believe the existence of albumen. Telegrams to Cairo continued to ignore the dangerous state of the patient, and nearly everyone was thereby deceived. When his Highness was moribund Drs. Wildt, (German), Ambrosa (Italian), and Binet (Swiss) arrived from Cairo, but could of course do nothing. Death took place at 7.15 P.M. on Jan. 7th, and the death certificate was worded, "Uræmia and pneumonia consequent on influenza." Needless to say the native doctors completely lost their heads before the fatal result, and one of them disappeared entirely for a few days. There was no necropsy, but an examining commission is now being held, consisting of five—Drs. Rogers (English), Ibrahim Pacha and Daruy Bey (Egyptians), Wildt (German), and Binet (Swiss). This may possibly satisfy the international proclivities of certain people in Cairo, but can be of no other use. It is unnecessary here to give the names of the two native doctors. They are two of the five Egyptian doctors who have been raised to the rank of pacha, and, besides having held such appointments as Chief of the Sanitary Department and Director of the Medical School, it should be stated that they owe all their advancement to the family of the poor Khedive whose life they did so little to save. There is now no means of knowing whether the albuminuria was a recent result of influenza or the evidence of chronic but undiscovered kidney disease. All accounts from the palace show the most culpable negligence and ignorance on the part of the native medical attendants. The following is the report of Drs. Hess and Comanos, addressed to the President of the Council of Ministers:—"At your Excellency's request to state our opinion on the illness and death of his Highness the Khedive, we have the honour to submit. On Thursday, Jan. 4th, at 4 A.M., we were called by special train to Helouan to consult about his Highness. We arrived there at 5.30, and were received by the private doctor of his Highness, who in a few words stated that his Highness had been ill for a week with influenza, with no abnormal symptom until the preceding evening, when the fever had increased. His Highness could not sleep, and there was dyspnœa, together with a pain in the left side. That an injection of morphia had been given to assuage the pain. After this statement we entered the sick room, and were disconcerted to see his Highness in a very alarming state. His general state was much altered, his complexion pale, and his appearance haggard. He was held up, half-sitting, in bed by two servants, and he had evident dyspnœa. He was not completely conscious of what was going on around him, and complained specially of not being able to see the light. We found a temperature of 104°, and a pulse too fast, very weak, and easily compressible. On examining the body we found a considerable broncho-pneumonia on the left side and general bronchial catarrh of the right lung. This condition of lungs, although serious, did not, however, account for the cerebral symptoms which were present, and therefore we directed our attention to other organs, and specially to the state of the kidneys. We thereupon asked for information from the doctors in charge about the urine, but we were told that there was nothing wrong. The examination being then

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over, we prescribed a very rigorous treatment appropriate to our diagnosis, and we left for Cairo to warn important people about the serious state of his Highness. We returned to Helouan at 1 P.M., and were much distressed to find that his Highness's state was decidedly worse, and that not only the chest symptoms were aggravated, but also the cerebral symptoms had reached a hopeless pitch. This last phase showed us clearly the existence of uræmia, and we insisted on seeing the urine, when we were told that his Highness had not urinated since the preceding evening. Then we passed a catheter, and obtained a certain quantity of dark-brown urine which by chemical analysis contained much albumen. We were then quite certain of the nature of the illness, that his Highness, as a sequence of influenza, had been attacked by infectious pneumonia complicated by nephritis of the same kind, and that, in his then state, all hope had disappeared. This did not prevent us from applying the most useful and most rigorous means that science could place at our disposal, but alas! without the least success. And we had the profound regret," &c.

Cairo, Jan. 12th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

The Influenza Epidemic.

THE influenza epidemic, which reached these shores early in the year and lighted up afresh towards midwinter, has now almost died out. This year the sickness has been more protean in its aspect, more widely spread, and more fatal in its course than the epidemic of last year. The principal manifestation has been pulmonary, and this has also been of the most fatal form. There has been a large number of deaths among the aged, the weak-lunged, and the alcoholics; but in proportion to the numbers attacked the death-rate has not been high Statistics to elucidate this latter point are very difficult to arrange, and are most probably very unreliable, for during the course of the epidemic every ache and pain and slight depression has been diagnosed as influenza.

The Medical Profession and the Political Situation.

The defeat of Sir Henry Parkes and the advent of a Protection Ministry to office in New South Wales is of more than passing interest to the medical profession. Heavy duties have been imposed on drugs, spirituous compounds and medicaments, surgical instruments and dressings. These duties will have the effect of raising the price of medicine very considerably; but I doubt if there are many, even amongst the most ardent of the Government supporters, who will pay their doctors a larger fee. But the duties will also have a beneficial effect in keeping out of the country the very inferior class of goods with which it has recently been flooded. The Ministry, however, have given the profession a *quid* for this increased taxation. They have introduced as a Government measure, and passed through the Legislative Council, a Bill which provides that everyone practising medicine must plainly state in his advertisement or on his doorplate his qualifications for so practising. This is a very small advance towards the regulation of the practice of physic, but it is a step in the right direction. Another good action on the part of the Government was to begin the completion of the Sydney Hospital. There is, perhaps, not a greater monument of political ineptness in all Australia than the Sydney Hospital. Half a score of years ago a new hospital was projected, specifications prepared, the work sanctioned, the money voted, and the contract signed. The old building was pulled down and a temporary structure erected, and the work of the new hospital progressed. Then it was found that the money voted would scarcely pay for the foundations, and that, instead of £60,000 or £70,000, it would require nearly £250,000 to carry out the plans. Accordingly the work was stopped, and the unfinished building has since been an eyesore to the citizens of Sydney. The temporary buildings have not provided the accommodation required, and overcrowding has occurred to such an extent that the chief of the Sydney Fire Brigade made a report on the matter, in which he stated that in the event of a fire breaking out there would be 200 lives lost. Recently a commission was appointed to consider the matter, but the late Government made no move. The medical superintendent, Dr. Hull, has, however, kept pegging away, and made the public acquainted with the dangerous position of the patients, and as a consequence the hospital will shortly be recommenced. Meantime the patients have been reduced in number as much as possible, and have been located in the old nursing quarters, while the nurses have been housed some distance off. Dr. Hull is to be congratulated on the success of his persevering efforts.

Obituary.

BRIGADE SURG. F. R. WILSON, M.B.DUB., L.R.C.S.I.

WE regret to have to record the death of Dr. F. R. Wilson, Brigade Surgeon, 42nd District. Dr. Wilson was educated at Trinity College, Dublin, where he took his M.B. degree in 1857. He entered the army, after acting as travelling physician to the late Lord Bangor, and served in the 20th Regiment for a long term of years. During the Ashantee war Dr. Wilson had charge of the base hospital at Conderis, and for his services in that war was specially thanked by the Director-General and twice publicly thanked by the military authorities. Dr. Wilson served twice in India, and eventually was in 1881 appointed Brigade Surgeon to the 42nd Regimental District at Perth. There he served until he was seized with influenza and pneumonia, from which he died after a brief illness on Jan. 10th. He was much beloved by his brother officers as well as by the men attached to the depôt, and his presence will be much missed by the medical men of the district.

W. WAYLAND KERSHAW, M.D. ST. AND, F.R.C.S. ENG.

A VERY beautiful character suddenly passed away at Surbiton on the 15th inst. The hand of death has recently pressed heavily everywhere, and to the great sorrow of very many friends and patients it has fallen on one of the most honourable and devoted servants of the medical profession. For forty years Dr. Kershaw had practised in Kingston-on-Thames, Surbiton, and the neighbourhood, and with that uprightness of character and professional skill which secured for him a reputation second to none in the county, and, what is perhaps even more, he was esteemed and loved by everyone who had the privilege of his acquaintance, from the highest to the lowest.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the Examiners on the 13th inst.:—

Anatomy and Physiology.—Charles H. Dunstan, George S. J. Boyd, and Leonard L. Burton, students of London Hospital; James J. Coleman and Herbert E. Cock, of Guy's Hospital; Arthur Stanley and Joseph Ashton, of St. Mary's Hospital; Graham S. Pownall, of St. Bartholomew's Hospital; David H. Fraser, of St. Thomas's Hospital; and John C. Clemesha and Robert A. Bowie, of McGill University, Montreal.

Anatomy only.—Nugent B. Baker, of St. Bartholomew's Hospital; Alfred Carruthers and Walter J. O. Ray, of St. Thomas's Hospital; Percy James Curtis, of Guy's Hospital; Alfred K. M. Curtis and Roderick Sim, of Middlesex Hospital; Arthur A. Lewin, of McGill University, Montreal; and Arthur R. S. Freeland, of London Hospital.

Physiology only.—William G. Noble, of London Hospital; Bernard P. O'Neill, of Guy's Hospital; Frederick A. W. Quay, of Trinity College, Toronto; and Henry C. Clark, of Middlesex Hospital.

Passed on the 14th inst.:—

Anatomy and Physiology.—Walter H. Bracewell, of Melbourne University; Richard Lawson, of St. Thomas's Hospital; Ernest F. G. Tucker, John D. Galloway, and Henry W. Grattan, of London Hospital; Edward W. de Kretser, of Ceylon Medical College; Robert C. Griffith, of Toronto University; Leonard W. Oliver, of St. Mary's Hospital.

Anatomy only.—Wm. C. F. Hayward and Frederick A. L. Hammond, of Charing-cross Hospital; Walter Mawer, Herbert W. Carson, and

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Mark Taylor, of St. Bartholomew's Hospital; Charles H. Wilmer, of St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology; Debonnaire F. Maunsell, of St. Thomas's Hospital; Francis E. Bromley, W. V. P. Teague, and Sidney H. L. Archer, of London Hospital; Frank Romer, of St. George's Hospital and Mr. Cooke's School of Anatomy and Physiology; Gerald S. S. Marshall, of Middlesex Hospital; Edward G. Frederick, of King's College; and William H. Chute, of Westminster Hospital

Physiology only.—Percy L. Moore, of Cambridge University; George M. Bennett, Leonard A. Williams, and Edward D. J. O'Malley, of Middlesex Hospital; Archibald W. Lamb and James E. Jones, of St. Bartholomew's Hospital; Richard Slocock, Vyner Graham, Arthur D. Cowburn, and Savignac B. Stedman, of St. Thomas's Hospital; Joseph A. W. Pereira, of Bombay and Charing-cross Hospital; Walter L. Roberts and John N. Hall, of St. Mary's Hospital; David Evans, of University College; John Heard, of Westminster Hospital; Lewin Bensted and Frank H. L. Cloud, of Guy's Hospital.

In Anatomy and Physiology 106 candidates presented themselves for examination, of whom 32 were referred in both subjects for three months and 4 for six months; 12 were referred in Anatomy only, and 19 in Physiology only. In Anatomy only there were 27 candidates, of whom 5 were referred for three months; 37 candidates presented themselves in Physiology only, 12 of whom were referred for three months.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 15th inst. the following degrees were conferred:—

Bachelors of Medicine and Bachelors of Surgery.—William Henry Fisher, Gonville and Caius; George Pinder, Queen's; and Robert Redman Law, Christ's.

THE HOSPITAL SUNDAY FUND has received an anonymous donation of £500.

HOSPITALS FOR INFECTIOUS DISEASES.—At a recent meeting of the Stratford-on-Avon rural sanitary authority a resolution was carried to provide two or three cottage hospitals in the district for the isolation of patients suffering from infectious disease, instead of having a central sanatorium in the town. A committee was appointed to make the necessary arrangements.—At a meeting of the Mexborough Local Board a letter was read from the agent of Mr. Montagu, of Ingmanthorpe Hall, in which that gentleman consented to give an acre of land suitable for the erection thereon of a hospital for infectious disease.—The Thornhill District Committee of the Dumfries County Council have recommended the erection of two hospitals for infectious diseases—one near Sanquhar, the other at the lower end of the district.—The new hospital for infectious diseases, erected by the Brentford Local Board from designs of Mr. J. H. Strachan, was opened at Ealing on the 14th inst

MANCHESTER MEDICAL SOCIETY.—The following gentlemen have been elected office-bearers for 1892:—President: Alfred William Stocks. Vice-presidents: Henry Ashby, M.D., Frederick William Jordan, John Dixon Mann, M.D., and Charles Jeremiah Renshaw, M.D. Treasurer: Charles Edward Glascott, M.D. Elected Members of Committee: George Bowman, M.D., Judson Sykes Bury, M.D., Colin George Campbell, William Coates, Alexander Carson Clarke, M.D., Richard Crean, M.D., Archibald Donald, M.D., Abraham Matthewson Edge, M.D., Siegmund Moritz, M.D., William Japp Sinclair, M.D., Frederick A. Southam, M.B., and Graham Steell, M.D. Secretary: Thomas Carleton Railton, M.D. The above form the committee. Library Committee: Henry Ambrose Grundy Brooke, M.B., Abraham Matthewson Edge, M.D., Leopold Larmuth, M.B., Siegmund Moritz, M.D., and Richard Thomas Williamson, M.D. Auditors: Charles Edwin Smith and John Prince Stallard, M.B.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN.—The following members were elected as officers and councillors for the year 1892:—President: J. Howard Mummery. Vice-Presidents: Messrs. David Hepburn, T. H. G. Harding, R. H. Woodhouse, J. H. Redman (Brighton), R. T. Stack (Dublin), and F. H. Balkwill (Plymouth). Treasurer: Mr. Thomas Arnold Rogers. Librarian: Mr. Ashley Gibbings. Curator: Mr. Storer Bennett. Editor of Transactions: Mr. Walter Coffin. Honorary Secretaries: Messrs. John Ackery (Council), W. A. Maggs (Society), and F. Henri Weiss (for foreign correspondence). Councillors: Messrs. W. Hern, F. Newland Pedley, C. J. Boyd Wallis, F. J. Bennett, Cornelius Robbins, E. G. Betts, Morton Smale, B. J. Bonnell, E. Lloyd Williams, W. B. Bacon (Tunbridge Wells), H. B. Mason (Exeter), Mordaunt A. de C. B. Stevens (Nice), T. S. Carter (Leeds), W. S. Woodburn (Glasgow), W. H. Williamson (Aberdeen), H. C. Quinby (Liverpool), D. W. Amoore (St. Leonards), and Wilson Hogue (Bournemouth).

EPSOM COLLEGE.—W. L. Lawrence has passed into Sandhurst direct from this school in the recent examination into the Line; and F. G. Davey, who left in July, into the Cavalry, both members of our "Army Class."

COTTAGE HOSPITAL, HERNE BAY.—The opening ceremony of this hospital took place on the 1st inst. The hospital is a commodious building in New-street, known as Vine Cottage. To complete the accommodation provided additional furniture and bedding are required.

NEW INFIRMARY, TOXTETH PARK, LIVERPOOL.—The Toxteth Guardians last week accepted a tender for the erection of the proposed new infirmary on land adjoining the Southdown-road Workhouse. It will accommodate 380 beds in the hospital proper, or 420 including reception and vagrant wards. The outlay is estimated at £34,909.

LIVERPOOL MEDICAL INSTITUTION.—At the annual meeting held on the 14th inst. the following list of officers, council, and microscopical committee was adopted:—President: T. R. Glynn, M.D. Vice-Presidents: J. N. Cregeen, L.R.C.P., F. W. Lowndes, M.R.C.S., E. W. Hope, M.D., and J. Hellett Smith, L.R.C.P. Hon. Treasurer: J. W. Warburton, M.D. Hon. General Secretary: W. Macfie Campbell, M.D. Hon. Secretary of ordinary meetings: G. Gibson Hamilton, F.R.C.S.E. Hon. Librarian: Peter Davidson, M.B. Council: T. Bushby, L.R.C.P., Richard Caton, M.D., J. R. Logan, M.B., Frank T. Paul, F.R.C.S., G. G. S. Taylor, M.D., Glynn Whittle, M.D., W. Mitchell Banks, F.R.C.S., A. Barron, M.B., C. H. Shears, M.R.C.S., Henry Wilson, M.D., A. C. Harris, M.B., and N. E. Roberts, M.B. Microscopical Committee: J. H. Abram, M.D., A. Barron, M.B., T. B. Grimsdale, M.B., G. G. Hamilton, F.R.C.S., F. C. Larkin, F.R.C.S., J. R. Logan, M.B., F. T. Paul, F.R.C.S., J. Wiglesworth, M.D., R. W. Murray, F.R.C.S., and W. Thel. Thomas, F.R.C.S.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on January 19th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	209	54	..	45	3	311	442
North-Western Hospital	247	37	..	15	..	299	411
Western ,,	102	21	..	15	2	140	224
South-Western ,,	195	46	..	24	2	267	350
South-Eastern ,,	203	16	4	67	5	295	424
Northern ,,	397	26	..	17	...	440	480
Totals	1353	200	4	183	12	1752	2331

SMALL-POX.—*Atlas* hospital ship, 5.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BLYTHE, J. C., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Hindon Sanitary District of the Tisbury Union.

BUXTON, DUDLEY W., M.D., M.R.C.P., has been appointed Anæsthetist to the National Hospital (Albany Memorial), Queen-square, Bloomsbury, vice Dr. J. F. Silk, resigned.

COLLINS, E. TREACHER, F.R.C.S. Eng., has been appointed Ophthalmic Surgeon to the Belgrave Hospital for Children.

FRASER, H., M.A., M.B., C.M. Aberd., has been appointed House Surgeon to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

GRACE, H., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer to the Kingswood Local Board.

GRATTE, C. BROOKE, M.R.C.S., L.R.C.P. Lond., has been appointed Honorary Surgeon to the Newport and County Infirmary.

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HARPER, H. C., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer of Health for the Rural Sanitary District of the Stow Union.

HART, D. B., M.D. Edin., F.R.C.P., has been appointed Physician to the Edinburgh Royal Maternity and Simpson Memorial Hospital.

LEITCH, W. J., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Omagh No. 2 Dispensary District, vice M'Master, resigned.

LEVICK, G. D. B., M.R.C.S., L.R.C.P., L.S.A. Lond., has been appointed Obstetric House Physician to the Middlesex Hospital.

LEWIS, J. N., M.R.C.S., L.R.C.P. Lond., has been appointed Honorary Surgeon to the Newport and County Infirmary.

MCLAY, R., M.B., C.M. Glasg., has been appointed Visiting Surgeon to the Dumbartonshire Combination Fever Hospital.

MERRYWEATHER, S. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Skelton Sanitary District of the Guisborough Union.

NICHOLSON, H. O., M.B., C.M. Aberd., has been appointed House Physician and Surgeon to the Aberdeen Hospital for Sick Children.

PERNET, GEO., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant to Out-patients', Surgeon and Physician, University College Hospital. (The announcement of this appointment, last week, was not quite accurate).

RUNCIMAN, N. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer of the Cork Dispensary, vice Harvey.

TURNER, E. O., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Medical Officer of Health for the Rural Sanitary District of the Aberystwith Union.

WAGSTAFF, FRANK R., M.R.C.S., L.R.C.P. Lond., has been appointed Surgical Registrar to the Children's Hospital, Great Ormond-street.

YARROW, G. E., M.D. Heidelb., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the parish of St. Luke.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOROUGH LUNATIC ASYLUM, Portsmouth.—Clinical Assistant for six months. Board, rooms, lodging, washing, and attendance provided.

BRISTOL GENERAL HOSPITAL.—Surgeon Dentist.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary £40 per annum, with board, washing, and attendance in the Institution.

COUNTY BOROUGH OF BRADFORD FEVER HOSPITAL.—Resident Medical Superintendent of the Fever Hospital. Salary £200 per annum, with board and residence. (Apply to the Town Clerk, Town Clerk's Office, Bradford.)

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Medical Officer for two years. Salary £30 per annum, with board lodging, and washing.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Surgeon. Board and lodging provided.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E. — House Physician. Board and lodging provided.

GENERAL HOSPITAL, Birmingham.—Assistant Surgeon for three years. Honorarium £100 per annum.

GENERAL HOSPITAL, Birmingham.—Three Assistant House Surgeons for six months each. Residence, board, and washing provided.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians.

KENT COUNTY LUNATIC ASYLUM, Chartham, near Canterbury.—Medical Superintendent. Salary £600 per annum, with unfurnished house, gas, washing for himself and family, and produce of garden.

LIVERPOOL DISPENSARIES.—Head Surgeon. Salary £200 per annum, with apartments, board, and attendance. (Apply to the Secretary, Leith Offices, 34, Moorfields, Liverpool.)

LONDON FEVER HOSPITAL, Liverpool-road, Islington, N.—Physician.

LONDON FEVER HOSPITAL, Liverpool-road, Islington, N.—Assistant Physician.

NEWTON ABBOT UNION.—Medical Officers and Public Vaccinators for the Chudleigh (No. 7) District of the Union and for the Ashburton (No. 1) District of the Union respectively. (Apply to the Clerk, Union Offices, Newton Abbot.)

PETERBOROUGH INFIRMARY AND DISPENSARY.—Assistant Surgeon.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone, N.W.—Resident Medical Officer. Salary £60 per annum, with board and residence in the hospital.

RADCLIFFE INFIRMARY, Oxford.—House Surgeon. Salary £80, with board, lodging, and washing. Tenable for two years.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Two Examiners.

ROYAL SOUTH LONDON DISPENSARY.—Surgeon-in-Ordinary. Honorarium £20 per annum. (Apply to Resident Officer, St. George's Cross, S.E.)

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—Assistant House Surgeon for six months. Board, residence, and washing, and an honorarium of 15 guineas at expiration of term of office.

ST. LUKE'S HOSPITAL.—Resident Clinical Assistant for six months. Board and residence provided.

THE COPPICE, Nottingham.—Assistant Medical Officer. Salary £120 per annum, with furnished apartments, board, washing, and attendance

Births, Marriages, and Deaths.

BIRTHS.

MAPLESON.—On Jan. 7th, at Nottingham-terrace, York-gate, N.W., the wife of Horsley Mapleson, M.R.C.S., of a daughter.

ROSS.—On Jan. 13th, at Jumper Green, Midlothian, the wife of R. Russell Ross, M.B., C.M. Edin., Rio Tinto, Spain, of a son.

THOMSON.—On Jan. 16th, at 14, Coates-crescent, Edinburgh, the wife of John Thomson, M.D., F.R.C.P.E., of a daughter.

WALKER.—On Jan. 15th, at Pine House, Hurworth-upon-Tees, near Darlington, the wife of Dr. C. E. Walker, of a son.

WOLFENDEN.—On Jan. 13th, at The Crofts, Pangbourne, Berks, the wife of R. Norris Wolfenden, M.D. Cantab., of a son.

MARRIAGES.

BRAINE—EVANS.—On Jan. 16th, at Christchurch, Waterloo, Charles Carter Braine, F.R.C.S., of Maddox-street, W., to Harriette, elder daughter of John Evans, Esq., of Riversdale, Liverpool.

COTTON—FRANCE.—On Jan. 14th, at St. Helens, by the Rev. R. J. Ward, assisted by the Rev. A. G. Bridge, John Cotton, M.R.C.S., L.R.C.P., L.S.A., eldest son of Mr. John Cotton, chemist, St. Helens, to Mary Mabel, only daughter of Mr. Francis France, Cowley Bank, St. Helens.

JOHNSTON—NESBETT.—On Jan. 19th, at St. James's Church, Shirley, Southampton, Dr. James Alfred Johnston, of Forest Lodge, Shirley, son of Dr. Johnston, Westport, to Emma Parsons, daughter of Major-General Nesbett, of Clarence Lodge, Shirley.

SEATON—MARSHALL.—On Jan. 19th, at St. Luke's Church, Chelsea, Edward C. Seaton, M.D., of The Limes, Clapham-common, S.W., Medical Officer of Health for the County of Surrey, and Lecturer on Public Health, St. Thomas's Hospital, to Ellen Jeannette, elder daughter of the late Prof. John Marshall, F.R.S. (President of the General Medical Council), and Mrs. Marshall, of Bellevue House, Cheyne-walk, Chelsea, S.W.

STANIFORTH—MAXWELL.—On Jan. 19th, at St. George's Church, Sheffield, by the Rev. R. C. Joynt, Vicar, John W. Staniforth, M.R.C.S., L.R.C.P. Lond., Hinderwell, R.S.O., Yorkshire, to Mary, eldest surviving daughter of the late T. D. Maxwell, D.I., R.I.C., Lisnaskea, Co. Fermanagh.

STREET—DAVIES.—On New Year's Day, at Malabar Hill Church, Bombay, by the Rev. Yorke Brown, Ashton Street, F.R.C.S. Eng., M.B. Cantab., Indian Medical Service, second son of Samuel Street, Esq., of Marple, Cheshire, formerly of Mirfield, Yorkshire, to Annette Clare, third daughter of the late Herbert Davies, M.D. Cantab., F.R.C.P., of 23, Finsbury-square, London.

DEATHS.

BEALE.—On Jan. 15th, at Weybridge, Frances, beloved wife of Lionel Smith Beale, of 61, Grosvenor-street, W., in her 65th year.

BRAMWELL.—On Jan. 18th, at 136, Duke-street, Southport, James Parker Bramwell, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., aged 42 years.

CHRISTIE.—On Jan. 15th, at Madeley-road, Ealing, Thomas Beath Christie, M.D., C.I.E., late Medical Superintendent of the Royal India Asylum, and the North Riding Asylum, York.

COOKE.—On Jan. 14th, at Upper Clapton, William Marten Cooke, M.D., once of Trinity-square, Tower, aged 79.

GAYE.—On Jan. 15th, William John Gaye, M.R.C.S., L.S.A., son of Charles Seaman Gaye, of Shefford, Bedfordshire, aged 82.

HARTLEY.—On Jan. 16th, at Perham-road, West Kensington, Dr. Edmund Hartley, formerly of Warwick-square, London, and Ivy Bridge, Devon, aged 75.

HASLER.—On Jan. 13th, at Eanam, Blackburn, Joseph Cocker Hasler, L.R.C.P., L.R.C.S. Edin., aged 29.

HILL.—On Jan. 15th, at Rose Hill, Oxford, Thomas Harvey Hill, M.R.C.S., L.S.A., formerly of Stanhope-terrace, Hyde-park, W., aged 80.

HOULDEN.—On Jan. 9th, at Crondall, Hants, Edward Robert Houlden, M.R.C.S., in his 84th year.

JACOB.—On Jan. 16th, at Argyle-road, Tottenham, Henry Long Jacob, M.R.C.S., in his 75th year.

KERSHAW.—On Jan. 15th, suddenly, at Surbiton, William Wayland Kershaw, M.D., in his 71st year.

MORRIESON.—On Jan. 11th, at Longwood, Hamilton-road, Ealing, James Stuart Morrieson, M.D., late Bengal Medical Establishment, aged 70.

NICKOLL.—On Oct. 13th, at his late residence, Auburn, Melbourne, Australia, John Sayer Nickoll, M.R.C.S., L.S.A., aged 38 years, dearly loved husband of Ida Nickoll, of influenza and pneumonia.

ROBINSON.—On Jan. 15th, at Ramsgate, Charles Robert Robinson, Surgeon-Major late 83rd Regt., youngest son of the late Stratford Robinson, of Jermyn-street, St. James's, in his 68th year.

STATHAM.—On Jan. 16th, at 50, Woburn-place, after a short illness, Hugh Worthington Statham, M.R.C.S., L.S.A., aged 83 years.

TATUM.—On Jan. 18th, in The Close, Salisbury, George Roberts Tatum, F.R.C.S., aged 84.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, January 25.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital 1 P.M., Mr. Wm. Lang: Lachrymal Affections.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Lungs—Tubercular and other Lesions.

SOCIETY OF ARTS.—8 P.M. Professor George Forbes: Developments of Electrical Distribution. (Cantor Lecture.)

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Evening. Mr. J. H. Morgan: Two cases of Compound Fracture of the Skull in Children treated by Trephining and Replacement of Bone.—Drs. W. Carr and Wallis Ord: Cases of Bronchiectasis in Children.—Mr. B. Pitts: Two cases of Plastic Operation for Contracture following Burn.—Dr. J. A. Ormerod: Spinal Disease, probably Syringomyelia.—Mr. Watson Cheyne: Fracture of Patella, illustrating the value of leaving off the splint early.—Mr. M. Sheild: Primary Chancre of the Cheek.

Tuesday, January 26.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor V. Horsley: The Brain.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. J. Hutchinson: Leprosy.—Bethlem Hospital: 2 P.M., Dr. Hyslop: Hysteria Mania.—Charing-cross Medical School: 8 P.M., Dr. Herman: The Symptoms, Diagnosis, and Treatment of Uterine Displacement.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Mr. Henry J. Tylden: A Critique on Recent Researches in Diabetes Mellitus, with an Original Note on the Pathology of the Pancreas.—Mr. John Croft: Glandular Swelling in Neck; Conversion into a Pulsating Tumour-like Aneurysm; Ligature of Common and External Carotids, and of the Internal Jugular Vein.

SOCIETY OF ARTS.—8 P.M. Mr. William Morris: The Woodcuts of Gothic Books. (The paper will be illustrated by lantern slides.)

Wednesday, January 27.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. H. Mackenzie: Functional Diseases of the Heart.—Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Syphilitic Choroiditis.—Parkes Museum: 1 P.M., Dr. Louis C. Parkes: Disposal of Refuse.

ROYAL METEOROLOGICAL SOCIETY.—7.15 P.M. Annual General Meeting. The President (Mr. Baldwin Latham): Evaporation and Condensation.

SOCIETY OF ARTS.—8 P.M. Mr. F. W. Edridge-Green: The Scientific Value of Lovibond's Tintometer.

HUNTERIAN SOCIETY.—8.30 P.M. Clinical Evening. Dr. F. J. Smith: Symmetrical Local Asphyxia.—Dr. Jas. Galloway: Peculiar Disturbances of Sensation.—Mr. C. J. Symonds: (1) Trigeminal Neuralgia; (2) Subclavian Bruit; (3) Papilloma of Larynx.—Mr. Openshaw: (1) Subdural Hæmorrhage, trephining, recovery; (2) Subdural Hæmorrhage simulating Hæmorrhage from Middle Meningeal Artery.

Thursday, January 28.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

ROYAL INSTITUTION.—3 P.M. Mr. A. S. Murray: Some Aspects of Greek Sculpture in Relief.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Mr. R. M. Gunn: On the Examination and Treatment of Eye Diseases in Children.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. C. E. Beevor: Anatomy and Physiology of the Brain with regard to Localisation.—London Throat Hospital, Great Portland-st.: 8 P.M., Dr. Ed. Law: Examination of Throat and Nose Cases.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens by Dr. Bantock. Presidential Address by Professor A. R. Simpson.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Patients and Card Specimens at 8 P.M. Mr. Critchett: Case of Conical Cornea treated with the Galvano-cautery.—Mr. Gunn: Ophthalmoscopic Evidence of Arterial Change in Chronic Renal Disease.—Mr. Juler: Microscopical Demonstration of Hyloid Growth from the Lamina Vitrea.—Mr. Knaggs: Case of Tuberculosis of the Iris, Suspensory Ligament, and Retina.—Mr. Wray: Etiology, Prognosis, and Treatment of dotted Cataract.

Friday, January 29.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. H. Mackenzie: Graves's Disease.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: Cultivation of Bacteria (Cultivations).—Charing-cross Medical School: 8 P.M., Dr. Herman: Painful Menstruation.

NEUROLOGICAL SOCIETY OF LONDON (Rooms of the Royal Medical and Chirurgical Society, Hanover square) — 8.30 P.M. Annual General Meeting. Dr. Bastian (President-elect): The Neural Processes underlying Volition and Attention.

ROYAL INSTITUTION.—9 P.M. Sir George Douglas: Tales of the Scottish Peasantry.

Saturday, January 30.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department 9.45 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Hyslop: Delusional Insanity.

ROYAL INSTITUTION.—3 P.M. Professor J. A. Fleming: The Induction Coil and Alternate-Current Transformer.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan 21st, 1892

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Jan. 15	29·51	N.W.	31	..	46	37	29	—	Overcast
,, 16	29·49	S.W.	34	32	55	38	30	—	Cloudy
,, 17	29·63	S.E.	35	33	48	40	32	..	Overcast
,, 18	29·74	S.E.	40	38	48	45	34	·03	Overcast
,, 19	29·85	S.E.	39	38	..	42	38	..	Overcast
,, 20	29·86	S.E.	38	36	48	40	35	..	Overcast
,, 21	29·96	S.E.	35	34	..	38	34	..	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

We cannot undertake to return MSS. not used.

THE INFLUENZA EPIDEMIC.

To the Editors of THE LANCET.

SIRS,—In as few words as possible allow me to state that in the later cases of influenza which have come under my care I have found the use of benzole surprisingly beneficial. It relieves the pain in back and head in a few hours, and reduces the fever permanently within twelve hours. *Ex. gr.*: Jan. 10th, 3 P.M. Young woman. Temperature 103°

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eyes suffused; skin dry and burning; quick pulse; flushed face; pains all over body, &c. Prescribed as follows:—℞ Benzole pur., ♏ 80; spt. vini, ʒ ij.; spt. chlorof., ʒ iiss.; mucilag. trag., q. s.; aq. ad ʒ viij. M. ft. Bis horis ex aq. The first dose gave relief to pain &c. The second dose reduced the heat of the body &c. On Jan. 11th the temperature was subnormal both morning and evening. Patient free from pain; conjunctivæ normal. In fact, the patient was well but for a very slightly accelerated pulse. In view of the want of any known remedy of proved efficacy, benzole is certainly worthy of further trial. If we are to suppose that the influenza germ rests first on the pulmonary mucosa, then, so far as we know, benzole is perhaps the most suitable remedy. Within an hour of its administration the odour of the gas is pronounced in the breath.—I am, Sirs, yours faithfully,

Newcastle-on-Tyne, January, 1892. WM. ROBERTSON, M.D.

To the Editors of THE LANCET.

SIRS,—The recrudescence of the influenza epidemic again attracting our attention in the metropolis, where it is especially virulent in the presence of overcrowding, I should like to bring before the notice of the profession a simple but efficacious prophylactic—a remedy so simple and inexpensive as to be within the reach of every household and of every class of the community. During the two former outbreaks of the influenza epidemic in Westminster I have found it of such service, both in my own house and in my practice, that I now venture to advocate its general use.

I order an iron shovel to be heated in a fire, and have about half a teaspoonful of crude carbolic acid poured on the nearly red-hot shovel, and a dense vapour arises. If a house be thoroughly fumigated daily in this way, special attention being given to the sleeping apartments, I believe the infectious germs of the disease are destroyed, or counteracted, or eliminated. From practical experience I advocate the use of carbolic acid fumes as a preventive of influenza, and also as part of the remedial treatment. When, however, pulmonary complications arise, the fumes must be used with caution.

At this time, when Dr. Richard Pfeiffer has discovered the bacillus of influenza, I should like to hear what effects he finds carbolic acid has on it.

I am, Sirs, yours faithfully,

Westminster, Jan. 9th, 1892. JAMES E. SINCLAIR.

Purchaser.—1. The question is one that had better be referred to a medical agent. 2. The reply to this question must depend upon the date when the purchase is fixed to take effect.

Inquirens.—We are not in a position to give a reply to the question.

AN AID TO DEFECATION.

To the Editors of THE LANCET.

SIRS,—An even greater "aid to defecation" than "pressure on the posterior half of the perineum," which Mr. Heath recommends, will be found in pressure with the finger upon the buttock just externally to the right lip of the anal orifice. Although the rectum in quite the last part of its course passes downwards in the middle line, yet the course of the gut has before that for long been from the left. The main impact of its protrusive force is therefore exercised, by means of the advancing fæcal mass, upon the right rectal wall near the anal orifice. Here therefore the opposing force should be brought to bear. *Experto credo.*

I am, Sirs, yours faithfully,

Tulse-hill, January, 1892. A. B. STEVENS, M.B. Oxon.

FUNERALS IN INCLEMENT WEATHER.

To the Editors of THE LANCET.

SIRS,—Kindly permit me to state that in a leaflet issued by the Council of the Funeral Reform Association, and approved by the archbishops and bishops, occurs the following pregnant sentence:—"Mourners are not expected to do anything, or leave anything undone, imperilling their own bodily welfare, or that of the community." The Association is of opinion that respect is best shown to the dead by due concern for the living.

I am, Sirs, yours obediently,

F. LAWRENCE,
Hon. Sec., Funeral Reform Association.

Westow, York, Jan. 18th, 1892.

Viator.—Several articles on the respective merits of different health resorts have appeared in THE LANCET, to which we must refer our correspondent.

Ubique has forgotten to enclose his card.

THERAPEUTIC VALUE OF TURPENTINE.

To the Editors of THE LANCET.

SIRS,—I can fully corroborate what Dr. Chapman says as to the therapeutical value of turpentine. During my period of service in the Royal Naval Hospital at Jamaica a large number of cases of typhoid fever came under my observation, the treatment I invariably adopted, in fact the only medicine I almost ever found it necessary to give, was turpentine in six-minim doses. Made into an emulsion with mucilage, the results were eminently satisfactory.

I am, Sirs, yours faithfully,

W. J. EAMES, M.R.C.P.I., &c.
Inspector General, Royal Navy.

Harleyden-road, N.W., Dec. 2nd, 1891.

NEWSPAPER ADVERTISEMENT OF MEDICAL SUCCESS.

A CORRESPONDENT in Liverpool sends us a paragraph from a newspaper referring to recent statements in THE LANCET as to the comparative non-success of means for disinfecting the typhoid poison or the diseased portion of the bowel and the greater success of a Liverpool practitioner described in our own columns. We may safely assume that the practitioner in question was no party to the publication of the paragraph in question. Clearly, newspapers are very wrong media for such paragraphs, which are likely to mislead the public.

Scrutator.—Our correspondent does not very clearly indicate which of two letters he refers to. But we cannot say that either strikes us as exceeding the bounds of what is permitted in a contest. Candidature has to be justified, and a candidate can scarcely do less than give the history of his professional career.

Mr. J. W. Greenwood.—Probably the gift could be obtained by application to Sir Henry Ponsonby.

Dr. Pisani.—We know of no such establishment.

"KISSING THE BOOK."

To the Editors of THE LANCET.

SIRS,—Permit me to point out that the very reasonable objection entertained by many to kissing the greasy cover of the Bible placed in their hands when the oath is administered in the usual form in the police courts and courts of justice is met and provided for by Clause 5 of the Oaths Act, 1888, Chapter 46, which runs as follows: "If any person to whom an oath is administered desires to swear with uplifted hand, in the form and manner in which an oath is usually administered in Scotland, he shall be permitted so to do, and the oath shall be administered to him in such form and manner without further question."

I am, Sirs, yours faithfully,

Jan. 19th, 1892. L.

Mr. Wm. Mackenzie.—It is perhaps needless to say that the quotation in the announcement is unwarranted.

Student should consult our Students' Number, wherein will be found all the information he desires.

Indomitable should consult a physician. We do not give advice.

ACUTE GOUT.

To the Editors of THE LANCET.

SIRS,—I beg to inform you that I have in three consecutive cases of acute gout found the blood to be swarming with a long encapsuled bacillus, side by side with which numerous crystals of biurate of soda are to be seen. I should be much obliged if you will kindly place this observation on record, to establish my claim to priority in the matter. I trust, however, to be able to give you some further description of this hitherto unrecorded bacillus in a future communication.

I am, Sirs, yours faithfully,

Putney, S.W., January, 1892. EDWD. GRÜN.

Leverton.—We have already expressed our opinion. (See THE LANCET of Jan. 7th 1888, and May, 1889.

J. G. F.—We believe there is no warrant for the assumption, but the question has not been exhausted.

THE HODGSON FUND.

To the Editors of THE LANCET.

SIRS,—Allow me to acknowledge the following amounts for the widow and children of the late Dr. W. Bacon Hodgson:—Amount previously acknowledged, £62 12*s.*; British Medical Benevolent Fund, £18. Total, £80 12*s.* As this fund will now be closed, any further contributions will be gratefully received.

I am, Sirs, yours faithfully,

J. PHILLIP TOPPING.

271, Romford-road, Forest-gate, Jan. 18th, 1892.

A CORRECTION.

To the Editors of THE LANCET.

SIRS,—In the report of my second case at the Medical Society (THE LANCET, Jan. 16th, p. 141, line 4 in second paragraph of first column, or twentieth line from bottom of page) "right" should be *left*. The superficial gumma is, of course, on the same side as the paralysis. Readers will doubtless perceive that the error is clerical; but I should be obliged if this correction be inserted.

Believe me, Sirs, yours very truly,

Leeds, Jan. 18th, 1892. T. CHURTON.

THE BRITISH MEDICAL BENEVOLENT FUND.

To the Editors of THE LANCET.

SIRS,—At the annual meeting of subscribers yesterday a vote of thanks for the great assistance given by you to the fund by permitting the insertion of appeals &c. was passed, and I was requested to inform you of the fact.

I am, Sirs, yours truly,

Jan. 15th, 1892. EDWARD EAST, Hon. Sec

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COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Althaus, London; Dr. Altham, Penrith; Mr. Aymard, Ipswich; Mr. J. W. Atkinson, London; Dr. Adam, West Malling; Mr. Alsop, Newton Abbot Union; Mr. T. B. Browne, London; Messrs. Burgoyne and Co., London; Dr. W. Brown, Stapleton; Mr. Briscoe; Messrs. Back and Co., London; Dr. L. Barlow, London; M. Berthier, Paris; Dr. J. Barr; Dr. Burghard, London; Dr. Blacker, London; Mr. Birchall, Liverpool; Dr. Beor, Brittany; Mr. L. Browne, London; Mrs. Bean, Heathfield; Mr. C. Boyd, London; Dr. Charteris, Glasgow; Dr. I. Clerk, Glasgow; Mr. Crerar, Maryport; Mr. R. Cail; Dr. Campbell, Liverpool; Messrs. Clark, Wolverhampton; Messrs. Carnrick and Co., London; Dr. Churton, Leeds; Mr. Cotterell, London; Mr. Clarke, London; Dr. Cooke, Sheffield; Dr. Campbell, London; Mr. A. Doran, London; Mr. W. W. Davies, Brighton; Mr. E. East, London; Mr. Fazakerley, Liverpool; Dr. Gowers, London; Messrs. Griffin and Co., London; Mr. Greenwood, Hanley; Mr. Goater, Nottingham; Dr. Galloway, London; Mr. C. Heath, London; Mr. F. G. Heath, London; Mrs. Hicks, London; Mr. Huntley, Hastings; Dr. Gordon Holmes, London; Mr. Huntley, Hastings; Mr. Hornibrook, London; Dr. Hebb, London; Mr. Hyde, Worthing; Dr. Jacobs, Brussels; Dr. Jones, London; Dr. Jacoby, New York; Messrs. Keene and Ashwell, London; Mr. J. Kershaw, St. Leonards; Mr. Kershaw, Manchester; Dr. J. Kerr, Bradford; Dr. Lewins, London; Dr. T. G. Lyon, London; Mr. Limont, Newcastle-on-Tyne; Messrs. Lloyd and Co., Leicester; Messrs. Livingstone, Edinburgh; Messrs. McFarlan and Co., London; Dr. Moorhead, Nottingham; Messrs. Maclehose and Sons, Glasgow; Mr. J. McDonald, London; Mr. Macpherson, Larbert; Mr. Maggs, London; Mr. Morris, London; Mrs. Macbride, London; Dr. Mackay, Huelva; Sir W. Moore; Mr. A. Maudsley; Mr. A. Nevins, Hanley; Dr. D. Newman, Glasgow; Messrs. Oliver and Boyd, Edinburgh; Mr. Preston, London; Mr. Pimm, Poultry; Mr. Parr, London; Dr. Pisani, Malta; Mr. G. C. Richardson, Harpurhey; Mr. J. M. Richards, London; Messrs. Reynolds and Branson, Leeds; Dr. Rentoul, Liverpool; Dr. Stevens, Springfield; Dr. F. J. Smith, London; Dr. A. Smart, Edinburgh; Messrs. W. H. Smith and Son, London; Mr. Stilliard, Birmingham; Messrs. S. Smith and Co., London; Mr. Silcock, London; Dr. Sisley, London; Mr. Squire, Whittingham; Mr. M. Scott, London; Dr. Swanson, Yorks; Mr. M. Sheild, London; Dr. Skrimshire, Holt; Sir H. Thompson, London; Professor Tait, Birmingham; Mr. Taylor, Redcar; Dr. W. W. H. Tate, London; Dr. Threadgale, Kilburn; Mr. Tredennick, Salop; Dr. Urquhart, Perth; Mr. Vickers, London; Dr. N. Walker, Edinburgh; Mr. Wand, Leicester; Dr. Walker, Southwell; Mr. Roger Williams, London; Mr. Wilson, Patricroft; Messrs. Wyleys and Co., Coventry; Mr. Wrixon, Ealing; Dr. Whitla, Belfast; Mr. Waters, London; Dr. H. Woods, London; Mrs. Yates, London; W. O. B., London; M. W., London; M.O.H., Staffs; Secretary, Peterborough Infirmary; Mu, Aldersgate-street; Surgery, Ramsgate; B., Colwyn Bay; S. G., London; A. M. A., Blisworth; Secretary, East London Hospital; E. M., London; Inquirens; Secretary, Wolverhampton Eye Infirmary; Secretary, Radcliffe Infirmary; Secretary, Borough Lunatic Asylum, Portsmouth; M.B., Leeds.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Nash, Clapham; Mr. Evans, Pwllheli; Mr. Kirton, Cardiff; Mr. McFarland, Norwich; Mr. Griffiths, Lampeter; Mr. Adams, London; Mr. Tyte, Minchinhampton; Miss Carson, Burton-on-Trent; Messrs. Schweppe and Co., London; Mr. Page, Weston-super-Mare; Messrs. Keith and Co., Edinburgh; Dr. Merryweather, Guisborough; Messrs. Condy and Mitchell, London; Messrs. Inglis, Banffshire; Mr. Clark, Seaham Harbour; Dr. Simpson, London; Mr. Holst, Bath; Messrs. Horner and Son, London; Dr. Critchley, Inverness, N.B.; Messrs. Matthews Bros., London; Mr. Cathrie, Newcastle-on-Tyne; Mr. Wells, West Hampstead; Mr. Townley, Cheshire; Mr. Fiske, Devon; Mr. Breach, Newbury; Mr. Vann, Durham; Dr. Ward, Oxford; Mr. Cleaveland, Selby; Mr. Jenkins, Lincoln; Mr. Monemont, Norfolk; Mr. Simpson, Midddleinch; Mrs. Nickoll, Melbourne; Mr. McConville, Glasgow; Mr. Fox, Chesterfield; Mr. Bennett, Southampton; Dr. Salter, Victoria; Rev. Mr. Cole, Maldon; Mrs. Herbert, London; Mr. Howard, Norfolk; Mr. East, Pontrilas; Mr. Roberts, Twyford; Mr. Anderson, Carmarthen; Dr. Jennings, Brecon; Mr. Hall, Woking; Dr. Gosford, Liverpool; Dr. Boreham, Torquay; Mr. Blount, Paris; Mr. Claxton, Bournemouth; Mr. Johnstone, Edinburgh; Mr. Maudesley, Twyford; Dr. Pye-Smith, London; Mr. Matthews, Swindon; Mr. Wylie, Belfast; Mr. Nuttall, Blackburn; Mr. Halley, London; Mr. Finlay, Longford; Dr. Davies, London; Mr. Roche, Dublin; Mr. Warriner, Peterboro'; Mr. Punshon, Hants; Mr. Moseley, Caterham; Mr. Ladd, Canterbury; Dr. Lorabji, Hyderabad; Mr. Stephenson, Edinburgh; Dr. Morton, Sheffield; Mr. Thomlinson, Partick; Mr. Jukes, Aberystwith; Mr. May, Staffs; Mr. Kelvin, Manchester; Dr. Howard, New Buckingham; Mr. May, London; Mr. Beckett, Chester; Mr. Cotton, St. Helens; Mr. Jones-Humphreys, Keynsham; Mr. White, Nottingham; Mr. Thin, Edinburgh; Mr. Evered, Bridgwater; Mr. Yourell, Canterbury; Mr. Heywood, Manchester; Mr. Bramwell, Southport; Dr. Murphy, Newport; Venning, London; Vernon, Sheffield; Elderly Surgeon, London; L. R., London; G. P. A., London; Clerk, Malling Union; Certainty, London; Bolton, London; K. B., London; Class Rooms, Edinburgh; Doctor, London; Hon. Treasurer, Rotherham Hospital; Gabriel, Nice; W. B., Bridgwater; Matron, Royal South Hants Infirmary; Partner, London; Medicus, Walthamstow; Sanitas Co., Bethnal-green; E. M., London; B. M., London; Volens, London; Aleph, London; Sanitas, London; C. M. A., London; Medicus, Manchester; T. E. H., London; Guy's, London; P. G., London; Surgery, London; A. C., Hyde-park; Surgeon, Devon; Z., London; J. H. S., Walsall; Utilis, London; C. D. W., London; Rural, London; A. C., Manchester; Gamma, London; M.D., London; Samoa, London; Lux, Liverpool; K. B. D., London; M.B., Bournemouth.

NEWSPAPERS. — *Kentish Mercury, Law Journal, Dundee Advertiser, Clapham Observer, Brazilian Republic, Jarrow Express, South Wales Daily News, Brighouse and Rastrick Express, Jersey Times, Sanitary Record, Local Government Chronicle, Glasgow Herald, Metropolitan, Architect, Western Morning News, Newcastle Chronicle, Littlehampton News, Bradford Observer, City Press, Manchester Courier, Leamington Spa Courier, Le Temps (Paris), The Newspaper, Era, Halifax Free Press, South and North Lincolnshire Advertiser, Bradford Daily Telegraph, Le Rentier (Paris), Buckingham Express, Middlesex County Times, Halifax Courier, Insurance Record, Scotsman, Melbourne Age, Freeman's Journal, Bedfordshire Standard, Scottish Leader, Yorkshire Post, Reading Mercury, Surrey Advertiser, Builder, Liverpool Daily Post, Hertfordshire Mercury, Huddersfield Examiner, Hastings News, Montreal Herald, Worcester Echo, &c.*, have been received.

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The Harveian Lectures
ON
COMMON NEUROSES, OR THE NEUROTIC ELEMENT IN DISEASE AND ITS RATIONAL TREATMENT.

Delivered before the Harveian Society of London, Nov. 19th and 26th and Dec. 2nd, 1891.

BY JAMES F. GOODHART, M.D., F.R.C.P.,
PHYSICIAN TO GUY'S HOSPITAL.

LECTURE II. (*Concluded.*)

WHEN we come to consider the case for adults I cannot say I am so hopeful, and one of the best evidences of its intractability is to be found in the number of patent medicines that abound for the cure of asthma. The diseases of children would not keep a quack in bread and cheese for a fortnight. The adults are the patronisers of the various cures for asthma, and who carry Himrod in their pockets and call it a cure, when all the while there never was, and never will be, a better illustration of the toils of the quack; for with each fresh whiff the sufferer is dragged deeper into the abyss of chronic asthma. This is what they come to. I will take my last case, a young lady aged nineteen. Her mother had suffered much from hay fever, and *her* mother had had asthma. She had been an asthmatic since the age of eleven, and she had indicated her neurotic inheritance at a much earlier date by never having been able to eat egg in any form or combination. She sneezes much and suffers much from catarrh. She is now hardly ever free from asthma, but it is worse at night, and she burns Himrod three or four times every night, by which means she gets a fair amount of sleep, although her nights are very disturbed and she is unable to lie down much. Here was the note that her medical man sent with her. "She has suffered almost from infancy from spasmodic asthma. She has taken everything in the legitimate pharmacopœia, and tried with varying success Hare's, and Himrod's, and twenty other quack remedies, besides other nostrums for smoking. She is a frail, weakly-looking girl, but she has admirable courage and spirits, notwithstanding the years of suffering through which she has struggled. She is, as I am, not over-sanguine as to permanent relief." And who could do otherwise than endorse this doleful view? Here was a young lady with years of a baneful habit upon her, a very different thing from a child affected with the same disease; almost the same difference as between the child in its first convulsion and the confirmed epileptic of twenty years or more. To offer her drugs under such circumstances, or rather drugs alone, as the panacea might well seem a mockery, and I began at the other end. I explained to her that the temporary ease that she undoubtedly procured from Himrod's cure—and this remedy is certainly one of the most successful in procuring temporary ease from the distress of the paroxysm—was dearly purchased, and that each release so obtained let her more deeply into the slough of despond. She had got into a bad habit that needed to be broken, and that in the attempt to break it she would at this time of the day of her disease realise to the full the meaning of the words "through much tribulation ye shall enter the kingdom of heaven." If ever there was a heaven to be begun on earth it was to be found for this poor child in the relief of her now constant suffering.

It has not been my purpose in preparing these lectures to deal in any way with the details of treatment by drugs; for there are those here at whose feet I would rather sit in such matters. I have rather aimed at dealing in a comprehensive spirit with the principles that underlie these diseases, and which ought to, and must eventually, energise all our treatment. But lest it should be thought that taking the patient back to, or rather putting her perhaps for the first time in her life face to face with, the problem that she and I had both to deal with—and as I think she far more than I—I was giving her a stone when she came for bread, let me say that I did not send her altogether empty away; but that I believe most firmly in the free administration even in these old cases, and at all times of life at which it occurs, of iodide of potassium and the ethereal tincture of lobelia, for the relief of the asthmatic condition, and that I feel certain that arsenic taken also in free doses, and with breaks, over a long period of time—several months—is a great help by its action on the nervous centres in preventing the recurrence of the paroxysm. I am no friend of the as-he-was and as-he-is description of the results of treatment, but it so happens that a few days ago this young lady, without any asking on my part, thought fit to write this note to me: "I am writing to tell you how very much better I am. I can lie down at nights; I have no asthma after eating; and I never have to burn anything or smoke. In fact, I have hardly had any asthma for the last two months, and the slight returns of it have gone off after one dose of the medicine."

Before I have quite done with asthma let me return again to Himrod and drugs of that ilk. I have made a serious charge against them, and I do not doubt for a moment that there are those here who will abundantly confirm all that I have said. But I want to say more—viz., not only do they confirm this disease of habit; but they do more, for in the long run their repeated use leads to enfeeblement of the heart muscle, and to its dilatation; and thus they introduce serious, and often fatal, complications. Mind, I do not say they must *never* be used—I have seen too much of the distress of bad asthma to say that; but I do say, as I have heard it said of the doctor's brougham, that it is the first nail in his coffin, that when an asthmatic takes regularly to such remedies as these, they are equal to a good many coffin nails.

I come now to the last group on my list for to-night—the neurotic conditions that involve the circulatory system,—and perhaps chief of these is angina pectoris; but I will not take that first, because some might be inclined to question the right of this affection to the title of a neurosis, and even if it has that right, as I think it undoubtedly has in some instances, it is still a little off the lines I have hitherto been considering, and there are other neurotic conditions that may well be considered. And first of all I may allude to the common affection the being the conscious possessor of a heart. It always strikes me as the most astonishing thing that a man may have a heart of twenty, thirty, even forty ounces, and yet be unconscious of its pulsations, although to the bystander the heaving of the chest provokes a recognition of the fact obtrusively. But this heart conscience occurs in quite other cases, and verily it is a sprig from the garden of Eden, for it is a genuine knowledge of good and evil, the good of it being there, but veiled from sight. It is good knowledge if only the possessor could believe it, for it mostly tells that there is nothing serious the matter, and it is evil in that it enshrouds the mind of its possessor in spectral fancies of which he is utterly unable to dispossess himself. Yes! Once to know you have a heart in this fashion is to become full of an idea that it is wellnigh impossible to dislodge, and there is no doubt whatever that it takes a good slice out of the happiness of very many lives. And now comes the point. There are many refuges for the destitute of diagnosis in medicine. A delicate spine is one, a delicate chest another, a torpid liver another, consumption of the bowels another, gout another, neurotic—yes! I will not leave that out—another. We cannot do without them, but there are some that are much more two-edged than others. I do not so much mind a man being told he has a torpid liver, if the doctor does not know what is the matter with him, because the liver is a benevolent deity, and we lay our pills at its shrine without any violent explosion either way, and the public have learned to recognise this. But "delicate lungs" or "a weak heart," which run up a sword over the head of the victim with sudden death, or consumption engraved thereon, when there is nothing serious the matter, and often because we are unconsciously looking after our own reputation, and are afraid of making a mistake which someone else may catch us up in, is not a trifling detail, for a weak heart to the public is as precise a diagnosis as it is vague and unmeaning to the instructed. To us it means nothing, but there are hundreds of people going about and nursing their hearts because they are weak, but with nothing really the matter, and that idea they must have got by medical consent in most cases. Then I have to say that the term is applied to all sorts of conditions that have nothing in common. For example, a stout lady of sedentary habits comes for some trifling ailment, and she starts with the announcement,

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"I know I have a weak heart, Dr. So-and-So said so years ago." I examine her heart, and it is, as far as present means of diagnosis go, absolutely healthy. And I have little doubt that Dr. So-and-So, looking at his patient's physique, and judging her rightly of corpulent habit, plumped for a fatty heart, and that case was ticketed. Another lot of hearts are maligned because the first sound is weak, a perfectly worthless criterion, unless hedged round with all sorts of qualifications; and a still larger number because the pulse is small and feeble; and then there come all the multitudinous causes of irregularity of the heart, which in the absence of any definite disease are all liable to go into the same pot, and a pretty kettle of fish comes out of it all if we take the aggregate of results of misery that is produced. I cannot discuss this question very satisfactorily, because there are so many causes of irregularity; but I can say this, that no more common condition exists than the irregularity of the neurotic heart, and though we all know of it I do not think that its very frequent occurrence is as generally remembered as it ought to be. A great injustice is not unfrequently done to candidates for insurance in this way. A man goes up for examination and is nervous under it. His heart is unsteady, and very likely there may be some slight basic or apical systolic bruit as well, and he is warned not to pursue his proposal at the time, but to come again in so many months. What is the result? Naturally the rejected candidate receives a severe shock. Imagining himself sound, he finds there are suspicions about his most vulnerable part—his heart,—and off he goes to "another opinion" to know if there is any chance of sudden death, heart disease and sudden death being indissolubly bound together in the mind of the layman. Far be it from me to seem to be wanting to teach the medical officers of insurance societies their business; they probably know it far better than I, and, moreover, not being attached to any body of this sort, I am very much like the politician out of office, except that I am not trying to get in. But I will confess to having wished, as cases of this kind have come before me, that medical examinations for insurance could be conducted with a little more bilateral poise, for the refusal to grant a policy is really of more moment to the candidate than it is to the shareholders of the company; for I am of course only discussing cases that could add at the most an infinitesimal risk, and yet the one party does not receive a particle of consideration. But having said this, I will let it at once discover my weakness, for it opens up a most interesting question, whether the irregularities of neurotic origin may not in the end lead to some failure of the muscle, and so confirm the fitness of their rejection.

In 1885 I saw a young man who had been refused at an insurance office for an irregular heart. He was brought to me by his own medical man in consequence, and I certainly could not in that instance find fault with the decision, for his heart was tumbling about in a most extraordinary fashion for a man, and such as I have rarely seen in that sex and at that age before or since. I cannot go at length into my reasons for regarding the affection as a functional one; it must suffice to say that the shape of his head, his whole bearing, and the previous history, given me by the gentleman who brought him, who was an old friend of his as well as adviser, showed conclusively that he was an extreme neurotic. He wanted to get insured before he went abroad, and he was obliged to start in some ten days or so. I told him that I was convinced that there was no disease of his heart, but as to getting insured before he went, that was impossible, as it was clear that no examiner would look at him with his heart in that state, and it was little likely to quiet down with an ordeal such as that before him under the circumstances of the hurry. So I advised him to go abroad, and as his refusal had much upset him, to go to some medical man near him, and to have his heart examined frequently, thinking that when he got used to the process he would soon be reported upon more favourably than we could do at that time. My expectations were quite justified, for after some months I heard from him, saying that he had got his life insured, and that now his mind was at rest. I do not think that in the end he had any desire for the insurance as an investment, but merely because it gave him a certificate of the soundness of his heart. He comes to England periodically, and I have seen him several times in the course of the six years that have now elapsed since my first introduction to him, and he has hardly put his foot on shore before he rushes off to me to get his mind set at rest. And here is the point that makes me a little uneasy about him: he has several times had recurrences of extreme irregularity of the heart's action, generally after mental worry, and once in this state I sent him to Homburg, and some one who saw him there, not knowing so much as I did about him, shook his head at him, kept him on one floor, made him go about in a Bath chair, and sent him home again more dead than alive from sheer fright. But although I judge the nature of the case to be a neurosis, I cannot but fear that as he advances in years a muscle or nerves of such irritability may fail under the stress of even ordinary existence, and that he may not live out his term. And yet, on the other hand, the case is much like, in all but the sex, the palpitation that is so common in women, and which does not, so far as I know, do much, if anything, to shorten life. Nay more, it is a condition that may well excite astonishment by the small amount of disturbance that it creates. There may be some amount of discomfort, but even that is difficult to speak of accurately, for going with the disturbed cardiac action there is so much nervous erethism that it is uncertain how much of the distress is due to the one and how much to the other; and how little of anything there may be sometimes is well impressed on my mind by the remembrance of a lady who walked into my room a year or two ago after a morning's shopping in Regent-street, saying that she had had a palpitation all that night and morning, and would I please to give her something to stop it. I found her heart beating 160 per minute, and I do not doubt that it had been doing so through all her peregrinations in the shops of the West-end.

Then, again, there are other cases that seem to suggest that neurotic disturbances may lead to actual organic disease. I saw this case the other day. A man of about forty-four—so far as is known in perfect health at the time; in fact, he was passed first-class for insurance just before he left—went out to the colonies to assume a very important and anxious financial post. Before he went he had been in the habit of taking a good deal of exercise, and his new berth kept him so continuously occupied that he had not only no time, but neither had he the energy or the inclination for it. His work told upon him severely, and he felt that it did so, and within six months of his taking up his new post he found himself so short of breath that he was obliged to seek medical advice. He was found to have mitral incompetence, and he has had it ever since; and, what is more, he was, so long as he remained at his post, slowly going downhill, until he relinquished it and started for home. Since that time he has, according to his own account, continuously improved. It seems quite possible that the fault here may have been a primarily nervous one; that the man's whole energy was used up by his brain work, and that for the want of its supply the heart muscle dilated, and led to the mitral incompetence at the same time that the body muscles were disinclined and incompetent for their wonted exercise. But of course it cannot be denied that there is, at any rate, another explanation; for the heart that is accustomed to work, as is that of a man who makes it his business to take a good deal of exercise, when thrown into idleness, as it is in great measure when its master changes all his habits of life and betakes himself to a very sedentary occupation, is very likely to grow indolent, and it is the indolent hearts as much as the overworked ones that dilate. As a further point in reference to the influence of nervous failure in producing organic disease, I would add that I have seen one or two cases, though they are happily rare, where, without any definite disease, yet with some permanent sense of discomfort about the heart, a patient suddenly falls down dead, and all that is found post mortem is a dilated heart. Again, it cannot be said that such cases have any certain connexion with any definite nervous cause, but in the one or two cases that I have seen there was a something about the individuals that led me to class them as belonging to the group of the neurotic.

Now this subject leads me on to another that has similar risks—viz., Graves' disease. I have already said that I regard this disease in what may be called its fully developed form as one that shades off in all directions into conditions that are not generally considered in relation with it, but which ought to be so considered, in my opinion. Just now the exophthalmos and the thyroidal enlargement are somewhat at a discount, and we hear more of muscular tremors and some other local phenomena; but what has long struck me is that the central feature

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of all these cases is, without any exception, their extreme nervousness. I hope no one will take exception to my making use of this popular term, but it is really an exceedingly useful one. And what do I mean by it? Well, I understand a state of the central nervous system in which the persons start suddenly at the least unexpected noise; in which the least excitement makes them tremble all over or flush, or break out into a perspiration; in which an impulsive word or a sudden act will send their heart into a state of palpitation; they are in a perpetual state of that common and happily temporary one of a nervous man who is about to make his first speech: his tongue gets dry and sticks to the roof of his mouth, his neck swells, and he feels uncomfortable in his respiration; his heart is beating so fast that it would seem that it must stop; and his head throbs so badly that if the memory of pain were not short-lived he would never trouble an audience again. But in this picture of Graves' disease it is not the muscular tremor that is the essential feature; it is not the enlargement of the thyroid that is either, or the protruding eyeballs; all of them are included in the still more fundamental state of decrepit control on the part of the centres, and, whatever it be, it lies deep in them. So that when I see, as one so often does see, a nervous woman or man with a very rapid heart, or excessive pulsation in the neck or abdomen, with undue tendency to sudden sweats, with a want of muscular control, as evidenced by tremor and so on, I see in each of these, outlying symptoms of the condition, whatever it be, that causes the assemblage of symptoms we call "Graves' disease," and which seems to me most aptly likened to a state of permanent blushing of the centres involved. I should like, however, to remark that such symptoms are common to many forms of nervous breakdown. For instance, many of them are found in chronic alcoholism, they are seen in some cases of melancholia, in the decrepit state engendered by overwork, by excesses of any kind; sometimes they occur with glycosuria, and no doubt in many other conditions also. And herein is another point of interest, if I may judge by my own experience—viz., that all these conditions, more or less, are benefited by the same drug—opium. I believe for patients suffering from Graves' disease there are no remedies comparable to the rest and absolute freedom from fussing that are to be procured in a hospital, and there is no drug that does them so much good as small doses of opium, combined with strychnia, cod-liver oil, and all remedies that go to build up the nervous centres.

I can only mention one other condition that has to do with the question of weak hearts—viz., faintings that are supposed to own a cause of this kind. They are excessively common; far more common in women than in men, and they come for an opinion in numbers because the uninstructed associate the condition of fainting with disease of the circulatory centre. Now, except occasionally in old people, is it ever so? If it be, I confidently assert that it is a very rare occurrence; and for myself I can say that of the large number of cases of this kind that have come under my notice, and of which I have notes, in no single instance have I been able to discover any organic disease, and in all there has been ample evidence that they were nerve cases and not heart cases. I need hardly say that faints are often of an epileptic character. I do not wish to assert that all these cases are of that nature, but short of epilepsy there are many conditions that emanate from the nervous system and lead to faints that are altogether outside the heart. The sort of case met with is after this wise. A gentleman aged thirty-three, who has been in the tropics for some years, and has had malaria and rheumatic fever, has had within a short time of returning home two attacks of palpitation, in one of which he fainted for a minute. He has had one slight attack since he came home. He came to me because he thought his heart was affected, but there was nothing discoverable, and as he was very tremulous and nervous I believe it was all brain. Another interesting case of this sort I saw down in the country some three years ago. A lady, aged twenty-eight, had been somewhat recently confined and was anæmic. For some days before I saw her she had been going off into repeated faints, and had kept the whole house in a perpetual panic. I do not know how many nights the doctor had slept in the house to see an attack, but his presence always seemed to keep them off, and he had never see none. The patient was a light-haired, lively, neurotic Irishwoman, subject to vertigo, but with no organic disease of any kind. And yet one more, also in a lady of the same age (twenty-eight), who has been subject to attacks of giddiness for years, but who of late has had most curious seizures that come on quite suddenly while she is walking about. She has all the feeling that she may faint, but never goes quite off; sometimes she goes pale, but more usually she flushes and gets into a perspiration. At the onset of the attacks her heart seems to stand still for a second, and then off it goes into a violent palpitation. The heart sounds were a little irritable, but there was no evidence of organic disease. Of course these cases do not touch the question of fainting in organic disease of the heart, though even there I think it may be said that it is a much rarer thing than is supposed. I remember having a patient of this sort under my care in Guy's Hospital some years ago, and kept him in for some time because the case was so very uncommon in this respect, but even there I was in doubt. He had definite mitral or aortic disease, I forget for the moment which, and he used to have faints; but I believe in that case the heart disease led in some way to an epileptic attack, and that it was not a state of simple syncope. People with dilated hearts may die suddenly from syncope; old people with degenerate muscle may die in like manner, but the fact remains that those who are subject to faintings are very seldom sufferers from heart disease, and it is also the outcome of clinical experience that faints of this kind are not dangerous, and need never excite much alarm for the immediate issue. Practically they occur in boys and girls and women, and are a symptom of a deranged or weak nervous system.

And now let us pass for a few minutes to peripheral disturbances, which, although we do not know much about their pathology, would yet appear to be largely neuro-vascular in their development; "vaso-motor" they are more usually called, but as I am more concerned with central causes than with local, I shall look at the affections concerned more especially from that point of view. We have heard a good deal of recent years of what has been called "Raynaud's disease"—a gangrene of more or less of the extreme periphery, whether it be of the tips of the fingers or of the toes, or of the rims of the ears. This typical or extreme form of Raynaud's disease is decidedly uncommon; but inasmuch as I do not see where to draw the line between this severe disease and a number of slighter grades, it seems to me to be a very common affection. For instance, a lady came to me this morning with some rather pronounced irregularity of her heart, and the symptom she made most of, thinking it to be an important one in relation to the heart disease she supposed she had, was that she always had cold feet. "Madam," said I, "you know the old saying, 'A cold hand and warm heart,' and if you remember that *heart* should be rendered soul or spirit, cold hand or foot means an active brain. It is never a symptom of heart disease. 'It is a good sign to have one's feet grow cold when he is writing,' says the Autocrat of the Breakfast Table." This seems to me the very mildest form of Raynaud's disease; so mild indeed that is no disease at all. And of other mild conditions that are of the same kind I would mention the thin skin and blue hands, sometimes a little swollen, that are seen quite commonly in young women, and sometimes also in children. Closely allied to these is the proclivity to chilblains; and then there are the peculiar waxy or corpse-like fingers, that are described as dead fingers. There are, besides, a number of less well-defined conditions of disturbed sensation—pain in some, numbness in others—which go to complete the picture of the disease. Now all these things are at first sight purely local, and it is of course quite possible that in the future a local pathological process may be assigned to them; but for the present the local changes are of no use to us, we cannot treat them locally, and the far more important point for recognition is that they occur in people of a certain temperament. Herein is shown one of the great difficulties of my subject, for these several manifestations that I have named probably do not occur in the same kind of person; the livid blue hands and the tendencies to chilblains occur in the lethargic neurotic, and in those in whom one may surmise that the play of nerve force is always at a low ebb, the neurosis being one of initial default. In those whose fingers die it is certainly not always so, and I think that it is more the affection of the quick-brained and vivacious. This brings me to remark, as I have not hitherto done, on the wide field occupied by the neurotic temperament. It is seen, indeed, in all sorts and conditions of mental activity—in the most logical, in the

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most impulsive, in the most emotional as well as the most unsympathetic and cold, in the strong minded as well as in those who are wanting in resolution. But all these milder forms of Raynaud's disease are found in those who are of this constitution, and the disease must be treated, not by attacking the local change, but by devoting attention to the general vigour of the system. Improve that and you will do something to better the local distress, though one cannot say that the measure of success is any great thing to boast of, or leaves us with nothing to be desired. I have said that such and such symptoms make up the picture of Raynaud's disease, but I am not sure that its connexions are not wider even than I have here indicated, for I have in my mind the case of a little child who has had for a period of many months a curious bullous eruption, that seems to be certainly due to some neurotic disturbance, for it comes on after any little over-excitement. And when I think of this case there are several conditions of the skin, notably pemphigus and its curious control, not cure, by arsenic, various pruriginous conditions, and even such pronounced conditions as psoriasis also, that are by no means without their interest in this regard. Psoriasis particularly is a disease of the neurotic; and had I time there are one or two cases from my note-books where it and distributed joint lesions have gone with general nerve tremor, such as indicated serious nervous failure, while in a few others the disease has been associated with mental failure such as threatened actual madness. One cannot, however, fail to remark that psoriasis in one respect is an exception to the rule I am preaching; for it is a disease that is best treated by local remedies.

But I must leave these questions to say a few words upon angina pectoris, a more important because more terrible disease. And I would repeat here what I said at first, that it is a little off the lines of my present theme, because, although I believe it to be a neurosis in some cases, it is nevertheless a neurosis that cannot be treated on general principles, nor can it be said that it occurs in those of a neurotic temperament to any marked extent. There was a discussion a few months ago at the Medical Society on this subject of angina pectoris, but what I have to say on the subject was said several years ago in the Guy's Hospital Reports, and is not in any way inspired by that discussion. I say this because I had independently arrived at certain opinions as the result of my own observation, and they are therefore additions to any consensus that may be in course of formation on the disease. I had it on my lips to say that I have nothing new to add to what I wrote in 1887. But I have this addition to make, that whereas I thought that there was a neurotic element in the disease then, I think still more so now, with a considerable addition to my then experience. Of late years the explanation of the attacks has all gone upon one line, that the disease is due to a rise in tension in the arterial system, and this suggestion we owe chiefly to an observation of Dr. Lauder Brunton. The late Dr. Hilton Fagge adopted that explanation, and considered the fact sufficiently established by the therapeutic results so frequently obtained from the use of the drug recommended by Dr. Brunton on the ground of his observations. But these observations were made upon a case of angina with aortic regurgitation, and I do not think they carry much weight for the general run of cases. Angina pectoris clearly comes on in some cases of advanced heart disease associated with high tension, and sometimes this is so with aortic disease, sometimes with the large and dilated heart of renal disease. But it is only quite exceptional that this result happens in these diseases, for one case with angina there are many that show no such feature; and, on the other hand, I consider that the characters of the pulse in the greater number of cases enables us to say that the arterial tension is not high. There can be no doubt that angina comes about through a number of conditions, in which the only common factor is muscular fatigue. Arterial tension will produce this; so also will dilatation; so also will badly nourished muscle, whether this be due to starvation from disease of the coronary arteries, to senile degeneration of the muscle, to fatty changes, to ptomaine-poisoning, to the circulation of uric acid in the blood, and so on. And the remedies that are so useful, nitrite of amyl and nitro-glycerine, without throwing any doubt on their power of relaxing arterial tension, are none the less also relaxors of muscular spasm and cramp. I believe it is by virtue of this power more particularly that they work their effect in the disease under consideration. This hypothesis of heart cramp consequent upon heart fatigue is one that adapts itself to all the conditions under which angina is known to occur. But I am only concerned to-night with that form of the disease that occurs without any definite structural change; with those cases in which apparently healthy men are suddenly seized with pain which may kill them within a very short space of time, and yet the heart's action may be hardly, perhaps not at all, disturbed, and the sounds are practically normal. Supposing that the attack passes off, it leaves behind it the painful uncertainty, such as hangs over the epileptic, that another may come at any time. Trousseau, with his clinical acumen, seized upon this parallel with epilepsy, and considered some cases to be of the nature of an epileptiform neuralgia, and others also of a neuralgic nature from their frequency in the gouty. There are, indeed, several features of many of the attacks that further this idea: they are often accompanied by troublesome flatulence, by flushings in the head and face, by tingling in the arms, which all remind one of the erratic performance of electric apparatus during violent atmospheric disturbances. I have suggested, too, that in the crises of tabes dorsalis and diabetes there are instances of severe abdominal neuralgia, to which this thoracic crisis or angina is in many respects comparable. I may further add that it is often associated with a very sudden bronchial storm that can only be called acute bronchitis; and although we make much of it as a distinct affection, it is closely allied with, and sometimes very difficult to distinguish from, the attacks of air hunger in their more extreme degrees that are seen in uræmia and in states of cardiac failure. These and such as these are probably all ordained from a worried nervous centre.

Now these cases of angina that exhibit a distinctly neurotic type are they that loom more largely as one's experience grows, and which enshroud the whole subject in difficulty. I look up my notes of angina, and where it was obviously due to disease of heart or kidney they are gone; but where there was no discoverable affection I could give several where the disease has been absent several years; I could give others where the recurrence has been frequent and yet no harm done, the attacks being, it is needless to say, mild ones. And then there are a very large group of cases where one remains in doubt whether the symptoms have any import of serious kind. As a good illustration of this sort I may mention the case of a man who came under my notice only a few days ago. He is forty-seven years old, and this is his tale: His father died of Bright's disease. A year ago he had much worry with the illness and death of his wife, and at that time he had an attack of paralysis of his sixth nerve. His trouble is flatulence. He fills with wind after his meals, generally some two hours after, and it not only wakes him up, but he cannot walk more than a few minutes without stopping. The wind seems to get up under his heart. If he can rest comfortably in a chair he would be free; but as soon as he gets into action, as he calls it, a fermentation seems to start, and fills the top part of his body. His complaint has upset him and made him nervous, and now if anything worries him an attack comes on. Now with all this rigmarole poured into my ear you will not wonder that I thought him a wretched neurotic, and more particularly because he clinched his doleful tale by, "Mother says we are a windy family." But as I talked to him I found that he had had bad pain frequently when out walking and on going up slight hills, and that a few seconds' rest relieves the pain; and on he goes again. He further volunteers the statement that when the pain is bad he could not move a step even to grasp a thousand pounds. Add to this that he had a very metallic and ringing second sound, and that his arteries were thick; and I ended by thinking that we had, under the garb of a rather pronounced neurotic temperament, to do with a true angina. And in relation with this case I will mention another where I made a mistake by doubts of this kind.

A lady aged sixty-one, who had had a good deal of fever in India, and who for many years had neuralgia in the ovarian region, which as it passed off was replaced by neuralgia in the head, for some months had had a great deal of discomfort in the chest and throat. She had been seen by a very eminent physician in London, and nothing but incipient asthma discovered. She had been treated by bismuth, and soda, and such like. But she got worse, and used to sit gasping over the fire at night, with a nasty pain in her chest and a choking feeling in the throat, but no palpitation. She had got decidedly better of late under strychnia and nitro-

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glycerine tablets, but she had rather a bad pain the night before I saw her. I judged her from her manner to be decidedly neurotic. She had a quick pulse, and complained of a tingling in her arms down to the tips of her fingers, but she moved about without distress or shortness of breath. The heart was evidently large and dilated; and there was a basic systolic aortic murmur of no great intensity. There was no sign in any of the viscera that the heart was failing. It seemed from all the evidence at my disposal that the heart muscle must have failed of late, and that the angina was due to this cause, and it seemed that, as she had improved under careful treatment, there was every hope that she might continue to do so. Moreover, it was impossible to be sure how much of the pain and choking sensation she suffered from was due to her neuralgic habit. Altogether I judged she might move about a little more and take her tablets of nitro-glycerine a little less, for I was rather afraid that she might get her nervous circulatory and muscular systems, whichever of these was acted upon by the remedy, into an unstable or oscillatory condition that might render her recourse to such means of too frequent occurrence. I know not what extent of freedom she considered my advice warranted, or even if she had acted on it in any way; but, anyhow, it clearly tended in the wrong direction, and three or four days after I saw her she was suddenly seized with a bad attack of pain on retiring to her room at bedtime, and she died.

The remedy for the anginal paroxysm is unquestionably nitro-glycerine or nitrite of amyl, and perhaps in so terrible a disease, and one in many cases of which it will ever be difficult to say whether any structural change is at the bottom of it or not, it may seem unwise to go behind the fact that we have a drug that in most cases has a decided power. But it is not really so, because no thoughtful man can have seen many of such cases without having often asked himself the question whether he is doing the best for the patient by keeping him from all exertion and telling him to consume a tablet when his pain threatens. And this much is certain, that, control it as much as the remedy may, it is in a fair proportion of cases only controlling a symptom, and the cause of it is deeper. In my opinion, then, angina sometimes constitutes a disease for which the gastric crises of locomotor ataxy and diabetes afford the nearest parallel; in others, perhaps, the condition of calf cramp comes nearest to it in likeness. In the one it may possibly be due to the uric acid diathesis, in others to the explosive nervous discharges that are well known to take place in the worried and overworked. I must not take leave of the subject of angina, though, without alluding to that always to me curious and interesting affection of women—the common and well known pain in the left side. Has it or has it not anything to do with the true disease? It would appear to be a very troublesome affection; it lasts so long and is so difficult entirely to displace. It is curious that it should occur so seldom in men, but one may suppose that this has to do with the associated anæmia with which it so commonly occurs, and which in anything like a corresponding degree is so seldom seen in males. And the fact that it does so occur in anæmic women only is perhaps an evidence in favour of it being something of the same kind as the true disease, for if, on the one hand, we consider angina as a condition due to fatigue, we have in these women the bloodless condition best suited for its easy production; if, on the other, we like the better the neuralgic origin, we have, too, under such circumstances, all the elements that seem best fitted for the calling out of the pain, and abundant evidence that it is the parent of any number of neuralgic affections. But whether this pain in the left side be related to true angina or not, it is quite certain that, except there be a probable cause for it in the existence of cardiac disease, true angina never occurs in young women; and when I consider that I have several times been asked to see young people supposed to be suffering from this serious disease, I imagine that the fact is not known so widely as it might be.

These constitute, I think, the most prominent circulatory conditions that can be fairly contended to be due to neurotic outbursts. But there are others of which, had I time, I should have liked to have given what evidence there may be in favour of a nervous fault of some kind being at the bottom of them. And of these other states I should have most to say, perhaps, in favour of the neurotic element in chlorosis. We are all familiar with the fact that severe shocks occasionally produce a sudden and bad form of anæmia; that observation is as old as the hills. But I think I could show that chlorosis is a disease that occurs in families, that it is associated with well-marked vagaries of nervous action, and that it is a disease that dogs the patient and is liable to relapse from time to time. I cannot, however, pursue the subject here, for I must in the next lecture pass on to consider the abdominal neuroses.

Clinical Lectures
ON
STRICTURE OF THE ŒSOPHAGUS,
WITH FOURTEEN ILLUSTRATIVE CASES, IN FOUR OF WHICH GASTROSTOMY WAS SUCCESSFULLY PERFORMED.

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LECTURE II. (*Concluded.*)

THE diagnosis of organic stricture is usually easy. In this disease the points to be considered are similar to those laid before you in discussing the diagnosis of cancer of the gullet, so that I need not now repeat what I then said. The history of injury, followed immediately by painful deglutition, which after a few days or weeks passes off, and is, at a more remote date, followed by a steadily increasing dysphagia, unassociated with pain, hæmorrhage, or enlargement of lymphatic glands, points to organic stricture. In many cases, however, a clear history cannot be made out. The patient may have injured himself while under the influence of alcohol, during an attack of insanity, or for suicidal purposes, under which circumstances no definite history can be had, or the injury may have been received so long ago as to pass from the memory of the patient. Again, it must not be forgotten that injury may lead to carcinoma, as well as to cicatricial stricture, but as a rule it is protracted irritation—for example, the repeated swallowing of strong alcohol—that brings on malignant disease, whilst transitory and severe irritation produces a cicatricial stenosis. The absence of pain, of hæmorrhage, and of enlargement of the lymphatic glands is, as a rule, a most important indication that the stricture is traumatic rather than malignant. But while this is so you will not uncommonly meet with cases of carcinoma where, during almost the entire course of the case, not one of those symptoms is present. The history of the case, the age of the patient, the character of the dysphagia and of the discharges, usually lead you to a correct diagnosis.

Tertiary syphilitic disease may cause dysphagia either by the formation of a gumma or by the contraction of an old cicatrix. Two years ago a gentleman came from New Zealand to consult me regarding a marked difficulty he had in swallowing, and on inquiry I found that the dysphagia had developed slowly and steadily during the previous five months, and was unassociated with pain except on swallowing. There had not been any hæmorrhage, and until recently he was able to swallow semi-solid food. On examination I found a swelling behind the larynx, which pushed that structure forwards and to the left side, but did not interfere much with respiration or phonation. On passing a round No. 10 bougie a distinct obstruction was found behind the larynx, but the growth seemed to me to occupy the posterior wall of the gullet only. This circumstance made me inquire more carefully into the history of the patient, who informed me that he married immediately before leaving this country twenty-five years ago, that he had a large family, and that he always enjoyed perfect health. After much difficulty I succeeded in collecting facts which proved to me beyond doubt that four years before emigrating he suffered from a hard chancre, but after the first eighteen months he suffered from no constitutional symptoms until the growth in the œsophagus formed, and which I diagnosed to be a gumma. The patient was

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placed upon mercury and iodide of potassium, and within six weeks the growth disappeared. This is the only case of syphilitic disease of the œsophagus I have seen.

Only a few words require to be said regarding spasmodic stricture of the gullet. This disease is neither so serious nor so common as the lesions we have been considering up to the present time. You have not seen a pure and simple case of spasmodic stricture of the œsophagus during the present session, but you have observed two cases in which cicatricial constriction was associated with contraction of the muscular structures. And here I may observe that I question very much the existence of spasm of the fibres of the muscular coat in an otherwise healthy œsophagus. In the examples of this disease which I have had the opportunity of observing, the lesion seemed to me to be very similar in its pathology to spasmodic stricture of the urethra; that is to say, the spasm was partly induced by undue local irritability, and partly by the temperament of the individual.

CASE 13.—In February of 1890 a very instructive and interesting case came under my notice. A man about twenty years of age consulted me, and stated that six weeks previously, while dining with a friend, a spoonful of soup which he had swallowed was suddenly and forcibly ejected from his throat; on again trying to swallow he found it impossible to take either fluid or solid food, but in the course of the evening he was able to enjoy a good meal, without any difficulty in swallowing. From that time till I saw him he complained of more or less dysphagia every day. On some occasions it was slight and could be easily overcome, while on others he experienced a complete inability to take any kind of food, or when he did succeed in forcing diet into the œsophagus, the bolus was immediately expelled with considerable force. He found that when he took food in company with others that he was more likely to suffer from dysphagia than when he took his meals alone. These attacks as a rule came on towards the end of a meal. When I saw him for the first time he was much excited, so that it was with the greatest difficulty I made a satisfactory examination. On passing a large and firm bougie I found it could be easily introduced into the œsophagus; but when it reached a point ten inches and a half from the teeth it met with a very marked obstruction, which, however, was overcome by steady and continued pressure. At a subsequent visit I introduced a small-sized gum elastic instrument. It detected an obstruction at the same point, but immediately the bougie was ejected and thrown into a coil in the pharynx. I then passed a larger and firmer bougie, and as soon as it reached the obstruction I released my hold, when the œsophagus forcibly and quickly contracted so as to throw the instrument out of the patient's mouth. The man was then placed under chloroform, and an examination was made with the electric œsophagoscope, when I found at a point corresponding to the site of obstruction an inflamed area about an inch in length, but free from ulceration. I kept the patient in bed, and directed that he should have only barley water, milk, and soup by the mouth, supplemented by nutrient enemata. Within three weeks he could swallow without any attack of dysphagia; on the twenty-ninth day after the treatment was commenced I could pass a full-sized bougie without finding any obstruction, and since then the patient has enjoyed perfect health.

Spasmodic stricture is not frequently observed in men; as a rule it occurs more commonly in the female. This disease is frequently met with in young women between the ages of twenty and thirty; but it may be seen in persons under these ages or even later in life. It is not infrequently associated with nervous affections, such as epilepsy, chorea, hysteria, or dyspepsia, intestinal worms, tetanus, hydrophobia, and hypochondriasis, or it may be induced by uterine and ovarian disease, or associated with gout and rheumatism. You will therefore observe that it is not only necessary to consider the symptoms of local disease, but it is also imperative to inquire into the general health of the individual, and determine whether the patient is the subject of any other lesion likely to induce, either directly or indirectly, spasm of the gullet.

The statements of patients suffering from this disease must be received with caution, as they almost always greatly exaggerate their suffering; and although they inform you that they have been unable to swallow any food for days or weeks they almost invariably are well nourished, presenting, therefore, a very different appearance from those who are affected with organic or malignant stricture. While by themselves, such patients usually succeed in taking a good meal, but if watched, or even in the presence of others, they fail to swallow food. From what I have already said you can have little difficulty in distinguishing this disease from those previously brought under your notice. The symptoms occur in excitable subjects, the dysphagia comes on in paroxysms usually in the middle or towards the end of a meal. Food is regurgitated with force immediately after swallowing, the point of obstruction varies from time to time, and when a bougie is passed and steady pressure exerted the stricture is overcome, or the instrument, if relieved, is forcibly ejected; there is no emaciation or cachexia; pain is not complained of as a rule, unless when a bougie is being passed, nor is there any enlargement of lymphatic glands.

Having laid before you the various diseases and the methods of distinguishing the one from the other, I may now ask you to consider the general question of prognosis in cases of stricture of the œsophagus. The prognosis in cases of carcinoma depends upon the nature and situation of the disease. If no operation be performed for the relief of the patient, then the great probability is that he will die from starvation sooner or later, according to the situation of the primary disease. When the tumour originates in the upper part of the gullet, complete dysphagia may develop within a few weeks of the onset of the first symptoms, and the patient may succumb after only perhaps two months' illness. On the other hand, carcinomatous disease of the lower end of the gullet may run a very slow course, so that the patient may live for many months. Again, cases of scirrhus are as a rule more chronic than those of epithelioma or soft cancer; and, indeed, as I have demonstrated in the cases shown to you, the progress of the first-mentioned variety of cancer is far from rapid. In some instances—as, for example, in Case 7—considerable improvement may take place as a result of rest to the parts after gastrostomy, the rest permitting inflammation and spasm to subside, or, as in Case 5, the power of swallowing may improve as a consequence of ulceration and sloughing of the tumour. When the latter condition is developed new dangers present themselves—namely, rupture of the œsophagus into the surrounding parts. Cases have been recorded where communications have been established between the gullet and the posterior mediastinum or the peri-œsophageal adipose tissue in the neck, where inflammation of a more or less serious character has resulted therefrom. But in the great majority of instances, on account of the chronic local irritation, adhesions form, which unite the gullet to the neighbouring organs. For example, in the cavity of the thorax the œsophagus may become bound to the pericardium, pleura, air passages, or to the great bloodvessels, into any of which structures rupture may take place. I have already shown you an instance (Case 5) where rupture occurred into the aorta, and resulted in fatal hæmorrhage, and on the table I have four specimens, three of which I placed in the museum. These illustrate how death may be caused by a communication being established between the œsophagus and the air passages. In the first specimen the epithelioma occupies the œsophagus at the level of the bifurcation of the trachea, and led to acute inflammatory changes in the lungs, the apices of which were softened and completely destroyed, while the pleuræ were adherent. The second case is very similar. The tumour occupies the same position. The œsophagus is completely destroyed by gangrene for a distance of about two inches, and the left lung was, at the post-mortem examination, found to be also gangrenous. The third case is one of special interest, as the first stage of gastrostomy was performed by me previous to the occurrence of rupture.

CASE 14.—The patient, H. P——, aged sixty-six, a warper, was admitted to the Glasgow Royal Infirmary on May 18th, 1888. He stated that about six months previous to admission he became affected by a cough, which was spasmodic and very irritating, but unassociated with much expectoration. Up till the time of admission this cough has been present without cessation, and during the last three months the patient has had considerable difficulty in swallowing. This dysphagia has daily increased. At first he experienced difficulty in swallowing solids, and afterwards in swallowing semi-fluid food, but now even simple fluids, such as milk or soup, pass into the stomach with difficulty. The patient has always enjoyed good health, has not suffered from specific disease, nor does

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he know of having sustained any injury to the gullet. On passing a bougie into the œsophagus an almost complete obstruction was discovered fourteen inches from the teeth. On account of the situation of the stricture—namely, the bifurcation of the trachea—it was considered advisable to make a critical examination of the chest, in order to discover whether or not the obstruction might possibly be due to the pressure of an aneurysm. I asked my colleague, Dr. Gemmell, to make a physical examination, and he assured me there was no positive evidence of aneurysm. I then endeavoured to pass a small-sized bougie, and after some difficulty succeeded in pushing a No. 8 through the stricture. On June 13th the difficulty in swallowing had so increased that it was evident that unless a radical operation was performed the patient would speedily succumb. After a consultation with my colleagues, it was agreed that gastrostomy should be performed immediately. I therefore operated in the same manner as in the foregoing cases, and nourished the patient by nutrient enemata and suppositories. After the operation the patient was able to swallow small quantities of milk without much difficulty. During the first twenty-four hours he seemed to gain strength, but on the second evening it was noticed that when he swallowed milk or other fluids they immediately caused an attack of coughing, during which the food was expectorated. This change suggested rupture into the trachea, and prevented the administration of food by the mouth. On the third day after the operation symptoms of acute bronchitis developed, and the patient was so weak that little hope was entertained of his recovery, and on the fourth day he died from collapse, associated with considerable difficulty in breathing. At the post-mortem examination an epithelioma of the œsophagus was found at the level of the bifurcation of the trachea. The surface of the growth was slightly irregular, and its lower and upper margins overlapped the healthy mucous membrane. The œsophagus was firmly adherent to the aorta, to the trachea, and to the bronchial tubes, and there was a rupture large enough to admit the little finger between the gullet and the left bronchus. This perforation was evidently of very recent origin, its edges being soft, irregular, and sloughing. No secondary formations were discovered.

The fourth case was placed in the museum by my predecessor, the late Dr. David Foulis. It is one of epithelioma of the œsophagus ulcerating into the right pleura. The preparation shows the lower part of the œsophagus, the cardiac orifice of the stomach, and a portion of the liver. The lower part of the œsophagus is occupied by a tumour which involves the entire circumference of the tube, and presents an extremely irregular and somewhat warty surface. The tumour occupies about three inches and a half of the length of the œsophagus, its lower margin being about two inches above the cardiac orifice. But just beneath the lower termination of this main tumour there is an isolated globular mass (seen in section) which projects into the tube, and is attached by a comparatively narrow base. Towards the right side the surface of the general tumour presents ulceration, and here a direct communication exists with the right pleura. In the specimen a portion of the pleura is preserved, and the aperture is shown, the pleura being held on the stretch by a piece of whalebone. On examining this pleura before any of the contents of the chest had been disturbed, it was found to contain a grumous fluid with the sour odour of the contents of the stomach, while the surface of the membrane was coated with soft lymph. The tumour in the œsophagus presented the structure of epithelioma, and the same form of disease was found in numerous lymphatic glands. The liver also and the kidney contained a few secondary formations. The history of the case, which was under Dr. Perry, shows that symptoms of difficulty of swallowing, and pain began about five months before death. A violent pain attacked the right side of the chest two days before death, and auscultation detected the usual signs of pleurisy.

These cases illustrate sufficiently the mode of death otherwise than by starvation. I have, however, collected the statistics of 566 cases of carcinoma of the œsophagus, with the following result respecting the cause of death:—

Collapse and exhaustion	390
Inflammation of lung, including gangrene ...	91
Pleurisy	53
Peritonitis	17
Perforation into heart or bloodvessels	15
	566

The prognosis in benign tumours of the gullet depends upon the position, size, and rapidity of growth of the neoplasm, and whether or not it can be removed by operation. When situated high up it may be cut off or ligatured, or if pedunculated and soft, the parasol-probang may dislodge it. But should the tumour be situated so as not to be capable of removal, then, in expressing his views as to the prospects of the patient, the surgeon must consider the situation of the growth and whether or not it is likely to interfere with other functions than those of swallowing. When the growth is slow, usually compensatory dilatation of the œsophagus occurs. The prognosis in cicatricial stricture of the œsophagus depends upon the extent of the stenosis and the period at which the patient is seen. Unfortunately, the tendency is for patients to delay seeking advice till the gullet is almost completely closed, and then not infrequently the obstruction is so great that it is almost impossible to dilate with bougies. The most difficult cases to deal with are those of attempted suicides who have swallowed strong mineral acids. In such instances the patients delay asking advice till the very last, and usually the injury is very extensive and the stenosis intractable. When the poison is taken by accident the quantity swallowed usually is much smaller, and the stenosis more limited. Before forming an opinion as to the ultimate result you must also inquire whether there is more than one stricture, and ascertain their situation. When a bougie, even a small one, can be passed the prospect of ultimately dilating the stricture is considerable, but if no instrument can be got through, the danger to life is very considerable. When it is ascertained that the organic stricture is incurable, then resource must be had to gastrostomy. It is in these cases that this operation is most successful if performed sufficiently early. Cicatricial stricture may exist for many years before the patient succumbs to inanition. The narrowing of the gullet may take place slowly, and in order to overcome the greater difficulty in swallowing a gradual hypertrophy of the muscular fibres occurs above the constricted point. Therefore the muscular force being increased, the patient may succeed in taking nutriment through a very small passage. The whole question of treatment now comes to be considered, but this I leave to our next meeting, which we shall devote entirely to the subject.

THE BEARING OF RECENT BIOLOGICAL RESEARCHES ON THE PRACTICE OF MEDICINE AND SURGERY.

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(*Continued from page 188.*)

IN several recent papers, especially those from the pens of Metchnikoff, Ballance, Sherrington, Ziegler, Burdon Sanderson, and Ruffer, many interesting facts bearing on the healing of wounds have been recorded. These facts have been interpreted by different observers according as they were biased in favour of the greater importance of chemotaxis or phagocytosis in the setting up of inflammatory processes. Whatever may be the explanation given of these facts, they are placed on record for each to draw his own conclusions, and, without going into detail, we may give in a summarised form some of the more important of these observations, especially as they bear on the process of healing.

It is well to bear in mind that the process of repair, whether in the healing of ulcers, the making good of ruptured muscle, or the union of the fractured ends of bone, is essentially the same; the appearances and results, however, being considerably modified according to the amount of tissue lost, and also according to the amount of extraneous or temporary supporting material that is thrown out into or left in the wound—material which may serve as a scaffold for the support of the true organising tissue by which it is ultimately absorbed. Further, according to the amount of stimulation or external irritation the healing process may be considerably modified, so that we may meet with all intermediate stages from heal-

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ing by first intention to healing of an ulcerated surface by granulation. We know, for example, that if a clean incision with a sharp knife be made into soft tissues, the hæmorrhage be allowed to cease, and all blood be carefully sponged away before the two surfaces are again brought into apposition and then kept there by gentle pressure, in the course of a few hours the wound is so far healed that it requires some little effort to again open it up, and in three or four days healing may be almost complete. In such a case the amount of lymph thrown out is exceedingly small, just enough to form a glazing over the cut surface; there is little distension of the blood vessels, and the surfaces are only slightly redder than normal; so that if the film of coagulated fibrine is merely sufficient to keep the lips of the wound in temporary apposition, the process of organising can go on under the very best possible conditions. The less lymph there is to be removed by the leucocytes—the fewer vascular changes we find at the seat of operation, the less bridging across the connective-tissue cells and the embryonic bloodvessels have to do—the shorter is the time required for the process of organisation and healing. Any method that the surgeon can devise to bring about the conditions above mentioned will favour more rapid and at the same time more perfect results. If Metchnikoff's phagocytes have taught us nothing else, they have brought into prominence the all-important fact that before repair of any kind can go on in the body all injured and dead tissues must be removed. If they are not removed by the surgeon, or are actually brought into existence by the surgeon's knife or by his rough handling or injudicious use of chemical substances, they will be removed by a force of scavenging phagocytes that will be brought up for the purpose, and until these have done their work the process of repair cannot be completed; for suppuration, whether in a wound on a small scale or in an abscess on a large scale, is the result of an attempt on the part of the organism to free itself of materials that are interfering with the process of repair. We now know that this suppuration was by the older surgeons looked upon as a good, healthy process, because by its presence it affords evidence that the tissues of the patient, as represented by the leucocytes, are still able to react, and are setting up a barrier against the invasion of foreign matter at the same time that they are endeavouring to get rid of it. Theoretically, of course, there can be no healing without inflammation, because no incision can be made into the tissues without some parts being injured and bruised, even when the incision is made with the sharpest of knives; but this inflammation, with its vascular and connective-tissue changes, may be kept within such limits that we say inflammation is practically absent, its manifestations are so slight. These considerations have led surgeons to exercise infinitely greater care than they did at any previous time in the treatment of any parts on which they have to operate. A blunt knife is rejected not merely because it interferes with the neatness of the operation, but because the bruising of the tissues caused by the blunt edge, as compared with a keen blade, may make all the difference between healing by first intention and a prolonged and tedious process. Any rough handling of delicate tissues, any squeezing with forceps, any bruising of muscle or of connective tissue when prising out fragments of bone, are now carefully avoided because the surgeon is satisfied that the more these tissues are injured so much the less able are they to perform their regular work, so much the more do they become effete, and so much the more do they require to be removed by an exaggeration of a normal process—an exaggeration which merges into or constitutes a process of inflammation.

It was at one time held, first by Cohnheim and later by Ziegler, that leucocytes are the all-important factors in the process of repair, that not only do they remove dead material, but that from them are formed the new tissues by means of which any gap is filled up. This doctrine, at one time so popular, and still accepted by many, was very keenly combated by several observers abroad and by D. J. Hamilton in this country more than a dozen years ago, who held that the leucocytes simply play the part of scavengers and feeders, and that the actual process of organisation is carried on by larger cells, which result from the proliferation of connective tissues and other cells. Returning to our collection of pus cells—which are really leucocytes that have succumbed during the active scavenging process,—if it be not of large size it must be ultimately absorbed, and in this process of absorption we find that another factor comes into play. Leucocytes at the margin—that is, those that have come directly from the dilated vessels—do part of the work, but the main bulk is carried on by the larger connective-tissue cells, which after some time (that is, much more slowly than leucocytes can be brought up) proliferate where foreign bodies or irritant materials of any kind are present. The wall of an abscess in such a stage may be looked upon as a granulating surface, similar in many respects to that of an ulcer throwing off dead cells, the vascular loops, with the appearance of which all are familiar, the exudation of leucocytes, the proliferation of connective-tissue cells are much the same on any healing surface; but it is specially on the presence of the proliferating connective-tissue cells that healing depends after the pus has been evacuated or absorbed. The leucocytes may play a very important temporary part, as we have

FIG. 1.



Engraving of a healing wound of stump about fifty hours after operation (× 75). Near the surface (*a*) is a mass of detached epithelium mixed with blood and fibrinous lymph. Beneath this (*b*) to the left of the lips of the wound the epithelium is seen. The dark band (*c*, *e*) marks the line of incision, and is due to the presence of an enormous mass of blood pigment, much of which has been taken up by microphages or small leucocytes; whilst at certain points some larger cells, macrophages (not seen in this illustration), contain masses of pigment and small cells in various stages of degeneration in which in turn pigment may still be seen. The larger black patches (*d*) represent masses of blood pigment, with here and there some shrivelled or degenerating red blood-corpuscles. The small black points represent leucocytes, which are present in increased numbers only where the pigment is to be removed in order that the healing process may be completed.[1]

already seen; but the connective-tissue cells, whilst continuing the scavenging and helping to remove the leucocytes that have already played their part, ingesting them, and utilising them as food, have a further work to do. They form not only the new connective tissue, but also the embryonic bloodvessels, the new bloodvessels being apparently nothing more than tubes formed of large connective-tissue cells of the endothelial type.[2]

Growing from the cells which actually form the walls of the minute vessels, or from cells immediately surrounding

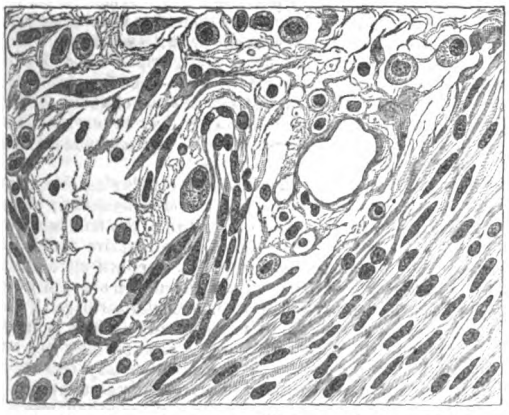
[1] The drawings of the engravings illustrating this paper have been made for me by Mr. Richard Muir, to whom I am greatly indebted for the extreme accuracy with which he has transferred to paper the appearances presented under the microscope.

[2] The mere mechanical protrusion of vessels on unsupported surfaces may be an important factor in vascularisation, but there are certainly other and even more important processes which can usually be followed out near the surface of a healing wound.

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them, there may frequently be observed single rows or small columns of cells which appear to shoot outwards into the fibrinous lymph; into these columns the blood usually makes its way, as a channel or lumen is formed between which and the original vessel communication is maintained or set up. In some cases these new vessels appear to grow outwards and the proliferation to take place always a little in front of the advance of blood, but in others it appears as though a single row of cells is formed, and these, proliferating, form a more complete column, which gradually opens up to receive blood. It is scarcely necessary to follow out the healing process further, as it is with the points here mentioned that we have specially to deal; but we may point out how intimately inflammatory and healing processes are bound up one with another, and how every step in the process is merely preparatory to a succeeding one, and that in many, or even in most, cases temporary makeshifts are resorted to in order that the way may be prepared for the formation of more permanent structures. First, there is the dilatation of the bloodvessels, accompanied by softening of the cement substance between the endothelial cells and emigration of leucocytes (probably through

FIG. 2.



Engraving of a growing new vessel in a granulating wound (× 450). In the middle of the illustration is seen a channel composed of flattened cells derived apparently from connective-tissue cells. Above and to the left the spindle-shaped cells and the large macrophages (or plasma cells, as they are sometimes called), each with a single nucleus, are well seen. A few leucocytes may also be seen. The method of formation of the bloodvessel from the advancing row of connective-tissue cells is well seen.

this softened cement substance) and effusion of serum, all this resulting from some injury or irritation to which the tissues are subjected, the various processes at this stage appearing to be associated with the checking or counteraction of the presence of irritant or foreign bodies. When these exudations have done their work and have localised the area of action of the irritant or injury, and have formed a sharp line of demarcation between the healthy and the abnormal tissues, they have no longer any function to perform; they in turn become foreign bodies, and as such must be removed. Acting as foreign bodies and along with the other irritants present, they induce proliferation of the fixed connective-tissue cells, a proliferative process which is not confined to the endothelial cells of the lymphatics, but is also participated in by the endothelial cells that form the walls of capillary vessels. It might at first sight appear that the accuracy of the observations as regards the proliferations of the endothelial cells of the capillaries can scarcely be relied upon, and that little corroborative evidence has yet been brought forward in support of such accuracy; but we have not far to seek for collateral evidence of a very important nature, though such evidence is not often quoted in this connexion.

It is a matter of common observation that in certain conditions of the lung and kidney where we have irritant material circulating in the lymphatics and setting up proliferative changes in the connective tissue, the more marked these changes are in the adventitia of the vessel—that is, in its connective tissue sheath,—the more likely are we to find proliferation of the cells of the intima, with in some cases a shooting of vessels into the new cellular mass. The processes in the outer and in the inner coat go on simultaneously, and we have endarteritis obliterans associated with connective-tissue proliferation around the vessels. Of course it will be objected that the irritant material acts on the intima and on the connective tissue from different points, and that when tissues are stimulated in this slow chronic fashion, they proliferate and give rise to the changes we have described. It must be pointed out, however, that the results are identically the same; in both we have a cellular connective tissue, and in both young bloodvessels are formed just as at the surface of a granulating wound, and the endothelial cells in the bloodvessels, whether large or small, react as do connective-tissue cells, whether these be in the adventitia of a vessel of considerable size or in the new granulation tissue surrounding the capillary vessels. In no case can any transition from a leucocyte to a connective-tissue cell be observed; the leucocytes are phagocytes and little else, though, as we shall find, they probably play a most important part in nutrition, a part which only in recent years has been assigned to them. The connective-tissue cells, on the other hand, have an all-important part to play in the building up of new tissues in addition to their functions of metabolism. It may be, of course, that this distinction into leucocytes and fixed connective-tissue cells is, after all, somewhat artificial, as the differences in character may he only temporary, and may be due merely to the different conditions under which they are compelled to exist and proliferate; but whether the distinction be artificial or not, there remains the fact that we have these marked differences, and that in any case it would require a considerable time for these various cells to become transformed one into the other. There can be no doubt, of course, that the connective-tissue cells under the stimulus of certain irritants proliferate rapidly, their usual appearance is somewhat departed from, and we have what Virchow would call a "metaplasia." Then, again, all that we know of the source of a true leucocyte would lead us to suppose that these in turn are derived by a process of proliferation from endothelial cells, very similar in structure to the large endothelial cells that we speak of as fixed connective-tissue cells, but the fact still remains that we have these important differences.

This brings me to an exceedingly interesting and suggestive line of thought that has been opened up by Ruffer[3] in his paper on the Phagocytic Action of the Lymphoid Cells of the Intestine, by Gulland[4] in his paper on the Development and Structure of the Tonsils, and by Stiles on the Structure of the Axillary Glands.[5] We have already seen that under ordinary conditions there is an accumulation of leucocytes and a proliferation of connective-tissue cells at any point where effete matter has to be removed or foreign matter got rid of. We also know that the development of an organ or part is always followed by the development of lymphatic glands along the line of lymphatics leading from it, a development that appears to be due to the necessity that there is for the destruction of an increased amount of effete matter. Even in these glands it will be found that the two kinds of cells—that is, those large branching cells lying on the reticulum and the smaller lymphoid cells found in such numbers in the free spaces—are essentially different, and may be compared to the two kinds of cells met with in the healing wound. Here each kind of cell has its own function; but so far as we can see under ordinary circumstances the lymphoid vessels are primarily concerned in the taking up and dispersion of the substances brought to the gland by the lymphatic channels. It would appear that they do the rough work of "secondary" digestion, and that through their assistance the larger cells are enabled to go about their work leisurely and to do it efficiently. This would bring the development of the lymphatic gland into much the same category of process as those met with in a healing wound, the only difference being that in the one case we have an irritant that is applied over a considerable area and indiscriminately to all the tissues in that area; whilst in the other we have the irritant brought up by a distinct channel, by the walls of which its action is confined strictly to definite areas and tissues—i.e., those to which it is distributed

[3] Journal of Microscopical Science, Jan. 1890, and British Medical Journal, Aug. 30th, 1890.

[4] Reports from the Laboratory of the Royal College of Physicians of Edinburgh, vol. iii., 1891.

[5] Demonstrated before the Edinburgh Medico-Chirurgical Society, Dec. 1891.

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from this channel. If now we look upon this channel as breaking up into a capillary network—the capillaries of which are the spaces between connective-tissue or fat cells,—and suppose that it acts as an irritant, as in a healing wound, the development of a lymphatic gland, with its lymph follicles, its delicate reticulum, its slowly proliferating endothelial cells and its accumulation of lymphoid cells is comparatively easily explained. The enlargement of this gland under increased irritation, the enormous proliferation of both kinds of cells in such conditions as typhoid or septic irritation, and the like, and the actual suppuration that occurs when these processes are very intense are readily understood. The more we think over the matter the more are we struck by the similarity of the processes above-mentioned, and the more does it appear necessary that the development of the lymphatic gland should be studied in order that its importance in the economy in the localisation of disease may be appreciated. The time has now gone by for connective tissues to be looked upon merely as padding and support, or even as tissue in which fat may be accumulated and leucocytes formed. These connective-tissue cells along with the leucocytes play a far more important *rôle*. Various metabolic products have been found in them, and the liver is gradually being ousted from its high place as the great metaboliser of the body, and its place is being taken, in part at any rate, by the connective-tissue cells and leucocytes; whilst it is further acknowledged that even where the liver is allowed to retain any metabolic function it is often merely to complete work that has already been commenced by the tissues of which we have spoken, and that so far its functions are excretory rather than secretory. In making such statements as these one must be extremely guarded lest functions of which hitherto we have had too exalted an opinion should now have too little importance attached to them. At present, however, there is little enough danger of the mesoblastic tissues being promoted to too prominent a position, especially if it is to be at the expense of the liver. Certainly the connective-tissue cells and leucocytes have much more in common with those of the liver than is often admitted; whilst the greater the degeneration of liver cells in any disease, the nearer in most cases does it approximate in its functions the active connective-tissue cells. In both kinds of cell we find that fat may be stored up, such fat apparently in most cases being derived from the splitting up of proteids or other substances containing the fat molecule that are brought from without. We have the protoplasm of the liver cell remaining almost intact, just as does the protoplasm of the connective-tissue cell. It, along with the nucleus, which retains the greater part of its activity, is simply pushed aside, and on the absorption of the fat resumes all its previous activity. The liver cells, too, have the power of taking up pigment derived from the blood, and in normal conditions of breaking it up rapidly, and probably of excreting the products into the bile-ducts in the form of bile-pigment. Where, however, as in chronic venous congestion, their nutrition is interfered with we find not only breaking down of the liver cells due to the internal metabolism or the conversion of their own protoplasm into fat by the breaking down of its own proteid substance; in such cases we also find that pigment accumulates in these cells, pigment that is not readily got rid of, and which remains in them just as pigment remains in degenerating connective-tissue cells or leucocytes.

(To be concluded.)

CHRONIC TRAUMATIC ARTHRITIS.

By W. ARBUTHNOT LANE, M.S.,

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My object in writing this paper is to make another attempt to separate from the several groups of conditions comprised by the terms "rheumatoid arthritis," "rheumatic gout," "osteo-arthritis," "arthritis deformans," &c. one which is very definite in its history, clinical symptoms, and pathology. As far as I know, no author has recognised this class as a separate one, while pathologists do not pretend to make any such distinction. As its causation is entirely mechanical, I would suggest for it the term "traumatic arthritis," to which I would add "chronic," for the reason that the condition develops slowly, and when once produced it continues to progress during the lifetime of the patient. Some objection may be urged against the universal appropriateness of this term, since the condition to which I wish again to call attention does not always arise from the severe contusion of the joint as the result of a *single* injury; but it may, and frequently does, come about in consequence of the excessive use of a joint, or of any alteration in its normal anatomy and physiology, by means of which pressure is transmitted habitually from one bone to another in an abnormal manner; or it may result from a joint being called upon to sustain and transmit an amount of force greater than the particular human organism was evolved to support. In a paper in the Transactions of the Pathological Society, 1886, entitled the "Causation and Pathology of Rheumatoid Arthritis and of Senile Changes," I showed that the very large proportion of the pathological changes which are regarded as evidence of the so-called disease "rheumatoid arthritis" depend for their production upon factors which are simply mechanical. The careful clinical study of the conditions comprised under the term "rheumatoid arthritis" &c. by recent observers[1] has resulted in the differentiation of two distinct groups of joint diseases—one, namely, rheumatoid arthritis, in whose causation rheumatism forms no part, and whose symptoms are very complicated and by no means limited to the changes in the joints, and the other rheumatic arthritis which results solely from rheumatism. To these two groups I would then add a third—chronic traumatic arthritis,—and I would urge that while it forms a not inconsiderable share of what is clinically regarded as rheumatoid arthritis &c., it provides almost solely all the conditions which in our museums are represented as specimens of that disease.

I find that in the dead body the following changes are almost universally supposed to be characteristic of that vague condition rheumatoid arthritis, the term being here used in its older and more comprehensive acceptation, namely:—1. Removal of articular or inter-articular cartilage. 2 More or less destruction and eburnation of opposing surfaces of bone deprived of their articular cartilage. 3. The formation of cartilage, or more usually of bone, upon the margins of the articular surfaces altering their form and increasing their area. These growths may occasionally extend into the ligaments or less frequently develop primarily in them. To these changes the terms "osteo-phytic growth," "lipping," &c., are applied. 4. Hypertrophy of the synovial membrane so as to form more or less abundant masses or fringes consisting of branched pedunculated processes, which in some cases contain much fat, and in others small masses of cartilage or bone. These occupy the varying intervals between the altered articular surfaces, and often secrete an abnormally large quantity of synovial fluid. This may be so abundant as to distend the capsule and to cause much relaxation of ligaments. It is highly probable that these or similar changes may be found in patients who have been affected for many years by either of the groups of rheumatoid or rheumatic arthritis. They must come but rarely under the observation of the pathologist, and they are represented hardly if at all on the shelves of our museums.

I will now proceed to illustrate briefly the several conditions to which I would apply the term "chronic traumatic arthritis."

A man, past middle age, falls heavily upon his side, striking the great trochanter with much force. In consequence of this injury he experiences much local pain in the hip-joint, which is aggravated by movement of it. If the legs be measured they are found to be of equal length. The patient finds that after the injury his leg is not so reliable as it was before, that the movement of complete flexion of the hip-joint is accompanied with discomfort at first, and later with pain, so much so that any movement of the joint is avoided as much as possible. He also suffers discomfort or pain in the joint in damp weather, or during the cold east winds. I believe that it is the similarity of this pain to that felt by rheumatic patients that has led clinical observers to include this traumatic condition among those classified under the old headings of "rheumatoid arthritis" &c. I need hardly point out that after any injury to a bone, such as fracture &c., the sufferer often complains of the same kind of pain under the same atmospheric conditions. After a time the patient notices that the damaged

[1] Osteo-arthritis: Kent Spender. Rheumatic Diseases (so-called): Hugh Lane and Griffiths

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leg has become shorter than its fellow, and actual measurement shows that this is the case. This shortening increases during the life-time of the patient if he continues to throw his weight upon the articulation. The joint becomes progressively less secure, until at length the weight of the body cannot be supported by it at all in many cases. Soon after the receipt of the injury grating can be felt on flexing or extending the joint, and this sensation becomes more marked as time goes on. If such a joint be examined after death, the head of the femur and the acetabulum are found to be completely altered in form and character. The opposing surfaces of the innominate bone and femur are rubbed down, sclerosed, and eburnated, while around these eburnated surfaces there is an abundant deposit of more or less dense bone, whose obvious function is to compensate for the altering direction in which force is transmitted through the joint and to render it as secure as possible under the circumstances. The capsule has become thin and lax, and has ceased to perform most of its normal functions. The synovial membrane is bulky in the joint and contains an abnormal amount of synovia. The causation of the several changes here described is quite obvious. The opposing surfaces of articular cartilage have been bruised sufficiently to interfere with their vitality, and there being no means of replacing the damaged tissue it is removed. The habitual transmission of force through the damaged joint results in the progressive destruction of the remainder of the articular cartilage, in the exposure, eburnation, and the progressive gradual destruction of the subjacent articular lamella of bone. These changes are followed by the others already described, the factors determining their evolution being solely mechanical. Is there any argument in favour of applying to this condition such a term as "rheumatoid arthritis" or any of its synonyms? A change, similar in character, though slighter than that just described, which develops to a varying degree in the hip-joint of labourers who are employed in carrying heavy loads, was misconstrued by anatomists, and led them to suppose that in old age the neck of the femur yielded, and that the head occupied a lower level than in the adult in consequence. In the paper already referred to I pointed out how this fallacy arose, and I have since been pleased to see that so keen an anatomist as Professor Humphry has in a recent paper denied that any such change takes place in the obliquity of the neck of the femur in old age.

The following serves as another instance of chronic traumatic arthritis. A man falls heavily on the outer surface of his shoulder. He suffers from much pain at the time, and he can neither bear the shoulder-joint to be moved nor can he perform any active movement himself, on account of the pain associated with it. If the shoulder be examined no fracture can be made out, and the outlines of the humerus and of the glenoid cavity are normal. The symptoms progress as in the case of the hip. The shoulder becoming flattened, the patient is unable to abduct the humerus, and the movements of the shoulder joint become limited finally to a moderate amount of flexion and extension. On examining the joint after death the opposing surfaces of the head of the humerus and of the glenoid cavity are deprived of cartilage, the articular layer of bone is rubbed down and eburnated, the surface of the humerus is rendered flat, or but slightly convex, being much increased in breadth by the deposit of bone upon its margin. The articular surface of the scapula has undergone similar changes. The synovial membrane is bulky and the muscles of the shoulder, especially the abductor muscles, are much wasted. Here, again, the causation is quite obvious. Force is applied to the outer surface of the humerus in such a direction that its articular surface is driven forcibly against that of the scapula, and in a direction at right angles to the surface of the latter. Changes ensue in the manner already described in the hip.

I would instance still one more example in the same joint. A man receives a heavy blow or pitches heavily on the point of the shoulder, breaking his acromion process, whose loose fragment is driven forcibly downwards upon the upper surface of the humerus, bruising its articular surface severely, together with the intervening capsule and tendon of the supra-spinatus. Degenerative changes ensue in the contused portion of the articular cartilage, and gradually extend to more or less of the remainder of the cartilage of the head of the humerus and to that of the glenoid cavity. The upper portion of the capsule, with more or less of the tendon of the supra-spinatus, is gradually destroyed, and the humerus comes sooner or later into direct contact with the movable fragment of the acromion. The constant movement of these bones upon one another results in further changes in both, the acromial portion becoming excavated, eburnated, and lipped. The intra-capsular portion of the biceps tendons is destroyed, the long head acquiring an attachment to the altered great tuberosity. Other changes develop at the same time in the synovial membrane. I would call particular attention to this last injury, as it bears in an important manner on the elucidation of the causation and pathology of chronic traumatic arthritis. I showed[2] some time ago that fracture of the acromion is of very common occurrence, and that the supposed rarity of the fracture depended upon a want of skill in recognising its existence. Since that paper I have been able to verify this statement most fully, both in the accident department, where the recent fractures were observed, and in the out-patient department, where the condition of non-union which almost always results was seen. This non-union is due to the fact that unless the accident is diagnosed, which it very rarely is, or unless it be accompanied by some more severe injury, as fracture of the upper end of the humerus, the shoulder is not kept at rest for a sufficient time to allow of the fracture of the acromion uniting by bone, and as a consequence a false joint forms. When the blow which produced the fracture was sufficiently severe to contuse the articular cartilage of the head of the humerus and the intervening soft parts, the changes I have just described follow.

Anatomists are largely responsible for the non-recognition of these fractures, since they have chosen to regard the resulting ununited conditions as examples of non-union of an epiphysis, and, so far as I can see, upon no reliable evidence whatever. Some surgeons have readily accepted the statements of the anatomists apparently without investigating them. They have, however, observed the frequent association of this so-called ununited epiphysis with the presence of so-called rheumatoid changes in the shoulder-joint, and have explained the cause of the association in various ways. One has gone so far as to assert that in cases of chronic rheumatoid arthritis of the shoulder-joint a disunion of the acromial epiphysis from the rest of the bone takes place. Such a statement hardly calls for criticism, and I only mention it to indicate the frequency with which those changes which the pathologist regards as characteristic of the disease, rheumatoid arthritis of the shoulder-joint, are found associated with ununited fracture of the acromion. Can anything be more obvious and simple than the mode of development of an ununited fracture of this process of bone, if one considers for one moment its position and muscular attachments, together with the difficulty of retaining the broken fragment at rest for any length of time, even if the fracture be recognised? The only two examples of bony union which I have observed followed a fracture of the acromion, which was accompanied by a severe comminuted fracture of the upper end of the humerus. Owing to the pain resulting from the presence of the latter fracture the shoulder was kept at rest sufficiently to allow of bony union. Though I might multiply such instances indefinitely, I think I have said enough to show that a severe injury to a joint is liable to be followed by the development of such pathological conditions as we are accustomed to regard as evidence of the presence of rheumatoid arthritis.

I will now allude but very briefly to the remarkable changes which develop in the joints of men or beasts of burden accustomed to follow some laborious occupation for many years, since I have described them very fully in preceding papers. They were all regarded as examples of rheumatoid arthritis on the post-mortem table, and also not uncommonly during lifetime. They consist in the removal of articular cartilage, the sclerosing, eburnation of the exposed bones, the alteration in the forms of the articular surfaces—sometimes by considerable excavation of bone, sometimes by the abundant deposit of bone upon the margins of the articular surfaces,—by the formation of masses of bone upon the floor of cavities—such as the olecranon and coronoid depressions,—the removal of fibro-cartilage from the sacro-iliac and vertebral joints, the formation of large prominences of bone locking these joints, the fusion of opposing surfaces of bone, &c. Again, precisely similar changes take

[2] The Pathology of Changes produced by Pressure in the Bony Skeleton of the Trunk and Shoulder Girdle: Guy's Hospital Report, 1885, 1886.

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place in joints if the direction of force transmitted through them varies from the normal and the articulation is made to perform a function for which it was not originally fitted. I refer to changes occurring in the joints in knock-knee, bow-legs, lateral curvature, in cases of shortening of one leg by fracture or disease, &c. I am well aware that both rheumatoid and rheumatic arthritis, and especially the former, are very prone to affect a joint damaged in its anatomical detail, and consequently in its physiology, by occupation or injury, and this has been pointed out very clearly by Dr. Hensley of Bath, and it may in some few cases be difficult to state whether the condition is one whose causation is solely traumatic, or whether added to this we have in addition a factor whose mode of action is much more complex; yet I would assert that in the very large majority of instances of the condition which I have called chronic traumatic arthritis there is no difficulty in recognising it either clinically or in the dead body, and that therefore we should no longer include this definite group under a series of names which only serve as a cloak to ignorance, but give it a definite and explanatory title.

St. Thomas's-street, S.E.

OBSERVATIONS ON CERTAIN DISPUTED POINTS IN RENAL PATHOLOGY.[1]

BY A. G. AULD, M.D.

FIRST I shall describe what seems to be the true interpretation of the morbid changes found in the pia mater and in the skin, then certain lesions in the Malpighian bodies, and lastly I shall deal with some considerations based on anatomical data respecting the cause of the polyuria which is so constantly observed in the contracting form of Bright's kidney. I have been enabled, through the courtesy of Dr. Coats, to examine the pia mater of all brains examined in the Western Infirmary during a period of fifteen months. In each case the membrane was carefully hardened in Müller's fluid and alcohol, then dehydrated, and soaked for some days in Hamilton's freezing fluid A. From the resulting sections some valuable facts were obtained; and, in particular, I have been enabled to make out by means of high powers what seems to be the true nature of the hyaline-fibroid thickening of Gull and Sutton. As is well known, these authors, in their celebrated papers, contended that in Bright's disease the bloodvessels throughout the body, and especially those of the pia mater, had their outer coats thickened by the deposition therein of a hyaline fibroid material, probably derived from the blood. The muscular coat in such vessels they conceived to be atrophied, while the inner coat frequently, but by no means invariably, partook of hyperplastic change. This theory received a most damaging criticism from Johnson, who strongly maintained the truly hypertrophic condition of the muscular layer, while the so-called "hyaline fibroid" he alleged to be a delusive result of reagents, such as glycerine and acidulated mounting fluids. In 1873 Grainger Stewart pointed out that, while mounting media undoubtedly had some influence in producing the hyaline appearance, not a few cases exhibited a true fibrous thickening. Dickinson subsequently lent his adherence to this view, but the precise nature of the change is still the theme of debate. According to my observations, it may be stated generally that in Bright's disease all the coats are thickened. In the vast majority of cases the inner coat shows endarteritis. This change seems very constant in fatty kidneys in adults, though it is occasionally absent in contracting kidney. As regards the muscular coat, there can be no room for doubt that Johnson's contention is the correct one. Further, it was maintained by this eminent observer that a longitudinal layer of muscle-cells could be observed alongside the hypertrophied circular layer in some of these cases. It was asserted by Dr. Bryan Waller that this was an impossibility, and that Dr. Johnson mistook the cellular strata of the thickened inner coat for a layer of muscle cells. I think, however, that on looking at one of the specimens we will be satisfied that to the inside of the hypertrophied circular coat longitudinal muscular fibres exist which can in no way be confounded with the proximate layers of the thickened intima. There are, however, some cases in which the muscular hypertrophy is far from being a marked feature, and when the disease is far advanced degenerative changes of an aggressive character attack the hypertrophied fibres. In the case of the outer coat it is plainly shown from these preparations that it is thickened, and the question is, What is the nature of this thickening? Now, after eliminating the possibility of amyloid disease by careful staining, I have invariably made out by means of very high powers the existence of branched corpuscles, with dividing nuclei, either embedded in or lying alongside the hyaline-fibroid formation. It is clear that this formation owes its origin to a slowly progressing inflammatory new formation of connective tissue, and that the effect of reagents is, after all, but unimportant. Not only so, but this corpuscular activity is manifest throughout the connective tissue of the pia mater generally, leading to a more or less general thickening.

As regards the *skin*, the sections show that the muscular coats of the arterioles are much thickened. This is generally to be observed. In one case, in which the œdema was a very marked feature, the derma is unduly cellular; clusters of leucocytes seem to be scattered throughout its substance. It seems as though some inflammatory process were at work, and hence we find here considerable support to the view of Cohnheim as to the cause of this form of œdema.

With regard to the lesions of the kidney itself in chronic Bright's disease, examination of a large number of kidneys has led me to recognise two great divisions. In one, the lesions of the glomeruli and of Bowman's capsule are very marked, and overshadow the other lesions; in the other class the reverse holds good.[2] Greenfield recognises the lesions of the capsule as pericapsulitis or cellular infiltration and tissue-formation occurring chiefly outside this structure, as hyaline thickening of the capsule itself, and as endo-capsulitis or the formation of concentric laminæ of cells and tissue inside the capsule between it and the glomerular tuft. Greenfield regards the cells lining the capsule to be capable of originating this formation. Now, in acute glomerulitis it is undoubted that layers of epithelial cells are formed inside the capsule, derived from germination of its lining epithelium. But in chronic glomerulitis this is no longer seen. Instead we have the following changes:—1. The epithelial cells covering the glomeruli swell and assume a peg-top or columnar shape (well seen in the section placed under the microscope); they then fall into the periglomerular space, and assume a rounded form. 2. A similar desquamation of the cells lining the capsule occurs, but without the intervention of the columnar shape. 3. The connective tissue nuclei, and likewise the nuclei of the capillary walls of the Malpighian tufts, germinate, multiply, and give rise to a new growth of tissue between the capsule and the tuft, the capillaries undergoing hyaline thickening the while. In one specimen we see a band of new tissue stretching across the peri-glomerular space to which numerous epithelial cells have attached themselves—a phenomenon which has been questioned by Ziegler and some others. 4. Not infrequently the capsule itself becomes slit up into several layers, giving the appearance of two or more capsules for part of its circumference. This dissecting process is accomplished by cells from the surrounding connective tissue. In other and more advanced cases the capsule appears striated and concentrically thickened, and blends with the sclerosed glomerular tuft. It is difficult to see why these lesions should occur in some cases and not in others; they are by no means confined to scarlatinal cases, and, moreover, in post-scarlatinal nephritis which has assumed a chronic form they are occasionally absent.

Lastly, I propose to advance a few original considerations respecting the cause of the polyuria which is such a characteristic symptom of contracting kidney—considerations based, I may say, almost entirely on the histological appearances which this kidney presents. It is the universal custom to ascribe the excess of urine to one or other, or else a combination, of the following factors. Increase of the blood pressure generally; increase of the blood pressure locally in the glomeruli, arising from obliteration of capillary areas; inability of the tubular epithelium to absorb the water passing from the glomeruli; and increased permeability of

[1] A paper delivered, with microscopic demonstrations, before the Glasgow Pathological and Clinical Society, Jan. 11th, 1892.

[2] I purposely omit here particular reference to changes in the parenchyma.

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the glomerular wall. On each and all of these alleged causes the facts of pathological histology seem to me to cast grave doubt. As regards the third of these—the inability of the glandular epithelium to absorb the water,—I do not believe that such an absorption normally occurs; for if it did, we should have the extraordinary phenomenon of a cell simultaneously secreting and absorbing a waste product. Many arguments could be adduced against this theory, but it does not vitally concern my position. Consider first the normal secretion of urine. It is accomplished by two great systems, from two great sources. One of these is the glomerular system, which secretes the watery part of the urine *plus* the salts; the other is the tubular system, which secretes a fluid rich in urea and extractives. This is conclusively proved by the experiments of Nussbaum on amphibians, and by the experiments of Heidenhain. With respect to the glomerular system, the view of Heidenhain seems unquestionably the correct one, that the Malpighian body is in reality a secreting gland and not a mere filtrating apparatus, otherwise it is inconceivable how, after section of the medulla, the injection of sodium acetate into the blood is accompanied by a copious secretion of urine which is of course unattended by any rise in the blood pressure. And, indeed, in the case of granular kidney, Broadbent has given cases in which the polyuria was marked without any rise in the arterial tension. The epithelium of the tuft is therefore pre-eminently a water-secreting epithelium. Now, what is observed on examining microscopically sections of granular kidneys? It is found that the glomeruli are agglomerated together in more or less wedge-shaped areas of sclerotic tissue, the intervening spaces being occupied by dilated tubules whose basement membrane has escaped much alteration, but whose vascular supply is abnormally abundant. Now, in the majority of cases, 80 per cent. of the Malpighian corpuscles in these sclerosed areas are totally functionless. How, on any pressure theory, can the few remaining tufts manage to secrete the large quantity of water which flows from the kidney, especially when, in addition, it is considered that the tubules from the patent glomeruli are not infrequently snared by the cirrhotic tissue? It seems to me that this view must be abandoned, and the seat of the secretion of water sought for elsewhere. This I believe to be found in a peculiar modification or transformation of the tubular epithelium in the areas which have escaped destruction. It is a remarkable fact, acknowledged by all observers, that the normal glandular epithelium in this situation becomes converted in granular kidney into a thin, flat epithelium—an epithelium, in fact, resembling that normally lining the glomerular tuft. This may be readily seen in the sections. Is there, therefore, any reason to deny that this peculiar modification of the epithelium is but a compensatory process of nature whereby the elimination of water is effected? Further, these epithelial cells have bright-staining nuclei which proves them to be in an active state. If it be not conceded that this epithelium actually subserves a modified function—that of secreting a much larger percentage of water than normally,—I think it at any rate cannot be denied that it more readily permits a passage outwards of water from the underlying bloodvessels, and that it ceases to become a "water-inhibiting" epithelium, as in the normal gland.

This view is supported by the anatomical appearances, by the constant diminution of the urine in cases where the epithelium is gravely injured, and by many of the kindred facts of pathology.

Glasgow.

CONGENITAL ANOMALIES OF THE RETINAL VEINS.

BY SYDNEY STEPHENSON, M.B., F.R.C.S. EDIN.

IT is impossible, I suppose, to over-estimate the importance of recognising congenital variations of normal conditions, and nowhere throughout the body does this recognition assume greater clinical consequence than in the eye. Loring[1] has well said, "It is the same old story of the musician and his scales. Five-sixths of the art of ophthalmoscopy are contained in a knowledge of the normal eye; the rest is a series of representations which can be read almost at sight." In the eye, as in other parts of the body, that arrangement of the vessels which obtains in the majority of cases is regarded as representing the normal condition of affairs. It may be well, therefore, to preface this account of certain anomalous dispositions of the retinal veins by a short description of the usual mode of distribution of these vessels. The primary division of the central vein of the retina may take place either in the retro-ocular portion of the optic nerve, or (less frequently perhaps) upon the surface of the disc itself. Either mode of division results in the formation of a superior and an inferior primary vein. These veins again divide (usually upon the disc), and their branches undergo division and subdivision in a dichotomous fashion; but it is commonly held that no inosculation takes place between the various branches. The whole process of repeated dichotomous division gives rise to the picture of an arborescent system of non-anastomosing veins, which, springing from the optic disc as a centre, ramify in the innermost part of the nervous tunic of the eye. The smaller variations observed in this general plan of distribution are innumerable: no two eyes ever present exactly the same arrangement of the retinal vessels. (The veins, it will be noticed, have been described as pursuing a course contrary to that taken by the blood current; this has been done simply for the sake of lucidity.) In accordance with the fact that, throughout the body generally, the arrangement of veins appears to be less stable and uniform, less fixed, so to speak, than that of the arterial system, one meets with anomalies of the retinal veins more frequently than of the retinal arteries. I have, for instance, seen eight examples of an anomalous disposition of the retinal veins during the past eighteen months; while during the same period I have failed to meet with a single anomalous retinal artery.

Turning now to the literature of the subject, one finds that the number of recorded cases is not great. In the *Medical News* (Philadelphia) of Sept. 11th, 1886, Dr. B. Alex. Randall published a case in which the central vein was connected with an aberrant vein by means of a cross-branch; the communication took place across the optic disc. The same author, moreover, recorded, in the Transactions of the American Ophthalmological Society for 1888, four new cases, and incidentally he mentioned the existence of a sixth case which he had recently encountered. Dr. Randall's communications are illustrated by drawings of the conditions he describes. In Vol. IX. of the Transactions of the Ophthalmological Society of the United Kingdom, Mr. Adams Frost, under the title of "Abnormal Course of a Retinal Vein," described a venous abnormality, which he had met with in the right eye of a young woman; while in Vol. X. of the same publication an account of "an abnormal retinal vein" is given by Mr. Louis Werner. Both these authors give pictures illustrative of their respective cases. Under the somewhat ill-conceived title of "Bifurcating Retinal Veins," I described, in Vol. XI. of the Transactions of the Ophthalmological Society, two examples of the condition in question. The patients were shown at a meeting of the Society; and illustrations of the anomalies will be found in the Transactions.

It appears, then, from the above catalogue that ten examples of the condition discussed have been placed on record. Accompanying this communication will be found sketches of six anomalous retinal veins which I have met with lately. In this number I do not, of course, include those cases mentioned above as having been shown by me to the Ophthalmological Society; for that matter, examples of arrangements similar to those then exhibited have been met with since, and are included among the sketches now presented.

In connexion with this matter of anomalous veins certain questions naturally present themselves. What forms do these anomalies assume? Are the arrangements seen reducible to any sort of order; or are they, on the other hand, wholly irregular? Judging from my own cases and the cases placed on record by others, I should say that the anomalous arrangements fall into one or other of three classes, with this reservation, however: that the classification here outlined must, in the absence of more extended observations, be regarded as more or less provisional in its nature. The first class includes cases in which two of the primary veins are united by

[1] Text-book of Ophthalmoscopy.

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a cross-branch, or cases—and this obviously is to all intents and purposes the same thing—in which a branch connects a central with an aberrant vein. The first of these conditions is depicted in plates Nos. 4 and 5; while the second is shown in plate No. 3. Frost's case, alluded to above, belongs, I think, to the former division; and Nos. 4 and 5 in Randall's series afford good examples of the latter condition. The second class comprises cases in which a vein bifurcates while on its way to the centre of the disc. As shown in plate No. 2, the bifurcation may take place in close proximity to the axis of the papilla; or it may, on the other hand, as shown in plate No. 1, occur when the vein is still at a considerable distance from that point. As belonging to the second of these varieties I would class Randall's cases Nos. 1 and 2; while my own cases, which were shown at the Ophthalmological Society, afford examples of both the varieties described. The third class comprehends those cases in which a venous anastomosis is formed upon the disc itself. This, it appears, may be constituted in one of two ways. In the first case, by a vein dividing at the margin of the papilla into two branches, which, after forming a considerable circle, unite to enter the disc as a single trunk. Some or all of the veins may unite with this venous circle. In the second case one sees upon the optic disc a horseshoe-shaped vein, which, entering the papilla by its upper and lower extremity, receives the other retinal veins at various points in its course. I am not in a position to adduce an example of the first variety; Randall's plate No. 3 is, however, a case in point. The picture No. 6 will render clear the nature of the second variety, and Werner's case, also, appears to come within this category.

FIG. 1.

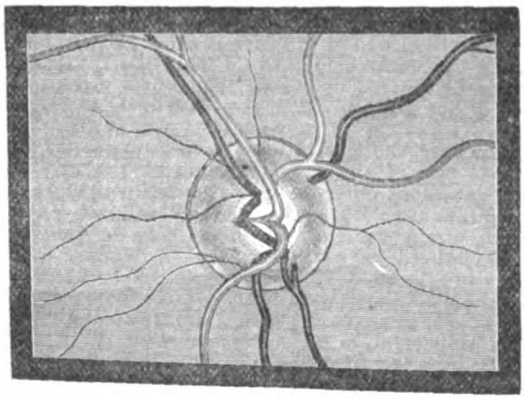


FIG. 2.

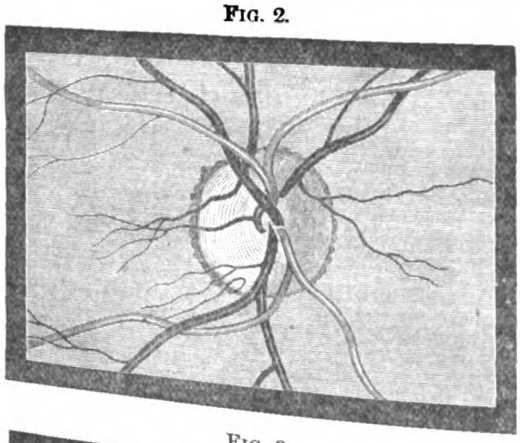


FIG. 3.

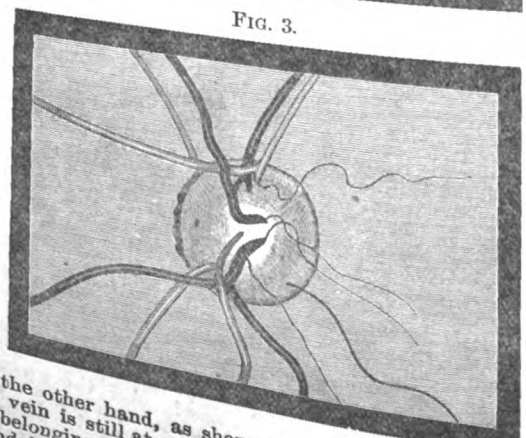


FIG. 4.

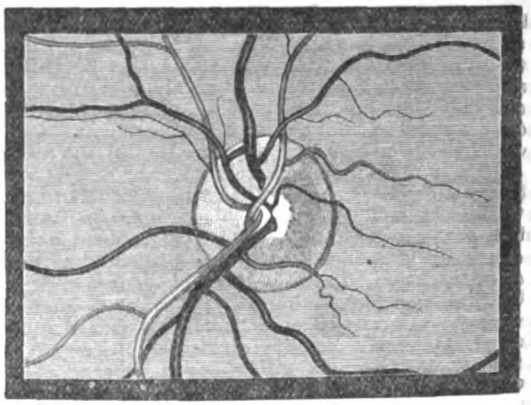


FIG. 5.

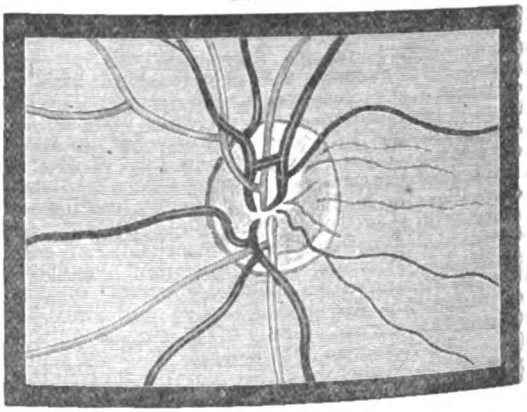
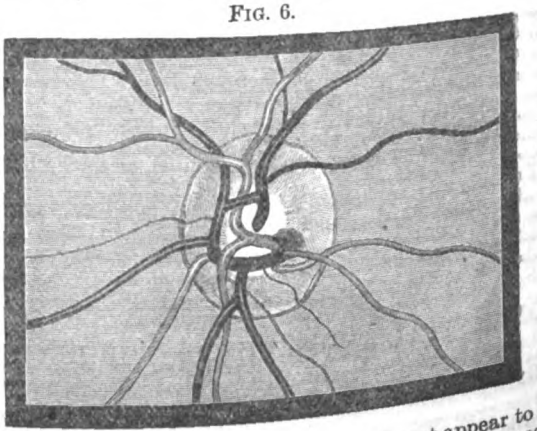


FIG. 6.



These anomalous venous arrangements do not appear to be associated with systemic abnormalities—at least, in no case has any such conjunction been noted. Furthermore, it is worthy of mention that in all the recorded cases the anomaly has been limited to one eye. Whether the explanation of these anomalies be connected with the repetition of conditions natural in the eyes of some of the lower animals, or whether, as seems perhaps more probable, the persistence of fœtal conditions has more to do with the matter, I am

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unable to say. One knows, however, that many of the variations from the normal observed in the bloodvessels generally receive their explanation in some such way, and there appears to be no valid reason why the vessels of the eye should furnish any exception to the rule. Be this as it may, it becomes of some practical importance to know that anomalies of a purely congenital nature are not very uncommon in the veins of the human retina. Out of every 1000 eyes examined I estimate, indeed, that at least three will show an anomalous arrangement of the retinal veins.

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CASE OF HERPES OF THE LARYNX.

BY R. E SCHOLEFIELD, M.A., M.B.,
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THE following case, which came under my notice during my admission period at St. Bartholomew's Hospital, from the curious character of the symptoms presented and the difficulty of finding an explanation for the same, may be of interest to the readers of THE LANCET, though I venture to think the case is anomalous.

S. A——, forty-one years of age, packing-case maker, came, or rather was brought, to the hospital by a fellow-workman on Nov. 18th last, suffering from a curious combination of dyspnœa, difficulty in swallowing, and nervous excitement. The history of his condition was that he was in good health up to about a fortnight previously, when he had a slight bilious attack with giddiness, which, however, did not prevent him from following his occupation. A similar attack occurred again a few days before admission.

On Nov. 17th the patient first felt a "tightness" in his throat, with some hoarseness and cough; he continued at work, however, till the 18th, when in the afternoon his throat became so much worse that he had to be brought to the hospital. He complained of intense pain on swallowing, with a difficulty in getting his breath, and a feeling of tightness about the throat. The patient presented a most curious appearance: he sat with a face expressing the utmost anxiety, his eyes seeming to protrude, swimming with tears, which ran down his face, his mouth was open and the saliva ran in large quantities over his lip down into his beard. The alæ nasi and lips appeared red and slightly swollen. The dyspnœa was not very marked, but his breath was drawn with fear and trembling. The most remarkable feature of the case, however, was that when he attempted to swallow, not only his face but his whole body writhed with agony, almost resembling a convulsion, and he had evidently the greatest dread of making the attempt. He spoke in a hoarse whisper, and not more than was absolutely necessary; but on pressing him to do so I found that phonation was not only possible, but was not even distinctly impaired. He complained of great pain on the left side of the neck, and pressure anywhere between the left side of the larynx and the ear was not only extremely painful, but also caused him to roll about in the most extraordinary contortions. One's first thought was of hydrophobia, but no evidence could be obtained in the least supporting this view. The man was certainly not in liquor, as his habits were most temperate, and his companions vouched for the almost sudden onset of the condition while at work. Family and personal history threw no light on the subject. He was temperate, married, family healthy, and had never had syphilis. External examination was equally negative, except that the glands on the left side of the neck were slightly enlarged, and the tenderness over them was extreme. On examining the mouth, the fauces were slightly reddened and the uvula somewhat œdematous, but there was no great tenderness and no sign of membrane or ulceration to be seen; clear and glassy mucus was, however, standing everywhere in beads, and pouring rapidly from the naso-pharynx. His temperature was 103·4°; pulse 116, weak; respiration 25, drawn apparently rather with a sense of pain than with a desire for air.

With some difficulty I was able, after the use of cocaine to the fauces, to make a perfectly satisfactory laryngoscopic examination, which disclosed the following. The cords and ventricular bands were perfectly normal, as also was the right arytenoid and aryteno-epiglottic fold. The left, however, was redder than natural, and presented a mass about the size and shape of three peas more or less fused together, and capable of being moved over with a probe either to the laryngeal or œsophageal side of the ary-epiglottic fold, to the edge of which they were attached. The surface was redder than natural, quite smooth, and glistening like that of a polyp or a polypoid degeneration of the mucous membrane, for which I at first took them. Posterior rhinoscopy revealed nothing further. From their position and displaceability they were, granting their tenderness, capable of creating the greatest trouble either in phonation or in swallowing, as, when the epiglottis was depressed in the latter case, they were pressed into the pharynx, while in the former they somewhat overhung the orifice of the larynx, the entrance or exit of air through which caused them to vibrate enough to produce pain. Of their real nature I had then no idea.

He was admitted, and an ether draught administered, with cold compresses to the neck. During the night he was most restless, taking only a little milk, and that with great pain and difficulty, expectorating about one pint of thin mucus, which was free from odour.—Nov. 19th: Condition slightly improved. Temperature 99·3°. Voice more natural; still great difficulty in swallowing. Urine: sp. gr. 1028; no albumen or sugar. No signs of disease in chest or lungs. The laryngoscope showed the tumour—if it may be called such—about the same, except that it was of a more milky colour, and there was more general swelling of the arytenoid, the right being also somewhat enlarged.—20th: Condition much improved in all respects; though still much pain on swallowing, there are none of the nervous symptoms with it. Temperature 98·6°. The condition now is that of a small bulla, filled apparently with pus, seated on the summit of the enlarged and swollen arytenoid. A patch of herpes was now observable, beginning about the left nostril and upper lip.—21st: Condition still improving. Temperature subnormal now. The bulla has now disappeared, and its place is occupied by a white patch of macerated epithelium, which could not be removed with a probe. Arytenoid not so much swollen. Herpes on lip and alæ nasi more extensive, and spreading to the other side. During the next few days he improved much in general health; pain on swallowing gradually disappeared, as also did the white patch and the swelling on the arytenoid. The voice became quite normal. The herpes on the lips and alæ nasi went through the ordinary stages of that eruption. It was rather extensive, passing up a little into the nostril. On Dec. 3rd the man was discharged with the herpes healed and the larynx normal.

It needs only to be remarked that I regard the case as one of buccal herpes, peculiar chiefly in the seat of the first vesicles, which were what I took for a polypoid growth; their course, however, through the milky to the purulent stage, bursting and then leaving a base which, becoming macerated by the saliva, looked like a white patch, points to this explanation. The pain in the neck, most marked at the onset, subsiding earlier than the eruption, the salivation and the rapid fall of the initial temperature, all confirm this view. I have since seen a case of herpes of the face and soft palate in which, though great pain was absent, the temperature and constitutional disturbance ran a similar course, being 103° when first seen, falling to normal on the third day, when the eruption showed itself. I hope that the case may not be without interest to the profession. It was certainly, to begin with, most puzzling; for though herpes of the palate, tongue, and cheeks is, I believe, not very rare, I can find no reference in the text-books to its attacking the larynx. I must, in conclusion, thank Mr. Howard Marsh for his kind permission to publish the case, which was under his care.

OCCLUDED OS AT FULL TERM.

BY L. NASH, L.R.C.P. & S.ED.

I WAS much interested in reading in a recent number of THE LANCET of a case of occluded os at full term. As so few instances have been recorded, I think it may be worth while giving brief notes of two such cases occurring in my private practice whilst I was in Sindh.

CASE 1.—In May, 1890, I was called to a multiparous

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Hindu woman, who had been in labour about two days. At the end of that time the native midwife gave it as her opinion that the woman would never be delivered, and left her. When I arrived the patient was having pains. On examining, my finger met a smooth elastic wall, with no trace of cervix or os. It was puzzling; but after some time, carefully feeling round, I detected a slight dimple where I should expect the os to be. The pains occurred at intervals, but, beyond stretching the uterine wall, did nothing to dilate the closed os. The head was not fixed. Between the pains I gently scratched with my nail, and the tissue yielded with some very slight bleeding until I encountered the membranes, which were adherent round the os. These I cleared, and they began dilating, but the process was slow, partly because the parts were rigid with what felt like cicatricial tissue and also because the pains were becoming feebler. When the head had fixed I ruptured to relieve the uterus and assisted dilatation with my fingers, and finally put on forceps, delivering a live child, who, however, required resuscitation. The patient declined further European treatment, but eventually did well.

CASE 2.—In September, 1890, I was called one evening to a multiparous Mahommedan woman, who had been in labour over twenty-four hours. The waters had been dribbling away all day, but no progress was made. On examining, my finger met the same smooth fleshy sphere, all trace of the cervix being gone; but in this case there was a slight roughness indicating the site of the os, and the cicatrix was more readily torn through, there being no bag of membranes (I could not detect the aperture through which the waters had escaped). On rupturing meconium escaped. The face was presenting and had fixed. I gave the girl an opiate, as the moulding being insufficient forceps failed to deliver. Early next morning pains returned, and the patient was safely delivered of a stillborn well-formed boy. The mother did well eventually, but was much exhausted for some time, owing to the unhealthy surroundings and long-standing anæmia.

It is said that occlusion of the os generally occurs in primiparæ. It may be so amongst Europeans. I should think the probable cause in both these cases was due to the treatment either after previous delivery in the Hindu and during pregnancy in the Mahommedan by the *dhais* or native midwives, amongst whose gynæcological customs it is to pass native uterine sounds to induce a condition fit for pregnancy, and to fill the vagina with boluses made of treacle and herbs.

Haverstock-hill, N.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. MARY'S HOSPITAL.

A CASE OF UNRECOGNISED CERVICAL CARIES; REMARKS.

(Under the care of Mr. EDMUND OWEN, F.R.C.S.[1])

IT is most important to recognise disease in the cervical region of the spine early, as the ultimate success of any treatment undertaken will depend almost entirely on the stage at which the disease has arrived when this treatment is commenced. It is not very unusual to meet with cases of cervical caries in the out-patient department of a children's hospital, in which the patient is said to be suffering from "a stiff neck," "cold in the neck," or rheumatism. It is, however, much more unusual to meet with advanced disease at the age of this patient, for the severity of the pain compels the sufferer to seek efficient medical relief. The account of the case is very instructive.

A. D——, a Welsh servant-girl of nineteen years, was sent to St. Mary's Hospital on May 29th last by Dr. Edward Lewis of St. John's Wood. Of her sixteen brothers and sisters only six are living. On her arrival she appeared pale, delicate, and distressed. She said that she had been in service in London, and that for a long while she had suffered from severe "headaches," chiefly at the top of her head, for which no clear explanation was given nor available treatment found. One medical man told her that London air did not suit her, and that she had better go back to Wales. Others attributed her pains to "rheumatism." She had taken a large amount of medicine, but nevertheless she had got steadily worse, and had at last to give up work entirely. Dr. Lewis wrote that he had seen the girl at a patient's house where he was visiting; the lady asked him to examine her, because she thought that she was too ill to take so long a journey as to Wales. She had been attending as an out-patient at a general hospital for three weeks, and the day before Dr. Lewis's seeing her—such was her story—three medical gentlemen at the hospital had consulted over her, and had pronounced her disease to be rheumatism. Dr. Lewis, recognising not only the existence of cervical caries, but also of a post-pharyngeal abscess, sent her at once to St. Mary's Hospital. Without doubt the girl was extremely ill, and she had, moreover, the aspect of one who was suffering greatly. She could not bear the least pressure upon the top of her head. She held her neck very stiffly, and she could not turn her head without at the same time wheeling round her body, nor could she nod her head. When closely questioned as to the exact parts in which she felt pain she pointed out the areas of distribution of the branches of the great occipital division of the second cervical nerve, and of all the branches of the superficial plexus—the lesser occipital, the great auricular, the transverse cervical, and the twigs of the supra-clavicular nerves in the sternal, pectoral, and deltoid regions. But of all these nerves the great and the lesser occipital were those chiefly distressed, which fact showed that the inflammatory disease of the spine was most advanced in the first and second vertebræ, the second cervical nerve emerging between the atlas and axis previous to giving off the two occipital branches.

Forthwith she was placed flat on her back in bed, a thin, narrow cushion was adjusted beneath her neck, and her head was steadied between two large sand-pillows. The same evening Mr. Farquharson, the house surgeon, opened the post-pharyngeal abscess, much to the temporary relief of the patient. Indeed, for a time she greatly improved; her neuralgias diminished, and, with the advantage of this absolute rest, she gave some hope of recovery. But the pains persisted in considerable degree, and, dreading the least shake or disturbance, she generally lay with her hands up to her aching head. On her admission the temperature was 101°, and during the remainder of the time varied between 99° and 102°. Towards the end it was generally 102° at night and 99° in the morning, she being hectic. She gradually grew weaker, Cheyne-Stokes breathing occurred—the result of pressure upon the medulla,—and she died on Nov. 11th, after several days of complete unconsciousness.

Necropsy.—As the body lay upon the table the attention of the pathologist, Mr. J. J. Clarke, was at once drawn to a marked prominence of the spinous process of the axis. This prominence showed that the transverse atlo-axoid ligament had given way, that the occiput and atlas had been carried forwards, and that the back of the odontoid process pressed against the top of the spinal cord. This, indeed, was the case, an antero-posterior section of the parts showing that a space of half an inch existed between the anterior arch of the atlas and the odontoid process, with the result that the spinal canal behind it had been diminished to an equal extent, so that the odontoid process was thrust against the cord. There was a considerable collection of pus about the atlas and axis, and an opening in the posterior wall of the pharynx showed where the abscess had been originally evacuated. There was, moreover, purulent and tubercular infiltration about the third and fourth vertebræ, the membranes of the cord in the upper cervical region being greatly thickened. Thus pressure was exerted upon the first four cervical nerves not only by purulent infiltration, but also by the thickened dura mater which formed their sheathes.

Remarks by Mr. OWEN.—In some quarters the terms "rheumatism" and "rheumatic" are apparently of very wide signification, their comprehensiveness often being their chief recommendation. The first meaning of the word ῥευματικος is, we are told, a *flux*, or *looseness*—a looseness of diagnosis being, no doubt, included. This is not the time or place for showing how often, amongst other things, the acute ostitis and periostitis of childhood are treated as "rheumatism"; but it

[1] Reported to the West London Medico-Chirurgical Society, Jan. 8th, 1892.

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may well be made the occasion of insisting on the fact that the peripheral neuralgias of spinal caries are constantly being misunderstood. The most suggestive feature of the pains of central spinal disease is their symmetrical arrangement. Thus, in the girl whose case is under consideration there was pain in the areas of distribution of the nerves on each side of the head and neck, and over both pectoral and deltoid regions. In lower cervical disease there may be pains in both arms, both elbows, or both hands. And so also with the symmetrical pains in the chest, abdomen, thighs, legs, and feet. In the case of another girl under treatment for lumbar caries, the only parts in which she complained of pains were the balls of the great toes—that is, at the terminal distribution of each long saphenous nerve. She must have run considerable risk of having her neuralgias ascribed to rheumatism, if not to gout. In conclusion, it may be insisted on that rheumatic and gouty pains lack the anatomical precision and symmetrical arrangement which characterise those of tubercular disease of the spine. Still, if a mistake must be made, it is for the greater good of the greater number of patients that rheumatism be taken for spinal disease rather than that spinal disease be regarded as rheumatism. The former error is more inconvenient than harmful, whilst the latter may prove not only an irremediable calamity, but might be reckoned a stupid blunder.

SAMARITAN HOSPITAL FOR WOMEN, BELFAST.

THREE INTERESTING CASES OF ABDOMINAL SECTION.

(Under the care of Dr. W. K. MCMORDIE.)

THESE three cases present some point of importance which makes them worthy of record. With regard to ovariotomy during pregnancy, the opinion of Mundé[1] is, "that so far as the chances of recovery from ovariotomy are concerned, they are fully as good as when no pregnancy exists. As regards the continuance of gestation, in the early months usually the prospect is also favourable. In the later months, when the child is viable and likely to survive, the induction of premature labour would appear to be preferable, with subsequent ovariotomy.

CASE 1. *Removal of an ovarian cyst, complicated with pregnancy.*—E. J——, aged thirty-four, married, was sent as a private patient to the Samaritan Hospital by Dr. Clarke of Portadown on Nov. 4th, 1891. She was married on Feb. 13th of the past year, and as the abdominal enlargement appeared shortly afterwards it was believed to be pregnancy. At the time of her admission the abdomen measured forty-eight inches round the umbilicus. A vaginal examination showed the uterus to be enlarged; but it was impossible to be certain of the cause. The uterine enlargement was not sufficient to account for pregnancy occurring about the time of her marriage, and so, if pregnancy existed, it must have occurred after the ovarian cyst had been growing for some time. The patient was not examined with the sound. At the operation the tumour was found to consist of one large cyst with thick wall, containing eighteen quarts of thick dark fluid and seven pounds solid. The uterus was enlarged to about the size of a fœtal head, and was evidently pregnant. The tumour was of the right ovary, and the left ovary was healthy. The uterus was in no way injured at the operation, and the fœtus was not afterwards expelled. There is no reasonable doubt but the pregnancy will go to full time. She made an excellent recovery.

CASE 2. *Large ovarian cyst tapped thirteen times in fourteen months; escape of cyst fluid into abdominal cavity; chronic sepsis after tapping; ovariotomy.*—J. M——, aged thirty-nine, married, had one child eleven years ago, was placed under the care of Dr. McMordie by Dr. MacArthur of Grey Abbey on Sept. 22nd, 1891. The following is the history of the case. She stated she first noticed the abdominal swelling eighteen months before in the right side. For fifteen months she had been under medical treatment. During that time she had been tapped thirteen times—eleven times by her family doctor in the country, and twice by a Belfast physician, on Aug. 29th and Sept. 18th, 1891. No means of ascertaining the measurements of the abdomen after each tapping were found. On Sept. 22nd—four days after the last tapping—the abdomen measured 32 in. round the umbilicus; on Oct. 1st, 33½ in.; Oct. 3rd, 34¼ in.; Oct. 12th, 38 in.; Oct. 16th, 39 in.; Oct. 19th, 40 in. The fluid was evidently rapidly increasing. There were symptoms of chronic sepsis; temperature above normal, quick pulse, and increasing feebleness. It was thought better to wait no longer, but to give her a chance of relief. Assisted by Dr. Henry O'Neill and by Dr. David McKinney acting as chloroformist, ovariotomy was performed by Dr. MacMordie on Oct. 21st. At the point where the cyst was opened it was adherent to the abdominal wall. When the contents had nearly all escaped the opening was enlarged and the hand passed into the cyst, the wall of which was very thin. A large opening in the cyst wall was found towards the diaphragm, through which the intestines were protruding. It was clearly through this opening the cyst fluid had escaped into the abdominal cavity, at which of the tappings it would be impossible to say, but more likely at the last, when the cyst, being only partially filled and the cyst wall more or less collapsed, would most likely receive a double wound from the trocar, and the sudden escape of the cyst fluid under pressure into the abdominal cavity through a very thin and friable cyst wall would increase the hole into a rent. The intestines soon appeared at the abdominal incision, and were with difficulty kept back. Lying towards the left side were three smaller cysts, containing bloody, friable, solid material, which weighed six pounds. The pedicle was broad and thick, and required to be ligatured in three parts. The abdominal cavity was carefully washed out and a drainage-tube left in. Through the tube the abdomen was carefully washed out daily for five days. The case made favourable progress until the seventh day, when the heart's action suddenly failed, and she died at a time when everything seemed to point to a favourable result.

Remarks by Dr. MCMORDIE.—The interest in this case consists in the extraordinary number of tappings in so short a time and the escape of the cyst fluid into the abdominal cavity. Among the symptoms of exhaustion noted before the operation were the low specific gravity of the urine and feeble action of the heart. It is a reasonable conclusion to come to from all the facts of the case, that had the ovarian tumour been removed before the frequent and persistent tappings, a favourable result might with confidence have been anticipated. Another point of some interest is that at none of the tappings could there have been complete collapse of the abdominal tumour owing to the presence of so large a quantity of solid. I have reported in every detail this case, in the hope that a knowledge of the consequences that may result from tapping may act as a warning to other operators.

CASE 3. *Tubo-ovarian abscess caused by septic infection after labour, treated by abdominal section; recovery.*—E. McG——, aged thirty-three; had three children, the last one seven months before her admission to the hospital on June 2nd, 1890. On the third day after her confinement she had a rigor and a severe pain in the right ovarian region. She was sent to hospital by her family physician, Dr. Humphries of Mountpottinger. On her admission the temperature was 103° F. An examination revealed a smooth, round, movable lump deep in the right ovarian region. No fluctuation could be detected. With complete rest the pain disappeared, but the high temperature continued, and she got very weak and much emaciated. For some time she would not consent to any operative interference. On July 15th the usual incision was made in the median line. The tumour was covered with intestine and omentum, dipped deep into the pelvis, and was adherent to the intestines. The wall was thick. So firm was it bound by deep adhesions that it was impossible to get more than a small portion of the circumference out of the abdominal incision. A trocar was inserted, and a pint of thick, fetid pus drawn off. The cyst wall was like leather, but it was so firmly held down at the lower part that it was impossible to draw it sufficiently up to apply a ligature at the base. To have done so a much larger abdominal incision would have been required, and more manipulation of the intestines would have been the result, which in the weak and exhausted condition of the patient would have added much to the risk of the operation. The cyst cavity was therefore washed out and the edges sutured to the lower angle of the abdominal incision. A drainage-tube was left in and the cavity daily washed out. The cavity steadily contracted, and the tube was removed at the end of a week, when only a sinus remained. This gradually closed, and she was discharged on Aug. 18th in good health. At the operation, Dr. McMordie was assisted by Dr. Henry O'Neill, and the anæsthetic was administered by Dr. D. McKinney.

[1] Sajous: Annual of the Universal Med. Sci., 1889, vol. ii., f. 30.

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Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Recent Researches in Diabetes Mellitus.—Inflammatory Cervical Swelling communicating with Common Carotid Artery and Internal Jugular Vein.

AN ordinary meeting of this Society took place on Jan 26th, the President, Mr. Timothy Holmes, in the chair.

DR. HENRY J. TYLDEN communicated a critique on Recent Researches in Diabetes Mellitus, with an original note on the pathology of the pancreas. Three lines of recent research promised to throw new light on diabetes: M. Lepine's glycolytic ferment in the blood; certain experiments which had been undertaken on the pancreas; and a renewed study of the morbid histology of the pancreas. The object of this paper was to describe some of the more important of these researches, briefly to criticise their methods, but still more to offer some criticism upon the inferences which were being drawn from them. With regard to M. Lepine's work on the glycolytic ferment of the blood, his methods were described. Granting the existence of this ferment in blood drawn from animals, was it a vital phenomenon? The question could not be considered as settled, but there were grounds for supposing that it probably was. He asked if the diminution of this ferment in diabetes could be regarded as the cause of the disease. To this he advanced the following objections: 1. Perhaps all ferments were reduced in wasting diseases. 2. Certain clinical facts warranted us in supposing that diabetes was due, not so much to failure of sugar-destruction as to increase of sugar-production in the system. As to the recent experiments on the pancreas, extirpation was found to be followed immediately by diabetes mellitus. Partial extirpation, injection of the pancreatic duct with irritants and tying of the pancreatic vessels; none of them produced permanent glycosuria, but led to cirrhosis of the pancreas, and were followed by azoturia, polyuria, and wasting. He asked if the glycosuria which followed upon complete extirpation of the pancreas was a result of the removal of the pancreas, or of some lesion incidental to the operation, and he thought that, while there were difficulties in the way of either interpretation, probably the latter was the true answer to the question. Dealing with the morbid histology of the pancreas, he said that cirrhotic changes had been demonstrated in diabetic pancreases, and no doubt correctly; but before we accepted them as the cause of the disease we must ask ourselves the following questions: 1. Was the lesion constant in diabetes? It certainly was not, some diabetic pancreases showing no departure from the normal in their histological characters—certainly none in the direction of cirrhosis. 2 Was it confined to diabetes, or had it wider relations with sundry other diseases? A microscopical examination of some fifty pancreases led to the recognition of two forms of cirrhosis at least—the one coarse and interlobular, often seen in very wasted pancreases, the other finer and intercellular in pancreases not necessarily wasted. The latter form had been found to occur chiefly in patients who were the subjects of granular kidney. It was possible that the pancreatic change might throw light in some cases of chronic Bright's disease upon some of the symptoms of the disease, especially when we remembered that polyuria and wasting were two of the results of artificial cirrhosis of the pancreas. 3. Assuming the first two points, had we any reason to suppose that cirrhosis of the pancreas would, even if present, provoke glycosuria? As far as we knew we had not; experiments went to prove the contrary. As we could not answer one of the questions in the affirmative, we could not accept either the pancreatic hypothesis of diabetes or M. Lepine's form of it.—Dr. GEORGE HARLEY said that the Society was much indebted to the author for an admirable paper. Many seemed to hold the belief that pancreatic diabetes was a newly discovered disease, but Dr. Thomas Corley had published a case in a London medical journal in 1788, and since then many had been placed on record, though their importance had not been fully appreciated until the advent of the experimental pathologist. Many people seemed to think that diabetes in all cases had a similar pathology, and the author appeared to share this opinion. He was sure that this notion was erroneous, and that glycosuria was simply a sign of disease and might own various causes, as was the case with albuminuria. Injury to the fourth ventricle, a blow on the back of the head, disorder of the liver, all might act as causative agents, as well as pancreatic disease. It was difficult to believe that if total extirpation of the pancreas brought about diabetes, ligature of its vessels would not bring about a like result. Von Mering had isolated the pancreas in the dog from all its attachments except the vessels, and no diabetes had been produced by that procedure. He held that there were two essential kinds of diabetes—that caused by excessive formation of sugar in the blood, and that produced by diminished destruction of sugar—and that the two were not comparable. He held also that atrophy of the pancreas produced glycosuria, and he thought that until a better theory was promulgated Lepine's hypothesis should be accepted.—Dr. ROLLESTON said that any change in the pancreas in association with diabetes could not be regarded as a prime cause of that disease. It was said that if three-fourths of the pancreas were removed no diabetes would result, because sufficient ferment would be produced in the portion left. On this hypothesis blocking of the duct ought to produce diabetes mellitus, because as a result of the tension produced by ligature of the duct absorption of the secretion by the bloodvessels ought to take place. He had seen this duct completely blocked by a calculus, and yet no diabetes result; on the other hand, in a case of marked diabetes he had seen the organ weighing four ounces and of remarkably healthy appearance. In one instance there was such a marked cirrhosis of the organ produced by the pressure of an aneurysm that its structure was so disorganised that it could not be recognised microscopically, and yet diabetes was not present; cases, too, had been recorded in which there were abscess and sloughing of that organ unaccompanied by glycosuria. The polyuria which accompanied the cases in which there was both cirrhosis of the kidney and of the pancreas was much more easily explained in other ways. He thought that any severe disease attacking the pancreas might reflexly so stimulate the medulla as to produce increased metabolism of the liver with resulting diabetes.—Dr. BRADFORD said that there was no fact in recent experimental pathology more clearly made out than the effect of operations upon the pancreas in producing glycosuria. Minkowski at Berne removed seven-eighths of the pancreas from a number of dogs, and no abnormal result followed. He then removed the small fragment which was left, and marked glycosuria was produced. It was idle to suggest that this phenomenon was produced by other lesions in the neighbourhood of the pancreas, for other physiologists had damaged all the structures in the neighbourhood of the pancreas, leaving that organ intact, and still no glycosuria was produced. Minkowski's conclusions were borne out by analogy, for if very large portions of the thyroid were removed, nothing abnormal would happen; whereas if the small remaining fragment were taken away, death would result. If half of one kidney were removed no marked change would be noticed; but if the whole of the other organ were then taken away a widespread disturbance of nutrition would result, wasting, polyuria, and increased secretion of urea being the most marked sequelæ. Ponfick had also demonstrated practically the same thing with regard to the liver. Although physiologists were not at present able to satisfactorily explain these results, yet they showed in a striking way that organs had functions which at first sight they were not credited with. He was of course prepared to admit that diabetes was a symptom, and not a disease. Finally, he referred to two cases which had been under his own care. One was a man who suffered with diabetes mellitus and ascites; at the necropsy a large primary growth of the pancreas was found. The second case died of diabetic coma; he pancreas weighed under an ounce, and was much cirrhosed.—Dr. TYLDEN, in reply, defended himself from certain criticisms that had been made concerning his paper. He did not contend that diabetes was a simple disease; for aught he knew it might depend on many causes. His argument was a twofold one: that in some cases of diabetes mellitus pancreatic change was absent, and also that marked pancreatic change might be present without glycosuria. As to the diverse results following removal of the pancreas and ligature of its duct respectively, he simply stated recorded facts without attempting to explain them.

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Though he was not prepared to accept Lepine's theory, he was far from saying that he rejected it; the evidence to justify the latter course was not yet nearly strong enough. Finally, he felt no moral obligation to accept the best hypothesis in the field, and, while he agreed with most of Dr. Bradford's arguments, he could not allow that the analogies proposed helped to remove the difficulty.

Mr. CROFT read the details of a case of Glandular Swelling in the Neck, which became converted into a pulsating tumour-like aneurysm; the common and external carotids and the internal jugular vein were ligatured. The author first narrated the particulars of the case. A young man aged twenty-two was admitted into St. Thomas's Hospital, under Mr. Croft's care, on June 4th, 1891. A small swelling had appeared on the right side of the neck, opposite the thyroid cartilage, after sore-throat, about eight weeks before his admission. This swelling became rapidly larger a week before he applied to the hospital. At the time of admission the swelling was about as large as a pullet's egg, and was situated over the bifurcation of the common carotid. It was examined for pulsation, but none was observed. During the evening of the second day the swelling rapidly enlarged, and this was accompanied by fresh pain and a little difficulty in swallowing. The next morning the tumour was found to be strongly pulsatile, with distinct expansile movement. Mr. Croft saw the patient on this day (the third), June 8th, and decided at once to explore the swelling. The diagnosis presented considerable difficulty. The common carotid trunk below the swelling was first exposed; next the swelling was incised, and shown to be in communication with a large artery. It was found necessary, in order to arrest all hæmorrhage, venous and arterial, to tie the common and the external carotid arteries and the internal jugular vein. No pus was found or any definite abscess. The operation was performed throughout with careful antiseptic precautions. Carbolised silk ligatures were employed. Recovery was complete, though complicated by congestion of the left lung. The ligatures remained buried in the wound. The nature of the morbid action was briefly discussed. The other point adverted to was the immediate and permanent abolition of the inflammatory process, with its destructive tendencies, although no collection of pus or any inflamed glands had been removed.—The PRESIDENT remarked that the case recalled forcibly one placed on record by Liston, in which the patient lost his life in consequence of having a collection of pus opened in the neck without it being ascertained that it communicated with an artery. Mr. Croft's case showed how possible it was for inflammatory softening to cause giving way of vessels at a particular moment, and it illustrated the old surgical adage that suppuration around a vessel might lead to communication with that vessel. He himself had seen a case in which a large swelling of the ham was punctured, and the abscess communicated with the popliteal artery. In Mr. Croft's case no pus was seen, but it was possible if a small quantity were present it would be masked by the larger quantity of blood contained in the swelling. He believed that there were as many as twenty cases on record in which the common carotid artery and internal jugular vein were tied simultaneously.—Mr. BARWELL dilated on the possibility of the swelling being really an abscess. There was fluctuation previous to the commencement of pulsation, and this fluctuation must have been due to a fluid collection. As the case was inflammatory, he thought the fluid was probably pus, and this might have been very readily carried away in the blood stream without inducing symptoms; so that not seeing pus at the time of opening did not militate against its being an abscess. He inquired why such stress was laid upon the use of silk ligatures.—Mr. CROFT, in reply, said that as to the question of pus being present he certainly did not see any. The origin was inflammatory, and whether the inflammation ended in pus-production or in exudation short of that did not matter; the pathological destructive process was equally effective. He was not at all prepared to agree that if pus entered the arteries or veins no harm would ensue; but it was a fact that from the moment the operation was completed, and the pneumonia recovered from, the patient became convalescent. He did not think that such a result could possibly have occurred if pus had got into the veins. He preferred a silk ligature because it was more durable than catgut or kangaroo tail; it was thoroughly reliable, and caused no irritation when properly prepared and buried in the wound.

MEDICAL SOCIETY OF LONDON.

Compound Fracture of Skull in Children.—Bronchiectasis in Children.—Plastic Operations for Contracture following Burn.—Syringomyelia.—Sarcoma in Association with Multiple Exostosis.—Primary Chancre of Cheek.

A "CLINICAL" meeting of this Society took place on Jan. 25th, the President, Dr. Douglas Powell, in the chair.

Mr. J. H. MORGAN brought two children who had suffered Compound Fracture of the Skull. The first was a boy aged two years, who fell from a window on the third storey, alighting on his head. He was admitted within a few minutes to Charing-cross Hospital. He was conscious, there was no paralysis, but the pupils were dilated. The back of the head appeared flattened. From one parietal eminence to the other extended a large hæmatoma, at the extremities of which were two minute punctures. On pressing this swelling, clots mixed with brain substance exuded from each. He was immediately anæsthetised, and an incision carried from one puncture to the other over the vertex. A double line of fracture was seen running from one parietal bone to the other, and extending on each side beyond the end of the incision. At the apex of the right parietal bone was a detached piece, which was depressed, and had penetrated the brain. From both extremities of the fracture brain matter exuded. A trephine was used, and the depressed piece was elevated. Two or three other pieces of bone which were detached were lifted out, and a stream of warm boracic lotion was forcibly injected, and altogether about a drachm and a half of brain tissue was washed out. The pieces of bone were kept in warm boracic lotion, were replaced as nearly as possible in their natural positions, and the pericranium brought over them and united with catgut sutures. A small drainage-tube was inserted at the right extremity of the wound. Except that a considerable amount of swelling of the forehead took place from extravasated blood, the child had no bad symptoms, and the greater part of the wound was healed on the ninth day. Granulations covered the two extremities of the wound, and except for an exanthematous rash on the fifteenth day, the boy had no bad symptoms. One minute crumb of bone came away from the wound over the left parietal bone. The accident happened a year ago, and the boy had had no headache, no fits, and the scars showed no depression nor any pulsation.

Mr. MORGAN showed a second case, that of a boy aged seven, who was knocked over by a hansom cab. He was conscious when admitted. Blood and brain substance were found on his collar. There was a scalp wound with jagged edges about three inches long over the right parietal bone, not exposing the bone. On the left side was an irregular wound reaching from behind the ear backwards towards the occipital protuberance, just above the situation of the superior curved line. As this exposed a fracture, an incision was made at right angles to the wound and running obliquely upwards towards the lambdoid suture. It was then seen that the squamo-parietal suture was separated, and a fracture was seen running across the upper part of the parietal bone from the lambdoid suture behind to the coronal in front. A large area of the parietal bone was depressed, and from the interval at the squamo-parietal suture brain substance and blood were oozing. The depression not being great, no attempt was made to elevate, but the parts were syringed with a forcible injection of boracic acid lotion, the pericranium adjusted, and the scalp wound united. The amount of brain substance lost was considerable, but could not be estimated. Every precaution was taken to render the wounds aseptic, but owing to the amount of dirt which had been ground in, that on the right side suppurated. The other healed directly, but about a month after leaving the hospital a small superficial abscess formed in the neighbourhood of the wound, which healed rapidly after being incised. The boy had remained perfectly well, and had had no fits.—Mr. SHEILD asked if, in a similar accident to an adult, Mr. Morgan would replace the bone.—The PRESIDENT inquired if any twitchings or convulsions had been observed in either case.—Mr. MORGAN, in reply, said he would be inclined to try the same expedient in the case of an adult; certainly no harm would be likely to follow under aseptic conditions. There were no convulsions.

Dr. WALTER CARR showed a boy aged eight years suffering from an early stage of Bronchiectasis. He had been subject

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to winter cough from infancy, and this had continued during the summer for the last year or two. The boy was now rather blue, and very short of breath on exertion. The cough was distinctly spasmodic in character, but not accompanied by sickness, and no fetor of breath or expectoration was observed. Physical examination gave no sign of emphysema, and there was no deficient resonance over the lungs, but very abundant moist gurgling and bubbling râles were heard over both bases, especially on the left side. The heart was normal and the general nutrition was fairly good.

Dr. WALTER CARR also showed the lungs from a case of Bronchiectasis in a child just three years of age. The child had had whooping-cough when a year old, but apparently got quite well; it had never been free from cough for about twelve months, and had gradually wasted. It was treated for three weeks in the Victoria Hospital for Children in June, 1891, as a case of phthisis, but the temperature was usually subnormal, and only once rose above 100° F. Since June she had been an out-patient under Dr. Carr; she had a markedly spasmodic and choking cough, unaccompanied by sickness; the breath and expectoration were very fetid. The physical signs were those of general bronchitis, with very deficient resonance at the right base and gurgling râles, varying in number from time to time. The child died suddenly on Jan. 19th, owing, it was found, to pneumothorax on the left side, but the most important changes were found in the right lung—the upper lobe was mostly in a state of grey hepatisation, whilst the middle and lower lobes, which were very adherent to the chest wall, sank in water, and consisted almost entirely of bronchial tubes greatly distended cylindrically, and surrounded by firm fibrous tissue. Dr. Carr said that the cases usually began either as a chronic bronchitis which ran on to bronchiectasis rather than to emphysema; or they were a sequel to pneumonia, and the cases in which the disease was localised strongly suggested this. Nearly all these cases were apt to be regarded at first as instances of phthisis; but the fact that a subnormal temperature was present would help to distinguish them. The physical signs were limited to one or both bases, and there was very little general wasting until the later stages. In nearly all there was an absence of fetid breadth and of fetid expectoration. The prominent symptoms were the spasmodic cough, dyspnœa, cyanosis, and gurgling râles at one or both bases.

Dr. WALLIS ORD also brought two cases of Bronchiectasis in children. The first was a girl aged nine, who had had measles and whooping-cough seven years ago. Four years ago there was dulness and tubular breathing at the base of one lung: the temperature, which was at first high, afterwards became subnormal, and remained so. At the present time there was dulness at the left base below the scapula, with amphoric breathing, coarse râles, and pectoriloquy.

The second case shown by Dr. W. ORD was that of a boy aged four, who had likewise suffered from measles and whooping-cough, which in 1889 were followed by an attack of acute bronchitis of obstinate character. Six months afterwards bronchiectasis was discovered, which was at first mistaken for phthisis. The temperature was subnormal, and the boy had put on flesh since the summer. He was, unfortunately, unable to obtain sputum in order to demonstrate the absence of bacilli.—The PRESIDENT remarked that the occurrence of these changes independently of emphysema was interesting, and had not been observed by himself. In cases of diffused general bronchiectasis it was usual to find emphysema. Clubbing of the fingers was also a common accompaniment. He presumed that in Dr. Ord's cases, which were unilateral, the cause was an inflammatory one.—Dr. COLET-LARKIN of Ramsgate inquired if there were any family history of bronchiectasis in these cases.—Mr. BERNARD PITTS said that the diagnosis of bronchiectasis from abscess was important, in view of the possibility of surgical interference in these cases. He recently saw a case with Dr. Lees in which there were signs of a large cavity in the left lung, the patient being emaciated, the expectoration offensive, and the temperature fluctuating. There was no antecedent history of bronchitis or of foreign body. He resected a rib, allowed a week to elapse for the lung to become adherent to the chest-wall, and then incised the lung. He was unable to hit a cavity, although he got a little pus. At the end of a week an acute pneumothorax developed, for which the pleura was opened and drained, but the patient died. At the necropsy a large bronchiectasis was found which it would have been impossible to drain effectually. The large amount and the offensiveness of the expectoration were marked features in the case.—Dr. PERCY KIDD, referring to diagnosis, said that, unless putrescence of sputum were present, the nature of the case usually remained doubtful, but that putrid sputum, with periodical large evacuations, were characteristic of the affection. In many cases where the tissues looked healthy to the naked eye, under the microscope there would be found a lesion in the walls of the bronchi, a diffuse peri-bronchitis—the peri-bronchitis fibrosa of the Germans. They usually had recurrent attacks of bronchitis, and broncho-pneumonia, if it developed, did not go on to complete absorption; there was thus a repeated fibrinous deposit about the bronchi, impairing the elasticity of the tubes and favouring the occurrence of bronchiectasis. Surgeons usually found it hard to hit the cavities, they did not drain well, and the patients generally succumbed a few weeks afterwards. Under these circumstances, if a definite vomica were found, it might be right to recommend incision; but it should be explained to the patient and friends that the chances of success were slight.—Dr. CARR, in reply, referred to Dr. Fagge's observations on the occurrence of bronchiectasis without emphysema. He said that neither of the children he had shown had clubbing of the fingers, and there was no family history of importance. The diagnosis from abscess was helped by the facts that in bronchiectasis the onset was usually slow and the temperature subnormal. It was important to diagnose before putrescence was present. In four cases which he had published in the *Practitioner* putrescence was present in none, though the diagnosis of bronchiectasis was confirmed in all at the necropsy.—Dr. W. ORD, in reply, said that the younger child which he showed had distinct clubbing of the fingers. In the girl's case the lesion was certainly secondary to a broncho-pneumonia; but in the boy, who had been carefully observed for a very long time, no such lesion was noticed.

Mr. BERNARD PITTS showed a case of Plastic Operation for Contracture following Burn. The patient, a girl aged eleven, was badly burnt on the left arm in December, 1890, by the upsetting of a paraffin lamp; the burn extended over the greater part of the arm and over the upper part of the forearm. She was admitted to St. Thomas's Hospital in September, 1891, with a tense band of scar-tissue, causing flexion of the forearm at rather less than a right angle, the scar-tissue extending over the whole circumference of the forearm; the only healthy skin was at the posterior surface of the upper arm and over the posterior aspect of the elbow-joint. The elbow could be extended to a right angle, and flexed about fifteen degrees, rotation being fairly free. A month later the band in front of the elbow was divided down to the muscle and vessels, and the denser part of the tissue dissected away, a very wide gap of five inches being thus made. It was found impossible to completely straighten the arm, even when the superficial fibres of the biceps and of the muscles arising from the external condyle had been divided. A large flap of skin was then raised from the posterior aspect of the upper arm, glided across the gap, and secured in position with sutures. A considerable raw surface was still, however, left both above and below the flap, in addition to the large wound made by raising the flap. These raw surfaces were carefully covered by a number of parings from the skin of the thigh and legs, taken after the method of Thiersch. The grafts were cut as thin as possible with the razor, leaving the deeper structures of the skin behind and only just causing slight punctiform bleeding. The grafts varied in size from a florin to a five-shilling-piece. All these thin grafts lived, but one thicker piece, taken from the thigh and consisting of nearly the whole thickness of the skin, died. The condition of the arm was now very satisfactory, there being free movement in all directions, except some limitation of complete extension. This limitation was no doubt due to the burn having extended to the superficial part of the muscles. He found Thiersch's grafts of great value both in covering the raw surfaces above and below the glided flap and also in covering the wound at the back of the arm. He had not trusted entirely to this method of skin grafting, because he was anxious to have a substantial flap of glided skin across the bend of the elbow, it being more supple and less likely to be irritated by movement.

Dr. ORMEROD exhibited a male, aged nineteen, a labourer, who was otherwise healthy, but who appeared to be the subject of Syringomyelia. He experienced a sensation of pins and needles in the right hand seven or eight years ago, followed by inability to close his hand properly. The right hand, and subsequently the left, had wasted gradually. At present

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there was atrophy of all the intrinsic muscles of the hands, and a certain amount of wasting of the muscles of the forearms, especially upon the flexor aspect, and most markedly in the right limb. The upper arms were in fair condition; there was no fibrillar twitching and no reaction of degeneration, but there was reduction of electro-contractility, and, indeed, abolition of it in some muscles. There was a well-marked lateral curvature, with its convexity to the left in the dorsal region. The lower limbs were natural, and the sphincters were not affected. As to sensation in the upper limbs, he felt touches, though apparently not perfectly, in the right hand; he also felt pain, such as pinching and dry faradaism, but confused heat and cold. On the strength of the chronic muscular atrophy, the lateral curvature, and the peculiarity of sensation, the case was brought forward as being probably syringomyelia.—The PRESIDENT asked where the exhibitor placed the lesion, and if he associated the cord disease in any way with the curvature.—Dr. TAYLOR considered that there was little doubt but that the case was one of syringo-myelia. The curve might be due to unilateral weakening of the trunk muscles as a result of the cord-lesion. It was peculiar in having such a very long history, but he had seen another case which resembled it in this respect, and in which the diagnosis was confirmed post mortem. In a second case he had examined the symptoms were of but two years' duration, but it was accompanied by so great a weakness that the patient could not stand or feed himself.

Mr. BRUCE CLARKE sent a case of Multiple Exostosis in a man of thirty-six, and one of the osteomatous growths had developed into a sarcoma. All the exostoses stopped growing at the age of twenty-five, but the mass in the abdomen started growing four years and a half ago, and now filled the whole of the left side of the pelvis. The inguinal glands were enlarged, there was difficulty of defecation, and increased frequency of micturition; pain was also present along the course of the great sciatic and obturator nerves.

Mr. MARMADUKE SHEILD showed a case of Primary Chancre of the Cheek. The patient was a woman aged thirty-four, and a widow. Near the centre of the left cheek was a formidable-looking, dusky coloured swelling the size of a florin. The edges were sharply defined, and it was devoid of discharge or ulceration. The submaxillary glands were much enlarged, and the skin covered with a dusky syphilide. The patient was taking mercury energetically, and the chancre had already reduced in size, while the rash had faded. The case had come under his care fourteen days ago. There was no history of infection, and all that was known was that the "sore" had existed for about two months. Mr. Sheild especially referred to an almost exactly similar case, with an illustration, published by him in the *British Medical Journal* of Feb. 5th, 1887.—Mr. WAINEWRIGHT remarked on the peculiarity of the chancre, which had changed in character since it had been under treatment.—Dr. HERON thought that if the lesion were primary it was too early to see periosteal symptoms; it might possibly be a secondary manifestation, the primary sore being situated elsewhere.—Mr. JULER had seen a great many cases of chancre on the eyelids. He would not at first have looked upon the lesion as primary, as it was associated with so many other symptoms of advanced syphilis.—Mr. SHEILD, in reply, emphasised the fact that the case was one of bad syphilis which had been untreated for three months, and in such cases it was not at all unusual for so-called late manifestations to occur early. In a bad case he had seen gummata in the testis four months after infection. In the present instance there was marked amygdaloid submaxillary bubo, and the skin was covered with an early syphilitic roseola. It was probably produced by accidental inoculation of a previously existing abrasion.

CLINICAL SOCIETY OF LONDON.

Tracheal Tugging in Aneurysm of the Aorta.—After-treatment for Scissors-legged Deformity.—Aneurysmal Varix.—Hypertrophy of Left Lower Extremity.—Aphasia.—Congenital Deformity of both Legs.—Amputation for Gangrene after Ligature of Femoral Artery and Vein for Punctured Wound.—Suppurating Pulmonary Hydatid treated by Incision.

AN ordinary meeting of this Society was held on Jan. 22nd, the President, Sir Dyce Duckworth, being in the chair. An exhibition of clinical cases first took place.

Dr. FREDERIC TAYLOR showed a patient who had Tracheal Tugging in association with Aneurysm of the Arch of the Aorta. After referring to the paper on this subject published in THE LANCET by Dr. McDonald in March last, Dr. Taylor stated that the patient possessed many of the usual signs of aneurysm; there was huskiness of the voice, inequality of the pulses, and diminution of breath sounds at the left base. On taking the cricoid cartilage firmly between the finger and thumb and lifting it upwards, the communicated pulsation or "tugging" of the aneurysm was distinctly felt.

Mr. BERNARD PITTS showed a case to illustrate the After-treatment for Double Ankylosis of the Hip, or Scissors-legged Deformity. The boy was nine years of age, and came under his care a year ago. The left thigh was ankylosed in front of the right, and he could only shuffle along on his toes. The ankylosis was osseous, and was the result of inflammation following a fall four years previously. He had been treated by extension in the Leicester Infirmary. Mr. Pitts first made a section of the left femur below the trochanters, and fixed it in a straight position. He then took a wedge out of the neck of the right femur, but this procedure was followed by suppuration and necrosis, necessitating the excision of the head of the bone. Movement had since been kept up on the right side, and the boy for the last month had been able to walk.

Mr. FREDERICK PAGE of Newcastle showed a pitman who, five weeks ago, received a stab in the left side of the neck. Hæmorrhage was at first checked by pressure, then the wound was enlarged, and a vein which was divided was tied. The next day a swelling was found which extended from the thyroid cartilage to the sterno-clavicular joint, and there was a thrill which was characteristic of a communication between an artery and a vein. The exhibitor thought that the lesion was an aneurysmal varix between the carotid artery below its bifurcation and the internal jugular vein; he gave reasons for this opinion. The patient at present complained of a constant buzzing noise, and he could not express himself freely. Mr. Page referred to a case of aneurysmal varix in the popliteal space which occurred a few years ago, and in which, after twelve years, an aneurysm of the popliteal artery developed.

Dr. COUTTS and Mr. DUNN exhibited a girl with Hypertrophy of the Left Lower Extremity. The limb commenced to swell shortly after an attack of scarlet fever, and the hypertrophy now involved all the tissues. There was neither albuminuria nor chyluria, but Dr. Coutts thought he had found a worm in the blood larger than filaria sanguinis hominis. The femoral artery had been tied, and since then the limb had decreased in size.

Dr. HADDEN brought forward a woman, aged twenty-seven, affected with Aphasia. A year ago she was attacked by right hemiplegia, which was apparently of syphilitic origin. She could remember very few words, but her automatic utterances remained, such as the words of a few hymns and prayers. There was no heart disease.

Mr. OPENSHAW exhibited a child with Congenital Defects of the Upper and Lower Extremities. There was no family history of similar deformity. There were deep grooves round both legs, and both fingers and toes were undersized, and for the most part nailless. The left foot exhibited talipes equino-varus. There was no spina bifida.

Mr. MANSELL MOULLIN demonstrated a case of Fracture of the Lumbar Spine for which he had performed laminectomy. On Jan. 1st, 1891, the patient had fallen down a chalk pit, and was picked up unconscious with the lower limbs paralysed. The medical man who saw him extended the spine manually, which was followed by temporary improvement; still he could not move the left hip, and both limbs below the knee remained paralysed. Nine weeks after the accident he removed the second and third lumbar spines, with the corresponding laminæ, and as the second lumbar vertebra appeared to be twisted he removed its right lower articular process. He was unable at the operation to determine the nature of the injury. Two days afterwards sensation on the left side began to improve, and he had now completely recovered power except in the left tibialis anticus and the extensors of the toes. These muscles, however, were the only ones which had lost their reaction to faradaism before the operation; but at the present time (twelve months after the operation) they commenced to show signs of returning power.

Mr. LEONARD BIDWELL showed a woman forty-seven years of age who five years ago noticed Pigmentation at the end of the Thumb, and six months ago a Melanotic Tumour formed.

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At the end of last September he removed the tumour, together with the surrounding skin. Before the wound cicatrised pigmentation commenced round the scar, which had since increased in extent; but there was no recurrence of the tumour, an enlarged axillary gland being apparently accounted for by a sore on the back of the hand. There was no history of a mole existing at the site of the growth.

Mr. HERBERT ALLINGHAM read a paper on a case of Punctured Wound of the Thigh, in which the femoral artery and vein were divided. Gangrene of the leg followed ligature of the proximal and distal ends, and the limb was finally amputated through the knee joint. Frank S——, aged twenty-eight, was admitted into the Great Northern Hospital on Nov. 30th, 1889. While cutting some bacon with a long, sharp butcher's knife his hand slipped, and the knife penetrated the inner part of the right thigh just at the apex of Scarpa's triangle. A considerable deal of blood shot out. He at once applied pressure, and was brought to the hospital, where, after a tourniquet was applied, it was found there was a small wound about an inch long, from which, on loosening the tourniquet, blood spurted. The surrounding tissues were infiltrated with blood, and there was no pulsation in them. The whole of the limb was tense and very swollen, the foot was quite cold and pale, and there was no pulsation in any of the vessels of the leg. The patient's general condition was bad, he was very blanched, complained of thirst, swimming in the head, and was extremely restless. Esmarch's bandage was applied and the divided vessels cut down upon. On exposing the sartorius it was seen that that muscle had been penetrated, so it was cut across and the ends turned upwards and downwards. A large blood clot was then exposed and turned out, and at the bottom of the cavity was seen the femoral artery and vein completely divided just as they entered Hunter's canal. Both ends were secured. The wound was then sewn up, having been previously well irrigated. The leg and thigh were enveloped in cotton wool, and kept warm with hot bottles. The next day the leg appeared warm, but on Dec. 2nd, two days after the operation, the foot began to have a waxy appearance. The calf became much swollen and painful, and on Dec. 3rd the foot had become gangrenous, of the dry variety, and this increased and spread very slowly up the leg to about the middle of the calf. The leg remained in this condition until Dec. 23rd—when the temperature rose to 105°, the gangrene becoming moist, and with that state of things he amputated at once through the knee-joint by Stephen Smith's method, and the next day the temperature returned to normal. When amputated it was seen that both the popliteal artery and vein were plugged, and the cutaneous vessels bled rather freely. The wound was a long time in healing, as the edges of the skin sloughed. The interest of this case lay in the following facts:—The gangrene when once pronounced did not extend for three weeks. Amputation was done through the knee-joint. His reason for delaying to remove the dry gangrenous leg was because, since the constitutional symptoms were favourable, it was better to wait in order that the collateral circulation might become well established. If he had amputated early he thought the incision would have had to be made through the wound in the thigh, where the femoral vessels were ligatured, as that wound was not healed, and therefore there was still a fear of secondary hæmorrhage.—Mr. HARRISON CRIPPS said that two questions were raised for discussion: the primary treatment of the case and the right time to perform amputation after gangrene appeared. If there were doubts what vessel was wounded, he held it right to trust at first to graduated pressure properly applied, the limb being bandaged from below upwards, an outside splint put on, and a roller firmly applied above and below the wounded spot. But in the case related the evidence was so clear that the femoral was divided that the right practice was at once to cut down and tie the ends. When gangrene occurred the practice should be the same whether it were due to wound, ligature, or embolism of the artery. The portion of limb which died was usually the foot with the lower half of the leg, the thigh generally not being affected. The gangrene usually caused but little constitutional disturbance, and in that case the line of demarcation should be waited for; it was usually about four inches below the knee, and amputation should be performed immediately above it. If the patient were old and feeble nature might be allowed to effect separation down to the bone.

Dr. W. M. ORD and Mr. H. B. ROBINSON contributed notes of a case of Suppurating Hydatid of the Lung, treated by incision of the lung and removal of the hydatid. The patient, a youth aged eighteen, a telegraph messenger, was admitted to St. Thomas's Hospital on Oct. 25th, 1890. He had had "pleurisy" in the right side four months before admission, was in bed for two weeks, and then "recovered completely." He had had a cough for five weeks before admission, and after this had lasted two weeks he was seized with a pain in the right side, and brought up a quantity, estimated by him as half a pailful, of an opaque yellowish-white fluid. From that time he was confined to his bed, could only lie on his right side, and suffered from considerable dyspnœa. He had had profuse expectoration, and latterly troublesome diarrhœa. On admission the patient was pale and sallow, with a hectic flush and a look of anxiety. His breathing was rapid, short, and painful, and his breath fetid. The temperature was 101°; pulse 120; respiration was almost entirely diaphragmatic, and was 54 to the minute; there was dulness over the lower fourth of the right lung behind and impaired resonance as high as the fourth rib in front; vocal fremitus was slightly increased over the dull area, and loud bubbling crepitations were heard (a few hours after admission these disappeared, and were replaced by cavernous breathing, the patient having coughed up in the meantime more than a pint of frothy and offensive muco-pus); there were bronchophony and whispering pectoriloquy over the dull area; there was tubular breathing, with increased vocal fremitus, over the base of the left lung posteriorly. Heart and abdominal organs normal. The diarrhœa continued after admission. Stools liquid, brownish-yellow, and offensive; urine, sp. gr. 1030, no albumen, sugar, indican, or blood. Some hours after admission an exploratory puncture was made, and about one ounce of thin sanious blood was obtained, with numerous flakes of membrane; no hooklets were found; the sputum contained neither hooklets nor tubercle bacilli. The symptoms pointing to a large cavity actively secreting pus, Mr. Robinson, on the third day after admission, proceeded to operate. No general anæsthetic was used, but the ether spray was employed for the skin incision, which was made from the angle of the seventh rib to the inferior angle of the scapula, the periosteum of the rib was detached, and one inch and a half was resected. On careful section in the space thus left a cavity was reached about a quarter of an inch from the rib. No pleural cavity was found, and on cutting into the lung there was no hæmorrhage. About half a pint of stinking pus, with gas, escaped from the wound, followed by a very large and collapsed hydatid cyst. Two drainage-tubes were introduced, but owing to the patient's condition the cavity was not washed out. Soon after the operation the patient had a rigor, and the temperature rose to 102·4°, but sank to normal four hours afterwards. The wound was dressed in the evening, with the escape of a large quantity of pus. On the following day the cough was not so troublesome and the expectorations hardly offensive. The cavity was washed out with three pints of weak Condy's fluid. This was repeated on the following two days, at intervals of twelve hours, and the discharge became less profuse and less offensive. The diarrhœa continued very bad, and the patient gradually became exhausted, and sank on Nov. 10th, thirteen days after the operation.—Post-mortem examination: A large cavity occupied almost the whole of the lower lobe of the right lung, and about the artificial opening only a very thin layer of lung could be seen beneath the greatly thickened pleura. The cavity had a smooth wall, and, though containing some shreds of exudation, was practically empty. The surrounding lung was the seat of chronic interstitial pneumonia. Between the parietal and visceral layers of the pleura round the upper lobe was an empyema, which had no connexion with the hydatid cavity. The upper lobe was compressed, and the seat of acute broncho-pneumonia. The lower lobe of the left lung was semi-solidified by collapse and broncho-pneumonic foci. There was acute pericarditis, but the cardiac valves and muscle were normal. The liver contained two hydatid cysts. The other organs were healthy, and no other cysts were found. It was evident at the time of admission that he had a large abscess of the right lung partially discharging through the bronchial tubes. The enormous amount of discharge occurring suddenly five weeks before suggested the existence either of a suppurating hydatid or of empyema bursting through the lung. The latter supposition was not favoured by physical signs. The operation would have been performed earlier but for the necessity of communi-

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cating with the boy's parents. As an operation for pulmonary abscess it proved successful, but from the long previous duration of the case pyæmic infection had occurred.—Mr. C. MANSELL MOULLIN gave details of a case of hydatid cysts of the liver, which ruptured into the peritoneal cavity, and in which abdominal section was performed. The patient was a thin anæmic youth, aged nineteen. The tumour was first perceived eight years ago. In September, 1889, something gave way in the abdomen; the swelling disappeared, and an eruption of urticaria, with slight shock, followed. Ascites set in afterwards, and the patient was admitted into the London Hospital under Dr. Stephen Mackenzie. The abdomen was aspirated on three occasions, fifteen to twenty pints of dark greenish-brown fluid being evacuated each time. Hooklets were found in the last. Abdominal section was performed on Dec. 28th, an immense quantity of fluid draining away. Recovery was very much delayed by the slowness with which the cyst wall separated and the difficulty of extracting the sodden fragments. In about three weeks bile ceased to make its appearance, but the patient did not rally. A few days later a second much larger cyst with thicker walls burst into the suppurating cavity, the shock on this occasion nearly proving fatal. Then the cavity slowly contracted, and the patient was discharged with the wound healed in April. Attention was directed to the very different estimates of the mortality attendant on rupture of the hydatid cysts into the peritoneal cavity and the great difference to the severity of the symptoms, especially the degree of shock. It was pointed out that the symptoms of poisoning that usually followed could only result from some constituent of the fluid itself, possibly a ptomaine, the presence of which in living active cysts had been shown by Langenbuch and confirmed by Brieger and others. This would also serve to explain the results obtained experimentally by Roy and Humphry. On this supposition the subsequent onset of peritonitis and its severity must be regarded as dependent chiefly upon the nature of the débris that entered the peritoneal cavity at the same time.—The PRESIDENT asked the experience of surgeons as to whether these cavities should be washed out. His own feeling was that they should not be so treated.—Mr. HOWARD MARSH said that the difficulties were very great when one attempted to do anything active surgically to the lung itself. The hæmorrhage on incision into its substance was profuse, and there was great difficulty in getting sufficient room, even if ribs were freely removed. It was a difficulty, again, to leave the wound in an aseptic condition because of the usual free communication with bronchi. He referred to a case in which a patient had apparently a simple empyema, but the sinus would not close. Portions of ribs were removed, and there was extremely severe hæmorrhage. The sinus still remained open, and a quantity of blood had since escaped both from the sinus and by way of the bronchi, though he had no clue as to its cause. He thought that hydatid cavities should not be washed out. A little time ago he saw a lady, in consultation with Dr. Douglas Powell, with a chest complaint. It was thought to be empyema and a portion of rib was resected, when there gushed out a large quantity of hydatid material. It must have been hepatic in origin, for afterwards there was a free discharge of bile; the patient ultimately did well. He once nearly destroyed a patient by washing out with weak iodine a chest cavity which communicated with a bronchus.—Mr. ROBINSON, while agreeing that as a rule chest cavities should not be washed out, pointed out that in the case under discussion the cavity was large, the pus was malodorous, and the patient was suffering from septic poisoning. The injection of a small quantity of weak Condy's fluid had no bad effect whatever.—Dr. ORD, in reply, while agreeing that a cavity containing living hydatids might be opened and left, yet when they were suppurating he saw nothing to distinguish them from any other abscess, and held that it was proper treatment to wash them out.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, DEC. 9TH, 1891.

Mr. BENNETT MAY, F.R.C.S., President, in the chair.

Bulbar Paralysis, with Bilateral Paralysis of the Abductors of the Vocal Cords; Death after Tracheotomy.—Dr. SUCKLING read notes of the case of a man aged forty-three, a commercial agent, who was admitted into the Queen's Hospital under his care on account of attacks of urgent dyspnœa. He had been ailing for three or four years, and had gradually become worse. His speech was slurred and thick. The lower lip hung down flabbily, and he had to press it against his gums when eating. There was distinct paresis in the lower part of the face on the left side. He suffered also from dysphagia, especially for liquids. The soft palate and uvula were relaxed, but not quite paralysed. He could protrude the tongue, but its movements were feeble. Phonation was feeble. He had no power of expectorating, and this gave him much discomfort. There was paresis and wasting of the left deltoid, and wasting of the left supra- and infra-spinati. The thenar eminence on both sides was flattened. The vocal cords were adducted on inspiration, and were drawn closely together, occasioning stridor; on expiration they were slightly separated, the edges vibrating. Dr. Suckling did not consider it safe for the patient to leave the hospital until tracheotomy had been performed, and the patient himself was very anxious to have the operation done. He was in a very feeble state, being obliged to sit up in bed to breathe, and his breath sounds over both lungs were very feeble. A few hours after the operation was performed, no anæsthetic being used, the patient became suddenly worse and was cyanosed. The breathing became very slow and shallow, and soon ceased. There were no history of syphilis, the knee-jerks were normal, and there were no signs of locomotor ataxia. A microscopic examination of the medulla had not yet been made. The occurrence of paralysis of the abductors of the glottis in bulbar paralysis was rare. The man had been a drinker, but had never worked in lead.

Sarcoma of Radius.—Mr. HEATON showed this specimen. The clinical history was very meagre. Had noticed swelling of forearm for three months. Swelling was painless, but slightly tender on pressure, and had lately become more tender. Three days before admission it suddenly increased in size. Typhoid fever six months before; no history of tumour. He had fairly well-defined swelling in upper two-thirds of right forearm, chiefly over dorsal aspect of radius. Swelling firm and elastic, softer in places, tender, attached to radius; no pain in swelling at night, nor rise of temperature. Diagnosis lay between chronic ostitis, periostitis, or some form of new growth. The attacks of pain, rapid history, also of raised lump and history of sudden increase in size without any evidence of inflammation, all pointed to new growth. Grooved needle drew off a little blood. An incision made into tumour showed bone enlarged, and encountered a soft, vascular, marrow-like tissue. Amputation refused, but consent afterwards given; performed. Boy made good recovery; seen a few weeks ago in good health. The specimen was a well-defined and encapsuled sarcoma of shaft of radius. Bone thickened by deposit of new bone from periosteum. Growth seemed to have started in the medulla, but, instead of expanding the bone, to have perforated it and enveloped it as a periosteal sarcoma would. Tumour, very vascular when fresh, had shrunk and become pale in alcohol. Microscopically, a myeloid sarcoma, with numerous well defined multi-nucleated giant cells. The case is interesting on account of the extreme rarity in which a myeloid sarcoma grows from the shaft; nearly always at one articular end, and then expands the bone around it.

Disease of Testicles.—Mr. BARLING showed a patient, aged thirty-one, with acute tubercular disease of both testicles. The disease was attributed by the patient to an injury three months ago, but the history of this is uncertain. When first seen each epididymis was a good deal enlarged, irregular, and very tender; a little fluid existed in each tunica vaginalis, and the cord was rather thickened and the skin of the scrotum red. There was no appearance or history of urethritis; no evidence or history of syphilis. The temperature at night varied from 101° to 103°, and in the morning was about 99°. No definite evidence of any other tubercular lesion could be discovered in the body. At the present time the disease had extended to the body of the testicles on each side, and the enlargement was steadily increasing. The left testicle was the size of a small fist, and both were very tender. The patient was advised to have double castration performed (after exploratory incision) for two reasons—viz., the disorganised condition of the testicles rendering them functionless, and the danger of general infection and of extension to the base of the bladder. Operation was declined.

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Retroversion of the Gravid Uterus.—Dr. PURSLOW read notes of a case of retroversion of the gravid uterus. The patient, who had had four children and no miscarriages, was admitted at 6 P.M. on Nov. 14th, complaining that she had been unable to pass urine from noon on the previous day; no other symptoms. Last menstruated on Aug. 1st. On examination the bladder was distended, reaching to umbilicus, and there was a well-marked retroversion of uterus, the os being high up behind the pubes, and the fundus forming a large doughy swelling in posterior part of the pelvis. After withdrawing urine an attempt was made to replace fundus by pressure of fingers in vagina and then in rectum, but this did not succeed. The patient was then placed in genu-pectoral position, and the uterus righted itself, and there was no further trouble. Dr. Purslow urged the importance of trying replacement in genu-pectoral position before proceeding to give an anæsthetic.

Biliary Calculus.—Mr. CHRISTOPHER MARTIN showed a biliary calculus removed ten days previously by Mr. Lawson Tait by the operation of cholecystotomy. The patient was a middle-aged woman who had suffered from repeated attacks of biliary colic during the preceding three months. Each attack was followed by violent bilious vomiting, but never by jaundice. She had never found gall-stones in the fæces, nor had the stools been pale in colour. On examination the gall-bladder was found to be greatly enlarged, reaching to two inches below the umbilicus. It formed a smooth fluctuating mobile swelling the shape of a soda-water bottle. At the operation it was found to be distended with a clear, colourless mucous fluid, in which not a trace of bile could be discovered. There was but one stone, and this was impacted in the neck of the gall-bladder. It was about the size and shape of a nutmeg, and remarkably tuberculated on the surface. The patient was making an excellent recovery.

Mr. ROSS JORDAN read a paper on the Lunacy Act of 1890, and the certification of lunatics.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

Mr. A. R. ANDERSON, F.R.C.S., President, in the chair.

THE meeting on Jan. 6th was a Clinical and Pathological evening.

Mr. TRESIDDER showed a boy on whom he had removed a piece of the cartilage of the ear for the remedy of out-standing ears.

Mr. GERATY described the case of a man aged sixty who suffered from Multiple Sarcomatous Tumours. When first seen there was only one nodule on the forearm. This was excised, and soon afterwards superficial nodules appeared on the trunk and face. Many of these had a purpuric zone round them. Some small nodules were observed to diminish in size and ultimately disappeared, while fresh ones continued to appear. The patient suffered no pain, but became weak and anæmic-looking. He died a year after the removal of the original tumour.—Dr. W. H. RANSOM followed with remarks on the spontaneous recession of Sarcomata. He remarked on the rarity of this occurrence, and mentioned instances of it in medical literature and coming within his own knowledge. He also alluded to cures of sarcoma which have been reported under the use of arsenic, the iodides, and mercury. There were three varieties of nodule in Mr. Geraty's case: (1) A patch of discolouration not raised above the surface in which blood-corpuscles were found, but no sarcoma cells, although they were probably present; (2) extravasation of blood into a sarcoma nodule provided with limiting capsule; (3) infiltrating growths without capsule. He considered the essential cause of recession of the growths was hæmorrhage, the effect of which was to destroy the vitality of the cells and render the mass capable of absorption.—Dr. HANDFORD found arsenic useless in lympho-sarcoma infiltrating the neck.—The President and Dr. Boobbyer also spoke.

The PRESIDENT reported two cases in which he had successfully removed large Tumours from the gluteal region. Both occurred in women. In one the growth proved microscopically to be a myxo-fibroma; it was about the size and shape of a Rugby football. In the second case, a small lump which had existed for many years began suddenly to enlarge, and at the time of operation had attained the size of a child's head, on weighing removal 5 lb. A microscopic section, prepared by Dr. W. H. Ransom, showed the tumour to be an atheromatous cyst undergoing sarcomatous degeneration. Islets of sebaceous cells were to be seen amongst the sarcomatous tissue. He also referred to (1) a case of pure adenoma of the breast, a microscopic section of which was shown, and commented on the rarity of this growth; (2) a case of carcinoma uteri which he had successfully removed by vaginal hysterectomy; and (3) a case of melano-sarcoma of the ciliary region with cataract.

Mr. TRESIDDER related the case of a man, aged seventy-one, who had been ill eleven days, and was admitted into the hospital with symptoms of obstruction. Laparotomy was done, and the man died. A specimen was shown of the cæcum surrounded by an abscess cavity in which lying free were the appendix and a foreign body.

Mr. TRESIDDER also showed specimens of Gastro-enterostomy. The operation was unsuccessful, and was performed on a patient already much weakened by cancer of the pylorus of seven months' duration. Duodenal ulcer had been diagnosed during life, and Mr. Tresidder discussed the difference between gastric and duodenal ulcer. Death occurred from hæmorrhage. The size of the ulcer was an inch and a half by half an inch.

Specimens.—Mr. ANDERSON: Tumour of Buttock; Uterus removed for Carcinoma; Sarcoma of Ciliary Region; Adenoma of Breast.—Dr. W. H. RANSOM: Sarcomatous Testicle; Microscopical Sections of Sarcoma, Myxo-fibroma, Spindle-celled Sarcoma, and Adenoma of Breast.—Mr. CLEMONS (for Mr. Anderson): Sarcoma of Ciliary Region.—Dr. CATTLE: "Fuchsine Bodies" in Carcinoma, which were considered due to the deep staining of globules of degenerated protoplasm; Sections showing development of Mammary Carcinoma from the Epithelium lining the Alveoli.

Reviews and Notices of Books.

An Introduction to Human Physiology. By AUGUSTUS D. WALLER, M.D., Lecturer on Physiology at St. Mary's Hospital Medical School. London: Longmans, Green, and Co. 1891.

IN this work, which we gladly welcome from so excellent a teacher, Dr. Waller presents what in his judgment are the chief points in physiology that should be understood by the medical student. The arrangement adopted by Dr. Waller is to consider in the first place the phenomena of nutrition, including the blood circulation, respiration, digestion, secretion, the balance of the economy and animal heat; and in the second part the phenomena of excitation, including the nervo-muscular apparatus and senses. Each chapter is preceded by a syllabus of the subject, which may be of use not only to the student but to the teacher, by showing the order in which the subjects treated of are discussed. The first one, under the head of Circulation, is particularly full, and gives the page on which each point is treated. In this chapter we notice an instructive woodcut giving the duration of systole and diastole, with different pulse frequencies, showing that the systole shortens by about two one-hundredths of a second for each increase of ten beats per minute, and that the diastole shortens by about ten one-hundredths of a second. The nature, mode of determining and variations of blood-pressure are well and clearly given, but call for no special notice. The author estimates the quantity of blood discharged from the heart into the arteries at each systole at four ounces.

The chapter on Respiration contains a drawing of an ingenious and handy little apparatus for determining the quantity of oxygen and of carbonic acid gas in expired air. In regard to ventilation, he observes, the air of a room in which respiratory CO_2 does not exceed 2 per 10,000 is fresh, when the respiratory CO_2 is between 2 and 4 per 10,000 the room begins to feel close, between 4 and 6 per 10,000 it is

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decidedly close, between 8 and 10 the air is foul, and beyond this limit intolerable for any length of time; 2 per 10,000, or 1 per 5000, is thus the limit of expired CO_2, admissible in perfect ventilation, and should never be exceeded. The term "respiratory CO_2" does not seem to us to be a happy one, and the student is apt to forget that four parts per 10,000 have to be added to each of the above numbers to represent the quantity present in ordinary air. The mode of calculating the quantity of fresh air required for good ventilation is well put: "Remembering that every 1 cc. of expired CO_2 is to be diluted by at least 5000 cc. of fresh air, an adult expiring fifteen times per minute 500 cc. of air containing 20 cc. of CO_2 exhales in one hour 18 litres of CO_2, which to be diluted 5000 times requires 90,000 litres of air—i.e., the fresh air required during the hour is 90,000 litres, or 3000 cubic feet." This is the normal amount of fresh air per head per hour which should be provided for in the ventilation of dwellings intended to be "healthy." The author points out that the waxing and waning of the respiratory rhythm characteristic of the Cheyne-Stokes respiration stands in some relation to the Traube-Hering rhythm in the vaso-motor system, for both rhythms are originated by medullary centres, and are of about the same frequency—viz., 1 to 3 per minute, the association being sometimes most definite and exact; in the rabbit, for example, after hæmorrhage phases of increasing and diminishing amplitude of respiration, coinciding with rise and fall of blood pressure; they are instances, among many others, of the common tendency towards pulsatile or rhythmic action manifested by all living matter. A very good section is devoted to the respiration of muscle as illustrating internal respiration, and much information not to be found in other works on physiology is given in regard to the formation of CO_2 by muscle, showing that in contraction, after death and at 40°, muscle yields CO_2 and becomes acid; at 70°, although it becomes rigid, it does not yield CO_2 or become acid, whilst at 100° it yields CO_2 and becomes acid.

Incidental remarks often suggest that Dr. Waller is a practical physiologist, and has made the experiments he describes. For example, after remarking that after severance of the head of an animal a little salivary secretion can be induced by stimulating the chorda tympani, he adds: "The observation is less convincing in the fact than in the account of the fact—only a drop or two of saliva can thus be obtained,—and room is left to imagine that this minute quantity is squeezed out rather than secreted." Intestinal juice he regards as having only a very slight digestive action on food stuffs, its most characteristic effect being the conversion of cane sugar or saccharose into invert sugar or lævulose and dextrose, by virtue of the ferment named "invertin." Glycogen he regards as a temporary carbo-hydrate reserve. Absorbed sugar, he says, enters the blood, is to a great extent stored as glycogen in the liver, is consumed by living muscle, and is discharged as CO_2, and as H_2O.

The chapter on Digestion is short, though no fact of cardinal importance is omitted. The time occupied for a complete act of deglutition is given at from 17 to 19·5 seconds for man. This period appears to be extraordinarily protracted. Surely it does not occupy more than a quarter of a minute for a bolus of food to reach the stomach. In regard to the vexed question of the termination of nerve fibres in the cells of salivary glands, Dr. Waller only remarks that all attempts at the demonstration of the junction have been unconvincing. He gives a very full and good account of the alterations observed in the cells of serous and mucous glands respectively in the resting and active state.

In the chapters on Muscle and Nerve a brief histological introduction is given, which is preceded by a very useful section on electro-physiological instruments. The meaning of the terms ordinarily employed in research, such as ampère, ohm, volt, rheostat, rheocord, Wheatstone's bridge, commutator, galvanometer, and others, are explained more clearly than we have elsewhere seen, and are accompanied with rough diagrammatic but very intelligible figures.

Under the head of the Spinal Cord and Bulb, Dr. Waller gives a short description of the structure of the cord, with a cut showing the arrangement of the columns in transverse section. Another woodcut gives an ideal longitudinal section, and showing that Clarke's column and the intermedio-lateral tract are rather to be regarded as islands of grey substance than as columns, and showing also the relations of these islands with the cervical sympathetic and cardiac accelerator nerves and with the splanchnic nerves. In regard to the *quæstio vexata* of the course of the motor and sensory fibres, after pointing out the inconsistency of the generally accepted doctrine that the motor fibres cross at the bulb and the sensory fibres in the cord, he remarks, "We seem, in fact, to be approaching the conclusion that sensory as well as motor channels have their major decussation in the bulb, their minor decussation in the cord; in which case we must admit that sensory impulses from each side of the body can pass up both sides of the cord, but most on the same side." He takes exception to the expression "centre for" such-and-such an action, considering that it implies a mapping out of the bulb and cord into departments far more definite and artificial than in reality exists, and is an illegitimate dictation of final causes. It appears, however, to be only a convenient mode of saying that a certain anatomical region from which nerves supplying one or a number of muscles take origin, and most teachers probably explain this in speaking of such centres.

The difficult subject of Cortical Localisation is sensibly and temperately discussed. The balance of evidence, the author thinks, is in favour of localisation, whilst the counter-evidence has shown that localisation is not sharply defined but blurred; and he suggests as an analogy that the various activities of the brain are not generally distributed as in a country without towns, where all kinds of industry go on in every hut, nor are the different activities absolutely restricted to certain spots, as if in walled towns. "The brain cortex is not comparable with either of these extreme cases; its territory must be recognised as possessing towns with special industries, but towns with straggling and overlapping suburbs, and industries which are indeed predominant each in a given centre, but not exclusive of all other industries in that centre, nor excluded from other centres in which other industries predominate." This appears to express very happily the conditions existing in the brain cortex.

The limits of the space at his command and the belief that the subject is beyond physiological bounds have led him to deal very summarily with the development of the embryo. Only an outline of the earliest stages is given.

We have quoted enough to show that Dr. Waller has written a very serviceable manual for the student, and one which may be regarded as well up to date. The author has had large experience in teaching, is at home in the laboratory, familiar with the use of instruments, and very competent to estimate the value of physiological experiments and doctrines, and their bearing on clinical medicine.

OUR LIBRARY TABLE.

Journal of the Marine Biological Association of the United Kingdom. Vol. ii., No. 2, Nov. 1891. London: Dulau and Co.—From this journal we gather that Professor E. Ray Lankester has been elected President in place of Professor Huxley, retired. The receipts, including a

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small charge for admission, have been £1925 5*s*. The condition of the tanks is annually improving, and a self-sown fauna of hydroids, ascidians, and chætopods is slowly springing up. Eleven gentlemen have occupied tables in the laboratory. Attempts, not hitherto successful on account of the difficulty of obtaining a suitable situation at a reasonable cost, have been made to obtain ponds for the artificial rearing of soles and of lobsters. So many anchovies were brought to the laboratory last year of large size that an anchovy drift-net has been purchased, and it is hoped that a regular fishery may be established. The papers contained in this part are: 1. The Egg and Larva of Callionymus Lyra, by J. T. Cunningham, and, by the same writer, Experiments on the Production of Artificial Bait; also the Rate of Growth of some Sea Fishes and their Distribution at different Ages; the Reproduction and Growth of the Pilchard and the Development of Palinurus vulgaris or Sea Cray Fish. 2. Walter Garstang on some Ascidians from the Isle of Wight. 3. Physical Investigations, by H. N. Dickson.

La Neurasthénie. Par le Dr. FERDINAND LEVILLAIN. Paris: A. Maloine. 1891.—Dr. Levillain's work is sandwiched between the inevitable preface by Charcot and a paper by another writer. The work itself is a very full one, and the subject is discussed in a manner which shows that the author has a thorough grasp of it. He begins at the very beginning by giving a history not only of the thing itself, but also of its name, and, after a rapid discussion of its nature and etiology, the bulk of the book is devoted to a full account of the symptoms and objective signs of the malady. Prognosis and diagnosis are also discussed, the subject of treatment in its various forms is entered into with the necessary amount of detail, and the book is rendered very complete by an appendix, in which the medico-legal aspects of neurasthenia are discussed. A very complete bibliography, which is sure to be useful, is also added.

La Suisse: Balnéaire et Climatérique. Par Dr. EUGÈNE DE LA HARPE. Zurich: César Schmidt.—Dr. de la Harpe's little book treats of the various Swiss health resorts in an exhaustive and scientific manner, and contains many valuable hints as to the class of patients for which each health resort is suitable. In addition to the already well-known "cures," Dr. de la Harpe brings into notice some places as yet little known. Among them Arosa may be mentioned, and Weissenbourg. Arosa may be reached from Coire and Langivies; from the latter place the journey is short and easy. High mountains surround it on three sides, and it stands at an altitude of 1900 metres, the north-west side alone being open. The scenery is grand and of a severe character, with forests of pines on the southern side, and there are several small lakes. The climate is bracing, subject to rather rapid changes of temperature, but as a rule the air is very dry. The climate in winter is as yet imperfectly known, since Arosa has only been used as a summer resort. The great attractions of Arosa are the purity of the air and the absence of dust. Dr. de la Harpe recommends it for patients in the early stages of phthisis. Weissenbourg, which is three hours and a half from Thun, is noted for its sulphuretted lime and magnesia waters. The baths of Weissenbourg are situated in a narrow valley watered by the Bunschenbach. The sides of the mountains which enclose the valley are covered with pines. The air is pure and free from dust, and the smell of the pines very pleasant. The chief characteristic of the climate is the dampness of the air, due to the large forests round the valley; it is also variable. Invalids are subjected to a strict regimen with regard to diet and alcohol. The best results are said to be obtained in tuberculosis of the larynx and in the sequelæ of inflammatory diseases of the lungs.

The Johns Hopkins University Circular, Vol. XI., No. 93, is devoted to the full text of the addresses delivered at a meeting held in the Physical Laboratory of the University on Oct. 13th to celebrate the seventieth birthday of Professor Virchow. The addresses are remarkable for the genial and lofty spirit which animates them, and the warm recognition they give to the life-long labours of the illustrious pathologist. Professor William Osler speaks of "Virchow, the man and the student"; Professor William Welch of "Virchow, the pathologist"; and more general tributes are contained in the addresses of Professor Samuel C. Chew, of the University of Maryland; of Professor A. Friedenwald, of the College of Physicians and Surgeons, Baltimore; and Professor A. Jacobi, of the College of Physicians and Surgeons, New York City. The celebration was one which did honour to those who shared in it, whilst it showed the gratitude that the followers of medical science in the New World bear to the inspiring work of their master, Virchow.

Analytical Records.

VARIOUS SOAPS.

(PRICE'S PATENT CANDLE COMPANY, LIMITED, LONDON AND LIVERPOOL.)

SOAPS are amongst the excellent productions of this well-known firm, no less than six kinds having been submitted to us for examination. The statements made in reference to each and all are, according to our analyses, quite accurate. Thus Regina is a dehydrated soap, milled and free from excess of alkali; Bonne Mère Nursery Soap is admirably fitted for the purpose implied by its name; Glycerine Cream is desiccated, milled, and extra perfumed; and Bath Soap is a cheap but none the less good variety freed from all irritant matter. The list would be incomplete without Sanitary soaps, and the two specimens sent us are so designated from the fact of the one containing eucalyptol and the other carbolic acid, both in conjunction with glycerine. The moisture in all samples varied from only 5 to 6 per cent., the combined alkali from 9 to 10 per cent. There was no evidence of free alkali, nor was any substance detected which should not properly enter into the composition of good and well-prepared soap.

DEVONSHIRE CONFECTIONS.

(JOHN CLEAVE & SON, WEST OF ENGLAND STEAM CONFECTIONERY WORKS, CREDITON, DEVON.)

More need not be said than that these confections are made of the purest materials; and where colour had been used it proved to be on analysis of a harmless character. Of the varieties sent us the following are types:—Lorna Doone, a toffee said to be made from clotted cream; Cream Almond Rock; Chocolate Almond Nougat and Devonshire Cream Butter Scotch—all were of excellent flavour.

SALIPYRIN (TABELLÆ AND CACHETS).

(ALLEN & HANBURYS, PLOUGH-COURT, LOMBARD-STREET, E.C.)

As its name would indicate, salipyrin is a compound of salicylic acid with antipyrin; it contains 42·3 per cent. of the former and 37·7 per cent. of the latter body. Salipyrin is a white crystalline powder, free from odour, slightly acid and astringent to the taste, sparingly soluble in water, but readily so in alcohol. On heating on platinum foil it burns with luminous smoky flame and leaves no residue. The substance, we find, melts in a test-tube and gives off a small crystalline sublimate, while a smell of phenol and oil of winter-green is distinctly perceptible. Perchloride of iron gives, as with salicylic acid, an intense violet colour, and acetic acid and sodium nitrite, an emerald-green

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colour distinctive of antipyrin; it is evidently, therefore, a loose compound. The production of salipyrin was the outcome of a suggestion to combine the antifebrile and analgesic properties of the base antipyrin with the anti-rheumatic action of salicylic acid. It is therefore very probably of value in cases where either or both drugs are indicated. Salipyrin has been largely employed in the treatment of influenza on the Continent, and we have recently learned of gratifying results following its administration at home.

THE PERFECTED COD-LIVER OIL EMULSION WITH HYPOPHOSPHITES OF LIME AND SODA.

(ALLEN & HANBURYS, PLOUGH-COURT, LOMBARD-STREET, E.C.)

This preparation is a well-made emulsion. It is quite tasteless as regards cod-liver oil, and possesses a very agreeable flavour. Under the microscope could be seen numerous and uniform-sized oil globules. Water dissolved out hypophosphites, and their presence was recognised by characteristic reactions. With zinc and sulphuric acid, for example, a gas was obtained smelling of phosphuretted hydrogen, and burning with a green-tinged flame. Sulphuric acid mixed with the emulsion produced a deep crimson colour. The preparation is doubtless a valuable one, and one which, as it yields highly satisfactory analytical results, we are glad to bring before the notice of the profession.

ESSENTIAL OIL OF EUCALYPTUS AND EUCALYPTOL.

(THE DOWNIE B. I. P. COMPANY, SAN FRANCISCO, 4, REDCROSS-STREET, LIVERPOOL, AND 80, BILLITER-SQUARE BUILDINGS, E.C.)

Eucalyptus is no new thing, but eucalyptus oil as a bye-product is a decided novelty. It appears that the above company discovered that a strong decoction of eucalyptus leaves is effectual in softening hard water for steam-making purposes and for preventing boiler incrustations. Eucalyptus decoction is said to offer distinct advantages over the ordinary "boiler compounds" at present in use—caustic alkali, for example. It is claimed to be, for instance, without action on iron. In the preparation of this extract the oil is of course obtained as a bye-product, and as such it compares, judging from our examination, most favourably with the specially obtained kinds. The specimen of eucalyptol commenced to boil, we found, at 160° C., and the whole distilled over at 170°. The specific gravity at 15° C. was 0·897. On evaporation a small residue remained. The essential oil distilled over between 170° and 180° C., and had a specific gravity at 15° C. of 0·906, and yielded a slight resinous residue on evaporation. Nitrous acid produced no reaction to indicate the presence of phellandrene. Both products are clearly of excellent quality.

PULVIS KUTNOVII ANTI-ASTHMATICUS.

(S. KUTNOW & CO., 66, HOLBORN VIADUCT, E.C.)

We have met with not a few preparations similar in substance to the above, which are offered as of value for the relief of asthma, bronchitis, &c. It consists of a dried herb of pleasing aroma, impregnated with a deflagrating mixture. The powder slowly deflagrates with scintillation when lighted, and gives off an abundance of smoky fumes. We cannot speak from clinical experience of its value; but as our examination shows that it is carefully prepared and contains ingredients of a selected kind, it may be deemed worthy of trial.

IODOPYRIN.

(BURROUGHS, WELLCOME, & CO., SNOW-HILL BUILDINGS, E.C.)

It may be of interest to record the following reactions yielded on experimental examination of this interesting compound. Heated in a tube, it melted, turned brown, and finally gave off violet vapours of iodine. The residue on cooling emitted a distinct odour of almonds. Chlorine displaces the iodine, as on the addition of the solution of this gas in water and a little starch emulsion a blue colour was produced. Carbon disulphide, too, dissolved out iodine on addition of chlorine water. No reaction could be observed when sodium nitrite, together with acetic acid, were added; but on boiling for some time with chlorine water, and then adding these reagents, the emerald-green colour characteristic of antipyrin was obtained. Iodopyrin, as its name implies, is a compound of iodine with antipyrin, and is represented by the formula, $C_{11}H_{11}N_2IO$. It is slightly soluble in cold water and alcohol, readily in hot, is tasteless and without odour. This interesting product, first prepared by Dittmar, is stated to be effectual in rapidly lowering the temperature and in promoting diaphoresis. In the stomach it is most probably decomposed into iodine and antipyrin.

LIGHT DINNER ALE.

(GOODMAN & YOUNG, STAMFORD-HILL BREWERY, STOKE NEWINGTON, N.).

The demand for palatable malt liquors, less full and less heavy in character, appears to be growing in this country. Light bitter beer has to a great extent replaced the once favourite heavy Burton or fourpenny ale, while lager beer has rapidly gained ground as a refreshing and wholesome beverage, especially during the summer months. The light ale under notice was found to resemble in composition, though not in flavour, ordinary lager beer. Thus, analysis showed 3·82 per cent. absolute alcohol by weight and 3·85 per cent. malt extract. (The well-known Munich beer contains 3·80 per cent. alcohol and 3·90 per cent. extract.) Malt and hops enter solely into the composition of the ale, and it seems well adapted for table use. *Apropos* of this subject we are prompted to ask why brewers generally have not succeeded in placing in the market an article equally refreshing and palatable as lager beer, and one that is calculated to quench thirst without producing muddled brains? Light beers, however, are more prone than the heavier kinds to turn sour or lose condition, and this probably has been the objection to their general production.

FAREWELL DINNER TO PROFESSOR SHERIDAN DELÉPINE.—On Saturday evening, the 23rd inst., a farewell dinner was given in the Café Royal, Regent-street, to Dr. Sheridan Delépine, on the occasion of his leaving London to fill the post of Professor of Pathology in Owens College, Manchester. Between fifty and sixty of Dr. Delépine's colleagues and friends were present. The chair was occupied by Dr. Dickinson, who had on his right the guest of the evening, and on his left Sir Andrew Clark, Bart., President of the Royal College of Physicians. Amongst others were present Dr. Lauder Brunton, Dr. Klein, Dr. George Harley, Dr. De Watteville, Prof. Anderson Stuart of Sydney, Dr. Woodhead, Prof. Victor Horsley, Mr. Watson Cheyne, Dr. William Hunter, Dr. Rolleston, Prof. Halliburton, Dr. Mott, Dr. Sherrington, and Dr. Sidney Martin. The chairman, in proposing the health of the guest of the evening, spoke in warm terms of the excellent work Dr. Delépine had done in London, and of the promise that he gave for the future. Whilst regretting his loss most deeply, it could not but be felt by all those present that the transition to Manchester would give him opportunities which he had not hitherto had, and of which he was sure Dr. Delépine would avail himself to the full, and he with all those present wished him and those dear to him all happiness in his future home and sphere of work. Dr. Delépine, in reply, spoke of the great kindness that he had always received from his colleagues, and of the heartiness of their support not only in his recent candidature but at all times. During the evening Dr. Lauder Brunton proposed the toast of "The Progress of Pathology," which was well received, and was replied for by Prof. Victor Horsley and Dr. G. S. Woodhead. Sir Andrew Clark proposed the health of the chairman, a toast which was cordially received. The remainder of a very pleasant and sociable evening was interspersed with songs and stories, which were highly appreciated.

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THE LANCET.

LONDON: SATURDAY, JANUARY 30, 1892.

A MEMORANDUM has just been issued by the Local Government Board upon the precautions which are advisable at times when epidemic influenza threatens or is prevalent. It will be remembered that in July last an exhaustive report, prepared by Dr. PARSONS, on the epidemic of 1889-90, was issued by the Local Government Board, together with an introduction by Dr. BUCHANAN; and it was then explained that since effectual action for the prevention of disease must be based on a knowledge of its causation, and since but little was known of the natural history of influenza, advice as to its prevention must necessarily be very incomplete. It is admitted that this lack of information still very largely obtains; and it is significant that though influenza has prevailed in most parts of the world, no authoritative counsel as to its means of prevention has been published by any State.

In view, however, of the recurrence and maintained prevalence of the disease, the Board evidently feel that there may be advantage in setting out in a form easily procurable by the public a brief summary of those points as to which certain definite knowledge has been obtained. It is in the first place laid down that influenza is spread by infection from person to person. The report issued by Dr. PARSONS contained abundant evidence on this point; and Dr. BUCHANAN, reviewing this evidence, and admitting that the infection may possibly travel by some less direct means, expressed the opinion that in its epidemic form influenza is an eminently infectious disease, and that there can henceforth be no doubt about the fact. Circumstances constantly coming within our knowledge show that this important point is most imperfectly appreciated by the public, and we think that the quotations from Dr. BUCHANAN'S introductory chapter, which are embodied in the new Memorandum, will usefully draw fresh attention to the fact. One of the reasons why aerial diffusion, apart from human agency, has been so commonly regarded as accounting for outbreaks of the disease, has been the circumstance of the rapid spread of the infection simulating the operation of a single cause simultaneously on all who were attacked. On this point Dr. BUCHANAN has called attention to the fact that influenza having something like a third part of the incubation time proper to small-pox, measles, or typhus fever, it has correspondingly rapid ability to reproduce itself, and that it can thus give rise to some thousand attacks in the same time that small-pox or typhus fever would produce ten, each of the thousand cases being ready to infect other susceptible people.

This circumstance, and the absence of any such definite symptom as a rash—like that which accompanies some of the ordinary specific fevers,—tend still further to prevent the early and certain recognition of the complaint; and the consequence is that such preventive action as is practicable is often deferred until the cases have multiplied and the infection has already spread beyond control. These various considerations having been set forth in the memorandum by way of prelude, it is then explained that notwithstanding these difficulties, which stand in the way of the application of proper precautionary measures to the general population and to the breadwinners of a community, there still remain some circumstances under which certain preventive measures may be applied to certain classes of persons; notably to persons in whom an attack would be specially dangerous by reason of age or infirmity, to inmates of institutions whose mode of life can be regulated, and to first attacks in households, and even in certain localities. Amongst these measures isolation stands foremost, and it is stated that measures to maintain separation between the sick and the healthy have in some instances been adopted with marked success. The methods in which the isolation is to be applied must necessarily vary, and it must be admitted that isolation in hospital by sanitary authorities can hardly be contemplated. Next to isolation the disinfection of infected clothing, of other articles, and of rooms is advocated. It is also urged that persons suffering from influenza should not expose themselves in public places.

By way of guide in the carrying out of these measures we may recall the fact that, according to Dr. PARSONS' report of last year, evidence has for some time past been available to the effect that the disease is infectious at quite an early stage, and that it may remain so as late as at least the eighth day from the attack; and it is now added that evidence to this effect has since accumulated. These points deserve consideration in connexion with a further recommendation that the assemblage of large numbers of persons in a confined atmosphere should be avoided. The incidence of the disease on members of the House of Commons, on the inmates of certain institutions, and on persons shortly after attendance at crowded meetings of various sorts must be within the knowledge of most people; and it should be remembered that in persons ill fitted to withstand the disease even ordinary aggregations might properly be avoided during periods when influenza threatens or is prevalent.

A second point to which prominence is given in the memorandum is that the liability to contract influenza, and the danger of an attack, if contracted, are increased by depressing conditions, such as exposure to cold, or to fatigue, whether mental or physical; and advice follows as to the maintenance of a good standard of health, as to the wearing of clothing of suitable warmth, and as to the taking of wholesome food. The need for restoratives at a certain stage of the disease has led some to resort to alcohol as a mere preliminary preventive. This is as great a mistake as the sudden abandonment of a reasonable and customary amount of alcohol. As the result of the former practice, not only does this stimulant become of little avail at a time when it might be otherwise helpful, but the power of resistance to the infection is distinctly lessened in advance by any improper and exceptional resort to stimulants; and hence the memorandum, in dealing with precautionary measures, utters a timely warning against anticipating influenza by any excessive use of alcoholic liquors. Advice is also given with a view to the avoidance, amongst those

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attacked, of the pulmonary complications which constitute a chief danger of the disease. Thus it is especially urged that those suffering from influenza should studiously avoid anything which involves exposure to cold or fatigue; and a final caution is issued to the effect that persons who find themselves attacked by the malady should not attempt to fight against it; but should, on the contrary, seek rest, warmth, and medical treatment.

Some of our contemporaries have recently been urging the Government to give advice to the public as to the proper treatment of the disease. But this has never been a function of the health department of the State in this country, a department which has concern with the prevention of disease and with the maintenance of the health of the public, not with the medical treatment of individuals, a matter which must remain the duty of those who, by actual observation of the sick, can alone judge what are the remedial measures called for in one and another patient. Holding this point in view, the document concludes with the statement that the nature of the treatment of cases of influenza does not fall within the scope of the memorandum.

THE trial STEELE *v.* SAVORY was held on Tuesday and Wednesday last before Mr. Justice ROMER, when, as our readers will perceive from the report of the proceedings which appears upon another page, the plaintiffs claim was disallowed and the relief sought refused, while the position taken up by the Council of the College was vindicated upon all the points brought into issue in the proceedings. It is therefore a matter of some moment that the issues involved, and consequently the effect of the decision reached, should be clearly understood; for it cannot be hoped that the action in the Chancery Division will set at rest the controversy of which it was but an outgrowth, and it is therefore desirable that its bearing upon any future discussion should be clearly and accurately apprehended. The substantial question tried, as we understand it, was—Have the members, in spite of By-law xvii., any right to meet in the hall of the Society which does not depend for its exercise upon the approval of the governing body of the College, and which it would be a breach of duty on the part of the Council to deny? The larger question, which has been the subject of annual discussion since 1884, is a question not of what is, but of what ought to be, the measure of the Members' rights. This, however, is a question upon which no court of law or of equity has jurisdiction to enter. It occurred a few months since to some of those who have stood in the forefront in this dispute that it might be possible to make out, not merely that Members had an abstract right to an increased share in the administration of the College, but also that they had a legal claim to some part—a small but still a substantial part—of the enlarged functions which they desire to exercise. They took steps to assert this claim, and by a course of conduct fully justified upon their own view of their rights, but unwarranted upon the view which the Council took of the same matter, they placed themselves in a position which compelled the Council to deny their claim, and then proceeded to assert it by legal means. The claim which thus became the subject of contention was a claim to use the College hall for the purpose of a meeting to discuss College affairs. It was formulated by the counsel who appeared in support of the Members' case as a claim of the right to the reasonable use of the hall of the College for all proper corporate purposes. The contention, on the other hand, was that the only purposes for which it could be used by members were purposes of which the Council of the College had signified approval. There, reduced to its smallest compass and most concrete form, lay, as we understand it, the whole matter in debate in the Chancery Court.

The right so contended for is of itself a matter of very great importance regarded from either point of view, but its inherent importance was strictly subordinate to that of the principles upon which it was determined. Without attempting to repeat or even to recapitulate the argument which is summarised in our report, we may indicate that in behalf of the Members it was asserted not only in opposition to the by-law, but also, if necessary, in opposition to the Charter under which the College is incorporated, on the ground that it had been given by Act of Parliament, and could not be taken away by anything less than a repealing Act. It was in view of this contention that the ancient history of the surgeon's craft in London was elaborately set out in the statement of claim. This contention was, however, met by a recital in the Charter, under which all the subsisting Members have indisputably been admitted, to the effect that the company to which these grants were made by the Act of Parliament had become dissolved. In the course of this discussion the curious position was reached in which the malcontent Members were contending for the antiquity of the College, while its governing body was saying, on the other hand, that it was an institution of recent creation which came into existence only in the year 1800. In the end, the view advanced by the governing body was adopted by the Court, and the College held to have taken its origin from the Charter of GEORGE III. The rights, therefore, which members of the Surgeons' Company might have claimed were held not to enure for the benefit of Members of the existing College, who are thrown back upon their own charters. Upon a consideration of these documents the Judge arrived at the decision that there was power in the Council to make the by-law that had been impeached, and power also to enforce its observance by the sanction of expulsion. It is therefore clear that, upon the basis of the law as laid down by Mr. Justice ROMER, the plaintiff Members of the College have much overstated their legal rights. The object of their desires is not to be sought at the hands of the judicature, and although the decision reached on Wednesday last does not in any way touch the merits of the controversy, it goes to show that in this dispute the Council are not aggressors, maintaining ground which they have occupied without the warrant of a title to the position, but that, on the contrary, they are merely defending a legally sound position, and that if any change is to be hereafter brought about in the status of the Members, it must result from legislative action. The Crown has already refused to confer a fresh Charter in opposition to the wishes of the governing body, and the reason is doubtless a perfectly valid one. But Parliament

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can listen to any complaint, from whomsoever emanating. It is possible, and we should be glad to think that the fact would be so, that both parties may after this episode be disposed to resume the discussion with an enhanced desire to arrive at an agreement. If that could be effected, there seems to be no room for doubt that any settlement which might be adopted by consent would easily receive the necessary authorisation, and so acquire the force of law.

As will be seen, we have in the above remarks simply set forth the matter from the legal point of view; its professional aspect must be dealt with in another article. We understand that the case may not improbably be taken to a higher court.

DIABETES has long been a favourite field of investigation for the physiologist and pathologist as well as for the physician. The remarkable perversion in the normal process of nutrition which this malady exhibits has done much to rivet attention and to lead to frequent inquiries into its precise pathogeny. The flood of light shed upon the subject by the revelation of the glycogenic function of the liver—to which CLAUDE BERNARD and PAVY contributed so largely—and the striking discovery by the first-named of the production of glycosuria by puncture of the fourth ventricle, have served to point the way to many fresh lines of research and to suggest the direction in which the causative conditions of the disease may perhaps be found. Nevertheless, in spite of all this labour, full and fruitful as it has been, there has remained behind a sense of something still to be discovered before the true explanation of diabetes can be attained. It is something to have conceived of glycosuria, as apart from diabetes, but the various types of the disease itself seem to demand a more thorough analysis than has hitherto been attempted. The revival within the past year or two of the notion that the pancreas may be the organ at fault is one indication of the indeterminate state of the subject. That this notion is a revival of an old doctrine must, we think, be admitted. Long before anything was known or suspected of hepatic glycogenesis morbid anatomists had from time to time observed manifest organic changes in the pancreas of diabetics. These changes comprised conditions of atrophy and fatty degeneration, of induration and chronic inflammation; but their frequent absence led them to be considered less as causal conditions of the diabetic state than as coincidents. Still, the concomitance seemed to be too frequent to be merely accidental; and unless it could be shown that the changes in the gland were really secondary to the general nutritional disorder, it was fair to surmise that they might have some share in the production of the latter. It was M. LANCEREAUX who first formulated this idea of a "pancreatic" as distinct from a "hepatic" diabetes, and averred that the former was characterised by a more rapid course, with extreme emaciation, than the ordinary class. Nearly twenty years ago, at the London Pathological Society, the late Dr. SILVER exhibited a specimen of extreme fatty degeneration of the pancreas from a case of diabetes,[1] and mentioned that of thirty examinations of diabetics ROKITANSKY had found this organ diseased in thirteen; and at the same meeting Mr. COUPLAND mentioned his observation of an extremely cirrhosed condition of the pancreas in a case of diabetes and phthisis.[2] These and similar observations are, however, comparatively isolated, and even the subsequent discussion at the same Society upon the morbid anatomy of diabetes[3] failed to elicit much information; but in his more recent Bradshawe lecture Dr. SAUNDBY showed that in many cases there was some reason for associating the morbid changes found in the pancreas with diabetes.[4]

The evidence in favour of a pancreatic form of diabetes as afforded by morbid anatomy does not appear to be conclusive, but when taken in conjunction with recent experimental data, it gains greatly in importance. Extirpation of the pancreas is, from the position and relations of the organ, an operation of considerable difficulty and danger, and the earlier experiments by BERNARD and others gave no satisfactory result. It was, however, determined that mere ligature or occlusion of the pancreatic duct had no effect so far as regards the production of glycosuria. In 1889 Drs. MINKOWSKI and VON MERING reported to the Medical Congress at Heidelberg the results of their experiments on ablation of the gland, observations which they have since extended and confirmed. These observers found that total removal of the organ was followed by a permanent glycosuria, with wasting and other phenomena of diabetes, and subsequent death, results which did not follow partial extirpation or ligation of the duct. These observations attracted much attention, and were the starting-point for others of a similar character, notably by M. LÉPINE, M. HÉDON (who reviews the whole question in an interesting article on "Diabète Expérimental" in the supplement to the *Montpellier Médical*, Jan. 1892), M. GLEY, and Dr. VAUGHAN HARLEY.[5] The sum and substance of all these experiments amount to this—that glycosuria, and, if there be a sufficiently long survival, a true state of diabetes, ensue upon total extirpation of the pancreas, whereas such a condition is never established if only a small portion of the gland be left intact. The explanation afforded by M. LÉPINE of these phenomena is interesting. He avers that the pancreas, like the liver, has a double function. Its office as a digestive gland, secreting a special ferment for that purpose, is not its sole duty. Its cells, which are disposed in relation to bloodvessels quite as much as to the excretory ducts, have also the property of forming a special *glycolytic* ferment, which finds its way into the blood, and is employed in destroying the sugar therein. He thinks that the leucocytes take up this ferment, and one writer hazards the suggestion of its alliance with the fibrin ferment that these corpuscles contain. So long as any gland cells are intact and capable of producing this ferment, glycosuria will not occur; but when they are entirely removed, the glycolytic action ceases, and glycosuria results. All this is purely hypothetical, for the ferment has not been separated, although the analogy with the liver is highly suggestive. As to the competence of small and residual parts of the gland which still retain their vascular connexions to ward off the occurrence of diabetes, it is

[1] Path. Trans., 1872, xxiv., p. 121.

[2] THE LANCET, Dec. 21st, 1872.
[3] Path. Trans., 1883, xxxiv.
[4] THE LANCET, vol ii. 1890, p. 383.
[5] Journ. Anat. and Phys., Jan. 1892.

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pointed out that in the case of the thyroid "cachexia strumipriva" does not happen unless that body is entirely extirpated. Whether this ingenious hypothesis be substantiated or not, it does seem clear that a certain number of cases of diabetes may be linked with destructive lesions of the pancreas, which entirely inhibit the functions of the gland. Dr. VAUGHAN HARLEY has recently[6] recorded two cases of pancreatic diabetes observed by him at Christiania. One, exceptionally acute, was allied with suppuration of the gland; the other, of much longer duration, with cancer, which, it may be remarked, has not usually been observed to be associated with glycosuria.

In his paper read at the Royal Medical and Chirurgical Society last Tuesday, Dr. H. J. TYLDEN ventured to dispute the inferences drawn by M. LÉPINE from experiments and also those afforded by morbid histology. Granting the existence of a glycolytic ferment in the blood, he objected that its diminution in diabetes might only be a secondary phenomenon, and that clinical experience pointed more in favour of increased production of sugar in diabetes than to a diminished power of its destruction. Moreover, he was inclined to attribute the results of total extirpation of the pancreas to extrinsic lesions incidental to the severe operation. It is curious, however, that in such experiments as those of HÉDON—where the pancreas was removed in portions—no glycosuria occurred until after the last fragment was removed, although the severity of the earlier operations must have been as great as the last. In the debate that followed the reading of Dr. TYLDEN'S paper it will be seen that Dr. BRADFORD adduced strong grounds for accepting a pancreatic diabetes from the physiological standpoint, and Dr. GEORGE HARLEY from the clinical side; whereas Dr. ROLLESTON inclined to Dr. TYLDEN'S opinions, and even hinted that pancreatic lesions might influence hepatic functions through the nervous system. Dr. TYLDEN has done good service in studying the morbid changes in the pancreas, and especially its cirrhotic condition, which he shows to be by no means confined to diabetes; but then it must be remembered that there may be changes in organs capable of profoundly influencing their functions which may escape the closest scrutiny. At any rate, we do not think that the study of the pancreas in relation to diabetes should be too lightly abandoned now that it has received such important aid from experimental physiology.

THE Draft Charter for the new teaching university in London as passed by the Lords of the Privy Council will be laid on the table of both Houses of Parliament on their reassembling on the 9th prox. It must remain there for a month; in six weeks, therefore, we shall know whether the Charter for what would probably be, under its provisions, the largest medical university in the United Kingdom will be granted. It is evident that considerable opposition will be made to its passing through the House of Commons, and an attempt to refer the whole matter back to the Royal Commission is being made. This attempt, if successful, will prevent any settlement of the questions for the present generation, and will serve to reopen the old controversy which rendered invalid the action of the Senate of the University of London. The opposition against the provisions in Arts is more formidable than that raised against the medical portion of the Charter. Many members of the University of London still fear that the new University may in some way damage the work and prestige of the older institution; but as a collegiate training of two years is insisted on in the case of students from other universities, it is not easy to see that there can be any marked clashing of interests, especially if the existing University maintains an open portal and its present examination standard. It cannot be supposed that, in the face of this regulation in the case of students from other universities, the Council will lay down a shorter course for any of its own students. The complaints as to the non-recognition of University extension lectures, evening classes, and other similar lectures at various places have been made in ignorance of the fact that the collegiate training, if it is to be of any good, must ensure a long and regular course of study, as in the case of a medical student, for whom a five years' curriculum is now made imperative. Another objection, which will carry more weight in the minds of many, is that King's College is an institution whose professors, with scarcely an exception, necessarily belong to the Church of England. But most people who have spoken or written on this line have lost sight of the great preponderance of the medical element on the Council, and argue as if the two teaching colleges—University and King's—alone formed the University. Out of a council of forty members, only three will be direct nominees of King's College. A stringent clause prevents the imposition of any religious test by the Council of the University. The great representation is in the hands of the teachers in the medical schools, for seats are provided for at least fourteen. Most of the objectors have forgotten that it is mainly in the interest of the London medical student, and to give him privileges similar to those now given at the other centres of medical teaching, that this University has become a necessity. Side by side with the medical grievance the movement for a University in which the teachers should have a practical control has also found great support. So for two defects in the existing University of London a remedy has been found. If a medical university alone were possible, the Royal Colleges would probably have succeeded in forming such a one; but it was only by an alliance with the teaching Colleges that faculties of arts and science could be established, and a full University scheme be thus secured. The objections to the medical clauses are chiefly made by the authorities of the Victoria University, and appear to us to be very ungracious and uncalled for. The medical students of Manchester, Liverpool, and Leeds have the usual facilities for obtaining degrees, whilst the students in London have none, save on conditions which are prohibitive except to a small minority. The plea is immediately put forward that the London teachers will unduly lower the conditions on which the new degree shall be given, and specially depreciate the training of the medical man in arts and science. But surely if the professors at Manchester could be trusted when their Charter was granted, the London teachers are entitled to have the same confidence placed in them. We suppose that on the first council of the new University members will be found who will be quite as anxious for the good name of

[6] Brit. Med. Journ., Jan. 2nd, 1892.

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the degrees of the new University as is the case at the other universities. But this objection as to the depreciation of the degrees is merely a device put in the front in order to support the real apprehension of the northern teachers. They object to the clause requiring two years' residence at the final part of the curriculum, which they think will draw men from the northern schools to the London centres of clinical instruction. We question whether the Victoria University will be affected more than any other university, but, if so, the remedy will be in their own hands. If the clinical teaching be better in the provincial schools than in those of the metropolis—and it can be improved in both—the students will very quickly recognise the fact, and will not desert a school near to their homes, and at which they have already studied, for a distant one where the instruction is inferior. Such jealousy ought not to influence the Houses of Parliament any more than similar complaints from Edinburgh and Dublin influenced the Lords of the Privy Council, before whom the Victoria University should also have lodged their objections. A circular letter, signed by the heads of King's and University Colleges and the Deans of the Medical Schools (with the exception of St. George's and Westminster Hospitals), has been sent to all the metropolitan members of Parliament asking for their support, and we trust that the solution of the medical difficulty in London, which offers the only hope for the present generation, will not be frustrated on a side issue.

Annotations.

"Ne quid nimis."

THE PREVENTION OF INFLUENZA AND OF MEASLES.

A CURIOUS misapprehension of the real facts with regard to the prevention of measles is being put forward by means of letters and other contributions addressed to a number of our contemporaries by way of comparing this disease with epidemic influenza. The point is put forward as significantly as anywhere by Dr. Frank G. Clemow in a letter to *The Times* of Jan. 25th. He draws a comparison between influenza and measles as regards the non-discovery of their cause, and here he is unquestionably right. He next compares them in regard to the results of isolation by saying of measles, amongst other diseases, "these are well under control," and he then asks, Why should not the same be done for influenza? Here he, with others, falls into error. We have again and again pointed out that the measles mortality in this country is not only enormous and apparently all but uncared for; but that instead of its being under control it is steadily increasing, and that but little effort is made to ascertain the causes of this increase. Over 13,000 lives are annually sacrificed directly to measles in England and Wales; and not only so, but whereas in the ten years prior to the passing of the Public Health Act, 1875, with its provisions as to isolation, the mean rate of mortality from measles was 401 per 1,000,000 living, it has risen during the decennium 1881-90 to 440 per 1,000,000. This rate exceeds anything that can thus far be directly attributed to influenza; but whilst panic arises about the disease the fatality from which is so notable amongst the well-to-do and the aged, the terrible death-roll from measles, which has its incidence especially on the infantile population amongst the lower classes, passes all but unheeded.

OATH ADMINISTRATION IN COURTS OF LAW.

SINCE the appearance of the letter from our correspondent "L." in last week's issue of THE LANCET we have had an opportunity of perusing the Act to which he referred and of verifying the statement he made. The Act is, in its full title, An Act to Amend the Law as to Oaths, and shortly, the Oaths Act, 1888. It appears to be very little known, but is important as providing not only the alternative alluded to by "L.," but also the affirmation for those who have no religious belief, and those who object to the taking of an oath as contrary to their religious belief. Clause 5 is precisely as "L." gave it, and may be repeated here: "If any person to whom an oath is administered desires to swear with uplifted hand, in the form and manner in which an oath is usually administered in Scotland, he shall be permitted so to do, and the oath shall be administered to him in such form and manner without further question." The Act is a very short one, and may be obtained from Messrs. Eyre and Spottiswoode, the Queen's Printers, for the sum of one halfpenny. Many will no doubt avail themselves of this preferable mode of adjuration, and possibly it may come to be generally adopted.

THE LOCAL GOVERNMENT ACT OF 1888 IN RELATION TO ASYLUM AUDITS.

DR. CAMPBELL, medical superintendent of the Counties Asylum at Carlisle, has sent to us a reprint from the current number of the *Journal of Mental Science*, in which he deals with "The Local Government Act of 1888: its Probable Action on the Treatment of Insanity in England." It appears that the auditor at his first visit after the Act was passed "surcharged" one item, a gratuity of £10 to an attendant. At his second audit, five months later, he surcharged three gratuities—namely, one of 8s. for bringing back an escaped patient, another of a sum of £823 for attendants' pay because their names and rates of pay had not been fully entered on the minutes, and another of a sum of £51 given in three grants, one to a dying attendant, the other two to deserving attendants who resigned for special reasons. Dr. Campbell has been apparently singularly unfortunate in this matter, as his asylum is the only one out of eighteen county asylums which have given gratuities since the passing of the Act, where the auditor has surcharged such payments. He naturally objects to this question being left to the caprice of asylum auditors, and contends that, if the giving of a gratuity is illegal, it should be so for all. There are, as he says, frequently circumstances occurring in asylums in which, in the interest both of the institution and its inmates, sane and insane, it is almost a necessity to give a gratuity or extra pay for special actions. In the absence of any reason for disallowing the gratuities referred to, we agree with Dr. Campbell that the auditor in this case seems to take a most severe view of the subject. There are unquestionably risks of evils arising from any extensive system of gratuities, but that is not the point. If, in their collective wisdom, the asylum authorities are of opinion that a gratuity has been earned, and is the most desirable method of rewarding special service, and sanction its being given, we think an auditor ought not to interfere with that sanction except on very strong grounds, since they do so at a great risk of interrupting the efficient and beneficial working of an institution of this type. In this sense must Dr. Campbell be understood when he says that whatever deals with the treatment of the patients in English county asylums deals practically with the treatment of the insane

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in England. "The Local Government Board," he continues, "no doubt have the power to authorise such necessary grants as those referred to, even although no special provision may be found for them in the law, or they can indicate the legal and proper mode of making such payments."

THE SALE OF DISEASED MEAT.

IT is not often that we have to deal with a case of such flagrant and dangerous abuse as that in which an Edinburgh butcher was recently convicted of selling for food the flesh of an animal which had died of anthrax. Here there could be no doubt as to the justice of the sentence. The virulence of anthrax contagion, even after the death of the affected animal, has been abundantly proved. In this case it was again conclusively shown by the fact that a man inoculated by the diseased meat had died in consequence. Let us but glance at the risks incurred by any who might in perfect ignorance have purchased it at the butcher's counter, at the possible effects of handling it with skin-cracked hands perhaps, or of eating it under-cooked as a juicy steak, and we shall not fail to share the regret expressed by the presiding sheriff, that the circumstances of the prosecution did not allow of imprisonment without the option of a fine. It were well, in our opinion, if the requirements of law in matters of this kind were made even more stringent than they now are. There is usually something unnatural even in the so-called natural death of an animal. Unless in such exceptional conditions as death by accident or from asphyxia consequent on over-fattening, an antecedent pathological state injuriously affecting the quality of the meat may be taken for granted, and this fact is rendered the more significant by the difficulty of effective depletion by bleeding. In this connexion we might learn something from the Jewish Code, which, with wise, if excessive, caution, condemns as unfit for food the animal which has died "of itself."

PROFESSOR CELLI ON WOMAN'S PLACE IN SOCIAL HYGIENE.

AT Rome, on the 10th inst., in presence of Her Majesty the Queen of Italy, the accomplished occupant of the chair of State Medicine in the Sapienza addressed a brilliant audience on woman's place in social hygiene. Professor Celli turned to excellent account his experiences in Great Britain at and after the International Congress in August last, and showed his Italian hearers how much can be effected by organisation in fields so vast and so diversified as those of sanitary and social reform. There were many among his audience of ladies who had nothing to learn in the matter of enlightened and energetic work for the benefit of the sick and needy; many of them, it is safe to say, from Queen Margaret herself downwards, whose lives were honourable examples of self-sacrifice in the relief of suffering and misery. But something more is required than individual initiative and individual exertion, however well-directed and however exemplary. Beginning with Lady Mary Wortley Montagu, Professor Celli traced in vivid and impressive outlines the story of woman's work in the hygienic rehabilitation of England, dwelling at considerable length on the Ladies' Sanitary Association, founded in 1857, and following it up and out into all its beneficent ramifications to the present hour. On one point he laid particular stress, and that was the popular literature issued under the auspices of the Association, literature setting forth in an easily understood and attractive form the main factors of personal and public well-being, and contributing to that most desirable consummation by which (in the words of Sir James Coxe) "every individual shall be taught to become the intelligent custodian of his own health." By thus indoctrinating the future generation, particularly the wives and mothers, in all that conduces to a healthy and normal life, there is prepared that public opinion which is so sorely desiderated in the Latin races, and nowhere more than in Italy, whereby pressure is brought to bear on municipal and central authorities, and abuses corrected and reforms insisted on which hitherto have been preached and prayed for in vain. From England Professor Celli passed to Germany, and enumerated the salutary innovations in public, and particularly in school hygiene, promoted, if not initiated, by the Empress Frederick; and thereafter, having reviewed the sanitary position of France, he concentrated himself on the wants of Italy, whose numerous local and private charities were so many foci capable of being fused together till something like a "Ladies' Sanitary Association" was reached. Drawbacks and difficulties there were, as he amply admitted—impediments due to the special circumstances under which Italy had wrought out her political redemption. Heavy taxation, restricted means, backward education, were conspicuous among these. But they would all yield to time and to persistent organised effort. "On you, the women of Italy," Professor Celli concluded, "rests the moral and physical regeneration of Italian youth. To achieve this you have not a day to lose, not a sacrifice to spare. In the combat for humanity there are posts innumerable. Those among you who are not pre-engaged in the hallowed sphere of the family will assume the place of honour. Let each select her part, her corner, great or small, according to her strength, her aptitude, her vocation; let her consider it as a sacred duty to give of her means or her abilities to fortune's disinherited ones. And so, when from the luminous examples of female forethought and heroism which honour your sex and our common country, emerges the collective power of an educative charity, you, not by calculation or in self-seeking, but by spontaneous instinct and sentiment, will become one of the most vigorous of the healing forces (*forze medicatrici*) of social well-being." An eloquent appeal to the sovereign under whose presiding favour the audience had assembled closed Professor Celli's opportune and inspiriting address, the fruits of which we hope to see one day manifested not only in the *classi diseredati*, but throughout the whole life of Italy.

A LESSON IN PREVENTIVE MEDICINE.

PROFESSOR W. T. GAIRDNER has done good service in publishing a paper which he read before the Association of American Physicians in September last, and which tells the story of certain arrangements made in Glasgow in 1866 with a view to the prevention of cholera. At that time Dr. Gairdner was medical officer of health for the city, the sanitary condition of which led him to look with grave concern on the possible advent of cholera, the more especially because of the terrible results of that disease in previous epidemics, and notably in 1854. Between the latter date and 1866 one change of immense importance had been effected—the Loch Katrine water had been introduced into Glasgow, and its use was at once extended where this was necessary. To cities having sources of water-supply liable to excremental pollution the contrast between cholera in Glasgow in 1854 and in 1866 is of great significance. But the sanitary state of the city was in other respects very defective, and typhus fever told the tale in terms that seem almost incredible to those who have only known Glasgow after many years of such labours as have since been bestowed upon it by Dr. J. B. Russell and his staff. Hence cholera was dreaded, and, above all, Dr. Gairdner feared the effects of panic, which might result from a sudden outburst which had already gained ground on account of unknown attacks of choleraic diarrhœa. How

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were the inhabitants to be so dealt with in detail as to avoid such calamities? The question was solved by a chance encounter with a clergyman who at once declared that the Church workers would band themselves together as an organised body for the purpose "as volunteers." The hint was taken by Dr. Gairdner. Within a brief period every Church, regardless of differences of creed, supplied its volunteers; from these the workers were selected with care until between 3000 and 4000 "intelligent and active visitors" had been chosen, and shortly every home, every head of family, and every householder knew in advance what to do in case suspicious symptoms arose. They were urged to promote ventilation and cleanliness in their houses and tenements, all was prepared to meet an emergency, and confidence was instilled. Dispensaries, hospitals, and nursing arrangements were also set on foot; and when at last cholera came, it was limited to about sixty-six cases of true cholera and a few hundred of choleraic diarrhœa in half a million of people. The visitors were, as stated, volunteers, and gave their services "for the love of God." But still, a scheme to save Glasgow from cholera could not be set on foot without some substantial expenditure, and in the Scotch city, as everywhere else, there was at least one ready to complain that, though a key had been bought to lock up the horse, the cost had been thrown away, since the horse had never been stolen. "An eminent citizen of Glasgow," says Dr. Gairdner, complained "that after all the fuss made about the cholera, and all the expense incurred in its prevention, 'the cholera did not come.'" Similarly "eminent" citizens are unfortunately to be found on most town councils and other sanitary bodies.

THE VALUATION OF INSANITARY PROPERTY.

AN important judgment has been delivered in the Queen's Bench Division in the case of "Gough *v.* The Mayor and Corporation of Liverpool," in connexion with the valuation of insanitary property. The case has several times been before courts of law and before the arbitrator, the point in dispute being the basis on which an owner should be recompensed whose property was condemned as unfit for human habitation. The decision now given by Justices Lawrence and Wright is one that will materially assist in the removal of such properties without subjecting the ratepayers to the burden of paying compensation which is unreasonable in amount. Briefly stated, the judgment declares that an arbitrator ought not in such cases to take into account solely the amount which could be extorted by rent from people who were obliged by the necessities of their work to live in the neighbourhood in question; but that he ought also to take into account the sanitary condition of the property and the amount that would have to be expended in making it decently habitable. Thus the corporation are at last supported in their contention for a principle which is of great importance.

FUNCTION OF THE HAIR TUFTS IN MAN.

IN the January number of the *Journal of Anatomy and Physiology* Dr. Louis Robinson formulates a theory to account for the persistence in man of the tufts of hair usually present in the axillæ and over the pubes. These he imagines to be the persistent remnants of hair-tuft developed with reference to the clinging or grasping power of the young, and as a means of enabling them to cling to the parent, when he or she, as the case might be, was not in a position to spare an arm without much imperilling the chances of escape or rendering movement difficult. Naturalists have observed that young apes hang beneath the body of the mother and sustain themselves by grasping the hair, and it is stated that certain male gibbons assist in carrying the helpless young. It is an interesting point that in these apes the period of immaturity is prolonged almost as much as in man. Other considerations which Dr. Robinson looks upon as supporting his theory are the appearance of the hair at puberty, its appearance in both sexes, and the fact that it often appears earlier and more plentifully on the female. It also exists in parts where the young of tree climbing animals could attach their hands without danger of violent contact from obstacles, and Dr. Robinson has ascertained by measurement that in most cases the situation of the axillary and pubic tufts is within easy reach of the hands and feet of infants when their limbs are extended, if the body of the adult is in the position taken by that of an anthropoid ape in climbing. The theory is no doubt ingenious; but objections to it readily occur. Dr Robinson considers some of the most obvious of these, such as the existence of similar hair elsewhere and the sensitiveness exhibited by the skin when the hair in those parts is pulled. These, of course, are capable of being explained; but the theory would be very much strengthened if any example could be quoted of an anthropoid ape in which these tufts are actually used in the manner suggested by the author. Their development, if the theory is correct, must have been very much greater in his ancestors than it is in man at the present time to account for their persistence now, not only in the absence of any use for them for so many ages, but actually in spite of very considerable drawbacks to their existence, such as must exist in the friction to which they are exposed.

THE VENTILATION OF SLEEPING APARTMENTS.

AN important point in sanitation was discussed last week in an action brought before a county court in the eastern counties. The suit was one instituted by a master to enforce payment of £10, the remainder of a premium due to him by a father for apprenticeship of his son, but withheld on the ground of failure to provide suitable board, lodging, and business training. The question of chief interest in connexion with the case was that of sleeping accommodation, and the facts elicited were the following:—From the beginning of his apprenticeship the lad had slept in a room affording about 440 cubic feet of space, which had formerly been used as a store closet. There was no direct communication whatever with the outer air, but the door and the solitary window above it opened into a passage in the interior of the house. In this passage were the entrance doors of two crowded work-rooms, which were often occupied till a late hour at night. Opposite the door of the closet was the single window by which (provided it was open) the passage communicated with the outer air. It was contended by the defendant that here the arrangements for ventilation were faulty and injurious to his son's health, and that in effect the air which commonly entered the sleeping closet was that which escaped from the well-used work-rooms. The quality of this atmosphere may be imagined. Medical evidence was tendered by both parties in this action, with the result that on one hand the closet bedroom was freely condemned, on the other it was considered "undesirable," but still not such as to cause in a healthy occupant the signs of nervous weakness from which the boy was by general admission suffering, and it was, moreover, such a room as some poor families were known and allowed to inhabit. Guided apparently by the terms of this evidence, the jury gave a verdict for the employer. We must confess that we cannot agree with their decision. The cubic space allowed, inadequate though this was, might, after a fashion, have sufficed had other conditions been healthy. When, however, we find the standing rule that every sleeping apartment must have direct communication with the outer air completely ignored, we need not be at a loss to account for the nervous and general weakness

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of its half-smothered inmate. We cannot doubt that the wan, anæmic, and exhausted aspect so characteristic of young *employés* in many town shops and warehouses is the direct result of this very lack of a pure atmosphere as much as of overpressure. It would, therefore, be a subject of lasting regret if a decision like that above mentioned should ever be suffered to acquire the force of a legal precedent.

SMALL-POX AND DEWSBURY WORKHOUSE.

ON several occasions during recent years the practice of the Dewsbury guardians to turn one of the workhouse buildings into a small-pox hospital has led to the spread of the infection to inmates of the infirmary, and, as we have noticed, this has been strongly condemned by the Local Government Board. At last that Board has informed the guardians that unless they at once receive a definite assurance that the practice shall be discontinued, they will issue an Order prohibiting the reception of small-pox cases within the workhouse. The action of the guardians still seems uncertain, for they say in answer that some of the statements contained in the report of the Government inspector were inaccurate, and they ask some explanation concerning the authority on which they were made. Whatever information may be forthcoming on this point, it cannot justify the exposure of helpless and sick paupers to the poison of small-pox in the workhouse, and it is to be hoped the Order will be at once issued.

GASTRIC ULCER.

THE causes of round ulcer of the stomach have been studied by Dr. Shcherbakoff of Moscow by means of experimental observations of dogs, with some interesting, though not very decisive, results. Loss of substance depends as a rule upon impaired circulation, but such loss of substance has a great tendency to be replaced. In order that a true ulcer may result there must be other favourable conditions, as an increase in the acidity of the gastric juice and a diminished resistance of the tissues. This fact, which has been deduced from clinical experience, has not hitherto been subjected to experimental verification. Dr. Shcherbakoff produced artificially a loss of substance in the stomachs of forty-five dogs by injecting an emulsion of chromic acid into one of the short gastric arteries. The loss of substance produced was precisely similar to a recent round ulcer, but in about five days cicatrisation began, and was complete in two or three weeks. In some cases within a week after the injection definite quantities of hydrochloric acid were introduced through gastric fistulæ; in other cases small quantities of aniline or pyrogallic acid were introduced into the stomach, or repeated bloodletting was practised before the injection of chromic acid, and the alteration of the blood induced by these methods was maintained by their repetition. In all these experiments ulcers were produced, and in some perforation occurred. With aniline also loss of substance was produced, even when no chromic acid injection was made. In order to solve the problem of the relation of the disease to impairment of the blood, observations were made on the changes of alkalinity in the blood and of acidity of the gastric juice. It was found that aniline reduced the alkalinity, but no relation between this reduction and the progress of the ulcer could be detected. Injections of pyrogallic acid and bloodletting did not definitely reduce the alkalinity. All these methods, however, increased the acidity of the gastric juice, and of course at the same time diminished the resisting power of the tissues, which diminution, however, is not to be considered as mainly due to the decreased supply of blood, but to the impairment of the whole of the vital conditions. Further experiments were made by introducing hydrochloric acid in definite daily quantities subsequently to the artificial impairment of the blood, but without any chromic acid injection. In the first case the animal died on the sixth day; several ulcers were found, one perforating. In the second case the animal was killed on the twenty-first day; superficial losses of substance of the mucous membrane were found. In the third case the animal died on the twenty-fourth day from a perforating ulcer. In all these there was a marked reduction in the alkalinity of the blood. It therefore appears that decreased alkalinity of blood due to impaired nutrition, together with increase of acidity in the gastric juice, form highly favourable conditions for the development of gastric ulcer. But, in addition to these, there are, in Dr. Shcherbakoff's view, a number of other causes which are at present unknown.

SPONTANEOUS CURE OF A SEVERE ABDOMINAL WOUND.

DR. SCHILDT mentions in *Duodecim*, a Finnish medical journal, a case, showing that, occasionally at least, a large wound into a serous cavity which looks hopeless enough may heal without treatment. He was called some years ago to a poor man supported by charity, who, in consequence of inflammation of the groin, had a large gaping wound of the abdominal wall, through which some six inches of the small intestine protruded, all covered with blood, added to which there was a discharge of fetid matter. The man was sent to the hospital, where, however, he could not be admitted, as all the beds were full. He was therefore taken home again, and received no treatment whatever. Nevertheless, Dr. Schildt a short time ago happened to see him alive and well, the wound having healed spontaneously.

MEDICAL EXPOSITION AT MILAN.

THIS undertaking may be regarded as a natural outgrowth of the Italian "Legge Sanitaria," or Public Health Act, promulgated on Dec. 22nd, 1888. That great statute, with which the name of Bertani is indissolubly connected, has given to sanitation and hygiene in Italy an impetus which increases from year to year. At the close of May and beginning of June a sanitary congress will be held in the Lombard capital to form the basis of a "Lega di Resistenza e Previdenza," in which the working practitioners and health officers of the Italian kingdom will combine for self-organisation and protection, in the first instance, and for the furtherance of the sanitary interests of the people in the second. The organising committee includes many of the most prominent names in medicine, surgery, and hygiene throughout the peninsula, and its programme, now before us, is at once comprehensive, practical, and enlightened. Concurrently with the sittings of the Congress, at which this programme will be discussed, an exposition on the largest scale of the whole armamentarium of the healing art, public as well as private, will be on view. Every implement in the armoury of the working practitioner, consultant, and health officer will be represented. Aliments of all kinds; pharmaceutical specialties, including the latest accessions to the various pharmacopœias; surgical and orthopædic apparatus; mechanical aids to diagnosis and therapeutics; plans of hospitals, civil, naval, and military; the most recent innovations in hydrological and climatic health resorts as well as in the Red Cross service in the field and afloat; statistical tables and medical publications of every category, will form the *matériel* of the exposition. Special juries of experts have been nominated to award prizes for the best examples or specimens of the above appliances, products, or plans, and Milan, the seat of Congress and Exposition alike, will

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utilise her great resources for facilitating the participation of visitors at both. The recent epidemic through which she has passed—more severe in its incidence than in any other centre of Upper Italy—may be supposed to have quickened her initiative in the great prophylactic and therapeutic enterprise she has set on foot, and her example, we doubt not, will be followed in future years by other Italian cities, to the furtherance of medical science and the improvement of the health conditions, hitherto so little satisfactory, throughout the peninsula.

INSPECTION OF EXAMINATIONS BY THE GENERAL MEDICAL COUNCIL.

AS reported in the proceedings of their last session, the Council then resolved to appoint an inspector of examinations, to visit and report on the final examinations in medicine, surgery, and midwifery in the three divisions of the United Kingdom during a period of three years. We now learn that the appointment of the inspector for this year will be made by the Executive Committee at its meeting on Feb. 22nd. We presume therefore that any of our readers who may desire to become candidates for the inspectorship would do well to take such steps as they may deem desirable in the matter. The emoluments attached to the post are a salary of £200 per annum, together with travelling and hotel expenses.

"THE DOCTOR WOULD NOT COME."

MANY jurymen seem to be under an impression that medical men are paid officers of the State, and bound to go at everybody's or anybody's call. Mr. Braxton Hicks recently very properly explained to such a juryman at an inquest on the body of a child that doctors were not bound to come when called. And he added when people knew this they would be "more likely to send for a medical man when he could do a person good," instead of waiting till death was threatened. The coroner is quite right. This is not a time for medical men to stand upon their rights or to discuss abstract questions. No profession is more ready than ours with its help and its pity by night or day. But there is a limit even to medical kindness, to say nothing of the physical limits of strength and time. A little more consideration for medical men and medical service will be amply recognised by the profession. This will be shown in two ways, as the coroner suggested—in calling them in early to save life, and not merely to certify the cause of death, and in paying them promptly and with some regard for their calling.

DEATH AFTER VACCINATION.

MR. JOHN TROUTBECK has just concluded an inquest on the body of a child aged three weeks, who had been vaccinated eight days after its birth in the workhouse in the Buckingham Palace-road. The facts of the case appear from the published evidence to be as follows: The baby was an eight months child, weighing only 4 lb 3 oz. After its vaccination its mother took it out of the workhouse and applied cold cream to the child's arm, and a few days later the child died. Mr. Oliphant Langston, surgeon, of Broadway, Westminster, said that at a necropsy he found all the organs healthy, and that he had no hesitation in saying that death was accelerated by vaccination. Mr. Bond and Mr. Webb, the latter of whom vaccinated the child, said, however, that death was due to the condition of the child's lungs, Mr. Bond expressing the opinion that the presence of the sore on the arm could not fail to hasten the death of a child in such a condition. It is obvious from the evidence that the arm had not healed, and on this point Mr. Bond added that cold cream applied to the vesicles would dissolve the natural crust on the child's arm. The jury eventually returned a verdict that death was due to congestion of the lungs accelerated by the sores on the arm, but exonerated Mr. Webb from all blame. It is certain that the vaccination was done under very unfavourable conditions. The child's mother had been deserted by her husband, and in her trouble had taken refuge in the workhouse, but left shortly after the vaccination of the child, taking it with her. The mother, in her ignorance, adopted the course most likely to prevent the healing of the arm, which was very likely retarded by the lung affection from which the child suffered.

RETINAL BLOODVESSELS.

DR. JAMES MUSGROVE gives an account in the last number of the *Journal of Anatomy and Physiology* of a method of preparing the retinal vessels for demonstration either with the naked eye or with the lantern. His observations were carried out on the eye of the ox, but his method is equally applicable to that of other animals or of man. In the case of the ox the injection can be made quite well after the eye has been removed from the orbit. As much as possible of orbital fat and tissue should be removed with the eyeball, and the vessels are to be cut far back. The injection is made through the ophthalmic artery with a hand syringe, and the eye should be kept in hot water for half an hour before the injection is made. When the injection is completed the eye is allowed to cool for two or three hours to allow the gelatine in the injection to set. The entire retina is then removed by cutting through the cornea and iris and removing the lens and vitreous. The retina is then found hanging down from the optic disc, and its attachment there is divided with a knife. The entire retina may thus be freed and floated out on water, and it is then spread out, with considerable trouble it is true, on glass by means of a small camel-hair pencil. The specimen is then dehydrated and clarified in oil of cloves, after which balsam dissolved in benzol is spread over it, and another thin lantern slide used as a cover glass. In this way the retinal vessels can be clearly demonstrated, and Dr. Musgrove gives a short account of their distribution, in which he found a remarkable uniformity in the different retinæ examined.

THE DELAY AT THE VENICE CONFERENCE.

IT has been stated that the International Sanitary Conference, held at Venice, has been retarded in its work because the English delegates had to refer home for instructions the proposals made by the French delegates. This, we must confess, is a somewhat peculiar way of explaining the delay. There was nothing novel or unexpected in the French proposals which were presented to the recent International Congress of Hygiene by Dr. Brouardel, who was delegated by the French Government to discuss this matter in London. The French Government had again delegated Dr. Brouardel to repeat the same proposals at Venice. In vain we protested at the time that the International Congress of Hygiene was not meant to be a mere picnic of irresponsible sanitary reformers gathered together just to read papers and exchange ideas. We insisted that these congresses laid down the basis of future sanitary legislation. We pointed out that most of the Governments of Europe sent official representatives who were to bring back to the statesmen of their respective countries advice as to what sanitary legislation was necessary; especially is this the case with respect to all international measures for the preservation of public health. The French official delegates were therefore prepared and anxious to lay before the Congress held in London last August the very proposals which would appear to have come as such a surprise upon the conference now sitting at Venice. Dr. Brouardel, in his speech delivered in the first section (Pre-

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ventive Medicine), alluded to these proposals, and he was naturally not a little surprised to find that the statements which were practically, if not officially, proposals emanating from the French Government were barely noticed and but feebly discussed. Now, after five months' lapse of time, similar proposals are made at Venice by identically the same French official delegates, and the English representatives have to refer them home for further instructions!

INTESTINAL OBSTRUCTION FROM MECKEL'S DIVERTICULUM.

ODERFELD publishes in the *Gazeta Lekarska* the particulars of an operation for acute obstruction of the bowel caused by the presence of Meckel's diverticulum. The distal end of the diverticulum had become attached to the mesentery, thus forming a loop through which a coil of intestine had slipped. The excessive formation of gas in the bowel had compressed the knuckle of intestine and caused it to become fixed. The author, in performing laparotomy, freed the incarcerated coil by separating the adherent end of the diverticulum, and to prevent a relapse he removed the latter by a circular incision at its base. The patient recovered. Oderfeld also discusses the mechanism, pathology, and the various causes of this form of obstruction, and states that no case is known in which the cause of the obstruction was diagnosed before the operation. Two symptoms, however, possess a certain diagnostic value. When obstruction occurs in a patient suffering from harelip or some other congenital deformity, the former is probably due to the presence of Meckel's diverticulum. It is also important to have the history of the patient's early life. When during the latter an umbilical fistula has existed with fæcal discharge, which, however, has occasionally healed voluntarily, the same conclusion may be drawn.

CEREBRAL LOCALISATION.

IN a recent number of the *Dublin Medical Journal* Dr. E. H. Bennett describes a case which presented an interesting condition with reference especially to the question of cerebral localisation. The patient was a man of forty-five, who was first seen by Dr. Bennett in September, 1890. At that time he had much difficulty in walking, and even in standing. His articulation was slow and indistinct, but he used correct words; his expression was vacant, his eyes prominent, and his memory much impaired. There was no definite paralysis of the limbs. His power of standing became gradually more impaired, and he was even unable to sit on a chair without falling. He fell to the right side. His memory also became worse, and his mental condition generally more feeble. There was no optic neuritis. The intensity of his symptoms gradually increased, and he passed into a comatose condition, in which he died on Dec. 3rd. Even at the last there was no definite paralysis, and his ability to move the arms and legs as he lay in bed was retained. At the necropsy it was found that there was a tumour of the brain substance, which involved the convolutions of the right hemisphere. It was hemispherical in shape, about the size of half a Tangerine orange, the flat base being directed outwards to the dura mater, which was adherent to it, and the rounded surface inwards. It lay directly over the fissure of Sylvius, obliterating the lower two-thirds of the fissure of Rolando. The lower half of the ascending parietal convolution was involved, except ten millimetres of its lower end. The whole of the ascending frontal convolution, except twenty-five millimetres above and ten millimetres below, was involved in the tumour, and no were parts of the middle and inferior frontal convolutions. It will thus be seen that a considerable part of the so-called motor area was affected by the tumour, and yet there was no definite paralysis. It is not easy to offer any explanation of such a condition, unless we are to suppose that the tumour, growing as it apparently did from the membranes, and pressing inwards on the cortex, had led to very greatly impaired function of the cortex cerebri without any actual abolition of it, and with reference to the possibility of such an explanation it would be very interesting to know the condition of fibres in the corona radiata, in the internal capsule, and in the pyramidal tracts of the cord.

DEATH OF DR. ALFRED CARPENTER.

WE regret to announce the death of Dr. Alfred Carpenter of Croydon, Surrey, at the age of sixty-eight years. He was a native of Northampton, and took a prominent part in public affairs. He was J.P. for the county of Surrey. In the year 1882 he was appointed a member of the Royal Commission appointed to inquire into the condition of small-pox hospitals, and took an active interest in all questions of social economics. As a sanitarian he occupied a very eminent position, and his ideas on preventive medicine, hygiene, and the utilisation of sewage have given rise to much inquiry, and many beneficial results have been effected through his agency. He was a strong temperance advocate.

THE ANALYSIS OF RUSSIAN BREAD.

ACCORDING to *Reuter*, the Russian papers of last Monday published the official analysis of the adulterated flour recently bought by the Municipality of St. Petersburg city. The result would appear to show that it was not adulterated to such an extent as the *Novoe Vremya* announced some days ago. While this statement appears in a negative form, yet the fact that it is qualified by the sentence "to such an extent" does obviously indicate a certain amount of adulteration. The exact details of an analysis of Russian bread carried out in our laboratory appeared in our columns last week, and the results showed an adulteration, even in this specimen which was regarded as unusually good, equal to the addition of ten pounds of foreign substances to every hundredweight of flour. Our report was read with very general interest, inasmuch as it demonstrated distinctly that the flour had been tampered with, not, perhaps, to an excessive extent, as has been believed, but still to an extent which is both unpardonable and unjustifiable. In respect to the results, it is so far satisfactory to learn that our report is practically confirmed by the Russian official analysis, although the *Novoe Vremya* maintains that the official analysis is misleading, and it cites the opinion of several experts in support of this contention.

CASE OF URETHRO-VAGINAL FISTULA OPERATED ON BY VAGINAL FLAP.

Dr. OKER-BLOM relates the case of a farmer's wife who had lost the greater part of her urethra in her first confinement. The whole of the middle portion extending backwards as far as the bladder had been destroyed, whilst of the anterior portion only 1 centimetre remained. The sphincter itself was injured. The tissues between the neck of the bladder and the symphysis had disappeared, a cavity occupying their place. The entrance to the bladder below and behind was blocked by the vagina. The orifice of the vagina was narrow and extremely rigid, the mucous membrane being replaced by cicatricial tissue, which extended from side to side. The following operation was performed. In the first place the edges of the opening into the bladder, and of the remains of the urethra, with the tissue between them beneath the symphysis, were freshened, then the edges of the opening into the bladder were sutured to the remains of the urethra, the portion nearest the symphysis requiring four good-sized catgut sutures. The cavity beneath the symphysis closed by first intention, but the strain being too great, the stitches gave way. To

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remedy this, a flap of mucous membrane was raised from the right side of the vagina. The posterior edge of this flap was sutured to the opening into the bladder, and the anterior edge to the remains of the urethra, whilst the middle portion was united to the tissues on the left below the symphysis. In this way a new urethra was formed, which healed by first intention. As no sphincter existed, a plug of cork was used as a substitute, which the patient always carried with her, and which closed the channel into the bladder sufficiently to prevent the escape of urine, but at the same time did not prevent micturition. She has for a month been able to follow her occupation in the fields without suffering the slightest inconvenience arising from the bladder.

RETRO-UTERINE HÆMATOCELE.

THE *Pester Medicinisch-Chirurgische Presse* reports a lecture by Dr. H. Swiecicki of Posen before the medical association of that city in which he discusses the various sources from which retro-uterine hæmatocele may originate, such as the Fallopian tubes, ovaries, and uterus, and mentions the immediate causes of the affection. He considers adhesions, followed by bleeding from beneath, as necessary factors in producing the hæmatocele, and mentions extra-uterine pregnancy as the most usual predisposing cause. He discusses the formation and course of the various kinds of the latter, and its relation to pelvic hæmatocele, and expresses it as his opinion that gonorrhœa and previous perimetritis are the most frequent causes of the abnormal pregnancy. Retro-uterine hæmatocele cannot be produced artificially, so that it appears other causes are present for the formation of the tumour besides adhesions and bleeding. Swiecicki agrees with Veit that the blood in the peritoneal cavity may coagulate, though slowly, and that the coagulum adheres easily to the pseudo-membranes. This process goes on until, by the continually increasing collection, pressure is exercised on the bleeding vessels, and may arrest further oozing. This bleeding is apt to take place in the direction in which the tissues are least capable of resistance—that is, towards Douglas' pouch. The treatment may be either expectant or operative. The latter consists in puncture per vaginam or per rectum, or in incision per vaginam or laparotomy. Swiecicki favours an expectant and symptomatic treatment, and, if operating at all, would either incise per vaginam or perform laparotomy. He considers the operation indicated when the hæmatocele is of considerable size, when the tumour shows no symptom of absorption after several weeks' expectant treatment, when septicæmia or pyæmia has begun, or when excessive pains or other unfavourable symptoms affecting the bladder or rectum exist.

INTESTINAL OBSTRUCTION DUE TO A LARGE GALL-STONE.

AN interesting example of this rare form of obstruction of the intestines occurred in a patient who was recently submitted to abdominal section and a large gall-stone removed. The patient, a man aged forty-three, consulted Dr. Murphy of West Malvern, on Dec. 20th, 1891, for a supposed bilious attack. He had been vomiting for three days, and there had been no action of the bowels for two days. The vomited matter was copious, and contained a large quantity of bile. There was great thirst, but no pain. Some resistance could be felt in the abdomen to the right of the umbilicus. Very little improvement followed the treatment commenced at that date, and on the 25th Dr. Brockatt of Great Malvern saw the patient in consultation and advised operation. This was performed early on the following morning. Under an anæsthetic, a hard, movable lump could be felt in the right iliac region. After opening the abdomen, this lump was found to be a hard mass which completely blocked the lumen of the small intestine. The intestine was held by the fingers above and below the obstruction, and an incision made in the long axis of the intestine, and what proved to be a large gall-stone was extracted. The intestine near was washed out thoroughly and the wound closed with Lembert's sutures. The patient had no further abdominal symptoms, but sank and died from exhaustion on the 31st of last month. Only a partial examination of the abdomen was permitted by the friends. There was slight peritonitis of some of the superficial coils of intestine on the right side in the neighbourhood of the wound, which was itself firmly united, and situated high up in the jejunum. On tracing the small intestine upwards, it was found to be firmly matted together by old adhesions, and the gall-bladder was incorporated with the mass and could not be separated. The gall-stone was unusually large, was pear-shaped, and measured 2 in. in length, 1¾ in. in its greatest transverse diameter, and 5½ in. in greatest circumference. In February of last year the patient was seen by Dr. Murphy for an attack of acute pain in the abdomen, which lasted for twenty-four hours, but was unattended by vomiting or followed by jaundice. His occupation was sedentary; but, with the exception of this attack, his health had been good.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—The next "vacation course" of lectures and demonstrations will commence on March 9th, and will continue until April 6th. An elaborate prospectus has just been published.

Breslau.—Professor Kast of Hamburg has been appointed Professor of Clinical Medicine in succession to Dr. Biermer, resigned.

Gratz.—Professor Kratter of Innsbruck has been appointed to the chair of Forensic Medicine.

Kharkoff.—Dr. Openkhovski of St. Petersburg has been appointed Extraordinary Professor of Therapeutics.

Strasburg.—Dr. Ernst Mehnert, Assistant in the Anatomical Institute, has been recognised as *privat docent* in Human and Comparative Anatomy with Embryology.—Dr. Martin Schmidt, Assistant in the Pathological Institute, has been recognised as *privat-docent* in General Pathology and Morbid Anatomy.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. A. Casini, Lecturer in Surgery in the University of Naples.—Dr. Palmer, formerly Professor of Physiology in the Howard University, Washington.—Professor Weber-Liel, of Bonn.

AT the annual meeting of the Obstetrical Society of London, on Wednesday, Feb. 3rd, there will be a ballot for the election of Sir Joseph Lister, Bart., and Sir William Turner, as honorary Fellows (British subjects), and for the election of Professor Credé and Dr. Lusk as honorary Fellows (foreign subjects). The number of British honorary Fellows is limited to six, and foreign honorary Fellows to ten.

THE death is announced of Dr. Leighton, the father of the President of the Royal Academy. The deceased physician was ninety-three years of age, and some years ago retired, after having enjoyed a long practice in Scarborough.

WE understand that at the third Lettsomian lecture on Monday next Mr. Rose will demonstrate on the dead subject the steps of his operation for removal of the Gasserian ganglion.

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WELLINGTON COLLEGE SORE-THROAT.

BY J. G. BARFORD.

(*Continued from page 159.*)

"THE bleak, inhospitable moor on which the building has unfortunately been erected wore for the first time such a busy aspect as was almost sufficient to give an air of animation to a spot so desolate and cold" is the opening paragraph of *The Times'* leading article on the inauguration of the public opening of this institution by Her Majesty thirty-two years ago. The article goes on to state that, short as the distance is from the station to the College, it was "quite sufficient to enable all to appreciate the bleakness of the situation, for wind and drizzling rain were sweeping across the heath with vindictive keenness, and altogether the appearance of things was as cheerless and unpromising as well could be." Prior to the opening day the five or six masters assembled and some sixty boys, having found their way to the College with difficulty, for there were no roads completed, and much of the land was a perfect slough. The season was a wet one, and the building very incomplete. Under these conditions I was appointed to undertake the medical charge of the institution. A few days before the boys assembled I went over to the place on a tour of inspection, and met the present Archbishop of Canterbury, who had been appointed head master. We made each other's acquaintance, the one not knowing in the least who the other was till we announced our respective names. The look of things was not encouraging; but we got over the first term without any very alarming illness. Some cases of pneumonia and bronchitis were our chief sources of anxiety, and a distinctly malarial form of "recurrent febricula" cropped up, and in this as in subsequent terms for years was very prevalent, accompanied by the peculiar form of progressively developing sore-throat, in its mild and benign form as a rule, but occasionally in its malignant form, and this has been a feature at Wellington College from the time the building was first tenanted, in 1859, to 1891, when it appears to have reached its most virulent phase, necessitating the dispersal of the school for part of one term and the whole of another. To trace the slow, but surely progressive, nature of the affection it is necessary to recognise its association with the peculiar forms of recurrent feverishness to which the boys were liable from the commencement of the College, and which also affected the able-bodied convicts who were sent to Broadmoor Asylum to labour at the trenching and other earth-works which had to be done before the asylum was fit for the lunatic inmates. These able-bodied convicts I had the charge of, and thus was afforded an opportunity of comparing their maladies with those at Wellington College.

The recurrent feverish attacks to which the boys and convicts were both liable were of a distinct malarial type. The sparse population of the district anterior to the appearance of Wellington College and Broadmoor Asylum consisted of a peculiar race of hardy natives who became celebrated in Kingsley's works, and were known as broom-dashers, as their sole occupation was making heath brooms, which in the process of construction are dashed against a block of wood to give them shape and firmness; hence, I presume, the name "broom-dasher" arose. They were a peculiar, uncultivated race of the gipsy type. They lived in huts made of turf, with no flooring but the bare ground. Ague was common among them, as indeed it was all around this district and the adjacent portion of Hampshire.

But Dr. Bristowe, in his report to the Governors of Wellington College, states that there is no malaria. He can know but little about the disease tendencies of the locality. He states in his report to the Governors that "the term malarious as applied to the district is wholly inaccurate and misleading." If Dr. Bristowe would do me the favour to pay me a visit I would take him to see a patient who had distinct ague, and he shall hear it from the patient himself and listen to an accurate description of an ague fit. When the South-Eastern Railway was being constructed through the portion of the country where Wellington College now stands the navvies suffered very much from ague. *The Times* article above referred to states that Wellington College "faces immediately" on Hampshire, and Hampshire is known to have been distinctly malarious, and is one of the few counties named as indubitably so. Dr. Bristowe, in his article on Malaria, draws largely from Sir Thomas Watson's lectures. Watson states that malaria may be present one month in a locality and absent the next; yet Dr. Bristowe, from a few visits in one month of the year, and the least likely month for malaria to display itself, draws his sweeping conclusion that there is no malaria in the locality. James I. and Oliver Cromwell both died of ague contracted in London, and it is no more disparagement to Wellington College to say that ague occurred than it is to London to say it was once very malarial, and that still in London as at Wellington College a distinct malarial taint can be traced in some cases of acute disease playing through the other symptoms as distinctly as the treble in a chorus. So long as the authorities of Wellington College shut their eyes to these facts, so long will they fail to realise the true nature of much of the illness there, and to this error Dr. Bristowe lends his name and authority. There is a distinct association between the malarial disposition and the Wellington College sore-throat, and the malignant septicæmia which has occurred there in excess of any other locality of the same population in the country, which I will hereafter point out more in detail.

(*To be continued.*)

THE INFLUENZA.

So far as can be gleaned from the reports in the daily press, there is no appreciable abatement in the epidemic of influenza, for although the disease is leaving some districts it is still spreading in other parts of the country. In the metropolis there is no question as to the great prevalence of the malady; but none of the hospitals seem to be so overwhelmed with cases as they were during the first week of 1890. However, there is much sickness from bronchitis and pneumonia, of which several cases must be attributed to an antecedent attack of influenza, without any correspondence in severity between the primary illness and its sequel. The Registrar-General's returns for the week ending Jan. 23rd show, as regards mortality, a great increase in the deaths primarily attributed to influenza in London—viz., 506—the number for the previous week being 271; and in addition there were 86 cases in which influenza was returned as a secondary cause. The latter figure is of course only approximate, for it appears that the deaths referred to diseases of the respiratory organs rose to 1465, or 868 in excess of the corrected average. Turning to the general death-rates of the large towns of England and Wales, it is remarkable to find the list headed by a town which in its annual rate is very near the other end of the scale. This is Brighton, where the death-rate last week was as high as 60·9 per 1000. In mitigation of this exceptional mortality, which can only be ascribed to influenza and its complications, it must be observed that this town is the nearest health resort to London, and has doubtless received more invalids than customary this winter. Dr. Newsholme, the medical officer of health for Brighton, has prepared a special report on influenza, which describes in a succinct and readable manner what is known concerning its nature and mode of propagation, with timely suggestions as to precautionary measures to be taken in households where cases may arise. Dr. Newsholme, speaking of the high rate of mortality, due, in his opinion, chiefly to the excessive mortality among aged and invalids from the sequelæ of influenza and other causes, draws especial attention to the risk of drawing false inferences from noting only one week's returns. But it may be remarked that the average death-rate for Brighton during the past four weeks has been no less than 46·9, whilst London (which last week had a mortality of 46) gives an average for the same period of 40·2. Influenza is said by the medical men at Brighton to be declining, and the present high death-rates are largely due to the attacks of

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previous weeks. There has been a decline in the rate at Portsmouth, which was 44·3 last week; but Norwich has advanced from 40·1 to 44·7. The lowest rates were in Huddersfield, 17·3; Leicester, 19·1; Nottingham, 19·4.

In the Home Counties influenza is still very prevalent, especially in Essex and North Kent; and in Berkshire, Herts, and Bedfordshire fresh cases continue to occur.

Dr. Thresh, medical officer of health of the Chelmsford rural sanitary district, writes:—"In both the rural and urban districts this disease is very prevalent and of a severe type. In the Chelmsford rural district three schools have had to be closed for lack of scholars. The death-rate for this district during the past three weeks has been at the rate of over 50 per 1000. More deaths from influenza have occurred this month, so far, than during the whole of last year. The majority of those who succumb are over sixty-five years of age. The epidemic is extending in all the districts." Dr. Thresh has issued a special report, and advises exactly the same precautions to be taken with patients suffering from influenza as would be taken if they were known to be suffering from scarlet fever.

On the whole, it seems to be less prevalent in Dorset and Hants, but only this week has it appeared in North Somerset, although it has been longer prevalent in other parts of the county. Thus a medical man at Martock writes:—"Influenza is rampant. . . The cases this year in our neighbourhood are, as a rule, very severe, and relapses are very common, whilst, as complications, pneumonia of an insidious type is often met with. Bronchitis is very frequent, especially among old people. More common than pneumonia, and about as frequent as bronchitis, is gastro-enteric disturbance of a more or less severe character. . . . In some cases the abdominal pain and diarrhœa are extreme."

In Leicester we are informed that "influenza still remains comparatively mild, and does not extend with any great rapidity. No deaths were recorded last week, and the deaths from respiratory diseases, as well as the general mortality, remain unusually low." Less reassuring statements come from Northampton, where it has recently broken out, although for some time it has been prevalent in the district. In Huntingdonshire and Cambridgeshire, as well as in Norfolk and Suffolk, there does not seem to be any appreciable abatement. The epidemic is spreading in Lincolnshire and in the North Riding of Yorkshire. It is also on the increase in Liverpool.

On the Continent influenza is still prevalent in Paris and the South of France, notably Lyons; but it is abating in the northern departments. It is also subsiding in Italy, and has almost ceased at Malta and in most parts of Germany, although it is still very severe at Mecklenburg. There is a decrease in its virulence in Copenhagen, but it has appeared with considerable severity at Christiania, Bergen, and other parts of Norway. It has once more appeared at St. Petersburg, and is very severe in Odessa and South Russia generally.

A piece of intelligence which we are not able to confirm comes from Berlin, in the letter of the *Standard's* correspondent (Jan. 20th)—viz., that an International Influenza Conference is to be held in London in March, with Sir W. Jenner as president. The number of deaths in Berlin from influenza, not counting its sequelæ, from the beginning of last November till the New Year was 411. Eight of the fifteen normal schools in Saxony are closed owing to influenza. The number of cases officially determined in Vienna from the 3rd to the 9th inst. was 521. Dr. Ripperger of Munich has published a book entitled "The Influenza, its History, Epidemiology, Etiology, Symptomatology, Treatment, Complications, and Sequelæ." It gives an account of all the influenza epidemics on record since 1387. The number of references is over 3000.

As to other parts of the world, there is still much sickness from this cause in the United States, and this week has brought information of an outbreak at Cape Town.

YELLOW FEVER ON A MAIL STEAMER.—Messrs. Shaw, Savill, and Albion Company's steamer *Arawa* arrived at Plymouth on the 21st inst. Owing to yellow fever having broken out on board after leaving Rio on the 3rd, the vessel will be detained in quarantine, and has been ordered to proceed to the Mother Bank under yellow fever signals. The mails were fumigated and forwarded to London by special train.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

St. George, Hanover-square.—The corrected death-rate for this parish during 1890 was 14·56 per 1000 of the inhabitants; but Dr. Corfield does not accept the official census, because it was made to depend on a Sunday night, when many of the inhabitants are always away, and because of the Easter holidays, which also largely interfered with the residence or not of many of the parishioners in their own homes. During the last sixteen years the mean length of life has averaged nearly 54 years in this parish; it has also gradually increased, and for 1890 it is set down at 62·67 years. The zymotic rate was 1·6 per 1000. The report, which is mainly statistical, concludes with an account of the general sanitary work of the year.

Ampthill Parish.—Dr. J. H. Garrett presents a special report on this parish, as to which he gives a very complete account, beginning with its topography, geology, &c., and containing a detailed description of all the prevailing sanitary circumstances. Evidently the place stands in need of much sanitary reform: its sewerage is very faulty, the closet accommodation is most unsatisfactory, and a public water-supply is urgently required. Ampthill possesses certain very marked advantages of site and soil; and it is much to be hoped that the careful report compiled as to its advantages and its many wants will induce the sanitary authority to do their duty towards the parish, and free the place from all those conditions which tend to unhealthiness. What that sanitary authority is to be remains to be seen, for opposition has been raised as to the constitution of a local board district. Dr. Garrett's report shows that the wants of Ampthill are essentially local ones, and the place seems certainly to be sufficiently compact to justify the formation of a local body that will have more interest in its sanitary circumstances than has been shown, since the passing of the Public Health Act (1875), by the guardians, who are scattered all over the union, and have other things to think about than the wants of this special parish.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6328 births and 6884 deaths were registered during the week ending Jan. 23rd. The annual rate of mortality in these towns, which had been 28·7 and 33·0 per 1000 in the preceding two weeks, further rose last week to 35·4. In London the rate was as high as 46·0 per 1000, while it averaged only 27·6 in the twenty-seven provincial towns. The lowest rates in these towns last week were 17·3 in Huddersfield, 19·1 in Hull and in Leicester, 19·4 in Nottingham, and 19·8 in Halifax; the highest rates were 40·0 in Liverpool, 44·3 in Portsmouth, 44·7 in Norwich, 46·0 in London, and 60·9 in Brighton. The 6884 deaths included 518 which were referred to the principal zymotic diseases, against 549 and 604 in the preceding two weeks; of these, 254 resulted from whooping-cough, 124 from measles, 41 from diarrhœa, 38 from diphtheria, 32 from scarlet fever, 26 from "fever" (principally enteric), and 3 from small-pox. No fatal case of any of these diseases was registered in Halifax, while they caused the lowest rates in Portsmouth, Plymouth, and Gateshead, and the highest rates in London, Derby, Liverpool, and Swansea. The greatest mortality from measles occurred in Derby, Liverpool, and Swansea; from scarlet fever in Swansea; from whooping-cough in Wolverhampton, Brighton, Bolton, Oldham, London, Blackburn, and Derby; and from "fever" in Salford. The 38 deaths from diphtheria included 23 in London, 2 in Croydon, 2 in Norwich, and 2 in Newcastle-upon-Tyne. Three fatal cases of small-pox were registered in Liverpool, but not one in London or in any other of the thirty-three great towns; 6 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and 2 in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London

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Fever Hospital at the end of the week was 1397, against numbers declining from 1554 to 1391 at the end of the preceding seven weeks; 116 new cases were admitted during the week, against 104 and 92 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 1084 and 1248 in the preceding two weeks, further rose last week to 1465, and exceeded by as many as 868 the corrected average. The causes of 111, or 1·6 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bolton, Oldham, Newcastle-upon-Tyne, and in four other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Swansea, Sheffield, and Liverpool.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the preceding four weeks from 27·1 to 23·9 per 1000, rose again to 27·2 during the week ending Jan. 23rd, but was as much as 8·2 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 21·8 in Edinburgh and 23·7 in Paisley to 29·7 in Greenock and 31·9 in Dundee. The 756 deaths in these towns included 24 which were referred to whooping-cough, 13 to diarrhœa, 11 to measles, 10 to scarlet fever, 9 to diphtheria, 5 to "fever," and not one to small-pox. In all, 72 deaths resulted from these principal zymotic diseases, against 58 and 50 in the preceding two weeks. These 72 deaths were equal to an annual rate of 2·6 per 1000, which was slightly below the mean rate last week from the same diseases in the thirty-three English towns. The fatal cases of whooping-cough, which had been 22 and 16 in the preceding two weeks, rose again last week to 24, of which 10 occurred in Glasgow, 5 in Aberdeen, and 4 in Paisley. The 13 deaths from diarrhœa showed a slight further increase upon recent weekly numbers, and included 9 in Glasgow. The 11 fatal cases of measles exceeded by 7 the number in the previous week; 9 occurred in Glasgow and 2 in Edinburgh. The deaths from scarlet fever, which had been 4 and 7 in the preceding two weeks, further rose to 10 last week, of which 8 occurred in Glasgow. The 9 fatal cases of diphtheria showed an increase of 4 upon the number in the previous week, and included 4 in Glasgow and 3 in Aberdeen. The 5 deaths from "fever" were below those recorded in any recent week. The deaths referred to diseases of the respiratory organs in these towns, which had been 200 and 226 in the preceding two weeks, were 230 last week, and exceeded by 20 the number in the corresponding week of last year. The causes of 53, or more than 7 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 35·0 and 43·8 per 1000 in the preceding two weeks, further rose to 54·1 during the week ending Jan. 23rd. During the first three weeks of the current quarter the death-rate in the city has averaged 44·3 per 1000, against 39·6 in London and 22·1 in Edinburgh. The 363 deaths in Dublin during the week under notice exceeded by 69 the number in the preceding week, and included 10 which were referred to whooping-cough, 5 to "fever," 2 to diphtheria, 2 to diarrhœa, 1 to measles, and not one either to small-pox or scarlet fever. In all, 20 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3·0 per 1000, the rate during the same period being 3·7 in London and 1·8 in Edinburgh. The fatal cases of whooping-cough, which had been 10 and 5 in the preceding two weeks, rose again to 10 last week. The deaths referred to different forms of "fever" (principally enteric), which had been 5 and 2 in the previous two weeks, rose again to 5 last week. The two fatal cases of diphtheria exceeded the number recorded in any week since September last. The 2 deaths from diarrhœa were within one of the number in the preceding week. The 363 deaths registered in Dublin last week included 47 of infants under one year of age, and 147 of persons aged upwards of sixty years; the deaths of infants showed a slight decline, while those of elderly persons showed a marked further increase upon recent weekly numbers. Three inquest cases and one death from violence were registered; and 163, or nearly one-half, of the deaths occurred in public institutions. The causes of 24, or nearly 7 per cent., of the deaths in the city were not certified.

THE SERVICES.

Surgeon-Lieutenant-Colonel J. G. Rogers, M.B., D.S.O., has vacated his appointment in the Egyptian Army.

ARMY MEDICAL STAFF.—The surname of Surgeon-Major-General D. A. C. Fraser, M.D., placed on retired pay in the *Gazette* of Jan. 12th, 1892, is as now, and not as therein stated; Surgeon-Colonel Alfred M. Tippetts to be Surgeon-Major-General, vice D. A. C. Fraser, M.D., retired, and Brigade Surgeon-Lieutenant-Colonel William C. Robinson to be Surgeon-Colonel, vice A. M. Tippetts (both dated Dec. 27th, 1891); Surgeon-Lieutenant-Colonel William McWatters to be Brigade Surgeon-Lieutenant-Colonel, vice S. E. Maunsell, deceased (dated Dec. 16th, 1891); Surgeon-Lieutenant-Colonel Robert N. Mally to be Brigade Surgeon-Lieutenant-Colonel, vice W. C. Robinson (dated Dec. 27th, 1891); Surgeon-Captain John Lees Hall, from half pay, to be Surgeon-Captain, vice T. F. W. Fogarty, M.B., deceased (dated Jan. 3rd, 1892).

ARMY MEDICAL RESERVE OF OFFICERS.—The Queen has been graciously pleased to approve of the following alterations of designation in the rank of Officers of the Army Medical Reserve of Officers (dated Jan. 1st, 1892):—Surgeons-Major (ranking as Lieutenant-Colonels) to be Surgeon-Lieutenant-Colonels; Surgeons-Major (ranking as Majors) to be Surgeon-Majors; Surgeons (ranking as Captains) to be Surgeon-Captains.

INDIAN MEDICAL SERVICE.—*Madras:* Surgeon-Colonel T. N. Hoysted, Administrative Medical Officer, Sirhind District, Bengal, succeeds Sir James Hanbury as Principal Medical Officer of the forces in the Madras Presidency.

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Surgeons: Robert Hardie, M.B., to the *Cossack*, Edward Cuffey, M.B., to the *Pigeon*, and John A. Robinson, M.B., to the *Starling* (dated Jan. 29th, 1891).

VOLUNTEER CORPS.—*Artillery:* 1st Midlothian: Lieutenant William Thomas Crawford, M.B., is appointed Surgeon-Lieutenant (dated Jan. 23rd, 1892).

Correspondence.

"Audi alteram partem."

THE INFLUENZA.

To the Editors of THE LANCET.

SIRS,—Amongst the vagaries of influenza perhaps no complications are more puzzling, and at times give more anxiety to the practitioner, than the exanthematous forms which have been observed in this and other epidemics. Rashes quite typical of scarlet fever or measles have been frequently reported. My neighbour, Mr. Ward, medical officer of health for Harrogate, tells me that he has attended at least six cases simulating scarlatina so closely as to give him anxiety in the early stages until he was able to exclude all but influenza as a cause.

A case which I am still attending shows clearly that a rash, having all the outward appearances of measles, may occur in the course of influenza. The patient, a young married lady, sent for me on the 18th inst., complaining of diarrhœa and sickness, together with pains all over the body, but chiefly on the left side of the chest. There was no temperature and no rash. The pains had been present, more or less, for five days previously. Next day I was surprised to find the patient's face and neck flushed, swollen, and covered by a roseolar, measly rash, which also extended over the chest, arms, and body. Still no temperature. A saline aperient was administered in order to help the elimination of poison from the blood. By the following day the rash had considerably faded, and the face and neck were much less swollen. Now, since the 20th inst. the rash has practi-

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cally disappeared, excepting on the left side of the chest. Here a recrudescence has taken place limited to an area bounded by a vertical line drawn posterior to the axilla behind, a little to the left of the sternum in front, and from about the third to the eighth ribs. The so-called rheumatic pains, though at first general, have now concentrated themselves to the space above described, but have increased in severity so as to be spasmodic in agony. A nerve storm appears to come on with regularity every evening and early part of the night. One cannot help of course being strongly reminded of "herpes zoster," though the papular stage only has been reached, and there is no sign of vesicles forming. "Herpes zoster" itself has been mentioned among the sequelæ of influenza. My patient is of hysterical, neurotic type, and the menses are very irregular, so that neuralgic affections are not uncommon with her.

Another complication of influenza to which I scarcely think sufficient attention has been directed is "infection of the endocardium." I have seen four cases. Perhaps the prevailing symptom in all was a pretty high temperature—say, 101° to 103°—tending to be maintained for several days, and to relapse unless antipyretics were steadily given. Catarrhal symptoms were also present, but not pronounced. No complaint of pain over the precordial region was specially noticed, but faintness, as if for want of food, was observed. This, and a sort of suspicion that the case was not progressing as well as it ought, made me examine the heart, when a soft murmur with the first sound was usually heard about mid-sternum and towards the apex; in one case over the second left cartilage. The first patient in which I observed this condition of heart during an attack of influenza was an active, athletic young man. I was very much disappointed at finding the valvular trouble (thinking it was old and rheumatic), and gave a rather gloomy opinion as to the probability of his entirely recovering from it. However, I was agreeably astonished to discover that the heart had completely righted itself in about a month after the attack. In the other three cases I found that the time required was about three weeks, and I boldly predicted the return to health in the last two! During the valvular implication it would seem quite impossible to distinguish influenza from rheumatic fever by any examination of the heart. It would be a great comfort to one, therefore, to know if other observers can corroborate my own experience, that the endocarditis of influenza is erythematous and evanescent as compared with the plastic and more permanent mischief of rheumatic fever. In view of the recent discovery of a microbe which is specific to influenza, it is interesting and instructive to compare the miasmatic theory of Sir D. Maclagan as a cause of rheumatic fever, and which led to the introduction of the famous salicine treatment. Many observers, myself included, have found salicine and its compounds equally efficient in the struggle against influenza. In controlling the fever of the latter it is evidently necessary, not only that one should use an antiseptic form of antipyretic (e.g., salicine, antipyrin, phenacetin), but that the drug should be continued in its full dose, but less frequently, for a few days until the temperature has become steadily normal. Relapses are more frequent, or complete convalescence is retarded, where this plan is not carried out. Judging from several points of analogy which may be noted between measles, scarlatina, rheumatic fever, and influenza, it seems probable that their microbes come at least from the same genus, if not the identical species or family. Might not any differences in form of such microbes which belong to one genus help us to understand why some of our specific remedies are more adapted than others to meet the several requirements—e.g., fever, pain, sickness, and diarrhœa, or catarrhal symptoms? For the latter, for instance, I have found antiseptic balsams, such as guaiacum, benzoin, and tolu, made into an emulsion with tragacanth, of immense service. The addition, in some cases, of ipecacuanha wine or, in gouty congestion, of colchicum wine has also proved most helpful. Herpes zoster itself has been thought by some observers, such as Dr. Byrom Bramwell, to be of microbic origin, though I am not aware that the individual has been discovered. The pains of this affection, and its allies of influenzal type, are so intense and persistent that one would be glad to have a remedy certain to quell and cure it without having recourse to opium.

In connexion with the exanthematous forms of influenza I was struck with a statement made by my friend, Dr. H. E. Armstrong, medical officer of health for Newcastle-on-Tyne, a few days ago. He said that during the last quarter of 1891 the mortality of "measles" had been eight times greater than that of "scarlet fever." This does not seem to be in accord with one's general idea of the comparative gravity of these affections. It occurs therefore to me to ask whether cases are not being returned as measles which are in reality influenza *with a rash*? Parents are often very careless in regard to children with measles, allowing them to run about out of doors as if nothing were the matter. Under such circumstances influenza with a rash like measles would be very likely to run into fatal complications.

I am, Sirs, yours faithfully,

J. GORDON-BLACK, M.D.Lond.

Harrogate, Jan. 26th, 1892.

To the Editors of THE LANCET.

SIRS,—One of the most distressing and one of the most persistent symptoms present in the cases of influenza at present prevalent has been the occurrence of severe cough. This I have frequently observed to be out of all proportion to the amount of bronchitis present and to have remained to harass the patient's rest when the physical signs in the lungs had entirely disappeared. These facts, along with its paroxysmal nature, must have suggested to many the analogies between the condition and that of whooping-cough, which of late years has more and more come to be recognised as due to some nervous lesion. Seeing the very striking effects which the cause of influenza has upon the nervous system, is it unreasonable to suppose that the cough may be of nervous origin? A case which I have had under my care still further confirms this idea, and presents, I think, a therapeutic suggestion. In a lady recovering from influenza and suffering from this paroxysmal cough, a hernia which had formerly been reducible showed signs of strangulation, and required an operation, which was performed under chloroform as the anæsthetic. The patient made an excellent recovery, and never during convalescence again suffered from her former distressing symptoms—in fact, rarely coughed at all. Now, while I do not think it would be justifiable to chloroform every patient thus suffering, still, action along the same lines may be taken, and I have tried with good effect an inhalation consisting of one drachm of chloroform, two drachms of oil of cinnamon, and three ounces of rectified spirits of wine—a little to be occasionally put on blotting-paper, placed beneath the chin of the patient, who is enjoined to breathe quietly. The small quantity of chloroform which can be present in any inhalation suggests that it acts by soothing the terminations of the vagi in the bronchial passages, and not by any general influence.

I am, Sirs, yours truly,

Oxford, Jan. 25th, 1892. H. P. SYMONDS.

To the Editors of THE LANCET.

SIRS,—Now that the influenza is raging everywhere, and every practitioner is engaged in battling with it, I thought that some of the observations I made during the epidemic of 1890 as compared with those of the present year might be of use. During the epidemic of 1890 I was acting temporarily as superintendent in a large London infirmary, where the number of patients averaged 520, and when during the three months of December, January, and February, if I remember rightly, about 200 cases occurred either amongst the patients already in the building or who were admitted suffering from the disease and were placed in the general wards, no attempt being made at isolation.

The first point one notices between the attacks occurring then and now is that in the former gastric catarrh accompanied with persistent vomiting for the first twenty-four hours was very common, and that bronchial catarrh, if present, was slight and evanescent; whereas now in the great majority of cases bronchitis of more or less severity is present and persists for some time, with considerable elevation of temperature. In addition a few of the present cases show gastro-intestinal catarrh with profuse diarrhœa and jaundice. Observations in the previous epidemic showed that the majority of patients were young adults (from twenty to forty), neither the very young nor the old being affected in anything like the same proportion, although the bulk of the patients in the building were elderly people suffering from chronic

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chest complaints, a very small proportion of whom were attacked; this being rather against the idea that disease of the respiratory organs renders the patient more susceptible to the disease. Patients who were far gone in phthisis, too, seemed to escape the disease, possibly because the high temperatures they had rendered the soil unsuitable to the microbe of influenza. In very few cases indeed did pneumonia supervene, and very few cases succumbed. Amongst the children a few cases occurred; but then, as at the present time, they had few complications, the attack consisting in a sudden onset of giddiness, high temperature, vomiting for a few hours, and bad headache, the usual complaints of general aching and severe pain in the lumbar region being wanting. Usually the temperature began to fall within thirty hours, and was normal by the third day, and was not followed by anything like the same amount of depression as amongst the adults. As to sex, we found they were affected in nearly equal numbers, females slightly predominating.

In the earlier cases the temperatures rarely exceeded 103°, but later cases always reached 104°, and many 105°, or over. The infectious nature of the disease was shown by the large number of nurses who fell victims, those having anything to do about the patients being attacked, whereas patients sleeping in adjoining beds remained free. I can only remember one case where a patient was affected in the next bed, although from its infectious nature we might have expected to see it progress round the ward from bed to bed; and its not doing so must be attributed to good ventilation and an ample cubic space per patient. This explains, too, why isolated cases occurred in wards containing thirty-two beds, none of the other patients contracting it, so that the poison seems to be like that of typhus fever, easily rendered innocuous by dilution. As regards the incubation period, I have lately had a case in private where A was taken ill, and precisely six days later B fell a victim, this patient having two children sleeping in the room with her, neither of whom had had any communication with A, and were not even allowed on the same floor, both of whom were attacked twenty-four hours after B's symptoms began. This coincides with observations reported in Dr. Sisley's book; and inasmuch as the children had been confined to the house, their source of infection seems clear. That we should isolate every case at once, as in any of the other infective diseases, is imperative; and if we can remove our patients to a top floor, and use a carbolised sheet over the door, it seems most desirable to do so. Then the question arises, How long after convalescence is the patient infectious, this being a question that is put to us daily, and which no authority to which I have access gives any clue? It seems safe to conclude that as long as any cough lasts the infection continues; but this is an unsatisfactory guide, for a patient may keep his cough for three or four weeks, and will certainly not submit to quarantine for that period. Are we safe in setting an arbitrary limit of from ten to fourteen days? After convalescence it seems desirable to disinfect the rooms; and this may be done rapidly by vaporising cresolene or by having the windows opened for two or three days, and the bedding &c. well aired.

Another question arises as to whether the disease can be conveyed by a third person who is not himself suffering from the disease. Doubtless, if the third person carries away on his dress mucous or nasal discharges, as in the case of whooping-cough, it can be conveyed, but otherwise there seems to be little danger. It is to guard against this possibility that at some of the infirmaries these patients are isolated at once and have special nurses provided, who are not allowed to mix with the others or attend in the general wards; and the results of this care will be watched with interest by all practitioners, who are naturally interested in staying the present plague and acting in the best interests of their patients.

I am, Sirs, yours truly,

RAINSFORD F. GILL, M.D. Lond.

Adelaide-road, N.W., Jan. 25th, 1892.

To the Editors of THE LANCET.

SIRS,—During this epidemic I have used nothing else but bicarbonate of potash, giving it, as recommended by Mr. Crerar, in half-drachm doses in milk every three hours, as long as the fever lasted. Last epidemic I gave salicylate of soda with bromide of ammonium after an injection of apomorphia or an aperient, and the bicarbonate treatment I find by far the best. I would not go so far as to say, with Mr. Crerar, that it destroys the power of the disease within twenty-four hours. There appears to be no limit to the amount which may be given, for a gentleman between seventy and eighty years of age took twenty-one powders in sixty-eight hours without any depressing effect if accompanied with stimulant. The temperature then being normal, no more were given for some hours, when, the temperature rising to 102°, the treatment was recommenced, with the result that in about twelve hours the body heat was 99°. This plan of treatment saves much writing, dispensing, and sending out medicines on one's return home, for one simply takes a packet of powders. A powder can be divided for a child and made into four for a baby. In all cases I order a milk (perhaps with soda water) diet only, and insist on champagne or whisky every three hours. Many have said to me that they feel, in about ten minutes after taking a powder, the feverishness much lessened, remaining so for an hour or more. I see that salicylate of antipyrin and benzole are highly recommended. I trust, if we are to have any more of this wretched epidemic, an acute fever of the nervous system, a more perfect plan of treatment than there seems to exist will be found. For the cough, headache, backache, and other aches accompanying influenza and its convalescence I find a pill of a quarter of a grain of cannabis indica very useful with adults, given every hour, if necessary, for a consecutive six hours or more.

I am, Sirs, yours faithfully,

Canterbury, Jan. 25th, 1892. PUGIN THORNTON.

P.S.—Has anyone not using drugs trusted to body-sponging for reduction of temperature?

To the Editors of THE LANCET.

SIRS,—Though unwilling to add to the long list of reputed remedies for influenza, after seeing Dr. Althaus' letter in THE LANCET of last week advocating the use of the salicylate of antipyrin, I would like to call your attention to salicylate of bismuth, which I have used extensively during the last and also the present epidemic, with marked benefit. It is especially valuable in two classes of cases—namely, in young children, and also in those cases where gastro-intestinal symptoms are troublesome, one dose usually being sufficient to allay the vomiting. Though I have carefully examined for toxic symptoms, and inquired after them, I have found none, which is by no means a small advantage. It is administered in a mixture suspended in mucilage and flavoured with orange, lemon, or ginger, &c.

I am, Sirs, yours truly,

HERBERT H. HORDEN, M.D., L.R.C.P.

Water-lane, Jan. 27th, 1892.

THE MEDICAL DEFENCE UNION.

To the Editors of THE LANCET.

SIRS,—I have already told Dr. Phillips that I do not quite recognise my speech in his report, and I certainly did not mean to accuse Dr. Woods of imputing *mala fides* to anyone. If you will allow me, I should like to state my argument thus. The Medical Defence Union is admittedly very useful, but it can only be managed successfully by a strong and permanent council. This council must have the confidence of the members, and those who cannot trust it had better secede. There is plenty of room for a second organisation working on similar lines, and the difficulties of management are diminished where the organisation is confined to one locality and the office-bearers have personal knowledge of the men with whom they have to deal. I believe a thousand members is quite large enough for stability and efficient working.

I am, Sirs, yours faithfully,

Birmingham, Jan. 23rd, 1892. ROBERT SAUNDBY.

PATHOLOGICAL CONDITIONS IN THE MAMMA ASSOCIATED WITH CANCER.

To the Editors of THE LANCET.

SIRS,—Mr. Roger Williams remarks that the changes described in the breast tissue, apart from the carcinomatous tumour, by Mr. Johnson and myself at the Pathological Society on Jan. 5th, were known to Sir Astley Cooper; but the passages which he quotes from that surgeon's works do

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not prove this. They alone show that he was aware of the well-known invading character of scirrhus, and was familiar with the lengthened prolongations spreading outwards from the more localised mass, a condition so frequently found, but one entirely aside from the subject of the papers. Also, the primary origin of scirrhus in outlying parts of the breast was not under discussion. Shortly before reading my paper I heard of Heidenhain's work, but had not had an opportunity of referring to it. His observations and the conclusions which he arrived at are apparently much the same as those to which I was led. My friend Mr. Johnson did refer to Heidenhain's observations on the pectoral fascia. I take this opportunity to correct an obvious printer's error in your report in THE LANCET on page 90—viz., œdema for adenoma.

I am, Sirs, yours truly,

CECIL F. BEADLES.

London County Lunatic Asylum, Colney Hatch, N., Jan. 24th, 1892.

SANITATION AT CALAIS.

(FROM OUR SPECIAL CORRESPONDENT.)

ABOUT three hundred thousand travellers cross the Channel and pass through the town of Calais during the course of the year. In the year 1889, in consequence of the Paris Universal Exhibition, the actual number of passengers who availed themselves of the Calais route amounted to 332,230 during the first eleven months of that year. This enormous figure suggested the advisability of some inquiry as to the sanitary condition of Calais. In THE LANCET of Dec. 21st, 1889, the result of the investigations made at that time were published. Two years have now elapsed, and on again going over the same ground I am pleased to be able to report progress. The articles published by THE LANCET were carefully translated into French by an official of the Calais municipality, and read and studied by the local authorities, with the result that the work of sanitary improvement has been pressed forward with considerable energy. It may be remembered that, writing from Calais at the end of the year 1889, I described how the old historic town of Calais had been united to the new industrial suburb of St. Pierre, where are situated the celebrated tulle manufactories. The total population was 58,000, of whom 44,000 belonged to St. Pierre. Of these, 5000 were foreigners, comprising some 1500 British subjects, who are residents permanently established in Calais. The town is provided with pure though somewhat calcareous water from Guines, but a certain number of private wells still exist; and I must repeat to-day what I said two years ago—namely, that the authorities should be armed with power to close all such private wells. Fortunately, however, Calais is so low—some portions of the town being below the level of the sea—that the water in these private wells is often brackish; it can, therefore, only be used for cleaning purposes.

The general aspect of Calais and St. Pierre has greatly improved. Formerly there were hardly any sewers. The slop water from the houses flowed into the streets; if there was a sufficient fall, and the gutter was not blocked, it gradually found its way into the port, but very often the slop water stagnated in the streets, formed pools of fermenting matter, and gave off objectionable odours. Some sewers had, however, been constructed of late years, amounting in 1889 in total length to 6320 metres. Since then—that is to say, in the brief space of two years—sewers to the extent of 4540 metres have been added. This is a notable improvement, and brings the total length of the Calais sewers up to the respectable figure of 10,860 metres. Most of these sewers are eighty centimetres in width, and made of compressed concrete. At distances not greater than fifty metres one from the other, and on both sides of the streets, are openings from the gutters to the sewers. The slop water from the houses still runs into the gutters, but it soon finds its way to the sewer, and no longer stagnates in the street. This is in one sense preferable to draining into the sewer, for there is no direct communication from the houses to the sewers, and no danger of the sewer air travelling up the drain pipes into the houses. The sewers ventilate into the open streets. The new sewers are also very useful in preventing the floods that frequently occurred in some parts of the town. The greater portion of the sewers built since 1889 have their outfall in the tidal basin of the port; but some of the sewage falls into the canal near the citadel. There it is locked in until such time as the condition of the tide admits of the canal water being run out into the harbour. To drain into a harbour is bad enough, but to drain into a canal is infinitely worse. Monsieur A. Dagniault, the town engineer, explained that it was impossible to manage otherwise. A great portion of Calais being below the level of the sea, it was not possible to obtain a fall in other directions. Of course what is needed is a pumping station to raise the sewage, and thus to artificially create the necessary fall. The new Calais, which includes St. Pierre, is surrounded by fortifications and a moat. The old Calais is surrounded by huge docks and by canals, and to construct a main sewer through this double series of obstacles is no easy matter. When the new fortifications and the new docks were built, no one seems to have thought of making any sort of provision for the drainage of Calais; yet it might have been foreseen that as the population increased, as the knowledge of sanitation spread, objections to draining into the port would become more and more emphatic.

For the moment, however, the population of Calais is not increasing; on the contrary, there has been a notable decrease in the number of inhabitants. This is due to the termination of the greater part of the works for the building of the fortifications, new harbour, and docks. Also, the tulle manufactories not having prospered of late, a great many of the hands have had to seek work elsewhere. A large proportion of these artisans have obtained employment in Poland, principally in the neighbourhood of Warsaw, where certainly they will not find better sanitation than at Calais. According to the census taken on May 31st, 1886, there were 58,969 inhabitants at Calais and St. Pierre. The census taken on April 1st, 1891, showed that the population then amounted to only 56,867. This is a falling off of 2102 persons; but, as during the last two years there have been 1206 more births than deaths, we may conclude that at least 3300 persons have left Calais in that lapse of time. Many of them were Italian navvies whose labour at the new port was no longer required. For a town so sparsely populated—all the new streets are broad, the houses low, and many of the streets mapped out are not yet built upon—the death-rate is high. It amounted to about 22·2 per 1000 in 1889 and 22·9 per 1000 in 1890. Calais is healthily situated, constantly exposed to the fresh sea breeze, swept and purified by the four winds of the heavens; still Calais has a death-rate much higher than London, notwithstanding the overcrowding, the vice, the misery, and the fearful fogs of our great metropolis.

Calais, moreover, retains cesspools. These are emptied with some care by pneumatic suction. This is not produced by a portable steam engine, as in Paris, but by a hand-pump. In Paris the air escaping from the cesspool is passed through the fire of the engine and thus rendered innocuous. At Calais a special fire is lit in the street in a very simple contrivance the shape of a handbell or of an inverted wine-glass. The bell part is put on a smooth piece of ground or pavement. An aperture in the centre enables a pipe to be screwed on which joins the pipe that is laid from the portable tank to the cesspool. The upper part of the apparatus, which I might call the handle of the bell, is a circular metallic tube about four inches in diameter and a foot long, perforated on all sides with small holes. At the bottom there is a little grate. This pipe is filled with charcoal, and when the charcoal burns it consumes the air escaping from the cesspool by the pipe which brings it to the bell portion of the apparatus beneath the fire. In this way a cesspool can be emptied in the daytime without causing a nuisance. The contents of the cesspool are then conveyed to tank barges, which, by canal, travel to Belgium, where there are large works for the manufacture of human guano. Needless to observe, the emptying of the cesspools costs each householder a certain sum, which sum, paid as a tax for sewers, would probably suffice to cover the interest on a loan levied to carry out a proper and complete scheme of drainage. There must be some low-lying district where a sewage farm could be established or a point on the coast where the sewage outfall could be

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brought without injury to bathing. Of course it will be difficult to urge the abolition of cesspools and to propose direct drainage into the sewers while these latter have their outfalls either among the shipping in the port or in the stagnant water of the canals.

In the old inner port, known as the Basin du Paradis, close to the ancient but now abandoned town railway station, there is a sewer outfall. When the tide runs out a filthy, greasy, black mud is exposed, which gives off foul odours. Here are a great number of fishing smacks. The owners of these vessels still continue to look with favour on the filth by which they are surrounded; it makes a soft bed for their boats to rest upon when there is no water in the port. The town authorities more than two years ago had offered to send in a deredger to remove these sewer deposits; the fishermen refused the offer, so that the dirt remains, much to the annoyance of all visitors to Calais.

The fishermen's quarter near the lighthouse, called the Courgain, remains in the same picturesque and insanitary condition as when I described it last. The houses are still devoid of any sort of sanitary convenience, and utensils containing night soil are brought out every morning into the streets and emptied into a large drain in the middle of a somewhat elegant kiosk. A scavenger flushes this place once a day, and all that has been emptied into it flows into the port among the shipping. On the other hand, this, the slum of Calais, is a marvellous picture of cleanliness. The fishwives, with their neat hand-knitted woollen stockings, thick, short, clean skirts, their wooden clogs, and caps of spotless white, are ever engaged scrubbing the floors of their little houses, washing down the walls, and sweeping the narrow street. On the whole, the quarter is healthy in spite of the total absence of drainage. The wonderful neatness, order, and cleanliness of the inhabitants compensate in a great measure for the smallness of the houses, the narrowness of the streets, and absence of closets or drains.

Now that the fortifications are finished, that the heaviest work and expenditure for the new port and docks are also completed, perhaps more thought will be devoted to sanitary improvements. The fact that in two years the sewers have been augmented in length from 6320 metres to 10,860 metres is evidence of good intentions. There is, I have shown, still much to be done, but what has been achieved during the last two years gives good promise for the future.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Health of the City.

UNDOUBTEDLY the late severe weather is responsible for a large increase in the number of pulmonary affections, so much so that the death-rate rose last week from 19·4 to 26·6. Only six deaths were certified as due to influenza, as compared with seven in the preceding week, facts which show that this dire disease is not as yet present in an epidemic form among us. At the same time there is a large amount of sickness generally, many practitioners being sorely overworked by the exceptional strain. For instance, the parish authorities report that the out-door medical relief has gone up 35 per cent. above the average. The Health Committee have printed and circulated a hand-bill among householders, detailing the symptoms, treatment, and means of prevention of influenza. The most important part of the advice given is, "Send for the doctor without delay," a common-sense view which commends itself to most intelligent minds.

Hospital Saturday Fund.

The first meeting of the Board of Delegates for the administration of the Birmingham Hospital Saturday Fund was held at the Council-house on the 25th inst. under the presidency of the Mayor (Councillor Lawley Parker). A sketch of the history of this movement for the past nineteen years was given, and it was pointed out that in 1891 a legal constitution became necessary for the purpose of carrying out the new plans, and that the association was registered on Dec. 29th as a company. The purchase of a property at Tyn-y-coed, near Llandudno, was effected for the sum of £7500, this amount being generously given by Miss Stokes, the object being to establish a convalescent home in connexion with the fund. It is intended that the sum of £10,000 per annum shall be given to the hospitals for the gratuitous work they do, and that the remainder of the money shall be devoted to the maintenance of the home. Some interesting figures were given by Mr. Smedley, the secretary, with whom the idea originated of making this departure, of such vast importance to the working classes of the city. He showed that the sum contributed by the working classes to the hospitals in 1867 was £500, in 1890 it was £19,000, and he believed that it would be still greater as years went on. Some very significant figures were also given with regard to the sources of the subscriptions. Thus between £19,000 to £20,000 came from working men, £12,000 from private subscriptions, £4000 from country subscriptions, and about £4000 from Hospital Saturday. The total income of the hospitals in 1890 was £55,373, of which £5667 came from legacies, donations, and investments. The incidence of this new departure will bear strongly on the provident principle, and will have an important effect on the present working of the hospital system.

Changes in Appointments.

Dr. Suckling has resigned the post of physician to the Workhouse Infirmary. The salary is £200 a year. Dr. G. F. Crooke, pathologist to the Queen's Hospital, is a candidate for the appointment. Mr. Augustus Clay has resigned the post of casualty surgeon to the Queen's Hospital. The promotion of Mr. Haslam to the honorary staff of the General Hospital has left a vacancy for an assistant surgeon. Among the candidates are the present house surgeon, Mr. Albert Lucas, Dr. Felix Vinrace, and Dr. B. F. Jordan. The appointment will be made on Feb. 5th.

The Children's Hospital.

The annual meeting of this charity was held at the Medical Institute on the 25th inst. Mr. H. Wiggin, M.P., presided. The thirty-first annual report was presented, and showed that the number of in-patients for the year was 841, out-patients 11,999, casualties 832, and home patients 22. The detention rate was 21·3 days, the death-rate 10·4 per cent., the cost of maintenance of patients 2*s.* 9*d.* per week, and of officers 8*s.* 3*d.* per week. The accounts showed that the income was £80 less than the expenditure. The magnificent gift of a convalescent home at Moseley by Mr. Cadbury will allow of twenty beds being always at the disposal of the hospital. The usual votes of thanks were passed.

Birmingham, Jan. 29th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Influenza.

THERE have been many cases of influenza in and around the city, and when it has been followed by pneumonia or other chest complications it has been very frequently fatal. In the majority of cases recovery follows, but the inconvenience arising from its prevalence is very great, especially among large bodies of men like the police and postal officials. The weather has been somewhat milder during the past week, which will probably have some effect in diminishing the more serious complications.

One Year's Result of the Infectious Diseases Notification Act.

At the last ordinary meeting of the Medical Institution Dr. E. W. Hope, the assistant medical officer of health, recounted the results of the working of the Notification of Infectious Diseases Act in Liverpool from its first adoption on Sept. 1st, 1890, to Sept. 1st, 1891. Liverpool was slow to adopt the Act, and local practitioners had grave misgivings as to its working, which, however, have been dispelled. Simultaneously with the adoption of the Act a small sub-committee of the Medical Institution was appointed to confer with the medical officer of health as to the most suitable form of certificate by which the notification could be made. This form was usefully designed to enable the certifying practitioner to supplement the notification with additional information, which supplemented form, when filled up, obviated much inconvenience and irritation. Arrangements have been made between the medical depart-

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ment and the School Board by which every absence from school of a scholar alleged to be suffering from infectious disease is reported by the master or mistress to the medical department; while, in return, the latter sends information daily to the head master or mistress of any school attended by scholars coming from houses in which infectious disease is ascertained to exist, this being a double check against the spread of infection. This interchange of information has enabled measures to be taken with regard to several localised outbreaks of a somewhat serious nature; and in one case what threatened to be a formidable outbreak of typhus fever was promptly and effectively dealt with. Dr. Hope's paper contained additional valuable details, and it is satisfactory to note that the notification of these diseases here has been successful.

Dangers from attending Funerals.

Liverpool has always been in advance in the matter of funeral reform, and particularly in that phase of it which is now attracting so much attention. At the funeral of a well-known local surgeon, in 1879, which was largely attended by his professional brethren, the service at the graveside was considerably shortened. It happened to be Christmas Eve; the weather was intensely cold, and, in addition to this, the rain fell in heavy showers. The same practice has been followed since in not a few instances, and at the funeral of the late much-respected chaplain of St. James's Cemetery, the Rector of Liverpool, who officiated, warned all present, before leaving the chapel, to keep their heads covered at the grave. No sight can be more distressing than to see aged and bald-headed men standing bareheaded round a grave in such weather as has recently prevailed, and there seem good grounds for hoping that the senseless practice may become obsolete. Another well-known clergyman recently contracted a very severe illness from attending a funeral.

Liverpool, Jan. 27th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Proposed Albert University for London.

THE opposition to the proposed new university upon the lines laid down for its establishment is quite as strong here from the Victoria University authorities as in the metropolis from the London University, though it takes somewhat different lines in the two places. The Victoria University and its constituent colleges in Manchester, Liverpool, and Leeds in the memorial which they have issued base their objections chiefly on medical grounds. They endeavour to show "that the provisions of the Draft Charter of the Albert University will, if sanctioned by Parliament, seriously endanger the maintenance of the standard of medical degree examinations, which the Victoria University has sought to uphold, more especially with regard to preliminary general qualifications in arts and to preliminary special qualifications in science; and furthermore, that these provisions will seriously affect the prosperity of medical schools outside London, upon the establishment and development of which large sums liberally contributed by the public have been spent, by inducing students to betake themselves by preference to London, where a medical degree will be obtainable with less effort and on easier terms." In the matter of university extension lectures the Victoria University is doing a good work. This session there are nearly a hundred centres of instruction in this and the neighbouring county of Yorkshire, many of the courses being given by arrangement with the County Councils.

Owens College.

The College has got well into work again after the short Christmas vacation, the most important event having been the installation of the new Professor of Pathology, Dr. Delépine. As previously reported in these columns, the vacancy arose by the transfer of Dr. Dreschfeld to the chair of Medicine, rendered vacant by the resignation of Professor Morgan. The chair of Pathology in Owens College is now one of the best endowed in the kingdom, out of funds bequeathed by the late Daniel Proctor, after whom the professorship is named. Dr. Delépine comes to us from London, with a good record, and his inaugural address was listened to by a large audience. Very different now is the position of pathology in the curriculum of the student to that of a dozen years ago. When Dr. Dreschfeld first commenced work as lecturer on pathology the students attending his class could have been counted on the fingers; now it attracts all the best men, and the courses are as fully attended as those of any other subject.

The Disposal of Town Refuse.

A subject which has excited a considerable amount of interest in the city generally, and especially amongst those who take interest in municipal work, is the disposal of town refuse. The corporation proposed to erect "destructors" at various points to deal with this material, believing that the work can be accomplished without nuisance, but at each suggested site a great cry of opposition has arisen from the adjacent residents. Public meetings have been held, memorials largely signed by members of the medical profession and other methods of organised opposition have been put in operation, and at the last meeting of the City Council the subject was discussed at length without any conclusion being arrived at. There would appear to be some misapprehension abroad in the public mind, and it appears to be thought that the Corporation intend dealing with excrementitious matter at these destructors. If this be so, nuisance will inevitably arise; but if material other than this only is to be dealt with, then the operations can be conducted without danger of annoyance; at least, such is the report from other towns. A subject mixed up with this is the provision of water-closets in place of the system of pails which is so largely in use amongst cottage property here, and which is without doubt the source of much nuisance and insanitary conditions.

Pauper Dietaries.

It is notorious that the dietaries of the different workhouses of the country vary considerably both in quality and quantity. A conference of representatives of the chief Poor-law authorities of this district has just been held to consider the question, apparently at the instigation of the Local Government Board. Dr. Rhodes, of the Chorlton Board of Guardians, has taken considerable trouble in giving prominence to this subject, and he took a leading part in the proceedings of the meeting, which was presided over by another well-known medical man, Mr. Bowring. In the result it was recommended that the following should be a sort of standard dietary for the four Boards of Guardians represented:—Dinner: Sunday—Five ounces of meat (weighed uncooked), six ounces of suet pudding, eight ounces of potatoes. Tuesday and Thursday—Four ounces of cooked meat, twelve ounces of potatoes, four ounces of bread. Wednesday and Friday—Thirty ounces of pea-soup and six ounces of bread. Monday and Saturday—One pint of potato hash, three ounces of meat (weighed uncooked), twelve ounces of potatoes, half an ounce of onions, and four ounces of bread. Supper: Tuesday and Friday—One pint of gruel, five ounces of bread, two ounces of cheese. Other days—Six ounces of bread and a pint of cocoa. It was also suggested that a special low dietary might well be adopted for those able-bodied men who were nothing but a nuisance and would not try to work.

Juvenile Drunkenness.

A shocking case of drunkenness in a child was recently before the city magistrates. The mother of a little girl only three years old, together with another woman, were convicted of giving the child, in a public-house, whisky and port wine until it was helplessly intoxicated and had to be taken to the infirmary for medical treatment, so alarming was its condition. The mother was sent to prison for fourteen days and the other woman for a week; but what shall be said of those persons at the bar of the public-house who, it is stated, supplied the intoxicants?

The Royal Infirmary.

At the monthly meeting yesterday of the Infirmary Board a vote of condolence was passed, to be forwarded to Her Majesty the Queen and their Royal Highnesses the Prince and Princess of Wales, on the death of the Duke of Clarence and Avondale. Her Majesty is a patroness of the Infirmary, and it has special permission to use the prefix "Royal." It was stated that the Board now have various plans under consideration for the proposed extension; but it is not said when these plans will be open for inspection, or when the public meeting is to be summoned to give sanction to any such extension.

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Influenza.

As stated in THE LANCET last week influenza, though present in the city and suburban districts, is of a comparatively mild character, is so far of no very widespread prevalence, and has shown a very different tendency to the outbreak of last year to rapid diffusion and spread. Although the evidence as to its infectious nature is apparently incontrovertible, there must be other factors at work, call them what we will, miasmatic, climatic, or meteorological, of which we are profoundly ignorant, else why this striking difference in its dissemination in different parts of the country and at different times?

Manchester, Jan. 26th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Influenza Epidemic.

THERE is some abatement in the severity of the attacks of influenza reported in the northern counties, but the number attacked has decidedly increased. There has been a very high death-rate at Carlisle, 45 per 1000, as against 21 per 1000 in the corresponding fortnight last year. At Naworth Castle, near Carlisle, about thirty of the inmates have been attacked; of this number, fourteen were seized simultaneously. At Middlesbrough the disease is rife, and several prominent corporation officials have been laid up, and in the neighbouring district of Eston the medical officer reported the highest death-rate since the local board was formed, including in] the fortnight nineteen deaths from influenza and its complications; but the medical officer (Dr. Malcomson) said he had reason to believe that the fatalities from other diseases than those above-named were due to a previous attack of influenza. Before I leave the subject I may say that our local newspapers are now very much taken up with influenza "cures" and "curers." It is a general opinion, however, of the profession here that these ready writers contribute nothing of the least value as regards the cause or cure of the disease.

Newcastle Clinical Society.

This young and vigorous society gave its annual banquet, at the Crown Hotel in this city, on Thursday last, which was presided over by Mr. Walter Ridley, and well attended. The whole arrangements were complete, and creditable to the honorary secretary, Dr. George Murray. The guests represented all departments of the profession in the district. I was glad to see our venerable citizen, Dr. Embleton, present.

A Handsome Vaccination Grant.

Dr. Whamond, medical officer to the South Shields Union for the district of Jarrow and Hebburn, has received a grant of £100 from the Local Government Board; this is the ninth grant given by the Board to Dr. Whamond for successful vaccination.

The Royal Infirmary and Students' Fees.

A subscriber to the Newcastle Royal Infirmary points out that, while the Royal Infirmary is asking for funds to make up an apparent deficit of £2000, there are some 200 students paying the treasurer about £10 per annum each, which, if placed properly in the accounts, would make the present income sufficient to balance the outlay, and he asks why these fees are not included in the balance-sheet.

Curious Case of Aneurysmal Varix.

By the kindness of Mr. Frederick Page I saw an interesting case of varix now under his care at the Royal Infirmary. The patient, a miner aged about forty, a month ago received an injury to the neck requiring ligatures of the jugular to stop the hæmorrhage. A tumour consequently formed, and it is now as large as a duck's egg, and pulsating; the pulsating current apparently arises from the external carotid. I have not heard yet if any operative procedure is contemplated.

Bequests of the late Mr. John Coppin, J.P.

The late Mr. John Coppin, J.P., of Bingfield Hall, Northumberland, has, among other bequests, given the following:—To the Newcastle Convalescent Society, £500; the Natural History Society of Newcastle, for a curator, £2000; and to the National Hospital for Consumption, Ventnor, £500.

One of our Newcastle papers regrets to hear that Dr. Heath is lying seriously ill at his country residence, near Durham.

Newcastle-on-Tyne, Jan. 27th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Edinburgh Association for the Reform of Medical Education.

ONE of the points which this Association made in its statement to the Universities Commission bore upon the extraordinary prominence given to the subject of materia medica in the Draft Ordinance issued by the Commission. Other bodies, as well as this Association, have commented upon this. A counterblast to the Association's statement has now been prepared, insisting on the necessity of two examinations on this subject, one in pharmacy and pharmacognosy, the other in pharmacology and therapeutics.

Diseased Meat Case in Edinburgh.

At the end of last week, in the Edinburgh Police-court, an exceedingly bad case of selling diseased meat was before the sheriff. A butcher in town, the head of an old and prosperous business, is also a farmer, and it appears that towards the end of December last one of his bullocks died suddenly. The manager of the farm believed the animal died of splenic fever, and told his master so. The carcase was nevertheless ordered to be sent into town, and was disposed of in the owner's shop. The dead animal had been skinned by a shepherd who had a slight wound on his arm, through which he was inoculated, and as a result died. The examination of the viscera showed the case to be one of anthrax. The butcher pleaded guilty, and was fined £20. So far, no further harm has been found to be associated with this case; but the possibilities of danger seem almost infinite when the virulence of the poison is borne in mind and the numerous hands, baskets, and dishes which must have been in contact with the various cuts, and the numerous mouths and stomachs into which bits of that carcase must have been introduced, are calculated. The possibility of such meat getting into the market shows the utter inadequacy of present laws and arrangements.

The Health of Edinburgh and Leith.

The mortality last week was 102, making the death-rate 20 per 1000. Diseases of the chest accounted for 50 deaths, and zymotic diseases for 5. The intimations for the week were: typhus fever 1, typhoid fever 4, diphtheria 3, scarlatina 17, and measles 20. The deaths in Leith last week numbered 35, making the death-rate 26 per 1000.

The Edinburgh Medico-Chirurgical Society.

At the meeting of this Society last week two cases of empyema in adults cured by drainage were shown, and Professor Struthers showed an interesting example of "rider's bone," the condition being an ossification of the tendon of the adductor longus on both sides. Dr. J. W. Ballantyne made a careful communication on an investigation into the Spinal Column in the Infant, and Dr. Sloan recorded the features of an extreme case of Hystero-catalepsy followed by insanity and recovery. A number of members offered remarks on both papers.

Edinburgh, Jan. 26th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Typhoid Fever in Dublin.

A CONFERENCE was held in Dublin last week on the subject of the prevalence of typhoid fever, and after the matter had been fully discussed the following resolution was adopted: "That this meeting appoint a committee empowered to draft a memorandum dealing with any facts within the cognisance of such committee bearing on the prevalence of typhoid fever in Dublin, for the consideration

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of the Public Health Committee, with a view to induce the Public Health Committee to make a special investigation into the causes of typhoid fever." The following were appointed to act on a subcommittee of the Dublin Sanitary Association in preparing the memorandum referred to, their draft to be submitted to a future meeting of the conference—viz., Drs. Emerson Reynolds, C. Nixon, and Messrs. Drew and Maunsell.

Trinity College Tercentenary.

Next year being the tercentenary of the University of Dublin, rumours were industriously circulated by interested parties that it was the intention of the board to relax the College rules respecting term and degree examinations on the occasion of the tercentenary celebration. The Provost and Senior Fellows, however, have intimated that they do not intend this year to allow terms or grant degrees without examination, being of opinion that such action on their part would tend to lower the estimation in which the education given in Trinity College is held by the public.

National Eye and Ear Infirmary, Dublin.

During the past year, except for a few weeks in spring, the hospital has been overcrowded, and there have frequently been more patients in the institution than beds. The committee have appealed for funds to increase the size of the hospital, but the response, so far, has fallen short of the amount (£7000) required. During the year the oft-debated question of the amalgamation of the hospital with St. Mark's has been again under the joint consideration of the committee and of the board of St. Mark's Hospital, but nothing definite has yet been decided.

Galway County Infirmary.

This institution is again closed owing to a want of agreement between the governors of the infirmary and the authorities of the Queen's College. In the meantime the matter is serious for the college students, who may lose an academical year if some arrangement is not at once carried out. A memorial has been sent on behalf of the medical students to the Council of the Queen's College, but the result has not yet been made known.

Death of a Dublin Centenarian.

Mrs. Mary McDonald died in Ormond Market last week aged 102 years. Deceased was born in the Market in 1790, and during her entire life never slept outside the precincts.

Cork Union.

Mr. Runciman has been appointed medical officer of one of the Cork dispensary districts, vacant by the death of Dr. Harvey. There were seven candidates. Mr. Runciman has resigned the appointment of house surgeon to the Cork South Infirmary, and has been succeeded by Mr. Jackson.

Hospital for Consumption and Diseases of the Chest, Belfast.

The annual meeting of this charity was held on Jan. 21st. From the medical report I learn that there were 1101 new extern and 53 intern patients during the past year. There is a balance in hand of £68 2*s.* 4*d.* for the current account. Under the head of building fund the committee have £4227 11*s.* 1*d.*, which includes the donation of £2700 given by Mr. Forster Green for the ground for the new hospital at Newtownbreda. Captain McCalmont, M.P., who presided, in acknowledging a vote of thanks, said it seemed to him a matter requiring explanation that a sum of about £16,000 was voted by Parliament for the support of hospitals in Dublin. He had no wish to deprive the Dublin hospitals of their grant, but he thought that a city like Belfast, which contributed so much larger an amount to the revenue, and which contained a larger working population, had a fair claim to a similar grant, and he would promise to do his best, when Parliament met, to obtain a satisfactory explanation of the present arrangement.

The Ulster Medical Society.

At the third meeting of this Society for the present session communications were brought before the members by Dr. Cecil Shaw on the Treatment of Phthisis by Intralaryngeal Injections, by Dr. J. A. Lindsay, who gave a summary of fifty cases of Chronic Valvular Disease of the Heart, with special reference to Prognosis and Treatment, and by Dr. W. M. Killen, who read short notes of the Treatment of Puerperal Septicæmia as practised by him in a recent case. Dr. Killen also described the Treatment of Ophthalmia Neonatorum as practised at the Ulster Eye, Ear, and Throat Hospital.

Outbreak of Typhus Fever in Armagh.

At a meeting of the board of guardians, held on Jan. 26th, it was reported that in the fever hospital of the workhouse there are two cases of typhus fever, and that three other cases would be admitted. In a letter to the board their medical officer, Mr. Robert T. Herron, pointed out the fact that the patients had come from most insanitary dwellings; indeed, he said the place from which a woman with the disease was removed would not make a respectable pig-sty. The disease has not visited Armagh since 1864, and by vigorously pointing out how it can be prevented, Mr. Herron is doing good service in the cause of preventive medicine.

Death of Dr. John King Maconchy.

I have heard of the death from influenza of Mr. Maconchy, M.B, F.R.C.S.I, which occurred at his residence, Downpatrick, on Jan. 25th. He was surgeon to the Down Infirmary, the County Down Lunatic Asylum, and the prison. Dr. Maconchy for many years was the leading medical practitioner in the southern part of the county Down. He was an able surgeon and a man of all-round ability, and had developed a large private and consulting practice.

Jan. 27th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Antipyrin in Erysipelas.

IN the course of an epidemic of idiopathic facial erysipelas which visited the barracks at Syra, Dr. Fonstanos, medical officer to the hospital, was led to employ antipyrin in the treatment of cases of this disease, some of which were complicated by pneumonia. The results obtained by the method were so satisfactory and marked that he goes the length of speaking of the drug as a specific in this affection. Its action in lowering temperature was in these cases of erysipelas well brought out, and through this and the abundant perspiration which accompanied it a notable staying of the inflammatory process was very evident, due perhaps to the vigorous elimination by the skin of the streptococcus in great quantity. In every case during the epidemic in which recourse was had to the drug it did well, while complications were frequent in those in which other methods were employed. The dose, varying according to age and gravity of symptoms, was from twenty to sixty grains a-day, divided in powders and taken at frequent intervals.

Hiccough and Compression of the Phrenic.

A novel method of combating persistent hiccough was recorded by M. Leloir at a recent meeting of the Academy of Sciences. Some years back he was consulted by the parents of a little patient who was the subject for over a year before of a persistent and distressing hiccough, which recurred every half minute or so, and which had resisted every plan of treatment. M. Leloir then conceived the notion of compressing the phrenic, which he did between the sterno-clavicular attachments of the sterno-mastoid muscle. The compression was digital, and continued for three minutes, causing, however, considerable pain. As a result, the hiccough disappeared entirely, and has not recurred. Since then he has adopted the plan in several other cases of the kind, and always with complete success. The method is simple enough, and can be put in practice by anyone, and is, besides its utility, interesting as an example of the successful application of the researches of Brown-Séquard on inhibition.

Tuberculosis and the Common Earthworm.

It will be recollected that in 1880 Pasteur showed that the common earthworm could become the receptacle or habitat of the bacterium of charbon which was traceable to the cadavera of animals dead of this disease and buried in soil in the neighbourhood of which the worm lived. The possible relations between micro-organisms and these lumbricoids being thus established, MM. Lortet and Despeignes undertook some experiments with a view of elucidating a very probable connexion between these same lumbricoids and the bacillus of tubercle

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In the result these observers have satisfied themselves that these animals—so universal and active—can become the hosts for several months of the tubercle bacillus, which loses none of its virulent properties by its change of abode. It is obvious that under certain circumstances the earthworm might readily become a too efficient medium for the propagation of this scourge of mankind. The experiments of MM. Lortet and Despeignes have a further interest in being the first instance, I believe, on record in which the "tuberculisation" of an animal belonging to the wide class of invertebrates has been demonstrated.

Medical Reform.

It has long been felt that the vast clinical fields of the Paris hospitals were hardly being made the best use of, and that much good work might be done by organising a curriculum of instruction over and above that of the Faculty of Medicine, and which might be carried out by the numerous and capable hospital physicians and surgeons who have no direct connexion with the School of Medicine, but who receive their appointments from the Assistance Publique which administers the hospitals, and which is itself a part of the Municipal Government of Paris. With this object a proposition is now before the Municipal Council which, if adopted, will organise a new field of clinical instruction complete in itself and entirely independent of the Faculty—corresponding, in fact, somewhat to the extra-mural schools in Scotland.

Paris, Jan. 27th.

Obituary.

SIR OSCAR CLAYTON.

SIR OSCAR M. P. CLAYTON, C.B., C.M.G., died on the 27th inst., at his residence in Harley-street, from exhaustion following upon prolonged attacks of gout, in a system debilitated by the severe illness from which he suffered twelve months ago. He was the eldest son of Mr. James Clayton, of Percy-street, Bedford-square, and was born in 1816. Educated at Bruce Castle, Tottenham, he entered at University College, and afterwards at Middlesex Hospital. He became a Member of the Royal College of Surgeons in 1838, and was elected a Fellow in 1853. He was extra surgeon to the Prince of Wales and surgeon in ordinary to the Duke of Edinburgh. He was also a Knight of the Order of Leopold of Belgium, and occupied the post of deputy-lieutenant for Middlesex and the Tower Hamlets. Sir Oscar Clayton contributed very little to the literature of medicine or surgery, but his skill and success in the treatment of patients coming under his care were generally acknowledged.

JOHN McDONNELL, M.D., F.R.C.S.I.

DR. MCDONNELL died on the 20th inst. at his residence, Upper Fitzwilliam-street, Dublin, at the great age of ninety-six years. Deceased was born in Belfast, and entered Trinity College, where he graduated in arts in 1818. A few years previously he was apprenticed to Mr. Richard Carmichael, the eminent surgeon, and in 1821 obtained the licence in surgery of the Royal College of Surgeons in Ireland. He studied in Edinburgh, London, and Paris, and obtained his degree of Doctor of Medicine in the University of Edinburgh in 1825. He settled in practice in Dublin in 1826, or thirteen years after he had commenced his professional studies. He was a lecturer on anatomy and physiology in the Richmond School of Medicine and surgeon to the Richmond Hospital. These two appointments he obtained by the influence of Mr. Richard Carmichael, who left him a sum of £5000 in his will. In 1847 he was appointed Professor of Anatomy to the Royal College of Surgeons, which post he resigned four years afterwards on being appointed medical member of the Poor-law Commission and afterwards medical member of the Local Government Board for Ireland. Dr. McDonnell was the author of the article on fractures in the "Cyclopædia of Practical Surgery"; and it is believed that he was the first in Ireland to use ether as an anæsthetic. The late Dr. Robert McDonnell, F.R.S., an eminent Dublin surgeon, was a son of the subject of this notice. The funeral took place on Saturday last, the remains being interred in the family burying-ground, near Drogheda.

MEDICAL TRIALS.

STEELE AND OTHERS *v.* SAVORY AND OTHERS.

THIS case was heard by Mr. Justice Romer on Tuesday and Wednesday last, when Mr. Moulton, Q.C., Mr. Costelloe, and Mr. Barnard Lailey appeared for the plaintiffs; the Attorney-General, Q.C., M.P., Mr. Haldane, Q.C., M.P., and Mr. J. R. Paget for the defendants.

Mr. Moulton, Q.C., in opening the plaintiffs' case, explained the circumstances out of which the action had arisen, referring particularly to the controversy which has for so long a time been in progress concerning the rights of Members of the College to take part in the election of the Council and the general administration of the affairs of the College. He commenced his narrative by a reference to the general meeting which was convened on March 24th, 1884, for the purpose of considering the proposals then made for a Supplemental Charter, and the resolutions then passed to the effect that it was not desirable to change the constitution of the College without the consent of the majority of the Members, and that it was inexpedient to prosecute an application for a Charter upon the lines of the draft then submitted.

Having thus noticed the origin of the dispute, he passed to the By-law No. xvii., which was called in question in the action, and read it in the following terms: "No business whatever shall be transacted nor any matter be discussed or debated, at any meeting or assemblage convened by or under the authority of the President or Council, or before or after the business thereof shall have commenced, other than the particular business or matter in respect of which such meeting or assemblage shall have been convened; nor shall any debate or discussion whatsoever be had or allowed at any meeting convened by the President or Council for the delivery of lectures or orations, either before or after the same shall have commenced or terminated. And no meeting or assemblage of Fellows or Members of the College shall be held in the Hall or Council-house of the College, or in any of its appurtenances, unless convened by or under the authority of the President or Council; and no Fellow or Member of the College shall advertise or convene or attend, or combine with others to advertise or convene or attend, any meeting or assemblage in the Hall or Council-house of the College or in any of its appurtenances not authorised by the President or Council. And any Fellow or Member of the College who may in any manner offend herein shall be liable to be restrained and excluded by the Council from attending any orations and lectures at the theatre, and from any use of or admission to the library and museum, and to be suspended from any or all other privileges which he may have as a Fellow and Member or a Member of the College for any such period as the Council may adjudge, or to removal by resolution of the Council from being a Fellow and Member or a Member of the College; and every Fellow or Member of the College who shall be removed as aforesaid shall thereupon forfeit all his rights and privileges as a Fellow and Member or a Member thereof."

He then read extracts from the correspondence which had passed between the plaintiffs and the secretary of the College to show that the Council proposed to put the by-law in force against the plaintiffs, and submitted that it was bad in law, and that the Council should be restrained by injunction from putting it in execution. The objections which he alleged to the by-law were two—(*a*) that it denied to Members of the College their rights, and (*b*) that it inflicted the unwarranted and unreasonable penalty of expulsion by the Council as the consequence of disobedience to the by-law. Upon this footing he claimed a threefold relief—(1) a declaration that the by-law was bad; (2) a declaration as to the Members' rights of meeting; and (3) an injunction to restrain the Council from acting on the by-law or in any way putting it in force. Under the second head of relief he asked more particularly for a declaration that reasonable use of the Hall of the College for

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proper corporate purposes could not be taken away from the Members by a by-law, and in support of his case he submitted as principles of corporation law that the jurisdiction of the Council extended only to regulating the affairs of the corporation so as to produce the maximum advantage, and that the power of disfranchisement was inherent in the corporation as a whole, and could not be exercised by any select body unless committed thereto by the instrument which created the corporation and determined its constitution. He then glanced at what he suggested would probably be the ground upon which the defence would be rested—namely, a clause in a Charter granted to the College in 1843, which conferred upon the Council the power of making by-laws, and of enforcing them by expulsion, in the following terms: "That if it shall at any time hereinafter appear that any present or future Member, or any Fellow of the said College, to be appointed or admitted at any time after the expiration of the said first three calendar months from the date hereof, shall have obtained his letters testimonial or his diploma respectively by any fraud, false statement, or imposition, or that either before or after obtaining such his letters testimonial or diploma he shall have violated any by-law, rule, or regulation of the said College, then and in every such case, and after such previous notice to and such hearing of such Member or Fellow as under the circumstances the Council of the said College shall think proper, it shall be lawful for such Council to recall and to declare the letters testimonial or diploma respectively of such Member or Fellow to be void, and thereupon every such Member or Fellow shall cease to be a Member or a Member and Fellow of the said College, as the case may be, accordingly."

Commenting upon this clause, he suggested that the true construction would be not that the Council should have an unrestricted power to make by-laws and to enforce their observance upon members by the penalty of expulsion, but only such a power as would be consistent with the enjoyment by the members of all the rights which appertained to members of the old Company of Surgeons' rights, which, having been conferred by Act of Parliament, could not be taken away by Charter. Thereupon the Attorney-General objected that Members of the College of Surgeons could not claim the rights possessed by members of the old companies and guilds of surgeons which existed before 1800, because the old Company of Surgeons ceased to exist then. Upon this Mr. Moulton argued that the old Company had not in law been dissolved at that time, and that by the Charter of 1800 members of the present College of Surgeons were one body continuously with the members of the old companies. He further pointed out that under the Charter of 1800 there was no power of expulsion given to the Council.

Without calling on counsel for the defendants, Mr. Justice Romer gave judgment, dismissing the action with costs against the plaintiffs. He held that the corporation established by the Charter of 1800 was a new corporation, and that the only rights which the plaintiffs could claim were under that Charter; that the By-law xvii. was not *ultra vires;* and that power to make it was expressly given to the Council by the Charter of 1843.

ROYAL COLLEGE OF PHYSICIANS.

THE ordinary quarterly comitia of the College was held on the 28th inst., Sir Andrew Clark, Bart., President, in the chair.

Drs. Barratt, Bird, Fenn, and Kanthack were admitted to the Membership.

The College seal was affixed to the lists of those gentlemen who had recently passed the examinations for the Licence of the College and the examination in Public Health (conjointly with the Royal College of Surgeons).

A communication was read from the Secretary of State for War respecting the method now in vogue of conducting examinations for admission to the Army Medical Staff; and a committee was nominated to confer with a similar committee already appointed by the Council of the College of Surgeons upon the question. The committee consisted of Sir Joseph Fayrer, Dr. Cheadle, Sir Dyce Duckworth, Dr. Green, Dr. Farquharson, M.P., and Dr. N. Moore.

A letter was read from the Metropolitan Asylums Board asking for an authoritative opinion respecting the infectiousness of influenza, and the possible risks entailed by the conveyance of influenza patients in public vehicles. The President explained that he had counselled the chairman of the Board to sanction the use of the ambulances belonging to the Board.

At the request of the Executive Committee of the National Leprosy Fund, Sir Dyce Duckworth and Dr. Heron were reappointed to serve on the Special Committee to draw up a memorandum on the work of the Indian Commission and organise further inquiries upon the subject.

The vacancies on the Council caused by the death of Sir R. Bennett, and the retirement by rotation of Drs. J. Harley, Morgan, and Cheadle, were filled by the election of Drs. Maudsley, Bastian, Cayley, and Douglas Powell.

In compliance with a proposal from the Society of Arts, the Treasurer, Registrar, and Senior Censor were nominated a committee (with power to add to their number) to confer with that Society on the subject of obtaining a new scheme for awarding the Swiney prize. At present this prize is awarded quinquennially by the Society of Arts and the College of Physicians alternately to the author of the best work on jurisprudence.

The alterations in the by-laws proposed at the last meeting were enacted for the second time.

The President nominated a large and influential Committee for the Revision of the Nomenclature of Diseases.

The Annual Report of the Examiners for the Licence and a Report from the Laboratories Committee were received.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the respective subjects:—

Surgery.—W. H. Andrews, King's College; W. H. Cooke, St. George's Hospital; S. D. Gill, Queen's College, Birmingham; A. A. Macfarlane, J. N. Martin, and C. S. Palmer, St. Bartholomew's Hospital; W. Robinson, Middlesex Hospital; J. H. F. Way, St. Thomas's Hospital.

Medicine, Forensic Medicine, and Midwifery.—J. D. Hessay, Middlesex Hospital; R. L. Romer and H. G. White, St. George's Hospital.

Medicine and Forensic Medicine.—S. A. E. Griffiths, Middlesex Hospital.

Medicine and Midwifery.—B. S. Foulds, Charing-cross Hospital; J. P. Jones and H. W. West, London Hospital; C. Webb, St. George's Hospital.

Medicine.—C. R. Harper, Middlesex Hospital; A. G. Haydon, St. Bartholomew's Hospital; W. H. Waddington, Owens College, Manchester.

Forensic Medicine.—E. H. Bingley, St. Mary's Hospital; F. B. Lewis, London Hospital.

Midwifery.—W. C. Howle, Queen's College, Birmingham.

To Messrs. Bingley, Cooke, Griffiths, Harper, Haydon, Howle, Robinson, and White was granted the diploma of the Society, entitling them to practise Medicine, Surgery, and Midwifery, and enabling the holder to compete for medical appointments in the Army, Navy, and India Services, and for Poor-law appointments.

LAHORE MEDICAL COLLEGE.—PRINCE ALBERT VICTOR MEMORIAL HOSPITAL.—The formal opening of this wing of the Mayo Hospital was performed by his honour the Lieutenant Governor on the 1st inst. in the presence of a distinguished company. This memorial hospital is erected to commemorate the visit which his Royal Highness paid to Lahore in January, 1890. Such an addition to the Mayo Hospital was urgently required. The total outlay, including the furniture and general equipment of the buildings, is estimated to amount to 108,580 rupees. The accommodation provided consists of three separate buildings—a main block, a second block, and a third block.

LIVERPOOL INFIRMARY FOR CHILDREN.—The work of this institution has been satisfactorily carried on during the past year. There has been a decrease in the number of in-patients, but the beds have been as fully occupied as in the previous year. The falling off in the number of out-patients is rather a matter of satisfaction to the committee. They feel the resources of the infirmary have been, in this department, overtaxed. The balance-sheet shows a deficiency, including the deficit brought forward from last year, of £351 9*s.* 2*d.* The Convalescent Fund has been again of great advantage in supplementing the work of the infirmary. During the year sixty-seven patients were sent to West Derby.

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THE ALVARENGA PRIZE.—The College of Physicians of Philadelphia announces that the next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about 180 dollars, will be made on July 14th, 1892. Essays intended for competition may be upon any subject in medicine, and must be received by the Secretary of the College on or before May 1st, 1892. It is a condition of competition that the successful essay, or a copy of it, shall remain in possession of the College.

AN AMERICAN HOSPITAL DESTROYED BY FIRE.—On the 21st inst., an appalling and destructive fire broke out soon after midnight at the National Surgical Institute, Indianapolis, a well and widely known establishment in America. The conflagration broke out in the offices, immediately over which were the wards for infants and mothers. The wildest confusion ensued. When the police and firemen arrived the buildings were burning fiercely. No attempt was made to save anything but the lives of the inmates. Accommodation was quickly found for the rescued patients in a neighbouring building, where cots were put up for them. Nineteen bodies had been recovered from the ruins.

ROYAL METEOROLOGICAL SOCIETY.—The annual general meeting of this society was held on Wednesday evening, the 27th inst., at the Institution of Civil Engineers, Great George-street, S.W., Dr. W. Marcet, F.R.S., vice-president, in the chair. The report of the council for the past year showed the society to be in a very satisfactory position. In May the library and offices were removed to more commodious premises at 22, Great George-street. Thirty-four new fellows were elected during the year, the total number on the roll of the Society now being 552. Owing to the absence of the president, Mr. Baldwin Latham, M. Inst. C.E., through an attack of influenza, his address on "Evaporation and Condensation" was read by the secretary.

BEQUESTS AND DONATIONS.—Mr. Denis Daly has left £100 to St. Joseph's Hospital for Children, and £300 each to Jervis-street, Mater Misericordiæ, and St. Vincent's Hospitals, Dublin.—Lord Ardilaun has given £100 to the Meath Hospital, Dublin.—The late Mr. John Hampson Jones of Lowndes-square bequeathed £1000 to the Manchester Royal Infirmary, and £500 each to the St. Mary's Hospital, Manchester, Salford and Pendleton Hospital, Brompton Hospital for Diseases of the Chest, Fulham Hospital for Cancer, Great Ormond-street Hospital for Sick Children, Convalescent Home, Orme-square, Fairford Cottage Hospital, and St. George's Hospital.—The workmen of Sir W. G. Armstrong, Mitchell, and Co., at Elswick, have contributed, *inter alia*, for the quarter ending Dec. 31st last, £269 8*s.* 11*d.* to the Royal Infirmary.—The workpeople of Messrs. J. S. Fry and Sons, Bristol, have contributed, during the past year, £456 19*s.* 6*d.* to the local medical charities, of which was apportioned £105 to the Royal Infirmary, and a like sum to the General Hospital, Bristol.

THE ADULTERATION OF MILK.—The appeal case of Brown v. Foot was heard before Mr. Justice Hawkins and Mr. Justice Wills on Tuesday last in the Queen's Bench Division. The appellant had been summoned under the Sale of Food and Drugs Act for selling milk adulterated with 15 per cent. of added water, and the question raised was whether the actual seller of the milk was the person amenable to the penalties imposed by the Act, or the master, who was said to be unaware of the adulteration by the servant. Reference was made to this curious point in a leading article in THE LANCET of Nov. 28th, 1891, p. 1230. Mr. Justice Hawkins said the question was whether or not a principal in a milk business was liable for adulterated milk sold by a man in his employ. The magistrate had held that the master was responsible and had convicted him, and he was of opinion that the conviction was right. He thought that a master, for all purposes, must be deemed "a seller" of the milk, as well as the man who was in charge of the cans, and it was not at all necessary to prove that he was cognisant of the adulteration to make him guilty of the offence of selling adulterated milk. The absence of cognisance might be a fact to take into consideration in imposing the penalty, and the case would go back to Mr. Bushby, so that he might reduce the fine if he thought fit; but it must be clearly understood that the Court, in sending the case back, did not in any way direct the magistrate to do anything. They simply affirmed the conviction and dismissed the appeal with costs.

THE guardians of the Salford Union Infirmary, Hope, near Eccles, have appointed a night superintendent.

APOTHECARIES' HALL OF IRELAND.—Mr. A. Jackson of Bandon has been admitted a licentiate of the Apothecaries' Hall.

SOCIETY OF ANTIQUARIES.—Surgeon-Captain G. Harley Thomas, F.R.C.S.E., has been elected a Fellow of the Society.

THE GRESHAM LECTURES.—The lectures on Physic will be delivered at Basinghall-street on Feb. 2nd, 3rd, 4th, and 5th, 1892, by E. Symes Thompson, M.D., F.R.C.P. The subject will be "The Nerves."

ST. BARTHOLOMEW'S HOSPITAL.—The re-drainage of this hospital is, we understand, being rapidly proceeded with, special care being taken to ensure the best results. Hassall's patent safety jointed pipes are being used throughout the entire work.

ACCOMMODATION FOR LEPERS AT POONA.—Mr. Keyser, C.S., Collector, of Poona, on Dec. 30th, 1891, laid the foundation stones of two new leper wards in connexion with the David Sassoon Infirm Asylum, towards the cost of the erection of which the widow of the late Mr. Nusserwanjee Maneckjee Petit has given Rs. 8000.

FRENCH MEDICAL CHARITIES.—A commission appointed by the French Minister of Agriculture has arranged to devote the following sums to the objects named:—100,000 francs to the French Hospital, Constantinople, 75,000 francs for the establishment of a hospital in Savoy, and subventions for a second urban ambulance station in Paris, and for a hospital for scrofulous children at Raphaël, similar to the one at Berck-sur-Mer.

BOMBAY MEDICAL UNION.—The eighth annual gathering of the Bombay Medical Union was celebrated at the Ripon Club on Tuesday, the 22nd ult. There were present about sixty members of the profession. Dr. Temuljee Bhikajee Nariman presided, and in the course of his speech, in proposing the toast of "The Medical Profession," gave a *résumé* of the work done in the year in connexion with the Union and in the medical world generally. Other speakers followed.

FOOTBALL CASUALTIES.—During a match last week between the Loughborough Wednesday and Willoughby Clubs a player fractured his clavicle.—In the same week, a similar accident occurred to a player at Pennygillaw, in a game between the Launceston Brigade second eleven and the Launceston Town second eleven. On Saturday, in a match at Totnes, between the home team and Torquay Athletics, the captain of the latter team fell; several other players fell upon him, and medical assistance being obtained, he was found to be suffering from concussion of the brain.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—A quarterly court of the directors of the Society was held on Wednesday, Jan. 13th. The chair was taken by Mr. Henry Lee, vice-president, in the unavoidable absence of the president, Sir James Paget. Two new members were elected, and the deaths of four reported. Grants to the amount of £1436 were made, to be distributed among the sixty-four widows and eighteen orphans receiving assistance from the Society. A fresh application for a grant was read from a widow, and assistance was given. The death of a widow in receipt of grants since 1879 was reported. The expenses of the quarter were £78.

THE CITY DISPENSARY.—The 103rd annual general meeting of the subscribers to this charity was held on Monday, at the dispensary, Watling-street, Mr. F. P. Alliston, C.C., Chairman of the Committee, presiding. The efficiency of the institution, the report stated, had been fully maintained. Consequent on the confiscation of the funds belonging to the parishes of the City, the dispensary had lost during the year a sum of about £150. In the course of the twelvemonth 12,606 patients had been treated, being, in comparison with the record of the previous year, an advance of 741. The accounts showed that, inclusive of a balance of £221 in the hands of the treasurer at the commencement of the year, the total receipts for the year were £1491, while the expenditure was £1308, a balance of £183 being thus left in the hands of the treasurer.

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ROYAL DUBLIN SOCIETY.—The following have been elected members of this Society:—Daniel Corbett, jun., F.R.C.S., R. J. Montgomery, M.B., and Thomas J. Stafford, L.R.C.S.

NEWSVENDORS' BENEVOLENT AND PROVIDENT INSTITUTION.—The annual meeting will be held at the Memorial Hall, Farringdon-street, on Tuesday, Feb. 2nd, 1892, at 7.30 P.M., Alfred H. Hance, Esq, in the chair.

ROYAL UNITED HOSPITAL, BATH.—The annual meeting of the members of this institution was held on the 25th inst. The accounts in the report showed that the expenditure (including an adverse balance of £539 10*s.* 9*d.* from last year) amounted to £7307 10*s.* 6*d.*, the year closing with an increased deficit of £1179 11*s.* 10*d.* This state of things the committee accounted for by necessary wards at the hospital, extraordinary expenses on the building, &c., which will not recur for some years. There had also been a diminution in the receipts. The collections from places of worship have fallen off £155, donations are £328 less, while the amount of legacies available for current expenses has been £1099 14*s.*, as against £1631 18*s.*, a loss of £532 4*s.*

BIRKENHEAD BOROUGH HOSPITAL.—The annual meeting of the subscribers to this institution was held this week in the Town Hall, Hamilton square, Birkenhead, the Mayor (Alderman Willmer) in the chair. The report of the committee recorded that, while the year had been one of great expense, the income from ordinary sources had fallen short by £260, so that the balance due to the treasurer had been increased from £26 to £528. There was a gratifying increase in the workmen's subscriptions of £60. A donation of £1000 was made to the hospital by Mrs. Stevenson in memory of her husband, the late Dr. Stevenson, who had given his services to the hospital for the long period of forty-three years, and this sum, together with the balance received under the legacy of Mrs. Tait, amounting to £529, would be invested on behalf of the hospital.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—The following were elected office-bearers for 1892:—President: Dr. David Lloyd Roberts. Vice-Presidents: Drs. W. MacFie Campbell, James Armstrong, John B. Hellier, James H. Keeling, Stephen Nesfield, and John Scott; Messrs. Charles J. Wright and Arthur Jackson. Honorary Treasurer: Dr. William Walter. Council: Drs. James Braithwaite, William Alexander, J. Gordan Black, Samuel Buckley, Archibald Donald, John E. Garner, Thomas A. Helme, Thomas Johnstone, James Lambert, John M. H. Martin, John W. Martin, J. Frank Nicholson, George J. Robertson, T. Starkey Smith, and John Wallace; Messrs. John E Burton, J. Nelson Cregeen, Thomas Fawsitt, John F. Horne, Arthur H. Laver, W. Mitchell Roocroft, A. W. Mayo Robson, James Taylor, and Alfred T. Townley. Honorary Secretary: Mr. Henry Brigge.

MAYO HOSPITAL, LAHORE.—The Prince Albert Victor Wing of this hospital was opened on Friday, the 1st inst., by the Lieutenant-Governor. The building has been erected at a total cost of Rs. 108,805, and the accommodation which has been provided consists of three separate buildings. One, the main block, is a structure by itself with two general wards on the ground floor, each for ten patients, and on the upper floor private rooms adapted either for Europeans or native. The second block is intended solely for the treatment of cases of contagious and infectious disease, and will accommodate eight patients; and the third block is occupied as quarters for the nursing staff. His Honour, in opening the building, spoke in gratified terms of the high state of efficiency of the college, and made allusion to the appropriateness of the opening of the wing, which was designed to mark the loyalty of the province, taking place on Proclamation-day.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, London, and FANNIN & CO., Dublin.
Text-book of the Eruptive and Continued Fevers. By John W Moore, B.A., M.D., M.Ch. Dubl. 1892. pp. 535.

CHURCHILL, J. & A., New Burlington-street, London.
Lectures on Pathology; by the late Henry G. Sutton, M.B., F.R.C.P. Edited by M. E. Paul, M.D., and revised by S. Wilks, M.D., LL.D., F.R.S. 1891. pp. 503.

HIRSCHWALD, AUGUST, Berlin.
Anleitung zur Aseptischen Wundbehandlung. Von Dr. C. Schimmelbusch. 1892. pp. 199.

LEWIS, H. K., Gower-street, London, W.C.
The Treatment of Typhoid Fever. By Jas. Barr, M.D., with Introduction by W. T. Gairdner, M.D., LL.D. 1892. pp. 212.
The Pathology of Mediastinal Tumours, with special reference to Diagnosis. By J. L. Steven, M.D. 1892. pp. 98.
On the Medical and Surgical Uses of Electricity. By G. M. Beard, A.M., M.D., and A. D. Rockwell, A.M., M.D. Eighth Edition. Illustrated. 1891. pp. 788.
Massage and the Original Swedish Movements. By K. W. Ostrom. Second Edition. Illustrated. 1892. pp. 143. Price 3*s.* 6*d.* net.
A Treatise on the Diseases of Infancy and Childhood. By J. L. Smith, M.D. Seventh Edition. Illustrated. 1890. pp. 906.

LONGMANS, GREEN, & CO., London.
Chemical Calculations; with Explanatory Notes, Problems, and Answers. By R. L. Whiteley, F.I.C. With a Preface by Prof. F. Clowes, D.Sc. Lond., F.I.C. 1892. pp. 100. Price 2*s.*

Cow's Milk in relation to Human Health and Disease; by H. E. Armstrong (Daily Journal Office, Newcastle-upon-Tyne, 1892).—The Royal London Ophthalmic Hospital Reports. Vol. XIII., Part II., December, 1891 (J. & A. Churchill, London).—The Royal Navy List; London, January, 1892 (Witherby & Co., London).—Archives of Surgery. Vol. III., No. 11, January, 1892 (J. & A. Churchill, London); price 2*s.* 6*d.*—Letter on the Public Health of Newcastle; by B. Cail, A.M.I.C.E. (November, 1891).—Transactions of the Ulster Medical Society; Session 1890-91 (A. Mayne and Boyd, Belfast, 1891).—Microscopical Diagnosis of Tuberculosis; by P. Paquin, M.D. (Little Blue Book Co., Battle Creek, Mich.).—The Pharmacopœia of Guy's Hospital; compiled by a Committee of the Staff (H. H. G. Grattan, London-bridge, S.E., 1891).—Pharmacopœia of St. John's Hospital for Diseases of the Skin; compiled by a Committee of the Medical Staff (Geo. Bell & Sons, London, 1891; price 1*s.* 6*d* net).—Tidskrift for den Norske Lægeforening; Januar, No. 1, 1892 (Alb. Cammermeyers, Christiania).—Kronika Lekarska; Roktrzynasty. No. 1, Styczén, 1892 (W. D. M. Ziemkiewiczowej, Warsaw, 1892).—The Imperial and Asiatic Quarterly Review.—Index Medicus: Authors and Subjects; Vol. XIII., No. 12, December, 1891 (Trubner & Co., and Lewis, London).—Magazines for February: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BARLING, H. G., M.B. Lond., F.R.C.S., has been appointed Consulting Medical Officer to the Tewkesbury Rural Hospital.

BARNES, L. S., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the Hitchin Union, vice Haycock, resigned.

BISHOP, HENRY DRAPER, L.R.C.P. Lond., M.R.C.S., has been appointed House Physician at the London Hospital, Whitechapel, E.

BLICK, G. T. B., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Islip Sanitary District of the Bicester Union.

CALLANAN, MARTIN, L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer of Health for the Thurles Union, vice Russell, deceased.

COLLINS, E. TENISON, M.B., C.M., late Assistant Demonstrator in Cambridge University, has been appointed Demonstrator of Anatomy in University College, Dundee (St. Andrews University).

CUTHBERT, W. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the First Sanitary District for the St. Columb Major Union.

DICKIE, H., M.B., C.M. Glasg., has been appointed Medical Officer for the Workhouse of the Morpeth Union, vice Clarkson, resigned.

FISHBOURNE, Dr. J. E., has been appointed Fourth Physician to the British Hospital for Mental Disorders.

FORBES, N. HAY, L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Surgeon to the Tunbridge Wells Borough Salvage Corps.

FORREST, J. S., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Fourth Sanitary District of the Morpeth Union, vice Hedley, deceased.

FORSYTH, HARRY, A., L.D.S. Eng., has been reappointed House Surgeon to the London Dental Hospital.

HANSON, ARTHUR S., M.R.C.S., L.R.C.P., has been reappointed Surgeon and Agent for Stubbington and Warsash Coastguard Stations, Hants.

HARRIS, H. E., M.B., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Superintendent of the St. Saviour's Infirmary, East Dulwich grove.

HENDERSON, D., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer of Health for Bilston.

HEWITT, R. J., L.R.C.P., L.M., L.R.C.S. Irel., has been appointed Medical Officer for the Tipperary Dispensary District.

LACK, F., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Medical Officer to the Eastern Dispensary, Bath, vice Hatcey, resigned.

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M'MASTER, J., M.D., L.M.R.C.P. Irel., has been appointed Medical Officer for the Glenwherry Dispensary District of the Ballymena Union, vice Hay.

MARTIN, F. G. S. G., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Central and North Sanitary Districts of the Darlington Union, vice Fraser, deceased.

NORWAY, N. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Fifth Sanitary District of the St. Columb Major Union.

RICHARDSON, J. C. R., M.B., B.C. Camb., has been appointed Medical Officer for the Benenden Sanitary District of the Cranbrook Union, vice Stevens, resigned.

STEPHENS, D. H., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Fifth Sanitary District of the Morpeth Union.

THOMPSON, R. E., L.R.C.P., L.M., L.R.C.S. Irel., has been appointed Medical Officer for the Milford Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ASHFORD LOCAL BOARD.—Medical Officer of Health for the Ashford Urban Sanitary District. Salary at the rate of £10 per annum. (Apply to the Deputy Clerk, Ashford, Kent.)

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Medical Officer for two years. Salary £80 per annum, with board, lodging, and washing.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—House Physician. Board and lodging provided.

GLAMORGANSHIRE AND MONMOUTHSHIRE INFIRMARY AND DISPENSARY, Cardiff.—House Surgeon for twelve months. Salary £100 per annum, with board, washing, and furnished apartments.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians.

HOSPITAL FOR WOMEN (LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistants.

HOSPITAL FOR WOMEN, Soho-square, London.—House Physician for six months. Salary £30 for that period.

KENT COUNTY LUNATIC ASYLUM, Chartham, near Canterbury.—Medical Superintendent. Salary £660 per annum, with unfurnished house, gas, washing for himself and family, and produce of garden.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary £85.

LIVERPOOL INFIRMARY FOR CHILDREN.—Assistant House Surgeon for six months. Board and lodging provided.

LONDON FEVER HOSPITAL, Liverpool-road, Islington, N.—Physician.

LONDON LOCK HOSPITAL AND ASYLUM, Harrow-road, W., and 91, Dean-street, Soho, W.—Surgeon to in-patients and out-patients at 91, Dean-street, Soho, W., for two years.

MIDDLESEX HOSPITAL, W.—Second Chloroformist.

NOTTINGHAM GENERAL HOSPITAL.—Resident Medical Assistant for six months. Board, lodging, and washing provided in the hospital.

PARISH OF ST. LEONARD, Shoreditch.—Clinical Assistant for the Infirmary, Hoxton-street, N. Salary £40 per annum, with rations, furnished apartments, and washing in the Infirmary. (Apply to the Metropolitan Officer, 264, Hoxton-street, N.)

QUEEN'S HOSPITAL, Birmingham.—Casualty Surgeon. Annual honorarium £50.

RADCLIFFE INFIRMARY, Oxford.—House Surgeon. Salary £80, with board, lodging, and washing. Tenable for two years.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon. Board and rooms provided.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL, Albert Embankment, S.E.—The Chair of Chemistry.

Births, Marriages, and Deaths.

BIRTHS.

COCKELL.—On Jan. 13th, at Forest-road, Dalston, the wife of Fredk. E. Cockell, jun., M.R.C.S., of a son.

HIND.—On Jan. 8th, at 60, New-street, St. Heliers, Jersey, the wife of Alfred E. Hind, F.R.C.S., of a son.

LEWIS.—On Jan. 17th, at Farleigh, Pontypridd, the wife of B. Morgan Lewis, M.R.C.S., L.R.C.P., of a son.

MALDEN.—On Jan. 24th, at Pembury, Tunbridge Wells, the wife of Walter Malden, M.A., M.B., of a son.

SCOUGAL.—On Jan. 23rd, at 1, Marshwood-road, Huddersfield, the wife of Edward Fowler Scougal, M.A., M.D., of a son.

MARRIAGES.

BANNISTER–JAGO.—On Jan. 21st, at the Parish Church, Irlam, near Manchester, by the Rev. J. R. Courtenay Gale, M.A., Vicar of Christ Church, Sutton (brother-in-law of the bride), assisted by the Rev. R. Martin, D.D., Vicar, Marmaduke Bannister, M.B. Lond., M.R.C.S., L.R.C.P., second son of D. Bannister, Bank-terrace, Blackburn, to Edith Simpson, youngest daughter of Edwin Jago, Paymaster-in-Chief, R.N., Torpoint, Devonport.

GRAY—ROBINSON.—On Jan. 21st, at St. Mary Magdalene's, Canning-road, Addiscombe, Thomas Underwood Gray, L.R.C.P. Lond., M.R.C.S., of Lansdowne House, Essex-road, N., eldest son of the late Thomas Scott Gray, M.D., to Alice Mary ("Sister Alice" of the Mildmay Nursing House), third daughter of the Rev. W. M. Robinson, of Batheaston, Bath.

HINES—BEATTIE.—On Jan. 19th, at St. Barnabas', S. Kennington, Dr. George John Hines, of St. Osyth, Essex, to Annie Louise Ada, youngest daughter of the late Joseph Hamilton Beattie, jun.

JEAFFRESON—HEINTZ.—On Jan. 23rd, at St. Augustine's, Kilburn, John Leslie Jeaffreson, L.R.C.P. Lond., M.R.C.S., of Shanklin, son of the late John Blackett Jeaffreson, of Highbury, to Alice Lavinia, youngest daughter of the late Philip Francis Heintz, of Ealing.

OLIVER—WOODS.—On Jan. 21st, at Long Benton Church, by the Rev. Canon Ellison, M.A., Rector of Melsonby, uncle of the bride, assisted by the Rev. Canon Lloyd, M.A., Newcastle-upon-Tyne, and the Rev. Mr. Grover, Vicar of the Parish, Thomas Oliver, M.A., M.D., F.R.C.P., Newcastle-upon-Tyne, to Emma Octavia, daughter of John A. Woods, Esq., Benton Hall, Northumberland.

OWEN—DAVIES.—On Jan. 21st, at St. Silin's Church, Llansilin, Oswestry, by the Venerable Archdeacon Thomas, assisted by the Rev. E. Osborne Jones, Vicar of Llanidloes, the Rev. R. Trevor Owen, Vicar of Llangedwyn, and the Rev. J. Wynne Davies Whittington, John Vaughan Owen, M.R.C.S., L.R.C.P.L., L.S.A., A.K.C.L., to Emma Wigley, eldest daughter of the Rev. D. Davies, Vicar of Llansilin, Oswestry.

DEATHS.

ARKWRIGHT.—On Jan. 21st, at his residence, Radecliffe, Clitheroe, John Arkwright, M.R.C.S., Consulting Surgeon to the L. and Y. and M., A., and S. J. Railway Companies.

BASSETT.—On Jan. 25th, at his residence, 97, Hamstead-road, Handsworth, Birmingham, John Bassett, M.D., aged 66.

BLYTH.—On Jan. 23rd, at his residence, the Slopes, Kingstown, John Blyth, M.D., of Fitzwilliam-square, Dublin, aged 76.

CARPENTER.—On Jan. 27th, at Ventnor, Alfred Carpenter, M.D., J.P., of Croydon, aged 68.

CLAYTON.—On Jan. 26th, at Harley-street, W., Sir Oscar M. P. Clayton, C.B., C.M.G., aged 75.

COLLINGWOOD.—On Jan. 19th, at the Mount, Corby, Dr. Joseph Edward Collingwood, aged 50 years.

DICK.—On Jan 25th, at Queen-square, Lancaster, Forbes Dick, M.D., Surgeon-Lieutenant-Colonel Medical Staff, aged 50.

DREWRY.—On Jan. 17th, at Ramsgate, George Overend Drewry, M.D., aged 52.

EGAN.—On Jan. 22nd, at St. George's Hospital, Francis Egan, L.R.C.P., L.R.C.S. Irel., late of the Fulham-road, S.W., aged 52.

GOODALL.—On Jan. 21st, at his residence, Elvaston-place, S.W., Surgeon-General Abraham Goodall, F.R.C.S., late of the Madras Medical Service, in his 90th year.

HIGGINS.—On Jan. 23rd, at Durning-road, Edge-hill, Liverpool, S. M'Culloch Higgins, L.R.C.P., L.M. Irel., aged 39.

HUTCHEON.—On Jan. 19th, at School hill, Aberdeen, John W. Hutcheon, M.B., C.M. Aberd., D.P.H., aged 30.

MCDONNELL.—On Jan. 20th, at Upper Fitzwilliam-street, Dublin, Dr. John McDonnell, aged 96.

MEIKLE.—On Jan. 19th, at Melrose, Roxburgshire, John Meikle, F.R.C.P., F.R.C.S.E. in.

MUDGE.—On Jan. 21st, at Paignton, Devon, T. H. T. Mudge, L.R.C.P. Lond., M.R.C.S., aged 35.

WELCH.—On Jan. 25th, at Cobham-street, Gravesend, Robert Ryder Welch, B.A. Oxon., M.R.C.S., L.S.A., late of Kenninghall-road, Clapton, aged 83.

WOODHOUSE.—On Jan. 25th, at 11, Putney-hill, Florence, the beloved wife of Thomas James Woodhouse.

WORSHIP.—On Jan. 21st, at Manor House, Riverhead, Kent, John Lucas Worship, M.R.C.S., L.S.A., aged 67.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on January 26th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	204	57	..	31	2	297	442
North-Western Hospital	235	35	..	14	..	284	411
Western ,,	102	26	..	15	2	145	224
South-Western ,,	208	46	..	19	2	275	350
South-Eastern ,,	217	16	1	65	5	304	424
Northern ,,	377	22	..	14	....	413	480
Totals	1343	202	1	161	11	1718	2331

SMALL-POX.—*Atlas* hospital ship, 6.

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Medical Diary for the ensuing Week.

Monday, February 1.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPEDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. A. S. Morton: Affections of Eyelids.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Liver and Spleen.
ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq., W.C.).—8 P.M. Mr. C. S. Tomes: A Tooth attacked by a Fungoid Growth Post Mortem. The President will deliver his Introductory Address, which will be illustrated with Lantern-slides and Specimens
SOCIETY OF ARTS.—8 P.M. Professor George Forbes: Developments of Electrical Distribution. (Cantor Lecture.)
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Professor W. Rose: The Surgical Treatment of Trigeminal Neuralgia. (Third Lettsomian Lecture.)

Tuesday, February 2.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. J. Hutchinson: Yaws and Allied Diseases.—Bethlem Hospital: 2 P.M., Dr. Percy Smith: Stupor.—Charing-cross Medical School: 8 P.M., Dr. Galabin: Cancer of the Uterus.
ROYAL INSTITUTION.—3 P.M. Professor V. Horsley: The Brain.
PATHOLOGICAL SOCIETY OF LONDON.—Dr. J. Griffiths: (1) Enchondroma following upon Hereditary Multiple Exostoses; (2) Dermoid Cyst attached to the Omentum.—Mr. S. G. Shattock: Inadequacy of the Current Terms applied to Suppuration, with a Proposal; and a Note on Peptone in Pus.—Mr. W. G. Spencer: Rupture of the Spermatic Vein in an Infant simulating Melanotic Sarcoma.—Dr. Norman Moore: Congenital Malformation of the Heart.—Dr. C. B. M. White: Mamma with Carcinomatous and Adenomatous Growths.—Dr. F. C. Turner: Fibrous Atrophy of one Adrenal.

Wednesday, February 3.

NATIONAL ORTHOPEDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. J. Kingston Fowler: Emphysema and Bronchitis.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. S. Morton: Retinal Affections.—Parkes Museum: 1 P.M., Dr. Louis C. Parkes: House Drainage.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. George Beale and others. Annual Meeting. Election of four Honorary Fellows, and of Officers and Council. Dr. G. Paget Blake: Protracted Gestation. The President (Dr. J. Watt Black) will deliver the Annual Address.
SOCIETY OF ARTS.—8 P.M. Mr. T. Pridgin Teale: Dust, and How to Shut it Out.

Thursday, February 4.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
ROYAL INSTITUTION.—3 P.M. Mr. A. S. Murray: Some Aspects of Greek Sculpture in Relief.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. O. Sturges: Illustrations of Heart Disease in Children.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Gowers: Bulbar Paralysis.—London Throat Hospital, Gt. Portland-st.: 8 P.M. Mr. G. Stoker: Chronic Glandular Diseases of the Nose and Naso-pharynx.
HARVEIAN SOCIETY OF LONDON.—Mr. Howard Marsh: Senile Tuberculosis.

Friday, February 5.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. J. Kingston Fowler: Cases of Valvular Disease.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: Anthrax (Gram's Method).—Charing-cross Medical School: 8 P.M., Dr. Galabin: The Modern Cæsarean Section.
ROYAL INSTITUTION.—9 P.M. Professor Roberts-Austen: Metals at High Temperatures.

Saturday, February 6.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Dementia.
ROYAL INSTITUTION.—3 P.M. Professor J. A. Fleming: The Induction Coil and Alternate-Current Transformer.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Jan. 28th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Jan. 22	29·87	S.W.	43	42	52	48	34	·01	Raining
,, 23	29·96	S.W.	48	47	52	51	43	·10	Raining
,, 24	30·07	S.W.	51	50	65	51	47	·03	Cloudy
,, 25	30·39	N.W.	37	36	67	46	35	.	Foggy
,, 26	30·49	N.W.	34	33	50	47	32	·01	Foggy
,, 27	30·11	N.W.	46	45	..	49	34	·07	Overcast
,, 28	30·27	N.W.	40	38	53	45	37	—	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

ENTERECTOMY.

WE have received from *Dr. H. W. Maunsell*, late lecturer on Surgery, Otago University, a long communication in reply to the statements put forth by Mr. Jessett in his letter to us published in our last issue. The consideration of Dr. Maunsell's communication must remain over till next week.

Mr. R. Robinson.—We are of opinion that such a broadcast distribution of post-cards is much to be reprehended.

Dr. A. B. Blacker.—Surgeon-Major Alcock's paper will be found in *Nature* of Aug. 21st, 1884.

Perplexed.—The climate of India would probably be suitable for such a case.

THE PREVAILING EPIDEMIC.

To the Editors of THE LANCET.

SIRS,—I enclose the latest feelings of an "influenza" patient. Kindly give insertion to the following if you can.—Yours faithfully,

Lower Seymour-st., W., Jan. 25th, 1892. HENRY APPLETON, M.D.

THE INFLUENZA FIEND.

Does he come from out the Orient,
Gathering poison by the way,
From the fever-swamps that fester
In the heat of far Cathay?

Do the powers of darkness aid him?
Does he fury gain and force
In expansive wind-swept deserts,
Or in camps of Tartar horse?

Does he draw the dread miasma
From the wide Mongolian plains?
Do the Steppes of Russia furnish
All his fierce, though shadowy, pains?

All I know, he left me prostrate,
Scarce with strength to lift a straw;
That he shook me in his talons,
And he struck me with his claw.

Windsor. A. COALE.

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POLICE CAUTION.

WE are requested by Mr. Anderson of New Scotland-yard to publish the following:—

"Members of the clerical and medical professions are cautioned against a man who for some months past has been carrying on a system of fraud in various parts of London. His mode of proceeding is to call on clergyman and doctors, and introducing himself as being connected with a firm of shipping agents, he states that he has been commissioned to obtain suitable lodgings for a young gentleman who is about to arrive in London, and asks to be recommended to persons having furnished apartments to let. He then goes to the address given, takes the apartments, and in payment for rent in advance tenders a worthless cheque for a larger amount (usually written on plain paper), and receives the balance. His description is as follows: Age, about forty; height, 5 ft. 6 in.; pale face, hair and moustache dark brown, slim build, gentlemanly appearance, and of good address. The police hold a warrant for his arrest, and it is requested that he may be detained and handed over to a constable."

Dr. Jas. Olivier.—The paper is under consideration.

SICILY AS A HEALTH RESORT.

To the Editors of THE LANCET.

SIRS,—Medical practitioners are often consulted, and sometimes puzzled to answer their patient's question—"Where shall I go this winter?" Will you allow me to supply an answer that will suit very many valetudinarians? I am of that unhappy class myself, having inherited a cough from my father, and having been unceasingly troubled by my continuous barking. I have tried Algiers, and found it wet and windy; the Canary Islands and Madeira, and I have not a word to say about these lovely islands except that they are dull. I have tried other places with more or less success; but I never, in any part of the world, found a country that for health and amusement can equal Sicily. A patient should go to Palermo first—that is to say, in November and well on to Christmas; the climate then and there is perfect. After the middle of December he should go south, say, to Syracuse, a very warm place and the most historically interesting on this earth; and after a week among the remains of Greeks, Romans, Saracens, and Normans take the rail to Taormina. There is in that on-a-cliff-mountain town an hotel or pension kept by an English gentleman and his wife; an old thirteenth-century convent, with the far-famed Greek theatre behind the house, Saracen and Roman tombs in front, hoary-headed Etna at the side, and straight before one the Straits of Messina and the Calabrian Mountains. From his window one can see the rocks on which the sirens sat, the home of Circe, Scylla, and Charybdis, and below the site of Naxos, the earliest Greek colony. But, best of all, one can breathe. I have kept no record of the thermometer; but I can say that since I landed in Sicily, on Nov. 1st, I have only had a day and a half of wet weather. All else has been perpetual sunshine. The air is dry and warm; windows are always open. We sit out in the garden or on the balcony all day, and some of us on the latter under the stars till eleven at night. I have never anywhere experienced such a climate or such a place of perfect rest as the Pension Santa Catarina at Taormina, nor a place more abounding in botanical, geological, and archæological remains than this most magnificent spot on this historical island.

I am, Sirs, yours faithfully,

Castello, Catarina, Taormina. GEORGE PYCROFT.

THE TREATMENT OF POISONING BY NARCOTICS.

To the Editors of THE LANCET.

SIRS,—If this letter contains a new suggestion, and one worthy your columns, please admit it.

Would it be a new treatment, and worth trial, in cases of poisoning by opium, belladonna, or other narcotic, after the failure of ordinary remedies, to practise intravenous injection of normal saline solution, with a simultaneous or immediately prior venous bloodletting? It would seem to be a quick and safe means of washing out the tissues, and so lessening the actual and relative quantity of poison contained in them. From one to four pints of blood could be shed, and as much or a third more normal saline solution injected. If thought well, the method could be repeated after a fair interval; but I pass by detail. If it has not already been done, would it not be worth while to experiment in this direction on some of the lower animals (dog?) at one of our licensed laboratories?

I am, Sirs, your obedient servant,

Worcester, Jan. 25th, 1892. T. BATES.

AINHUM.

To the Editors of THE LANCET.

SIRS,—In your issue of Dec. 12th, 1891, in an article headed "Ainhum," referring to twenty cases of the disease treated by Mr. Von Winckler of British Guiana, I find you say, with regard to treatment, "this seems to resolve itself into removal." I merely write to say that about a year ago I treated a case of the kind successfully, and in a very short time, by dividing the skin and all the tissues down to the periosteum on the side opposite to the seat of the disease. The parts looked so very much as if they had been ligatured, that division of the internal ligature, whatever it might be, naturally suggested itself to me. I may mention that the patient had had the disease in the opposite foot some years previously, while residing at Barbados, and that the usual treatment had been adopted there (amputation), and that he really came to me for the purpose of getting the toe removed.

I am, Sirs, your obedient servant,

Trinidad, W.I. THOMAS MURRAY, G.M.O.

"AFRICAN FEVER."

Dr. Harford-Battersby, medical missionary on the Upper Niger, in an interesting communication which is too lengthy for publication *in extenso*, calls attention to the want of knowledge of African fever and the desirability of a thorough study being made of it. He says:—

"It may be urged that so much has been written about Indian fever that therefore we have no need of special study of African fever, but I believe that in many respects the malarial fever of Africa (which I have alluded to above under the title 'African Fever') is in many ways very different. For instance, one of the most fatal manifestations of malarial fever in West Africa in recent years (and curiously it has only been commonly noted in recent years) is the occurrence of hæmaturia or hæmoglobinuria in such a marked way that this is usually called 'Blackwater Fever.' I know several medical men besides myself who suffer from this form of fever. Surely we ought to get at some useful results by collecting evidence from all possible sources, so that we who may be called to work in these regions may have a scientific basis to work upon. It is not for me to dictate the lines that such an inquiry should take, but among other points the following questions seem to be important. 1. What forms of malarial fever do we find in tropical Africa, and what special symptoms or complications are generally met with? 2. What special localities or changes in climate seem to favour the production or development of the fever? 3. What do we know of the value of preventive measures, either hygienic or medicinal? 4. What evidence is there of the presence of a specific micro-organism, and does it correspond with the malarial bacillus which has already been described? Many other interesting points might be brought out by the inquiry, and perhaps some light might be thrown on some of the other specific fevers."

As far as we are aware, the only lectureship in tropical diseases in our British medical schools is held by Dr. Felkin of Edinburgh, who was formerly a medical missionary in East Africa. It is possible that this gentleman would be willing to assist in such an investigation as Dr. Harford-Battersby suggests.

MEDICAL REFORM.

To the Editors of THE LANCET.

SIRS,—The question of medical reform is in the air. It has been there for some time, and almost seems as if it cannot be brought down to earth, in spite of the efforts of various societies and individuals. If we are to have reforms, we must know exactly what we want, and I beg to suggest that a Charter should be drawn up embodying the necessary reforms, and then that the question should be brought to the front, and kept there, until our social and professional position has been gained; and it shall be taken for granted, even by the ignorant of the British public, that a doctor does not keep a shop for the sale of "bottles of stuff" more or less potent. The points of the Charter strike me somewhat as follows, but I write with reserve and subject to correction. 1. That our Council shall obtain increased powers to deal with matters affecting the general well-being of the profession, and that it shall represent the different sections as far as possible in proportion to their number. 2. That definite lines of policy shall be laid down with regard to charitable and provident work, and that no public work of this kind shall be undertaken by any member of the profession which does not comply with the conditions deemed fair and reasonable, both to medical men and the poor whom they desire to benefit. 3. That dispensing by medical men, except in case of emergency, be strictly prohibited where a chemist is accessible. 4. That the law against prescribing by chemists shall be strictly enforced, and that they shall not be allowed to supply any drug (with the exception of certain scheduled household remedies) without the prescription of a qualified medical man. 5. That the chemists' stores shall be periodically inspected to ascertain that their drugs are of good quality. 6. That all "patent medicines" shall be registered subject to a declaration of the active medical ingredients. If these lines of policy were followed the medical profession would become professional. *Advice* would be regarded as worth more than the medicinal compounds which form only one part of treatment, and medical skill would not, as now, be regarded by many good people as bounded superiorly by a cork, and in other directions by bottle. Provident associations can go on wherever they are desirable. Chemists will be glad to supply medicines for them at a nominal profit if they get more private dispensing. Public bodies will have to make arrangements for the supply of medicines for poor people. In many large towns they have already done so. Not only should we gain in time for diagnosis, but also in self-respect. While freely working for the poor in charitable or semi-charitable ways, we should insist on adequate payment from those who can command everything but medical attendance at ordinary rates, but who prefer to take advantage of low and disreputable contracts.

I am, Sirs, your obedient servant,

Loughborough, Jan 2nd, 1892. J. B. PIKE.

CARPENTER AND DUKES FUND.

To the Editors of THE LANCET.

SIRS,—Please insert the following additional subscriptions to the above fund in your next issue, and oblige yours faithfully,

50, George-street, Croydon, Jan. 24th, 1892. WM. F. COLES.

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RESTRICTIONS ON PRACTICE IN CANADA.

L.R.C.P. Lond. & M.R.C.S.—The readers of THE LANCET have already been put in possession of the change made by the province of Ontario, which requires gentlemen wishing to practise in that province to pass an examination, even though they may be qualified and registered in Great Britain. As some of the Colonial Legislatures, as well as those of the United States, are inclined to make changes restricting medical practice to their own graduates, it is unwise for gentlemen to go out meaning to practise without making inquiries from official sources as to the exact state of the law at the time.

A Physician.—The conjoint qualification does not entitle its holder to put "Dr." on his card.

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The Harveian Lectures

ON

COMMON NEUROSES, OR THE NEUROTIC ELEMENT IN DISEASE AND ITS RATIONAL TREATMENT.

Delivered before the Harveian Society of London, Nov. 19th and 26th and Dec. 2nd, 1891.

BY JAMES F. GOODHART, M.D., F.R.C.P.,
PHYSICIAN TO GUY'S HOSPITAL.

LECTURE III.

WE must now pass from the neuroses of the heart and lungs to take up those that show themselves in the abdominal viscera, and there are several that supply much interesting material bearing on their rational treatment. I shall take in order the stomach, the intestine, the kidney, and the liver. I have much to say about the stomach and the rational treatment of its diseases, for I believe they are often treated most irrationally; and let me take first the common, very common, ailment of flatulent dyspepsia. And here at once I suspect that if anyone who has devoted himself to the treatment of stomachs thinks me worthy of any attention, he will at once fall foul of me when he finds that I am going to have my say on this subject in *general*, so to speak. "What can he know about dyspepsia when he talks of it as an entity that knows no differences of form?" Well, I have often said that although there are all sorts of different dyspepsias elaborated out of the heads of individuals, if I were going to write a book on indigestion, I should first devote myself to a volume on diseases of the nervous system. Surely I cannot be wrong when I make this statement, that of the numbers of dyspeptics that fill the doctors' lists the greater proportion by far are neurotics in one form or another. It is really no great exaggeration to say that there are only two forms of indigestion: that produced by over-eating and drinking, and that due to a failure of nervous power. There are other conditions that are met with as rarities, but these who knows anything about? For instance, there is an acute condition originating in some indiscretion in diet, in which the stomach takes to forming sulphuretted hydrogen. I have seen three or four such cases, but if I try to find out anything about it the authorities have very little indeed to tell. Then we talk about acid dyspepsia and atonic dyspepsia, as if any dyspepsia were other than acid, and, from my point of view, as if atonic dyspepsia were necessarily something different. Gouty dyspepsia is another term in frequent use, but it is no different; it is often enough a little of both the others, and sometimes the indigestion of over-eating and over-drinking as well. Nor is the classification, according to morbid anatomy, much better, for here the observer talks of catarrh of the stomach as if the stomach easily catarrhed; whereas we know as certainly as we know any fact of physiology or medicine that of all the multitudinous sins of commission that are done to its would-be detriment there is happily not one in a hundred, if so many, to which the stomach deems it necessary to turn a hair. Were it otherwise the human race would not last out two or three generations. No! If there is one thing that is certain, it is that the stomach is an organ that has been trained by centuries of custom, and by slow processes of evolution, to a condition of hardihood that endows it with the special attribute of comparative callousness, and within limits, and *mutatis mutandis*, I would as soon talk of catarrh of a bird's gizzard. But if, as is assuredly the case, the stomach will stand all this hard work, and still come up smiling, it must needs be supplied with an amount of "go"—in other words, of nervous energy—to enable it to do its work; and it is just this supply that, in this era of high civilisation, is often and often cut short. There is a sort of action abroad that would seem to say: "Oh! anything is good enough for the stomach." Men go into the City, for example, and, beginning at 9 A.M., go on till 6 or 7 P.M., and often enough bring home their business worries with them, their brains being all the while in a state of turmoil. In the midst of this they eat and drink, and ask their stomachs to digest. But if they have exhausted their nervous supplies—and more than exhausted, have overdrawn their capital of this, as they often have to no inconsiderable extent,—where is the stomach to get its motive power? Take, again, the neurotic woman, in any of the many forms in which she presents herself to your gaze. No lecturer, gifted even with the most consummate art of word painting, could depict the many ways in which women of this sort consume their nervous energies; but consume them they certainly do, and they constantly find themselves in the same case, and their stomachs find themselves called upon to perform the impossible task of making bricks without straw.

I assert without any fear of contradiction that this is *the* indigestion of the present day. How do we treat it, and what is its rational treatment? Well, I suppose, it is ten to one in favour of the patient getting a little soda and bismuth, and perhaps a little gentian or calumba in addition. If the patient will run to it, he may take some rhubarb and magnesia instead, and generally, I believe, it must be said that he at first leaves his doctor's door well satisfied that he has got his money's worth. But time goes on, he has consumed his appointed potions (most of these people take medicines well), and he does not feel any very sensible relief from the vagaries of stomach discomfort to which he has been subjected: so back he goes to the doctor, and now probably a few drops of mineral acid and nux vomica are ordered, and this time it is precisely prescribed, perhaps, to be taken an hour before meals, because—well, because—well, I will leave that to the Seers. But time again goes along, and our dyspeptic begins to have qualms whether he is placing his money rightly, and before long he is to be found at somebody else's door, and No. 2 has *his* turn; and so on to Nos. 3 and 4, up to the 12th. If the patient, male or female, be a particularly bad case, he or she will produce in the course of consultation with, say, the tenth best physician on stomachs that exist in the metropolis, a bundle of prescriptions that for thickness may well make his face turn pale and his eye involuntarily seek the clock, while his ears will tingle, I think, with shame that any human being can be so bereft of common sense as not to have got his cure or let it alone ere it has come to this. Will anyone say this is an overdrawn picture? I have seen it too commonly not to know. There are two things that I very generally do on such occasions: one is to indulge in a very short-lived regret that I entered the medical profession, and the other to ask the patient to have so valuable a manuscript bound in calf. But why do things come to this pass? Are we only to have a laugh at the ignorance of the uninstructed? Is there no beam in our own eye? I think there is a very big beam. And it is this, that we are much too fond of giving a prescription because the uninstructed want it, and we do not ask ourselves the question, Is a *drug* the right treatment here? Will it ever come to pass that the public will pay us for our brains, and receive an order for physic as an evil, which, if it must be, must be? But I am wandering from my subject. I do not wish to convey that in these cases of indigestion we can do without drugs, but I do mean to convey most urgently that they are not *the* treatment. It does not follow because a man or a woman has dyspepsia that bismuth and soda are forthwith to be shot into his or her stomach. The great majority of the dyspeptics of the present day are so because their nervous power has run down, or has been incontinently consumed in other directions, without any regard for the needs of the stomach. The first and foremost treatment in these cases is to take what steps can be taken to lessen the tax upon the nervous centres, and to tone up those that are run down. Often would I, were it not a mockery, write on the prescription paper of many a hard-worked man in the City toiling for his bread-and-cheese: Recipe—£500 a year and an eight-hour day. Often and often, for the woman who frets her nerve force into useless fritters, "An occupation that shall give you freedom from yourself." Could one but give these things away there would be no occupation for us in the way of treating indigestion, and it is the hardest part of a doctor's life to feel what he knows to be the right treatment, and yet to be obliged to give a dose of medicine as the nearest approach to the possible. But such *is* our life, and we cannot do otherwise than accept its conditions; but in doing so it falls to me to say that these are cases for tonics and every available means

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for invigorating the nervous system, and the remedies I have decried, but have in no way besmirched—for they are good enough in their place—are to come in their proper place, and be only called to our aid to treat symptoms of passing occurrence.

Next, though not quite in order on my list, I will take anorexia, or want of appetite, because it is closely bound up with this subject of indigestion. There is no more common ailment than this, and it is much more common amongst women than amongst men, although it may be found in either sex, and it also is largely the product of our civilisation, and of an improper consumption, or feeble supplies, of nervous energy. Therefore I think the term proposed by the late Sir William Gull of anorexia nervosa a very fitting one. But the cases recorded by that distinguished physician were all cases of extraordinary severity, and it will be in the recollection of some here that such as were narrated in the Clinical Society's Transactions, and by others now and again afterwards in the medical periodicals, have all been remarkable for being in the last stage of emaciation. Interesting as these cases are, they are certainly rare, and I want to extend the term to a much commoner class of cases. I think there can be no doubt that the same disease exactly, but not reaching anything like the same extent, may be seen almost daily by anyone who chooses to see it in his own practice. I read in one of the daily papers the other day this paragraph: "Almost the only failing of the Englishwoman is that she has no touch of gluttony. She does not take an intelligent interest in what she eats. Anything will do, she says. She is incapable of appreciating good cookery, and that is one of the reasons why the English cuisine is fraught with so many terrors." I shall express no opinion about the truth of the latter clause, but I am sure about that of the first. There are hundreds, ay thousands, of women going about who habitually have the smallest of appetites, and they are often enough women of a very active habit of body and brain. Now we all reason from our own experience far more than we do from what we get secondhand. And the familiar experience of everyone here is that when we have gone long without food we soon reach a stage in which we do not care whether we have food or not, and we may easily under such circumstances reject such food as we put into our stomachs. Apply this to the case before us. An individual starts from whatever cause, for the minute it is not necessary to inquire, with a small appetite; she gets tired or overdone, as is very easily accomplished, on the small amount of food that is taken. Meal time comes on, and she finds herself without appetite, and thinking, as most people do, that if the appetite be not there the food cannot be necessary, none is taken, or the meal becomes smaller than the one preceding. So the case goes on, and little by little no food worth the name is taken. Let me give you the day's record of one or two of these cases. A small part of an egg and a finger of toast and a cup of tea for breakfast (this is rather a respectable meal for a case of this kind); for lunch a drachm or so of veal cutlet, no vegetable, or bread or pudding; a cup of arrowroot and brandy at bedtime. A second case: for breakfast, a little potted meat and dried up bread, a cup of strong tea with very little milk; a very small slice of meat and a little vegetable and milk pudding or stewed fruit for dinner; a cup of strong tea, dried up bread, or a biscuit and fruit for tea; milk pudding and a biscuit for supper, and a little soda water at bedtime, and so on.

Now these cases are really very interesting as showing upon how very little life can be sustained; and, indeed, not only sustained, but made to do quite a large amount of active work. Now what happens, what must happen to the stomach under such circumstances? It does not need much labouring; your own common sense will say at once that the stomach, gradually accustomed to diminishing meals, gradually shrinks, and becomes inactive; and inasmuch as the bodily vigour runs at a gradually lessening tide, so it has less and less vigour, until it goes almost to sleep. There are discomforts attending the course of these cases that hasten the process. Their friends notice how little is taken, and all sorts of things are advised and made trial of; and these spasmodic efforts cause to the languid stomach a good deal of pain. The patient then argues within herself that something taken at the last meal has disagreed, and it is cut for ever out of the diet list. Another attempt is made with something else, but with no better success, and out goes this also. Nor does she stop here. So by slow degrees the possibles of her digestion become more and more attenuated. This is nothing more than the common history, not of rare cases, but of any number. What is the use of treating these people only by bismuth and soda and all the usual stomachics? Granted that they have pain, what is the pain due to? It is the result of the state of disuse into which the stomach has fallen and to the irritable state of the nerves which the generally depressed state of body has engendered. The proper method of cure is to first explain to the patient what has happened as the result of the process of gradual starvation, what is the condition and size even to which their digestive apparatus has shrunk; and they must fully understand that it is impossible, or at the least unlikely, that they can be restored to their former selves without a certain amount of discomfort, not to say pain—that their stomachs need to be educated back to a healthy habit, and to be stretched to a more natural size. These, therefore, are the cases, or one class of them, that undoubtedly derive great benefit from what is now generally called Weir-Mitchell's treatment—of stuffing and massage. And it is a treatment that in most cases does these people a great deal of good. They gain weight and are altogether different creatures. I said just now that we might dismiss for the minute the initial fault in these cases; but I have now to say that they are neurotics, almost all of them, and, what is more, they are neurotics of a rather bad type. By this I mean that, although they are submitted to treatment of this kind, and derive much benefit from it, they are exceedingly likely to get back to their old habit again, after a longer or shorter time, and some of them find their way ultimately into the ranks of the insane. This is the fundamental cause, but there is another condition that has, I believe, to share a good deal of the blame. I allude to the most pernicious practice of taking no breakfast. Small eaters, with their last meal taken at seven or half-past in the evening, and probably all digested, so little has it been, many, many hours before morning dawns, and the day's work is then begun on a finger of toast and a cup of tea—sometimes, I have been told, in the exceptionally perverse without even any milk in it. And this to last them till past middle day. How can anyone be expected to have any vigour of mind or body under such circumstances? But I daresay someone will be thinking that the no-breakfast plan is such a common thing that I need not make such a fuss over it. I would not do so if the meal time alone were changed. There is no objection that I know to the chief meals being taken at, say, twelve and six, on the foreign plan, but then the two meals are *taken*, not sniffed at. But I confess to thinking so highly of our English plan of starting with a good solid meal, that a cup of tea at half past seven in the morning, although very nice, is, from a digestive point of view, a mistake, and if I belonged to the band of medical advisers to insurance societies, although I think I should pass many a heart that is now looked at askance, I doubt if anyone would get in as a first class life under my *régime* unless he produced evidence that the volume of his breakfast came within measurable distance of

> "Devilled kidneys and sweetbreads and ducks and green peas,
> Baked sucking-pig, goose, and all viands like these."

It is food, and not medicine, that is the prime need of these people; but I think that it may well be doubted whether this is put before them with all the blunt uncompromisingness and persistency that the occasion and their blindness in the matter require.

Neurotic vomiting is another branch of the same subject, but I shall not discuss it, because it is so well recognised that it rarely fails to receive the appropriate treatment. There is, however, a group of cases in children of which I do not think much is known, so I shall deal with it a little more in detail. I allude to the sudden periodical paroxysmal vomiting of extreme violence that is occasionally seen in children of four, five, and six years or so of age. It goes on for twenty-four, thirty-six, or forty-eight hours; everything, often even water, is returned. The child becomes hollow-eyed and choleraic in appearance, and is, indeed, brought to the very verge of death. In a first attack of this kind it is not unnaturally supposed to be due to some error of diet, although it puzzles the parents often to say what that error may have been. It is, of course, an attack that may very well be set up by an irritant poison in the shape of food, but in these cases the irritant is for the most part

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trivial, and similar attacks tend to recur over and over again in the same child. Moreover, they always lead to the most rigid dieting, and yet the attacks recur. I have notes of six or eight such cases, and I cannot but think that the vomiting is of cerebral origin, and not gastritic. At any rate, I do not think such cases should be treated by a too strict diet, for by such means the youthful stomach fails to obtain the requisite amount of experience, and in consequence hereafter takes fright at such trivialities as one currant in a bun. I believe that bromide of potassium and moderate care in diet are more successful. Another common form of neurotic dyspepsia is the condition that is known as *flatulence* simply, and how closely this condition goes with debilitated states of the nervous system is well illustrated by the following case: A man of forty-two, who voluntarily called himself "a wretched nervous fellow," had been dyspeptic for many years, and this makes his heart irritable. His wife died a few months ago, and he got into a very low state. He went to the seaside for seven or eight weeks, and got better; but as soon as he came home again he relapsed. His attacks are very peculiar, in that they always commence with *sleeplessness*, and when this begins he always knows that in three or four days he will be attacked by flatulence and dyspepsia. Having mentioned this man, let me tell of another condition, also in the male, because there seems to be some difference between male and female in this respect. It would almost seem that the flatulence of the male sex is chiefly in their stomachs, and that of women in the bowel. This second case was in a highly neurotic man, who had taken himself out of an honourable calling into that of speculative finance and Monte Carlo-ism. This man came into my room one day, and treated me to the most extraordinary musical performance—his stomach being the bellows, and his mouth the pipe—that I ever remember to have heard. The only advice I deemed it necessary to give him was the very simple command to stop it. And I hope it cured him; for bar his stomach, which was a little mad, he seemed sensible enough.

Now here, again, it often enough happens that such are treated as cases of indigestion, and drugs are put into their stomachs as the be-all and end-all of treatment, and they are never told about the mechanism of the flatulent distension; and the consequence is that, feeling distended, they dispose of their surplus gas by eructation and are easy for a time. But in so doing they become gas factories; soon more is secreted, and that is passed off, and so on, and the stomach is enticed to produce more each time—the demand, according to the universal rule, creating the supply. If, on the other hand, you tell them that each return of momentary ease is accentuating a habit and really making them worse, and that if they bear with what, after all, is but a slight and passing discomfort, they will soon be better; and then apply such remedies as the case seems to call for, it will take no time to cure the majority of cases. It will not be so easy with a minority. These betoken the intensity of their neurotic degradation, first by the dismal setting of their visage, and then by the minute and exaggerated description of their woes. For these it is hard to say what treatment will suffice.

In addition to these cases, or such as these, there is a far larger class of dyspeptics who come complaining of a troublesome distension after their food, and who, looking upon it as a symptom of indigestion, and due—for this is the common corollary—to something they have eaten, they diet themselves and, meeting with no great measure of success, they apply to us. The old tale of drugs is gone through, and they are dieted and given some pepsine in one form or another. But often enough they are not cured in this way, and, what is more, they will be fortunate if they ever are. Again, I appeal to the experience of anyone here. Who has not felt the same discomfort, more or less, when overworked or harassed in one of the hundred ways that happen to man in this world of everyone for himself? And when you have felt this condition what have you thought of it, and did you take bismuth, or what did you do? Was not this rather the outcome of your deliberations, "Such and such cases have taken it out of me"; or, "I have been busy lately, and had too little time for meals." And to those of us to whom this condition is no uncommon thing, have we not rather thought much in the strain to which I have already given vent, that in these days of hurry-scurry our brains run ahead and take no thought for the stomach, and that in consequence there is almost a necessity for many of us to suffer from a slow digestion; and a slow digestion means that, as regards symptoms, there will be more or less distension after food, sometimes after breakfast, in others after one of the later meals of the day. But taken patiently and not thought about, it all passes off after an hour or two. If we have been wise, we have not done much in the way of medicine; we have, perhaps, taken a little strychnia and phosphoric acid; we have not made much alteration in our diet, which has been plain and wholesome before, but we have taken a little more pains with it, and put food under cover more tenderly, and, perhaps, as a temporary thing, we have added a little pepsine to the meal. No mystery in all this. We have treated ourselves on plain common sense principles. Do we always treat our patients to the same approved methods as we deem fitting for ourselves?

(To be concluded.)

The Lettsomian Lectures

ON THE

SURGICAL TREATMENT OF TRIGEMINAL NEURALGIA.

BY WILLIAM ROSE, F.R.C.S.,

JOINT PROFESSOR OF SURGERY IN KING'S COLLEGE, AND SURGEON TO KING'S COLLEGE HOSPITAL.

LECTURE III.

THE GASSERIAN GANGLION AND ITS REMOVAL.

MR. PRESIDENT AND GENTLEMEN,—In my previous two lectures I have traced the history and gradual development of the surgical treatment of trigeminal neuralgia, clearly indicating the tendency amongst surgeons in this and other countries to substitute more central and radical measures for less effectual peripheral treatment. For however great the relief may be for a time after neurectomy, or combined neurectomy and nerve-stretching, a recurrence of the painful symptoms is unfortunately the rule rather than the exception. In a few months, or perhaps at the end of a year, these patients apply for further treatment, and in many instances are willing to undergo any risk from an operation that holds out the slightest prospect of alleviating their sufferings. They have told me that life under such circumstances is unendurable, and have even threatened self-destruction when the paroxyms have been extremely severe, reason itself being endangered; whilst others have expressed the hope that they might never regain consciousness from the anæsthetic administered at the operation, rather than again experience such exquisite agony. It was a case of this desperate character that first stimulated me to make an attempt to reach and remove the Gasserian ganglion, and after frequent conversations with Dr. Ferrier, and a careful study of the anatomical relations of the ganglion to the base of the skull, I was convinced not only of the possibility but also of the practicability of this proceeding. The results, more or less favourable, following the removal of Meckel's ganglion also acted as a powerful argument in favour of producing a still more satisfactory effect if the Gasserian could be reached and isolated from the brain, even if the whole ganglionic mass could not be excised.

The Gasserian or semilunar ganglion is a small mass of greyish-yellow nerve substance, forming an expansion upon the larger or sensory root of the trigeminal nerve; into it the motor root does not enter, and thus it is analogous to the ganglion upon the posterior roots of the spinal nerves. The trunk of the fifth nerve issues from the pons as a cord flattened horizontally, which passes through an opening in the dura mater to reach the apex of the petrous portion of the temporal bone where the ganglion is lodged. This opening is placed just behind the posterior clinoid process in the anterior attachment of the tentorium, and has the superior and inferior petrosal sinuses respectively above and below it. The space in which the ganglion is located is known as the Cavum Meckelii, and corresponds exactly to the depression at the apex of the petrous bone. It is essentially an extra-dural space, a matter of considerable importance in any operative interference with it. Some French anatomists, however, state that the space is lined

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below by a thin reflection of the dura mater, and thus the ganglion really lies encapsuled within the dura; I have, however, experienced no difficulty in any of my cases from this lamella of fibrous tissue. In shape the ganglion is crescentic, or somewhat like a haricot bean flattened out, with the convexity forwards. The two chief surfaces are directed respectively forwards, outwards, and a little upwards, and backwards, inwards, and downwards. The antero-external surface is in somewhat close relation with the dura mater, from which it is not altogether easy to separate it; the postero-internal surface lies on the bone, a thin layer of dura acting as periosteum intervening, and with this it is very loosely connected. The trunk of the fifth nerve enters its postero-superior border at a point corresponding to the hilum, and at the antero-inferior border are given off the three main divisions. The anterior portion is prolonged into the ophthalmic division, which is very closely connected with the dura mater forming the outer wall of the cavernous sinus, and it is a question whether the removal of this portion is possible without laceration of the sinus. Thiersch and Horsley both emphatically contend that the detachment of this portion is impossible, but recent investigations have shown me that on the cadaver at least it can be accomplished, though not without some difficulty. The internal carotid artery, passing upwards in its canal in the petrous bone, lies first below and then internal to the ganglion, previous to gaining its position by the side of the posterior clinoid process in the floor of the cavernous sinus.

The various methods which have been suggested and practised of reaching the ganglion must now be considered. Up to the present this has been accomplished in three different ways, viz.: (1) By Mr. Horsley's intra-cranial operation; (2) by ablation of the superior maxilla and trephining the base of the skull; and (3) by trephining the base of the skull through the pterygoid region, the method which I have adopted in my last four cases. Mr. Horsley is in error when he stated in his paper[1] that I performed the Pancoast-Salzer operation, for, as described in my last lecture, Salzer's method consists in turning down the zygoma, masseter, and temporal *en bloc* by a curved incision, practically perpendicular to the varying directions of the fibres of the temporal muscle. My operation is really an elaboration of Krönlein's[2] modification of Pancoast's original proceeding, except that I make a different skin flap. I have recently received an interesting communication from Professor Andrewes[3] of Chicago, who during the last twelve months has been making investigations on the cadaver as to the best means of reaching the ganglion. He has also sent me details of two cases in which he has followed out my suggestions in his operation, and to which I shall presently refer. His studies have led him to much the same conclusions as to the best and most direct means of effecting this as those at which I have myself arrived. He suggests six different routes; but, inasmuch as two of them are essentially very slight modifications of my own plan, they may, for practical purposes, be reduced to four—the three mentioned above and a fourth, which, however, is only suggested as possible on the cadaver, and is at once condemned by the author himself.

1. With regard to the *intra-cranial operation*, Mr. Horsley has so recently published his views on this subject, and his method of operating, that a detailed description here will be unnecessary; but, briefly, it consists in the exposure of the squamous portion of the temporal bone by turning down a large temporal flap and in the removal of the whole of the exposed portion by means of a trephine and bone forceps. The dura mater is then freely divided along the whole length of this opening, and the temporo-sphenoidal lobe laid bare. "A broad copper retractor with smooth and everted edges is then gently slipped underneath the lobe, and slowly but steadily raised. The lobe is partly moulded, partly lifted upwards, and the floor of the skull is then seen and illuminated by the electric light." The edge of the tentorium is looked for, and the position of the root of the nerve as it emerges from the brain ascertained. The ganglion will not be visible at first, being covered by the dura, but an incision is made at the point where he considers it should be, and by enlarging this the nerve root is stated to be seen with ease, "freely lying in the little canal," to use his own words, and can then be divided and the ganglion removed. The first case Mr. Horsley treated in this way proved fatal in seven hours from shock, and as far as I can make out from the scanty information given in his table of results he had not, when his paper was written, attempted a similar operation again, though in two cases an intra-cranial division of the nerves was undertaken, the exact details of which are not stated, but in neither of these was the ganglion dealt with. An examination of the inside of the base of the skull from which the brain has been recently removed is sufficient to convince one of the difficulties which must be experienced in attacking the ganglion from above; much more so is this the case with the brain *in situ*. Again, when we consider that the ganglion is situated practically outside the dura mater, it seems an unnecessary increase in the severity of the operation to open this investment in two different situations; and, however delicately we may handle the temporo-sphenoidal lobe, it can do it no good to compress and mould it by retractors to a sufficient extent to enable the base of the skull to be clearly seen and the necessary manipulations undertaken. Moreover, Mr. Horsley himself admits that the existence of several small veins passing from the temporo-sphenoidal lobe to the superior petrosal sinus must necessarily be ruptured in this proceeding, and so give rise to troublesome haemorrhage, and I cannot imagine that the superior petrosal sinus itself can escape if an incision be made in the direction indicated. Bleeding in this locality is difficult to arrest; and even if not absolutely dangerous to the patient from its extent, it may become so by its pressure effects. Again, the extensive removal of cranial bone must be a source of subsequent risk to the patient, and the disfigurement of the face from the large temporal flap is very marked compared with the insignificant cicatrix resulting from my own procedure. These latter points, however, would be of little importance if certain relief could be given to the painful condition without danger to life. From these considerations one cannot resist the conclusion that this method of reaching the ganglion is scarcely justifiable in the light of present experience, and that if the ganglion can be satisfactorily reached and dealt with along some safer route it is far better to avoid the risks certainly associated with an extensive intra-cranial operation.

2. My own efforts hitherto have been entirely directed to reaching the ganglion through the base of the skull, and at present, after an experience of five cases, I see no reason for altering my views. In the first case, one condition on which I was allowed to operate was that I should remove what was thought by the patient to be the seat of the greatest pain—viz., the right superior maxilla; under no other circumstances should I have undertaken such a disfiguring plan of treatment. The operation of ablation of the superior maxilla was performed in the usual way without any difficulty, and, as generally happens, the pterygoid processes broke off close to their base. This gave me plenty of room to expose the foramen ovale, and the trephine was easily applied in a direction upwards and a little backwards. After the removal of the disc of bone containing the foramen as its centre, the ganglion could be easily seen, both by myself and my assistants, by the aid of the electric illuminator, without which manipulations at such a depth would be impossible. At that time I was not provided with the special hooks I have used in my later cases, and so I picked the ganglion away piecemeal with a pair of fine hooked forceps. The wound was of course one communicating with the mouth, and consequently its asepticity could not be maintained. This condition may account in part for the loss of the eye, but with this exception the patient made an excellent recovery. I regret that I did not take proper precautions to render the conjunctival sac aseptic before the operation, or to protect the eye subsequently. It is possible, moreover, that a drop or two of chloroform may have fallen into and irritated it, as the patient was somewhat restless. Be that as it may, subsequent experience would tend to prove that, unless the strictest precautions be taken for the protection of the eye at the time of the operation and for weeks after, the disturbance of the trophic centres may lead to degenerative changes entailing the loss of the organ. But even if the eye should unfortunately be lost, the immunity from pain more than compensates for this.

3. I now turn to my present plan of operating through the pterygoid region, which must be described in detail. The patient is carefully prepared in order to be in as favour-

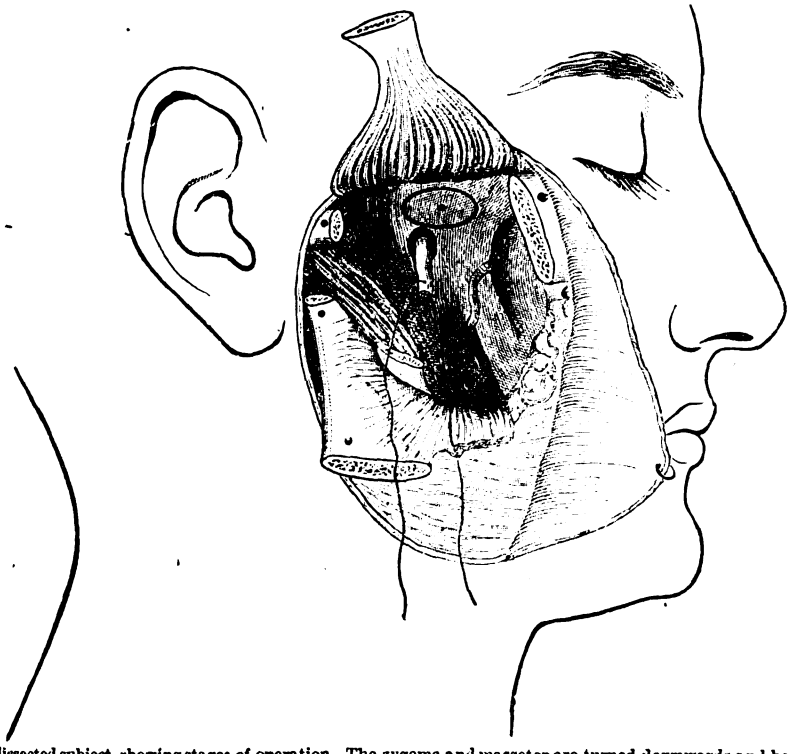
[1] British Medical Journal, Dec. 5th, 1891.
[2] Deut. Zeitschrift f. Chirurg., xx., p. 484.
[3] Papers read in the Section of Surgery and Anatomy at the American Surgical Association, 1891, p. 153.

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able a condition as possible. The bowels are moved by a mild purgative given the night before. The face is washed as thoroughly as the patient will permit with soap and carbolic solution (1 in 20) some hours before, and an antiseptic dressing applied. This is an important matter, seeing that (as I have previously remarked) the skin is often very dirty on account of the pain caused by any attempts at washing. Chloroform is perhaps the most convenient anæsthetic to employ, and when the patient is fully under its influence the skin should be again thoroughly washed, the external ear cleansed, and a plug of salicylic or some antiseptic wool inserted into the meatus. The conjunctival sac must also be thoroughly washed out with an efficient but unirritating antiseptic, a 1 in 2000 solution of corrosive sublimate being perhaps the most satisfactory; during this proceeding the lacrymal sac should be squeezed, as often collections of mucus are found therein, and regurgitation of these through the canaliculi will again cause septic contamination of the conjunctiva. In order to ensure closure and protection of the eye, both during the operation and for some days after, two fine horsehair or catgut sutures are introduced through the integument of the upper and lower lids, about 2 mms. from the palpebral margin of either lid, and exactly opposite each other, taking up small folds of the lax skin, which are approximated by tying the sutures. The operation itself may be divided into six stages, as follows:—1. Incision through skin and reflection of flap. 2. Section of zygoma and coronoid processes, and detachment of masseter and temporal muscles. 3. Exposure of the base of the skull, and search for the foramen ovale. 4. Opening the base of the skull. 5. Removal of ganglion. 6. Reposition of displaced structures and closure of wound.

First stage.—The skin incision (Fig. 1) is made by entering the knife over the malar bone about half an inch below the external angular process of the frontal, and carrying it along the zygoma and down in front of the ear over the parotid region to the angle of the jaw, and then forwards along the lower border of the horizontal ramus as far as the facial artery. This done, a flap can now be dissected forwards, consisting of skin and subcutaneous fat only, care being taken not to injure Stenson's duct or any of the branches of the facial nerve which lie in close contiguity to the masseteric fascia. Before this is completed, either a fine catgut thread can be inserted in either side to form a landmark in the subsequent suturing of the wound, or a crosscut can be made in the skin. The scar resulting from this incision can be rendered almost imperceptible if great care be taken in stitching the parts together and accurately matching them up. Many other incisions have been devised for similar operations in this neighbourhood, but I do not consider them so satisfactory. Krönlein used an incision which was practically H-shaped, the transverse line being placed over the zygoma. Pancoast operated through vertical incisions placed along the anterior and posterior borders of the masseter muscle and joined by a transverse cut along the zygoma. The great objection to these is the anterior vertical incision, which is very disfiguring and of doubtful utility. It is perfectly feasible to dissect up a skin flap in the face without encroaching on the nerves, and I would contend that the curved incision, whilst it gives a maximum of space with a minimum of disfigurement, will in no way interfere with the subsequent mobility of the facial muscles. The skin flap must be carefully protected by a few layers of purified gauze during the operation, and not unnecessarily handled or exposed to pressure or rough manipulation. It is better to avoid retractors in order to hold it out of the way, and its temporary fixation by a catgut suture to the upper part of the chin will be found beneficial. The anæsthetist must prevent any chloroform dropping on the under surface of the flap, and if he be using a towel he must not allow the corner charged with moisture to touch it. Particular stress is laid upon these details, as it is most important not only to maintain asepsis and obtain primary union, but also to leave as little trace of the surgeon's work as possible. After raising the flap any arterial hæmorrhage of importance should be controlled by Spencer Wells' forceps, and probably the transverse facial vessels will need ligature.

FIG. 1.



Sketch from dissected subject, showing stages of operation. The zygoma and masseter are turned downwards and backwards; the coronoid and temporal upwards; the great wing of the sphenoid exposed by detachment of external pterygoid, showing relative position of foramen ovale and trephine track. (For clearness' sake the two latter are purposely placed a little forward.)

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Second stage.—The zygoma (Fig. 2) is now cut down upon by an incision along its course, and laid bare by means of suitable raspatories and periosteum detachers. Two holes are drilled at the root of the zygoma, and two also anteriorly through the zygomatic process of the malar line. This is best accomplished by a fine drill driven by a dynamo. The drill used should be of such a size that the perforation in the bone may carry wire of gauge No. 22, and the holes should be about one-third of an inch apart. The bone is then divided between them by a fine saw, and in such a way that the anterior saw-cut is directed obliquely downwards and forwards, the posterior part of the zygoma being divided as near its root as possible. It is obvious that the bone can be drilled much more efficiently whilst the zygomatic arch is intact; it can then be subsequently replaced without difficulty, and maintained in position by means of silver wire. The zygoma thus detached is displaced downwards and backwards together with the masseter; to facilitate this it will be necessary to divide the muscular fibres attached anteriorly to the malar bone. Necrosis of the zygoma has occurred in some instances where it has been detached and turned down by this plan of treatment; but I cannot help thinking that such has been due either to a septic contamination of the wound or to some rough handling of the bone which might have been avoided. Great care must be taken not to interfere with the attachment of the fibres of the masseter

FIG. 2.

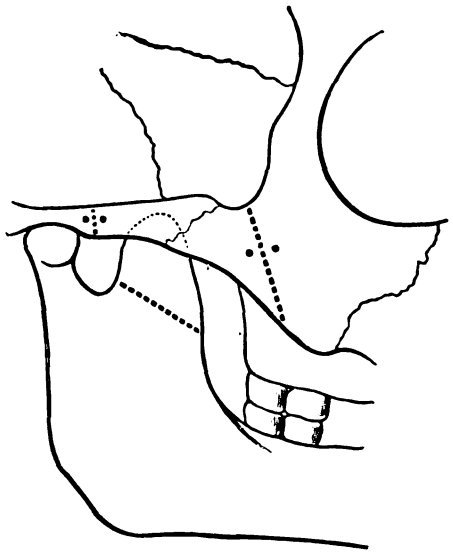


Diagram of zygoma and lower jaw *in situ*. The interrupted lines represent the direction of the saw cuts, and the dots on either side of those in the zygoma the drill holes.

muscle to its under surface, from which its nutrition is derived—and in all probability the wiring of the bone into position after preliminary drilling is another preventive of necrosis, for in none of my own cases have I had the slightest trouble or subsequent difficulty. When the masseter has been drawn downwards and backwards as far as possible, consistent with the integrity of the important adjacent structures, and a little cellular tissue picked away, the coronoid process will be exposed, together with the tendon of the temporal muscle, which, it must be remembered, passes lower down on the inner aspect of the bone than on the outer. In Cases 2, 3, and 4 this process was drilled to provide holes for subsequent wiring, and then sawn off obliquely downwards and forwards. The detached bone was turned up with the temporal muscle, and the deep fibres encroaching upon the ramus of the jaw required careful division. But latterly I have begun to doubt very much the advisability of attempting to gain osseous union of this process; for the temporal muscle attached to it is paralysed by the operation and necessarily atrophies, with the result that very considerable impairment of the mobility of the jaw ensues. In my last case, therefore, I simply divided the coronoid without attempting to drill it, and drew it and the muscle upwards out of the way, subsequently excising it and a portion of the temporal tendon.

Third stage: Search for the foramen ovale.—A certain amount of loose cellular tissue and fat will now present, under which will be found the external pterygoid muscle, running transversely backwards, to be inserted into the condyle of the jaw; and perhaps below it a small portion of the internal pterygoid may be seen. Running superficially across the former muscle, between it and the jaw, the internal maxillary artery is usually found, which passes into the spheno-maxillary fossa by dipping between the heads of the muscle. The artery, if it has not been tied at a previous operation, should now be sought for, and divided between a double ligature; by this means hæmorrhage, which might be troublesome during the later steps of the operation, will be avoided. The inferior dental and gustatory nerves under normal circumstances pass downwards from under the lower border of the external pterygoid muscle; but if they have been previously removed, their assistance in guiding the surgeon to the foramen ovale is not available. The external pterygoid muscle is next detached from the great wing of the sphenoid

FIG. 3.

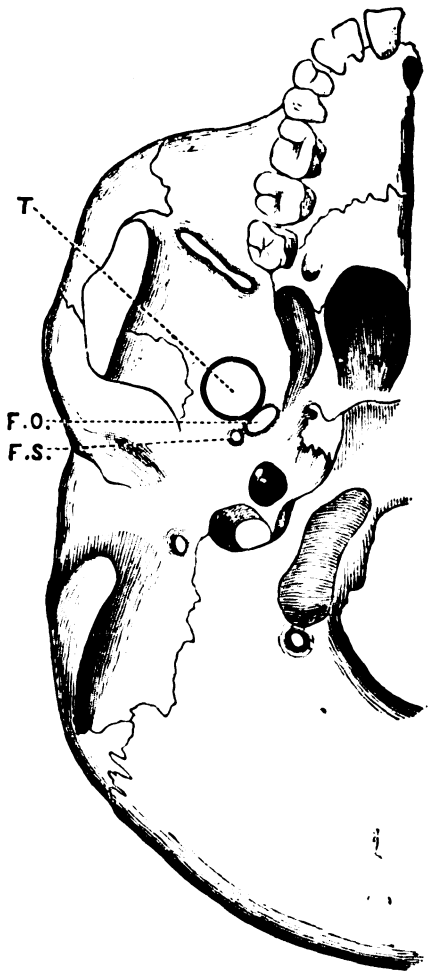


Diagram of base of skull, showing position of trephine track. T, Trephine track. F O, Foramen ovale. F S, Foramen spinosum.

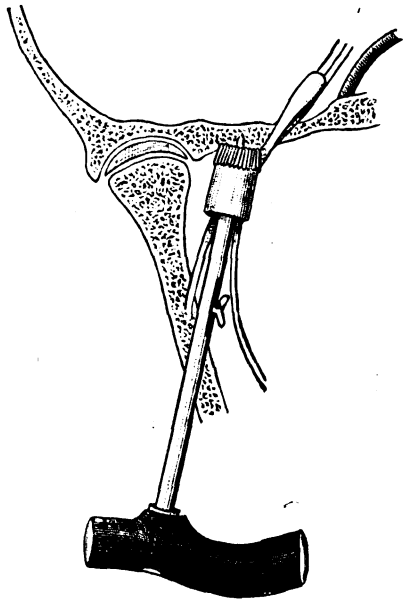
and from the outer surface of the external pterygoid plate, by scraping it off the bone with suitable raspatories; it is of course pushing it downwards. The knife should be used as sparingly as possible, and the strands of muscular tissue are best picked and cut away with dissecting forceps and a fine pair of blunt-pointed scissors. By this means the under surface of the great wing of the sphenoid is exposed, and the outer pterygoid plate. The foramen ovale is now to be brought into view, a matter often of some difficulty, and the occasional reference to a dry skull held by an assistant will be a considerable help in indicating its position in relation to the neighbouring landmarks. (Fig. 3) It is usually on a level with the eminentia articularis, but occasionally lies a little behind it. In fact, the portion of bone which one first reaches in this deep part of the operation is well in front of the foramen, and one is apt to get too far forwards,

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so that the pterygo-maxillary fissure is mistaken for it. In the third of my cases this actually occurred, and at first I trephined the sides of the fissure, not discovering my mistake until I found orbital fat protruding from the opening. The relation to the root of the pterygoid processes is another guide; the foramen lies usually a little behind and external to the base of the outer plate, but sometimes directly behind it. The position, however, is not constant, and Mr. Carless has found the greatest variety in the skulls which he has examined for me. "The base of the external pterygoid plate," he states, "is by no means a fixed guide, in that in many old skulls there is a formation of bone (like a tongue) projecting backwards towards the spine of the sphenoid, usually external to the foramen ovale, and deeply channelled or grooved for the middle meningeal artery." M. Testût[4] also mentions this fact, stating that it is due to an ossification of the pterygo-spinous ligament of Civinini. The sphenoidal spine lies immediately behind the foramen ovale and about a centimetre from it, the foramen spinosum intervening and placed about 2 mms. behind the oval opening; the spine cannot, however, always be felt on the living subject on account of the depth of the wound and the limited space in which one is working. Under these circumstances it is important to define clearly with the finger the outer pterygoid plate, and help may be obtained from the facts ascertained by the measurement of a number of skulls by my colleague, that in an adult male skull the average distance from the anterior border of the outer pterygoid plate—i.e., from the posterior lip of the pterygo-maxillary fissure—to the centre of the foramen ovale is about 18 mms., whilst in the female adult skull it is about 16·5 mms.; in both sexes the average measurements are a little greater on the right side, but in skulls that are abnormally large or small these vary to a corresponding degree. Should the above-mentioned pterygo spinous ridge of bone exist, it may be necessary to clip it carefully away in order to define the position of the foramen.

Fourth stage: Opening of the base of the skull.—Having thus exposed the foramen ovale and traced to it either the trunk of the undivided lingual and dental nerves, or the stump left from former operations, the base of the skull is now to be opened by means of the trephine. My intention in Cases 2, 3, and 4 was to remove a disc of bone having the foramen ovale for its centre, and for this purpose I employed a trephine with a handle set on a stem long enough to clear the cheek, and with a reversible centre-pin, one end of which was pointed as usual, the other blunt. The size of the trephine was such that it should remove a half-inch disc of bone; the crown was serrated obliquely on the outer side for a distance of a quarter of an inch in order that the trephine might clear itself of débris and not get jammed in the bone. The smooth-ended centre pin was projected from within the crown as far as possible, and introduced into the foramen ovale, so that the blunt point might protect the dura mater or other intra-cranial structures by pushing them before it. To do so the trephine was, roughly speaking, held in such a position that its axis was parallel to the external pterygoid plate. The handle of the trephine was then depressed and kept as far back as possible; but from the pressure of the soft parts it was always applied at an angle and not perpendicular to the surface, a proceeding not altogether undesirable, inasmuch as thereby the integrity of the carotid canal could be more readily maintained. The close contiguity of this structure had to be carefully kept in view during this stage of the operation; and, indeed, there is only the inner border of the great wing of the sphenoid, measuring from 2 to 4 mms. in thickness, intervening between it and the foramen ovale. By holding the trephine at this angle the outer segment of the bony circle was cut through first, and then the bone could be broken off on the inner side along the sutural line between the apex of the petrous bone and the great wing of the sphenoid, and thus the carotid canal remained uninjured. But even if it should be encroached upon, it by no means follows that the artery lying within will be damaged, as there is always a certain amount of space to allow of its expansion and other movements under the blood pressure. The portion of bone being now set free by an elevator, will fit like a collar over the stump of the divided nerve, and can be slipped over it. In one or two of my cases I noticed a definite constriction of the nerve at this point. In Case 4 I made an important modification by trephining in addition the great wing of the sphenoid anterior and a little external to the foramen. The trephine openings were then united by removing the bridge of bone between by a careful use of chisel and mallet. During this process the dura mater, which had been previously loosened around the openings, was protected by a spatula, and held up out of the way, for when unsupported the dura bulged through the opening. As will be seen by reference to the account of my cases which I append, this patient did well; but during the first forty-eight hours after the operation she had a certain amount of epistaxis, and also vomited some grumous material like coffee grounds, which was evidently altered blood. The source of this was a matter of considerable anxiety to me; it evidently did not come from either the sphenoidal sinus or the antrum, as these were in no way interfered with; but on careful examination of the base of the skull the relationship of the Eustachian tube, which had been previously overlooked by me, seemed clearly to indicate whence the bleeding was derived. This structure lies in immediate contiguity to the ridge of bone which forms the inner boundaries of the foramina ovale and spinosum. A groove will be found in this position in most skulls extending backwards to the point of attachment of the tube to the petrous portion of the temporal bone and forwards to the base of the pterygoid process; and this

FIG. 4.



Diagrammatic section of base of skull and lower jaw (after Andrewes), showing relation of trephine to foramen ovale and Gasserian ganglion.

region in the living subject is occupied by the cartilaginous portion of the tube. It is highly probable that in removing a disc of bone half an inch in diameter, with the foramen ovale as its centre, this tube will be encroached upon, laying the wound open to the risk of septic contamination from the pharynx. This consideration was one of several which induced me to alter my plan of operation in the last case I dealt with, and in consequence I applied the trephine to the great wing of the sphenoid a little anterior and external to the foramen, and in such a way that the circumference of the disc just impinged on its outer wall. (Figs. 3 and 4.) The opening thus made can be subsequently enlarged, if necessary, in any direction desirable. It must not be forgotten that the thickness of the skull is very unequal, being thinner on the outer margin of the trephine track than on the inner; and inasmuch as the instrument is necessarily applied at an angle, the outer half will be cut through before the inner. This fact renders damage to the dura mater possible, unless careful precautions be taken.

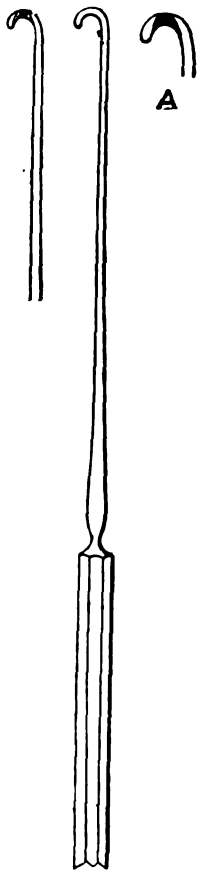
Fifth stage: Removal of the ganglion.—Having repressed the prominent dura with a spatula, the third division, which during all these preliminary proceedings has been carefully guarded, and round which a ligature should now

[4] Traité d'Anatomie Humaine, 1889, vol. I., p. 113.

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be passed, is to be traced up to the ganglion, which should be loosened from its resting place upon the apex of the petrous portion of the temporal bone. No great difficulty need be experienced as regards the posterior half, but inasmuch as the anterior and upper portion is closely incorporated with the dural sheath, it is perhaps better to sever the connexion between the ganglion and the brain at its exit from the dura mater, and then to draw it forwards with a delicate pair of forceps. For this work a pair of fine hooks (Fig. 5) that have been made for me by Mr. Hawksley are most useful; one of them is an ordinary blunt-pointed hook, to pass round the nerves and free them from their connexions; the other has a sharp edge upon its concave aspect, to be used for cutting them through. It is quite possible that in dividing the root of the nerve just outside the dura a prolongation of the subdural space may be opened, and a small quantity of cerebro-spinal fluid escape through it; this, however, will be of slight extent, and is of no moment if the wound be kept aseptic. The second division of the nerve must now be dealt with, and this may be facilitated by enlarging the opening in the base of the skull in the direction of the pterygoid processes, and holding up the dural wall out of the way; it is to be divided just in front of the ganglion by the sharp hook. Having thus severed all its connexions except the ophthalmic division, the ganglionic tissue, which is exceedingly soft, may be pulled away piecemeal by forceps or by a small curette as recommended by Professor Andrewes. In this way the danger of wounding the cavernous sinus is reduced to a minimum.

FIG. 5.



Hooks for dealing with the ganglion (actual size). A, Enlarged sketch of hook, to show concave cutting edge.

Sixth stage: Reposition of displaced structures and closure of wound.—After the steps detailed above have been satisfactorily accomplished, the toilette of the wound must be attended to. The bleeding having been stanched, the parts should be thoroughly washed with a 1 in 40 solution of carbolic acid. The coronoid process may now be either sutured or removed; in my last case I removed it. Silver wire should be passed through the holes previously drilled in the zygoma, and it can thus be accurately adjusted. By this means the contour of the face will not be interfered with, the chances of necrosis or collapse of the zygoma prevented, and firm bony union assured. The integuments may now be brought together with a continuous fine catgut suture, care being taken to adapt the parts accurately to each other. No drainage-tube is needed, although I used it as a precautionary measure in my first two cases. If the wound has been occasionally irrigated during the operation, and all other antiseptic measures observed, primary union may certainly be expected, and it is most important from every point of view to obtain it. I am glad to say that no suppuration has occurred in any of my cases. To prevent accumulation of blood in the wound, gentle but continuous pressure by means of a purified sponge introduced between the second and third layers of the cyanide gauze will be found very efficacious. In addition to the face dressing, both eyes should be carefully covered with eye pads of salicylic wool, and lightly bandaged. A certain amount of shock necessarily follows such a protracted operation, and a subsequent elevation of temperature must be expected at the end of about forty-eight hours. Beyond this no symptoms of importance have been exhibited. The dressing has usually required changing once or twice in the first four days, at the expiration of which time it may be replaced by gauze fixed down with collodion. The stitches can be removed at the end of a week if they have not already been absorbed. The eye should be kept closed for at least four days, when the stitch in the lids may be removed; but it is safer to keep both eyes bandaged for a week, and the eye on the side operated on for three or four weeks.

I append a brief *résumé* of my cases:—

CASE 1.—Mrs. F. M——, aged sixty, sent to me by Dr. Padman of Bloomsbury, first came under my care in 1888. She had been suffering for five years from severe neuralgia, which had specially affected the inferior dental nerve of the right side. Counter-irritation and constitutional treatment having failed, the dental nerve was stretched at the entrance to its canal through the mouth on August 19th, 1888, and at the same time was divided at its exit from the mental foramen. This was followed by relief until March, 1889, when the pain returned with great severity, for which the lower jaw was trephined and half an inch of the nerve excised. Partial relief followed for a year; but in March, 1890, the lingual and dental nerves were cut down upon by deepening the sigmoid notch, and divided close to the base of the skull. The pain now recurred in the second division with greater intensity than before, any touch upon the jaw of that side producing a shock of agony terrible to witness. On April 2nd, 1890, I performed ablation of the superior maxilla, together with trephining around the foramen ovale, and removal of the ganglion. The patient made an excellent recovery with the exception of the ocular trouble already alluded to. The latest report, dated Jan. 28th, 1892, states that she is still quite free from pain, and her general health very good.

CASE 2.—Mrs. S C——, aged sixty-three. The neuralgia had commenced ten years before she came under observation in connexion with the teeth of the right lower jaw, and in spite of all treatment it spread to other branches and increased in severity. In 1884 all the teeth on the right side both of the upper and lower jaws were extracted, but without any relief. Drugs and local applications had no effect. When first seen by Dr. Ferrier and myself the case was typical, a paroxysm being elicited by almost any movement of the jaw or stimulus from without; the pain chiefly affected the lingual and dental nerves and the back of the orbit, and shot down into the palate. In consequence of the evident implication of the second as well as the third division of the trigeminal, Dr. Ferrier recommended that the Gasserian ganglion should be dealt with at once, without having recourse to any minor measures. This was done on Jan. 29th, 1891. The foramen ovale having been exposed through the pterygoid region was trephined, and the opening extended with a larger trephine. The ganglion was then removed piecemeal. The patient made an uninterrupted recovery. The eye was anæsthetic when exposed four days after the operation, and the conjunctival reflex was diminished for some time, but no trophic disturbance manifested itself. Slight difficulty in mastication was subsequently experienced, but this soon passed off. There has been no recurrence of the neuralgic pain, and the patient was seen by me only a few days ago.

CASE 3.—Mrs. E. K——, aged sixty-three. The neuralgia in this patient dated back for about five years, starting in the inferior dental nerve as the result of carious teeth, which were removed, but without benefit. About February, 1890, I divided the inferior dental and gustatory nerves close to the foramen ovale by deepening the sigmoid notch. This was followed by relief for about a year, when she was readmitted to hospital with pain in the second and third divisions, but especially referable to the superior maxillary. The operation was performed on Oct. 29th, 1891, by the usual incision and with the usual precautions. The great wing of the sphenoid and external pterygoid plate having been cleared, what was at first considered to be the foramen ovale was exposed and the trephine applied; the appearance of some orbital fat, however, through the trephine hole indicated that the pterygo-maxillary fissure had been mistaken for it. The raspatory was again employed further back, and the foramen ovale clearly demonstrated. Owing to the previous operation there was less hæmorrhage than usual, but the tissues were much matted together, and so interfered with the application of the trephine. The base of the skull was opened and as much of the ganglion as could be seen removed. The wound was treated as usual, both coronoid and zygoma being wired, and healed without trouble. For a time the right eye was painful and the conjunctiva congested with some œdema of the lids, but there was no disturbance of the corneal epithelium. The greater portion of the right side of the face was

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anæsthetic for the first five days after the operation, but this gradually diminished in extent; so that when she left the hospital on Nov. 30th there was a partial return of sensation over the first and third divisions. The cheek, lower eyelid, and upper lip had, however, completely lost their sensibility to touch and pain, and the right side of the tongue was still dull. The patient returned a few days ago complaining of inability to open the mouth, which I remedied by forcible depression of the lower jaw under an anæsthetic. The only other complaint was a slight occasional pain and intolerance of light in the right eye.

CASE 4.—Mrs. D——, aged thirty-seven. In this patient the disease seems to have originated about twelve years ago in a bad tooth in the right side of the lower jaw. In 1887 I trephined the lower jaw and removed half an inch of the inferior dental nerve, with temporary relief, but the pain recurred under the right eye, in the tongue, and again along the jaw. In July, 1890, portions of the inferior dental and gustatory nerves were removed by deepening the sigmoid notch, but the relief given by this proceeding was of short duration, and the pain recurred with more than its old severity, extending down into the neck and up to the temple. On Nov. 5th, 1891, I operated for the removal of the Gasserian ganglion. The operation was performed in the way detailed above and the skull trephined in two places, one posteriorly having the foramen ovale for its centre, and the other a little anterior and external to it, the intervening bridge of bone being removed by chisel and mallet. In consequence of the thickened state of the third division, it was difficult to draw the disc of bone over the stump, but when this had been accomplished the foramen was found to be very small. By detaching the dura mater the ganglion was seen and even felt by the finger, and by cutting through the different divisions was removed; the opening in the dura for the passage of the root of the nerve was clearly defined, and through this a small quantity of cerebro-spinal fluid trickled. During the removal of the ganglion the dura, which had a tendency to bulge, was lifted by a bent spatula. The after history of this case has been satisfactory. I have alluded already to the fact that some epistaxis and vomiting of altered blood occurred, probably from damage to the Eustachian tube. The wound healed throughout by first intention. One week after the operation the sensation of the right side of the face and tongue was carefully tested, and found to be much decreased, although not totally absent. Between two and three weeks after the operation the right eye became somewhat congested and irritable from the development of a crop of small subepithelial vesicles on the lower fifth of the cornea, which burst in a few days and left a superficial ulcer, which, however, readily healed under suitable treatment, and the congestion gradually disappeared. The eye pad was in this case retained for six weeks. The patient was examined on Jan. 27th, 1892, and there has been no recurrence of the pain.

CASE 5.—Mrs. B——, aged thirty-seven, sent up from Derby Infirmary by Dr. Taylor, had suffered from epileptiform tic of the second and third divisions for seven years. She had teeth extracted from upper and lower jaws on the affected side, but this rather increased the trouble than otherwise, and the usual medical treatment had been tried without benefit. Paroxysms were excited by masticatory movements, even after removal of the teeth; they lasted about two minutes, and recurred about every half hour. They could also be elicited by pressure over the points of exit of the second and third divisions. After consultation with Dr. Ferrier, and in consequence of the evident implication of both the supra- and infra-maxillary divisions, it was decided to cut down upon the Gasserian ganglion.—Jan. 16th, 1892: The usual incision was made, and the zygoma, which in this case was very slender, was exposed, drilled, sawn through and turned down. The anterior saw cut was made close to the malar bone, which was drilled on the slant to clear the root. The coronoid process was cut through, and the temporal muscle turned up and held out of the way. Troublesome bleeding from the pterygoid plexus of veins ensued, interfering for some time with the identification of the trunk of the internal maxillary artery, which was, however, finally secured. The external pterygoid muscle was scraped away from the skull, exposing the great wing of the sphenoid, together with the anterior margin of the foramen ovale. The trunk of the nerve emerging from this was now isolated, ligatured, and divided. The trephine was applied to the great wing of the sphenoid anterior and external to the foramen ovale, the circumference of the trephine track just touching it. Owing to the thinness of the bone in this position the edge of the trephine wounded the dura mater, so that the temporo-sphenoidal lobe could be subsequently seen. The trunk of the third division was lifted from the foramen into the trephine hole and traced up to the ganglion, which was then loosened from its connexions, and probably the posterior half only removed. Before closing the wound the coronoid process and about an inch of the temporal tendon were excised. The patient was somewhat collapsed after the operation, and complained of pains in the top of the head and in the limbs. The temperature rose to 101·4° on the second day, but has since been normal. There has been none of the old pain since the operation. I shall anxiously watch the future progress of this case, for I think it highly probable that the anterior half of the ganglion was left completely undisturbed, and the cerebral root but partially divided, an occurrence attributable to the limited opening I made in the skull and to the troublesome hæmorrhage protracting the operation. The anæsthetic area in this case is not so complete as in the others, and seems mainly confined to the third division. The sense of taste is completely lost on the right side of the tongue; this was carefully tested by Dr. Ferrier a few days ago with salt, sugar, and quinine.

A sixth case was operated upon in Chicago on Nov. 7th, 1891, by Professor Andrewes in a similar manner. The patient was a woman aged fifty, who had suffered for five years from "frightful pain along the inferior maxillary division without being able to obtain any relief, the act of swallowing being especially associated with the paroxysms." He trephined the base of the skull by the side of the foramen ovale and broke up the ganglion thoroughly with a curette. The patient, who was very weak, felt the shock considerably, but rallied after a few hours, and was free from neuralgic pains. There was complete benumbing of all the parts supplied by the ganglion, and swallowing was no longer painful. The motor oculi nerve was paralysed, showing that it had been injured, probably by the curette. In ten days she was able to return to her home fifty miles distant, although the wound was not quite healed, and it suppurated slightly afterwards. I had another communication from Professor Andrewes recently, dated Jan. 15th, 1892, stating that this patient had remained free from pain; that the paralysis of the motor oculi proved only temporary, but there was a slight tendency to pericorneal ulceration of the right eye. He also sends me particulars of another case in a woman sixty-two years of age, the disease being on the right side, and involving the second and third divisions. He had previously removed the inferior dental branch close to the foramen ovale. The operation was performed in the middle of last December in the same way, by trephining just external to the foramen ovale, and removing the ganglion with a sharp curette. There was troublesome hæmorrhage during the operation. Up to the time of his writing the patient was perfectly free from pain.

Results of operation.—In considering the results of partial or complete removal of the Gasserian ganglion, the first question which has to be answered is naturally "What effect has this proceeding upon the pain?" Up to the present time we are able to give a satisfactory reply; all the five patients whom I have treated in this way have remained free from the typical and terrible paroxysmal attacks from which they had previously suffered. It is true that my first case was done only twenty-two months ago, and the last only sixteen days; consequently, it is too early to speak with confidence as to the permanent character of the relief; but the results hitherto obtained are sufficiently encouraging to lead me to continue in the same line of action. Absolute immunity from any kind of pain can hardly be expected after such a considerable disturbance of the structures at the base of the skull, and for some time there may persist a sore and stiff sensation about the region operated on as well as pains in the head; but these are not considered of any moment by patients who have previously suffered such intense agony. The interference with the movements of the lower jaw is undoubtedly inconvenient, and renders the process of mastication a little difficult; but I hope that this may be avoided in the future by the removal of the coronoid process. As to the effect upon the distribution of the sensory fibres of the fifth nerve, it is interesting both from the clinical and physiological aspects to observe the rapid diminution of the anæsthetic area, and it would appear that the

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distribution of sensation is taken up by the neighbouring branches much in the same way as arterial anastomosis takes place in the vascular system. This re establishment of sensation is a fact which cannot be disregarded prognostically, although it is not necessarily the precursor of a relapse. The appearance of the side of the face operated on is characteristic of trophic disturbance: the skin has a shiny, somewhat injected look, whilst the hollows in the temporal, pterygoid, and maxillary regions on that side clearly demonstrate the existence of muscular atrophy and cicatricial deposit. The effect upon the nutrition of the eyeball is decidedly serious. In the first case, as is well known, the organ was lost, a result of suppurative panophthalmitis, and in two of the other cases the nutritive state was for the time considerably depressed. It is probable that the trophic centres for its nutrition are contained in the upper and anterior segment of the ganglion, and if this be so, the chances of damaging the eye may be lessened by leaving this portion intact, even though the trunk of the nerve be divided behind the ganglion. On the other hand, the interference with one part of the ganglion may induce degenerative changes in the remainder, which will effectually prevent a recurrence of the malady, and yet will not be sufficient to cause permanent damage to the eye.

Such are the results, Mr. President and gentlemen, both of my own observations and experience, together with that of others, in this department of surgery, and from them I venture to draw two very definite conclusions: (1) That in severe cases of epileptiform neuralgia both medical and surgical treatment have hitherto been unavailing to give permanent relief; and (2) that exposure and partial extirpation of the Gasserian ganglion through the base of the skull, though admittedly difficult, need not endanger life, and at present holds out the best prospect of dealing with these intractable forms of trigeminal tic. The test of time and further experience can alone decide what value will be finally attached to this measure; but at any rate the outlook is hopeful, and let us trust the future will not belie our present expectations.

(During the lecture, which was illustrated by diagrams and microscopical specimens, Mr. Rose demonstrated the different stages of the operation on the cadaver.)

THE BEARING OF RECENT BIOLOGICAL RESEARCHES ON THE PRACTICE OF MEDICINE AND SURGERY.

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(*Concluded from page 245.*)

THIS question of internal metabolism has a far more important bearing on treatment in disease than would at first sight appear. It is a well-recognised fact that all cells, when stimulated in excess of their powers of taking up nutriment, utilise for food material the protoplasm of which they themselves are made up: and altered metabolic processes, ending in grave degenerative changes, go on. We find that a cutting off of the food supply has a similar effect. Taking, as an example, the muscle fibre of the heart or the protoplasm of the liver cells, we find that in the course of an attack of fever, under the stimulation of a high temperature—under the influence of which metabolic activity is always increased, and under the action of the toxic substances, associated with the production of the disease, circulating in the blood—the protoplasm passes through a stage of cloudy swelling, which is evidence of the increased activity of the protoplasm, and then, if the process is continued, merges into well-marked fatty degeneration. In certain very acute diseases such degeneration is not confined to the excretory glands or to the heart muscle, but has frequently been observed in both nerves and muscles, especially in connexion with diphtheria and typhoid fever. From what we know of the clinical symptoms presented in influenza there can be little doubt that here similar marked metabolic changes may be initiated during the course of an acute toxic condition, the result of the vital activity of the specific organism associated with this disease.

Wherever this condition occurs two things should be carefully borne in mind: (1) that recovery may take place if the fatty degeneration is not so far advanced that the active protoplasm of the cells is absorbed; (2) that for recovery to take place it is essential that the cells should be placed under the most favourable conditions as regards nutrition; that not only should they not be over stimulated, but that they should have absolute rest, as far as possible, from their ordinary work. How often are these conditions kept in view when patients are recovering from acute specific fevers? Some physicians, undoubtedly, arguing very rightly from the condition of the pulse in these diseases that the patient is in a greatly enfeebled condition, order rest for lengthened periods, forbid exertion of any kind, especially such exertion as is calculated to throw even a moderate strain on the heart. They know how frequently dilatation follows any exertion taken before the tone of the heart muscle has recovered; but how many bear the same points in mind as regards the liver, the kidney, the voluntary muscles, and even the brain cells and nerve fibres during convalescence from similar diseases? How often, except in such conditions as scarlet fever, do we consider the enfeebled condition of the kidneys, and take into our calculations the diminished powers of the liver to perform its ordinary functions; whilst, passing still further back, what consideration do we give to the lymphatic glands and the tissues of which they are composed, tissues which during the acute stages of the specific diseases have had so much extra work thrown on them, and which must require rest and careful nutrition in order that they may be brought back to their original healthy condition? Whoever considers that it is necessary to think of the leucocyte and its near relation the connective-tissue cell in this connexion? It is only when we come to look on them as extremely active agents in nutrition, metabolism, and excretion that we bring ourselves to appreciate their importance, and to recognise the necessity of getting to know something of their life history and of their relation to disease.

The leucocyte has been looked upon by different observers as a separator and carrier of fat, of glycogen, and of certain excretory products; as a producer of peptone, as a scavenger and as a policeman; as a prominent factor in the process of keeping the fluid constituents of the body in a state of equilibrium; as an important element in the causation of coagulation; in fact, according to the special line of work on which men have been engaged, so have they assigned functions to the leucocyte. The bulk of evidence that they have been able to bring forth in support of their theses, moreover, compels us to accept it as possible that they are all correct in so far as the leucocyte seems to play no secondary part, at all events, in many of the above-mentioned processes. We are, in fact, brought back to the biological standpoint that, for the explanations of many of the most important questions in general physiology, we must refer to the processes that are going on in the elementary cells of the body, where we may find bound up in one comparatively slightly differentiated mass of protoplasm all the functions that are more highly developed, each in its own form of cell.

Many writers, especially those who speak of themselves as being intensely practical, are in the habit of sneering at laboratory work and of speaking lightly of the acquisition of new methods and of the discovery of isolated facts in various regions of biological research. But when we come to go over the history of medicine and to compare our knowledge gained empirically with that gained by experiment, we cannot but be struck with the difference in character of the knowledge gained by the two methods: in the one case the fact remains, however it may from time to time be interpreted; whilst in the other case everything connected with it is constantly changing. Of the second method little need here be said; but of the first method we may take for our example the condition of the blood and its relation to certain diseases, and of its importance in certain modes of surgical treatment. In the study of coagulation, facts have been gradually accumulated which, taken together, have from time to time enabled physiologists to throw light on the processes that take place during the coagulation of the blood. We have had described, for instance, the effect of the presence of fibrin ferment and tissue fibrinogen in the blood, and the influence which the presence of soluble lime-salts exerts. Each of these facts in itself had a comparatively transitory interest for the practitioner, because not one of them promised any benefit to his patient.

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Dr. A. E. Wright,[1] however, following up the researches of Schmidt, Wooldridge, Hammarsten, Ringer, Green, Arthus, and Pagès, each of whom has contributed some isolated fact to our knowledge, has been able to apply in a most interesting fashion the knowledge so obtained, and to render this work useful from the point of view of treatment. He employs a fibrin ferment solution, to which is added 1 per cent. of calcium chloride, as a styptic, which brings about coagulation of the blood. It has the very great advantage that, whilst clotting the blood itself, it has no deleterious action on other tissues, as he says "such a styptic exerts an elective influence on the blood, and is perfectly inert when brought in contact with other tissues, and is therefore perfectly painless in its action. Further, the coagulative influence which it exerts upon the blood probably takes place along the natural lines upon which normal blood coagulation occurs." It undoubtedly brings about extra-vascular coagulation. At first sight it might appear to be an equally easy matter to induce coagulation within the vessels, and to utilise the method in practical medicine; but in such cases dangerously large quantities had to be employed. It was even thought that by injection of tissue fibrinogen into the vessels coagulation might be induced, and that a means of checking internal hæmorrhage had thus been obtained. Experiment, however, proved that in some cases the coagulability was certainly increased, and, where smaller quantities were employed, the coagulability was considerably diminished both before and after the blood was shed; and it was found that in these cases the injected materials were transformed in the circulation into substances (probably albumoses) which rendered the blood less coagulable than in the normal condition. When, however, a solution of calcium chloride—a substance which, as we have already seen, is essential for the coagulation of the blood—is injected clotting takes place wherever the vessels are injured, but apparently at no other points. It is quite unaltered by contact with the blood itself, and thus is ready to help on the process when the other conditions necessary for coagulation are present. The importance of this in cases of hæmophilia, of post-partum hæmorrhage, and of internal hæmorrhage of various kinds, in aneurysms where the walls are somewhat altered, and where the conditions for clotting are certainly favourable, can scarcely be over-estimated, and the internal administration of calcium chloride as a styptic may prove to be of enormous advantage. This has been worked out from the experimental point of view, and the fibrin ferment and the calcium chloride styptic have proved so useful in stopping hæmorrhage when applied externally that we may confidently anticipate this styptic will come into very general use in the treatment of refractory hæmorrhages of various kinds.

Many other experiments on the blood have led to the acquisition of knowledge the importance of which we are not yet in a position accurately to estimate. A new kind of corpuscle has been discovered, an increase in the number of leucocytes in the blood has been demonstrated after the injection of tissue fibrinogen and of other proteid substances, and conditions very similar to those met with in leucocythæmia have been produced by the injection of certain of the proteid products met with in the course of various diseases, and many theories as to the relation of this increased number of leucocytes in the circulation to the protection of the individual against disease, especially those of a specific character, have been formulated. The relation between the increased number of leucocytes to an increase of peptone[2] and of uric acid[3] in the urine has been traced in cases of leucocythæmia, and has similarly been followed out in the course of leucocythæmias produced experimentally, and we may anticipate that before long other information may be obtained by a further study of these facts.

In no region of experimental research has there been a more immediate outcome as regards treatment—especially from the surgical point of view—than in that of nervous pathology and physiology, and the whole band of enthusiastic students of a most interesting branch of physiology may congratulate themselves that they, at any rate, have not carried on their work in vain. The localisation of function in certain areas of the brain—though still a matter for discussion and experimentation—has opened up a new region of surgery, a region in which our best surgeons have excelled themselves, and one that has afforded brilliant opportunities of obtaining most successful results to some of our younger surgeons, trained in the most exact methods and prepared by a long course of accurate experimentation, in which the importance of carrying out exact details and new methods had been insisted upon in an almost exaggerated degree. The result is that in no domain of surgery has such satisfactory results, as far as the welfare of the patients is concerned, been obtained. We cannot maintain yet that the localisation of the paths of sensation and of motor impulse in the cord and in the brain have been definitely worked out, but we can see before us a prospect which is gradually opening up; each fresh point gained opens up a wider view, and one that promises some important practical results, for no scientific worker, however fully he may be imbued with a love of truth for its own sake, can be content with the outcome of laboratory work were he not assured that the ultimate practical benefits to the science and practice of medicine, the alleviation of suffering, and the prevention of disease would accrue from the knowledge that he may be able to acquire.

The triumphs of cerebral surgery by contrast throw into comparative insignificance the work that has been done on the spinal cord; but for all that great strides are being made in the advancement of our knowledge of the physiology of the cord, and we may rest assured that ere long this knowledge will receive further practical application, as glimmerings of light as to the paths of conduction are already being obtained. Moreover, the nature of many of the pathological processes in the cord is now much more fully understood than it has been at any previous period in the history of medicine; the results of concussion, the protean nature of which for so long puzzled railway surgeons and others, have received their explanation on the assumption, now proved to be correct, that they are due to inflammatory changes set up, running their course comparatively slowly, but leading, nevertheless, to interference with the functions and with the conduction of sensory or motor impulses along the nerve tracts. Such conditions as locomotor ataxia and peripheral paralysis are now explained as being the result of neuritis and myelitis. It has of course long been argued that some of these forms of disease are the result of such a condition as syphilis, even before the changes met with in syphilis were supposed to be due to the action of a specific micro-organism and its products; and now that the degenerative changes in nerves, met with in such diseases as diphtheria and typhoid fever, have been associated with the presence of an organism and its poison, we can see what a fertile field of research is opened up, and what ultimate practical results may be obtained from a study of earlier experiments and observations. Any one of the series of observations above mentioned could alone give us little help in our study of these disease processes; but when they are collated and arranged, and deductions are made as a result of their study, we are led from point to point, and ultimately we may hope to gain that accurate knowledge which will enable us to claim for this branch of medicine and surgery that it is not merely an empirical handicraft, but both an art and a science in the truest sense of the word.

One fact that has been brought home to us very forcibly during the last few years is that we have been arguing too directly from the general to the special, when our knowledge of the general has been far too limited; we have been discussing the modifications and special transformation of protoplasm before we have thoroughly understood what protoplasm is; we have assigned special functions to special kinds of cells, and have assumed that on the development of these special activities most of the other functions have been obliterated. We are now gradually beginning to find out that we have been apt to confine our studies too closely to the extremes of undifferentiated protoplasm and of cells in a high stage of differentiation, and that we have ignored all those intermediate stages by the study of which alone we are able to gain a wider and more accurate knowledge of cell activity and cell transformation. Moreover, we are now coming to see that animal and vegetable protoplasm are not so divergent as regards their character as many would have us believe, and that now, with the modern methods of bacteriological research at our disposal, we may study many of the central truths of physiology in the minute specks of vegetable protoplasm known as bacteria.

[1] Brit. Med. Journ., Dec. 19th, 1891.
[2] V. Jaksch and Wright.
[3] Horbaczewski: Sitzber. Wien. Akad., 1891

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In them we may find combined not only the characters common to all protoplasm, but we may also observe in them some of the highest forms of specialisation of function and energy production. In them we have organisms existing under such conditions and proliferating at such an enormous rate that we are able to modify the surroundings through an enormous series of generations, and to watch the modifications brought about under different modified conditions.

Now that bacteria have been accepted as being the cause of specific infective diseases, we are able to explain certain of the peculiarities of the outbreaks of epidemic diseases, and, having traced these to their source, our prospects of being able to modify or to cut them short are certainly much brighter than they have ever yet been. Even the mystery-enshrouded influenza must gradually yield some of its secrets, and it is already reported that isolation and disinfection have done much in certain crowded institutions, such as asylums, to cut short the ravages of the epidemic. If we are to accept what those who have studied the organism found in the tissues and cavities of the body in this disease have told us, we have an organism which, though under certain conditions extremely virulent and readily transmitted directly from patient to patient, soon loses this virulence when grown outside the body; it should, therefore, with proper precautions, be quickly banished from our midst. If people will once accept these facts, the spread of the disease might be rapidly checked. One important point to be borne in mind is that this modification of virulence does occur, and for some reasons it is most unfortunate that this should be the case, as in this modified form the attacks of the disease are so mild that they are treated with contempt by those who suffer. On the other hand, it should be remembered that in any disease, if the organisms associated with it are not killed off, their virulence in most instances becomes increased; this appears to be specially the case in influenza. It is this same organism, rendered virulent by its passage through a series of patients, acting on weakened tissues that proves so fatal; but the relation between the milder attacks and the severer forms of the disease has till quite lately been entirely ignored, with the consequence that few precautions as regards isolation and disinfection have been taken, and the disease has been allowed to spread, with the result that the organism from the mild case, finding its way to people of lowered vitality and with little tissue resistance, has set up a severe and often fatal form of the disease.

This tissue resistance is so intimately bound up with the life history of the cell, with its powers of nutrition, and the facilities for excretion of effete matter, with its power of taking up foreign bodies of all kinds, pigment, bacteria, &c., and with its capacity for converting these into inert matter, and afterwards utilising them for its own purposes, or of getting rid of them altogether. It has received special attention since the study of bacteria was recognised, and so much additional knowledge has already been obtained, that we may confidently look forward to a time when we shall be able to predicate what will be the effect of the introduction of tubercle bacilli, of leprosy bacilli, or of other pathogenic organisms, into different parts of the body, where they may be attacked by the different kinds of cells; we shall be able to point out what kinds of organisms are able to bring about degeneration of the various kinds of cells, and whether they do it directly through the action of their protoplasm, through the secretion of poisonous products, or through the presence of their dead protoplasm or of substances contained in it; we shall also be able to state which organisms hunt in couples as it were—the one by its products preparing the way for the advance of the other,—so that where we find it difficult to get rid of both organisms we may be able to deprive one of its power of doing harm by destroying, banishing, or rendering harmless the other; but, more important still, we shall be able to determine the conditions under which the various cells, tissues, and fluids of the body are best enabled to resist the advance and action of these organisms.

Although we are already well versed in the general laws of health, and, theoretically, are ready to meet every kind of disease by which we may be attacked, we have still not arrived at the conviction that, economically, the greater attention paid to the carrying out of mere preventive measures, such as better nutrition for the children of the poor, better conditions of hygiene, greater opportunities for exercise in the fresh air, would be a great saving to the State; whilst any expense that such improved measures might entail would be more than recouped by the great gain to the community as a whole, not merely through the better health and diminished death-rate in our present poverty stricken and overcrowded quarters, but also by the diminution in the number of centres from which disease may spread to those quarters where the conditions of life are much more favourable.

ACUTE CATARRH OF THE LARYNX.

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HISTORY.

ON account of the extremely obvious character of the symptoms of this disease, especially the hoarseness, it would naturally be recognised at an early period in the records of medical science. Through the default, however, of anatomical knowledge, we should not expect it to be differentiated with any degree of accuracy from other throat affections which produce a modification of voice. Before the time of Hippocrates all maladies of the throat were grouped together under the common name of *kynanche*[1] (a strangling or stifling), but later on this term was restricted to internal cases. In the writings of the Asclepiadæ a distinction is first made between those instances in which the internal parts of the throat are visibly affected and those in which the disease is so low down as to be out of sight. In the treatises ascribed to Hippocrates a number of descriptions are given[2] suggesting at one time or another every known form of laryngitis, but none is presented with much pathological discrimination. About 70 A.D. Aretæus[3] apparently coins the word *synanche* to designate acute affections of the larynx, the organ by this date having become known with some anatomical and physiological accuracy. About the same period Cœlius Aurelianus and Galen, especially the latter, treat of laryngeal disease with some precision, and Galen[4] even attempts a description of those maladies which involve the "internal tunic or pellicle" of the larynx. With them we may leave the ancients, and pass through the Middle Ages to the beginning of modern times. Taking Fallopius[5] as a representative of the epoch, we do not find that catarrhal laryngitis is as yet clinically separated from the more serious forms. Only in the middle of the seventeenth century do we meet in Boerhaave[6] brief and definite allusions to the catarrhal varieties. After his time laryngeal disease became more attentively studied, chiefly owing to the researches of Morgagni,[7] who, having met with a striking case in the post-mortem room, afterwards attached great importance to lesions of the larynx. About 1829, in the treatise of Albers,[8] we first have some accurate description of acute catarrhal laryngitis; and nearly at the same time Guersant[9] began to call attention to the malady, as manifested in children, under the name of "pseudo-croup." Finally, with the introduction of the laryngoscope, in the writings of Ruehle,[10] Türck,[11] Gerhardt,[12] and Mackenzie,[13] the general features of the disease were made familiar to the profession.

SEMEIOLOGY.

1. *Subjective.*—At the outset a slight sensation of swelling or obstruction is felt in the larynx, which may be accompanied by more or less perception of abnormal heat in the part. Hence the patient tries to clear his throat by coughing, but with the apparent result of aggravating the disorder. Pricking or stinging sensations are soon developed in the interior of the vocal apparatus, causing the face to become flushed,

[1] Alexander Trallianus, De Arte Med., iv. 1.
[2] Ex. gr. De Morbis, ii., 3, 9; De Victu Acutorum, 4; De Locis, 7, 11, &c.
[3] De Causis et Signis Acut. Morb., i., 7.
[4] De Comp. Medic., sec. Locos, vii., 1.
[5] Obs. Anat. Ventiis. 1563, p. 78 et seq.
[6] Aphorismi, 4th ed., 783-819.
[7] De Sedibus &c., Venet. 1760, Ep. xv., 13.
[8] Die Pathol. u. Therap. d. Kehlkopfkrankheiten, Leipzig, 1829.
[9] Revue Méd., 1829; Dict. des Sc. Méd., 1830, art. Croup.
[10] Kehlkopfkrankheiten, Berlin, 1861.
[11] Klinik der Kehlkopfkrankheiten Wien, 1866.
[12] Handb. der Kinderkrankheiten, Tübingen, 1868.
[13] Reynolds' System of Medicine, 1871.

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and distressing efforts are made to get rid of the inconvenience by coughing. Soon a roughness or soreness, chiefly perceptible in the vicinity of the glottis, results, and the sufferer now begins to refrain from coughing, because it hurts. At the same time a slight stiffness of the throat is felt at each act of deglutition, amounting sometimes to actual pain, which, however, in uncomplicated cases never extends beyond a minor degree. Whilst the disease progresses, hoarseness becomes marked and permanent, and more or less effort is required in order to produce the laryngeal tones. Such, in adults, is the ordinary picture of the establishment of this malady, which most frequently advances thus far within about thirty-six hours. After the first day or two the cough is likely to become spasmodic or involuntary, and accompanied by a limited amount of expectoration. At the same time the slight febrile symptoms, which are present at the outset of the disease, pass away. In a period varying from five to fifteen days, according to the intensity of the attack, the laryngeal symptoms disappear, and the patient regains his usual health. Some weakness or modification of voice, especially in those who make a professional use of the vocal organs, may, however, persist for some weeks, or even months. In children the phenomena of acute catarrh of the larynx are usually invested with certain peculiarities, on account of which it has merited the names of "laryngitis stridulosa" and "false croup." During the daytime the symptoms are usually much less prominent than in the adult. In fact, the existence of the malady is, as a rule, only revealed in the middle of the night, when the patient wakes up in a condition which seems to threaten imminent suffocation. The child suddenly starts up in bed, his breathing is hurried, and accompanied with a sharp, crowing sound at each inspiration; there are frequent accessions of a ringing, convulsive cough. His voice is markedly hoarse, and he speaks with difficulty owing to the urgency of the dyspnœa. This crisis lasts for from twenty minutes to two or even three hours, when the child, becoming somewhat exhausted, again composes himself to sleep. In the milder cases on awakening in the morning he shows scarcely a sign of the severe attack passed through during the night. Generally, however, more or less hoarseness and "croupy" cough continue during the day, whilst the nocturnal phenomenon may return for several nights in succession, though almost invariably with a diminishing urgency.

2. *Objective.*—(*a*) If we examine a case of acute catarrh of the larynx laryngoscopically, we shall usually find very marked evidence of hyperæmia. The vestibule of the larynx is often completely suffused with a vivid redness, whilst considerable swelling is commonly perceived in those parts which contain much loose connective tissue—i.e., the ary-epiglottic folds, the ventricular folds, and the intra-arytenoid fold. At the same time small patches or striæ of a greenish mucus may be observed adhering to the congested surface in various positions. As to the vocal bands, their appearance varies considerably in different instances of this malady. Often they present merely a soiled hue, showing, perhaps, one or two pink spots on their upper surface. In other instances they are decidedly congested, exhibiting a slight but diffuse pink tinge over their whole extent. Sometimes, again, they are so red as scarcely to be distinguished in colour from the adjacent mucous membrane. A proportion of cases are even met with in which an exaggerated hyperæmia of the vocal bands is practically the only objective sign of the malady. In most examples the morbid condition can be observed laryngoscopically to extend for a variable distance down the trachea. When it is strictly limited to the larynx it is generally believed, and probably with truth, that cough is then conspicuous by its absence, but of course voluntary efforts to clear the breath-way are present in all instances. (*b*) As regards expectoration, at first very small quantities of a clear, viscid mucus are brought up, but after two or three days the discharge becomes somewhat more abundant, thinner, and of a greenish hue—in fact, mucopus. Not unfrequently it is streaked with blood, visible macroscopically, and almost invariably blood-corpuscles can be demonstrated with the microscope. Concomitantly pellets of inspissated mucus are expectorated. They are of a greyish or even blackish colour, indicating doubtless that they have remained for some time in the current of inspiration and become soiled by dust or sooty particles drawn in with the external air. If the patient is obliged to breathe habitually with the mouth open, this soiling of expectorated matter by atmospheric impurities is always much more manifest. (*c*) As the hoarseness becomes established the gravity of the vocal tones is generally much increased, but the voice has a great tendency to break suddenly into a higher falsetto note, especially at the beginning or end of a sentence. In females usually, and in males rarely, actual aphonia results, resonant phonation is abolished, and the voice is reduced to a whisper. (*d*) Some local tenderness is present as a rule, so that pressure with the fingers on and about the larynx hurts to a limited extent. (*e*) Respiration is in adults never interfered with to any objective extent. The nocturnal dyspnœa of children suffering from this affection has already been sufficiently described.

Pathogenesis.—Under this heading we have to deal with *predisposing* and *exciting* causes. Among the former the most prominent place must be accorded to youth, for the malady is comparatively rare after middle life. Thus, out of 173 cases of which I have a record, I find 117 were under twenty-five years of age. The male sex also predisposes markedly, only forty-two of these instances being females. The malady is naturally more common in delicate persons, especially those affected with some decided dyscrasia—such as scrofula, tuberculosis, or syphilis. Young persons of this class often have an attack regularly recurring during some part of each winter. Mode of life also favours the occurrence of the disease, and those who are exposed to vicissitudes of weather—such as field labourers, cab-drivers, costermongers, &c.—are more likely to be attacked. As a secondary affection it is frequently met with, and is thus not uncommonly seen associated with scarlet fever, measles, small-pox, typhoid fever, gout, and rheumatism. As to exciting causes, in the first rank stands taking cold by any of the ordinary accidents which lead to exposure. Amongst medical practitioners of the older school a belief very generally prevailed that the kind of cold arising from getting the feet wet, did, as a rule, expend itself in the production of a laryngitis. I have not, from personal experience, been impressed by the efficiency of this etiological factor, but some considerable weight must be allowed to any practical inference which has attained to the rank of a creed amongst a large number of skilled observers. Cases originating in cold are usually met with in damp, chilly weather, such as is most frequent in this climate during spring and autumn. Frosty conditions of weather are less conducive to the disease. Next in order among exciting causes we have those peculiar states of atmosphere which are specifically irritative to the air passages, and are commonly evidenced by the epidemic occurrence of influenza, hay fever, certain forms of coryza, and bronchitis. With such affections a catarrh of the larynx, more or less pronounced, is generally associated. Third on the list we may place instances arising from straining the vocal apparatus, as in loud shouting, screaming from fright, and even inordinate vocal efforts of a professional kind, which, however, are ordinarily linked to laryngeal manifestations of a chronic nature. In this division fall those examples sometimes encountered in females as the sequence of hysterical attacks accompanied by persistent piercing cries. Lastly may be placed those rather rare cases arising from direct irritation of the laryngeal mucous membrane—viz, from inhalation of some irritating gas (chlorine, nitrous acid, steam, chloroform, ether, &c.) or from the contact of a foreign body accidentally finding its way into the larynx, even from the incautious and too frequently repeated introduction of laryngeal instruments for the extraction or treatment of growths &c. In one instance which came under my notice a piece of silver nitrate, becoming detached from the holder, lodged in the hyoid fossa, and in twenty-four hours produced a very violent inflammation of the corresponding side of the larynx; the patient, an old woman, succumbed. With respect to the frequency of the malady compared with that of other diseases of the larynx, no reliable statistics are forthcoming. Here, as in every other department, the annals of special hospital practice show an enormous preponderance of chronic disease. But all such statistics are vitiated by the fact that acute cases comparatively seldom reach the hands of the special practitioner, either in private or at an institution. The specialist, indeed, is nearly always engaged with cases which have previously undergone treatment at other hands. I may say that out of about 6000 instances of laryngeal disease I can collect less than 200 of acute catarrhal laryngitis. Nevertheless I should judge it to be at least three times as frequent as these figures indicate.

(To be concluded.)

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TWO CASES OF RUPTURED BLADDER.

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CASE 1. *Extra-peritoneal rupture of the bladder; supra-pubic drainage; recovery.*—Miss H. R——, aged twenty-one, was in a railway accident on March 4th, 1890; she had left London at 8.50 P.M. on the 3rd, and the accident occurred at 3.30 A.M. on the following morning. The carriage in which Miss R—— travelled was telescoped, and she says she remembers some heavy weight—she thinks the carriage seat—lying on her abdomen. When first seen shortly after the accident she could not stand or walk on account of pains in the groins and thighs; no fracture or injury to the femora or pelvis could be detected, and there were no bruises or abrasions of the skin. No urine had been passed since leaving London. The patient was suffering from shock and vomited repeatedly. The temperature was subnormal and the pulse small and frequent.—March 5th: No urine having been passed, a catheter was used this morning, and about an ounce of bloody urine drawn off. A few hours later the catheter was again used, and about three ounces of urine obtained, also containing much blood. The patient has recovered from the shock, and complains of great pain in both groins and in the hypogastric region, especially on pressure. No dulness can be detected over the abdomen. Poultices were applied to the thighs and abdomen, and half-grain opium pills administered every two or four hours. The vomiting continues.—6th: To-day there are evident signs of peritonitis, the tenderness being much more marked over the lower than the upper part of the abdomen.—7th: Some slight bruising of the abdominal walls over the bladder was noticed this morning. Urine was passed voluntarily for the first time to-day, and the use of the catheter discontinued. The vomiting has ceased. The urine still contains blood, but in less quantity than two days ago. The patient takes the pills now every four hours. The temperature has varied since the accident from 99·4° F. in the morning to 100·6° in the evening.—10th: Micturition is now very frequent (about every half-hour). In the evening the temperature rose to 102·2°, and the general condition of the patient became more serious. The tongue was dry, coated, and brown, the pulse small and feeble. Only small quantities of milk and beef-tea were taken.—12th: To-day the bowels were moved naturally for the first time since the accident. Micturition is still very frequent and almost involuntary. The urine is clear but contains a sediment of granular matter, chiefly phosphates. The temperature varies from 100° in the morning to 101° in the evening.—14th: To-day a tumour was noticed in the hypogastric region. Dulness was present from the pubes nearly to the umbilicus, and a distinct edge could be felt at the upper limit of the swelling, which was of the shape and appearance of a distended bladder. The tongue is cleaner, but the temperature is still about 100° to 101°. The urine is clear, and contains triple phosphate crystals.—15th: To-day phlebitis was noticed in the right leg, which by the next morning had extended to the femoral vein. The urine now contains pus, and is passed very frequently. During the next week the condition of the patient improved, the temperature remained between 100° and 101°, but more food was taken and the tongue cleaned. The phlebitis gradually subsided. On March 26th phlebitis occurred in the left leg, and the urine contained much pus and was very offensive.—31st: The tumour over the bladder, which had decreased, now began to increase, and deep fluctuation was detected over it. Pain in the abdomen was complained of on April 1st, and vomiting was very troublesome the following day. The temperature ranges from 100° to 102·6°; pulse 120; tongue dry and brown. The patient appears to be getting steadily worse.—April 3rd: Chloroform was administered this morning, and a two-inch incision made over the tumour, just above the pubes in the middle line. About thirty ounces of very foul-smelling purulent urine were evacuated, and a large slough of the size of the palm of the hand gently pulled out of the wound. The cavity was well flushed out with hot boracic acid lotion, a large soft indiarubber tube passed to the bottom of the wound, and brought over the edge of the bed to drain into a vessel on the floor. On exploring the cavity a perforation into the bladder could be felt. It was at the left and posterior part, close to the opening of the left ureter, and just large enough to admit the tip of the forefinger. The edges of the opening were rounded, thickened, and coated with phosphates. The operation lasted an hour and a quarter.—4th: Sickness troublesome all day. Temperature normal; pulse 120. The patient has rallied well from the operation. On the 5th phlebitis of the left brachial and axillary veins occurred; the sickness ceased to-day. The discharge from the wound is very thick, and contains a large amount of tenacious mucus.—8th: All the urine is still passed by the tube. The patient has much improved, and can now retain solid food. From this date convalescence was steady. The urine gradually became clear. The long tube was discontinued on May 8th and the patient removed to the sofa.—June 2nd: The wound has now almost healed. The urine still contains some pus and crystals of triple phosphates.—12th: Wound soundly healed. The patient is well, save that the urine contains a small quantity of pus and triple phosphates and is passed more frequently than natural. In August the patient was quite well and able to resume for some time past her usual habits. The urine could be retained for some hours, and no complaint was made of frequency of micturition.

CASE 2. *Intra-peritoneal rupture of the bladder; suture of the wound; death.*—A man, aged about thirty, was thrown out of his trap at 5.30 P.M., and his companion fell on his abdomen. The patient was not stunned, but for a few minutes felt unable to move; he then got into a passing trap and drove home, about two miles. On his arrival he walked upstairs and got into bed. I saw him at 9 P.M., and he then complained of severe pain in the hypogastric region, and of urgent desire, but inability, to pass urine. I passed a large silver catheter, but failed to draw off any urine. Dr. Lediard saw the case about midnight. The patient did not suffer from shock, had a warm moist skin, a full soft pulse, and had so little idea that he was seriously injured that he said he should go out again as soon as we had emptied his bladder. He assured me that he had passed urine freely about half-an-hour before the accident, and that he had never had any difficulty in micturition before. There was a distinct fulness above the pubes, and some dulness in the same region as if from a distended bladder. Under chloroform, about a pint and a half of bloody urine were drawn off by means of a lithotrity evacuator and aspirator. Next morning we found the patient sitting partially dressed in his dining-room; after some persuasion we induced him to return to bed, and again removed a quantity of urine by the evacuator. A catheter was first passed, but no urine could be drawn off. The patient now showed evident signs of a serious internal injury; his expression was anxious, his pulse small and thready, and his abdomen distended. The diagnosis was clearly a ruptured bladder. Mr. Page of Newcastle saw the case in the afternoon and, when the patient had been placed under an anæsthetic (a mixture of chloroform and ether), made an abdominal section. The bladder was found collapsed behind the pubes. There was a star-shaped rent about two inches long on the posterior surface opening into the peritoneum. This was sutured with catgut, but the patient died before the operation was completed. The peritoneum contained a large quantity of blood-clots and urine, and showed signs of commencing peritonitis.

Remarks.—The first case was perhaps as clear a case of ruptured bladder as could be seen, for almost all the symptoms in turn were present. The slough that was removed at the operation, when subsequently examined, was found to consist chiefly of mucus and phosphate crystals. The bladder must have ruptured close to the entrance of the left ureter. In the second case the history was certainly misleading, for if the bladder had been empty the injury present could not, I believe, have occurred. The patient had been drinking freely, and if he had recently emptied his bladder there was no doubt it must have contained a considerable amount of urine at the time of the accident. Shock was not present till some hours after the accident, and till then we thought that the bladder was merely contused and filled with clotted blood.

The above cases occurred in the practice of Dr. Lediard, F.R.C.S. Eng., Surgeon to the Cumberland Infirmary, and I am indebted to him for permission to publish them.

Haverfordwest.

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THE MECHANISM OF DELIVERY OF THE FŒTAL HEAD IN VERTEX PRESENTATIONS; ALSO THE PERINEUM IN LABOUR AND ITS MANAGEMENT.

By J. H. E. BROCK, M.D., D.P.H., B.S. LOND., F.R.C.S.,
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ALTHOUGH I have chosen "Mechanism of Delivery of the Fœtal Head" as the title of this paper, some of the remarks I have to offer will be applicable to all kinds of presentation. I propose, under mechanism, to consider "rotation" and "extension." As the former process takes place in exactly the same way and at the same place, whatever the presentation of the fœtus, the causes giving rise to it must be identical in every case. Having discussed "rotation," I shall take up "extension" of the head, described as invariably occurring during the birth in vertex presentations, in which the occiput has rotated forwards to the pubes, and shall adduce reasons for rejecting the idea that extension plays any part in the delivery of the head, pointing out at the same time that, did it occur, it would be a process of extreme disadvantage to the mother. In conclusion, the function of the perineum in labour having been noted, the method for preserving it, based upon observation of its behaviour and that of the head during parturition, will be described, and the results obtained in fifty cases of labour detailed. In attempting such a task as the above, I am fully aware that I shall be giving utterance to opinions directly opposed to those held by the authors of standard text-books of midwifery, and therefore contrary to ideas widely prevalent in the profession. Whether I shall succeed in proving my own case or no, I trust at least I shall be able to bring forward sufficient evidence to show that the explanations at present received of the mechanism of delivery will not bear a careful scrutiny, and for this reason are well worthy of being thought out afresh.

Rotation.—On reading the explanation of the mechanism of rotation as described in various text books of midwifery, one point has always forced itself on my attention—viz., that writers invariably account for the process by reasons which completely exclude the soft parts from any important share in the operation. Thus, to quote Lusk[1]: "In either of the occipito-anterior positions rotation is not difficult to understand. The convergent anterior inclined planes furnish smooth surfaces upon which the occiput glides downwards and forwards to the front. The rigid ischial spines direct the forehead to the sacro-sciatic ligaments, which determine the backward movement corresponding to that of the occiput in the front part of the pelvis." The smooth inclined planes of the pubes and the ischial spines are here assumed to be the prime factors in bringing about a change in the position of the head from the oblique to the antero-posterior diameter at the outlet; and with this view those of other authors substantially agree. To this explanation several objections suggest themselves: 1. Internal rotation of the head is effected by torsion of the neck of the child, the trunk hardly participating at all in the movement. The head is kept in this constant state of twist until after delivery, when untwisting or "restitution" takes place. This continued state of torsion requires that there shall be a constant force holding the head in position *nolens volens*. Even supposing the inclined planes of the pubes and the ischial spines capable of favouring rotation, they would certainly be incapable of opposing the necessary resistance to maintain the head in its distorted position, and prevent it unwinding. For between the ischial spines and the centre of the sacrum, into which the forehead rotates, there is a considerable space where the head would be free to move from side to side. If the ischial spines have any function at all they can only oppose a merely passive resistance to the forehead getting anterior to them, but they are utterly powerless to actively press it back into the sacrum and hold it there. If what I have said respecting the necessity for a constant force acting on the head to maintain it in the position of torsion be true of occipito-anterior presentations, it is still more true in the case of occipito-posterior positions, where the occiput in rotating forwards is twisted through three-eighths instead of one-eighth of a circle. Moreover, in breech presentations an actual twist of the trunk occurs at the outlet—a displacement which, considering the rigidity of the fœtal structures involved, and therefore the resistance that would necessarily be opposed to the movement, would, it seems to me, require something more than the favouring influence of the inclined planes of the pubes and the projection of the ischial spines to bring about and maintain. 2. In executing the movement of rotation, the head from lying in a diameter of 4¼ in.[2] (transverse) passes into one of 3⅜ in. (conjugate) at the outlet. It is only rational to suppose that any resistance which the bony parts might be likely to oppose, were they the sole agents to be considered, would be directed to the prevention rather than to the encouragement of a change by which the head, judging from the relative diameters of the bony pelvis, apparently assumes a position of disadvantage and deliberately hinders its own progress. Had the head only the bony pelvis to traverse, such an alteration in its direction certainly seems strange and unnatural. I shall presently have occasion, however, to point out that the movement, looked at by the light of the anatomy of the soft parts of the female pelvis, is not only not strange, but is the best possible that could be done under the circumstances.

In the causation of rotation Dr. Galabin[3] attributes much importance to the gradual narrowing of the pelvis from brim to outlet, and considers that the head rotates into the antero-posterior diameter, because the latter is the longest at the outlet, while the influence of the inclined planes, he believes, has been much exaggerated. The average relative diameters at the outlet Dr. Galabin gives as—transverse, 4 in.; antero-posterior, 3·5 in.; the latter being increased by extension of the coccyx to 4·5 in. Surely, it is scarcely fair to assume that the head by rotating forwards will exchange a pelvic diameter of 4 in. for one of 4½ in., seeing that the latter is not produced until the head is forcing its way through the lower pelvic strait after rotation is complete. To make such an assumption appears to me a *post hoc propter hoc* method of arguing. I presume it is agreed that rotation in the majority of cases takes place before the occipito-frontal diameter begins to come through the outlet, and therefore at a time when the antero-posterior diameter is still only 3½ in. I am borne out in this view by Lusk,[4] who says, "When, however, rotation is completed, the bi-parietal diameter (3⅜ in.), which is capable of sustaining a considerable degree of lateral compression, engages in the transverse diameter of the pelvis; at the same time the suboccipito-bregmatic engages in the conjugate. The latter, though measuring but 3⅜ in., may be extended to 4½ in. by the pressing backward of the tip of the coccyx." If anybody will make the experiment on a dry pelvis of putting the fœtal head through the outlet—first in the transverse and then in the conjugate diameter—he will quickly assure himself that, despite the narrowing which has taken place from brim to outlet, the advantage is still decidedly on the side of the transverse diameter, and that the gain to the head by veering round into the conjugate is, so far as the bony canal only is concerned, a very dubious one. 3. My last objection to the theory that the inclined planes of the pubes favour rotation forwards is this: From the moment that the head engages in the pelvis up to the time that it descends to the bony outlet it is in constant relation to the pubes. Now it is only right to infer that had the latter any marked directive action on the occiput, that action should continue during the whole time that the pubes remained in relation to the head. In other words, rotation on this hypothesis ought to keep pace with descent, and not, as actually takes place, be delayed till the presenting part has reached the outlet. Here the change in direction invariably occurs, and oftentimes suddenly, showing that the lower pole of the fœtus comes into relation with some more powerful rotatory force than the inclined planes of the pubes. What this force is can only be under-

[1] Lusk's Midwifery, p. 173.

[2] Lusk, p. 151. These diameters correspond in length with those of a female pelvis in the osteological collection of the Medical Society of University College, London.

[3] Galabin's Midwifery, pp. 14, 15.

[4] Lusk's Midwifery, p. 173.

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stood by a reference to the anatomy of the pelvis, for which purpose I here introduce a diagram of a vertical section passing through the ischial tuberosities, and looked at from behind. The points in the drawing to which I wish to direct particular attention are the following:[5]—(*a*) The recto-vesical fascia, which forms, together with the levator ani, an oblique diaphragm across the pelvis, attached in front to the pubes, laterally to the obturator fascia, and behind to the ischial spines. The recto-vesical fascia, and with it the levator ani, may be looked upon as a septum passing obliquely across from the junction of the anterior wall of the pelvis with an imaginary ceiling to the junction of the posterior wall with an imaginary floor; while its lateral attachments are two

FIG. 1.

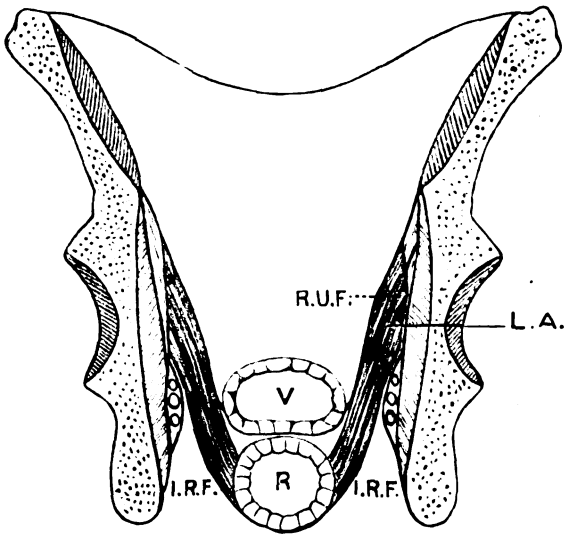


Diagram of a section through the female pelvis. V, Vagina. R, Rectum. I R F, Ischio-rectal fossa. R V F, Recto-vesical fascia. L A, evator ani.

diagonals (the so-called white lines) drawn from the anterior and upper to the posterior and lower corners of the side walls. From its attachment to the side walls of the pelvis the recto-vesical fascia passes downwards and inwards to form sheaths for the bladder, vagina, and rectum. From this description it is evident that the floor of the pelvis presents two very marked slopes, one downwards and backwards, from pubes to ischial spines and sacrum; the other downwards and inwards, from the side walls of the pelvis to the various structures passing through the floor. I shall presently point out what I believe to be the significance of these two slopes in determining the movements of the fœtal head. (*b*) Between the pelvic diaphragm and the side wall of the pelvis on each side is the irregular wedge-shaped space, the ischio-rectal fossa, which at its base is an inch wide, and at its deepest part behind runs up the side of the pelvis for a depth of two inches. These spaces are completely filled with fat. (*c*) Covering the inner surface of the lateral walls of the pelvis are the obturator interni muscles. From all this the point clearly apparent is that below the level of the white line or upper insertion of the pelvic floor the transverse and oblique diameters of the pelvis become rapidly smaller and smaller, being encroached upon by the pelvic diaphragm and ischio-rectal fossæ to a far greater extent than by the gradual slope of the bony wall from brim to outlet; while, on the other hand, the antero-posterior diameter at the outlet preserves its length unaltered—that is to say, the conjugate at the outlet, from being the smallest diameter in the dry pelvis, becomes in the living body the longest. The pelvic diaphragm being composed of strong fascia and muscle, and the space between itself and the pelvic walls being filled in with fat, the extent to which the transverse and oblique diameters can be enlarged by compression and distension of soft structures must be comparatively slight.

The bearing of these anatomical points upon the path followed by the presenting part through the pelvis is evident. Taking the left occipito-anterior presentation for an example, we see that the head descends in the oblique diameter until it comes into relation with the sloping pelvic diaphragm. As pointed out above, the longest diameter of the pelvis available for the child now changes to the antero-posterior. The longest diameter of the fœtal head lying athwart the antero-posterior or longest diameter at the outlet, if further progress downwards is to be made, must turn into the conjugate; while the transverse or narrowest diameters of the fœtal skull accommodate themselves to the smallest or transverse diameters of the pelvis. In this rotation the occiput, being nearest the pubic arch and the lowest part of the advancing fœtus, naturally turns forwards in the line of the least resistance. It will further be seen that the state of twist of the neck of which internal rotation consists is not only brought about, but is kept up by the pressure which the sides of the pelvic diaphragm exercise. As the pelvic floor reaches down to the outlet the torsion of the head cannot be undone until it has escaped from the vulva. No theory purporting to be an explanation of rotation would be complete until it had also accounted for cases such as occipito-posterior presentations, in which the occiput, instead of taking the shorter course of rotation backwards, prefers the longer one of rotation forwards. The movement is usually accounted for by the statement that[6] "if the anterior wall (i.e., of the pelvis) be divided by a line drawn on a level with the lower margin of the symphysis, we find that in the superior division the general pelvic pressure diminishes from before backward, while below the line indicated pressure diminishes from behind forward." This greater pressure in front at the brim of the pelvis, acting at a superior mechanical advantage on the forehead, turns it backward, the occiput consequently coming forward to the pubic arch. No doubt the statement that the pressure in the lower part of the pelvis is greater at the back than in the front is true; but I am at a loss to understand on what the proof of the first portion depends. The upper plane of the pelvis being enclosed by a bony margin all round, I do not see how one portion of bone in front is capable of exercising a greater pressure than another piece of bone behind. Moreover, even supposing that this greater pressure really existed in front at the brim, it could manifest itself only as a passive resistance to the forward rotation of the forehead—a vastly different thing from an active driving force such as it must be if it is capable of pressing the latter back into the sacrum. Plainly, in order to fit in with a theory, passive resistance has been made to do the work of an active pushing force. Again, if it be correct that there is a difference in pressure between the anterior and posterior sections of the upper portion of the bony pelvis sufficiently great to drive the forehead back into the sacrum, it ought also to be capable of producing something requiring a very much smaller effort—viz., tilting up of the head towards the posterior shoulder. For on this hypothesis the anterior parietal bone must be constantly subjected to a greater pressure than the posterior, a result which can only terminate in one way—viz., by producing lateral obliquity of the head at the brim—a movement which it is pretty generally agreed does not occur in the normal pelvis.

It appears to me that the forward rotation of the occiput in occipito-posterior presentations may also be explained by appealing to the anatomical conditions which obtain in the pelvis. I have pointed out above that the pelvic floor presents two slopes—(1) downwards and inwards, narrowing the transverse and oblique diameters; (2) downwards and backwards from the pubes in front to the ischial spines and sacrum behind. In occipito-posterior presentations at the time that rotation of the occiput is going to occur forwards the head is in the following position: It is well flexed, the occiput is opposite the sacro-iliac articulation, and is the most dependent portion of the fœtus; while the forehead and face are turned towards the opposite acetabulum. As the uterus contracts the occiput, being the lowest part, is forced down first into the narrowest portion of the pelvis, and has the benefit at the outlet of the greater resistance behind opposing its rotation backward. On the other hand, the forehead, if it has to come forward, must move up the inclined plane of the pelvic floor, and therefore against a much greater resistance than it

[5] Godlee's Anatomy, p. 221.

[6] Lusk, p. 174

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would do if it went backwards along the downward slope of the pelvic diaphragm. At the same time this resistance would be experienced along the whole length of the inclined plane, and, as it is directed against the long arm of the lever, would act at a greater mechanical advantage. The result is that as the uterus contracts and forces the child down, it is easier for the occiput to come forwards than the forehead, and consequently forward rotation of the former takes place. Should the head, however, not be completely flexed, the mechanical advantage on the forehead is lost, and the occiput goes back into the sacrum. After the birth of the head the vulva shrinks, the perineum retracts, and the anus contracts. On the pains recommencing, the shoulders descending in the opposite oblique diameter to the head are rotated forwards as they are forced down on the floor of the pelvis just in the same way as the head. Rotation of the shoulders always takes place on the pelvic floor, and usually rapidly.

(To be concluded.)

EPISTAXIS: AN EASY AND EFFECTUAL METHOD OF PLUGGING.

BY A. A. PHILIP, M.B., C.M. ABERD.

UNDOUBTEDLY plugging the nares by aid of Bellocq's cannula is an excellent method; but occasionally, especially in country practice, a Bellocq's cannula is not at hand, and some method easy, effectual, and effected by material always within reach, must be resorted to. Such a method I have found in the following. A piece of old, soft, thin cotton or silk, or oiled silk, about six inches square (a piece of an old handkerchief will answer) is taken, and, by means of a probe, metal thermometer case, or penholder, or anything handy, is pushed centre first, "umbrella" fashion, into the nostril, the direction of pressure when the patient is sitting erect being backwards and slightly downwards. It is pushed on in this fashion until it is felt that the point of the "umbrella" is well into the cavity of the naso-pharynx. The thermometer case or probe, or whatever has been employed, is now pushed on in an upward direction and then towards the sides, so as to pull more of the "umbrella" into the naso-pharynx. The thermometer case is now withdrawn. We have now a sac lying in the nares, its closed end protruding well into the pharynx behind, and its open end protruding at the anterior opening of the nares. If it be thought necessary, and is convenient, the inside of the sac may be brushed with some household astringent, such as alum solution, turpentine, &c. A considerable quantity of cotton wool is now, by means of the thermometer case, pushed well back to the bottom of the sac. Then, the thermometer case being held firmly against the packed wool, the mouth of the sac is pulled upon, and thus its bottom with the wool packed in it is pulled forward, and forms a firm, hard plug wedged into the posterior nares We may now pack the sac full of cotton wool, dry or soaked in some astringent solution. The mouth of the sac may now be closed by tying it just outside the nostril with a piece of strong thread; it is then trimmed by scissors and the ends of the thread secured outside.

The above method is easier than any I know when both nostrils have to be plugged. It might be suggested to oil the cotton or silk in order to render its introduction easy and to prevent it adhering to the mucous membrane, and to render it easy of removal; but I have never found any difficulty without the oil, as the blood renders the material wet and easy of introduction, while the oil does not facilitate removal, and may modify the effect of the astringents that may be used. The plug may remain *in situ* as long as any other nose plug. In removing the plug, open the mouth of the sac, and with small dressing forceps remove the cotton wool bit by bit; if there is bleeding simply syringe the sac with weak carbolic lotion or Condy's fluid and repack with clean cotton wool, or wool impregnated with some antiseptic. If there is no bleeding when the wool is picked out, gently pull out the sac; or if it be adhering to the mucous membrane, syringe in a little warm water, and it may then easily be removed. This method has many advantages. (*a*) It is easy, quickly accomplished, and effectual, and the materials are to be found in every house, and, indeed, about everybody's person (I have plugged in this manner, simply using a handkerchief, one part of which was used for the sac, and the other, torn into narrow strips, in place of the cotton wool); (*b*) no damage is done to the floor of the nose or back of the soft palate by strings &c.; (*c*) no disagreeable hawking, coughing, or vomiting takes place while the plug is introduced; (*d*) there are no disagreeable strings left hanging down the throat, causing coughing or sickness while the plug is in; (*e*) the plug can be removed gently without any force, so that no damage is done to the mucous membrane and no return of hæmorrhage caused. I employed this method frequently when in country practice, and do so now in bleeding after operation on the nares, and have always found it to be satisfactory. As the method has been of great use to me, and as I am not aware that anyone has spoken of it before, I take this opportunity of mentioning it, in the hope that it may be of use to some brother practitioner when confronted by an urgent case of epistaxis, and other means of plugging are not at hand.

Belfast.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

DIVER'S PARALYSIS.

BY P. W. BASSETT-SMITH, Surgeon R N.

WHILE on board H.M.S. *Penguin*, employed in surveying a part of the north-west coast of Australia, which was then an important centre of the pearl oyster fishery, several cases of this disease came under my notice now and then. The luggers contain about six men, mostly Japanese, occasionally Europeans, and are accompanied by a schooner which acts as a store and hospital ship. They are away many months at a time, sometimes a year; the food supplied was good. All the work was done in diving dress in depths of from ten to twenty-five fathoms, the period of submersion being often four or five hours. Cases of slight paralysis were common, coming on suddenly on removal of the dress, but generally recovering completely. The following is the worst case I saw:—

Sept. 5th.—Japanese, aged about thirty. Had been working in thirty-two fathoms (by all considered to be a dangerous depth) about three weeks ago; immediately on removal of the dress he became suddenly paralysed, and has been so ever since. His condition was one of great emaciation, free from pain, but very apathetic. Temperature 103°; pulse 120; tongue furred; complete paraplegia, with loss of control of bladder and rectum, and loss of sensation to the level of the umbilicus. There was a large deep bedsore over the sacrum extending from the tuber ischii on either side to the crest of the ilium above, with a thick, black, extremely offensive slough partially detached; it had eaten through skin, fascia, and gluteus maximus, and in places exposing the bone; there were also small sores over the ankles and knees. He had had a catheter passed twice a day, castor oil once a week, poultices and strong carbolic lotion to the sore, good diet, and port wine.—7th: No marked change. Temperature 103°.—8th: Refusing food; diaphragmatic spasm; moribund; died at 4 P.M.

This was no doubt a case of severe hæmorrhage into the lumbar centre of the cord, with subsequent myelitis, death being due to septic poisoning. The mate attending on him stated that he had been as bad himself with bedsores and paralysis for eight months; he now walks with a limp, but muscular power is fair and tissues firm, knee jerks increased. He said that a very bad sign is a localised swelling of the abdomen, from which, if allowed to get under the ribs, death is certain, and that they apply any pressure to keep it down, even "sit on it," probably a paralysis of intestinal muscles and collection of flatus. Those in charge told me that they

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try to prevent men going down over twenty fathoms, but as they are paid by results it is very little use.

Admiralty Gulf, N.W. Australia.

CASE OF RUPTURED HEART.

By E. ROUSE ROUSE, M.R.C.S., L.R.C.P. LOND., L.S.A.

A. B——, aged fifty-two, a stout and plethoric-looking man, while playing football, suddenly and without warning fell down in a sort of faint, but soon recovered and continued to play until the close of the game, never at any time, however, really over-exerting himself. After the game was over, and while returning to the ward, he was again seized with a somewhat more severe fainting fit, and accompanied this time by severe pain in the cardiac region. I saw the patient about ten minutes after this, and found him somewhat collapsed, with an almost imperceptible pulse and very shallow breathing, and complaining of excruciating pain in the cardiac region. He was ordered to bed, hot fomentations were applied over the cardiac region, and he was given hot brandy-and-water at short intervals, followed by a sedative draught; he was then seized with violent sickness, and said he felt somewhat better. He was kept in bed for two days, and placed on milk and beef-tea; and as then his symptoms had disappeared, he was allowed up, but he was not to walk about the ward. He continued in this state up to the date of his death, exactly a week after, on which day he had another fainting fit, and died in less than five minutes. At the necropsy was found a complete rupture of the left ventricle, about half an inch in diameter. The pericardium contained twelve ounces of blood-clot, besides some blood mixed with a serous fluid. The heart substance was very friable and fatty degenerated, as were also most of the other organs.

The interest in the case arises from the fact that the man lived exactly seven days after the date when we may assume the rupture partially occurred, or otherwise how are we to explain the severe symptoms complained of? But it is difficult to understand how he lived so long, unless we presume that, on the day when he was seized with his severe symptoms, the rupture was incomplete, or so small as not to allow the escape of blood into the pericardium, but that on the date of his death a sudden exertion or an increased pressure of blood ruptured more completely the previous injury, and as a consequence the immediate rush of blood stopped the heart's action, which undoubtedly was the cause of death. I should be glad to hear of anyone who has had similar cases, though I find in Bristowe's Medicine patients having lived a few hours or even a few days, but never as long as a week. The above case is, I think, of sufficient interest to be worthy of record.

Colney Hatch Asylum, New Southgate, N.

HÆMATOMA OF VULVA POST PARTUM.

By FRED. W. MANN, M.B.,

LATE HOUSE SURGEON TO THE SIMPSON MEMORIAL AND MATERNITY HOSPITAL, EDINBURGH, ETC.

MRS. H——, residing in Huddersfield, aged thirty-four years, multipara (married sixteen years), seven labours and three miscarriages. The patient always enjoyed good health during her married life, is above an average-sized and a strong-looking woman. Last miscarriage four years ago; youngest living child nearly three years old; last menstruated about Sept. 5th, 1890. All her labours, with the exception of the first, were pretty easy, the last being very easy. I was called to see Mrs. H—— on Sunday, May 17th, 1891, at 8.30 P.M. On vaginal examination the following was made out: Head at pelvic brim, os well dilated, and membranes almost down to vulva. I ruptured the membranes, and the head descended and presented; in about an hour the labour was completed without any further assistance. I inspected the perineum, which I invariably do, and it was not in the least injured. I gave her a drachm of ergot by the mouth, washed and bound her up, and after taking the pulse, which was about 90 per minute, left. About 3 A.M. the same night the husband came for me, and said that something had come down; he thought it was the womb. I refused to go, being absolutely sure the uterus could not by any possibility have become prolapsed. After a little while the daughter came for me crying, and said that her mother was dying. On my arrival the patient was perfectly blanched, sighing, gasping for breath, vision obscured, and picking at the bedclothes. On visual examination a swelling the size of a man's skull was observed between the thighs, which was a hæmatoma of the left side of the vulva. I applied a cold antiseptic cloth, and went for Dr. Macgregor, whose patient she was, and whom I was assisting at the time. We went back together immediately, to find that the patient had burst the sac and was lying in a pool of blood. Dr. Macgregor examined her quickly, and confirmed my diagnosis. He then increased the rent, turned out the clots, syringed the cavity with hot antiseptic lotion, and plugged with sterilised gauze. Brandy and soda-water and milk were freely administered. The plug was removed twenty-four hours after, and not replaced. Subsequently she was syringed out by me twice daily with sublimate for ten days, and then continued it herself. She recovered without a bad symptom, and without a rise of temperature.

Remarks.—The following are worthy of note: The easy labour, the bursting of the tumour, antiseptic efficiency in midwifery, and recovery. My apology for publishing the case is its rarity, and its occurrence oftener in easy labours than those in which instruments are used.

Mortimer-street, W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

EXCISION OF THE ILEO-CÆCAL VALVE FOR CARCINOMA; SUBSEQUENT OPERATIONS FOR FÆCAL FISTULA; RECOVERY.

(Under the care of Sir WILLIAM MAC CORMAC.)

THE case we here record is one which presents many features of interest. Although chronic intussusception is more common in adults than in children, and in the situation in which it appeared here than in other parts of the intestine, it is rare to find a malignant growth forming part of the tumour produced by the intussusception and apparently the cause of it. The cases of resection of intestine for malignant disease hitherto recorded are but few, and of these success equal to that obtained by the operations in this patient has seldom been achieved. The question as to the best method of treating malignant disease involving the large intestine is one which must be decided at the time the individual sufferer applies for relief. Sometimes the symptoms of obstruction are too urgent, the general condition too bad, to permit of any prolonged operation; the growth has too many adhesions to surrounding parts to allow it to be brought to the surface, or there are considerable secondary deposits. In these cases the formation of an artificial anus is desirable. When the circumstances are as favourable as they appear to have been here, the operation of resection presents advantages offered by no other method. It will more especially meet with favour in similar cases should it ultimately appear that immediate suture after the resection can be done with equal or greater safety than the resection, formation of artificial anus, and the serious operation for the closure of the latter. Hahn's statistics were in favour of the performance of the operations in two stages. Senn has recorded two cases of resection of the cæcum for carcinoma in which he employed his decalcified bone plates. One of these was a success; the other died from ulceration of the intestine. We hope it will be possible to give the ultimate result of the operations on this patient. For the notes of the case we are indebted to Mr. H. B. Robinson, late resident assistant surgeon.

E. O——, aged thirty-six, a blacksmith, was admitted into the hospital on Nov. 29th, 1890. There was no history

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of cancer in the man's family, and until the present illness the patient had enjoyed good health. Five months before admission he was suddenly seized with violent griping pain in the umbilical region, which lasted for one day; this was followed by a similar attack one month later. The attacks then became more frequent, occurring every week, and occasionally oftener. During these attacks, which came on without any obvious cause, he felt a lump in the right inguinal region, which enlarged towards the epigastrium and dispersed with gurgling. The motions passed during the attacks were of a dark colour, and sometimes contained blood. Sometimes during the attacks he suffered from diarrhœa. In the last four months the man had lost fourteen pounds in weight. The abdomen on examination proved to be thin and retracted. A lump was to be felt in the right iliac region, tender on palpation, which produced slight gurgling. On Dec. 2nd, 3rd, and 4th he had attacks of pain with increase in size of the tumour. On the last date there were considerable diarrhœa and copious discharge of blood.

Under chloroform, on Dec. 7th, a slightly curved cylindrical tumour, with concavity downwards, elastic and resistant, was felt. Two-thirds of the growth were to the right of the middle line, and its lower border was on a level with the umbilicus. The swelling could be moved about with the fingers, mostly in a direction transverse to the long axis of the tumour.

Dec. 10th.—Abdominal section was performed by Mr. Sydney Jones, by an incision about five inches long in the linea alba. The tumour was found to be an intussusception of the ileo-cæcal form. This was easily reduced, except close to the valve, where firm adhesions had formed, which had to be broken down. The valve itself was greatly thickened, and the lips were covered with papillomatous growths. The cæcum, with adjoining parts of large and small intestine and a V-shaped piece of mesentery, was resected, and the open ends of the intestine were attached to the abdominal wound to form an artificial anus, the opening into the large intestine occupying the higher position. The growth was examined and pronounced by Mr. Shattock to be carcinoma.

From this operation the man rallied well and made satisfactory progress. On Dec. 25th he had two syncopic attacks, but they were not repeated, and nothing further retarded his convalescence. Owing to the very great annoyance from the fæcal discharge from the artificial anus and from the extensive excoriation of the surface produced by it, and from the absence of any return of the growth, it was decided to restore the lumen of the bowel. This was done on Feb. 20th, 1891, after having well flushed out the intestinal tract with warm boracic fluid.

The two ends of the gut having been well washed with boracic acid, and the surrounding skin with 1 in 5000 perchloride of mercury, two small sponges with strings attached were inserted in the openings into the intestinal canal. An incision was made along the old linear cicatrix above and below the openings, and the two wounds thus formed were joined by incisions on either side of the artificial anus. By careful dissection the ends of the intestine were separated from the adhesions, the small intestine being first freed, and subsequently the large. Two stout ligatures were now tied round the ends just external to the sponges, to prevent any escape of their contents, and after further separation each end was clamped on the proximal side of the sponge, and the latter withdrawn. The ends of the intestine were now trimmed up, so that the attachments of the mesentery corresponded with their cut ends. The cut edges of the mesentery, after the insertion of Senn's circular indiarubber ring into the small intestine, were brought together with fine silk interrupted sutures. An attempt was now made to invaginate the small into the large intestine (Senn's circular enterroraphy), but this did not succeed very well, especially at the posterior part, and the circular ring tended to collapse. Lembert's sutures were accordingly used to complete the junction until the two ends were firmly united all round. During the suturing a sponge was placed in the abdominal cavity, to prevent any contamination by fæcal matter, but nothing whatever escaped from the intestine. The clamps were now removed; and the intestinal loop having been washed over with a 1 in 5000 perchloride of mercury solution, was returned into the abdominal cavity so as to rest just beneath the wound. The external incision was then closed. At 11 P.M. he complained of thirst; slight hiccough. At midnight his pulse was 80, and temperature 97·4°. Tongue dry and parched, and he was ordered to rinse it out with water. No discharge from wound. Rather restless. A quarter of a grain of morphia given hypodermically.

Feb. 21st.—8 A.M.: The patient slept fairly well after the injection; temperature 97·6°; he complained of slight pain in the abdomen. He was given a teaspoonful of water to drink from time to time. 8 P.M.: Had another injection during the day, as pain is still present. Dozed on and off. Passed twelve ounces of urine. Temperature 99·2°; pulse 86.

22nd.—8 A.M.: He had a much more comfortable night, having slept fairly well, and very little pain. Not so thirsty. Temperature 99°; respiration regular. Sixteen ounces of urine were passed, loaded with lithates. Has passed flatus. 8 P.M.: Had some sharp pain at intervals during the day, but slept on and off. Allowed small quantities of barley water, beef-tea, and brandy. Temperature 99·8°; pulse 80. There is no pain this evening.

23rd.—He has been restless and thirsty during the night. Temperature 98°. 8 P.M.: Has been coughing during the afternoon, and been restless and irritable, complaining still of thirst. Slept at intervals. Temperature 100·8°; pulse 84. Passed twelve ounces and a half of urine. No complaint of pain.

24th.—8 A.M.: The patient has had a very good night, sleeping most of the time, without any pain. Temperature 98·4°. 8 P.M.: Fretful and restless, complaining of pain and of the tightness of the bandage. Some cough. Temperature 100·6°; pulse 86. Tent and steam-kettle ordered. At midnight the temperature was 102°, with profuse sweating.

25th.—8 A.M.: He complains of some pain in the left side. Temperature 100·2°. Bowels acted slightly (about three ounces) for the first time, and has passed large quantities of flatus. Complains of being in pain in the lower part of the bowel. 8 P.M.: Bowels slightly open again. Very comfortable during the day. Temperature 99·4°. Ordered one drachm of port wine every two hours.

26th.—Good night with no pain. Temperature 99°. 8 P.M.: Temperature 100·6°; pulse 100. Bowels opened at 6.30 P.M., and about three ounces of partially formed motion passed. At 10 P.M. a bad smell was noticed from the wound, and on the dressings being removed they were found to be saturated with dark fæcal matter. The sides of the wound had separated about half an inch, and at the bottom, about the middle of the incision, there was a small opening into the gut, from which fæces came out.

27th.—Temperature 98·4°. Passed a good night. In the evening slight action of the bowels per rectum. Temperature 101·6°.

28th.—Very restless night; complaining of pain in the right side. The stitches were all taken out and strapping applied. Fæcal discharge from fistula free. For the last two days milk has been given. Temperature 101·4°.

March 2nd.—Not quite so well owing to slight pneumonia. Temperature 102·4°. Passed a motion per rectum.

3rd.—Better, but temperature still up to 101°. Another motion per rectum; discharge from fistula about the same.

4th.—Two more motions per rectum. Temperature only 99°, and much better.

7th.—During the last twenty-four hours the patient has passed more per rectum. The fistula, however, still discharges, but in less degree. The wound remains open, and at the bottom of it a tongue of granulations protrudes towards the right side, at the apex of which is the opening of the sinus. The indiarubber tube has not yet been passed. Temperature normal.

16th.—Since the last note the patient's abdomen has been tightly strapped. Very little has come from the fistula, which is smaller, and the wound itself has healed considerably. He has had at least one action of the bowels per diem. Cough practically gone. Some œdema of right leg.

30th.—Fistula very much smaller, the everted mucous membrane filling the opening. There is very little fæcal matter passed through it.

April 7th.—Fistula still smaller. Strapping left off.

15th.—A plastic operation was done for the closure of the fistula. Sir William Mac Cormac marked out two flaps, one on the left side extending upwards for three inches and a half from close to the fistula, and being about one inch wide, and the other on the right side of equal size, but pointing downwards. After raising the flaps, which consisted of skin and subcutaneous tissue, the upper or left flap was brought across the abdomen and placed below the lower or right flap. The edges of the flaps were then sutured together,

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as well as the edges of the wounds from which they had been raised. After the suturing the fistula was completely covered in. Iodoform dressings were used.

16th.—No fæcal matter has made its appearance. Some slight serous discharge from the wounds. The right flap looked somewhat blue. Patient very comfortable.

17th.—Since the operation there has been no action of bowels. A good deal of fæcal matter has made its way between the lips of the flaps. Right flap still discoloured.

21st.—Sutures removed from wounds from which the flaps were raised. Skin separating from the right flap, the edges of which are blue.

24th.—Remaining stitches taken out. About one inch of the right flap is sloughy, but has not yet quite separated. Fæcal matter still passing. Rest of the wound appears very healthy.

28th.—Slough separated.

30th.—No fæcal escape for the last two days.

May 1st.—As the right-hand flap had sloughed along its upper or left-hand margin, and thus was giving no support over the position of the fistula, the skin above the flaps was dissected up for a short distance, and its edge brought down and stitched to the upper edge of the right flap remaining.

5th.—All stitches removed.

11th.—Slight escape from fistula.

19th.—No fæcal matter passed since the 16th. Allowed to get up.

29th.—On coughing last night a little fæcal matter escaped from the fistula, and the same happened this morning.

June 1st.—Discharged from hospital with slight fæcal discharge from time to time.

About six weeks after leaving hospital the patient wrote to say that for the last few weeks there had been no discharge, and that the wound was quite soundly healed. In October he was doing his work as a blacksmith without any inconvenience or sign of return.

Remarks by Mr. ROBINSON.—This case is a further proof that the chances of obtaining a successful result after resection of the bowel are considerably increased by performing a secondary operation for uniting the ends. Here there was the additional advantage that the large bowel from its inactivity had diminished in calibre, thus permitting more perfect union of the ends. Although Senn's indiarubber tube was tried for the approximation, its sole use proved inefficient for perfect junction, as it would collapse, and it was necessary to have resort to Lembert's method of suturing. In spite of this, the gut unfortunately gave way, but luckily the escape was from the wound. The fistula remaining behind was ultimately closed by a plastic operation in which the whole thickness of the skin was raised, allowed to thicken, and then transplanted.

ROYAL ALBERT HOSPITAL, DEVONPORT.

A CASE OF FOREIGN BODY IN THE BLADDER AND URETHRA.

(Under the care of Mr. J. HARLEY GOUGH.)

IN THE LANCET of Nov. 7th, 1891, p. 1039, Mr. Selby W. Plummer records a case of foreign body in the bladder and urethra, which was treated at the Durham County Hospital. A somewhat similar case occurred recently at the Royal Albert Hospital, Devonport. In both instances the foreign body, a long bonnet pin, was successfully extracted by perineal section. In our remarks we referred to cases[1] of similar injury in which it was found possible to remove the foreign body after manipulation; the point, being made to project in the perineum, was pulled out until the head prevented further progress, then turned, the head pushed forwards through the meatus, and the pin extracted.

J. T——, aged fifty-one, a big, fine-looking man, came to the out-patient department on the afternoon of Oct. 5th, 1891. He said that the night before, when under the influence of drink, and for reasons he would not explain, he passed a long bonnet-pin head first down his "pipe" and could not get it out. Owing to some feeling of discomfort and pain after micturition he sought relief at the hospital. On examination nothing could be felt in the penis, but deep in the perineum a prominent point could be made out. The scrotum was pulled up, and without an anæsthetic an incision was made over it, and the point of the pin exposed. This was seized with a pair of Spencer Wells' pressure forceps and forcibly drawn forwards till the beaded end was held by the urethra. The urethra was incised and the pin extracted. A No. 10 gum elastic catheter was passed down the urethra into the bladder and tied in, and the patient put to bed. Two days later the catheter was replaced by another. On the fourth day the wound in the perineum had healed by first intention, and on Oct. 10th, 1891, the patient was discharged cured. The pin was an ordinary blue bonnet one, five inches long, with a black-beaded head.

[1] Brunel: THE LANCET, vol. i. 1887, p. 470; also case under Messrs. Hunter and Curtis.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Enchondroma following upon Multiple Exostoses.—Dermoid Cyst attached to Omentum.—On Suppuration.—Rupture of Spermatic Vein simulating Melanotic Sarcoma.—Congenital Malformation of Heart.—Carcinomatous and Adenomatous Mammary Growths.—Mucous Cysts of Ureters.

AN ordinary meeting of this Society was held on Feb. 2nd, the President, Sir George Humphry, in the chair.

Dr. GRIFFITHS of Cambridge brought forward a specimen of Enchondroma following upon Hereditary Multiple Exostoses. He showed the bones of the left lower limb of a man aged thirty-one, on which there were many exostoses of the usual kind, and one large enchondroma on the upper end of the tibia. The enchondroma had taken a rapid growth for nearly a year, and latterly had given rise to pain and much inconvenience from its bulk. There were other exostoses on the right lower limb, but there were none on the trunk and upper limbs, where the only detectable change was thickening and nodulation at the epiphysial lines of the lower end of the radii, upper end of the humeri, and inner ends of the clavicles. The affection ran in his father's family—one brother had "lumps" and a deformed arm; another brother and two sisters, who took after their mother's family, remained quite free. The father had many lumps, on the lower limbs especially; also his grandfather, who died from the enlargement of one of the lumps, and a paternal aunt, who had lumps and a deformed arm. Dr. Griffiths then referred to similar published cases, and expressed his opinion that it was as yet difficult to determine the real etiology of these growths.—The PRESIDENT remarked that the patient exhibited a combination of two kinds of cartilage growth. There was a chondro-exostosis of usual characters, but remarkably multiple and hereditary. This was associated with a cartilage growth, which had no bone formation at all; it encircled the bone as fibromas often did, and did not spring from a single point. These chondromata were not commonly hereditary. This patient thus showed both chondro-exostosis and subperiosteal chondroma, but he presented no instances of the true enchondroma of the phalanges. It was interesting to note that there was a condition present which seemed to be some approach to rickets, but there was nothing to explain the ankylosis of the tibia and fibula at their lower ends.

Dr. GRIFFITHS also exhibited a Dermoid Cyst which was attached to the lower and free border of the omentum. He regarded this as probably having had origin in one or other ovary, become pedunculated and attached to the omentum, and then ultimately it became severed from its original connexion.—The PRESIDENT said that the tumour gave way during the operation, and the contained fatty material flooded the peritoneum. It had only increased in size of late, though probably it was of congenital origin. Though these tumours were occasionally found in the peritoneum, it was difficult to believe that they were formed in connexion with the ovary. He referred to a case in which hair, teeth, &c., had been found in a woman's bladder; he removed them successfully, but he could not conceive how they had got there. He believed that these tumours occurred only in women, and if that were the case it was in favour of their ovarian origin.—Mr. W. G. SPENCER asked

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if it were necessary, in order to account for these dermoid cysts, to believe that they were developed from epiblast invaginated from the surface. The epithelium of the ovary and also that of the Woolfian body and its duct was of cœlomic origin, and therefore mesoblastic, though of course it must have been primarily derived from either the epiblast or the hypoblast. If dermoids could thus arise from cœlomic epithelium, it was quite possible for them to spring from the omentum direct, the covering of that structure being of similar origin.—Mr. SUTTON said that dermoids inside the peritoneal cavity only occurred in women. They had been seen in the pelvis in both men and women, but they were always beneath the peritoneum. Dermoids of the omentum had been, so to speak, "caught in the act" of shifting their habitation from the ovary to the omentum, and had been found with a slender attachment to the ovary and a firm adhesion to the omentum by Knowsley Thornton, Doran, and himself. Non-dermoid tumours had also been seen shifting their position from the ovary to the omentum. These facts were more convincing than arguments founded on strange fancies as to the origin of epithelium. He asked the President if the ovaries and tubes of this case were examined at the time of the operation.—Dr. GASTER referred to the case of a female child aged eight, who was operated on at the Children's Hospital at Bucharest by Dr. Rominceano. There had been for some time a fistula in the right iliac region, and on abdominal section a dermoid cyst of the size of a large orange was found in the peritoneum, in the right side; it was safely removed. The child died two days after the operation and at the necropsy, which was carefully performed, the ovaries were found quite normal.—Dr. GRIFFITHS, in reply, said that the tumour was attached to the under-surface of the omentum, and did not appear to be formed in its substance.

Mr. S. G. SHATTOCK read a paper on the inadequacy of the current terms applied to Suppuration, with a note on Peptone in Pus. The author contended that the time had arrived for a revision of the terms at present in use as applied to suppuration. The terms "suppuration" and "pus" were purely anatomical, and included things quite different in their etiology. Setting aside larger questions, the process of acute suppuration could etiologically be distinguished from other forms, and that it was as specific in nature as tuberculosis or syphilis was now well established by experiment. Koch's four postulates in this case were all capable of fulfilment, whilst the doctrine was confirmed by the check experiments of introducing aseptic chemical irritants beneath the skin of animals, and which, if the animals were healthy, produced inflammation but not suppuration. A strict parallel might be drawn between tuberculosis in its different manifestations and acute suppuration. Corresponding with the localised tubercular lesion was acute abscess; "diffuse suppuration" represented the results of local infection when the tissue elements failed to cope with the virus. The secondary glandular infection in tuberculosis and the glandular abscess common after suppuration at a distance were parallel, whilst pyæmia was the counterpart of generalised tuberculosis. To bring out the facts, the term "pyosis" was suggested by the author; generalised pyosis would be what is termed pyæmia, glandular pyosis the secondary glandular infection, whilst the acute abscess or acute suppuration of a wound would be pyosis in a local form. The author afterwards recounted some observations on the presence of peptone in the pus of acute abscesses. He had examined thirty cases. The simplest method of showing this was to shake the pus with half its bulk or less of saturated solution of ammonium sulphate and then add crystals of the same salt to saturation; then filter. If a drop of copper sulphate solution be added to the clear filtrate no precipitate is produced, for the ammonium sulphate precipitates all the proteids except peptone; and on adding excess of solution of caustic potash a dense white precipitate of potassium sulphate is thrown down. On this subsiding the pink colouration of the clear supernatant fluid, though usually pale, shows the presence of peptone. He had been able by dialysing pus to show the same. The peptone, of all the proteids, alone passes through the dialyser, and may be shown in the water by the biuret reaction, sulphate of copper solution, and solution of caustic potash. For the separation of the albumoses Sydney Martin's method was necessary, and if properly carried out the demonstration was easy; the pus was shaken with excess of alcohol, and kept several weeks in a stoppered bottle, filtered, the residue on the filter dried and rubbed up with distilled water and filtered. Albumoses and peptone were alone dissolved. The addition of ammonium sulphate to the filtrate produced a precipitate of albumose, and the filtrate from the latter gave the biuret reaction of peptone. The presence of albumose and peptone in pus was not peculiar to the action of pyogenic microbes. Martin had shown both in the alkali albumen in which he had grown bacillus anthracis.—Dr. HUNTER said that undoubtedly the peptone was formed by the agency of the organisms in the pus, and it was possible to give even a clearer demonstration of this fact; for if the ferments were isolated from the organisms they would still form peptones in albuminous fluids. This explained the reason of localised or diffuse inflammation occurring after primary infection. If the organism were one which gave rise to a ferment of great peptonising power, then the tissues would undergo rapid solution, and the lymphatics being quickly blocked the inflammation would remain localised; but if, on the other hand, the organism produced a ferment of low peptonising power there was but little solution of tissue, the lymphatics remained open, and the inflammation spread.—Dr. LEE DICKINSON said that he had examined several specimens of pus from pleural empyemata, and had always found the albumose to be more abundant than the peptone; but this might be possibly because the peptone was rapidly absorbed from the pleura. Dr. Martin had found very little peptone in the fluid in which anthrax bacilli had been cultivated.—Mr. SHATTOCK, in reply, said that the amount of peptone in all his specimens was very small, being indeed a mere trace, and the amount of albumose was much larger.

Mr. W. G. SPENCER exhibited the Right Testis and Spermatic cord of an Infant, the epididymis and lower part of the cord having been surrounded by, and infiltrated with, blood-clot. Microscopic specimens showed, in addition, large spermatic veins in the midst of the mass. It was taken from a child fourteen days old, who was brought to the Westminster Hospital with a tumour in the right scrotum. The affection had been noticed three days after, but the mother could not say whether it was present at birth. The birth was normal, and there were no other indications of injury or of disease. The swelling involved chiefly the back of the testis and the lower part of the cord. The skin over the swelling was adherent, and bluish-black in colour. Beyond the swelling the skin was normal, without sign of bruising or of inflammation. On puncture it proved to be solid in consistence, some blackish fluid escaping. Mr. Macnamara saw the case, and it was agreed that the disease appeared suspiciously like a melanotic sarcoma. On incision the surface of the section looked black; the testis and the cavity of the tunica vaginalis were healthy, and there was no sign of blood-clot in a cavity. The diagnosis of melanotic tumour seemed correct, and castration was performed, which was followed by rapid healing. But on microscopic examination by Dr. Hebb, the tumour was found to have been due to an infiltration of the epididymis and cord by extravasated blood. Concerning the exciting cause of this condition he had no evidence. Light was thrown upon the predisposing conditions by a paper of his on the Origin of Varicocele in vol. xl. of the Society's Transactions. In it he described the large size of the veins, which, at first belonging to the more vascular Wolffian body, were transferred later on to the less vascular testis. The veins accordingly tended to become relatively less in size and number by a process of atrophy, which affected the right more than the left side. But these veins were still relatively large and numerous at birth, as could be seen in the drawings attached to the paper referred to as well as in the microscopic specimens shown.—Dr. HERBERT SPENCER remarked that hæmorrhages in the testes and spermatic cord were not at all uncommon in stillborn children, especially in those in whom there had been breech presentation. Hæmorrhages were also not uncommon in other viscera. He had brought forward the results of over 300 post-mortem examinations in a paper which was read before the Obstetrical Society, and in which he had referred to the hæmorrhages into various organs. Important points in connexion with the hæmorrhages were the question of future impotence and of the prevention of the descent of the organ in cases of undescended testis.—Mr. W. G. SPENCER replied that although aware of hæmorrhages in these regions in breech presentations, in the case under discussion the tumour was so hard and firm that it was believed to be of malignant nature, and hence the castration.

Dr. NORMAN MOORE showed a Congenital Malformation

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of Heart from a boy aged five months, who had been under observation since three weeks of age. The aortic arch was large, and arose from an abnormally large left ventricle. A mitral valve opened into this from a left auricle of about normal size. The foramen ovale was widely open, and the right auricle was of double the normal capacity and thickness. There was no actual tricuspid valve, but only an opening the size of a pin, which led into a right ventricle not larger than two pins' heads. From this issued a very minute pulmonary artery without valves at its orifice. This doubled in width near the ductus arteriosus, which was patent. The circulation was carried on by the single ventricle, the pulmonary blood stream being directed through the ductus arteriosus from the aorta. The blood from the hypertrophied right auricle was driven into the left auricle, and thence through the wide mitral valve into the left ventricle. The blood currents were all of them mixed. The child was deeply cyanosed, but had no clubbing of its fingers or toes. It was always very short of breath and never sucked well. A first and second heart sound were audible, but no murmur.

Mr. G. B. M. WHITE showed a Mamma containing Adenomatous and Carcinomatous Tumours from an unmarried woman aged sixty-one. A tumour had been noticed in the right breast for about two years. After removal, besides the carcinoma, two adenomata were found in the same breast lying close to and beneath the main tumour. At the same time a small adenoma was removed from the left breast.

Mr. J. JACKSON CLARKE showed the Kidneys, Ureters, and Bladder of an old woman who was moribund when admitted into St. Mary's Hospital under Dr. Lees. A large hæmorrhage in the right cerebral hemisphere was found. The arteries at the base of the brain were extremely atheromatous. Her history could not be obtained. The left kidney was hydronephrotic. There were a few small cysts placed close together in one of the pyramids. There were cysts in a dilated calyx and in the pelvis, and very numerous cysts of the average size and the colour of hemp-seed in the upper half of the ureter. The right kidney contained one subcapsular cyst; the right ureter was normal. In the bladder there were cysts at the ureteral orifices and at the neck. The cysts in the ureters contained the large cells, which have been supposed to be coccidia. Mr. Clarke's sections showed all stages of development of the ureteral cyst, of which the smallest contained detached epithelial cells, only slightly œdematous. Mr. Clarke regarded the larger cells found in the older cysts to be likewise epithelial cells, which had undergone further degeneration. There were none of the large cells in the cyst of the kidney and of the bladder. Mr. Clarke thought that possibly some of the cases of hydronephrosis which had been cured by massage might have been due to ureteral cyst, which easily collapsed. He thought a more general use of the cystoscope might lead to the recognition of similar conditions during life, and that then examination of the urine might reveal some chemical irritant as the cause of the condition.—Mr. BLAND SUTTON referred to Mr. Silcock's case, in which the cells had continued to grow after the tissue had been placed in a hardening solution of weak chromic acid. It was impossible to conceive of tissue cells doing so, though quite conceivable of psorosperms.—Mr. GRIFFITHS asked Mr. Clarke whether he knew if cysts of any size could arise from cystic degeneration of a single cell.—Mr. CLARKE replied in the negative, and expressed himself as still unconvinced, so far as his own specimen was concerned, that the cysts in question were due to the presence of parasitic psorosperms.

The following card specimen was shown:—Mr. J. J. CLARKE: Fibroma of Small Omentum.

OPHTHALMOLOGICAL SOCIETY.

Tuberculosis of the Iris, Suspensory Ligament, and Retina.—Etiology, Prognosis, and Treatment of disseminated Dot Cataract.

AN ordinary meeting of the Society was held on Thursday, Jan. 28th, Mr. Henry Power, F.R.C.S., President, in the chair.

Mr. R. L. KNAGGS (Leeds) communicated a paper on a case of Tuberculosis of the Iris, Suspensory Ligament, and Retina, which was read by the secretary. The patient, a boy aged nine months, had iritis of a quiet type associated with fourteen to twenty white nodules in the iris. Those in the lowest part of the anterior chamber grew most rapidly and coalesced, forming a large yellowish mass, which produced a considerable growth at the sclero-corneal margin. The eye was excised, but the child died seven weeks later from tubercular meningitis. Sections of the eye showed that the iris had been transformed into a tuberculous mass, in which were many distinct miliary granules. The growth had bulged and thinned the outer tunic of the eye, had penetrated the uveal pigment layer at a point just in front of the ciliary body, had passed through the suspensory ligament, and had been stopped abruptly at the hyaloid. The canal of Petit was filled with inflammatory exudation, and contained several tubercles in which giant cells were well marked. The disposition of the suspensory ligament did not seem to have been altered by the tissue in which it was embedded. In the lens were cell spaces filled with inflammatory cells, and in the retina there was an inflammatory focus situated between the nerve fibre layer and the pigment layer, the latter being quite unaffected. The case was recorded not only as a contribution to the literature of tubercular iritis, but because of the bearing it had upon questions connected with the suspensory ligament. Drawings of the pathological conditions were exhibited.

Mr. CHARLES WRAY (Croydon) read a paper on the Etiology, Prognosis, and Treatment of *disseminated* Dot Cataract. After commenting on the narrow limits of the literature of the subject, he pointed out that the commonest form of this affection was characterised by the presence of large numbers of very thin, punctiform opacities, generally less than ·5 millimetre in diameter, symmetrically arranged in the substance of the lenses. The opacities were, as a rule, most numerous towards the equator of the lens, and were at times quite absent from the periaxial parts. Sometimes, in addition to the dots, there were streaks of opacity arranged without reference to the anatomical structure of the lens; occasionally the dots were so minute, and situated so peripherally, as to be overlooked unless very carefully searched for. The following varieties of dot cataract had been noticed:—(1) The simple form, as above described, occurring in young subjects, with no other changes suggestive of lens degeneration; (2) the simple form, complicated by the presence of opaque streaks arranged without reference to the anatomy of the lens; (3) the last mentioned further complicated by the presence of vacuoles; (4) the above conditions with degenerative changes suggesting ordinary advancing cataract. The affection was most easily recognised in childhood; in later life it might be mistaken for developing senile cataract. Nothing in the history or condition of the patients seemed to account for the lens changes; the simplest view was that they were merely transmitted structural peculiarities, like the white dots found on the finger nails. This simple explanation seemed the more probable, since in each case in which the condition was found in the offspring it was observed in the mother. In regard to prognosis, two points were noteworthy—the non-deterioration of vision in the parents, and the presence of the dots unchanged in one patient who had advanced nuclear (senile) cataract. In only one instance had the question of treatment to be seriously discussed, and in this, the vision with correcting glasses being equal to the patient's requirements, no active interference was advised. If in any case the sight were not sufficient for the requirements of the individual, the rules applicable in the treatment of lamellar cataract would apply. Nine cases were recorded, nearly all of which were complicated with ametropia. In six cases, in which the children were discovered to have disseminated dot cataract, the same condition was found in the mother. In no case in which it was present in the child was it absent in the parent. In two cases it was present in the parent—once the father, once the mother,—but absent in the offspring.—Mr. SYDNEY STEPHENSON said he had seen a number of cases like those described by Mr. Wray, and in several he had noted congenital defects of the eyes—for example, opaque nerve fibres, persistent pupillary membrane, &c. He asked if Mr. Wray had found such defects in his cases.—Mr. LANG said that, in his experience, the lens was easily extracted in cases of dotted cataract with nearly clear cortex, and he had consequently no hesitation in advising operation.—Mr. LAWFORD thought the vacuoles in the lenses alluded to by Mr. Wray were not uncommon in cases in which no other evidence of lenticular change was forthcoming. He had observed some

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cases for three or four years, and had been unable to detect any increase in size or number of the vacuoles. He asked whether their presence had any significance.—Mr. DOYNE was unable to agree with Mr. Lang as to the ease with which these dotted cataracts could be extracted. He had found considerable difficulty in removing the cortical portion of the lens.—Mr. GUNN inquired if the dots of opacity were very numerous, and Mr. Juler inquired if the condition was not generally progressive.—Mr. WRAY, in reply, said that the dots in the lens were generally present in large numbers. He thought that the opacities in most cases remained nearly stationary. He had seen one case in which there was a persistent hyaloid artery.

The following cases and card specimens were shown:—

Mr. CRITCHETT: A case of Conical Cornea, treated by Galvano-cautery without Perforation.

Mr. GUNN: Apparatus for Illuminating the Eyeball from behind.

Mr. JULER: Microscopic Demonstration of Hyaloid Growth from the Lamina Vitrea of the Choroid.

Mr. HIGGENS: Tuberculosis of Iris.

Mr. ERNEST CLARKE: Case of Unusual Retinal Detachment (?) Neoplasm.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, JAN. 14TH.

Mr. W. DALE JAMES, M.R.C.S., in the chair.

Gastric Ulcer.—Dr. GORDON related a case of Gastric Ulcer with Gastro-colic Sinus, and showed the specimen. A young woman came under his treatment for vomiting. She had always been subject to constipation, and three years previously had been attacked with sickness and vomiting, which continued more or less frequently until she came under his notice. Rest in bed and bismuth and soda mixture relieved the sickness completely for six weeks, but it eventually returned without any apparent cause. The vomited matter then became stercoraceous, but on no occasion did any undigested food appear in the motions. The case was then supposed to be one of chronic constipation with the large bowel lined with fæces. Enemata were ordered, but on the fourteenth morning the patient vomited a pint injection of soap-and-water ten minutes after it had been administered. From this time she gradually sank, and died from exhaustion. At the necropsy, only sufficient peritonitis was found to unite the peritoneal surface of the stomach to the transverse colon at the seat of the ulcer, thus preventing the gastric contents from passing into the peritoneal cavity, when perforation took place through the sloughing of the base of the ulcer. The communication between the stomach and colon was circular in shape, three-quarters of an inch in diameter, and situated on the posterior surface of the stomach two inches from the pylorus. There was an absence of lienteric stools throughout the whole progress of the case.

Dr. SOMERVILLE showed four pairs of Lungs presenting the character of Fibroid Tuberculosis, which had been taken from men engaged in "dry grinding." After reading brief clinical notes of the cases, he drew attention to the following points: (1) The pleural thickenings; (2) the tubercles, which were pigmented and of large size, being from one-eighth of an inch to half an inch in diameter, and so closely arranged in some parts as to give the lung a very dense feeling; (3) the cavities which lay between fixed points, and had smooth walls; (4) the bronchial glands; and (5) the microscopic appearances. Dr. Somerville also remarked on the pathology of this form of phthisis.

Treatment of Phthisis.—Dr. HUNT read a paper on the Treatment of Phthisis. He gave his experience of various modes of treatment during the past ten years, which had led him to place little reliance on the use of drugs except for the purpose of relieving distressing symptoms. He pointed out that the only hope of successfully curing phthisis must depend on being able to attack the disease at its seat of origin. This mode of treatment had a sound pathological basis, and all the latest experiments encouraged perseverance in this direction. The results, in a great number of cases treated by antiseptic injections into the lungs through the larynx, were related by Dr. Hunt, who said that the good obtained by residence in high altitudes was due to the antiseptic influence of the atmosphere, and concluded by referring to the successful results obtained in the case of several of his own patients who had been sent to Davos Platz.

THURSDAY, JANUARY 28TH.

Dr. MARTIN in the chair.

Mr. R. FAVELL showed a specimen of Hæmato-salpinx removed from a woman thirty-four years of age. The tube was distended to about the size of a small orange, and was filled with blood-clot. From examination there was apparently no evidence of the tube being gravid. Mr. Bland Sutton had kindly examined the specimen, and his opinion was that it was a case of true hæmato-salpinx.

Malignant Disease of the Mesentery.—Dr. KERR showed specimens from a case of this kind. The patient, a man aged thirty-three, had been under Dr. Dyson's care in the infirmary. There was a seven months' history of abdominal pain, especially towards the left side, aggravated by food, with loss of flesh, and latterly some sickness. The patient had been a hard drinker. On examining the abdomen a tumour was felt in the left hypochondrium, projecting beneath the costal margin and extending into the left lumbar region. The growth was movable, had a rounded end, and could be tilted from behind. There was some tenderness over the tumour, and more still over the umbilical region where the tumour was not felt. The tumour simulated an enlarged spleen. The blood when examined was found normal. The tumour increased very rapidly in size after admission, enlarging towards the epigastrium, and becoming softer, semi-elastic, and very tender. The patient died within two months of admission into the infirmary. Post-mortem examination disclosed a large mass of new growth occupying a great part of the abdomen, especially the left hypochondrium, protruding below the ribs and extending up in front of the spleen, which was small but healthy. The mass was soft and pulpy, nodulated, and firmly adherent to the stomach. The liver was enlarged, and infiltrated with new growth. Microscopically the growth showed alveoli of delicate connective tissue filled with masses of round cells, which were granular and had well-marked nuclei—doubtless encephaloid cancer.

Ulcerative Colitis.—Dr. DYSON read a paper on Ulcerative Colitis. He related a case and showed the colon of the patient, who died in the infirmary while under his care. The patient was a man aged thirty-nine, a traveller. He had been in the Horse Guards, but had never been abroad. There was no history of syphilis, alcoholism, or dysentery. The cause of the disease was not clear. The patient was very sallow, cachectic, and emaciated. He was very severely ill for two months. He suffered from severe and uncontrollable diarrhœa, the motions generally being fluid, ochre-coloured, offensive, and latterly containing blood. There was occasional pyrexia, but the temperature for the most part was normal or subnormal. There was no pus or mucus seen in the motions. The patient died of asthenia. Remedies, consisting principally of opium and astringents, were of no permanent effect. Dr. Dyson referred to the cases reported by Dr. Hale White. The prognosis was almost always bad. Post-mortem examination in Dr. Dyson's case showed severe colitis with ulceration, extending from the middle of the transverse colon to two inches above the rectum. The ulcers were numberless, some well defined, some extending deep down to the peritoneal coat, many of them coalescing, leaving prominent islets of uninvolved mucous membrane between. Dr. Dyson also related a case of follicular ulceration of the colon, laying stress on the great importance of distinguishing between these two varieties of ulceration and also on the importance of not confounding them with severe colonic catarrh with the presence of casts in the motions.

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, NOV. 25TH, 1891.

Mr. BENNETT MAY, F.R.C.S., President, in the chair.

Molluscum Fibrosum.—Dr. SUCKLING showed a woman aged seventy who was covered with fibrous tumours varying in size, some pendulous, some sessile. The growths commenced thirty years ago, and fresh ones had continually appeared since. There was no hereditary history, and no

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cause for the disease could be elicited. None of the growths had ever disappeared spontaneously. A few of the growths had a comedo on the summit, and there was a large one growing from the mucous membrane of the hard palate. Some of the tumours were lobulated. The disease could be easily distinguished from multiple neuromata, lipomata, and from molluscum contagiosum.

Mr. JORDAN LLOYD showed a patient forty years of age upon whom he had performed the operation of Kolpohysterectomy for uterine cancer in May last. The tumour was epitheliomatous, affected the whole of the cervix, and had existed for six months. The operation was performed in the usual manner, the left broad ligament being clamped and the right one ligatured. Recovery was uninterrupted. She had gained more than a stone in weight, and her skin had become ruddy and firm again since the operation. She was free from pains, and able to do her housework as well as ever. Mr. Jordan Lloyd also showed a large Myxomatous Tumour removed from the right popliteal space of a woman about sixty-five years old. The whole of the structures of the space were spread about the growth, which weighed three pounds after removal, and had been slowly growing for nearly twenty-five years. Of late, however, it had increased with great rapidity. The patient was making a good recovery.

Dr. MALINS showed a Fibro-cystic Tumour of the Uterus. The patient was forty-one years of age; no family or miscarriages. She complained of pain in the left side of the chest. A tumour was found in the right side of the abdomen, thought to be ovarian. It was attached by a pedicle one inch wide to the right side of the uterine fundus; it was filled with about two pints of clear fluid, and its interior was degenerating—i.e., breaking up. The pelvis was washed out with water, a glass drainage-tube being kept in for thirty-six hours. The patient left the hospital quite well on the twenty-fifth day. Dr. Malins also showed a Polypus. The patient was forty-four years of age; two children; married twenty-seven years; history of menorrhagia for four years. The patient was blanched and anæmic, and she had never been examined until just before admission. The polypus was excised on Nov. 17th. The patient has done very well since.

Calculus impacted in Ureter forming Sub-vaginal Tumour.—Mr. JOHN W. TAYLOR narrated two recent cases of calculus impacted in the ureter which he had diagnosed from the presence of a little painful tumour felt on vaginal examination in the situation of one ureter near its entrance into the bladder. In one of the cases the stone had passed, with disappearance of the local tumour. In the other case the tumour persists.

Dr. STACEY WILSON showed a very typical specimen of Pemphigus.—Mr. HALL EDWARDS read a paper on the Optical Lantern as an Instrument of Medical Education. A number of slides of diagrams, cases, micro-photographs, and pathological specimens were exhibited on the screen.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

TUESDAY, DEC. 15TH, 1891.

J. H. BELL, M.D., in the chair.

Acromegaly.—Mr. APPLEYARD showed a woman aged forty-three, in whom, since twenty, there had been persistent amenorrhœa. The relatives had noticed no particular change in her features or voice. Ten years ago her hands and feet were noted, as increasing in size. Half-a-dozen years ago a curvature forwards of the upper part of the spinal column began to show itself. The voice was deep, forehead retreating, orbital and malar ridges well developed, lower jaw natural size, the bones and areolar tissue of hands and feet uniformly enlarged, the skin soft and thickened. Some years ago she frequently noticed outbursts of sweating in hands and feet, not so evident now. When the hands are extended the metacarpo-phalangeal joints are over-extended, the terminal phalanges being slightly flexed. Both the clavicles and first ribs on each side are considerably enlarged. The mucous membrane of the mouth is more succulent than natural, and the lower lip markedly everted. Reflexes and special senses normal. No alteration of fields of vision, no headache, vomiting, or evidence of intra-cranial tumour, no albuminuria or glycosuria, no signs of tubercle in lungs, but difficulty of respiration; bronchial catarrh, for which she is under treatment; the mental state a little inert; great muscular weakness. When first seen, two months ago, could not walk across a room.

Lupus inert to Tuberculin.—Dr. BELL showed a case of lupus under observation for very many years, which had been treated for twelve months past with tuberculin; improvement had resulted, but the disease was there still, and maximal doses corresponding to one cubic centimetre of undiluted tuberculin now had no effect on either patient or disease.

Sarcoma of Femur.—Mr. APPLEYARD showed a specimen on a case of accident; femur fractured whilst walking in the street. As union did not take place, and callus was suspicious, it was cut down on and found to be a rapidly growing sarcoma.

Other Cases &c.—Dr. S. LODGE: Bilateral Palsy of Laryngeal Abductors, improving under iodides. Mr. WILMOT: Lupus Erythematosus in a Child. Mr. HORROCKS: Chronic Hydrocephalus with Meningocele treated by operation. Mr. PETTITT: Enlarged Dislocated Spleen in Infant. Dr. ADOLPH BRONNER: Cases of Atrophic Rhinitis of fetid and non-fetid nature, and a case of Peculiar Laryngeal Growth. Dr. RABAGLIATI: Sarcoma of Kidney; Nephrectomy. Mr. HORROCKS: Scirrhous Mammæ, with Organised Blood-clot. Mr. APPLEYARD: Peculiar Skin Disease allied to Molluscum Contagiosum.

Reviews and Notices of Books.

A Clinical Text-book of Medical Diagnosis for Physicians and Students. By OSWALD VIERORDT, M.D., Professor of Medicine at the University of Heidelberg. Authorised Translation by FRANCIS H. STUART, A.M., M.D. (New York). Edinburgh and London: Young J. Pentland. 1891.

THE somewhat extensive series of text-books dealing with the methods of physical diagnosis which within the last decade have been placed at the disposal of the English reader has been certainly enriched by the addition of Prof. Oswald Vierordt's work, for the translation of which the profession is indebted to Dr. Stuart. The subject is one which is not capable of great variety in the manner of its presentation, but very much indeed depends upon the author's exposition of it and his appreciation of the relative importance of the facts he describes. It is of great advantage to the learner, moreover, to meet with a writer on the subject whose position as physician and professor enables him to speak from the fulness of personal experience, and who knows also the best method of systematising his material in order that it may be of the greatest service. The methods and instrumental aids to diagnosis have now become so numerous that it is no light task for a physician to describe them fully and satisfactorily; and even in the present volume, which in its exhaustive character equals any that has hitherto appeared, it has been deemed fitting to relegate to an appendix the subjects of laryngoscopy and ophthalmoscopy, the full treatment of which would have necessitated a great increase in the bulk of the work.

The plan on which the book is arranged is that usually adopted in works of this class, for indeed it is the natural method of the systematic treatment of the subject. First, the results of general observation and examination of the patient, his nutrition, the state of the skin and subcutaneous tissues, and the temperature of the body. There is no material point left untouched by the writer in this section, and opportunity is taken now and then of entering more fully than usual into pathological questions; as, for instance, when speaking of jaundice, the suggestion is made that in many cases of so-called hæmatogenous jaundice, associated with hæmoglobinæmia—i.e., destruction of red corpuscles,—the bile may be so thick and concentrated as not to flow through the duct. At the same time, it is not disputed that hæmatoidin (or bilirubin) may be formed from

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the hæmoglobin set free in the bloodvessels, thus constituting a true blood-jaundice. In describing the precautions needful for the accurate observation of the temperature of the body, Professor Vierordt emphatically recommends that the temperature should not be taken in the mouth; but we are of opinion that when due care is observed to place the bulb of the thermometer beneath the tongue there is not much risk of fallacious results.

The next section deals with the Examination of the Respiratory Apparatus, and contains many valuable hints as to the practice of percussion and auscultation. The interpretation of the results of percussion, according to the physical conditions of the parietes, is assisted by a series of novel and accurate diagrams. The author is no advocate for the use of the binaural stethoscope; and herein we agree with him, at least in part, for we deem it unwise of the student to cultivate the use of this instrument to the exclusion of obtaining familiarity with the rigid stethoscope. Professor Vierordt wisely refrains from any detailed discussion upon the causation of the vesicular murmur, and contents himself with expressing his belief that "vesicular breathing" is merely the bronchial breath sound formed at the rima glottidis and altered by being prolonged into the air-containing lung. It certainly conduces to clearness to start with the conception of vesicular and bronchial breathing as the root sounds (if we may so express it) of all the variations in the respiratory murmur that appear in various conditions of disease. We confess to a slight disappointment in finding that one so versed in auscultation and its meaning should have retained the word "râle" to comprise the "dry" rhonchal as well as the "moist" crepitant adventitious sounds. To be sure there is high authority for this, but the misuse of the terms is liable to be confusing to the tyro. There is an ample discussion upon the characters of expectoration and its microscopical investigation.

In the following section, that of the Examination of the Circulatory Apparatus, the reader will find a clear and sensible description of cardiac signs and murmurs, and an adequate description of the pulse and of the changes met with in the blood. It will be seen, too, that the author holds that the murmur distinctive of mitral stenosis is diastolic or presystolic, as tested by the carotid pulse; but we find no mention of visibility of the auricular impulse in this affection (page 203). He points out that systolic retraction, limited to the apex beat, is of no significance, whereas a similar phenomenon visible over several interspaces is distinctive of adherent pericardium. Respecting the area of cardiac dulness and the variations assigned to it, he wisely recalls the fact that the precise limits vary with the individual observer. He does not attempt to explain the causation of anæmic murmurs.

The section dealing with the Digestive System necessarily contains an account of the various plans, none of which have gained much footing in this country, of the examination of the gastric secretion, both as to its capability of digesting food and of its relative contents in hydrochloric and lactic acids. The inadequacy of many of the tests devised for this purpose is pointed out. The details of examination of the various abdominal organs and the investigation of the excreta are well and amply discussed. The same may be said of the section devoted to the examination of the Kidneys and the Urine, although we miss any reference to the remarkable reaction discovered by Ehrlich in certain febrile states. But perhaps the most fully developed section is that which deals with the Nervous System, and we commend this for careful study as being a valuabe systematic exposition of a difficult subject. It is thorough and exact, reflecting great credit on the author, who indeed has rendered no mean service to medicine in having prepared a work which will prove as useful to the teacher as to the student and practitioner. The translation is on the whole excellent; now and then the reader meets with novel phrases and crudities of expression, and there is an occasional lapse in the spelling of proper names, as "Veil" for Weil (pp. 103 and 108), "Scoda" for Skoda (p. 109), "Gabett" for Gabbett (p. 187), "Bamber" for Bamberger (p. 190), "Neiser" for Neisser (p. 427), and "Gmellin" for Gmelin (p. 492), but these are only venial faults, and are well atoned for by the general excellence of the work, its admirable index, and elegant production.

A Manual of Practical Hygiene. By the late EDMUND A. PARKES, M.D., F.R.S., Professor of Military Hygiene in the Army Medical School. Edited by J. LANE NOTTER, M.A., M.D., F.C.S., Professor of Military Hygiene at the Army Medical School, Netley. Eighth Edition. London: J. & A. Churchill. 1891.

FROM the time that the late Professor Parkes first published his manual of Practical Hygiene up to the present day it has occupied the foremost position among works of the kind. It was what may be termed an epoch-making book, and its intrinsic merits were at once recognised. After Dr. Parkes' death in 1876, the late Professor De Chaumont continued to edit the new editions called for from time to time, and now the eighth edition has been brought out by the present Professor of Hygiene at the Army Medical School, Dr. J. Lane Notter. In the case of a book of 769 pages, and supplied with copious references and foot-notes, it would be impossible within reasonable limits to afford anything like an adequate idea of its scope, method of treatment, and the alterations and additions that have been made since the publication of the last edition. And, happily, it is unnecessary; for when a work has attained the popularity of "Parkes' Hygiene," little, if anything, remains to be said about it by the reviewer. Its success speaks for it. The book has been a more fruitful source of good to the soldier and the State than can be easily realised. It is full of instruction for the medical officer and, indeed, for all who have anything to do with questions of hygiene and public health. Professor Notter tells us in his preface that when Dr. de Chaumont died, in 1888, he left nothing to indicate that he contemplated any change in the general plan of the manual, consequently the same arrangement has been adhered to in the present edition. While the scope of the work remains unchanged, however, every chapter has undergone careful revision, and as far as possible been brought up to date. Indeed, there is scarcely a page in which additions or alterations do not occur. A comparison of the present with former editions, so far as we have made it, shows this to be the case. To name a very few, we may say that in Chapter I., on Soils, we trace numerous alterations and additions, especially in connexion with soil influences and temperature on disease, soils in order of healthiness, and micro-organisms in soil. There is a fresh section on the Bacteriological Examination of Water, and an important addition on Field Organisation in War. The manual is furnished with a good index.

Professor Notter thanks Mrs. Bruce for the drawings illustrating the characters of starches and bacteria, and expresses his sense of indebtedness to his friend and colleague Surgeon-Captain A. M. Davies, Assistant Professor of Military Hygiene, for his revising aid. The editing of a book of this kind involves great research and the exercise of thoughtful care and of a cultured judgment, and the eighth edition of Parkes' Practical Hygiene reflects much credit on the Army Medical School.

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New Inventions.

SHOT-PROOF SPECTACLES.

THE constant recurrence of serious accidents to the eyes of gunners and others engaged in covert and various kinds of game shooting has induced Mr. Steward of the Strand to direct his attention to the manufacture of a pair of "shot-proof spectacles" which should protect the eyes of its wearer. The danger is now sadly increased by the employment of new pattern of spectacles, and it was clearly shown by demonstration, after firing Nos. 5 and 6 shot at different ranges, that down to forty yards the lenses, manufactured from stout pebble or Brazilian quartz, were "*shot-proof.*" The pellets did not in any instance penetrate the lenses, although in some cases they cracked them, whereas with glass lenses of the same thickness the glass was shivered to pieces. The spectacles weigh about one ounce, or one-third the weight of the regular commercial *D* eye shot-proof spectacles. The shape when finished is a well-domed oval, so as to fully protect the eyes in front and at the sides, and the





"chilled shot," which, hardened as it is, does not flatten and fall as soft shot does, but glances off in every conceivable direction after striking any hard substance. The spectacles are made to fit the eyes most accurately, and can be worn without inconvenience. Captain Willoughby Verner, of the Rifle Brigade, has recently carried out some experiments fully proving the protective power to the eyes of this *front* of the frame is bowed so as to preserve the proper curve. The thickness decided on is much less than in those previously introduced, and has been arrived at after several experiments to determine a reasonable minimum of substance for safety. With the sighted lenses the thinnest part is of equal thickness to the weakest part of the lenses used at trial.

THE "EUCALYPT" AUTOMATIC VAPORISER.

IT is well known that the treatment of disease by inhalation has been employed with marked benefit, but it must be admitted that the methods that have been previously adopted are not so perfect as to call for no further improvement. The "eucalypt" automatic vaporiser seems to us to fulfil two very desirable conditions which do not appear to have hitherto attracted notice—namely, that the supply of medicated vapour should be independent of any effort of the patient, and that the supply should be continuous over long periods of time. The illustration will serve to show how these ends are attained. The vaporiser consists of two upright metal bars, about two feet high, fixed opposite to one another on a firm circular wooden base, which, uniting at the top, terminate in a ring, so that the whole apparatus may be lifted and moved from one place to another. A special form of night-light rests in a socket in the centre of the base, and is covered with a glass shade. A metal pan containing a porcelain evaporating basin is suspended over the light by means of guides which slide freely up and down the upright bars. The guides are furnished with spring catches fitting into numbered notches cut into the bars, in order that the water bath with its evaporating basin may not only be brought near to or raised away from the source of heat, but may be fixed at any desired height. A thermometer is fixed in a support, which slides along one of the upright bars above the pans. The liquid to be vaporised is placed in the porcelain evaporating basin, which is immersed in water contained in the metal pan. Heat being supplied to the metal pan from the night-light, the water becomes heated and the liquid is gently vaporised. The amount of heat supplied and, therefore, of vapour given off is regulated by the height of the water bath above the night-light—the lower the water bath the greater the supply of heat, the amount diminishing progressively as the water bath is raised away from the source of heat. By means of the thermometer, which, when in use, is lowered until its bulb is covered by the liquid in the evaporating basin, the temperature at which the evaporation is going on can be at all times observed.



We find that the action of the vaporiser can be regulated with the utmost ease, and when once it is set it requires no more attention than an ordinary night-light, at the same time securing the steady diffusion of antiseptic vapours into the atmosphere. The apparatus may also be used for the vaporisation of other substances, such as thymol, lavender, terebene, phenol, iodine, and iodoform. It is the design of *Dr.* W. H. Spencer of Hastings, and is made by Coxeter and Son, of Grafton-street, Gower-street, W.C.

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THE LANCET.

LONDON: SATURDAY, FEBRUARY 6, 1892.

IT does not appear to be probable that the judicial decision in the recent action STEELE *v.* SAVORY will affect detrimentally the ultimate settlement of the constitutional questions still awaiting solution at the Royal College of Surgeons of England. The decision may merely mean that the plaintiffs in this action proceeded upon too technical legal advice when they deliberately infringed the by-laws of the College and set at naught the authority of the Council for the purpose of testing the validity of claims which had been raised on behalf of the Members. As the matter now stands, the result of accepting the advice tendered to the plaintiffs in the action STEELE *v.* SAVORY is that the adverse decision of Mr. Justice ROMER leaves them exposed to the infliction of the penalties set forth in the broken by-law, in addition to the payment of the costs of the action. We do not for a moment believe that the Council of the College will think it advisable to act upon the powers which they possess. The plaintiffs have been judicially declared to have been in the wrong; and not a few of those who ardently desired a reform in the College have throughout disapproved of the tactics which the Association of Members adopted. Nevertheless, we cannot withhold sympathy and best wishes for the ultimate attainment of the end in view—namely, that of improving the constitutional position of the neglected Members of the Royal College of Surgeons of England.

It is rumoured that the plaintiffs intend to appeal against Mr. Justice ROMER'S decision. We cannot but conclude that an appeal would serve only to keep up an irritating cause of difference which it is desirable in the interests of both of the Fellows and Members of the College to remove as quickly as possible. It would delay the reforms which are now accessible without benefiting in the smallest degree either the plaintiffs or the Members of the College. Even if it were proved that the Charter of 1800 had been irregularly secured, it would not be possible to go back to the conditions established by the Act of 1745. The cause of reform would not be advanced unless the whole fabric of the Charters and by-laws commencing in 1800 could be swept away and a *tabula rasa* obtained. Then perhaps the claims of the Members of the College to a substantial voice in the management of the corporation might receive due recognition.

If we set aside the hope of assistance from the judicature, there are only two ways in which the desired reforms can be secured—viz., the action of Parliament and the moral suasion which results from strong arguments founded on justice and expediency. At the present time it would be idle to expect any redress from the Legislature. When a new Parliament has been elected and gives promise of stability, it will be time enough to estimate the prospect of relief from legislation. The only course which remains is a temperate representation of grievances and inequalities to the governing body, the enlistment of the sympathies of a majority at least of the Fellows of the College, the electoral body to the Council, and the conversion of the members of the Council of the College. Future success must depend upon the strength of the forces which the Members of the College can bring to bear upon the Council. An association of Members of the College aiming to realise the just aspirations of the Members to a substantial voice in the management of the corporation ought to include every Member who thinks for himself and aspires to something more than securing for himself and his family the bare means of subsistence; the Members of the College must show that they are a united body, and are really in earnest in vindicating their claims; it is by such means as this that they must convince the Council of the College of the justice and the expediency of yielding to them some representation on the Council of the College.

The profession at large fails to take its proper place in the estimation of the public and the Government of the country, because it lacks, and has ever conspicuously lacked, that *esprit de corps* which is the first element in the elevation and success of bodies of men associated for a common purpose. The leaders of the profession have seldom been on the side of the rank and file in their efforts to obtain increased consideration in the corporations or institutions concerned with professional interests. The stocks, the loss of ears, the fines and imprisonment which formerly were at the command of the College of Physicians in dealing with offenders against its laws more nearly represent the spirit in which the upper crust of the profession has regarded the aspirations and ambition of the lower layers. There are no very obvious signs of any abatement of an antagonism which seems to be innate. Professional brotherhood is too often limited to consultations and social gatherings. At other seasons each class fights for its own hand. The forces of the Members of the College, being large and scattered, are not readily mobilised; but if they wish to lift the cart out of the rut in which it is embedded, they must avoid calling upon JUPITER, and put their own shoulders to the wheel. No better or surer way can be suggested than by making the Association of Members of the College so strong that its voice will be recognised as the true expression of professional feeling and opinion.

WHATEVER significance may be attached to the term "masked epilepsy" from a pathological point of view, it is devoutly to be hoped that it is not to be frequently called upon to do duty in criminal cases, either as a shelter from responsibility or as a refuge from punishment. The case of EDMUND OSBORNE, an elderly and delicate-looking man, who was tried before Mr. Justice CAVE at the Central Criminal Court on Jan. 13th, affords an admirable illustration of the incongruity of opposing evidences and opinions as to the presence of a "disease" whose chief characteristic is its obscurity. According to the account of the trial given in the *Daily Telegraph* of the following date, OSBORNE

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was placed in the dock on a charge of maliciously wounding his wife with intent to murder her, the allegation being that on Nov. 10th he returned home in a state of intoxication and savagely assaulted the prosecutrix with a poker, inflicting serious wounds. Believing that he had killed the unhappy woman, OSBORNE went to his daughter and announced his intention of giving himself in charge. The contention on the part of the defence was that at the time of the attack the accused was irresponsible for his actions. It was asserted that there was insanity in the prisoner's family, some of whom had suffered from epilepsy, and that it was while under the influence of that malady in its "masked" form that the accused committed the assault. Mr. GROGONO, divisional surgeon of West Ham, explained that victims of this disease betrayed none of the symptoms of ordinary epilepsy, and that a man suffering therefrom would fall down insensible. His Lordship: But so would a drunken man.—Witness: Yes, but you could waken a drunken man, and for your good nature he would probably swear at you, whereas in the other case t would be very difficult to bring him round. In reply to the counsel for the prosecution (Mr. F. FULTON), witness admitted that the diagnosis of the complaint was somewhat obscure. Mr. PITCAIRN, assistant surgeon of Holloway Prison, was of opinion that the accused was perfectly sane on the night in question, and in reply to Mr. MATHEWS, who defended, he remarked that the disease spoken of was usually advanced in criminal cases, and was held in doubt by high medical authorities. Mr. F. FULTON subsequently admitted that he had never heard of such a form of mania as the one in question; but Mr. MATHEWS was very emphatic on the point, and his description (says the *Daily Telegraph*) was calculated to throw terror into the minds of peaceably disposed citizens. "Years and years," he declared, "it may lie dormant in the brain; but if once it shall show itself it will take the form of ungovernable temper, resulting either in suicide or homicide."

The learned judge, in summing up the case, said, so far as he could gather, "masked" epilepsy masqueraded in the form of drunkenness, and the question therefore arose, "How was one to tell these two things apart?" The jury, however, experienced apparently no difficulty of this kind, and found the prisoner guilty, adding that they believed him to have been under the influence of drink at the time, and some of the jurors recommended him to mercy on the ground that "he was a man of excitable temperament." Mr. Justice CAVE, observing that the case came uncommonly near murder, passed sentence of eighteen years' penal servitude. We can well imagine that EDMUND OSBORNE, on hearing his sentence—no light one assuredly—felt disposed to wish that he had been "saved from his friends." It is clear that upon the evidence the jury had no choice but to hold OSBORNE responsible for the criminal act which he had committed.

When irresponsibility is urged in defence of a prisoner and as a plea against punishment for a crime, it ought to be put forward only upon positive evidence of the existence in the accused person himself of such a condition of mind as would render him irresponsible, and not upon flimsy generalities that scarcely leave room for such a thing as crime in human action. Leaving out the question of persons who are habitually criminal-minded, it may in general terms be taken that no civilised man is, mentally speaking, at his healthiest while engaged in committing a crime; there is at the time a special disturbance of his normal mental balance, by exaggeration or defection of one or more of the processes or faculties whose proportionate distribution and operation constitute his mind in its healthy state. Yet such deviation from the individual's normal best is not to be taken as implying disease or irresponsibility, otherwise all social rule and discipline must be set at naught, and give way to the incoherent sanctions of savagery. On the other hand, insanity, whether in company with epilepsy or not, is properly regarded as a disease, carrying with it irresponsibility and demanding special consideration and treatment. But it would be deplorable if this diseased condition, which carries with it irresponsibility, were to be minimised down to such proportions as are indicated in the phrases "ungovernable temper," "excitable temperament," and "masked epilepsy."

The learned judge's belief that in EDMUND OSBORNE masked epilepsy masqueraded in the form of drunkenness, appears to sum up the situation accurately and concisely, and we hope the day is far distant when in criminal cases mere drunkenness will be regarded as a disease, and not as in itself a crime antecedent to the one up to which it was the means of leading.

THE meeting of Parliament and the consequent demand on the columns of our contemporaries will probably tend much to diminish the number of specifics for influenza vaunted in our daily newspapers. At present the number and variety of these are embarrassing. The lay mind must be puzzled what course to take most effectually to foil the malicious microbe that has caused such ubiquitous mischief throughout this country, and, indeed, throughout almost all countries. One morning all that is necessary, either for the prevention or cure of the disease, is a sniff of an aromatic oil; another day the anxious public is assured that a few doses of a sweating mixture, without discrimination of cases, will divest the attack of all its dangers, and meet all its symptoms. Magazine articles are published disclosing not only the author's name, but the way in which he protects himself, and cures all his patients so effectually that they rarely give him any anxiety. A reader cannot but wonder that with such simple theories of the disease an such effective remedies there should be all this amount of sickness, and a demand for medical services seldom, if ever, equalled in this generation. In trying to form and express a judgment on the treatment of influenza we have to confess at the outset that we have no such brilliant successes to announce, and no single remedy to vaunt as meeting every case and every symptom of every case. There is no disease in which it is so easy to satisfy oneself of the efficacy of a pet remedy and the truth of a plausible theory as in the case of influenza. It will be our endeavour to indicate the general management of the disease, based not on the supposition of the existence of a specific cure but on its general nature, the character of its chief symptoms, and its usual course.

It seems not improbable that men in speaking of influenza in the lump are speaking of very different things. One

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thing is certain: that the chief mortality which has been witnessed lately, and which has so shocked the public mind, is not the mortality of mere influenza, but of pneumonia, bronchitis, and pleurisy, single or combined. The special character of such pneumonia, bronchitis, and pleurisy is to be inferred from the extensive prevalence of influenza, from the nature of the initiatory symptoms in many such cases, and from the fact that in the same house in which a patient has suffered, and perhaps died, from such complications, others have had ordinary attacks of influenza with little or no complication, and with quick recovery. For the most part such complications have been witnessed in older persons, and the proportion of such cases has been larger in the present outbreak than in the previous ones.

Nothing can be more misleading than for scientific men to write, especially in lay journals, as if all cases of influenza were alike, or as if a remedy that would appear to advantage in short febrile cases of the disease would be equally efficacious in pneumonia. Few cases are more easily managed than the run of influenza cases, especially in young subjects. Rest in bed, light diet, and a draught of citrate of ammonia and syrup will in nine cases out of ten secure the fall of the patient's temperature to normal in twenty-four, or at most in forty-eight, hours. He is likely to be so well as to wish to be up and about. In this he will be hindered by a wise practitioner, who has learnt that mere rest in bed for a few days, varying according to the case and the constitution of the patient, is the surest way of preventing future trouble, of averting sequelæ or relapses, and of securing restoration from that strange nervous and muscular asthenia which constitutes such a marked feature of the disease, and which in so many cases prolongs the convalescence for days or weeks, or even in some cases for months. In most cases the early use of quinine is beneficial. If a tendency to an evening rise of temperature continues, with profuse nocturnal perspirations, a four-grain dose of quinine at 4 P.M., or night and morning, has a steadying effect on the temperature and the sweat glands. The course of the disease is infinitely varied. One patient will have a very foul tongue with absolute anorexia and loss of all taste and smell, for which, with or without the quinine, light laxatives, such as a seidlitz powder or small doses of blue pill and rhubarb pill, are indicated. In other cases the pains are very pronounced in the head, back, or body. They are differently, but very vividly, described. The head and eyes are as if being crushed, the back as if being broken; in the limbs it is as if the flesh were being torn from the bones. Such pains often persist when the temperature has fallen. It is in such cases that antipyrin often seems to act like a charm, and, indeed, rarely fails to give relief in ten or fifteen-grain doses, once or twice repeated. Quinine, antipyrin, salicin, and many other drugs are useful in this disease. But the selection of them should be discriminating according to the idiosyncrasy of the sufferer and the physician's knowledge of the patient and his diathesis. In some cases there is very marked anæmia, and faintness with vertigo on the slightest attempt to sit up or move about, calling for the regular administration of nourishment and stimulants, and a very firm resistance to all premature attempts to resume the erect posture. All physicians must have noticed the severe reverse, almost shock, which many patients experience who have got up too soon or sat too long on the first day or two of their escape from bed. In a considerable number of cases the administration of alcohol very materially helps the patient and shortens his convalescence; and where it is practicable and otherwise unobjectionable, champagne is the form of alcohol which seems most useful. Of course in this, as in all other diseases, the prescription of alcohol is to be regarded seriously, and the physician is to prescribe it under strict conditions of time and dose. But with such limitations its usefulness cannot be ignored.

If the evening temperature in a case of influenza continues to rise after forty-eight hours, some complication is probably present, and it will generally be found in the bronchial tract or in the tonsillar or pharyngeal region. Here evening doses of quinine will be very beneficial, or salicylates, especially in rheumatic subjects, combined, if necessary, with ammonia and other remedies for the relief of the bronchial catarrh, and other local or topical applications. We are not now dealing with those grave cases of pneumonia which have constituted such a deadly feature of this epidemic, and which are so different in their result from sthenic pneumonia in ordinary seasons. It is, indeed, a question whether these should not be regarded as something apart from ordinary influenza, and more of the nature of the epidemic pneumonia in Middlesbrough and other places investigated so ably by Dr. BALLARD two years ago. We should like to see this point definitely investigated.

One of the most disappointing things about influenza is the prolongation of the convalescent stage. The patient continues weak, or short-breathed, or anæmic, or suffers from pains and soreness of the limbs. In many cases such sequelæ are due to treating the disease too lightly in the first instance, to an insufficient period of rest and recumbency, or an inadequate use of tonics proper to the diathesis of the patient, or else to neglect of seeking change of air; for here, as everywhere else, it is the patient, and not the mere disease, that has to be treated. All patients cannot be treated with one remedy or in one way; they "need a physician"—in other words, one who will go into the particulars of their case, and select from half a dozen remedies the one which they require. But here, again, the medicine or drug is only a small part of the treatment necessary to remove symptoms so deep-rooted and persistent. It is by discriminating treatment, and not by the wholesale prescription of any nostrum, that the welfare of patients and the reputation of the profession are to be secured.

THE more recent telegraphic despatches which have been made public concerning the proceedings of the International Sanitary Conference at Venice have been difficult to understand, and have seemed to indicate some considerable vacillation in the attitude of the British delegates, who, as announced, have been in frequent communication with the Government on the subjects under discussion. As will be remembered they went out to uphold the principles of the Anglo-Austrian protocol, which demanded the passage "in

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quarantine" of the Suez Canal for all British vessels regarded as "suspect" or infected, provided these did not communicate with land until arrival at their port of destination; and the same privilege was to be accorded to any other nation which desired to make arrangements accordingly. This protocol had the appearance of having been very deliberately prepared by our Foreign Office, which department selected the delegates who were to represent the interests of this country, and it was generally understood that its terms met with favour on the part of the Italian Government. The French counter proposals now appeared on the scene; and without any explanation that could be regarded as reasonable, unless a mere counting of votes be so regarded, it was announced that these proposals had superseded the English ones, and had, with certain modifications, been assented to by our delegates. The two sets of proposals differed in the most important of all the conditions laid down. The one demanded the passage of the canal for all our troopships, mailboats, &c., even if infected, provided they sailed direct to a British port; the other not only refused this passage, but in certain cases demanded an old-fashioned quarantine, by requiring the disembarkation and detention of all the passengers &c. at the Wells of Moses in the case of infected vessels. Then came adjournments, during which the public were informed that the British delegates were in communication with the Home Government; and this was followed by an urgent telegraphic despatch to the chairman of the Peninsular and Oriental Shipping Company to join the delegates at Venice, but before his arrival these arrangements, which had apparently been agreed upon, were again modified, and some of the French proposals were practically set aside.

Then towards the final stage of the proceedings came a further telegram, to the effect that the proposals which England had laid down "regarding the passage of the Suez Canal in quarantine" had been adopted with certain amendments and assented to by the Conference. There still remained such reservations that the British delegates declined to sign the convention which had been prepared until they had received authority so to do from Her Majesty's Government. And this refusal is the more significant, because the latest telegram as yet received states that amongst other things adopted by the Conference is "the detention at Moses' Wells of all infected vessels—that is to say, of those which actually have on board cases of cholera or have had them some days previously." It is true that this is further limited by a reference to the disembarkation of the sick only; but, on the other hand, the same regulation definitely refers to a detention which, as regards the ship—not the passengers—will, in any event, not exceed five days. The arrangements thus provisionally proposed or entered into seem most perplexing, and it will be impossible to form a proper judgment upon them until the actual terms of the Convention have been made public. If Great Britain has seen fit to sanction an alteration in the constitution of the Alexandria Board, by which it acquires an international character, and if our troopships and other ships are to disembark "the sick" at Moses' Wells, it is earnestly to be hoped that the officials who will have the power of deciding who is to disembark shall be such as this country will have confidence in, and that no such measures shall even be commenced until we know that adequate provision has been made for the care of those who are detained.

THE general meeting of the Council of the Hospital Sunday Fund, which was held on Monday last, had a long list of distinguished names to record with obituary references, the deaths of Sir J. RISDON BENNETT, Cardinal MANNING, and Mr. SPURGEON having followed one another in very rapid succession, and it was with very sincere feeling that the Council testified to its sense of the great services which these men had rendered to the common cause. The resignation of Sir RUTHERFORD ALCOCK was also announced. But the chief business of the meeting had reference to the form of hospital accounts which has been elaborated by a committee of hospital secretaries, and provisionally approved by the Council of the Fund for adoption by the various hospitals in rendering their accounts to the Distribution Committee of the Fund. The prevailing feeling at the meeting of the Council was that, for the sake of obtaining uniformity it was worth while to make a beginning with a form of accounts, even though it should have to be hereafter modified, so great is the inconvenience felt by the officers of the Council in dealing with the various forms which are at present received from the hospitals of the metropolis. The need of fuller consideration and the possibility of consequent revision before the schedule can take a final shape were clearly recognised, and this without the slightest disparagement of the painstaking and prolonged work of the committee of hospital secretaries, which has elaborated the present form. That committee has held numerous sittings, and has continued its labours through many months, at what must have been to its members a considerable sacrifice of time and trouble, for which no acknowledgment beyond the thanks of the Council has been or could be offered to its members. It has brought to bear upon the task a large amount of very special knowledge, and the result will command and will receive in all subsequent discussion the most careful consideration, and upon many points will doubtless be accepted as authoritative. The only reason that the work cannot be at once accepted as final is that there are matters to be taken into account which the secretaries' committee did not and could not include in its discussions. The hospital view of the aim and function of the published accounts is a very important one, and the only one which the secretaries' committee could be expected to take of its subject. But it is not the only possible view. When a communication passes between two parties there are naturally two views of it—the view of him who makes and the view of him who receives the communication. In the matter of annual statements, which are communications between the hospitals and the public, we find embodied the views of the one party, ascertained and expressed by what we have every reason to believe is a very efficient representative committee. But no one approaching the subject from the point of view of the public has as yet been consulted by the Council of the Fund; and our own examination satisfies us that when this

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is done it will turn out, as one would naturally expect, that there are things to be considered in the determination of the schedule which do not naturally suggest themselves to the official mind. The officers desire to speak and the public desire to hear one and the same thing in substance, but in its presentation these are chiefly concerned with difficulties of expression and those with difficulties of apprehension. Both therefore can contribute matter of substance to the discussion, and we reserve a final approval of the form until all available information on the subject has been garnered and thrashed out.

This view of the matter has acquired a special importance at the present time from the circumstance that the House of Lords Committee upon Metropolitan Hospitals has taken evidence upon this subject, and will doubtless deal with it among other matters in the forthcoming report. To any such utterances great consideration will of course be given, and if various forms of statement should come in the end to be competing for recognition, it might well happen that the last state of confusion would be worse than the first. It is plain that the hospitals cannot be asked to serve up one set of accounts to one authority and another set to another authority. Eventually, it is to be hoped that a schedule will be devised that will satisfy all the exigencies of the case and command common consent. The need of uniformity is now pretty generally recognised, and it ought not to prove an impracticable undertaking to devise the schedule which will be on the one hand comprehensive and elastic enough to suit all the hospitals, and on the other hand sufficiently perspicuous and precise to convey full and intelligible information to the ordinary reader.

Annotations.

"Ne quid nimis."

THE ALBERT UNIVERSITY.

DURING the past week an important event has happened with regard to the proposed Teaching University in London. As a result of some negotiations between the authorities of King's and University Colleges and the Joint Grand Gresham Committee, the latter body has unanimously resolved: "That this committee are willing to coöperate with University and King's Colleges and the medical colleges of the great hospitals in London in the establishment of the proposed University in and for London on the understanding that it be called the Gresham University." This proposal will doubtless be adopted by the Councils of King's and University Colleges, and we anticipate that no objections will be raised by the medical colleges, whose delegates will also meet the representatives of the teaching colleges this week, so that a combined action may be taken with regard to the passing of the Charter through Parliament. A mere change in the name, although this is a decided improvement, is the least of the advantages that will be derived if the offer of the Gresham Committee be accepted. The name of Sir Thomas Gresham is pre-eminent in the history of the University movements in London; for as long as some 300 years back he devoted his wealth to founding Gresham College as a Teaching University in and for London. This College will now become such a University, and the numerous bodies represented in the scheme of the University will have a common centre and a home for the meetings of the constituent members. On the other hand, the City will have a University in its midst, where, indeed, a University in and for London should be, and the reproach to this metropolis, that with the exception of Constantinople it is the only capital in Europe without a Teaching University, will be removed by Gresham College becoming the headquarters of the proposed University. It is believed that the change of name can be made before the Charter is submitted to Parliament, as it will doubtless have the consent of all the constituent Colleges, and as the Privy Council intimated in their final decision that the name was open to reconsideration. No other change, we understand, is contemplated in the Charter.

OFFICIAL INQUIRY INTO INFLUENZA.

FOR some weeks past it has been evident that a demand exists both on the part of the public and of the medical profession that further investigation should be made into the subject of epidemic influenza. The report issued by Dr. Parsons last year was admirably summarised in an introduction from Dr. Buchanan's pen; but whilst it settled the question of the infectious character of the disease and of its communicability from person to person, and thus carried with it, by implication, the need for the adoption of the ordinary precautions against a disease spread by such means, it was in many other respects an avowed confession of the lack of knowledge and a plea for further inquiry. "For the better means of repressing influenza," wrote Dr. Buchanan, "our expectation must be in an understanding of the natural history of the disease." Some eight months have elapsed since those words were written; the disease has recurred, and this in a very fatal form; but it has evidently needed the influence of outside public opinion to secure the continuance of the inquiry which was officially proposed. The delay is clearly not due to any lack of desire on the part of the Local Government Board to perform the duty devolving upon it in the matter; but the grant for scientific research allotted to the Medical Department is notoriously determined on a scale which is mainly characterised by rigid economy, and no special work of the sort needed can ever be contemplated except as the result of a special grant. This has at last been forthcoming, and it is to be hoped that it has not come too late to be of real service. The funds thus tardily entrusted to the Medical Officer of the Board will be, in the first instance, devoted to a study of the clinical features of influenza, to investigations as to its special pathology, if any, and to bacteriological research. These are the right lines; and, fortunately, a number of experts accustomed to the more scientific portion of the work are already available, and have already done good work, under Dr. Klein, in investigations of a somewhat similar character, as regards the relation of scarlet fever and diphtheria in the human subject to disease in the lower animals. From the more general and clinical portions of the inquiry we may expect information which will assist in ensuring a differential diagnosis of the disease, in obtaining some more accurate knowledge as to its period of incubation, and a better insight into its pathology. On such information only can any trustworthy means of prevention be based. As regards the present aspect of the epidemic, it is rather to prophylactics, if any exist, and to remedial measures, that we must look; but this subject comes more within the province of such a body as the Royal College of Physicians than of a department dealing solely with public health considerations.

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LIFE-SAVING AROUND THE COASTS.

NO part of our telegraphic system now in existence could exceed in utility that which would be added to its range of usefulness if electrical connexion were established with the coastguard and life service depôts distributed around our coasts. When we reflect upon the certain benefit which a project of this kind, if successful, must confer upon us as a maritime people, it seems at first sight incredible that up till the present date almost nothing has been done towards its execution. This neglect, short-sighted and discreditable though it is in more ways than one, is after all not wholly out of keeping with our national conditions. With us, untroubled by disputed frontier questions, the value of a method of communication is apt to be at first, and perhaps for a long time afterwards, judged of by its social convenience and its influence on business only, and the telegraph has accordingly been but little considered in relation either to coast defence or the dangers of coast navigation. It will now, however, be readily conceded that the claims of society and our daily occupations have in regard to this matter been duly allowed for. It is time, and high time, that some practical attention should be given to other and even greater, if not equally constant, necessities. The history of the recent winter storms will recall several sad instances of shipwreck with loss of lives which might and probably would have been saved had a wire been available to summon the earlier services of the lifeboats. A similar argument, of course, holds good in the event of a descent by hostile ships upon our coasts. It is estimated that £100,000 would defray the cost of putting all coastguard stations in night and day wire connexion with the general system, and a series of letters dealing with the whole question have been submitted by Mr. F. H. Maberly, late assistant surveyor, General Post Office, to the Queen, the various Chambers of Commerce, and the members of both Houses of Parliament. The scheme has already been widely approved, and we cannot doubt will at no distant time find that issue in practical reforms to which it is entitled by its great and obvious importance.

TYPHUS FEVER IN LONDON.

MR. SHIRLEY MURPHY, the medical officer of health to the London County Council, has issued a valuable report upon the prevalence in London of typhus fever, which shows to how great an extent this disease, once so common, has been disappearing from the metropolis, thanks, no doubt, in great measure to improved sanitation and the greater vigilance of the authorities. Nevertheless, this diminution of a total of 92 deaths in 1881 to 11 in 1890 must not be allowed to lull us into a false sense of security, although the sparsity of outbreaks and the masked features of some cases may lead to certain sporadic instances being overlooked. This is well illustrated by the record given by Mr. Murphy of an outbreak of the disease in a narrow, ill-ventilated court in St. Olave's, called Sards'-rents, to which his attention was called in October of that year by Dr. Wightwick, the medical officer of health for that district. The inhabitants were of the poorest class, and were occupied chiefly in pulling out of hair from skins. Since January, 1890, there had prevailed amongst them a disease characterised by pneumonic symptoms and delirium. One patient had been removed in March to a public institution and had died there, the death being registered as due to pneumonia. Another had been removed to a general hospital in August, and died from "bronchitis and emphysema." When Mr. Murphy first inspected the court he saw only some children who were recovering; but a few days later other persons sickened, and a careful examination of these cases along with Dr. Wightwick led to the conclusion that the disease was not pneumonia. Although no cutaneous eruption was present, they were forced to the suspicion of typhus fever, an impression confirmed by a study of the recorded history of the hospital case. Therefore, all cases subsequently arising were removed as soon as they occurred, and the suspicion of typhus fever was confirmed by their clinical course. It is satisfactory to learn that some of the houses in Sards'-rents have been demolished under Torrens' Act. Dr. Wightwick estimated that from thirty to fifty persons had been attacked in all, and in November and December eight cases occurred in another street, the outbreak there being doubtless imported by a relative of one of the Sards'-rents people who had nursed them during their illness. The introduction of the Notification Act led to thirty-five cases being certified in thirty districts of the metropolis in the year 1890; but of these only fifteen can be regarded as indubitably typhus, to which number five must be added which are returned as enteric fever. One case occurred in Bermondsey, in the same street as was affected at the end of 1889, and is probably referable to the same outbreak; whilst from March to June there were four cases in one family in another street; and, six months later, a more doubtful one in a third street of the same district. As to 1891, the report states that during the first nine months twenty-six cases were certified from fourteen different districts; but of these eleven proved not to be typhus fever and four others were doubtful. But at least twenty-four other persons suffered from typhus fever—not at first recognised. Particulars are given as to the chief cases, ten being certified at Holborn; but we have said sufficient to show that Mr. Murphy's opinion that typhus fever is evidently very ill recognised is justified, and we may especially draw attention to his admonition that "cases of ill-defined fever must be regarded with suspicion at the present time."

A WORKMEN'S SANITARY CONGRESS.

THE French labour party have determined that their Ninth Annual and National Congress shall be devoted to the discussion of one single subject. Up to the present all sorts of subjects have been discussed at these congresses, resulting in the proclamation of abstract principles and the adoption of ideal programmes. As everyone is now agreed as to the general principles that should govern the party, it is felt that something more precise and more practical should be attempted. The party has its representatives in Parliament, in the Paris Municipal Council, in the legal courts of arbitration, and in provincial local assemblies. These representatives should receive distinct instructions on practical legislative questions especially affecting the welfare of the working classes; and the annual Congress, instead of discussing a little about everything, has determined to devote the whole of its time to the careful study of one of these questions. It was of course somewhat embarrassing to decide which question should thus be considered, to the exclusion of all others; but it was ultimately resolved to give the preference to hygiene in its relations to the working classes. The debates of the Congress will be divided into three different phases of this great subject. First will be taken the problem of food-supply, especially in reference to the laws of March 27th, 1851, and May 5th, 1855. The workers will demand that the quality of the bread they eat shall be as carefully guaranteed by the State as the quality of the gold of which the current coinage is made. The second question relates to the sanitation of the worker's home, when the futility of the Commission on Unwholesome Dwellings will be dwelt on. The last subject is the sanitation of the workshop and factory, when the decree of 1810 will be denounced in no measured terms. According to this law the public

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are protected against dangerous industries, but not the workers. Thus, lead works are put in the second category, because they do not give rise to injurious emanations, and are only injurious to the workmen themselves. Such will be the general scope of the Congress; but before the delegates of the trade unions and the workmen's societies who form the labour party discuss these problems they will invite the best known scientific authorities on hygiene to deliver addresses to the Congress so as to enlighten the delegates as to the technicalities at issue. This precautionary measure is at once as wise as it is modest, and denotes considerable discretion and tact on the part of the workmen. They will find a scientific basis for their demands and make their wants known to men of science. Thus the sympathy that already exists between workers with the brain and workers with the hand may be further developed, and to the great advantage of public health.

POSITION OF THE NOSE.

DR. SIMONTON, in the *Chicago Journal*, calls attention to the fact that the human nose is frequently not in the centre of the face, and he emphasises the importance of this fact with reference to the accurate fitting of glasses. The difference in the breadth of the two sides varies from one-sixteenth to one-eighth of an inch, but he has not found it more than an eighth. But such a difference, he says, is sufficient to cause much trouble and inconvenience, especially with somewhat high refractive errors, unless the glasses are accurately ground with reference to the actual position of the pupil. Any adaptation of the spectacle frame, he says, would upset their balance, so that the glass should be modified, if such an inequality, as he says is not uncommon, should exist.

DOES INFLUENZA PROTECT FROM A SUBSEQUENT ATTACK?

THE question whether an attack of influenza confers protection from subsequent infection is one which must have often arisen during the experiences of the last three years, but the data for its solution are not yet fully available. The amount of information which must have been gleaned by the family practitioner in all parts of the country upon this and many other points concerning the malady would, if collated, go far to settle the matter. It is of course notorious that certain individuals have suffered from more than one attack; but the conviction is pretty general that such cases really form but a small minority of the large numbers who have suffered. Then, again, it must be deemed possible that the degree and duration of the protection may depend on the severity which the primary attack exhibited, for one can hardly invoke the doctrine of attenuation of virus in the case of this disease, which shows so much variation from the ordinary course of infective disorders in general. In a highly interesting contribution upon the features of the present epidemic in Berlin, Dr. Ruhemann[1] directs especial attention to this question of protection and affords valuable evidence of it. He aptly remarks that the more gradual evolution and persistent character of the present epidemic, as compared with the rapid and stormy course of the pandemic of 1889 to 1890, have afforded opportunity for more closely studying the characters of the malady, and that it has especially enabled us to recognise more clearly its contagious nature. According to him influenza has prevailed in Berlin ever since the beginning of last September, and he notes how on this occasion the stress of the outbreak has fallen to a far greater extent upon women and children and less upon men than was the case two years ago. His own practice affords proof of this, especially in the fact of the greater frequency of uncomplicated cases among women than among men. As to the question of protection, he has observed that members of families who were severely attacked two years ago have either escaped entirely at present or been only slightly affected; whilst, conversely, the most serious cases of the present time have arisen in households which the influenza spared during its earlier visitation. He notes the statement of Dr. Edw. Gray,[2] to the effect that "many persons who escaped the epidemic of 1775 were affected by that of 1782, and many who escaped the latter were affected by the former," as showing that a century ago this question of immunity had not passed unnoticed. Dr. Ruhemann gives his own experience of 55 families, numbering 193 individuals. In 1889–90 there were 64 cases of influenza among this group, whilst in the present outbreak only 40 have been attacked, and, what is of especial interest, only 5 out of this number were affected (and that but slightly) two years ago, whilst of the 64 then attacked, only 4 have again become victims. Should this prove to be anything like the general experience it would go far to substantiate a fact that has hitherto been much disputed, even to the extent of declaring that one attack predisposes to another. That one individual may have several recurrences during the prevalence of a single epidemic does not, in Dr. Ruhemann's opinion, militate against the general doctrine of protection, since he thinks many such recurrences may be explained by lack of caution on the part of patients against exposing themselves to fresh infection before they are restored to full health. That influenza does protect from a second infection should reassure many persons who, having once suffered severely from it, dread a repetition of so depressing a malady; and it may be a further comfort to them to learn that the more they have suffered at first, the less likely are they to suffer at all again. If, then, influenza shares this common property of all infective diseases, it is not so remarkable that it should not apparently select the young in preference to the adult and aged, seeing that the whole community is more or less "unprotected" when it first reappears after an absence (in pandemic form) of years.

[1] Deutsche Med. Wochensch., Jan. 28th.

THE MANCHESTER MEDICO-ETHICAL ASSOCIATION.

WE have been favoured with the forty-fourth annual report of the Manchester Medico-Ethical Association. It reports "a spirit of activity" in the work of the Association. By way of increasing the interest of members and usefulness of the Association, the committee ventured to initiate an extension of the usual programme by securing a series of papers on the following questions of public interest:—A Presidential Address on Infant Mortality, by Dr. Ashby; the Disposal of the Dead, by Dr. Wahltuch; the Relation of Unhealthy Dwellings to the Etiology of Phthisis, by Dr. T. Harris; the Influence of the Drink Traffic on the Death-rate, by Mr. Meacham; and the Laws and By-laws regulating the Sanitary Arrangements of the City of Manchester, by Dr. J. Tatham. The attendance at the reading of these papers was very good. The committee took an active part in opposing the Midwives' Registration Bill, and in drawing attention to serious defects in the Factory and Workshop Act. On the subject of increased representation of the profession on the Medical Council the subcommittee suggested that it should be secured rather by some of the Crown nominations being given to members of the profession in general practice than by mere addition to the numbers of the Council. Not the least interesting question mooted in the Society was that

[2] Thompson's Annals, p. 110.

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of establishing a black list. The question was referred to a subcommittee, which took counsel's opinion thereon. The subcommittee consider counsel's opinion to be in favour of such a list, but they think that it will require to be so carefully drawn up that the whole question should stand over for consideration next session. The profession will await with interest the further action of the Association in this delicate matter.

A LIFE FOR A LIVING.

AFTER another period of remarkable abstinence, lasting to within a few hours of forty-four days, and maintained in spite of gastric irritation, severe cold, London fog, and the indifferent atmosphere of his apartment, the Italian Succi, has found it needful to give way to nature, and to forego the last week of his self-allotted fast. We have no regret for this result, but rather for the fact that he will still persist in enduring for a time a modified starvation on lemons, oranges, and water. During the period above mentioned he has lost almost a third of his body weight, and has, it is clear, come within a hair's breadth of actual suicide. Why? For this is the essence of the question whether such performances are justifiable or not. For the settlement of scientific doubts, shall we say, or the proof of moral supremacy over appetite? No, these ends have already been attained by precise methods of research and by personal experience. If, therefore, such excuses be urged in the present connexion, we need not look far for the means of refuting them. The fasting man, as we now find him, is no recluse or companion of a few skilled observers merely. He is the constant notoriety of show companies, the central interest of curious crowds, and, finally, the sharer in substantial money profits. With him abstinence is a mere business, needless and dangerous in itself, detrimental to the discharge of more fruitful duties, and certainly not elevating to the moral sense of onlookers. As much may be said of the woman reported to be similarly employed in Paris. The prohibition of such disgraceful and inexcusable exhibitions would be nothing less than a public benefit.

THE DEATH-RATE IN GREATER MANCHESTER.

DURING the year 1890, when the death-rate in the city of Manchester, as it then existed, was for a considerable time above the high rate of 30 per 1000, the efforts of the Corporation to extend its limits were crowned with success. This success afforded the opportunity to certain ill-advised persons to declare that the high death-rate was merely a fallacy, mainly due to the artificially restricted boundaries of the city, and to assert that this extension would so reduce the death-rate as to prove that the excess of Manchester mortality, about which so much fuss had been made, was merely the result of a faulty system of mortality statistics. The extension came into operation, so far as the vital statistics of the city were concerned, on Jan. 1st, 1891, and its effect was to add to the population under the sanitary control of the City Corporation more than 100,000 persons. It will not be without interest to refer briefly to the mortality statistics of what has been called Greater Manchester for the year 1891, and to compare it with the figures relating to Old Manchester for preceding years. This interest will not be lessened from the fact that in certain local quarters much jubilation has been expressed because the Manchester death-rate has in recent weeks compared much more favourably with the rates in the other large English towns than was the case in 1890, before the last city extension. This, as can easily be proved, is not due to any remarkable decline in the recorded death-rate of Manchester, but to the fact that so many of the large towns have in recent weeks been suffering severely from the direct and indirect effects of the present influenza epidemic, from which, so far, Manchester has been comparatively free. The Registrar-General's quarterly return for the last three months of 1891 enables us to state that the death-rate of Greater Manchester was last year equal to 26·5 per 1000, which, although 3·2 per 1000 below the disastrously high rate in 1890, was only 0·1 below the mean annual rate in Old Manchester during the ten years 1881-90. It would have been thought that such an infinitesimal result on the death-rate from the inclusion of so large a suburban area within the city would have been a serious discouragement to those who never tire of writing on the so-called "fallacies about our death-rate." This discouragement becomes the more serious when it is admitted that the inclusion of this large suburban population cannot have been without effect in reducing the death-rate, from which it follows that the death-rate in Old Manchester last year must have been, if not as high as in 1890, considerably above the mean rate in the ten years 1881-90. The death-rate from "fever" (mainly enteric or typhoid), as well as from diphtheria and from whooping-cough, was considerably higher last year in Greater Manchester than the mean rates from the same diseases in Old Manchester in the ten preceding years. So with infant mortality, which was equal to 192 per 1000 births last year in Greater Manchester (although the diarrhœa rate in 1891 was low), whereas in Old Manchester the mean rate of infant mortality during the ten years 1881-90 was 179 per 1000, a rate far in excess of the rate in most of our other large towns. If we compare last year's death-rate in Greater Manchester with that in Greater London, the result is not more satisfactory to those who have to live in Manchester. The Greater Manchester rate was, as we have stated, 26·5 per 1000, while in Greater London the rate was only 19·6. This signifies that during last year, of equal numbers living, 135 persons died in Manchester to each 100 dying in London. To those who can read aright the logic of these figures, last year's mortality statistics of Greater Manchester abundantly prove that there is no fallacy in the excess of Manchester mortality. We shall look with much interest for Dr. Tatham's report on the health of the city in 1891, which will probably throw some useful light upon the local assertions that the high death-rate of the city is merely the result of fallacy.

CASE OF SHOCK FROM A TELEPHONE WIRE.

DR. JOSEPH COLLINS relates in the New York *Medical Record* a curious accident which happened to a patient of his. The latter was a man of thirty-one, who in September, 1890, was engaged in repairing a telephone wire, and while so engaged he received a shock through having touched a wire at a point where it had become accidentally uninsulated. He said that for two or three seconds he retained consciousness, and at this time he had no pain, but a sensation that he was filled with something, and a conviction that as soon as that sensation ceased he would die. He lost consciousness, fell down about twenty-five feet, and struck on a butcher's cart between the wheel and the body of the vehicle, thence falling to the ground on his head and neck. On recovering consciousness, which he did in a very short time, he was a little dazed. He had great weakness of his shoulder, and this became worse. At first the faradaic reaction was retained in his deltoid, but it disappeared later, and again returned, and he regained the use of his shoulder. He subsequently, however, developed numbness of one side and hemi-anæsthesia—a condition apparently functional in character, from which he recovered after being hypnotised. After the accident he also had two large burns, one on the left side of his neck and the other

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on the postero-internal surface of the upper third of the tibia, these being apparently the result of the actual contact of the wires. The paralysis of the deltoid was no doubt due to an affection of the circumflex nerve, but there seems to be no reason for connecting this in any way with the electric shock. It is with more likelihood to be regarded as a result of the fall upon the shoulder.

WORKHOUSE INFIRMARY NURSING ASSOCIATION.

THIS Association was begun in 1879 with a view of, among other improvements, securing the appointment of trained ladies as matrons in all separate infirmaries, and to train and supply nurses to workhouse infirmaries in London and the provinces. The committee, consisting principally of gentlewomen, call attention to the importance of employing trained ladies as matrons in these institutions, and to the advantages which would accrue to the infirmaries if a system of training probationers in the general wards, and also in the lying-in wards of the infirmaries, were adopted in each. By a trained nurse is understood a person who has received at least one year's training in some approved general hospital or infirmary. Three years' training and experience in an institution for the sick is, in the opinion of the committee, very desirable for charge nurses. The committee have also formulated some very obvious axioms on the nature and effects of permanent night-nursing duty, and they make suggestions thereupon. The hours of daily recreation of nurses are, it is proposed, to be altered, on moral and hygienic grounds, from the evening to the afternoon.

INFLUENZA AND SALICIN.

IN the *Nineteenth Century* Dr. T. J. Maclagan has written an article under the above heading, and as it is sure to be widely read and eagerly discussed, it may be well to give in these columns some idea of the way in which the subject is treated. The conclusions may be very briefly stated—viz., that the poison of influenza is of malarial origin—a miasm, and therefore an organism; that there is not a little evidence to show that salicin in full and frequent doses cures influenza more rapidly than does any other mode of treatment, and that salicin seems also to exercise some protective influence, "ten grains three times a day for many weeks" being the dose recommended for this purpose. These conclusions are, however, preceded by many pages of matter even more open to criticism. In popular form the writer endeavours to explain the mysteries connected with the evils wrought by the reproduction of organisms within the body, and also to demonstrate that, even in the absence of microscopic proof, the belief in the existence of organisms may be derived from a study of the natural history of the diseases to which they give rise. In the course of his argument he mentions briefly the phenomena connected with the rapid reproduction of minute organisms, citing malarial fever, pneumonia, and rheumatic fever. Then he explains that the locality in which each parasite finds the special something required for its growth is technically called its nidus, and states that the time required for the exhaustion of the nidus varies in different diseases, but that the nidus, once exhausted, is, as a rule, never replaced. Here the desire to be lucid has led to error. One attack of rheumatic fever rarely stands alone, as it should do if the nidus were exhausted; and, moreover, with regard to pneumonia, it would be surely rather slipshod pathology to speak of a lobe of the lung as a nidus which, once exhausted, is never to be replaced. In further elaborating this view, he states that "the nidus of the poison of typhus fever is exhausted at the end of two weeks, and that if we can keep the patient alive for that time he will recover. We know that in typhoid fever it takes three weeks to exhaust it, and if we can tide the sufferer over that time he will get well." Would that this were true! Although Dr. Maclagan finds it necessary to speak thus hopefully of the later weeks of typhoid fever, experience does not confirm this. It is to be regretted that Dr. Maclagan's conclusions were not submitted for discussion in the medical journals, rather than in a lay publication, and without being encumbered with so much hasty and debateable material.

DEATH OF SIR MORELL MACKENZIE.

WE regret to announce the death of Sir Morell Mackenzie, which occurred suddenly on Wednesday evening at 10 P.M., at his residence in Harley-street, from syncope, following an attack of influenza. He was the most distinguished laryngoscopist in this country, and his practice was very extensive. When in his twenty-sixth year he was awarded the Jacksonian prize by the Royal College of Surgeons for his essay on the pathology and treatment of diseases of the larynx. Sir Morell Mackenzie attended the late Emperor Frederick, and it was in recognition of his services on that occasion that the Queen in 1887 bestowed on him the honour of knighthood. The Emperor also conferred on him the Grand Cross and Star of the Hohenzollern Order.

NOTIFICATION FEES AT CHELSEA.

A DISCUSSION that will require much justification has been raised in the Chelsea Vestry on the following motion: "That the question of payments of fees by the parish of Chelsea under the Notification of Diseases Act be referred to the Law Reference and Sanitary (Joint) Committees to take into consideration if some steps should not be taken to prevent some medical men in the parish from making returns that are considered unsatisfactory." It appeared to him most astounding that, from the figures published, practically three gentlemen received all the cases of infectious diseases in the parish. The mere fact that certain medical men have a larger number of infectious cases than others is not very remarkable. It is not much more so that a medical man should have more—perhaps double the number—in one quarter than in another? One of the speakers seemed to blame more those who do not report than those who report so many. It is difficult to please the Chelsea Vestry.

PENTAL AS AN ANÆSTHETIC.

BRENER, in a communication to the Royal Medical Society of Vienna, reports having used pental as an anæsthetic 150 times in his dental practice. Loss of sensation is produced before complete loss of consciousness. Usually the patient recovers quickly and easily. The effect is produced generally in one or two minutes, and requires ten to fifty grammes. According to Rogner in the *Wien. Med. Pr.*, 1891, and Hollander in *Nouv. Rem.*, 1891, the loss of sensation lasts about four minutes, and towards the end of the seventh minute passes away. There is no vomiting or other troublesome symptom during the inhalation, nor does headache or sickness occur afterwards. The loss of consciousness comes on during the first few minutes with complete loss of voluntary movement. Rogner considers it the best anæsthetic to use in minor surgery. In spite, however, of these favourable reports, Brener himself had a serious accident. A girl who required extraction of a tooth was placed under the effect of pental. She had only taken four grammes when alarming symptoms arose—syncope, apnœa, loss of pulse, and dilatation of the pupil. It was necessary to resort to artificial respiration to restore con-

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sciousness. This fact, as Basch and Dittel observe, proves that new anæsthetics, and especially those producing rapid narcosis, require great care in their employment.

A SANITARY ASSOCIATION FOR LEEDS.

THE sanitary condition of Leeds has attracted a good deal of local attention and comment, and under the support of the mayor, Dr. Cameron the medical officer of health, and many other prominent citizens, a meeting was convened last week, at which it was decided, on the motion of the vicar of Leeds, to form an association to coöperate with the sanitary authorities for securing improvement in the circumstances of the borough. The objects of the association as at present formulated will be to influence public opinion in Leeds on sanitary matters, to assist in bringing sanitary deficiencies to the knowledge of the proper authorities, and generally to promote sanitary improvements in the borough. The assistance of ladies is also to be secured. The association will, in all essential respects, resemble the parent one in Manchester and Salford, an association which has done much good, and which has always secured the hearty coöperation and support of the medical officers of health of the two important communities in which it has laboured.

ROYAL COLLEGE OF PHYSICIANS.

AT a meeting of the Royal College of Physicians, held on Thursday, Jan. 28th, the following gentlemen were nominated to act as a Committee for the Revision of Nomenclature of Diseases, a work which is undertaken by the College of Physicians every ten years. Besides the President (Sir Andrew Clark) and the Registrar (Dr. Edward Liveing) (*ex officio*), the committee will consist of Dr. Bristowe, Dr. Hermann Weber, Dr. Pavy, Sir W. Roberts, M.D.; Dr. Buchanan, Dr. W. Ogle (London), Dr. Gee, Sir Dyce Duckworth, M.D.; Dr. Stevenson, Sir Joseph Fayrer, Dr. R. Liveing, Dr. T. Buzzard, Dr. J. F. Payne, Dr. D. Hack Tuke, Dr. Thorne Thorne, Dr. Ord, Dr. Cavafy, Dr. T. Lauder Brunton, Dr. Frederick Roberts, Dr. Sansom, Dr. Galabin, Dr. Champneys, Dr. Dreschfeld, Dr. Savage, Dr. Tooth, Dr. Greenhill, and Dr. Perry of Guy's Hospital, with power to add to their number. Certain surgeons have also been invited to assist the College in the carrying out of this work, but their names have not yet been made public.

INFLUENZA IN CHILDREN.

THERE seems to be a prevailing impression that infants and young children are not attacked by influenza. That this idea is wrong, however, many practitioners can testify; it is naturally difficult to diagnose in such patients, but the fact that they sicken when their parents or nurses are affected with the disease is strong presumptive evidence that they also are attacked. Dr. David Fuchs of Budapest is of this opinion, and publishes a short article on the subject in the *Allgemeine Wiener Medicinische Zeitung* of Jan. 19th of this year. He states that he has met with many cases of influenza in young children, but that the symptoms and course of the disease differ in some particulars from those occurring in the adult. As a rule the attack is lighter. It commences with fever, and the onset is sudden. One day the child may be perfectly healthy, whilst on the next it is severely ill without any prodromal symptoms having developed. The temperature does not generally rise above 103° F., though it may occasionally be as high as 104°. After lasting twenty-four hours the fever commences to subside. With many children cerebral symptoms predominate. Dr. Fuchs records one case in which a child, aged eighteen months, was without any warning seized with severe laryngeal symptoms, followed by convulsions, whilst the temperature rose rapidly to 104°. Vomiting is a very common symptom. Next in frequency come affections of the mucous membranes. The conjunctivæ are injected, and there is catarrh of the throat and nasal passages. In this stage the general appearance is very similar to the early stages of measles. The tongue is coated, and the child gradually subsides into an apathetic state. Older children complain of severe headache. The bowels are usually confined. There is not unfrequently a peculiar rash; it appears on the trunk and lower limbs, and takes the form of small papules not unlike the exanthem of varicella. Its extent varies greatly, and the number of spots may be very few or the reverse. In one child eighteen months old a few small pemphigus vesicles appeared on the backs of the legs, which were at first filled with a clear fluid, but afterwards dried up. Bronchial catarrh, usually slight, frequently follows. After these symptoms have lasted a few days, the temperature becomes normal, and the inflammation of the conjunctivæ and nasal mucous membranes disappears. The other catarrhal phenomena last longer, and the troublesome cough is difficult to get rid of. The exhaustion is considerable, and even after an illness of only three days a strong child will be very much pulled down. The prognosis is in nearly all cases favourable. Although weakly children suffer more than those who are stronger, serious complications rarely set in, and pneumonia is but rarely met with. The treatment is symptomatic, and Dr. Fuchs advises that no antipyretic drugs should be given, as they only tend to depress the patient. He recommends isolation.

DEATH CERTIFICATES BY UNQUALIFIED ASSISTANTS.

THE borough coroner for Hanley, on Jan. 29th, after an inquest on Mrs. Emma Harvey, who had been attended by Mr. Austerberry, Mr. Arthur Goodwin's unqualified assistant, who also filled up the death certificate in Mr. Goodwin's name, expressed his intention to report the circumstances to the General Medical Council. Mr. Goodwin had never seen the deceased. The registrars are showing a proper care in this serious matter. In this case the registrar, Mr. Hammersley, knowing that Mr. Goodwin was ill, scrutinised the signature, and found it was not in his handwriting. We trust Mr. Goodwin will be able to show that he was in no way responsible for this action of his assistant. It is amazing, after all that has happened in similar cases, that unqualified assistants should still be found to run such risks.

POISONING BY HYOSCINE.

DR. ADLER of Breslau publishes particulars of a case of poisoning by hyoscine. A man employed in the chemical laboratory used a glass for drinking purposes which contained a deposit of hydrochlorate of hyoscine. In a quarter of an hour he was attacked with vertigo, and gradually became unconscious. An hour and a quarter after taking the poison he was seized with convulsions, and rapidly became comatose. Upon arrival at the hospital he was found to be suffering from trismus, with occasional clonic spasm of the muscles of the lower jaw and of the limbs. The stomach was washed out, but no traces of hyoscine were found in the fluid withdrawn. Two centigrammes of morphia were immediately given hypodermically, after which the convulsions ceased, but the rigidity lasted until five o'clock in the evening. A hypodermic injection of one centigramme of pilocarpine was then given, but the effect of it was not apparent until three o'clock next morning, when the coma had given way to a drowsy condition and the pulse had dropped to 104. At 5 A.M. the patient was able to answer questions. He, however, became extremely rest-

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less and excited. He was put under the effect of chloroform, and in a quarter of an hour he slept quietly. On waking he complained of great weakness, his gait was uncertain, and his pupils widely dilated. His urine contained hyoscine. He eventually entirely recovered.

ROYAL COMMISSION ON TUBERCULOSIS.

A MEETING of this Commission was held at 7, Whitehall-place, on Feb. 28th. Lord Basing occupied the chair, and there were present Professor Brown, Dr. Buchanan, Dr. Payne, Professor Burdon-Sanderson, and Mr. Leopold Hudson (secretary). The directors of the experimental investigations which are being undertaken as to the infectivity of tubercle and the ability of cooking processes to destroy such power of infection presented progress reports, and the results to date of the various inquiries which are being conducted were considered.

EFFECT OF ALKALIES ON METABOLIC CHANGE.

As the effect of alkaline drugs upon the nature of the metabolic changes which albumen undergoes in the system has not been satisfactorily worked out, Dr. Yavein has made a series of elaborate observations on the subject, employing citrate and carbonate of soda for the purpose. The daily quantities of the drugs administered were 300 grains or more. The results showed as a rule that there was but little effect either on the assimilation or on the metabolic change of albumen. There was, however, a considerable increase in the neutral phosphates as compared with the acid phosphates of the urine. As a rule, the loss from the skin and lungs was diminished, and after the alkali had been discontinued the quantity of urine increased. The body weight increased while the alkali was being taken, and decreased afterwards, the increase being probably due to the diminished loss of moisture, and the decrease to the augmented secretion.

A CASE OF POISONING BY PILOCARPINE.

A BELGIAN OFFICER with an affection of the eyes was treated by the injection of two centigrammes of this drug. Immediately his neck and then the whole of the body became bathed with sweat, in two or three minutes he was salivated, and suffered from cardiac oppression and difficulty of breathing, he fancied his chest was full of fluid, and afterwards he expectorated some frothy mucus. The cardiac oppression lasted about ten minutes, but for two hours the patient continued to have a feeling of constriction at the pit of the stomach. During this time he suffered from lacrymation, running from the nose, gastralgia, and nausea; he vomited three times, and passed his urine involuntarily. The intestinal peristalsis became violent and he had tenesmus. His eyes were fixed, and he could not recognise anyone twenty centimetres distant. The pulse was quick and small, the sufferer being in a condition bordering on collapse. By means of internal and external stimulants the symptoms disappeared.

INFLUENZA IN HAMPSTEAD.

AN opportune report on the epidemic of influenza has been issued by Dr. Gwynn, the medical officer of health for Hampstead. In it he refers to the fact that the fatality as yet attributed to that disease has not nearly reached the point attained by the epidemic in the spring of 1891; and as regards London generally, he reminds us that the week in which the death-rate rose to its highest contributed only thirty-seven deaths registered as due to influenza, the actual deaths rising in four weeks from nineteen to 271, whereas in the same period the lowest number of deaths from whooping-cough was ninety-three, with a subsequent rise to 180, and this without exciting much comment. This bears out our remarks of last week with regard to the relation between the deaths from influenza and measles respectively. In the end, Dr. Gwynn advises that panic should be avoided, and he considers that it would be undesirable to deal with influenza as a dangerous infectious disease for the purposes of notification. In this we agree with him. The clinical features of the disease cannot be sufficiently differentiated from a number of other ailments, some of a comparatively trivial character, to justify any proceedings for non-compliance with the Act, and so long as this is the case it can hardly be right to bring it within the scope of a penal statute. At the same time Dr. Gwynn issues some useful suggestions as to precautionary measures which it is desirable to adopt.

SIR GEORGE PAGET, K.C.B., M.D., F.R.S.

BY the death from influenza of Sir George Paget on Friday, Jan. 29th, the University of Cambridge suffers a grievous loss. Born on Dec. 22nd, 1809, he entered as a student in the year 1827 at Gonville and Caius College, and in 1838 was created a Doctor of Medicine. In the year following he was elected a Fellow of the Royal College of Physicians. In 1869 he became President of the General Medical Council in succession to the late Sir George Burrows, and in 1872 the appointment of Regius Professor of Physic, vacant by the death of Dr. Bond, was conferred by the Crown on Dr. Paget. With his appointment the medical school at Cambridge began to rise in estimation and its degrees in worth, a change attributable to the perseverance and energy of Sir George Paget and of Sir George Humphry. He was an indefatigable worker. His bust adorns the meeting room of the General Medical Council. In 1886 he was created a K.C.B. His punctuality, charming manner, extensive experience, and skill endeared him to all with whom he was brought in contact. We reserve a detailed account of his labours for our next issue.

SMALL-POX OCCURRENCES.

SMALL-POX is somewhat prevalent in several northern districts. In addition to the prevalence at Batley, to which we have previously adverted, ten cases have been admitted to the Liverpool small-pox hospital; a case from Morley has been received into the Leeds isolation hospital; and several cases have occurred at Wakefield, where a magistrate's order was obtained to remove some cases to hospital, including a convalescent, and to prevent the sale of milk and butter from the premises in question.

DEFLECTIONS OF THE NASAL SEPTUM.

IN a paper recently read before the British Laryngological Society Mr. Mayo Collier very strongly contended, and his contentions were received with unanimous approval, that deflections of the nasal septum were almost always due to a difference in pressure on one side of the nasal septum, due to the blocking of one nostril, and to consequent aspiration of the closed cavity by the stream of air passing through the naso pharynx from the open one. From the examination of over 1000 living subjects 90 per cent. showed some deflection or other irregularity of the nasal septum; savages and aborigines only to the extent of 20 per cent.; children under ten years not at all; but from ten to sixteen blocking and consequent deflection were most easily induced from the more frequent occurrence of injury to the small dilators of the nose, and their consequent paresis or paralysis.

FOREIGN UNIVERSITY INTELLIGENCE.

Geneva.—Dr. Frœlich has been recognised as *privat-docent* in Ophthalmology.

Gratz.—Professor J. Kratter of Innsbruck has been

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appointed to succeed Professor Schauenstein in the Chair of Forensic Medicine. He has published several researches in hygiene, toxicology, and medical jurisprudence.

Montpelier.—Dr. Carrieu, Professor of Internal Pathology, has been appointed Professor of Clinical Medicine.

Naples.—The University has been closed for the present by the Minister of Education in consequence of a disturbance created by some of the students. This does not seem to have been perpetrated by medical students, though they have to bear the punishment as well as their colleagues. A strict inquiry is being made by Government officials.

St. Petersburg (Military Medico-Chirurgical Academy).—Dr. Favitski has been recognised as *privat-docent* in Medicine, and Dr. Batuïeff as *privat-docent* in Anatomy.

WE are asked to state that it has been arranged to hold an evening class in Public Hygiene at King's College, to commence on Tuesday next at 8 P.M., and to be continued on Fridays and Tuesdays at the same hour. It has been thought that this step, which is, it is said, the first of its kind attempted in London, will be likely to meet the convenience of many medical practitioners who are unable to attend classes in the daytime.

THE managers of the Metropolitan Asylums Board have determined, with the sanction of the Local Government Board, to place the Ambulance Service at the disposal of the public for influenza patients, for their removal to places other than the hospitals of the Board. The charge for the hire of the ambulance, including, when the patient is over ten years of age, the services of a male attendant, is 5*s*.

THE committee of organisation of the International Congress of Gynæcology and Obstetrics, which will hold its first meeting at Brussels in September, have elected Dr. Benington, of Newcastle-upon-Tyne, as Assistant English Secretary to act for the North-east of England.

WE regret to notice the death of Mr. William Adams, F.R.C.S., J.P., of Regent's Park. Mr. Adams was well known in the metropolis, and not infrequently attended the meetings of the Clinical and Pathological Societies, of which he had long been a member.

THE FRENCH GOVERNMENT SANITARY BILL.

IT has already been announced that M. Constans, Minister of the Interior, on behalf of the French Government has introduced in the National Assembly the project of a sanitary law. We have now before us the text of this Bill, and must confess that it seems a somewhat raw measure, which will require considerable improvement before it can be considered as completely satisfactory. Nevertheless, it is encouraging to see the French Government take the initiative in this matter, and some of the provisions of the Bill are excellent. Article 1 stipulates that when a commune is in need of sanitary works, or has not a sufficient supply of good potable water, the prefect shall invite the Departmental Council of Hygiene to deliberate and report on the nature of the sanitary works required. If the report does not agree that such works should be undertaken, it shall be forwarded to the Minister of the Interior, who, if he thinks it necessary, shall submit the matter to the Consulting Committee of Hygiene for France. If either the County Council of Hygiene or the National Consulting Committee of Hygiene decide that such sanitary works must be undertaken, then the prefect shall order the commune to carry out these measures. If such works are not commenced within three months, then they shall be taken in hand by the Government, though the commune will have to pay the entire cost, according to the law of Sept. 16th, 1807. At present the mayors of communes theoretically possess very extensive powers, but practically they dare not exercise these powers unless it be under the stress of some great epidemic. Now, however, it is proposed to give both the provincial authorities, and then the national or central government, the right to interfere, and bring the necessary pressure to bear on each locality. In other words, the object of the Bill will be to give the State the right to stimulate the local authorities who are unmindful or ignorant with respect to their duties. Article 2 of the Bill deals with domestic hygiene. When a house is considered unhealthy the mayor must call upon the local commission of hygiene to report and suggest the necessary improvements. If the report is opposed to any measures being taken, the mayor shall refer the matter to the higher authorities—i.e., the prefect or the Departmental Council of Hygiene. If either of these superior authorities approve, the mayor shall call upon the householder or the tenant to commence within eight days the necessary alterations. But there follow clauses by which appeals can be made against such decisions, though these appeals will be less expensive and more expeditiously settled than under the present laws. There is also a clause by which, if it is thought impossible to render a house wholesome, it may be closed by the mayor and declared unfit for habitation. Article 3 deals with insanitary areas, giving the communes the right of compulsory purchase, demolition, and reconstruction of such districts. Article 4 stipulates that no building can be erected unless the mayor approves of the system of drainage proposed; and no such new building can be inhabited till the local sanitary authority has viewed and approved the work done. Articles 5 and 6 deal with the contamination of water-supply, the surveillance of cesspools, &c., and Article 7 imposes the obligatory declaration of all cases of infectious disease within twenty-four hours. The declaration is to be made by the doctor or the midwife; and, in default of either, by the relatives or those in charge of the sick person. Article 8 will establish for the first time in France obligatory vaccination, and this not only for infants, but it also enforces revaccination at the tenth and at the twenty-first years. Articles 9 and 10 deal with the drawing up of a code of rules in each district for the prevention of disease. The following articles of the project describe the constitution and duties of the local and central committees or councils of hygiene, and the last—that is, the 18th—article abrogates the law of April 13th, 1850, and all other previous laws which are in oppositon to the present project. This last clause is most important. It is because the Belgian law is the same as the French law, minus the law of 1850, that such notable sanitary improvements have been successfully accomplished in Belgium, and especially in Brussels.

The Bill, it will be seen, is very short, and it seems extraordinary to provide for the sanitary legislation of a large country in eighteen articles. Among the many omissions we note the absence of any machinery for sanitary inspection. There are no clauses establishing medical officers of health, inspectors of nuisances, and surveyors. There are sanitary committees who may discuss cases submitted to them, but where are the functionaries to ferret out such cases? A committee of hygiene consists of doctors, chemists, engineers, architects, and notable and eminent inhabitants of the district, who are supposed to possess special knowledge of subjects relating to public health. These gentlemen will occasionally afford an hour or two to meet and discuss. As a sort of controlling committee, and more especially as a means of educating public opinion in matters of hygiene, they are very useful. But something more than this is urgently required. There must be medical officers and inspectors, whose sole business it shall be to work out the sanitary regeneration of the country.

PRESENTATION.—Mr. J. Harley Gough, L.R.C.P. Lond., M.R.C.S., has been presented with a case of surgical instruments by the nursing staff of the Royal Albert Hospital, Devonport, on resigning his appointment of resident medical officer, which he had held for upwards of two years.

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THE EDINBURGH ASSOCIATION FOR THE REFORM OF MEDICAL EDUCATION.

PUBLIC MEETING IN EDINBURGH.

A PUBLIC MEETING of medical men and graduates interested in the reform of medical education was held on Monday last, Feb. 1st, under the auspices of the Edinburgh Association for the Reform of Medical Education. There was a large attendance of medical men resident in the city, more especially of the younger men, who are very earnest in their wish to see decided and radical improvement in the present methods of teaching. The chair was occupied by Lord Provost Russell, who is himself a graduate in medicine of Edinburgh, and was at one time a demonstrator of anatomy in the University, and is *ex officio* a member of the University Court. In his opening remarks he referred to the high position the University had attained, and to the fact that the citizens and the people of Scotland were proud of it. To maintain its high position it was necessary that it should advance with the times, and it was the recognition that such advance was necessary, and was not sufficiently provided for in the Draft Ordinances of the Commission, that the Association was called into existence. Changes in the methods of teaching and reforms very often meant alterations that apparently affected vested interests; but he thought it was quite possible to discuss such changes without making it appear that any injury was intended by changes proposed to be introduced at the instance of the Association.

Dr. Batty Tuke moved the first resolution, which was as follows: "That this meeting deems it essential that the Commissioners should insist on a diminution in the number of systematic lectures with a view to make room for practical work and demonstrations to limited numbers of students." In his speech supporting this motion he considered the causes which had led to the success of the University, and pointed out that the London schools had only recently realised the true cause of Edinburgh's success. One of the mainstays of Edinburgh University was the extreme conscientiousness and the perfect thoroughness with which their hospital men performed their work. He would challenge any school in Great Britain or abroad to produce active, busy, professional men devoting two or three hours a day to the education of the students in the hospital. He thought it would be admitted that practical teaching was essential to the educational spirit of the age, and their Association held that the practical system should be extended and the systematic lectures reduced. They were not the first to advocate this reform, for it was laid down by the General Medical Council of Education and Registration in a series of resolutions which were adopted in 1880. Practical teaching necessitated smaller classes, and this in turn necessitated a greater number of teachers.

Dr. C. W. Cathcart seconded the resolution, which was carried unanimously.

Principal Grant Ogilvie proposed the second resolution: "That an 'honours' school should be established, in which the more capable students may undergo a more extended training and present themselves for special honours examinations."

This resolution was seconded by Dr. Berry Haycraft, who pointed out that if the present ordinance of the Commissioners was retained they would be tied up for the next thirty years or more to a regulation curriculum and examination system through which good, bad, and indifferent students had alike to pass, and from which they would be turned out as so many machine-made articles. If in the future their Simpsons, Symes, Bruntons, and Ferriers were to be produced by English schools, they must give up the hope of keeping their University in the front rank of teaching institutions, and the loss of prestige would react on the mass of students. The way to avoid this was by arranging for a limited number of capable and ambitious men, and an extended and elastic curriculum, as complete, or more so, as any obtainable in the best English or foreign school.

This motion led to a good deal of discussion, which was introduced by Dr. Byrom Bramwell taking exception to the suggestion that for honours it would be necessary to go right through the whole special curriculum sketched for the honours school, and that a modification of the present system was more desirable. At the same time, he in other respects heartily agreed with the proposals of the Association, and held that the recommendations and alterations in the draft ordinance were altogether ineffectual and insufficient for the requirements of the case. His amendment was as follows: "That it is undesirable to interfere with the present system of giving honours, with the exception that the work required for the ordinary pass examination should in each subject be limited and defined by printed syllabus, an additional question or questions, not necessarily included in those portions of the subject specified in the pass examination syllabus, being added in each written paper for honours candidates, and the extent and severity of the *viva voce* and practical portions of the examination being, in the case of honours candidates, proportionately increased." Drs. McBride, Joseph Bell, William Russell, and Hoernlé took part in the discussion, and favoured the proposals of the Association, and on being put to the vote the original motion was carried by a large majority.

The third motion was submitted by Dr. G. A. Gibson: "That the meeting would strongly urge the necessity for allotting the last two years of study to the systematic and clinical work of the final subjects and specialties." This was seconded by Dr. Berry Hart. Both mover and seconder spoke strongly on the necessity of this, both from the student's standpoint and the public necessity of having men thoroughly trained in the practical study of disease. They also animadverted on the carrying on of materia medica and pathology to the end of the fourth year. This motion was also unanimously carried.

The last motion was proposed by Dr. G. A. Berry and seconded by Dr. Cadell, and bore upon the necessity of increasing the number of examiners, so as to give ample time for testing students' knowledge.

The meeting was altogether a very successful one, and the report of it which has appeared in the newspaper press has aroused very general interest throughout the city.

ARMY MEDICAL SCHOOL, NETLEY.

THE sixty-third (winter) session of this School was brought to a close on Monday, when the distribution of prizes took place, General Sir Frederick FitzWygram, Bart., M.P. for the Fareham Division of Hants, performing the interesting ceremony. The proceedings were carried but in the lecture theatre of the Royal Victoria Hospital, in the presence of a numerous gathering of ladies and of military and medical officers, including Surgeon-Major-General Lithgow, D.S.O., Surgeon-Major-General Tippetts, P.M.O. at Netley, Sir Joseph Fayrer, K.C.S.I., Professor Sir William Aitken, F.R.S., Professor J. Lane Notter, Surgeon-General W. C. Maclean, C.B., the assistant professors, Messrs. Bruce, Davies, Stevenson, and Whitehead, and the secretary of the School, Mr. Bouchert. There were also present Colonel Hanning Lee, Major Haldane, Major Stoke, Captain Attree, R.E., Acting-Adjutant Surgeon-Captain C. J. Addison, M.S. (by whom the surgeons on probation of both the Army Medical Service and the Indian Medical Service were marched up to the lecture theatre). Colonel the Hon. H. G. L. Crichton and Lady Emma Crichton, Lady Aitken, Mr. Bloxam, Mrs. Godwin, Mrs. Notter, Mrs. and the Misses Cayley, Mrs. Hayes, Miss Erskine, Mrs. Bruce, Mrs. Du Chaumont, Mrs. Davies, Miss Norman (lady superintendent of nurses), and a few of the nursing sisters.

Sir Frederick FitzWygram, after handing the prizes to the successful students, said that all medical charges were important and responsible, but none were more important or responsible than those of the medical officers of the army. In fact, he might say he knew of no medical charges so important or responsible, because in military medical life, especially abroad and in war, they would have to lean entirely on their own knowledge, skill, and practice. In civil life it was otherwise. In civil life, according to their aptitude and circumstances, they generally drifted into one particular line, and adopted surgery, medicine, or some special subject. But in the army they needed medical men who were well up in every branch of the best modern medical science. They needed, if he might use the expression, all-round men—a military medical officer who was

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at once surgeon, physician, accoucheur, oculist, aurist, chemist, analyst, an expert in sanitary science, and, almost above all, a good nurse; one who could not only teach those under him, but who possessed the delicate art of ministering to the wants of the suffering. They needed the best and brightest students of their schools, and he hoped many of those he saw would well sustain, and, it might be, increase, the best traditions of the honour and skill of the Army Medical Department.

Sir Joseph Fayrer said it gave him renewed pleasure to come year after year and see the fresh young faces of those about to enter a new sphere of life.

Mr. Bloxam, one of the surgeons of Charing-cross Hospital, London, who twenty-five years ago was a student at Netley, expressed a wish, in his concluding remarks, that there were opportunities for surgeons after passing to come back to Netley for another course of work.

Sir Frederick FitzWygram referred to the matter touched upon by Mr. Bloxam. Medical officers when going on foreign service naturally lost touch with some matters, and he had suggested that on their return they should be allowed six months, on full pay, to study at one of the great hospitals. He thought if the heads of the department would follow up that idea there would be no difficulty in getting it carried out, and the plan would be of immense advantage.

INFLUENZA.

THERE can be, happily, no question that the epidemic of influenza is at length subsiding in this country, and although it still prevails with considerable severity in some districts, we do not hear of its extension to districts which have hitherto escaped; whilst the cases are diminishing in several counties that have been particularly attacked. The mortality returns for the week ending Jan. 30th substantiate this, for although next to Croydon (47·2 per 1000), London heads the list with an estimated death-rate of 41, yet the deaths directly attributed to influenza in the metropolis have fallen from 506 to 436, in addition to which there were 71 cases in which influenza was noted as a secondary cause. This may seem a slight decline, but we have little doubt that a much more marked fall will be recorded next week. There has *pari passu* been a decline in the number of deaths from respiratory diseases—viz., from 1465 to 1192, but the latter is 654 in excess of the corrected average. Brighton, we are glad to see, is rapidly recovering its normal death-rate, the returns showing the remarkable decline from a rate of 60·9 in the preceding week to one of 24·6. Indeed, the death-rate is lower this week in most of the thirty-three large towns quoted by the Registrar-General; but it stills remains abnormally high in Norwich (39·1), Blackburn (37·5), Birkenhead (34·0), and Liverpool (33·1).

Accounts of the subsidence of the epidemic come from South Kent, Surrey, Hants, and North Wilts, but there does not as yet appear to be any marked diminution in Essex, Norfolk, Northamptonshire, and Yorkshire.

On the Continent, it still prevails to a considerable extent in some parts of Germany, especially in Mecklenburg, and in Vienna it is said to be "alarmingly on the increase."

METROPOLITAN HOSPITAL SUNDAY FUND.

ARCHDEACON SINCLAIR presided at a meeting of the members of the Council of this Fund, held at the Mansion House on Tuesday last. The Lord Mayor was unavoidably absent. Mr. H. N. Custance, the secretary, announced anonymous donations of £500 and £50 respectively. Allusion was made to the loss by death of Sir J. Risdon Bennett and Cardinal Manning, who were valued members of the Council. The Chief Rabbi, Lord Sandhurst, Mr. Wakley, Mr. A. L. Cohen, Dr. Charles J. Hare, and Canon Ingram were elected to serve on the General Purposes Committee, in the place of several members who had died or who were unable to attend the meetings. Mr. H. C. Burdett moved the adoption of a uniform system of accounts for hospitals and dispensaries. The system proposed would, he said, be a great advantage, and it had been agreed to by secretaries of the hospitals and dispensaries interested in the Fund. Dr. Glover seconded the motion, and it was carried on the understanding that a suggestion by Mr. Acland, chairman of the Hospital Saturday Fund, to the effect that items should be separately put in the income accounts, showing the amount derived from workshop contributions and church parades, should be further considered.

Dr. J. H. Rigg moved, and the Chief Rabbi seconded, a vote of condolence to the widow of Mr. Spurgeon, who had frequently preached earnestly on behalf of the Fund. The vote was unanimously passed.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6227 births and 6275 deaths were registered during the week ending Jan. 30th. The annual rate of mortality in these towns, which had increased in the preceding three weeks from 28·7 to 35·4 per 1000, declined again last week to 32·1. In London the rate was as high as 41·0 per 1000, while it averaged 25·7 in the thirty-two provincial towns. The lowest rates in these towns last week were 18·4 in Sunderland, 19·2 in Halifax, 19·5 in Salford, and 19·8 in Birmingham; the highest rates were 34·0 in Birkenhead, 37·5 in Blackburn, 39·1 in Norwich, 41·0 in London, and 47·2 in Croydon. The 6275 deaths included 455 which were referred to the principal zymotic diseases, against 604 and 518 in the preceding two weeks; of these, 241 resulted from whooping-cough, 92 from measles, 39 from diphtheria, 34 from diarrhœa, 25 from "fever" (principally enteric), 24 from scarlet fever, and not one from small-pox. No fatal case of any of these diseases was recorded in Croydon, Brighton, Plymouth, Huddersfield, or Halifax, while they caused the highest rates in Swansea, Wolverhampton, Derby, and Blackburn. The greatest mortality from measles occurred in Derby, Newcastle-upon-Tyne, Wolverhampton, and Burnley; from scarlet fever in Cardiff and Swansea; from whooping-cough in West Ham, Swansea, Bolton, London, Bristol, Wolverhampton, and Derby; from "fever" in Blackburn; and from diarrhœa in Preston. The 39 deaths from diphtheria included 24 in London, 3 in Salford, 2 in Manchester, and 2 in Bristol. No fatal case of small-pox was registered in any of the thirty-three great towns; 7 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and 2 in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1327, against 1391 and 1397 at the end of the preceding two weeks; 100 new cases were admitted during the week, against 92 and 116 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 1084, 1248, and 1465 in the preceding three weeks, declined last week to 1192, but exceeded by as many as 654 the corrected average. The causes of 94, or 1·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Preston, Newcastle-upon-Tyne, and in six other smaller towns; the largest proportions of uncertified deaths were registered in Oldham, Blackburn, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 23·9 and 27·2 per 1000 in the preceding two weeks, declined again to 24·7 during the week ending Jan. 30th, and was as much as 7·4 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 19·0 in Greenock and 19·1 in Paisley to 26·0 in Glasgow and in Leith and 30·2 in Aberdeen. The 687 deaths in these towns included 16 which were referred to whooping-cough, 7 to "fever," 6 to measles, 6 to diarrhœa, 4 to diphtheria, 2 to scarlet fever, and not one to small-pox. In all, 41 deaths resulted from these principal zymotic diseases, against 50 and 72 in the preceding two

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weeks. These 41 deaths were equal to an annual rate of 1·5 per 1000, which was 0·8 below the mean rate last week from the same diseases in the thirty-three English towns. The fatal cases of whooping-cough, which had been 16 and 24 in the preceding two weeks, declined again to 16 last week, of which 6 occurred in Aberdeen and 5 in Glasgow. The deaths referred to different forms of "fever," which had been 6 and 5 in the previous two weeks, rose to 7 last week, and included 4 in Glasgow. The 6 fatal cases of measles showed a decline of 5 from the number in the preceding week, and included 5 in Glasgow. The deaths from diphtheria, which had been 5 and 9 in the previous two weeks, declined again to 4 last week, of which 2 occurred in Glasgow and 1 each in Leith and Greenock. The 2 fatal cases of scarlet fever were considerably below those recorded in any recent week, and included 1 in Aberdeen and 1 in Paisley. The deaths referred to diseases of the respiratory organs in these towns, which had increased in the preceding three weeks from 200 to 230, declined again last week to 211, and were within 4 of the number in the corresponding week of last year. The causes of 69, or nearly 10 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased in the preceding three weeks from 35·0 to 54·1 per 1000, declined again to 41·5 during the week ending Jan. 30th. During the first four weeks of the current quarter the death-rate in the city has averaged 43·6 per 1000, against 40·0 in London and 22·2 in Edinburgh. The 278 deaths in Dublin during the week under notice showed a decline of 85 from the exceptionally high number in the preceding week, and included 5 which were referred to whooping-cough, 3 to "fever," 1 to diarrhœa, and not one either to small-pox, measles, scarlet fever, or diphtheria. In all, 9 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1·3 per 1000, the rate during the same period being 3·2 in London and 0·8 in Edinburgh. The fatal cases of whooping-cough, which had been 5 and 10 in the preceding two weeks, declined again to 5 last week. The deaths referred to different forms of "fever," which had been 2 and 5 in the previous two weeks, declined to 3 last week. The 278 deaths registered in Dublin last week included 32 of infants under one year of age, and 105 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked decline from the very high numbers recorded in the preceding week. Four inquest cases and 5 deaths from violence were registered; and 80, or more than a fourth, of the deaths occurred in public institutions. The causes of 26, or more than 9 per cent., of the deaths in the city last week were not certified.

CALCUTTA AND ITS SUBURBS.

We learn from the memorandum published by Dr. W. J. Simpson, the health officer of Calcutta, in connexion with the vital statistics of that city and its amalgamated area of suburbs, that the total number of births registered in Calcutta in September last was 693, giving an annual ratio of 17·8 per 1000 of population. The total deaths registered during the month were 1041, showing an annual ratio of 26·7 per 1000 The proportion of male to female deaths was as 158 to 100. The monthly total exceeds the corresponding figures of the past decade, and surpasses the decennial mean by 171. There were 82 deaths from cholera, against 29 in the preceding month. No deaths from small-pox. There were 124 deaths from bowel complaints, against 83 in the preceding month. From tetanus there were 80 deaths, against 64 in the preceding month; of these, 74 were under one year of age. The total mortality of infants under one year, reckoned on estimated births, was 342·9 per 1000 of population. In the amalgamated area of suburbs 326 births were registered during September, giving an annual ratio of 18·1 per 1000. The total number of deaths registered was 603, against 525 in the preceding month, giving an annual ratio of 33·6 per 1000. Of these deaths, 23 were from cholera, 270 from fevers, 89 from bowel complaints, and 56 from tetanus. In the tables of comparative mortality in cities of Bengal, Bombay, Madras, North-Western Provinces, and the Punjab having more than 50,000 inhabitants, we notice that in Madras, from Aug. 15th to Sept 11th, 1891, the annual death-rate amounted to 105·2 per 1000. At Cawnpore it was 55·2 for July, 49·5 for Delhi, 40·7 for Lahore, and 51·0 for Peswar for the week ending June 27th last. According to the latest return, that for the week ending Dec. 5th, 1891, the birth-rate at Calcutta was rather higher than the corresponding week of last year. There were 46 deaths from cholera, none from small-pox. The general annual death-rate was 39·7, against 32·4 per 1000, the mean of the last five years. In the amalgamated area of suburbs, the deaths (177) were lower during the week than in the corresponding week of the previous year: 21 deaths from cholera; none from small-pox. The death-rate of the week was 42·9 per 1000 of population. The general death-rate of the combined area is equal to 40·7 per 1000.

THE SERVICES.

PROMOTION IN THE INDIAN MEDICAL SERVICE.

The Times of India, of Jan. 16th, 1892, publishes the following:—"A question arose some time ago as to whether Brigade Surgeons of the Indian Medical Service could decline promotion to the rank of Deputy Surgeon-General. Medical officers holding lucrative civil appointments were disinclined to leave their posts when their turn came for military promotion, preferring to abandon their claim to higher rank. It has now been ruled that if, after considering all circumstances affecting any particular case, Government deem it expedient in the interests of the public service to nominate a Brigade Surgeon for promotion, that officer is not to be given the option of refusing it."

The death is reported of Brigade Surgeon S. P. White from pneumonia after influenza. He had retired in 1888, after twenty-eight years' service. The deceased was with the expedition against the Hazara tribes in 1868, during the Afghan War, the capture of Urzoo, and the engagements near Ghanzi.

Brigade Surgeon-Lieutenant-Colonel Samuel Maunsell died on Dec. 31st, 1891, at the West Indies. Lieutenant-Colonel Maunsell was a son of the late Rev. Thos. Maunsell, of Balnagarnon House, Fintona, County Tyrone.

Surgeon-Major Forbes Dick, M.D., Medical Staff, died on the 25th inst. at Queen-square, Lancaster, aged fifty. He became assistant-surgeon in the Army in September, 1863, surgeon in March, 1873, surgeon-major in April, 1876, and retired on half-pay in October, 1888

ARMY MEDICAL STAFF. — Surgeon-Major-General Sir James Arthur Hanbury, M.B, F.R.C.S.I., K.C.B., is placed on retired pay (dated Jan. 13th, 1892); Surgeon-Lieutenant-Colonel John Godfrey Rogers, M.B., D.S.O., retires on retired pay (dated Feb. 3rd, 1891).

NAVAL MEDICAL SERVICE. — The following appointments have been made at the Admiralty:—Surgeons: Graham E Kennedy to the *Defiance* (dated Feb. 13th, 1892); Jerome Barry, M D., to the *Ganges* (dated Feb. 16th, 1892); John Andrews, M.D., to the *Dart*, and Edward C. Cridland, M.B, to the *Paluma* (both dated Feb. 4th, 1892).

VOLUNTEER CORPS.—*Artillery:* 1st Forfarshire: William James Peddie, M.B., to be Surgeon-Lieutenant (dated Jan. 30th, 1892) — 1st Cumberland: Surgeon-Major J. A. Macdougall resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Corps on his retirement (dated Jan. 30th, 1892) —*Rifle:* 1st Surrey (South London): Charles Swaby Smith, Gent., to be Surgeon-Lieutenant (dated Jan. 9th, 1892) —3rd Volunteer Battalion, the Duke of Wellington's (West Riding Regiment): Richard Ernest Williamson, M.B., to be Surgeon-Lieutenant (dated Jan. 30th, 1892).—2nd Volunteer Battalion, the Duke of Cambridge's Own (Middlesex Regiment): Surgeon-Major C. A. Patten to be Surgeon-Lieutenant-Colonel (dated Jan. 30th, 1892) —2nd (South) Middlesex: Surgeon-Major T. Trent resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Corps on his retirement (dated Jan. 30th, 1892).

ROYAL INSTITUTION.—Professor E. Ray Lankester, F.R.S., will, on Thursday next, Feb. 11th, begin a course of three lectures on "Recent Biological Discoveries;" and the Right Hon. Lord Rayleigh, F.R.S., will, on Saturday, Feb. 13th, begin a course of six lectures on "Matter: in Rest and in Motion."

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Correspondence.

"Audi alteram partem."

THE ROYAL COLLEGE OF SURGEONS AND THE ASSOCIATION OF MEMBERS.

To the Editors of THE LANCET.

SIRS,—Your leader on the proceedings in the High Court of Law (Chancery Division) last week in the action Steele *v.* Savory, which ended so disastrously for the Association of Members, will have been seriously pondered over by all concerned. Many, no doubt, will be asking themselves, What next? What is the probable bearing of Mr. Justice Romer's decision on the Association and on the larger question bearing on the "abstract right to a share in the administration of the College"? Possibly the majority will think "sufficient for the day is the evil thereof." So be it; but there is just a point or two so far to which I should like to draw particular attention. First, it will appear to most of us that the validity or otherwise of By-law xvii. is scarcely worth further contention, certainly not in a court of law; as, come what may, there will be no further attempt to defy the Council on this question. That being so, there remains the larger contention, "the measure of the rights of the Members of the College," which has been the real bone of contention at the annual meetings since 1884. Now, it will scarcely be denied that this will be better met in the spirit you have foreshadowed, conciliation, and which will doubtless commend itself to all concerned, since, as you say, "it is a question upon which no court of law or of equity has jurisdiction to enter." This being so, the majority will see the advisability of at once acting upon so commendable a suggestion, "that both parties ..... resume the discussion with an enhanced desire to arrive at an agreement. [Most assuredly], if that could be effected, there seems to be no room for doubt that any settlement which might be adopted by consent would easily receive the necessary authorisation, and so acquire the force of law." May I, then, suggest that the Association of Members do forthwith appoint a deputation to wait upon the President and Council of the College, not simply to ascertain their views, but fully empowered to submit terms for the settlement of all matters in dispute? This course will, I believe, give the right turn to the discussion, tend to restore harmony between the Council and the Members, and put the final stop upon any further waste of money in useless litigation.

I remain, Sirs, yours truly,

ONE OF THE ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

Jan. 30th, 1892.

INFLUENZA.

To the Editors of THE LANCET.

SIRS,—Although the present epidemic shows signs of abatement so far as Stoke Newington and Hackney are concerned, I shall be glad if you will allow me a few remarks on the prevention and treatment of this troublesome scourge. For prevention the public seem to place most faith in ammoniated quinine, eucalyptus, tobacco, and whisky, the two latter especially commending themselves to many who are only too pleased to have some plausible excuse for indulging in their favourite weaknesses; but the fact that many victims of influenza were "protected" by one or all of these prophylactics is sufficient proof of their inefficacy. On the other hand, the suggestion of one of your correspondents some weeks ago as to the use of carbolic acid and glycerine in equal parts, a few drops to be placed on the handkerchief before leaving the bedroom each morning, is in my experience most valuable. I have largely recommended it, and so far as I know no one who has tried it has been affected. As regards treatment, the bicarbonate of potassium method seems to bear out much that Mr. Crerar contends for it; but in my opinion we have all the advantages, and none of the undoubtedly depressing disadvantages, of the bicarbonate in another drug, which is inexpensive (no slight consideration in practices where numerous club patients have to be provided with medicine), which alkalinises the blood but not the urine, which stimulates the cord and nervous system generally, and which is especially valuable in preventing, or when present mitigating, bronchitis and pneumonia, which as we all know are the complications from which we have most to fear. I refer to carbonate of ammonium. This drug in 5 gr. doses every four hours during the first stage I have largely used in the three outbreaks we have had, and patients declare that every dose gives relief to the pains. Besides this, if the case is seen at the outset I prescribe from 8 to 10 gr. of Dover's powder alone, or, in case of constipation, combined with from 2 to 3 gr. of calomel. In twenty-four to thirty-six hours the fever is subdued, the pains are relieved, the tongue cleans, appetite returns, and nux vomica rapidly restores the strength. For the troublesome but characteristic cough belladonna proves an efficient remedy. Salicylate of soda and antipyrin, or the new combination salipyrin, possess no advantages over carbonate of ammonium, and in some ways are distinctly its inferior.

I am, Sirs, yours faithfully,

WILLIAM WHITELAW, M. D.

Stoke Newington-road, N., Feb. 1st, 1892.

To the Editors of THE LANCET.

SIRS,—It may be worthy of remark, and in some measure may account for the great bound made in the apparent mortality from influenza in London during the past weeks, that a great difference is to be observed in the style of returning the death certificate by the certifying practitioner. At the commencement of an epidemic influenza is rarely returned as the primary cause, but is generally placed as a second or even third cause. During the further progress of the epidemic, when it has become much talked about, and, in a sense, fashionable, all this becomes reversed. We now find influenza returned as a primary cause, such complications as pneumonia and bronchitis being relegated to secondary positions. It even happens that chronic cases of diabetes, heart and kidney diseases, &c., are then returned as dying primarily of influenza; yet it must be obvious that these persons were, like ripe fruit, ready to fall from any disturbing cause, the influenza in these cases being but the proverbial "last straw." There is good reason for thinking, from the behaviour of influenza in previous epidemics, that we have reached the culminating point of the present epidemic, and may look for a period of decline. As most practitioners are finding themselves at present overworked, it may be some comfort to them to predict a period of general slackness during the ensuing summer months, such as was notoriously the case during the autumn months after the epidemic of 1891.

I am, Sirs, yours faithfully,

EDMUND GWYNN, M.D., M.O.H.

Vestry Hall, Hampstead, N.W., Feb. 1st, 1892.

To the Editors of THE LANCET.

SIRS,—I have just been reading in the daily press Dr. Parsons' very sensible suggestions with regard to the isolation and disinfection of cases of influenza, but I want to ask the question, Is it an infectious disease in the ordinary acceptation of the word? If yes, how is it we have none of it here at Monte Carlo, where all the means of spreading infectious disease are, so to speak, concentrated? Here in the Casino we have daily thousands of people from all quarters of the globe concentrated in a confined and artificially heated atmosphere; we have them all subjected to feelings of great excitement and great depression, the invariable accompaniments of gambling, and yet up to this date we have remained absolutely free from anything like an epidemic. I myself have seen only one case—a lady coming straight from America. She was taken ill on the journey, and I saw her immediately on her arrival. She was in a crowded hotel, and no precautions were taken. This was three weeks ago, and no other case has occurred in the hotel. A yacht came into the bay at Monaco, and I was asked to see a sailor on board who was ill. I found him suffering from well-marked influenza. This then ran through the whole crew. A strong wind sprung up, and the yacht had to be sent round to Villefranche (the Monaco bay not being a safe anchorage in stormy weather). The owner of the yacht then came on shore, and went to live in one of the largest hotels in the place. He also brought not a single germ of the disease to the other 200 people in the same hotel. I do not mean to assert for one moment that Monte Carlo will remain free from the epidemic for the

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whole of this season, but I do most strongly feel that if it does come later on we must look to some other cause, atmospheric or otherwise, than infection in the ordinary acceptation of the word.

I am, Sirs, yours truly,
CHAS. F. HUTCHINSON, M.D.

Villa Mai, Monte Carlo, Jan. 27th, 1892.

To the Editors of THE LANCET.

SIRS,—I have treated during the last two years a very large number of cases of influenza, and have myself suffered from a severe attack of it. The more I have seen of the disease the more have I been convinced that there is no specific for it, and that there is no regular course of treatment suitable for any case. The disease manifests itself in a great variety of ways, and although it is undoubtedly of neurotic origin, yet the particular idiosyncrasy of the patient determines its variety: Antipyrin, phenacetin, salol, salicylate of soda, bicarbonate of potash, citrate of potash, and frequent drinking of abundance of hot water are all useful in cases suitable, but none of them can be styled "the best form of treatment." I have found that when the temperature was under 102° drinking plenteously of hot water, with a hot poultice over the kidneys, and frequent sponging of the limbs with hot water, was, with a warm bed and a comfortable room, a most satisfactory mode of treatment. I found in my own case the greatest relief from the sponging and the hot poultice over the loins. The disease is always of a most depressing character, and during convalescence is the time when the experience of the physician is most demanded, and where again it is impossible to lay down any fixed rule. Strychnine is the tonic most generally necessary; but here again particular symptoms must be considered. I think very great harm has resulted to the public from the advocacy of particular remedies, which have caused them to neglect the various details—generally the most essential thing to remember. The most important question is, When does the disease begin to be infectious and when does it cease to be so?

I am, Sirs, yours truly,
JOHN R. HAMILTON, M.D. &c.

Hawick, N.B., Feb. 2nd, 1892.

To the Editors of THE LANCET.

SIRS,—Like Dr. Gordon Black of Harrogate, I have had lots of cases of influenza accompanied by rashes simulating scarlatina and measles, but those cases occur mostly, I think, in the young. I have a boy patient just now who is suffering undoubtedly from an influenzal attack, where the measly rash is so general and pronounced on his body that my assistant persists in calling it a case of measles. I have also had a fatal case of influenza complicated by endocarditis, where the roseolar rash on the woman's breast, arms, and legs was very bright, and where the face, hands, and feet were much puffed and perfectly livid. This patient died suddenly on the third day of my attendance. Perhaps our locality may have something to do in the causation of exanthematous forms of this scourge.

I am, Sirs, yours faithfully,
A. ROSS PATERSON, M.D. Aberd., M.R.C.P. Ed.

Stockton-on-Tees, Feb. 1st, 1892.

A CASE OF UNRECOGNISED CERVICAL CARIES.

To the Editors of THE LANCET.

SIRS,—The case described by Mr. Owen, and published in THE LANCET of Jan. 30th, should call more attention to the diagnosis of caries of the spine in adults. I can bear witness to the fact that such cases are frequently left unrecognised. During the last few months I have had four cases of this kind. No. 1 was a young lady aged twenty-one, in whom symptoms of nerve irritation in the arms, and some pain in the upper dorsal region of the spine, occurred, regarding which there was a difference of opinion, but which has since developed into unmistakable inflammation of the vertebræ. No. 2 was a youth aged eighteen (hardly an adult, but beyond the age of childhood), in whom there was caries in the lower cervical and upper dorsal vertebræ, with considerable deformity, but in consequence of implication of the heart and liver the former disease was overlooked, at least as a cause of the symptoms, and the latter was considered to be the origin of the great pain and illness. The case was considered hopeless at first, but by careful treatment of the spine the symptoms have gradually lessened, and there seems a good prospect of ultimate recovery. No. 3, a lady aged forty, who had been quite well until thirteen months before I saw her, when pains began in the left arm, extending to the right arm and to the upper part of the dorsal region of the spine. Treatment for rheumatism and general health, including seaside air, had failed to relieve the constant pain, and the patient could hardly move from one room to another. There was projection from the seventh cervical vertebra to the third dorsal, and the surrounding part was swollen and painful upon pressure Suitable treatment relieved the pain, and after three months the patient has made considerable progress towards recovery. No. 4, a lady aged thirty-five, had had pain in the back of the neck for two years, with various symptoms of irritation of the cervical nerves, affecting the neck and arms. This case has been under treatment also nearly three months, pain ceasing almost entirely from the commencement of treatment, and the patient is gaining strength.

For the sake of brevity I have omitted details in describing these cases. With regard to treatment, I believe that mechanical fixation is the most important part. Recumbency in bed seldom, if ever, fixes the diseased parts perfectly. In recumbency alone, notwithstanding the use of sandbags, every movement of the body or the arms must disturb the diseased part, unless, indeed, the patient be fixed down tightly to the bedstead by the shoulders, the pelvis, and the abdomen. The latter proceeding would convert the bedstead into a splint, and it will be found that a carefully adapted mechanical apparatus controlling the spine and the head will be more supporting to the part, far less irksome to the patient, and more thoroughly adaptable by the surgeon to the requirements during the progress of the case.

I am, Sirs, yours faithfully,
Queen Anne-street, W., Feb. 1st, 1892. NOBLE SMITH.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Notification of Measles in Newcastle.

AT a special meeting of the Corporation of the Newcastle Sanitary Committee, held last week, to take into consideration the notification of measles, a long and interesting discussion took place, and ultimately a vote was taken, the numbers for and against the notification of measles being equal. The chairman, however, declined to give his casting vote, in order that the matter might stand over for a short time for reconsideration. It is well known that our city officer of health holds strong views, which he has frequently expressed, as to the notification of this disease, which, he thinks, causes more loss of life than scarlet fever. I believe that the notification of measles will be conceded in a short time. At present the influenza is the all-absorbing topic of conversation; the public appear to be unable to think of more than one disease at a time, and whichever is foremost in their minds obscures all others. The notification of influenza was mooted the other night at the meeting of our Clinical Society, but the medical officer of health thought that as isolation was impracticable notification would be useless. Certainly the stage of incubation being for the most part so brief, it is not easy to see what good could accrue from notification, and it is well to avoid putting more burdens on our already patient profession.

Newcastle Lying-in Hospital.

The annual meeting of the governors of the Newcastle Lying-in Hospital was held last week. The report stated that 247 cases had been attended during the past year, and two deaths had occurred in the out-door department of the charity. The treasurer's statement showed a balance of £30, so that the hospital is now free from debt.

Carlisle.

It was mentioned at the board of guardians that influenza was somewhat abating, that the old people had been very severely attacked, and some of the cases were very bad ones. On one day last week there were 110 cases. The medical officer, in his annual report, states that scarlet

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fever had been very prevalent during the year, 564 cases having been notified; but the death rate for the year had not been more than 19 per 1000, allowing for some cases not belonging to the Carlisle urban sanitary district.

Criminal Law.

In the course of a lecture lately delivered at Carlisle by Dr. Lediard, he referred to the post-mortem examination of the dead, which, he said, should be watched in the prisoner's interests, apart from the prosecution. The various steps of dealing with the body or parts of the body should be watched in the prisoner's behalf. The organs as removed from the body should be noted and observed by a medical man engaged for the prisoner. The eye sees what it expects to see. A medical man was looking out for certain appearances, and his judgment might mislead him. Where money was at hand they found that prisoners' interests were invariably guarded in the manner described, and fallacies of observation and errors of judgment corrected at once with the happiest results. Dr. Lediard thought that a Court of Criminal Appeal should be as easy of access to the poor as the rich. Upon the whole, he favours the Scotch system in criminal procedure, where the procurator fiscal takes action, instead of, as with us on this side of the Border, the police.

High Rate of Mortality at Annan.

At the border town of Annan the death-rate for the last month has risen to the high figure of 70 per 1000 per annum. Old persons have died in great numbers.

Workington Infirmary.

The annual report of the Workington Infirmary has been issued, and it shows that ninety-three patients, principally surgical cases and operations, had been treated during the year. The financial position of the infirmary was good, as it closed with a balance in hand of nearly £200. One very satisfactory feature was the workmen's subscriptions, which reached the large sum of over £600.

Health of Ripon.

At a meeting of the Ripon Corporation Sanitary Committee the medical officer of health, Mr. C. Husband, presented his report, which showed that the death-rate for the whole city in 1891 was 20·5 per 1000, and, excluding public institutions, 18·3. Of the total deaths, 16 were of persons not belonging to Ripon, which reduced the death-rate for residents to 17·1. There had been ten deaths from zymotic diseases.

The Malton Medical Officership.

The local papers state that there has been some hitch or mistake in the election of a medical officer for the Malton district, and voluminous correspondence with the Local Government Board has resulted. Some say that a medical officer has been elected, and others say the contrary. It appears that there has been some mistake with the voting cards of the guardians, and probably a new election will take place.

Newcastle-upon-Tyne, Feb. 3rd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Longmore Hospital for Incurables, Edinburgh.

THE annual meeting of the managers of this institution was held last week, Lord Provost Russell presiding. The report stated that on Dec. 31st, 1890, there were sixty-seven patients in the hospital, and there were admitted during the past year twenty-three, making a total of ninety. Of these, seventeen males and fifteen females died, and four left of their own accord, leaving in the hospital on Dec. 31st last a total of fifty-four. It has been mentioned on several previous occasions that the managers were anxious to increase the accommodation for patients, as they had many more applications for admission than they could provide accommodation for. This report intimates that the necessary building is under course of erection. The old east wing has been pulled down and a new and more suitable wing is being built which will provide accommodation for thirty-four additional patients. Owing to the pulling down of part of the old structure the number of patients had, of course, to be temporarily reduced. When the alterations are completed there will be accommodation for about 100 patients. This will necessarily involve a greater annual outlay, and it is disappointing to note that the public are not subscribing as liberally to the institution as it deserves.

Edinburgh Dental Hospital.

The annual meeting of the directors and contributors to this hospital was held last week, the Lord Provost occupying the chair. From the report it appears that during the year 8617 cases had been treated. The addition of a mechanical department has been of great benefit to the recipients. The report expressed regret that, owing to the proposed extension of the Royal Infirmary, the Dental Hospital would cease to occupy its present premises, which occupied part of the ground included in the proposed extension.

Edinburgh Eye, Ear, and Throat Infirmary.

The institution which bears this name is a dispensary with a few beds attached to it. Its annual meeting was held last week, and from the report it appears that the number of patients in each department has slightly increased, and that the institution continues to do useful work.

The Edinburgh Diseased Meat Case.

The butcher who, as intimated last week, was fined for selling the carcase of a bullock which had died of anthrax has been further fined £20 by the county authorities for not intimating the case to them. This case, and the fact that much meat unfit for food is seized in the city, have caused a small public scare, and people begin to wonder what is safe to eat or to drink.

The Health of Edinburgh.

The mortality last week was 104, and the death-rate 20 per 1000. Diseases of the chest accounted for 50 deaths, and zymotic diseases for 7. The intimations for the week were: Typhoid fever 4, diphtheria 3, scarlatina 18, and measles 50.

General Council of the University of Edinburgh.

A special meeting of this body has been summoned for Friday, chiefly to consider amendments upon some of the later draft ordinances of the Universities Commission.

Feb. 2nd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Surgeons in Ireland: Schools of Surgery.

THE new buildings—anatomical, physiological, and chemical departments—which have been erected at a cost of some £5000, were formally opened on Monday by Mr. H. Gray Croly, president of the College. The dissecting-room is 74 ft. long by 64 ft. wide and 22 ft. high, lighted by a glass roof, and by electric lamps after sunset, while the chemical laboratory is 64 ft. long by 28 ft. wide, above it being the lecture theatre, all being fitted with the electric light. Mr. Croly made some brief remarks on the new buildings, and then said he had one more duty to perform, and that was to confer the honorary public health diploma on one of their most distinguished professors, Sir Charles Cameron, who was known to them not only as one of their professors of chemistry, but also as having been a past president of the College, a diplomate in Public Health, Cambridge University, and was three times re-elected President of the British Public Health Medical Association. Sir C. Cameron, in returning thanks, remarked that it was a source of great satisfaction to him to find that the study of public health was now regarded of so much importance that public medical officers of health were found in all the principal towns in our own countries, as well as all over Europe, and that it was deemed sufficiently worthy to be made the subject of a special diploma, sharing that honour with medicine, surgery, and obstetrics.

National Hospital for Consumption.

A public meeting in support of the proposal to erect a hospital for consumption near Dublin will be held on the 17th inst. at the Royal College of Physicians. Among those who have promised to attend is Her Excellency the Countess of Zetland. The movement has largely engaged

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public sympathy, and considerable support may confidently be expected in aid of the necessary funds for erecting and endowing an institution of the kind proposed.

Tercentenary of Trinity College.

The Trinity College Dramatic Committee have selected "The Rivals," by Sheridan, as the play to be performed by the students of the University during the tercentenary celebration.

The Ulster Hospital for Women and Children.

At this hospital the number of cases treated in the wards and the extern departments shows marked progress. A large number of operations were performed, with only three deaths during the year. The building in Fisherwick-place not being satisfactory, the present premises in Mountpottinger were secured. A bazaar is to be held next autumn, the proceeds being for the building fund and ordinary expenses. The hospital is now in every respect fully equipped. A resolution was adopted expressing sympathy with Professor Dill in his illness.

The Samaritan Hospital for Women, Belfast.

During 1890 there were 86 intern and 775 extern patients; in 1891 there were 56 intern and 479 extern patients. By far the greater number of those admitted were surgical cases. During the past few years the training of lady nurses has been undertaken with satisfactory results. There has never been a death from chloroform, although it has, since the foundation of the hospital in 1872, been given in over three thousand cases of operations. There is an increase in the number, and of nearly 50 per cent. in amount, of the public subscriptions for 1891 as compared with 1890, but there has been a decrease of £200 in the receipts from patients, which in previous years was the principal source of income. The late Miss Charters has bequeathed £1000 to the funds.

The Hospital for Sick Children, Belfast.

During the year 1891 there were 347 intern and 7592 extern patients. During the present session forty senior students are attending the clinics at the hospital, which is the largest class held in the institution since its foundation, and this fact indicates the important position which the institution occupies in the Belfast Medical School. The income for the year amounted to £966 4*s.* 9*d.*, and the expenditure to £1010 3*s.*

Belfast Lying-in Hospital.

At the annual meeting, held on Feb. 2nd, I find from the report presented that the number of intern patients (211) has been greater than in any previous year, while 165 were attended at their own homes. The hospital is in good working order. The dispensary, which is open thrice weekly, has been taken advantage of by 1480 women and children. Arrangement has been made for the admission of lady pupils. During the past year ten nurses were trained.

Influenza.

The epidemic of influenza, which for a long time was so prevalent in Belfast, may now be said to have disappeared, there being only a few isolated cases.

The death is reported of John Simpson Jackson, M.B., L.R.C.S.I., surgeon, ss. *Angola*, who was washed overboard in a gale recently. Great sympathy is felt for his father, Sir Robert Jackson, C.B., of Eglinton, Sandimount, near Dublin, a retired Deputy Surgeon-General.

Dr. John Armstrong, Government medical officer, died recently at Dominica, West Indies.

Feb. 3rd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

KI or NaI? The Prevention of Iodism.

THERE can be no question that the most efficient of all iodine compounds is the potassium salt. Its supremacy in the treatment of tertiary syphilis is undisputed, and in the remedying of the divers symptoms due to arterio sclerosis no agent gives such satisfactory results. Unfortunately, many patients are intolerant of this drug, and uncomfortable or even grave symptoms of iodism too often render its employment impossible. Nor can it be denied that, with the modern school of practitioners, theoretical considerations, based upon the knowledge gathered in the physiological laboratory that the salts of potassium act as protoplasmic poisons, militate against the administration of a drug which has rendered such good service in the treatment of degenerative processes. One cannot but suspect that such considerations, much less than clinical ones, have induced M. Huchard to prefer, for the last few years, the sodium to the potassium salt. At a meeting of the Société de Thérapeutique held on Jan. 27th, M. Constantin Paul asked M. Huchard if his enthusiasm for the sodium salt had not, as appeared from his recent utterances, somewhat cooled down. M. Paul himself expressed his decided preference for the potassium salt, deeming it to be vastly superior to its sodium congener. The discussion that followed showed that there was a general consensus of opinion as to the inefficacy of sodium iodide in syphilis, and elicited further from M. Huchard the confession that his views were veering round in favour of our old ally the potassium salt. His chief objection to it was its occasional irritating action on the renal filter. The sodium salt was free from this objection, but must be used in much larger doses to produce equivalent results. He believes that in such diseases as angina pectoris and myocarditis, general arterio-sclerosis is present, and consequently renal insufficiency, which the employment of the irritating potassium salt would aggravate. In conformity with the precept formulated originally, I believe, by Sir James Paget, and since endorsed by all English authorities—viz., to prescribe KI associated with some free NH_3,—I have always done so, but without always succeeding in averting iodism. In one syphilitic patient of mine the very first dose of five or ten grains thus prescribed invariably produced coryza, frontal headache, and sometimes a crop of acne. It has, however, never been my lot to witness such a serious form of iodism as œdema of the glottis, although such a *contretemps* has been not unfrequently noted. Quite recently Dr. Kessler of Dorpat recorded such an accident in the person of a woman, into whose vagina he had poured a teaspoonful of a one-third glycerine solution of potassium iodide. It is taught in the Paris school that iodism is more readily induced by small than by large doses. Two German physicians, Drs. Röhmann and Malachowski of Breslau, have been lately experimenting with bicarbonate of sodium as an antidote for iodism, believing that the ingestion of this salt, by rendering the blood alkaline, prevents the decomposition of potassium iodide and the consequent liberation of iodine in the free state. Two years' experience has convinced them that in bicarbonate of sodium, given synchronously, in two daily doses of forty or fifty grains, with potassium iodide, an agent has been discovered capable of counteracting, or even altogether preventing, the development of toxic symptoms.

Then and Now.

Professor Charcot is probably the most renowned teacher of which this Faculty can at present boast, hardly a foreigner visiting the Paris hospitals failing to make the classical pilgrimage to the Salpêtrière, where the learned and popular neurologist exercises sway. It may consequently interest the medical world to learn that at least one of M. Charcot's (probable) ancestors was an adept in the practice of *suggestion*, only the subjects whom he influenced were not hysterical girls, but—wild cats! The *modus operandi* also differed considerably, as will be perceived, from that now in vogue in the wards of the Salpêtrière. The following passage, which is extracted from Boguet's work entitled "Discours des Sorciers," third edition, Lyon, 1610, I transcribe without modernising the racy old French in which it was written. The *Progrès Médical* states that M. Charcot has still some relatives living in the same Gex district (now included in the Department of the Ain) mentioned in the extract: "Le semblable advint environ quarante ans lorsque les Bernois tenoient le Bailliage de Gex, en la personne d'un Charcot, homme de la mesme Terre et qui estoit de la religion prétendue réformée; celuy-cy fut assailly de nuict au bois de Rats, par une multitude de chats, à l'encontre desquels il se mit en défense, se servant d'une espée qu'il portoit, mais cõme il recogneut que son espée ne luy profitoit en rien, il fit le signe de la Croix, et lors tous les chats disparurẽt. Le Bailly nommé Augustin de Lutherno Bernois, ayant esté adverty du faict, mande Charcot qui luy confirma la chose en la sorte qu'elle a esté rapportée, et lors le Bailly luy dit, que s'il recognoissoit que le signe de la Croix luy

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fut profitable, il s'en deust tousiours aider à l'advenir. Je tiens l'histoire du sieur de Pougny, Gentilhomme de la terre de Gex et personnage d'honneur."

Insanity in Paris.

From a report just issued by Dr. Paul Garnier, physician to the special infirmary attached to the Préfecture de Police, it appears that insanity has increased in notable proportions (30 per cent.) in this city during the period included between 1872 and 1888. In the former year there were, in fact, registered at the Prefecture 3080 cases, as against 4449 in 1888, the grand total for that period of sixteen years being 62,572, including 34,882 males and 27,770 females.

Street Demonstrations by Medical Students.

Great dissatisfaction has been aroused in student circles by a recent announcement, to the effect that, in order to reconcile the terms of medical studies with those of the new military law, the limit of age at which the post of interne or house surgeon or physician can be competed for would henceforth be fixed at twenty-five. Numerous petitions have already been addressed to the authorities, with a view of having the obnoxious regulation amended. Feeling runs high on the subject. On Wednesday, the 27th ult., several hundred medical students repaired in groups to the headquarters of the Assistance Publique in the Avenue Victoria, and noisily protested against the measure. Dr. Peyron, the director, succeeded in calming the tumult by assuring his young friends that the matter was to be reconsidered, and that, in arriving at a final decision, their true interests would be kept in mind. Both the *Progrès Médical* and the *Bulletin Médical* appeal to the body of students to maintain a dignified and calm attitude, and to refrain from compromising the success of their agitation by holding disorderly street demonstrations.

Paris, Feb. 3rd.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Street Hygiene.

AT a recent meeting of the German Public Health Society Dr. Theodor Weyl spoke on the street hygiene of Paris and London, and recommended the adoption in Berlin of many of the arrangements in vogue at those places. The gist of his remarks was as follows: Wooden pavement has been in use in London and Paris for many years past, and has proved a great success, even in the most frequented streets. The fact that it has been less successful in Berlin may be due to faults of construction and treatment. In Paris and London there are no rails in streets paved with wood. The pavement is copiously watered. Drains and pipes are not laid under it, but under the side walks. The main thing, however, is good construction. In London and Paris sweeping is always preceded by watering, which is not the case here, to the serious detriment of the public health. The public closets in Paris are not worthy of imitation, because hygienic considerations are to a large extent subordinated to advertising purposes, but those of London are exemplary. The depositing of rubbish within or even in the immediate vicinity of cities is altogether to be condemned. The removal of snow costs Berlin about £19,000 a year, because it is not thrown into the river or sewers as in London and Paris, but carted out of the city. In conclusion, Dr. Weyl warmly recommended the London plan of regulating traffic by placing the lamp-posts in the middle of the street.

Dangerous Stoves.

The President of Police in Berlin has repeatedly warned the public against the use of certain forms of stoves. The President states that one case of poisoning by carbonic oxide occurred in Berlin and two in Wiesbaden in the winter of 1887-88, owing to the use of such stoves. It has been proved by experiments in the Hygienic Institute here that such stoves are dangerous.

Influenza.

The number of deaths in Berlin from influenza from the beginning of the present epidemic till the 16th ult. was 492. Of the fifteen normal schools of the kingdom of Saxony, twelve are closed, owing to the epidemic.

Statistics.

The number of marriages in Berlin in the week which ended on the 16th ult. was 157. The number of children born alive was 974, of whom 104 were illegitimate; 24 were born dead, of whom 5 were illegitimate. The number of deaths reported was 680—1 from typhus fever, 1 from quinsy, 3 from roseola, 3 from syphilis, 7 from whooping cough, 7 from gastro intestinal catarrh, 9 from measles, 11 from scarlet fever, 14 from diarrhœa, 14 from diarrhœa with vomiting, 18 from cerebral apoplexy, 21 from diphtheria, 28 from senile decrepitude, 32 from influenza, 63 from pneumonia, and 100 from phthisis. Seven persons died violent deaths, 3 of whom were hanged, 3 shot, and 1 driven over. Six of these deaths were suicides. The death-rates of the chief German cities were as follows: Krefeld, 9·9; Düsseldorf, 16·5; Stuttgart, 16·9; Strasburg, 17·2; Frankfort, 18·5; Leipsic, 18·7; Elberfeld, 19·8; Hanover, 20·7; Bremen, 21·1; Barmen, 21·2; Stettin, 21·4; Dantzic, 21·7; Berlin, 21·8; Breslau, 25·4; Dresden, 25·6; Königsberg, 25·8; Aix-la-Chapelle, 26·5; Nuremberg, 26·5; Hamburg, 26·6; Altona, 27·6; Magdeburg, 28·7; Munich, 30·4; Cologne, 31·7; Chemnitz, 33·8.

Berlin, Feb. 2nd.

Obituary.

ALFRED CARPENTER, M.D.LOND., M.R.C.P.LOND., J.P., &C.

FOR the last forty years the name of Dr. Carpenter has been at once familiar to and respected by all who have been interested in the progress of sanitary matters during the past half-century. Himself the son of a medical man, his general and medical education received marked attention, and his career as a student of St. Thomas's Hospital, when it was in less pretentious quarters than at present, is one which will compare with the most outstanding in the profession. He took several qualifications, ultimately becoming M.D. of London. His work was one of reform, and extended into many fields of labour. Early closing, sanitary progress, public baths, establishment of sewage farms, house drainage, and adulteration of food were subjects on which he spoke and wrote with unfaltering voice and unflinching pen. Every movement for the advancement of science and literature found in him a warm supporter. His writings embrace almost every sphere of sanitary work. He was a member of the Health Committee of the Social Science Association for many years, and its transactions testify to the work he performed. As a member of the Sanitary Institute he materially assisted the end in view. The motive power of his action was the belief so frequently expressed that the establishment of healthy homes for working people was the only true solution of the main problem in sanitary science. "You put the poor creatures in such conditions that their health has been failing for months, and when they die you blame the drainage." Dr. Carpenter would have heartily endorsed every syllable of this truth. His Glasgow paper, read in St. Andrew's Hall, entitled "Public Health: a Working Man's Question," was founded upon that text. It would have been marvellous beyond question if the ideas of a man possessed of his qualities of origination had not clashed frequently and rudely with certain interests. He did not escape calumny. No man of action ever does. So great was the friction engendered, on the only occasion on which he sought political honours, that he was set upon and roughly handled, and "eventually ducked in a pond." He suffered for his principles in good company. The roll of such is not too long, but every name on it is stereotyped for ever, for good, and posterity will read and think, and the verdict will be different. He was a magistrate for Croydon. In that capacity he betrayed a remarkable belief in the ancient theory of "sparing the rod and hating the juvenile offender." His invariable remedy for this class of delinquent was "a sound whipping." Had he survived he would have been elected to the post of chief magistrate. Years ago this honour was offered to him, but his many other public duties prevented his acceptance of the post. He was a vice-president of the British Medical Association, having been president of its council from 1879-81.

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Medical News.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on Jan. 28th the degrees of B M. and B S. were conferred on the following:—

George Tolcher Eccles, Downing.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen, having conformed to the by-laws and regulations and passed the required examinations, were at a meeting of the College on Jan. 28th admitted Licentiates:—

Adams, Alfred, St. Barthol.
Adams, E. Weaver, King's Coll.
Adams, W. Francis, King's Coll.
*Archer, Stafford L., St. Barthol.
Armstead, Hugh W., St. Barthol.
Allee, John, St. Barthol.
Barker, Chesman, St. Barthol. & Sheffield.
Bell, Jas. Adamson, King's Coll.
Biddle, Henry George, Guy's.
Billson, Charles, St. Thomas's.
Bishop, George T., Charing-cross.
Blackwell, A. S., St. Barthol.
Bolus, Harry Boulcott, Guy's.
Braithwaite, Charles B., Guy's.
Browne, John James, Guy's.
Brownlow, Harry L., St. Barthol.
Burden, Henry, St. Thomas's.
Cooke, William H., St. George's.
Cooper, Arthur T., Univ. Coll.
Day, Joseph H., Charing-cross.
*Dolamore, W. Henry, St Mary's.
Dorman, M. R. P., St. Thomas's.
Drake, W. Elliot, St. Thomas's.
*Eccles, R. Burton, St. Thomas's.
Ellis, Fred, London.
English, Thos. Harks, London.
Evans, John, Liverpool.
Everett, Ernest W, St. Barthol.
Fearnley, Jonathan, Leeds.
Fennings, Arthur Allen, St. Mary's & Durham.
Finley, Harry, Univ. Coll.
*Fraser, Reginald Conrad. Guy's.
Freeland, Douglas L., Middlesex.
Glover, Lewis G., St. Barthol.
Graham, Charles H., St. Barthol.
Green, Joseph, Manchester.
*Greenhalgh, Arthur, Manchester.
Griffiths, G. Batho, St. Barthol.
Haslam, William Arthur, Guy's.
Haydon, Arthur Geo, St. Barthol.
Hayes, William A., Univ. Coll.
Higgs, Walter Alpheus, Guy's.
Hignett, Lionel W., Edinburgh.
Hopkin, Richard, London.
Hutton, James William, Leeds.
Iliewicz, Edmund M., St. Mary's.
Jerome, George P., Birmingham.
Jones, L. Gwynn D., Manchester.
Jones, Wm. Black, St. Barthol.
Kendall, Herbert W., Middlesex.
Kitching, Charles A., London.
Lacey, Allan Ramsey, Guy's.
Lee, Sidney Herbert, Middlesex.
*Leicester, Thomas, St. Thomas's.
Lemarchand, A. W., St. Barthol.
Lewarne, Frank, St. Barthol.
Lewis, Herbert W., Westminster.
Lister, Septimus R., St. Barthol.
Lloyd, Fredk. Geo., St. Barthol.
Lord, Percy, Guy's.
Lumley, Fredk. Davidson, Guy's.
Lunn, Cyril R., Birmingham.
*McAnally, Arch. A., King's Coll.
McKinnon, Arch. A., King's Coll.
McMichael, A. W., Birmingham.
Marin, F. Baptiste, Westminster.
*Martland, Thomas, Manchester.
Mathews, Wm. Robert, London.
Miller, John, St. Barthol.
Minshall, Arthur G., Univ. Coll.
Morgan, Harry de R., St. George's.
Morrison, James, St. Barthol.
*Nash, Charles, King's Coll.
Newby, Gervase E., Univ. Coll.
Nicholls, Sydney R., London.
Norman, George, Westminster.
Norris, Arthur Ernest, Guy's.
Nuttall, Walter W., St. Barthol.
Passmore, J. E. Sanders, London.
Pauling, W. T., St. Thomas's.
Phillips, Percy C., St. Thomas's.
Pickford, James S., Manchester.
Pitt, Tom, Bristol.
Porter, Frank C., Charing-cross.
Powrie, Percy C., Univ. Coll,
Prall, Cedric B., St. Thomas's.
*Prosser-Evans, J., Univ. Coll.
Prynne, Harold V., Middlesex.
Ralph, C. H. Danson, Guy's.
Ramsay, George, King's Coll.
*Richardson, W. J., King's Coll.
Roth, Walter E., St. Thomas's.
Rowell, John George, Leeds.
Rutter, F. Burchett, London.
Sargent, Hugh Cann, London.
Senior, Harold D., Charing-cross.
Star, P. Hobling Mills, Bristol.
Steegmann, E. John, St. Mary's.
Thomas, Henry, St. Barthol.
Thomas, William, London.
Thorne, Berthold Bezly Thorne, St Barthol.
Turner, Joseph G., St. Thomas's.
Turner, Olivier Polhill, Univ. Coll.
Visick, C. H. Clarence, Univ. Coll.
Voisin, E. O. Bishop, Univ. Coll.
Wallace, F. Gore, St. Thomas's.
Warner, Thomas, King's Coll.
Waters, H. Geo., St. Thomas's.
Watkins, D. J. G., St. Barthol.
Weichert, Charles J., Univ. Coll.
Whiteford, Chas. H., St. Barthol.
Whitehead, A. Longley, Leeds.
Wiglesworth, T. Ridler, Bristol.
Wild, Henry Sydney, St. George's.
Wilkinson, Harry Bacon, Guy's.
Williamson, J. H., Manchester.
Wood, Cyril Geo. Russ, Bristol.
Worthington, Harry E., Guy's.
Wrench, Edward Branson, Cambridge & St. Thomas's.
Wylie, J. T. Roy, St. George's.

* Candidates who have not presented themselves under the Regulations of the Examining Board.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following candidates have passed the Final Examination:—

E. H. Beaman, H. Bouchier-Hayes T. F. Dillon, J. J. M. Dowzer, J. B. Elmes, M. Ferguson, F. W. Foott, E. F. Frazer, W. C. Hamilton, M. Keay, H. B. Ludlow, E. W. Lynch, J. M. Mangan, R. Moynahan, A. W. Power, G. H. Russell, I. G. Warren, R. J. White, G. T. Whyte, D. E. Williams.

The following have passed in the subjects indicated:—

Medicine.—M. J. Chevers, D. H. Foley, P. J. Garland, F. A. Madden, A. R. Moore, W. W. Scarlett, S. W. Wilson, Jane Wynne.
Surgery.—H. W. Cave, M. J. Chevers, C. E. Cowen, D H. Foley, P. J. Garland, F. J. Greeves, A. R. Moore, W. W. Scarlett, Temple Smyth, Frederick O. Stoker.
Midwifery.—I. Crumley, F. L. Flood, F. J. Greeves.

BRITISH MEDICAL SERVICE.—The following is the list of Surgeons on probation of the Medical Staff of the British Army who were successful at both the recent London and Netley examinations. The prizes are awarded for marks gained in the special subjects taught at the Army Medical School. The final positions of these gentlemen are determined by the marks gained in London added to those gained at Netley, and the combined numbers are accordingly shown in the list which follows:—

	Combined Marks.		Combined Marks.
*Pilcher, E. M. ..	6094	Mitchell, L. A. ..	4549
Johnson, H. P. ..	5121	Fleming, C. C. ..	4533
Beyts, W. G. ..	5219	Hennessy, J.	4546
Stalkartt, H. A. ..	4833	Martin, C. B.	4501
Dunn, H. N.	4832	Buchanan, G. J. ..	4395
Withers, S. H. ..	4794	Lawson, C. B. ..	4366
Morphew, E. M. ..	4744	Hughes, G. R ..	4314
Anderson, E. C. ..	4648	Kelly, J. F. M. ..	4337
Tyacke, N.	4619	Crawford, G. S. ..	4286
Holt, R. H. E. G. ..	4562	Alexander, J. D. ..	4260

* Gained the Montefiore second prize.

INDIAN MEDICAL SERVICE.—The following Surgeons on probation were successful at both the recent London and Netley examinations:—

	Combined Marks.		Combined Marks.
Seton, B. G.	6079	Mitter, R. K.	5589
*Sprague, W. C. ..	6044	Armstrong, W. E. A.	5507
†Elliot, R. H.	6027	Yeates, R. A.	5456

* Gained the Martin Memorial Gold Medal with the De Chaumont prize in Hygiene, the prize in Pathology presented by the Director-General of the Army Medical Department, Sir William Mackinnon, K.C.B., and the Herbert prize of £20.
† Gained the Montefiore Medal and prize of 20 guineas, and the prize in Clinical Medicine presented by Surgeon-General W. C. Maclean, C.B.

CREMATION.—In view of the increase in the practice of cremation, the directors of the General Cemetery Company have decided to build within the monumental chambers at Kensal-green a columbarium or receptacle for cinerary urns.

THE GERMAN HOSPITAL, DALSTON.—The annual report just circulated shows that the number of in-patients admitted during the past year was 1536, of which 303 were cases of accident. In the same period, 364 patients were received into the convalescent home. The total number of out-patients treated at the hospital, and the Eastern and Western Dispensaries, was 24,757. The financial statement shows a balance of £278 for the general fund. Another ward for women was much needed.

PROPOSED NEW COUNTY ASYLUM FOR LANCASHIRE. At the meeting of the Lancashire Asylums Board at Preston on the 28th ult. it was reported that the present asylums were crowded, and that the normal increase of lunatics in Lancashire was 200 per annum. It was resolved to recommend to the County Council the erection of an institution for the reception of harmless incurable lunatics and imbeciles combined, with a school for juvenile imbeciles under separate superintendence and on the same estate.

MANCHESTER MEDICO-ETHICAL ASSOCIATION.—The following gentlemen have been elected by the Committee for election as office-bearers and committee for the year 1892 President: Dr. Henry Ashby. Vice-Presidents: Drs. Alfred Godson, Simeon Holgate Owen, William Japp Sinclair, and Mr. John Broadbent. Treasurer: Dr. Lloyd Roberts. Secretaries: Dr. Frederick H. Collins, and Mr. John Ferguson. Committee: Drs. Hugh Walter Boddy, Henry A. G. Brooke, Thomas Harris, James Holmes, John Fisher Le Page, William Milligan, Seigmund Moritz, Robert A. Murray, and Charles Gordon Lennox Skinner; Messrs. Joseph Foster, Herbert Lund, and John Antoine Palanque.

IPSWICH BOARD OF GUARDIANS.—At the meeting of the board at the Town Hall on the 29th ult. the following report of the Out-Relief Committee was presented, and ultimately adopted:—"Your committee, having fully considered the question of medical relief, recommend:—1. That there should be one medical officer instead of three. 2. That Mr. Edwards should be paid a retiring pension of £60 a year. 3. That Mr. Adams should be paid a similar pension of £50. 4. That the medical officer should attend at the out-relief station every morning at 10, for the purpose of seeing patients. 5. That the medical officer should employ a deputy, equally qualified with himself. 6. That the deputy be allowed to see chronic cases, and otherwise assist the medical officer in the discharge of his duties. 7. That the guardians should contract with a druggist for the supply of all drugs, at their expense. 8. That the druggist supplying the drugs should send a dispenser to attend at the out-relief office morning and evening to make up the medical officer's prescriptions. 9. That the medical officer should be paid £280 a year, rising £10 a year to £320."

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SIR P. DUN'S HOSPITAL, DUBLIN.—This institution has received, in response to the special appeal for funds, a cheque for £200 from Lord Iveagh, and £100 each from Sir E. Hudson Kinahan, Bart., and Mr. John Jameson.

FOLKESTONE.—Dr. Ross, of Christ Church-road, Folkestone, has been unanimously chosen a member of the Library and Museum Committee, in the place of Mr. Saunderson, deceased.

HERTFORD GENERAL HOSPITAL.—The annual report for the year 1891 shows an increase in the number both in- and out-patients. There was a decrease in the year's receipts (chiefly arising from the falling off of donations and legacies) amounting to £387 3*s.* 9*d.*

WELLINGTON COLLEGE.—A special meeting of the governors of Wellington College was held yesterday, at the Fine Arts Commission Room, Palace of Westminster. The governors present were—Colonel Talbot (vice-president), his Royal Highness the Duke of Connaught, his Royal Highness Prince Christian, the Duke of Wellington, the Bishop of Rochester, Sir George Russell, Sir Lintorn Simmons, Sir Dighton Probyn, Sir George Harman, Mr. Walter, and Mr. J. F. Chance (Secretary).

THE PREVENTION OF CRUELTY TO CHILDREN.—During the quarter ended Dec. 31st, 1891, the National Society for the Prevention of Cruelty to Children investigated 1974 complaints of cruelty, affecting the welfare of 4662 children. In 1168 cases warnings were given to the offenders; in 280 cases the offences were of so gross a nature as to necessitate prosecution (convicted 265, discharged 15); and the rest were otherwise dealt with. Fifty-four years of imprisonment and £51 in fines were inflicted.

DEVON AND EXETER MEDICO-CHIRURGICAL SOCIETY. The following gentlemen have been elected office-bearers for 1892:—President: John Woodman, M.D., F.R.C.S. Vice-President: James Somer, M.R.C.S. Treasurer: J. D. Harris, M.R.C.S. Council: E. J. Domville, M.R.C.S., J. Mortimer, M.B., C. E. Bell, M.R.C.S., C. H. Wade, M.A., M.R.C.S., W. Langran, L.R.C.P.E., and A. Curtis, L.R.C.P.L. Auditors: A. C. Roper, F.R.C.S.E., and J. M. Ackland, M.R.C.S. Secretary: A. G. Blomfield, M.D.

TORBAY HOSPITAL AND DISPENSARY.—This charity maintains its utility, and continues to extend its benevolent work. The cash account again shows a deficiency, and the board had resolved to apply to current expenses the amounts in hand received for life governorships to reduce the overdraft. The executors of the late Miss Lavinia Warrington have offered to bestow £7000 for the purpose of improving and enlarging the hospital, which the governors have long contemplated. This generous offer has been accepted. A ward will be named after the donor.

FOOTBALL CASUALTIES.—On the 26th ult. a young man sustained a fracture of the leg while playing in a match between the Cardiff Police and Corporation Officials. He was taken to the infirmary and detained.—On Saturday, in a match between Heywood and Heywood Central Clubs, a player was kicked on the left knee, and on medical assistance being obtained it was found he had sustained a serious fracture of the "knee-cap."—On the same day, while playing for the Dunfermline Athletic Club against the Lochgelly United, in a match at Dunfermline, a young man had one of his legs fractured; and during a match between the Birmingham Wycliffe and the Lichfield Leomansley Clubs a scrimmage occurred, and the Wycliffe captain sustained a fracture of his leg above the ankle.

VOLUNTEER MEDICAL ASSOCIATION.—The usual quarterly meeting of the council was held at 101, Great Russell-street, on Wednesday, Jan. 27th. A resolution was passed expressing respectful sympathy and condolence with the president, Field Marshal H.R.H. the Prince of Wales on the melancholy event of the death of H.R.H. the Duke of Clarence and Avondale. The draft of the annual report for 1891 was read and approved, and it was ordered to be printed and circulated. The report of a committee lately appointed to revise the regulations for the Ambulance Challenge Shield was received, and the regulations for the competition as amended by the committee were adopted. Entries for the challenge shield must be sent to the hon. secretary before April 30th. The next meeting of council will be held on April 27th.

OVERLOADING STEAMSHIPS.—The stipendiary magistrate at Cardiff last week inflicted the maximum fine of £100 each in three cases of overloading steamships at Port Said, Gibraltar, and at Bilbao. In giving his judgment he stated that the jeopardy and loss of human lives directly and clearly attributable to overloading had officially been brought to his notice.

WINDSOR AND ETON ROYAL DISPENSARY AND INFIRMARY.—During the year 1891, 291 patients had been admitted into the institution, the largest record for some years, and 4257 out-patients were attended at the dispensary, or treated at their own homes. The income had fallen off considerably during the year; but, taking into consideration the great amount of sickness and distress which had been prevalent, the balance-sheet was a favourable one.

BRISTOL ROYAL INFIRMARY.—At a special meeting of the governors, held on the 26th ult., to consider a proposed alteration in the rules in reference to the mode of election to vacancies on the honorary medical and surgical staff, it was unanimously resolved that: "Every vacancy in the honorary medical and surgical staff shall be filled up by a committee of election, consisting of president, vice-presidents, and consulting physicians and surgeons, including the obstetric physician and ophthalmic surgeon, and members of the committee of management, together with twenty-one governors, to be appointed only at the general board to be held in March in each year. Whenever a vacancy may occur in the office of physician, surgeon, obstetric physician, ophthalmic surgeon, dental surgeon, assistant physician, or assistant surgeon, the committee of management shall, upon announcement of the vacancy, summon a meeting of the committee of election to fill the same, on a day to be notified on the summons, and proceed to the election accordingly." It was stated that this alteration would reduce the expense to the candidates, and abolish the necessity of canvassing.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on February 2nd, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	
Eastern Hospital	186	52	..	35	1	274	442
North-Western Hospital	225	36	..	12	..	273	411
Western "	105	22	..	13	4	144	224
South-Western "	197*	43	..	19	2	261	350
South-Eastern "	195	15	1	61	4	276	424
Northern "	365	20	..	13	...	398	480
Totals	1273	188	1	153	11	1626	2331

* Infant and mother.

SMALL-POX.—*Atlas* hospital ship, 6.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BOWER, ERNEST DYKES, M.R.C.S., L.S.A., has been appointed Surgeon to the General Infirmary, Gloucester, and the Gloucestershire Eye Institution, vice A. M. Sydney-Turner, resigned.

BULL, W. C., M.B. Camb., F.R.C.S., has been appointed Aural Surgeon to the St. George's Hospital, London.

BURKITT, J. C. S., M.D., M.Ch., D.P.H., R.C.S. Irel. has been reappointed Medical Officer of Health for the Whitwick Urban District.

CLARK, W. W., M.D. Edin., M.R.C.S., has been reappointed Medical Officer for Wellingborough.

COLE, ARTHUR, L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer at Ayr, Queensland.

DIMMOCK, A. F., M.D. Durh., M.R.C.S., has been reappointed Medical Officer of the Harrogate Cottage Hospital.

DONALDSON, GEORGE, A.B., M.B., B.Ch., B.A.O. Dub., has been appointed Medical Officer to the Castle Shane Dispensary District Monagan Union, vice Robert Donaldson, resigned.

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GIVEN, J. C. M., L.S.A., has been appointed Assistant Medical Officer of the Derby Borough Asylum.

GOUGH, J. HARLEY, L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Surgeon to the Tavistock Cottage Hospital.

GRIFFITH, JAS. DE B., M.B., M.Ch. Dub., has been appointed a Medical Officer for the Sunbury Lunatic Asylum, Victoria, Australia.

HEARD, ROBERT LYNN, M.B., B.Ch. R.U.I., has been appointed Medical Officer to the Monkstown Parochial Benefit Society.

HILL, T. EUSTACE, M.B., C.M. Edin., B.Sc., has been reappointed Medical Officer of Health for South Shields.

HUME, G. H., F.R.C.S. Edin., has been appointed Consulting Surgeon to the Children's Hospital, Newcastle-on-Tyne.

HUNTER, W. L., M.D., B.Ch., D.P.H. Eng., has been appointed Medical Officer of Health to the Pudsey Local Board.

JONES, GEO. F., M.R.C.S., has been appointed Medical Officer of Health for Southend.

KENNEDY, F. W. M.D., B.Ch., B.A.O.Dub., has been appointed House Surgeon to the Sir Patrick Dun's Hospital, Dublin.

LOVERIDGE, A. W., M.R.C.S., has been appointed Honorary Surgeon to the Newport (Mon.) Infirmary.

MACAULAY, THOS., M.R.C.S., L.M., has been reappointed Medical Officer of Health for the Market Harborough Rural District.

MUIR, JAMES M. M., M.B., M.Ch. Glasg., has been appointed a Public Vaccinator at Woodend, Victoria, Australia.

NORRIS, L. FREDK., M.B., C.M. Glasg., has been appointed Junior House Surgeon to the Borough Hospital, Birkenhead.

OZANNE, F. N., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of the Harrogate Cottage Hospital.

PAGE, FREDERICK, M.D., has been appointed Consulting Surgeon to the Children's Hospital, Newcastle-on-Tyne.

RIDDELL, JOHN S., M.B., C.M. Aberd., has been appointed Medical Officer to the Holborn Lodge of Oddfellows (Caledonian Order).

ROBERTS, N. E., M.B., C.M. Edin., has been appointed Visiting Physician to the Granton-street and Parkhill Hospitals, Liverpool.

ROBERTS, C. GORDON, M.A., M.B., B.C. (Cantab.), has been appointed Medical Officer of Health to the Town of Halstead, Essex, and Medical Officer to the Second Division, and Public Vaccinator to the First and Second Divisions of the First District, Halstead Union.

SHARMAN, ERIC H., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Hospital for Sick Children, Great Ormond-street, W.C.

SPENCER, W., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Borough of East Retford.

STEELE, H. O., M.R.C.S., has been reappointed Medical Officer of Health for Gomersal.

SULLIVAN, EDWD. F., M.D., M.Ch., L.M. R.C.P. Irel., has been appointed Health Officer for the North Yarrawonga Shire, Victoria, Australia.

TAYLOR-GENGE, T., L.D.S., has been appointed Dental Surgeon to the Bristol General Hospital, vice T. Cooke Parson, M.R.C.S., L.D.S., deceased.

WILLIAMS, NEVILLE, M.B. (Cantab), M.R.C.S., has been reappointed Medical Officer of the Harrogate Cottage Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

CAPE COPPER COMPANY.—Assistant Surgeon for Cape Colony. (Apply, by letter only, to the Secretary, No. 9, Queen-street-place, London, E.C.)

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant Physician. (Apply to the Secretary. Office, 24, Finsbury-circus, E.C.)

DENTAL HOSPITAL OF LONDON, Leicester-square.—Two Assistant Dental Surgeons.

DISTRICT INFIRMARY, Ashton-under-Lyne.—Junior House Surgeon and Dispenser. Salary £50 per annum, with board and lodging.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Medical Officer for two years. Salary £80 per annum, with board, lodging, and washing.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E. — House Physician. Board and lodging provided.

GENERAL HOSPITAL, Birmingham.—House Governor. Salary £300 per annum, with board and apartments.

HOSPITAL FOR WOMEN, Soho-square, London.—House Physician for six months. Salary £30 for that period.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Assistant Physician.

KENT COUNTY LUNATIC ASYLUM, Chartham, near Canterbury.—Medical Superintendent. Salary £600 per annum, with unfurnished house, gas, washing for himself and family, and produce of garden.

LONDON LOCK HOSPITAL AND ASYLUM, Harrow-road, W., and 91, Dean-street, Soho, W.—Surgeon to in-patients and out-patients at 91, Dean-street, Soho, W., for two years.

LONDON COUNTY ASYLUM, Cane-hill, Coulsdon, Surrey.—Fourth Assistant Medical Officer. Salary £150 per annum, rising by £5 to £160, with board, lodging, and washing.

LONDON HOSPITAL, Whitechapel, E.—Assistant Surgeon.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Surgeon.

MR. E. J. HARWOOD, 18, Ely-place, Holborn, E.C.—Medical Officer.

NORFOLK COUNTY ASYLUM, Thorpe, Norwich.—Senior Assistant Medical Officer for five years. Salary £160 per annum, with board, lodging, and washing.

PARISH OF LOCK GOILHEAD AND KILMORICK, N.B.—Medical Officer. Salary £70 per annum.

QUEEN'S HOSPITAL, Birmingham.—Casualty Surgeon. Annual honorarium £50.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road, S.E.—Resident Medical Officer. Salary £70 per annum, with board and apartments.

SOUTH SHIELDS UNION.—Medical Officer for the Union Workhouse. The salary, which will include remuneration for all operations and accouchements, will be at the rate of £250 per annum, together with a fee of 1s. 6d. for each child vaccinated in the Workhouse.—(Apply to the Clerk to the Guardians, Union Offices, South Shields.)

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL, Albert Embankment, S.E.—The Chair of Chemistry.

UNIVERSITY OF GLASGOW.—Three Assistant Examiners. The annual fee to each Examiner is £30, and the term of office in each case is four years from April 1st next.

Births, Marriages, and Deaths.

BIRTHS.

SILCOCK.—On Feb. 1st, at 52, Harley-street, W., the wife of Arthur Quarry Silcock, M.D., B.S. (Lond.), F.R.C.S. Eng., of a son.

HANLY.—On Jan. 29th, at Ormskirk, the wife of Dr. J. J. Hanly, M.A., of a son.

FAWSSETT.—On Jan. 31st, at Lewes, Sussex, the wife of Frank Fawssett, M.B., B.S. Lond., of a daughter.

INKSTER.—On Jan. 24th, at Broomhill Lodge, Sheffield, the wife of S. Macaulay Inkster, M.D., of a daughter.

MANLEY.—On Jan. 24th, at New-street, West Bromwich, the wife of Dr. Herbert Manley, of a son.

COLLIER.—On Jan. 29th, at St. Mary's Entry, Oxford, the wife of WM. Collier, M.D., of a son.

JAMES.—On Jan. 19th, at Cazenove-road, Stamford-hill, N., the wife of C. A. James, L.R.C.P., M.R.C.S., D.P.H. Eng., of a son.

HAKE.—On Jan. 30th, at Inverness-terrace, Fulham, S.W., the wife of Dr. H. Wilson Hake, of a son.

OPENSHAW.—On Jan. 29th, at Wimpole-street, Cavendish-square, W., the wife of T. Horrocks Openshaw, M.S., F.R.C.S. Eng., of a son.

SMELT.—On Feb. 1st, at The Villa, Newent, Glos., the wife of Frank Hayes Smelt, Surgeon, of a son.

MURDOCH.—On Feb. 2nd, at Morningside-road, Edinburgh, the wife of T. M. Burn Murdoch, M.B., of a son.

MARRIAGES.

ROUTH—WATSON.—On Jan. 28th, at Rosehall U. P. Church, Edinburgh, by the Rev. Lewis Davidson, Mayfield Free Church, Randolph Henry Felix Routh, M.R.C.S., L.R.C.P., of Bridgewater, Somerset, youngest son of C. H. F. Routh, M.D., of Montagu-square, London, to Jean Gladstone, eldest daughter of Walter Watson, M.D., of Edinburgh, late of Midcalder.

CONWAY—FORSYTH.—On Jan. 27th, at the Parish Church, Sale, Basil Wiseman Conway, M.R.C.S., L.R.C.P., of Longsight, Manchester, eldest surviving son of the late Edwin Conway, of Stalybridge, to Jane, only daughter of the late Henry Arthur Forsyth, of Charlton Drive, Sale, Cheshire.

EADES—SAVAGE.—On Jan. 27th, at St. Anne's Church, Wandsworth, S. O. Eades, L.R.C.P., L.R.C.S. Edin., of Ipswich, to Teresa Julia Mary Savage, of Struan, Wandsworth-common, S.W.

RICHARDSON—LEVEAUX.—On Jan. 28th, at Hornsey Church, Alfred Ernest Richardson, M.D., M.R.C.S., of Tamworth, to Kate Josephine, eldest daughter of the late Mr. E. H. Leveaux, the Grange, Brookgreen, W.

DEATHS.

ADAMS.—On Jan. 31st, at Tower Lodge, Regent's-park-road, William Adams, F.R.C.S., J.P., aged 65.

BUTLER.—On Jan. 21st, at Cosham, Hants, suddenly, Edward Jones Butler, B.A., M.D., Fleet Surgeon R.N. (retired), second surviving son of the late John Butler, Leinster-square, Rathmines, Dublin, aged 54.

FROST.—On Feb. 3rd, Helena Maria, the dearly beloved wife of John Kingdon Frost, M.R.C.S., and only daughter of F. W. Sutton, Esq., Inspector of Machinery R.N. (retired), aged 29.

GRAY.—On Jan. 2nd, John Temperley Gray, L.R.C.P. Lond., M.R.C.S., of Bombay.

HICKSON.—On Jan. 31st, at Norland-square, London, W., Albert Thomas Hickson, M.A., M.D., sixth son of the late W. M. Hickson, R.M.

JACKSON.—Washed overboard in a gale, John Simpson Matthew Jackson, B.A., Senior Moderator, M.B. T.C.D., L.R.C.S.I., Surgeon ss. *Angola*, eldest son of Sir Robert W. Jackson, Eglinton, Sandymount, Dublin.

MACDONALD.—On Jan. 31st, at Kirkdale, Liverpool, A. D. Macdonald, M.D., C.M. Edin., aged 37.

MUGGERIDGE.—On Jan. 19th, at Balham, Henry Harris Muggeridge, M.R.C.S., L.L.D., aged 77.

OWEN.—On Jan. 22nd, at Brecon, Robert Owen, L.R.C.P., L.R.C.S. Edin., aged 39.

PAGET.—On Jan. 29th, at Cambridge, Sir George E. Paget, K.C.B., M.D., F.R.S., Regius Professor of Physic in the University of Cambridge, and Fellow of Gonville and Caius College, aged 83.

STADDON.—On Jan. 29th, at Silent-street, Ipswich, John Hart Staddon, M.R.C.S., L.R.C.P., aged 61.

STURTON.—On Jan. 30th, at Stevenage, Herts, H. W. S. Sturton, M.R.C.S., of Greenwich, second son of the late William Sturton, M.R.C.S., L.S.A., of Croydon.

WARBURTON.—On Jan. 23rd, at his residence, Low Croft House, Wibsey, near Bradford, Yorkshire, Henry Alfred Warburton, M.R.C.S., L.S.A., aged 73 years.

WHITE.—On Jan. 26th, in London, from acute pneumonia, arising from influenza, Samuel Gamble White, Brigade Surgeon, retired, aged 53.

WOLFF.—On Jan. 31st, at Gloucester-gardens, Abraham Wolff, F.R.C.S., aged 73.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, February 8.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. Wm. Lang: Conjunctival Affections.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Gastro-Intestinal Tract.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. J. W. Carr: Enlargement of the Spleen in Young Children.—Dr. J. S. Keser: The Treatment of some forms of Chronic Bronchitis by the Water of Weissenburg (Switzerland).

Tuesday, February 9.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor V. Horsley: The Brain.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. J. Hutchinson: Lichen Planus.—Bethlem Hospital: 2 P.M., Dr. Hyslop: Puerperal and Lactational Insanity.—Charing-cross Medical School: 8 P.M., Dr. Potter: The Sequelæ of Abortion.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Mr. Holmes will exhibit a Patient on whom Pirogoff's Amputation was performed twelve years ago.—Dr. Mitchell Bruce and Mr. A. Marmaduke Sheild: Gelatinous Degeneration of Hydatid Cysts.—Dr. Archibald E. Garrod: The Changes in the Blood in the course of Rheumatic Attacks.

Wednesday, February 10.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Green: Cases in the Wards.—Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Optic Nerve Atrophy. Parkes Museum: 1 P.M., Dr. Louis C. Parkes: Defective Sanitary Arrangements in Houses, and their Effects upon Health.

Thursday, February 11.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

ROYAL INSTITUTION.—3 P.M. Professor E. Ray Lankester: Some Recent Biological Discoveries.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. Barlow: Illustrations of Abdominal Disease in Children.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Buzzard: Cases in the Hospital.—London Throat Hospital, Gt. Portland-st.: 8 P.M. Dr. Woakes: Necrosing Ethmoiditis.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (Great Northern Central Hospital).—9 P.M. Dr. Lewis Jones: Electricity as an Aid to Medical and Surgical Diagnosis and Treatment.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Dr. Granville Bantock. Dr. Heywood Smith: Subperitoneal Hysterectomy.

Friday, February 12.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Green: Cases in the Wards.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: Tuberculosis (Examination of Sputum, &c.).—Charing-cross Medical School: 8 P.M., Dr. Potter: The Uterine Sound.

CLINICAL SOCIETY OF LONDON.—Dr. Lees: Three cases of Perforation of the Vermiform Appendix.—Mr. Page: (1) A case of Acute Appendicites, Removal of Appendix, Recovery; (2) A case of Relapsing Appendicites, Operation, Recovery.—Mr. Stephen Paget: An unusual case of Sloughing of the Vermiform Appendix.—Mr. Bland Sutton: A case of Cholelithiasis, Removal of Impacted Gall-stones through an Incision in the Common Duct; Recovery.

ROYAL INSTITUTION.—9 P.M. Mr. G. J. Symonds: Rain, Snow, and Hail.

Saturday, February 13.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Hyslop: Climacteric Insanity.

ROYAL INSTITUTION.—3 P.M. Right Hon. Lord Rayleigh: Matter, at Rest and in Motion.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Feb. 4th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Jan. 29	30·07	W.	51	49	54	51	39	--	Cloudy
,, 30	30·19	W.	49	46	67	54	46	--	Cloudy
,, 31	30·18	W.	49	49	62	52	48	·08	Raining
Feb. 1	29·68	S.W.	48	46	51	48	46	·01	Overcast
,, 2	29·32	W.	39	36	73	45	36	·04	Cloudy
,, 3	29·26	N.W.	41	39	65	46	37	·14	Cloudy
,, 4	29·75	S.W.	34	33	64	43	34	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

WINE COMPANIES AND MEDICAL ADVERTISEMENTS.

Dr. J. Fletcher Little directs our attention to the objectionable way in which the medical virtues of a certain wine are described in a very widely circulated pamphlet. We agree with him. It is surely possible to advertise a wine without entering into all the details of chlorosis, the mysterious joys of maternity, &c. Such a parade of questionable learning is not likely to conciliate the medical profession.

O'DWYER'S TUBES.

To the Editors of THE LANCET.

SIR,—Having read in your issue of Jan. 23rd Dr. Sutherland's excellent report of a case in which a twice-saved life was ultimately lost from the slipping of an intubation tube into a bronchus, I have noticed that the tube is described as being of size No. 3, two inches and a quarter long. This size is the largest in the sets of intubation tubes usually sold, and at the time of the accident was, I believe, the largest in vogue in England. Dr. O'Dwyer intends this size for children of from ten to twelve years of age. For adults he used much larger vulcanite tubes, or, in cases of narrow stricture, tubes with much wider heads. Messrs. Weiss of Oxford-street have promised to copy O'Dwyer's vulcanite tubes for adults. The case may prejudice the prospects of intubation, unless it be borne in mind that such an accident, unavoidable last March, cannot occur in treatment with the more recent tubes.—I am, Sirs, faithfully yours,

HORACE COLLIER, F.R.C.S.

Children's Hospital, Great Ormond-street, Feb. 2nd, 1892.

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NEW SPINAL JACKET.

DR. J. MARSHALL HAWKES describes in the *Philadelphia Medical News* a new kind of jacket which he has successfully used in a spinal case, to the great relief of the patient. It consisted of pure jute fibre free from clay and wood pulp; and from its very light weight, its imperviousness to moisture, and the efficient support which it gave it was found to be much more satisfactory than plaster. A model of the patient's body was made by winding wet plaster bandages round her from the anterior superior spinous processes of the ilia to the lower axillary borders. A plaster caste made from this mould was modelled so as to preserve the natural anatomical contour of the patient, and on this cast the paper, cut into strips half an inch wide, was laid in successive layers. It was then divided down each axillary line and laced with elastic, thus allowing of some expansion during respiration. The total weight of such a jacket is only about twelve ounces, and its advantages over the cumbrous plaster apparatus are obvious. Dr. Hawkes has also made splints in a similar way, and has found them to be very convenient and thoroughly efficient.

Mr. Mayo Robson (Leeds).—The paper will appear next week.

Snowdrop should consult his medical adviser.

POSTAGE STAMPS AND INFECTION.

To the Editors of THE LANCET.

SIRS,—As any hypothesis regarding the spread of influenza may be suggestive, I venture to offer one that I have not seen noticed before.

During the first epidemic the Post-office officials seemed to be among the first affected both in this country and abroad, and one of the first cases reported in England was in the Foreign Office, when Lord Salisbury was attacked. May it not be that in these cases the source of infection was the saliva used to moisten the gummed surface of stamps and edges of envelopes, the mucilage perhaps being a suitable menstruum for the development of bacilli? In trying to follow up the probability of this theory I have been struck by the number of instances in which patients attribute an attack to a letter received from an infected house or district. Of course, this, if a source, can be only one of many, yet one that can easily be destroyed, hence worth attention.

I am, Sirs, yours truly,

Feb. 1st, 1892. H. L. G.

DR. COLLIE.

To the Editors of THE LANCET.

SIRS,—To-day our much-esteemed colleague has quitted the scene of his twenty-one years' arduous and risky labours. He was not permitted to depart without a warm expression of affectionate regard from all who had the pleasure of serving under him in the Eastern Hospital. A meeting was held, and a testimonial presented, which had been subscribed for by the staff of *employés* as a small recognition of the high esteem in which he was held, and their warm appreciation of his long and faithful services. Dr. Collie (who was much affected) briefly returned thanks, and the meeting separated. Now it occurs to me that the present would be a suitable opportunity for the profession to testify by a substantial testimonial its sense of Dr. Collie's high personal worth and professional attainments. If THE LANCET would give its powerful influence to forward that object, I doubt not the response would be a warm one.

I am, Sirs, your obedient servant,

Jan. 29th, 1892. M.D., L.R.C.P. LOND.

A DANGER IN DOUCHING.

To the Editors of THE LANCET.

SIRS,—A point worth remembering when douching the abdominal cavity after ovariotomy &c. is that the water, though poured into receptacle a moment before out of a boiling kettle will, when allowed to flow from end of rubber tube, be found almost quite cold for about ten seconds, the heat being abstracted by the length of tubing (generally six feet or so) before exit. I only discovered this quite accidentally on a patient exclaiming how cold the water was while douching the vagina, when I had a moment before almost filled the receptacle from the boiling kettle, and added cold water to make it a bearable heat. As I have not heard or seen notice of this fact I think it worth while drawing attention to it, as the shock of a cold stream of water turned on the abdominal viscera, under the impression that the water was hot, might make all the difference in the subsequent result of an operation.

I am, Sirs, yours faithfully,

Dublin. ALEXANDER DUKE.

"THE MIASMATIC THEORY OF ACUTE RHEUMATISM."

To the Editors of THE LANCET.

SIRS,—Please allow me to correct an unfortunate error which crept into my letter to THE LANCET last week—viz., the attribution of the miasmatic theory of acute rheumatism and the salicin treatment to Sir D. Maclagan, instead of to Dr. T. J. Maclagan, of 9, Cadogan-place, London. I regret the mistake, and hasten to have it rectified. Dr. Maclagan is deserving of all the honour which his professional brethren can give; for who can estimate the full extent of the relief which he has afforded to suffering humanity by suggesting the use of salicin in acute rheumatism?—I am, Sirs, yours faithfully,

Harrogate, Feb. 3rd, 1892. J. GORDON BLACK.

CATARACT COMPLICATED WITH GRAVES' DISEASE.

DR. S. N. LOSHECHNIKOFF publishes in a recent number of the *St. Petersborger Medicinische Wochenschrift* a case of cataract, which he had extracted in a patient aged twenty who was the subject of Graves' disease. There was soft cataract in both eyes, with considerable exophthalmos. Pulse 110. The urine contained neither albumen nor sugar. Six convulsive seizures had taken place before the sight appeared affected. The author extracted the left cataract upwards, having been able to save the sphincter iridis in the iridectomy. The lens was easily pressed out. The iris was replaced in a good position, but the margins of the corneal wound remained patent. The wound was washed with sublimate, and eserine applied before the dressing. When the latter was changed, three days afterwards, the chamber was found of good depth, but there were hyphæma and œdema of the conjunctiva, and the patient complained of pain. The margins of the wound were in good apposition. Three days later the hyphæma and œdema were less, but the former had increased again in another three days, and the colour of the iris had lost its clearness. Pulse 98. A week later, subacute iritis came on, which ran a course of four weeks. Double iridectomy was then performed, there being a slight fissure and a little loss of vitreous. Three days later the cornea had become opaque, and all dressing was then discontinued. The iris had become transparent in ten days, but was covered by opaque cornea. Fowler's solution was administered, but the patient did not bear it well, and the pulse had risen to 100. Digitalis was substituted and iridectomy performed for a second time, with an ultimate result of V. $\frac{1}{10}$.

Mr. R. E. Johnson might consult with advantage the tariff of charges published by the Manchester Medico-Ethical Association.

Dreamer.—Dr. Hack Tuke: "Sleep-walking and Hypnotism," 1884.

A CORRECTION.

To the Editors of THE LANCET.

SIRS,—I shall esteem it a favour if you will allow me through your columns to correct a mistake in my address, which occurs in the Medical Directory for 1892, on page 931. My address is there given as 11, Palatine-street, Harpurhey, whereas it should be, as it has been for some years past, 14, St. John-street and 3, Stanley-grove, Oxford-road. I should not have troubled you in this matter but that several important letters and telegrams have already been sent to the wrong address by members of the profession; and to obviate such mistakes in future I would ask those who have the Directory for 1892 to make the necessary correction.

I am, Sirs, yours faithfully,

Manchester, Feb. 2nd, 1892. JAMES ROSS, M.D., F.R.C.P. Lond.

"INFLUENZA ROBBED OF ITS TERRORS" IN LIVERPOOL.

Medicus is naturally indignant at a vulgar handbill vaunting the powers of a remedy called "Antigrippe," "Bloodsteriliser," and other powerful names, the more so as he is assured that it is the work of a qualified medical man. We advise our correspondent to be sceptical on this point.

Eyeball.—Ophthalmology: Nettleship, Lawson, Berry, Juler. Diseases of Children: Ashby and Wright, Eustace Smith, Goodhart.

Dr. R. J. Shepherd (Pau).—The paper will appear shortly.

COUCHAIDE.

To the Editors of THE LANCET.

SIRS,—Will any good brother who may have had experience of Dr. Diver's "couchaide," figured in Messrs. Down Bros.' catalogue, p. 505, kindly say how far it meets with approval, and if any precaution is necessary in its use? I have long used a firm-fitting binder when labour commences, to be readjusted from time to time, and additional support with the hand or towel during the severer pains. But the comments of experienced accoucheurs on this contrivance will be gratefully received by Yours most truly,

January 31st, 1892. F.R.C.S.

Spes.—Our correspondent will see from an announcement in another column that the name will probably be changed to "Gresham."

Dr. Campbell (Garlands).—Yes, very soon.

THE HODGSON FUND.

To the Editors of THE LANCET.

SIRS,—Please acknowledge the following amount for the above fund.

Mr. C. J. Stocker, Forest gate, £1 1*s*.

I am, Sirs, faithfully yours,

J. PHILLIP TOPPING.

271, Romford-road, Forest-gate, Feb. 3rd, 1892.

ERRATUM.—In Mr. Jessett's letter on "A Suggestion for the Treatment of Irreducible Intussusception of the Bowels," which appeared in our issue of Jan. 23rd, twenty-three lines from the bottom of the page, the following sentence occurs: "Even if this should not be the case, three or four quill sutures, &c." It should be "three or four *quilt* sutures."

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COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Messrs. Allen and Hanburys, London; Surgeon-Chaplain Addison, Netley; Mr. H. C. Amor, Newport; Mr. Bottomley, Ashton-under-Lyne; Messrs. Battle and Co., Paris; M. Berthier, Paris; Messrs. Burgoyne Burbidges, and Co. London; Dr. Brock, London; Dr. Barbour; Messrs. Barker and Sons, London; Mr. Brown, Brinmore; Dr. Blomfield, Exeter; Mr. J. Briscoe, Leeds; Messrs. Blondeau et Cie., London; Messrs. Bailey and Son, London; Dr. H. B. Collins, London; Mr. Coulson, South Shields; Dr. Crook, Margate; Mr. Clutton, London; Messrs. Clay and Sons, London; Mr. Coghill, Birmingham; Messrs. J. Cleave and Son, Crediton; Dr. T. Clark, London; Messrs. Chalmers, Wade, and Co., Liverpool; Mr. Crook, Chudleigh; Dr. Court; Mr. H. Collier, London; Dr. Cochrane, Longford; Mr. Cooper, Bristol; Dr. Campbell, Garlands; Sir Francis De Winton, Windsor; Mr. Davies, North Walsham; Mr. A. Doran, Dublin; Miss Docwra; Messrs. Duke and Goreham, London; Mr. Davis, Ivybridge; Mr. Duke, Dublin; Dr. De Jersey, London; Mrs. Everard; Mr. Frost, London; Mr. Gillespie, Derby; Dr. Gwynn, Hampstead; Professor Godwin, Netley; Mr. C. Goslett; Dr. H. L. Gordon, Witheridge; Mr. Hornibrook, London; Dr. Hedley, Brighton; Dr. Haycraft, Edinburgh; Mr. Hearnden, Leatherhead; Messrs. Humphreys, London; Dr. C. F. Hutchinson, Monte Carlo; Messrs. Isaacs and Co., London; Messrs. Jensen and Co., London; Dr. Joynt, Bradford; Mr. Jessett, London; Mr. Kestin, London; Dr. Kelyneck, Manchester; Messrs. Kegan Paul and Co., London; Dr. F. Little, London; Mr. Leggott; Mr. Little, London; Dr. Merryweather, Guisborough; M. Mareschal, Paris; Mr. Michelli, London; Dr. McMordie, Belfast; Mr. Martindale, London; Dr. C. F Moore, Dublin; Mr. Macintosh, London; Messrs. Marris and Cooke, Grimsby; Dr. J. Oliver, London; Messrs. Oppenheimer, Sons, and Co., London; Dr. Oberlaender, Dresden; Mr. O'Reilly, Highgate; Mr. Parkhurst, London; Dr. Philip, Belfast; Miss Pudney, Earl's Colne; Dr. Paterson, Stockton-on-Tees; Mr. Pentland, Edinburgh; Mr. Mayo Robson, Leeds; Dr. Ross, Manchester; Mr. Rouse, New Southgate; Mr. Rose, London; Dr. Strechan, Lavenham; Mr. Noble Smith, London; Dr. G. Steell, Manchester; Mr. Swanwich, West Hartlepool; Mr. Sharpe, Matlock; Dr. A. B. Stevens; Messrs. G. and G. Stern, London; Dr. F. J. Smith, London; Messrs. Street and Co., London; Mr. Sullivan, Dublin; Dr. Shepherd, Pau; Dr. J. E. Squire, London; Dr. W. R. Smith, London; Professor Anderson Stuart, Sydney; Mr. Stenhouse, Glasgow; Messrs. Smith and Co., London; Dr. Serphioti, Galatz; Dr. Thomson, Norwich; Dr. D. Turner, Edinburgh; Dr. A. Thomson, Painswick; Dr. Voigt, Southport; Mr. Vickers, London; Mr. Ward, Derby; Messrs. W. Wood and Co., New York; Dr. Walthard, Berlin; Mr. Wilson, Dumfries; Dr. Whitelaw; Mr. Waller, Stroud; Dr. Wortabet, Beyrout; Mr. Walsham, London; Mr. Zimmerman, London; Cyclops; A Bacillied Bard; M.D., L.R.C.P.L.; Snowdrop; Medicus; Spes; South London Paper Stock Co.; C. H. S., London; Bachelor, London; Metropolitan Machinists Co., London; Certainty, London; Secretary, Gloucester General Infirmary; W. J. P.; F.R.C.S.; Dreamer; H. L. G.; Crux, Cardiff; L.R.C.P., L.R.C.S.; Quinine, London; Secretary, General Hospital, Birmingham; Matron, Manchester.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. De la Rue, London; Mr. Tyte, Minchinhampton; Messrs. Whitworth and Stewart, Manchester; Mr. Breach, Newbury; Messrs. Catherall and Co., Hexham; Dr. Maskew, Southampton; Mr. Moriarty, Wickham Market; Dr. Junker, Robe; Mr. Twyford, Hanley; Messrs. Curry and Paxton, London; Mr. Bateman, Exbourne; Messrs. Collins and Collins, Wanstead; Mr. Paterson, Stockton-on-Tees; Messrs. Keith and Co., Edinburgh; Mr. Brockelbank, Islington; Messrs. Jarrold and Son, Norwich; Mr. Meyrain, Pittsburg; Messrs. Pownceby and Co., London; Mr. Bigg, London; Mr. Orr, Farnham; Messrs. Vinton and Co., London; Rev. Mr. Morrison, co. Durham; Messrs. Oliver and Boyd, Edinburgh; Dr. Smith, Cornwall; Mr. Patterson, Fence Houses; Mr. Webb, Devon; Mr. Hind, Jersey; Messrs. Potter and Sacker, London; Mr. Gardiner, Shrewsbury; Messrs. Slinger and Son, York; Mr. Mabey, Devon; Mr. Hawkins, Nice; Messrs. Kilner Bros., London; Dr. Lee, Oxon; Mr. Orme, Leigh; Messrs. Hooper and Co., London; Lord Templetown, co. Antrim; Messrs. Porteous and Co., Glasgow; Rev. Mr. Beedham, Cambridge; Messrs. Back and Co., London; Mr. Wand, Leicester; Mr. Sargent, London; Mr. Klug, Paris; Mr. Roberts, Twyford; Dr. Holmes, Southam; Mr. Anderson, Carmarthen; Mr. Fawsett, Lewes; Dr. Osburne, Hythe; Mr. E. H. Peach, London; Mr. McMurtrie, Glasgow; Mr. Barnicot, Huddersfield; Miss Walker, London; Mr. Rowlands, Merioneth; Dr. Sykes, Barnsley; Mr. Drummond, Bristol; Mr. Wright, Bradford; Mr. Owen, Fishguard; Mr. Williams, Bootle; Mr. Calder, Redland; Mr. Vokes, Birmingham; Dr. Williams, Talgarth; Mr. Roberts, Nettlebed; Mr. Hanly, Ormskirk; Mr. Webster, Bradford; Mr. Bigland, Liverpool; Mr. Johnson, Leicester; Mr. McMordie, Belfast; Mr. Leach, Kensington; Mr. Brice, Bridgewater; Mr. Frost, Frome; Drs. Fenn and Blight, Diss; Mr. Heywood, Manchester; Mr. Nicholls, Bury St. Edmunds; Miss McDonnell, Belfast; Dr. Moorhead, Hucknall Torkard; Dr. Boreham, Torquay; Mr. Hoare, Farnham; Mr. King, Guildford; Mr. Fiske, Okehampton; Dr. Marston, Wood-green; Dr. Murphy, Newport; Mr. Clowes, Colchester; Mr. Ballackey, Chelford; A. H. E., London; M.A., Rugby; Julian, London; 228, Kentish Town-road; Medicus, Bradford; W. B., Bridgwater; Dr. A., South Hackney; Graduate, London; Medicus, Manchester; Sarah Acland Home, Oxford; Surgeon, Huddersfield; Secretary, Blackburn and East Lancs Infirmary; L.R.C.P., London; Jeyes' Sanitary Compound Co., London; Medicus, Bradford; H. O., London; Secretary, Durham County Hospital; Vernon, Sheffield; Secretary, Royal Albert Edward Infirmary, Wigan; Medicus, Wednesbury; Maltine Manufacturing Co., Bloomsbury; E. D., Stow-on-the-Wold; Secretary, Royal Albert Hospital, Devonport; X., London; W., London; Secretary, Radcliffe Infirmary; M.R.C.S., London; 82, Alvey-street, Walworth; Class Rooms, Edinburgh; F. W. A., London; E. B., London; Physician, London; Medical, London; Kudos, London; Alpha, London; M.B., Bournemouth; Urbanus, London; Melbourne, London; G. E. D., London; H. G., London; Cortex, London; Ruthin, London; A. B. C., London; W. S. H., London; Cymro, London; Esse, London; Dr. S London; Surrey, London; C. M. A., London; Centum, London; Surgeon, London; Medicus, London.

NEWSPAPERS.—*Derbyshire Advertiser, West Cumberland Times, Liverpool Courier, Scotsman, Manchester Guardian, Sussex Daily News, Bradford Observer, Yorkshire Herald, Western Mail, Blackburn Times, Birmingham Post, Insurance Record, City Press, Port Elizabeth Telegraph and Eastern Province Standard (South Africa), Local Government Chronicle, Leeds Mercury, Hertfordshire Mercury, Royal Cornwall Gazette, Yorkshire Post, Bristol Mercury, Builder, Architect, Pullen's Kent Argus, Leicester Daily Post, The Advertiser (Adelaide), Essex County Chronicle, The Observer, West Middlesex Advertiser, The Cape Times, Metropolitan, Le Temps (Paris), Folkestone Herald, Times of India, Court Circular, Daily Graphic, Bury Guardian, Pioneer Mail, Daily Express (Dublin), Bath Herald, Somerset County Gazette, Manchester Examiner, Devon Daily Gazette, Scottish Leader, The Policy-Holder (Manchester), Reading Mercury, Surrey Advertiser, The Daily Inter-Ocean (Chicago), Scarborough Evening News, The Verulam Review, Oracle, &c.*, have been received.

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IDEAL FOODS.

LONDON.] FEBRUARY 13TH. [1892.

ZYMINISED MEAT and MILK SUPPOSITORIES for Rectal Alimentation.

Physiologists are unanimous in condemning GELATINE as a basis for peptone suppositories, for this mixture is one of the best culture-media for BACTERIA, therefore we have prepared these suppositories with pure peptones and COCOA BUTTER; they are easily introduced, perfectly absorbed, never cause intolerance, and ARE PERFECTLY STERILE.



The ZYMINISED MEAT SUPPOSITORIES were thoroughly tested clinically by Dr. Barlow in cases after surgical operations, gastric ulcer, or when for any reason it was found desirable to rest the stomach; in every case the suppository was perfectly absorbed, and afforded excellent results. Mr. Bowreman Jessett, THE LANCET, Oct. 24th, 1891, records the successful operation of combined pylorectomy and gastro-enterostomy when the patient was fed with *zyminised meat suppositories.*

Zyminised Meat and Milk Suppositories are supplied to the Profession in boxes of 1 dozen at 1s. 10d. per box.

ZYMINE PEPTONISING POWDERS (Fairchild).

These are so called because they convert proteids, albumens, and fats into soluble *peptones*, and readily assimilable substances. Whenever it is proposed to peptonise milk only, and that continuously, the Zymine Peptonising Powders (Fairchild)* will be found the most convenient form to use for obvious reasons.



"Fairchild Peptonising Powders (Zymine)—These are very useful for peptonising milk, and especially for use in the case of infants brought up by "bottle.'" "Manual of Clinical Dietetics," Dr. Burnet. In those cases, however, where strict economy is a matter of considerable moment, the plain Zymine can be used.

The Zymine Peptonising Powders (Fairchild) in glass tubes, a dozen in a box, each tube containing 5 gr. of Zymine and 15 gr. of Soda Bicarb., sufficing to predigest a pint of milk or beef-tea.

The BRITISH MEDICAL JOURNAL, referring to the value of predigested foods by the **ZYMINE** method, says: "It has proved useful in many hands in *uræmic vomiting, gastric catarrh, pernicious anæmia, gastric ulcer, pyloric and intestinal obstruction.* ITS INTRODUCTION HAS PROBABLY DONE MORE THAN ANY OTHER THERAPEUTIC MEASURE TO LESSEN INFANT MORTALITY."

IMPORTANT NOTE.—*A complete list of recipes for the preparation of peptonised foods is supplied with each box of the powders, or will be sent post free to any medical man on request.*

ZYMINE PEPTONISING POWDERS (FAIRCHILD) supplied to the profession in boxes containing 1 dozen tubes at 1s. 2d. each. Retail, 1s. 6d. per box.

*Beware of imitations of these Peptonising Powders—always see that the name FAIRCHILD is on the package, as Substances of an entirely different character are being sold in the market under the name of Peptonising Powders.

THE VERDICT CONFIRMED.

"The therapeutic value of Extract of Malt rests not only upon the presence of important food elements, as **dextrins, maltose,** and **alkaline phosphates,** but on the peculiarly active substance, **DIASTASE** which is concerned in **converting the starch of farinaceous food into the more assimilable products.** The masterly researches of Messrs. C. O. Sullivan, Brown, Heron, and Morris have shown that diastase is without action upon unaltered starch, or starch as it occurs enclosed in the cell. As soon, however, as the cellulose envelope of the granule is broken, either by bruising or boiling, the starch granulose rapidly undergoes conversion or hydrolysis, even in the cold, into maltose and a variety of dextrin called erythro-dextrin. It is some time now since we had occasion to examine the well-known and much-used **KEPLER EXTRACT OF MALT. Messrs. Burroughs, Welcome, & Co. evidently keep pace with the newest scientific facts,** which every day contribute towards making this kind of preparation **PERFECT.** The flavour has been further improved, and the delicacy of the colour contributes largely to its attractive appearance."—THE LANCET, Jan. 31st, 1891.

USEFUL NOTES.

A well-known special Physician for the **Diseases of Children** has made extensive trials with the **KEPLER EXTRACT OF MALT** in his clinic, and he informs us that it is worthy of the most careful attention. He finds half a teaspoonful of the Extract added to the contents of the nursing bottle **completely prevents the casein of the milk curdling in large clots,** and thus removes one of the chief causes of infantile diseases. It also digests the starch of farinaceous foods, and renders them easy of assimilation; even the most weakly little subjects over six months of age rapidly thrive on a diet of wheat-flour, milk, and Kepler Extract of Malt.

It is self-evident, therefore, that it will be of the greatest service as an addition to the diet of invalids and convalescents.

The Kepler Extract of Malt and Kepler Solution of Cod Liver Oil in Extract of Malt are supplied to the Profession in ¾-lb. and 1½-lb. bottles at 1/8 and 3/- each.

BURROUGHS, WELLCOME, & CO., SNOW HILL BUILDINGS, LONDON, E.C.

Specimens sent to Medical Men post free on request.

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THE KEPLER ESSENCE OF MALT

(ESSENTIA MALTI, KEPLER).

IT is very generally conceded by the Medical Profession that **Diastase** is really the most *important constituent of Extract of Malt;* and with a view to affording a reliable means for prescribing this important aid to digestion in a definitely concentrated form, we have introduced the **Kepler Essence of Malt.** This is a liquid preparation of about the same consistency as glycerine, and is virtually *a saturated solution of Diastase and the Natural Phosphates* as existing in Barley Malt. It is therefore a valuable chemical food both for bone and brain substance, and a powerful digestive of farinaceous food, unsurpassed by any similar product yet introduced.

There is an entire absence of the intense sweet flavour and mawkish taste so generally prevalent in fluid malt preparations, and which render them so repugnant to the palate.

The KEPLER ESSENCE OF MALT makes a most delicious drink when mixed with aerated waters, milk, or even plain water, and should be very much appreciated as an ideal nutritive beverage.

The KEPLER ESSENCE OF MALT is supplied to the Profession in bottles at 1s. 2d. each.

BURROUGHS, WELLCOME, & CO., SNOW HILL BUILDINGS, LONDON, E.C.

Specimens sent to Medical Men free on request.

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The Harveian Lectures

ON

COMMON NEUROSES, OR THE NEUROTIC ELEMENT IN DISEASE AND ITS RATIONAL TREATMENT.

Delivered before the Harveian Society of London, Nov. 19th and 26th and Dec. 2nd, 1891.

BY JAMES F. GOODHART, M.D., F.R.C.P.,
PHYSICIAN TO GUY'S HOSPITAL.

LECTURE III. (*Concluded.*)

COMING next to constipation, it is hardly necessary to insist that there are two predominant factors in its production—the influence of the nervous system direct, and the influence of habit. The influence of the nervous system shows itself by a phlegmatic reaction to the natural stimuli, and this may be either an action natural to the individual; or an unhealthy one, due to a lowered vitality of the centres involved. There is no difficulty in establishing the power of the nervous system to determine the complaint when we consider how in several morbid conditions—melancholia in particular, but in hemiplegics, acute and chronic inflammatory conditions, and so on—one and the other keep time together; and there can be no question that, although the derangement of the bowels is an important element for consideration in promoting the cure, the morbid condition of the nervous system precedes. It is with the bowel as with the stomach, as in a case already noted, the sleeplessness always *preceded* the flatulent dyspepsia. Moreover, who has not seen several times the milder forms of nerve disturbance—the simple depression of spirits, the transient glycosuria that occurs in the overworked, &c.—closely followed by obstinate constipation? It is often thought that the benefit that accrues on a good clear out shows that some of these states are the result of the fouled flues. No doubt this is so sometimes—it cannot be so always; and there is no doubt that the intestine, as regards constipation, is a highly sensitive organ from which we can very often read the temperament or disposition of the man. But that is not all: it is an index of the state of nervous tone and vigour of the patient; and there is many a state of constipation that is not a case for aperients at all, but requires the liberal use of tonics. But I have something to say also on the subject of habit. It is sufficiently obvious that the repeated recourse to aperients conduces to constipation and engenders a habit; but perhaps I may say this also—that, impressed as we all become as years go on of the primary importance of maintaining the purity of the *primæ viæ*, we sometimes forget in our advice to the patient that aperients are, after all, only a makeshift, and that they are an evil unless the good they do is undoubted. But the point I wish to make is this—that I have often been told by the chronic *piller*, as an excuse for the persistence in his practice of pill-taking, that he cannot leave it off, because if he does he never has a satisfactory evacuation. He appeals, in fact, to the habit that he has cultivated. But I maintain that in some cases he has not fully considered the question, and that he is not always right. And for this reason. The chronic exhibition of aperient drugs, which are in most cases irritating, engenders a state of periodical excitement in the peripheral nerve endings of the intestine, and ultimately raises the unnatural condition to a *natural* one *for them*. When this time has arrived, the bowel may be described to pass through periods of hunger and periods of satisfaction, according as it is being tickled by the drug that has been given or not. The condition is on all fours with the opium-eater's sensorium, and the bronchial tubes of the chronic asthmatic under the influence of repeated inhalation, and the mucous membrane of the habitual snuffer. And this state extends through the whole length of the intestine probably; but in the present case it is the lower bowel that conveys the sensation of a satisfactory evacuation or not. If it feels the bite of the stimulant, then the individual, through his local sensations, describes himself as satisfied; when the bowel is not under the influence of the stimulant, then there is no adequate sensation of a good clearance, and the patient takes his ease in discomfort. The bowel, like the stomach, takes kindly to good living; but when it has been used to the luxury of such dainties as compound colocynth pill, calomel, aloes, and such like, it, no more than the stomach that has been fed on highly seasoned foods, likes to be deprived of them. The rectum is a very pretty judge of quality, but a very poor one of quantity. So that when a patient, after such means as this, takes to Carlsbad salts and mineral waters and says that they do him no good, and that he must go back to his old remedies, all that he really means is that he cannot control the wishes of his lower bowel any more than the opium-eater can control the cravings of some other part, or the alcoholic his cravings.

But it is not only in constipation that the neurotic tendency of the bowel comes into play. It is even more strikingly seen, if not quite so often, in the explosive diarrhœas that are common in children, and sometimes dog the steps of the individual even to adult age. I can well remember having for some time as one of my out-patients at Guy's Hospital a poor feeble neurotic patient who was in this unhappy condition—that if anyone suddenly came behind him in the street and clapped him on the back with a "Hulloa! how are you, old fellow," his bowels would promptly act. I have never seen another case so bad as that; but I have seen several where they had to walk circumspectly; and the well-recognised condition where the mucous membrane of the intestine seems to be over-sensitive and reacts energetically as soon as food enters the stomach is a similar state of things, and an indication of a temperament. It is certainly a neurotic condition, and may be remedied, as so many of the too sensitive conditions of the nervous system may be, by tonics in part, but much more, I think, by tonics with minute doses of opium added to them.

And this question of diarrhœa leads me on to another very interesting disease that has been called membranous colitis. The term is not a good one because there is no inflammation, but I mean a condition in which casts, more or less perfect, are passed from the bowel. I first made acquaintance with this disease by the kindness of Mr. E. U. Berry of Gower-street many years ago. Since then I have seen many such cases, and they have been all, with one exception, in women who were of a markedly neurotic disposition. I have only once, I think, seen it in a man, and then, interesting to relate, it was associated with the presence of ascarides. The cases I have seen have mostly run on similar characters. Here is one. A young married lady, who dates her troubles from blood-poisoning. She is a highly nervous lady, and always afraid she shall be considered hysterical—a very common dread in the over-nervous. She is able to take little food, for when she eats *solids* they are frequently followed by faintness and sinking sensation in the lower part of the abdomen, the extremities get cold, and she has peculiar twitchings. She is excessively particular about the action of the bowels; when they do not act she has an enema. Every eight or ten days mucous casts are evacuated, and before they come she turns sick, and feels so ill and all-to-pieces that she wishes she might die. She has wasted in the last year or two. This passage of mucus will go on for years, and it does little apparent harm, although the patient is generally spare and mostly of an over-anxious or unhappy disposition. I am very interested in this affection, because it will be in the recollection of my hearers that long ago Dr. Eustace Smith described a condition in children to which he gave the name of mucous disease, in which an excess of mucus is passed from the bowels. I had come to the opinion that this symptom occurred in children either of neurotic inheritance or evidently neurotic in themselves, and in fact that it was in some way a part of the neurotic constitution. I believe now that the mucous disease of children is represented in adults by membranous colitis, and that in *all* the neurotic constitution is a constant feature. What the bond of association may be is a difficult question; possibly a state of the nervous system that is considered adequate to the production of a torpid liver may produce a torpid intestine too, and in some way the mucous surface becomes coated with its own effete products—a parallel, perhaps, to that thick and harsh condition of the skin which is seen in many a case of mental aberration. I should be not adverse to some such hypothesis, if only for being able by such a means to avoid the word catarrh, which, I suppose, would indicate *activity*, not *torpidity*. The symptom, at any rate, goes with a state of sluggish

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abdominal organs, and it is in no sense one that has even the remotest likeness to inflammation. It is of interest, too, that it should be associated sometimes with the presence of ascarides. This is no more than one would expect, but ascarides are not a common occurrence in adults. And in relation to them I may mention that both for them and mucous disease, when I have opportunity, I am advising the trial of the oleo-resin of copaiba as a possible means of relief, on the recommendation of my friend, Dr. Argles of Wanstead, who tells me that for ascarides he has found this drug administered in capsules one of the most efficacious of remedies for killing the parasites. But in saying this let me not be supposed to be departing from my allection for principles, and that in these things, as in others already mentioned, the disease is a neurotic one, and is certainly much relieved by assuring the patient that it goes on for years without any appreciable harm to the individual, and that a good tonic of arsenic or strychnia and quinine is almost always beneficial, combined with any local remedies for regulating the working of the abdominal viscera. There are other points of interest in this disease that might well be considered, the emaciation particularly; but they fall beyond the line of my present purpose, and therefore I must leave them, though reluctantly.

The consideration of nervous diarrhœa leads on naturally to the subject of stomach ache and abdominal neuralgia, of which I have notes of several interesting cases, but unfortunately no time to relate them. All I can say is that they are exceedingly puzzling, and in several I have hesitated whether there were actual disease, and but slowly come round to the diagnosis of neuralgia. No one feels more than I do that a term of this kind is one of the refuges I have already alluded to and the grave of many a reputation; nevertheless, there is assuredly a severe form of neurosis in the abdominal nerves, sometimes starting in the stomach, sometimes in the intestine, small or great, and many times owning a uterine or pelvic cause, and which, as far as one can approach to certainty, is of functional character. I have purposely excluded from mention the kidney, because I want now to make special reference to that organ as a source of abdominal or renal neuralgia, because it is a somewhat novel subject, and because it falls in with what, on the whole, has been the mainspring of these lectures. I am indebted for much of my train of thought on the subject to a single case, seen eighteen or twenty years ago, that made a great impression on me at the time, and has, without doubt, controlled my advice in many a case since. It was that of a woman who was in Guy's Hospital several times, or for a long time, with all the symptoms of renal calculus. She had severe pain of a paroxysmal kind, and repeatedly passed large quantities of blood in her urine, but that she was also a pronounced neurotic no one doubted who saw her, and I think in consequence she was subjected to an unusually long period of scrutiny. However, after a long while no one who saw her had any doubt that she must have a calculus in one kidney—I forget which at this distance of time. It was at the period when the first talk and performance of nephrectomy were beginning in Germany, and after long waiting it was at last decided to operate in her case, and the kidney was removed. I think it was the first case that was done in this country. The kidney proved to be perfectly healthy, and no stone or evidence of the previous existence of one was to be found. The patient died from the operation in a day or two, and I made the post-mortem examination, and the other kidney, bladder, and indeed all parts of her body, were absolutely healthy. I have ever since felt obliged to admit that all the symptoms of stone in the kidney may be present, even to the passage of blood from the organ, and yet no stone exist; and the only explanation that seems possible is that under the stress of some severe abdominal nerve-storm emanating from the kidney in a neurotic subject, the circulation of the part may become disturbed, and so the passage of blood was to be explained. I admit, for no one nurtured on the rude facts of morbid anatomy as I have been could help doing so, that in such an explanation there is always a lurking spectre of mistake somewhere; nevertheless, I cannot now but think that it does fall in with clinical experience. And for that reason tender and movable kidneys form a subject of the greatest practical importance. In the last ten years I have come across many cases of this sort, and I have taken notes of seventeen cases. Two facts call for notice: first, the large preponderance of women affected, thirteen to four; and, secondly, that both women and men were almost without exception definitely neurotic. As regards the preponderating influence of the female sex, it may be that it is really much more common, but it is also possible that it is not so, and that men go about with movable kidneys and do not complain. I suspect, however, that my figures, small though they be, give a pretty accurate idea of the relative frequency of the affection in the two sexes, and the cause of this preponderance may possibly be the prevailing mode of dress in the female. It is needless to say that tight lacing must be a great influence for its production, but tight lacing is not necessary. There are lots of women who would be insulted at the bare suggestion of such a thing, and yet on undressing they have no little difficulty in unfastening their corsets. And if you ask them whether they do not find them tight, they will almost certainly reply that if they had them looser there would be no support. *Support*, therefore, means a very fair amount of constriction of the lower part of the chest, and also a considerable power in extruding the kidney from its snug bed up under the ribs. Thus far there is no explanation of the occurrence of pain; but in these cases the kidney was not only movable, it was painful; and unless the mere displacement of the organ was sufficient to cause the pain by dragging, we must apply to the other fact that I have mentioned to explain it, and I certainly believe it was painful because the patient was neurotic, or, perhaps better, that the displacement causes some slight discomfort or tends towards such a thing, and that in the neurotic this is soon transmuted into an intolerable pain, or leads to an explosion in the shape of a violent renal neuralgia. Either way the important fact to be borne in mind is that it may be there by reason not so much of the local displacement as because of the temperament of the individual. And this is a matter of the greatest importance now that movable kidneys are being treated commonly by the operation for their fixation. It might be surmised on *a priori* grounds that, just as has so often happened in dividing, and even in excising, portions of nerves for neuralgic affections elsewhere, after a period of ease the torment has commenced again, so here. For this reason I have been and am averse to having recourse to this operation except as a *dernier ressort*, and I have seen more than one case that bears this opinion out. Some time ago I saw a patient who had very severe attacks of abdominal neuralgia. They were so bad that she had time after time to be put under the influence of an anæsthetic, and kept under its influence for many hours. She had a movable kidney on one side, and the pain radiated much in the position of the displaced organ. She had a belt made, and it acted fairly well as long as she was in bed; but what belt can compete against the abdominal wall, when it is required of it that it shall hitch up the organ under the ribs? and it failed eventually, as all such appliances do fail, besides proving very uncomfortable. It was ultimately determined to operate, as the pain returned, and life under the circumstances was hardly worth the living. The kidney was stitched into position, and I must admit that for many months she had perfect relief, and became quite a different woman. So being, I came to the conclusion that I was wrong, and that fixing the kidney was, after all, a successful operation. But time has gone along, and now I hear that the pain has returned. It is therefore quite possible that although unquestionably great relief was obtained by the operation in this case, it may yet be that the relief is only such as the neuralgic is likely to obtain from the last new form of treatment, whatever it be, and the more decisive the treatment undergone the more the relief for the time being. I do not, of course, wish to slight the value of operative measures in certain cases—all I wish to convey is that the patients are neuralgics, and that to be a neuralgic indicates a vice of nervous action that no operation can hope to cure; and that since an operation is only treating a symptom, in no sense attacking the disease, these are cases for great deliberation. Our endeavour should be to encourage the patient to make light of her trouble, and, by improving her nervous tone by such means as are available, to enable her to bear, and so to cure, the fundamental condition, and only to operate when patient means have failed.

And here may be said what needs be with reference to uterine and ovarian neuralgiæ. I have said it is a bad day for a man when he first knows he has a heart; it is a ten times worse day for a woman when the pelvic pains to which so many are subject are focussed for her by medical opinion upon uterus or ovary. If there is anything that curdles my blood it is to hear a woman talk of her ovaries

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as of some intimate acquaintance, and I confess that in this sense I have never been able to subscribe to the Pauline doctrine that "our uncomely parts have more abundant comeliness." One cannot of course suppose (as Sir William Gull used to say of the jejunum that it has no pathology) that organs fulfilling such important functions should have no liability to the aches and pains that all flesh is heir to, or even that they are free from a large measure of disease. We know that it is not so, but there can be no doubt that the ovaries are organs that largely concern themselves with functional disease, and with forms of it, too, that penetrate into the inmost recesses of the patient's being. Do we always remember this at the present day with all the prevalent means of treating disease locally? Do we not sometimes undertake local treatment hazardously, I mean as regards the chances of *real* improvement, because it can be effected with so little risk to life? Is it not too often, "It cannot do any harm, and it may do good." Surgery can happily accomplish now much of what it undertakes; but it needs to remember that it has not yet attained to the enucleation of the neurotic constitution. And when I see, as I have seen, the uterine appendages removed for an apparently incurable neuralgia, I see in the measures adopted not the advance of scientific surgery, as some might suppose, but the abasement of the patient, who has been obliged to yield to the force of circumstances. It is a poor result. Operations of this kind are on a par with some of those upon a painful kidney, or with the destruction of Meckel's ganglion for tic. They may be necessary just as war is necessary. But they are nothing to be proud of; they often leave a lot of "bad blood" behind them, and they are conspicuous for the failure of those higher and more fundamental arts of treatment that should have lifted the patient over this necessity. To criticisms of this kind it is often said: "But the people love to have it so"; and true it is. But for us the thought should ever be: With the kidney gone, the ovaries removed, the Meckel's ganglion destroyed, and the pain returned, what will ye do in the end thereof?

With one other subject only do I propose to trouble you, and I have done. It is one perhaps most dear to the neurotic of any I have named, and, shall I say, most indispensable of all as a shelter to the doctor? I need hardly say that I allude now, in its own right, *to the torpid liver.* Ah! what, indeed, should we doctors do without this sluggard of an organ to *treat?* What would many a patient do without a vital of this kind to nurse and think about? "Well, doctor, it is my liver," falls so commonly on the ear, that blue pill, if we are old-fashioned, or podophyllin, euonymin, &c., if we are sensitive to the breath of the trade winds, comes as an automatic response, which hardly, if at all, stirs our sensorium. How often, I wonder, do we really think outside this groove, and question for the particular individual that is at the moment seeking our aid whether we shall take *his* diagnosis or make our own? I shall venture to maintain to-night that the liver is a much-abused organ, and that there are thousands of people in the *civilised* world—the savage has his knowledge of good and evil to come—who are being physicked for their livers with nothing the matter with them, save a dulled or flabby nervous system. But do not let it be supposed from what I have said that I disbelieve in the existence of a torpid liver. Quite the contrary. But I am trying to shift the responsibility of its supposed crimes on to the back of the real offender. All I am contending for is that the torpidity is not a disease but a symptom, and that in nine cases out of ten, when individuals come complaining of their liver, it is *the individual*, not *it*, that is at fault, and that to make such people really well it is necessary to replenish the spirit that animates *them* and at the same time regulates the blood flow in the inmost recesses of their vitals.

And, for example, a disease that I would shift from the shoulders of the liver to those of the nervous system is one that, of all others perhaps, seems the most unlikely—viz., gall-stones. It has long seemed to me that, although we talk and see much of this disease, we are almost absolutely in ignorance as to why these concretions form. "A sluggish liver forms thick bile" may be sufficient for some minds, but why should the liver be sluggish? It is usually supposed that these concretions form in those of sedentary habits and of stout build. But this is not by any means so, and I assert that it is at least as often that it occurs in the *neurotic*, and in a physique that is the thinnest of the thin. Moreover, I have also been struck with the frequency with which people will tell you that their troubles in this respect first began in connexion with, or after, worry of one kind or another. And when we come to think about it, although it seems at first sight absurd to drag in the nervous system for such a tangible and remote affection as gall-stones, it is far otherwise, for there is nothing more reasonable than the supposition that the nervous energies being at a low ebb, or frittered away in a restless anxiety, the liver, which admittedly must require a large supply of nervous current to enable it to get through its work, is too torpid, its various changes are carried on slowly, and performed badly, the cholesterine that should remain in solution is thrown down, perhaps formed in too great abundance, and thus the stone is set agoing. There is nothing in such a train of reasoning that is anywhere outside unreproachable doctrine, and, in my opinion, nothing that is not highly probable. If this is so, what is the use of stimulating the liver, and although such a practice is endorsed by ages of custom, if we retire into ourselves and think the matter out for ourselves by the light of our experience, can we say for certain that the blue pill, the podophyllin, the salines, the Carlsbad salts, and so on, have accomplished the work that we entrusted to their care? I think that were it so we should know more than we do of the why and the how of the formation of these concretions; whereas, in truth, we know nothing of these two points, and we must fain confess that as yet we have not got behind the most obvious symptom of some disease we are in absolute ignorance of.

And now, gentlemen, I have done. In taking leave of my subject, let me remind you of what has been my aim in these lectures. It was, in giving you a clinical exposition of the common neuroses (and here I must say that my original intention was to have given you many more notes of actual cases, but the large amount of material at my disposal and the exactions of time have prevented), to lay stress on the very certain fact that there are limits to the treatment of this class of diseases by drugs and operation, and that there are many conditions in which the cure must come mainly from within—our function in chief being to call out this dormant power. I wanted to insist, because I am sure at the present day we are too likely to forget, that the highest position we can take is to cure people by advice rather than by drugs: to make the public pay for the use of our brains, and not for so many ounces of physic. Drugs have their own field, but they are our instruments only; of themselves they have no vitality, and a sound common sense—may I say a robust physiology?—has a larger mission even than they in the treatment of disease. There is a time to give drugs, and even to give them with a free hand, but there is equally a time when advice only is needed, and not physic—shall I stop there?—no, when to give drugs is quackery! Yes, there are times when to give medicine is to give *poison*, for it sends the poor patient on a hunt for health which no physic will procure, and it lets slip the opportunity—in the exigencies of human pain and of suffering of all kinds too seldom fit—of pointing the ignorant to a future of Medicine, which both for us and for them is an ideal to be hoped for, to be striven for. I am not one of those who think that if one could conceive of a future for Medicine in which drugs should bear no part that the function of the doctor would be gone. Rather do I hold that as the level of health of a community is permanently raised, so is he emancipated for a sphere of larger use, of still more liberal aims, of nobler purpose. But, Sir, that is a subject for a future Harveian lecturer. For me it must be enough to press the conviction I hold that, the large class of ailments that have formed the subject of these lectures admit of treatment, and ought to be treated with a minimum of drugs; and that if we could but prevail on the neurotic to see this, there is many a one who is now passing a life of aimless and too often hopeless invalidism to whom we might certainly promise in language that many of them know too well:

> "Soon will come the great awaking,
> Soon the rending of the tomb,
> Then the lessening of all shadows,
> And the end of toil and gloom"

But that end is not yet. Will it ever be? I must sorrowfully confess that the prosaic side of life suggests a couplet from another source:

> "But when you see that blessed day
> Then order your ascension robe."

None the less, we still can say, "Come from the four winds O breath, and breathe upon these slain that they may live."

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Clinical Lectures
ON
STRICTURE OF THE ŒSOPHAGUS,
WITH FOURTEEN ILLUSTRATIVE CASES, IN FOUR OF WHICH GASTROSTOMY WAS SUCCESSFULLY PERFORMED.

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LECTURE III.

GENTLEMEN,—In the preceding two lectures we considered together the etiology, pathology, and general prognosis of those diseases which lead to obstruction to swallowing, and now we have to discuss the methods at our disposal to save the life of the patient, or to alleviate his suffering. The treatment of stricture of the œsophagus must rest upon an exact appreciation of the pathology of the lesion you have to deal with. When the obstruction arises from the contraction of a cicatrix, or from spasm of the muscular fibres, or from a combination of these causes, then you are justified in attempting dilatation. This may be done in five different ways—(1) by gradual dilatation, (2) by forcible dilatation, (3) by the action of tents, (4) by electrolysis, and (5) by internal œsophagotomy. The object the surgeon has in view is to dilate the stricture, and to maintain the lumen of the gullet. It is only in so far as he succeeds in doing this that his treatment can be recommended. Let us now discuss the relative value of the various methods I have just mentioned, and in so doing we must consider the *rationale* of the treatment. When a cicatricial stenosis exists we have a double object in view, first to dilate the stricture, and second to promote absorption of the inflammatory tissue. The passage of bougies does both when properly used. At one of the demonstrations I showed you in Cases 10, 11, and 12 how to pass bougies, and indicated the difficulties you might experience in different cases, so that now I have only to answer the question, What is dilatation, and how should it be employed? It is a mechanical process of stretching the ring of organised inflammatory connective tissue which surrounds the œsophagus, and which occasions the stenosis, and also a means of promoting absorption of the newly formed tissue.

Now we will take a case, one in which the history points to injury and subsequent constriction of the gullet. The patient has considerable difficulty in swallowing, as for example in Case 12. Begin by passing a large-sized bougie, gradually go down the scale until you succeed in getting an instrument through, then retain it for five, ten, or fifteen minutes, according as the patient can allow. Tell him to return in three days. Suppose on the first occasion you succeed in passing a No 6, then on the second visit begin with a No. 5, and follow with a No. 6, 7, and 8 if possible. Simply introduce the smaller sizes, but retain for as long a time as possible the largest bougie passed. Then on the third visit begin with an instrument a size smaller than the largest one passed at the second visit, and so on until a No. 15 or 16 can be introduced with ease. In some instances, as in Cases 10 and 12, the pain and spasm induced by the presence of a bougie are so great that the treatment requires to be discontinued, and the œsophagus allowed perfect rest by giving nourishment entirely by the rectum. During the early attempts the passage of an instrument almost always excites coughing, and stimulates the secretion of mucus and saliva, so that the patient experiences considerable difficulty in retaining the instrument. But if the bougie be well softened in warm water and the patient instructed to throw the head forwards without bending the neck, the secretions will flow from the mouth. After a time he becomes accustomed to the use of instruments, and can retain them for a considerable time. To begin with, the operation should be repeated every third day, and gradually as the lumen of the gullet becomes increased the interval may be prolonged. It must be remembered that the introduction of an instrument of any kind is a source of irritation, and, especially if too large a bougie be forced through, it is apt to cause inflammation of the stricture and spasm. Now this is exactly what we must avoid—no force is to be used, there is no hurry. Every case must be treated according to the individual circumstances. In some rapid progress may be made; in others we must be content with but slight improvement from time to time. Indeed, sometimes the same size of instrument may be required from one day to another. You may ask me, How are we to be guided as regards the size and kind of bougie to employ? If you find, after an instrument has been passed with gentle pressure that it is grasped more tightly for some minutes, and to withdraw it is painful to the patient, then you should not attempt any more that day, because it is evident that the bougie is exciting irritation and inducing spasm of the muscular fibres. To pass a larger size would only do harm. Then as to the kind of instrument. Those which I find most useful are gum elastic bougies of uniform size from end to end, and oval on section. Tapered instruments should never be used, as by their employment the operator cannot judge the amount of force he is employing. The same argument holds good against railway or oversliding bougies. I have discussed the subject of gradual dilatation at length, for I consider it to be the safest and easiest method; the one which should be first used and persevered in until you either penetrate the stricture or are convinced that it is impermeable. Before concluding what I have to say on this subject, allow me once more to draw your attention to the fact that force must never be used in the introduction of an instrument through the stenosis. Force in the treatment of this evil, as in that of many others, is no remedy. It is very difficult for me to tell you how much pressure to employ, but one thing you can understand is that the œsophagus may be of a normal size right up to the opening in the stricture, and that the real difficulty is in finding the orifice. The more difficult this is the less should you desire to use force; for instead of penetrating the stricture, the presumption is that you will cause the point of the instrument to perforate the wall of the gullet. It requires not force, but care and patience, to insinuate the bougie through the small orifice, and this can only be done by systematic use of the instrument, and not by groping at hazard on the chance of entering the tiny opening.

It is now my purpose to discuss with you the treatment which should be adopted in individual cases; and I presume that those brought before you during this session afford us sufficient material for consideration. Some of these permitted of palliative treatment only being employed, while in other instances an operation was deemed justifiable. Let us now consider in detail the treatment employed in the seven cases of malignant disease which you have seen. In four cases (5, 6, 8, and 9) palliative treatment only was employed, while in three cases (3, 4, and 7) gastrostomy was performed. Whatever may be done in these cases, two objects are constantly held in view: to give the patient nourishment in the most convenient way and to alleviate pain. Local treatment is of no avail unless in a few exceptional cases. During the early stages of the disease—that is to say, at a period when the patient is able to take a reasonable amount of food, the diet should be highly nutritive and in no way irritating. The staple articles of diet must be soup, milk, eggs, pounded meat, and farinaceous food. I may now say a word or two as to how these should be prepared. Beef-tea, so-called, and extracts of meat are not so nutritious as is generally believed. At the Royal Infirmary we have a preparation called "composite soup." It is prepared by stewing at a temperature of 200°F. for six hours two pounds of hough meat,[1] one chicken and a knuckle of veal, in two quarts of water without salt. When allowed to stand in a cold place for six hours the fat rises to the surface, and forms a hard cake, while the soup forms a jelly. The fat, if desired, may be removed, and the jelly may be given either cold or heated and taken as soup.

In regard to the use of milk and eggs, the less these are cooked the more easily are they assimilated. If digestion be imperfect, these, as well as other articles of diet, may be artificially digested before they are given to the patient. Patients suffering from stricture find great difficulty in

[1] The joint on the hind leg of an ox, corresponding to the ankle-joint in man.

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swallowing ordinary bread, as well as other farinaceous food. When loaf bread is masticated it forms a pulpy mass, on account of the gluten which it contains, and for this reason anyone who has difficulty in swallowing complains first of inability to take soft bread or potatoes. But if the starch be freed from the gluten, as is done in the manufacture of Indian corn flour, before the bread is made, the saliva mixes freely with the starch granules, and the morsel, instead of forming a doughy mass, gradually as it were melts away in the mouth and is easily swallowed, even without the patient taking fluid. Indian corn flour, baked into what is known as "snow cake," is easily swallowed, even in advanced cases of stricture of the gullet. The nurse in the ward prepared these very carefully, and some patients who had been unable to swallow loaf bread for weeks took these cakes eagerly.[2] As long as the patient can swallow easily there is no necessity for passing bougies, unless, of course, for diagnostic purposes. When the stricture becomes so narrow as to require the employment of the feeding-tube, the time has certainly arrived to consider the advisability of performing œsophagotomy or gastrostomy. There are, however, some exceptional cases in which a feeding-tube may be of advantage—namely, those in which together with organic stricture the gullet is narrowed by spasm of the muscular fibres immediately on the introduction of any substance into the passage. In these cases the administration of repeated small doses of cocaine before meals gives considerable relief. But if this treatment proves inefficient the patient must be placed under chloroform and food given by a tube. This mode of feeding can necessarily only be continued for a very short time, but sometimes within a few days the tendency to spasm diminishes and artificial feeding is no longer required. The use of the tube in cases where a fistula has formed between the œsophagus and trachea is of very doubtful benefit. In such instances it is much preferable to employ rectal alimentation, with the food properly digested before introduction.

In malignant stricture, the situation of the obstruction having been determined by passing a bougie and the diagnosis completed, instruments should not be passed for the purpose of dilating. But as soon as the passage of fluid food becomes difficult, then a small, soft, flexible tube should be introduced, if possible through the nose, and retained. For the first few days the patient may complain of discomfort, but very soon both the œsophagus and the stomach come to tolerate the presence of the tube, through which he may be fed regularly. It is, however, advisable to withdraw the tube for twelve hours every third night; that is to say, unless there is considerable difficulty experienced in introducing it. I may say, further, it is not necessary that the tube should be introduced into the stomach; all that is required is that it should pass beyond the stricture. The employment of a feeding tube should always be resorted to before any operative interference is contemplated. Dr. Krishaber has strongly advocated the indefinite retention of these instruments, which, he says, may be tolerated by the patient for a very considerable period. In my experience they cannot be borne when kept in continuously; but, if removed for a few hours at short intervals, they may be of great service. In the profession there is doubtless a strong feeling that the patient runs a considerable risk in the passing of tubes for malignant stricture. It is true that hard gum elastic tubes or bougies, carelessly or forcibly used, may lead to very serious consequences; but if soft instruments be employed, and the surgeon bears in mind that it is his duty not to force a passage, but by patient, careful, and gentle manipulation to guide the tube through the stricture, then little is to be feared. In two private cases of malignant stricture I have employed with a satisfactory result a method first proposed by Dr. James Charters Symonds in 1885.[3] When a tube is passed through the mouth or nares it is liable in some instances to cause pharyngeal or laryngeal irritation, and give the patient much distress from his being required constantly to expectorate saliva or mucus during day and night. But by employing the method which I shall presently describe to you these difficulties are to some extent obviated. In place of passing a long tube a short one is substituted, which keeps only the stricture open, and does not cause general irritation of the canal. The idea is to insert a small funnel-shaped tube into the stricture, and to retain it there as long as possible. The method I employed was to pass an ordinary œsophageal bougie and measure the lumen of the stricture. This being determined, I had a soft vulcanite tube made of a proper size, and so shaped that its upper end could be fitted on to the bougie. The funnel-shaped tube was introduced through the stricture on the point of the bougie, the bougie was then withdrawn, and the little tube was left in the stricture. The lower extremity of the small tube was bulbed slightly, with the object of fixing it in position, and to the rim of the upper or expanded end a number of silk threads were attached, which, joined together, formed a cord, and was brought out through the mouth and fixed to the right ear of the patient. In both cases the stricture was kept open for a considerable time, but in the end it was found impossible to introduce those little tubes, and as no bougies could be passed, and neither of the patients would allow gastrostomy to be performed, the usual result of stricture of the gullet followed.

Rupture of cicatricial strictures by forcible dilatation is a method of treatment proposed by some surgeons who have been tempted by the rapidity and facility of gaining their immediate purpose. The results have been less severe than might be expected, although in some instances serious effects have followed. When relief is afforded it is immediate, but unless bougies be passed at regular intervals its duration is brief. The reason of this is very evident. No sooner has the cicatrix been ruptured than it begins to heal, and within a very short time the stenosis is as firm as before the operation was performed. A method I employed in the treatment of stenosis of the larynx is also applicable to stricture of the œsophagus.[4] When it is found impracticable to relieve the cicatricial stricture by gradual dilatation with bougies, I have attempted to slowly stretch the constricted part by inserting a tent made of tupelo wood. A bougie which can be easily passed through the stricture is taken and divided three inches from its point. Between the two divided parts a tupelo wood dilator—the same size as the bougie, and two inches in length—is inserted, and firmly fixed on a copper wire. On the upper end of the wood, where it joins the bougie, a bulb is made of celluloid; so that we have an instrument, the first three inches of which is gum elastic, the following two inches tupelo wood, the upper end of which is covered by a small ball of celluloid, while the remaining part of the instrument is an ordinary bougie. The patient having had the pharynx sprayed with cocaine, and swallowed a little of it, the instrument is introduced until the celluloid bulb rests upon the upper margin of the stricture. The expansion of the tupelo wood takes place by absorption of fluid through its transverse section only. On this account the increase in the bulk of the tent is slow, and the upper end being embedded in celluloid the dilator ultimately assumes the form of a solid cone, and thereby may be easily extracted. Three hours are sufficient time for the tent to expand to twice its original bulk, when it may be withdrawn, and in the course of four or five days a larger size of dilator may be substituted, and so on until the œsophagus is sufficiently distended. This method of treatment is only applicable to cases not dilatable by bougies in the ordinary way. In two cases I have found it of great value. These two cases were previously treated by electrolysis, at a time when this mode of treatment was being advocated for the relief of stricture of the urethra, with the hope that the electrolytic action might gradually produce a softening of the cicatricial tissue. The idea in using electricity in this way is that the current produces increased activity in the tissues, and causes a rapidity of change towards health; but the precise vital or chemical changes produced in electrolysed tissue are still unknown. However, to give the method a trial, I extemporised an œsophageal electrode.

The way to employ this treatment is as follows:—The negative pole of the battery is connected to the œsophageal electrode, whilst the positive is held in the patient's hand, and in order that the exact strength of the current may be estimated a galvanometer must be introduced into the circuit. At the commencement of the sitting the current employed may be equal to five milliampères, and this should be steadily increased to ten milliampères, if the patient does not complain of pain. Ten minutes' application is as much as should be employed at one time, and it may be repeated every fourth or fifth day. Care must be taken that the current be not reversed during the operation, otherwise considerable pain may be occasioned, or even bleeding from the œsophagus. During the time the bougie electrode is in the

[2] Ingredients: Patent corn flour, 1 lb.; pounded white sugar, ½ lb.; white of six eggs; flavour to taste.

[3] Clinical Society's Transactions, vol. xviii., p. 155.

[4] Glasgow Medical Journal, October, 1888.

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œsophagus gentle pressure should be employed, so as to make it traverse the stricture, and as soon as this is done the current may be stopped. My experience of treatment by electrolysis is too small to permit me to confidently express an opinion of its value, but from what I have seen I came to the conclusion that it caused considerable irritation, and probably did more harm than good. So rather than experiment further with patients suffering from œsophageal stenosis, I have been carefully watching the results of the treatment by electrolysis of other more accessible diseases, and as far as I can learn they are not very encouraging.

The last method I will describe to you for relieving the stenosis by an operation from within the gullet is that of internal œsophagotomy. Probably on account of the success which has attended the performance of a similar operation for stricture of the urethra surgeons have been encouraged to divide the obstruction in the gullet by an incision, but the results have been by no means satisfactory. The operation is performed by an œsophagotome, which consists of a gum-elastic bougie, carrying a wire, to the end of which a knife is attached, and by pressing a button, the knife is protruded at will. The curved tube with the knife concealed is passed beyond the stricture, after which the knife is protruded so that it cuts through the stricture on withdrawal of the instrument. In this operation the incision is made from below upwards; in some instances, however, where the œsophagotome could not be passed through the stricture, attempts have been made to divide it from above downwards, but such a procedure is highly dangerous, and should in no instance be practised. The circumstances which call for internal œsophagotomy are very exceptional, and to my mind hardly exist. Although it has been performed for malignant and tubercular diseases, I do not think anyone would, on the chance of gaining temporary relief, submit a patient to the dangers attending the operation. Again, in cicatricial stenosis, internal œsophagotomy can be employed only in cases where a bougie of a good size can still be passed, and therefore in a class of cases in which gradual dilatation with bougies or tents might still be used without risk. When you think of the cases which have been brought under your notice this session, and when I recall those which have come under my observation, I cannot say that I remember a single instance in which I would feel justified in having this operation performed. When the stricture is situated a little above, at, or below the bifurcation of the trachea, the danger of cutting right through the thin œsophagus, and of injuring the trachea and aorta, or of opening into the posterior mediastinum, is very considerable. Of thirty-two cases where this operation was performed which I have inquired into, nineteen were afforded a more or less permanent improvement, nine died from the immediate and four from indirect results of the operation, so giving a mortality of a little over 40 per cent.

Within the last few years another operation has been proposed and practised by Gussenbauer, von Bergmann, and Sands—namely, external œsophagotomy, afterwards dividing the stricture from within, and subsequently allowing the fistula in the neck to heal spontaneously. This operation can only be employed when the stenosis is situated high up; but, on the other hand, when it occupies the lower end of the tube, the stricture has been dilated from below after a preliminary gastrostomy. This operation, said to have been suggested by Schede, has been performed by von Bergmann, Billroth, Studegard, Frittini, Catani, and Loreta, and most of the cases have been successful.

(To be concluded.)

RETRO-PHARYNGEAL ABSCESS IN INFANCY AND ITS TREATMENT.

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RETRO-PHARYNGEAL ABSCESSES were formerly considered to depend invariably on spinal caries. There is no doubt, however, that this was a mistaken view. The majority of cases occur in quite young children, and in them the pus collects in the cellular tissue between the pharynx and the fascia covering the prevertebral muscles; whilst the tubercular abscesses, which depend on spinal caries, are situated beneath the fascia and ligaments, in close contact with the vertebræ. The relative frequency of the two classes of retro-pharyngeal abscess has been pointed out by Bokai, who collected the records of 204 cases which had been observed at the Children's Hospital in Pesth during a period of twenty six years. Only seven cases in this large total were dependent on spinal caries, whilst as many as 189 were of a purely local nature. Judging by the few recorded cases, from the little that is said on the subject in surgical text-books, from my own personal experience and from that of the medical friends whom I have consulted, I am led to think that retro-pharyngeal abscess is a comparatively rare affection in London. At the North-Eastern Hospital for Children, where the number of out-patients (new cases) in the year has ranged between 13,000 and 15,000, I have only met, during the last five years, with three cases, two of which were under my own care, and one under the care of my colleague Mr. Dean. All three cases were acute, and had no connexion whatever with spinal caries. Although not a common disease, acute retro-pharyngeal abscess of infancy merits a wider recognition than it appears to have obtained, for it not only gives rise to serious symptoms at all times; but it may, by bursting suddenly, especially during sleep, cause death by suffocation, although the condition is one which, if detected, may be completely relieved by a simple enough operation. The following four cases derive additional interest from the manner in which, notwithstanding the small size and the tender age of the patients, they were treated.

My first case was a male child aged seven months, who was admitted to the children's ward at University College Hospital on April 10th, 1890, on account of difficulty in breathing. The child had been ill for seven days, at first apparently owing to a nasal catarrh, but during the three or four days previous to admission it had had a "hard and dry" cough, and had had difficulty in both breathing and swallowing. The child was rather rickety. Respiration was accompanied by a snoring sound, chiefly during inspiration, during which also there was slight recession of the ribs and supra-clavicular regions. The child took its food readily, but deglutition was difficult. The back of the tongue was thickly coated, and there was a quantity of thick mucus in the throat. In the notes of the case it is stated that the left tonsil was so much enlarged and reached across to the left side so much that it was almost impossible to get the finger beyond it. No fluctuation was detected. The glands on the left side of the neck below the angle of the jaw were slightly enlarged, whilst in other parts of the body they were not enlarged. The temperature ranged between 98·2° and 100·4° F. On the day after admission an incision was made into the swelling in the throat and a quantity of pus sponged out. Breathing and swallowing were temporarily relieved, but two days later the child's breathing was very difficult and the swelling in the throat had returned. It was incised again, and a large quantity of pus let out, with great relief to the child; but in the course of two or three days the swelling began to form again, the temperature rose, and the breathing became more difficult. I saw the child a week after its admission, and found that the abscess did not involve the tonsil at all. It was situated behind the pharynx, chiefly on the left side. I determined to open it from the neck, according to the plan recommended by Professor Chiene. A small incision was made along the posterior border of the sterno-mastoid, near its upper end, and carried through all the superficial structures till the muscles in the floor of the posterior triangle were reached. The tissues behind the deep vessels and nerves of the neck were then torn through with blunt instruments sufficiently to admit a finger to such a depth that it could be felt by another finger in the pharynx to be close to the outer border of the abscess. A director was then thrust into the abscess, and as soon as pus was seen escaping, the opening was dilated with a pair of dressing forceps, and a tube was inserted. On the following day the swelling in the throat had almost entirely disappeared. Both breathing and swallowing were easy. The temperature was a little raised for four days in association with a patch of pneumonia. A tube of smaller calibre was inserted on the second day. The tube was gradually shortened and completely removed on the ninth day after the operation. The child was discharged a month after the operation, since which it had no difficulty either in breathing or swallowing.

My second case occurred at the North Eastern Hospital.

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The child was a female, aged thirteen months. She was admitted on April 11th, 1891. For the last three months and a half the child had had a discharge from its left ear. Ten weeks ago the lymphatic glands on the left side of the neck, both in front of and behind the sterno-mastoid muscle, began to enlarge. Eight weeks ago a small abscess burst just below the left angle of the lower jaw, and healed up in about a week. During the last month breathing had been noisy, especially during sleep, from which the child frequently awoke gasping for breath. During the last month also deglutition had been difficult. Liquids were often regurgitated at once. On admission to the hospital the child was pale and flabby, and presented slight signs of rickets. The child breathed fairly well. On examining the pharynx, a swelling was seen on the left side extending from the posterior part of the tonsil to rather beyond the middle line. It reached upwards beyond the soft palate, and its lower limit could only just be felt. The swelling was very tense, but elastic. There were no signs of spinal caries. The abscess was opened externally in the manner described in the last case. The cavity of the abscess was scrubbed out with a piece of sponge and drained by a long tube. The symptoms at once subsided. Respiration and deglutition were henceforth normal. The tube was shortened very slowly in order to avoid re-accumulation. The glandular swellings quickly subsided, and the child was quite well three weeks after the operation, and continued so when last seen three months later.

The third case, a female child aged two years and one month, was admitted to the North-Eastern Hospital on Sept. 14th, 1891. The child had been noticed to be "out of sorts" for about a week. Two days before admission the child began to make a peculiar noise during inspiration, got rather blue in the face, and coughed up a quantity of froth. During the day and night before admission the child had repeated fits of choking. On admission, the child was pale, thin, and weak-looking. Its voice was hoarse; respiration was noisy but not difficult when the child was awake, though during sleep it was distinctly laboured, and the child frequently woke up with a start. The glands in the neck about the angle of the jaw were slightly enlarged. There were no signs of spinal caries. The back of the pharynx was found bulged forwards by a swelling, which on the right side reached to the lateral wall and on the left side to about a quarter of an inch from it. The upper limit of the swelling was on a level with the soft palate, when it was dependent, and the lower limit was opposite the top of the larynx. Fluctuation could be detected in the swelling. The abscess was opened through an incision an inch in length along the posterior border of the sterno-mastoid, about an inch below the mastoid process. The dissection was then carried on with blunt instruments behind the deep vessels and nerves until the swelling was reached. A director was then thrust into the abscess and the opening was enlarged with dressing forceps. About an ounce of pus was let out. The cavity was mopped out with 1 in 500 solution of perchloride of mercury, drained, and dressed with sal alembroth gauze and wool. After the operation the symptoms did not improve—in fact, they got gradually worse. The temperature still ranged between the normal and 101°. On the third day after the operation the child began to get rather cyanosed, and had frequent fits of dyspnœa. She was put in a steam-tent and hot fomentations were applied to her neck. I saw the child again on the fourth day after the operation, and found that the swelling at the back of the pharynx was larger than ever. A steel director was passed in through the wound, and about two ounces of pus were let out. The tube was not lying in the abscess cavity. It was replaced. During these manipulations the child was nearly asphyxiated; but when they were completed she fell asleep immediately, and continued sleeping quietly for the next twelve hours, excepting when she was roused up to take food. There was no further difficulty with breathing. The temperature now fell, and in a few days was normal. On the third day after the second operation the retro-pharyngeal swelling had almost subsided and the voice had almost lost its hoarseness. There was an abundant discharge from the tube, which was slowly shortened, and not left out entirely until the twenty-third day. The child was sent home on the following day, and ten days later she was perfectly well.

The fourth case which has come under my notice was under the care of my colleague Mr. Dean, to whom I am indebted for permission to include it in this paper. The patient was a male child aged seventeen months. She was admitted to the North-Eastern Hospital on Oct. 13th, 1891. Ten days before admission the child had a "general cold." Three days later its breathing was troublesome at night. The difficulty in breathing got gradually worse, and some difficulty in swallowing also came on. The child when admitted to the hospital was suffering with intense dyspnœa. There was marked recession of the chest and the face was livid. The right side of the neck was rather swollen. The posterior wall of the pharynx was very red and tense, and was pushed so far forwards that it almost blocked the fauces. The swelling, in which distinct fluctuation could be detected, extended upwards to the base of the skull and downwards to the top of the larynx, and laterally, on each side, to the posterior pillars of the fauces. The condition of the patient, owing to the obstruction to the respiration, was extremely urgent. Mr. France, the house surgeon, performed intubation with one of O'Dwyer's tubes (suited to a child between two and three years old) quite readily; but, as soon as he removed his finger, the swelling bagged over the end of the tube and blocked it. Respiration had now ceased, and so Mr. France decided, in my opinion wisely, rather than trust to the chance of being able to re-establish respiration, after opening the abscess in the throat, to perform tracheotomy at once. This he did, and, after stimulation and artificial respiration, the child came round and went to sleep, breathing easily through a Parker's tube. It was now about 11.30 A.M. Mr. Dean saw the patient shortly afterwards, and decided not to open the abscess until the child had recovered somewhat from its exhausted state. At 9 P.M. Mr. Dean made an incision three-quarters of an inch in length along the posterior border of the sterno-mastoid muscle and an inch below the mastoid process, and after dividing the fascia beneath the muscle, the pus was quickly reached, and two ounces were evacuated. The abscess cavity was explored with the finger, but no signs of cervical caries were found. The cavity was washed out with 1 in 2000 solution of perchloride of mercury, drained with a large tube, and dressed with boracic fomentations. For two nights and days the child remained in a very restless and exhausted state, but after that time it began to improve. The temperature, which had reached 102·2° F., did not fall to the normal till the fourth day, and the tracheotomy tube could not be left out permanently till the sixth day after the operation. On the twenty-second day the tracheotomy wound had closed, and the tube was left out of the abscess cavity. The child was discharged well three days later.

All the four cases above recorded recovered completely, the abscess cavity closing up quickly. The abscess in each had clearly no relation to spinal caries; it was evidently an entirely local affection. In none of them was the tonsil the seat of the abscess, and, in fact, so far as my observation goes, tonsillar abscess is very rare, if it occurs at all, in such young children as were those whose cases have just been narrated. Two views have been advanced to explain the origin of these acute retro-pharyngeal abscesses which occur in young children. One is that they depend on an acute phlegmonous inflammation induced in a similar manner to acute abscesses elsewhere; and the other is that they are dependent on an adenitis which is secondary to inflammation of one of the neighbouring mucous surfaces. In connexion with the latter view we have an important observation by Dr. Edmund Simon,[1] who describes the lymphatics of the retro-pharyngeal region as forming networks on each side, which terminate in glands located one on each side of the median line between the pharynx and the aponeurosis of the prevertebral muscles. He further states that the glands disappear altogether after the third year of life. In striking agreement with this observation is the fact that the majority of acute retro-pharyngeal abscesses occur in quite young children. The ages of the four cases recorded above were seven months, thirteen months, twenty-five months, and seventeen months. The great majority of Bokai's cases occurred in children under two years of age, and 196 out of his 204 cases occurred under three years. Henoch[2] says that almost all his cases occurred in children still in their first year or little beyond it. In equal agree-

[1] Schmidt's Jahrb., Band. cvii., p. 161, quoted by Blackader in a valuable paper published in the Archives of Pediatrics, vol. vi., p. 80.
[2] Lectures on Children's Diseases, Sydenham Society's Translation, vol. i., p. 146.

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ment with Simon's observation is the fact that the abscess is usually unilaterally placed. This was so in my three cases. The primary inflammation from which the glands are infected may involve the pharynx, the posterior part of the nasal fossæ, the fauces, or the tympanum. In two of the cases above recorded the first sign of illness was a nasal catarrh, and in one an otitis on the same side of the body as the retro-pharyngeal abscess was situated. The disease may come on either very acutely or somewhat insidiously. If the abscess is situated behind the upper part of the pharynx, deglutition will be chiefly embarrassed; but if it be situated lower down, respiration will be also impeded. The difficulty in breathing is especially noticeable during sleep, when, too, it may be accompanied by snoring. The voice, as in one of my cases, may be hoarse, owing to associated laryngeal catarrh. The lymphatic glands on one or both sides of the neck are generally swollen. These symptoms are sufficiently suggestive to lead to an examination of the throat, when if there is a retro-pharyngeal abscess a soft and fluctuating swelling, situated usually rather to one side of the middle line, and bulging the posterior wall of the pharynx forwards, may be felt.

As soon as a retro-pharyngeal abscess is diagnosed steps should be taken to open it, lest urgent dyspnœa come on (as happened in one of the cases recorded in this paper), or in case the abscess burst when the child is asleep or when assistance is not at hand, and the matter be sucked into the larynx and cause suffocation. There are two possible methods of opening the abscess. It may be opened by an incision through the pharyngeal wall or by an external incision in the neck. The first plan is no doubt the most enticing, owing to the ease with which it can be carried out, but it is not free from objection. The abscess cavity cannot be drained with a tube when the opening is into the pharynx, and consequently the incision may close too soon and the pus may reaccumulate. This occurred in my first case; and, indeed, it was this repeated reaccumulation which led me to dissect down from the outside, after the plan recommended by Professor Chiene, notwithstanding the small size and tender age of the patient. Again, proper antiseptic treatment is impossible when the abscess has been opened in the pharynx. If, however, this plan is adopted, the child should be put under the influence of chloroform, the mouth should be gagged open, and the head should hang rather over the end of the table. The abscess should then be opened by a longitudinal incision reaching the entire length of the swelling, and the pus should be rapidly sponged away, so as to prevent any of it finding its way into the larynx.

Professor Chiene's plan of opening chronic retro-pharyngeal abscesses dependent on spinal caries is well known; but I am not aware that it has been adopted for the acute abscesses occurring in infancy, unless the pus was pointing externally. There is, however, no difficulty in performing the operation even when the abscess is small and confined to the retro-pharyngeal tissue, and when the patient is quite a young child. In my first case the abscess was not only strictly retro-pharyngeal, but it had been partially drained into the pharynx, and the child was only seven months old. The operation was done as follows in all the cases. An incision, about an inch in length, and about an inch below the mastoid process, was made along the posterior border of the sterno-mastoid. After the fascia covering the muscles in the floor of the posterior triangle was exposed, a cautious dissection with blunt instruments was made behind the deep vessels and nerves of the neck until one finger placed in the wound almost met another placed in the pharynx. A director, guided by the finger in the pharynx, was then thrust into the abscess, and the opening enlarged by passing a pair of dressing forceps into it and forcibly separating the blades. A drainage-tube should be inserted, and care should be taken that it does not slip out of the abscess cavity, as happened in one of my cases, and give rise to re-accumulation of pus.

Harley-street, W.

THE SMALL-POX AT BATLEY.—The Batley Corporation have now arranged to make considerable addition to the isolation hospital near Howden Clough, the alterations being mainly for convalescent purposes.

ACUTE CATARRH OF THE LARYNX.

BY GORDON HOLMES, M.D.,

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(*Concluded from page 305.*)

Pathological anatomy &c.—In addition to the objective appearances revealed laryngoscopically, the closer inspection to be obtained in the post-mortem room allows the recognition of other changes in the laryngeal mucous membrane. Thus the usual proliferation and shedding of epithelium consequent on inflammation of mucous tissue can be accurately studied. Catarrhal erosions may thus be seen in patches where the epithelium falling away has laid bare the basement membrane. Such erosions may even occur on the free edges of the vocal bands, marring the even outline of the parts, so as to be visible during life with the laryngoscope. According to Krishaber,[1] other ulcers, which he calls "glandular erosions," not larger than a pins' head, may also be present, surrounding the orifices of the mucous follicles. Tumefaction of these mucous glands is also generally present, and when the tissues are put on the stretch by manipulation their openings give exit to a purulent secretion. Distension and rupture of minute veins, producing numerous ecchymosed points, are also commonly to be noted. In some cases the redness of the larynx observed ocularly during life is found to have almost disappeared after death, a phenomenon which is explained, though insufficiently, by cadaveric retraction of the elastic fibres which form so large a part of the mucoid derma. Microscopic examination of the expectorated matters shows the presence of all the elements of epithelial disintegration just spoken of, together with both white and red blood-corpuscles, even when no sanguineous tinge is visible to the naked eye. When the disease is at its height a great part of the mucous discharge consists of pus cells. The source of the pus in inflammation of this kind is still a question of some obscurity. According to Eberth[2] and others it consists of altered cells of cylindrical epithelium; in proof of which they point to their being frequently observed to retain indefinitely the vibratile cilia. Rindfleisch,[3] again, is still inclined to regard the pus cells as for the most part connective-tissue corpuscles, emanating from the body of the mucous membrane, which proliferate and make their way to the surface by the amœboid movements so characteristic of young cells. It seems simpler, however, to accept the well-known doctrine of Cohnheim, who sees in catarrhal pus merely the exudative white blood-corpuscles. As regards the pellets of mucus often brought up, they, as Krishaber[4] suggests, most probably indicate that the catarrh affects the interior of the laryngeal ventricles, where the discharge collects until it attains a certain consistence and volume, and is then extruded by some act of coughing or deglutition.

We have now to consider the suffocative attacks which are often so striking a feature when the affection occurs in children. Here the explanatory statements, which so far have been made, are entirely conjectural. Thus, Niemeyer,[5] after reviewing the circumstances of the accessions, remarks that "it would be natural to admit that a viscid secretion accumulating in the glottis dries there, probably agglutinates the edges of the vocal bands, and thus gives rise to the attacks of dyspnœa." Mackenzie[6] also adopts this view, though without referring to Niemeyer as its prior exponent. Krishaber,[7] again, seeks the cause in "the very slight development of the cartilaginous glottis in children," which renders the glottic chink very narrow. Hence the inflammatory stenosis, though of comparatively minor degree, is able to occasion such urgent symptoms, when aided by "the relaxation of respiratory action which occurs during sleep." Neither of these hypotheses seems to me to take us very far on the path of elucidation, and the

[1] Dict. des Sciences Méd., 1868, art. Larynx.
[2] Zur Enstehung der Schleimkorper, Virchow's Archiv, Bd. xxi., 1861, S. 106. See also Cornil and Hérard, La Phthisie, Paris, 1864, p. 88.
[3] Lehrb. der Path. Gewebelehre, Leipzig, 1886, p. 109 et seq.
[4] Op. cit.
[5] Lehrb. der Spec. Pathol. und Therapie, Berlin, 1858, p. 7.
[6] Diseases of the Throat, 1880, p. 267.
[7] Op. cit., p. 601.

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more closely they are considered the more unsatisfactory do they become. Why, let us ask, should mucus become so readily inspissated in this malady, which often runs its course without any obvious increase of such discharge, and not in those affections where mucus accumulating near the glottis is a constant feature? If the expectoration tended to block the breath-way, would not, as in these other cases, an expulsive effort be immediately excited, and the passage be cleared without the production of any urgent symptom whatever? Again, can anyone believe in this swelling of the glottis, which becomes so potent an agent for harm during sleep, but in waking moments often does not betray its presence by any physical sign? And is it likely in any case that sleep would be prolonged until the patient had become nearly asphyxiated from obstruction of the glottis? Is not, in fact, respiration as active and as compulsory during sleep as at any other time, when regard is paid to the quiescent state of the body? Is it not better, then, to put aside such recondite theories in favour of some simpler explanation based on the commonly recognised peculiarities of the nervo-muscular apparatus of the larynx? Thus the laryngeal muscles have the "trick," as we may call it, of succumbing to paresis, paralysis, and spasm of a temporary, even momentary, character not paralleled in any other part of the body. Hence even in adult males we may see phonation at one instant impossible, and at the next perfectly re-established on the application of the slightest stimulus to the vocal region. In adults, spasm of the glottis is also commonly excited by any trifling irritation of the laryngeal vestibule &c. Chronic cases of such spasm, occurring on awakening towards morning, are also tolerably frequent, and I have met with several instances in men of mature age who were in other respects apparently sound and healthy. With such data, combined with the well-known proclivity of children of tender years to suffer from reflex spasm, and the more delicate sensibility of the laryngeal mucous membrane among other internal parts, have we not sufficient grounds to attribute the phenomena we are treating of to a passing neurosis of the muscles of the larynx—chiefly, or perhaps entirely, a spasm of the constrictors of the glottis? Possibly even the peculiar vulnerability, firmly believed in by some authorities, of the abductors of the vocal bands produces an abeyance of their function, which facilitates the occurrence of glottic stenosis from any concomitant cause. I have, indeed, already reported two instances of abductor paralysis[8] in which the malady appeared as the sequence of acute catarrh of the larynx. Both Ziemssen[9] and Gerhardt[10] also attach great weight to disturbances of innervation as explaining the phenomena of this malady, over and above the mechanical interferences with function arising from mere alterations of form and substance. Hence alterations of tension, consonant action, &c., of the vocal musculi may modify both voice and respiration.

Diagnosis.—Acute catarrh of the larynx is easily recognised, either from the patient's description of his sensations or from inspection with the laryngeal mirror. The very limited extent to which cough and expectoration are present serves to distinguish it from ordinary catarrhs of the trachea and bronchi—the absence of chest symptoms from the graver inflammations affecting the lungs. The general mildness of the phenomena, both local and constitutional, will not allow it to be mistaken for any serious laryngeal disease, such as œdema or diphtheria. In childhood the practitioner is little likely to confound it with genuine croup on account of the suddenness of the accession of dyspnœa and its evanescent character. Nor is he likely to be misled by the so-called "croupy" cough, which with its resonant ringing timbre is, in fact, the very opposite to the stifled cough which proceeds from the larynx when all its parts are muffled by the exudative membrane. At a later stage of laryngeal diphtheria, when convalescence begins, it may be noted that there is some similarity of cough tone between the two maladies, so that, as Trousseau[11] remarks, it may be said that "false croup begins where true croup ends." With respect to laryngismus stridulus an error is not likely to occur, as the spasmodic attacks are usually much less urgent, and the malady has generally been persistent for some time before medical aid is appealed to. The peculiar crowing inspiration, as part of a general convulsive tendency, has also a much more signal character than that which is observed in the merely catarrhal affection. There is one occurrence, however, peculiar to early life which may create difficulty in diagnosis—viz., the sudden presence nocturnally of a foreign body in the glottis. In children a very urgent, and even fatal, dyspnœa may arise from this cause in the middle of the night, as it is not uncommon for them to go to sleep whilst affectionately preserving some small toy in the mouth. If the article slips down the throat it is very likely to enter the glottis, producing a sudden obstruction to respiration. Such dyspnœa does not pass off like that attendant on the catarrhal lesion, and the observer who is alive to the possibility of such an accident will soon fathom the truth.

Prognosis.—In uncomplicated cases in adults no danger whatever to life is to be apprehended from this malady, which is essentially a laryngitis of minor intensity and short duration. It is never the primary cause of death, and a fatal result can only occur as the consequence of one of those other maladies, general or of the respiratory tract, with which it is sometimes associated. It is not likely to pass into œdema of the larynx, though in persons of a certain constitution it may seem to do so, having really been œdematous from the first. In children the prospects are almost as favourable, but it must not be forgotten that some deaths have been attributed to this disease by practitioners not likely to have been mistaken—notably by Millar,[12] Trousseau,[13] Vieusseux, Wichmann, and Lobstein.[14] Nevertheless Guersant[15] and Bretonneau,[16] although attending specially to diseases of children, never met with one. It may be concluded, indeed, that unless the patient is debilitated by dyscrasia or previous illness recovery is as certain as in adults. In all laryngeal affections the prognosis must be considered with reference to function, as well as to life or health, and especially when we have to deal with patients whose voice constitutes their professional armamentarium. In this department our anticipations cannot be quite so favourable, for we can never tell what persistent weakness of muscle or membrane may follow an attack of acute laryngeal catarrh, the more so as excessive vocal efforts may be the exciting or a predisposing cause of the disease. In such instances the first manifestation may be the forerunner of many similar ones, recurring periodically; while in the intervals a state of chronic catarrh, more or less pronounced, is the rule and not the exception. The practitioner, therefore, can never promise a complete regain of vocal power to patients of this class, although such a result may be hoped for when the attack is clearly of fortuitous origin.

Treatment.—In mild cases in adults the use of steam inhalations, medicated or simple, together with ordinary dietetic and hygienic precautions, persevered in for a few days, will be all that is required to promote a cure. Absolute confinement to the house is not even necessary if the weather be fine and not too cold; but if the patient ventures out a respirator of some kind had better be worn, unless he can be trusted to breathe only through the nose. In the more intense cases the patient must keep to one room, or even to bed, whilst warm poultices or a wet compress are applied to the front of the neck. Mackenzie[17] refers with approval to a German custom of setting the patient to eat salt (red) herrings, the saline constituents of which may doubtless have some curative potency. At the same time restriction to a light diet, chiefly composed of nutrient fluids, and slight purging will materially assist the occurrence of resolution. In the earlier stages sucking ice may also be recommended with advantage. When the active symptoms have passed off the complete restoration of the larynx to a normal condition can be best obtained by the direct applications of astringent solutions with a laryngeal brush. Perchloride of iron (forty grains to the ounce) and chloride of zinc (thirty grains to the ounce) are best adapted for the purpose. When there is hæmorrhage from the larynx the quantity is usually so small that no especial measures are demanded; the discharge, in fact, if allowed to continue is most likely to be beneficial. In those rare instances in which it is considerable and persistent the solution of iron, doubled in strength if necessary, can be applied. In

[8] THE LANCET, vol. ii. 1887.
[9] Cyclopædia of Medicine, vol. iv. [10] Op. cit., 1878, p. 322.
[11] Clinique Méd. de l'Hôtel Dieu, 1866, vol. i., p. 520.
[12] Observations on Asthma and Whooping-cough. London, 1769.
[13] Op. cit., p. 523. The patient had even attained his fourteenth year.
[14] The latter three mentioned by Krishaber (op. cit.) without detail or reference. [15] Op. cit.
[16] Des Inflammations Spéciales du Tissu Muqueux. Paris, 1826.
[17] Diseases of the Throat and Nose, vol. i., p. 271, 1880.

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those examples where the patient is liable to periodical attacks I have been most successful when commencing the treatment with a local application of silver nitrate (from forty to sixty grains to the ounce) combined with the use of the wet compress. In all instances the patient should be enjoined to rest the larynx by refraining as much as possible from coughing or speaking. In children somewhat different measures must be adopted, and even slight cases should be confined to one room and be carefully watched. At the outset an emetic of ipecacuanha and a mild aperient had best be administered. Warm poultices, and perhaps sinapisms, should be applied to the front of the neck and chest, especially during the night. It is also advisable to keep the air of the apartment moist by the use of one or more steam-kettles. An accession of dyspnœa is best combated by fomenting the front of the neck and chest with a large, soft sponge wrung out of warm water. It should be passed with active pressure from side to side, and when cooled redipped in the water. The application of blistering fluid, though commonly resorted to in such cases, had better be avoided. Its action is neither immediate nor far reaching; whilst by making the parts sore it hampers or precludes the after or simultaneous use of more effective measures. Should the dyspnœa be sufficiently urgent tracheotomy must be performed without delay, and though there is, perhaps, no recorded instance [18] of its having been resorted to in an uncomplicated case of the kind, the few fatal examples published indicate that had it been put in practice the number might have been even less.

Finsbury-square, E.C.

RECURRENT APPENDICITIS, WITH REPORT OF CASE TREATED BY REMOVAL OF APPENDIX.

BY MAYO ROBSON, F.R.C.S.,

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ALTHOUGH the word "appendicitis" has been objected to by several English writers of authority, "inflammation of the vermiform appendix" seems to be the proper term under which to discuss the form of peritonitis which so frequently occurs in the region of the cæcum, and more extended experience, clinical, operative, and post mortem, leads one to see that the course of the trouble is nearly always in the appendix. The names "typhlitis," "perityphlitis," "paratyphlitis," and "appendicitis," so far as treatment is concerned, may all be considered as forms of peritonitis occurring in the region of the caput coli; and although some of the cases may be due to stercoral or other forms of ulceration in the cæcum, by far the greater number have their origin in the vermiform appendix. Undoubtedly many of the milder forms of appendicitis resolve under medical treatment; and even when pus has formed, in quite a number of cases it makes its way to the surface and bursts through the abdominal wall, or is evacuated by other channels; but as one can never say that it may not burst into the peritoneal cavity, and as Dr. Bull has shown that in 12 per cent. of the cases in which suppuration has occurred this accident does happen, it is easily understood how those who realise the dangers of the disease should advocate early surgical interference. A convenient method of classification of pericæcal inflammations is that proposed by Prof. With of Copenhagen, who describes: (1) An adhesive local peritonitis, caused by ulceration in the appendix and clearing up without suppuration; (2) a local peritonitis, ending in abscess; and (3) diffuse peritonitis, either caused by perforation of the appendix before adhesions have formed, or by secondary rupture of the well-developed abscess. To make the classification complete, to these would have to be added a fourth form, relapsing typhlitis, described by Mr. F. Treves, of which the case here related is an example. But it seems to me that instead of making these four divisions two will suffice: (1) Appendicitis without suppuration, dependent on ulceration or catarrh, and producing local peritonitis, which has a tendency to resolution, but which is also liable to recur; and (2) perforating appendicitis, ending in suppuration and producing either a local abscess or diffuse peritonitis. This, I believe, is a similar classification to that proposed by Dr. Bull, but I think he does not include the recurrent form in his first division.

The following case, diagnosed as relapsing appendicitis and sent to me by Dr. Griffith for operation, is a good illustration of its class. He has been kind enough to include the history in the following letter:—

"DEAR MR. ROBSON,—I am sorry to find that I have mislaid the notes of Miss F——, the case of appendicitis in which you operated last January. She was under my observation about twelve months. When I saw her first she had the ordinary symptoms of what is usually called perityphlitis—viz., rise of temperature, constipation, pain in the right iliac region with great tenderness on pressure, and on careful palpation one could make out a mass of considerable size in this position. The attack passed through an ordinary course, and the swelling slowly disappeared, though I could never satisfy myself that it disappeared entirely. From the time of this attack until you operated on her she had had about six or seven attacks, some severe, others milder, but all attended with rise of temperature and tenderness. The first attack she had was said to follow on a strain, and she says she had some six or eight attacks prior to my seeing her the first time. As the attacks were getting milder, I did not at once urge operation; but the frequent repetition of attacks, each of which was attended with some danger, led me to suggest that something should be done. Since the operation in January she has been constantly under my observation. 1. She has not had any recurrence of inflammation. 2. She has had some uneasiness about the part; but this seems to be due to some bulging of the cicatrix. 3. The pain in the head she now has is an old symptom, and quite unconnected in my mind with the abdominal condition.—I am, yours very truly,

"T. WARDROP GRIFFITH."

For the following notes of the case I have to thank my late house surgeon, Mr. B. Hall:—"On admission of M. F——, aged twenty, on Jan. 8th, 1891, there was marked rigidity of the abdominal muscles on the right side, especially over the iliac fossa. By distracting the attention of the patient they might be made to relax to a slight degree, when a hard resistent, ill-defined swelling, giving the impression of fulness and thickening rather than of a tumour, could be felt on palpation over the cæcum. As soon as the swelling was touched the muscles became immediately rigid again, and some slight pain was experienced. McBurney's symptom was present. Rectal examination gave no information. The bowels were constipated, but the temperature was normal, and otherwise she felt tolerably well, as she usually was between the attacks. On Jan. 19th, after the bowels had been cleared by an aperient and the abdominal wall aseptic ised, the A.C.E. anæsthetic was administered, and an incision of four inches was made vertically over the cæcum. On opening the peritoneum, the omentum, cæcum, vermiform appendix, and adjoining coils of intestine were found to be matted together, but the adhesions were separated by digital manipulation without much difficulty. The vermiform appendix, which was very much thickened, was found on the inner side of the cæcum. It was without much difficulty separated from its adhesions, when it was discovered that there was a constriction about a quarter of an inch from the cæcum, and that beyond this the tube was dilated and contained fluid, which was afterwards found to be muco-purulent. The appendix had a distinct mesentery, and through this, opposite the point of constriction, a needle armed with a thin silk ligature was passed. This was tightened, and the appendix beyond was cut away, leaving a portion of its mesentery, which was sutured over the cut stump, after the redundant mucous membrane had been removed and the cut surface had been purified by a 1 in 500 solution of perchloride of mercury. No drainage-tube was found necessary. The abdomen was then closed by three layers of sutures, peritoneum to peritoneum, aponeurosis to aponeurosis, and skin to skin. The patient had neither pain nor abnormal temperature after the operation, and made an uninterrupted recovery. The bowels acted on the sixth day, the sutures were removed on the eighth, and the patient returned to her home on Feb. 21st. When last seen, in October, she had had no return of the attacks, and the region of the cæcum was entirely free from any trace of the former tumour; but, through her not having worn

[18] See, however, Dumontpallier's case, reported by Trousseau, op. cit., p. 523.

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any support after leaving the hospital, the cicatrix had given way at one point and a small hernia had developed, which, however, could be easily retained by a pad and belt."

In such cases there are clearly three courses of treatment open. 1st. Non-operative, trusting to rest, opium, and diet to bring about resolution, in the hope that the existing attack may be the last 2nd. Operation between the attacks, as suggested and first performed by Mr. F. Treves. 3rd. Operation on the second or third day of a seizure, as advised by Dr. F. S. Dennis, who discourages the removal of the appendix between the attacks, arguing that in the great majority of cases the disease does not recur, and that should it do so, removal at an early stage of the attack is both safe and efficient. Before deciding on any definite line of treatment, the mortality of operative measures must be weighed against the dangers of delay. In this case the attacks had recurred so frequently that little hope could be held out to the patient of cure without operation, and, as the removed appendix shows, the seizures would in all probability have been repeated either until an abscess had formed or until perforation had occurred. In discussing a comparatively new operation, statistical evidence is often wanting; but so far as I am able to ascertain, close on thirty operations have been performed for the removal of the appendix during the quiescent stage of chronic relapsing appendicitis, and out of this number only one patient has died.

I question whether the statistics of expectant treatment would yield nearly so excellent a result. The nearest approach to a statistical estimate is a report by Fitz, who estimated the mortality of perityphlitis medically treated at 11 per cent. Laparotomy in the early stage of acute attacks would, I feel sure, show a much larger mortality than operations undertaken when the disease is quiescent. A point of interest in the case related was the marked tenderness on pressure about two inches internal to the right anterior superior spine of the ilium, which was pointed out as an almost positive sign of appendicitis by Dr. McBurney, and which observation I can confirm by having found it universally present in all the cases of appendicitis which I have seen. It would be interesting to discuss the question of operative treatment in the forms of appendicitis ending in abscess or in general peritonitis, in which cases I am distinctly of opinion that early operation is called for, but this is beyond the scope of the present paper.

Leeds.

THE MECHANISM OF DELIVERY OF THE FŒTAL HEAD IN VERTEX PRESENTATIONS; ALSO THE PERINEUM IN LABOUR AND ITS MANAGEMENT.

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(*Concluded from page 309.*)

Extension.—Having rotated into the conjugate diameter of the bony outlet, the head in occipito-anterior presentations is described as being born by a movement of extension. Thus, it is said,[1] "flexion continues until the occiput engages between the pubic rami. When the anterior bony wall is no longer encountered, the surface of the child's head glides forwards upon the perineum as upon an inclined plane, and describes a circle beneath the pubic arch, of which the suboccipito-bregmatic[2] diameter forms the radius. The extension of the head, which is an essential feature of the foregoing movement, is the resultant of two forces, derived, first from the uterus, and secondly from the pelvic floor. The uterine action is transmitted in the axis of the superior strait. With the occiput fixed beneath the pubic arch, and the neck resting against the inner surface of the pubes, the propulsive force is expended upon the frontal extremity of the head, and this causes the separation of the chin from the thorax."

Let us examine these statements critically. "Flexion continues until the occiput engages between the pubic rami." This admits of being fairly tested with the fœtal skull on the dry pelvis. On passing the skull in an attitude of flexion through the pelvis, it will be found that as the tip of the occiput emerges from beneath the pubic arch, the anterior fontanelle is against the extremity of the coccyx, a result which would naturally be expected, seeing that the conjugate at the outlet measures only 3¾ in. At this point, then, extension is quite out of the question. On continuing to put the head through the pelvis, it will be found that the chin cannot be made to sweep the coccyx by extension until the occiput has escaped beyond the inferior curved line, and is resting against the pubic arch, just above the foramen magnum. Now, if it be true of the dry specimen, not merely that extension cannot occur as soon as the occiput engages the pubic rami, but that it cannot take place until the greater part of the head has passed through the outlet, it must be still more true in the case of the living body, where not only are the diameters of the fœtal skull somewhat larger, but the pelvic diameters rather smaller, owing to the pubic arch being occupied by the subpubic ligament, the triangular ligament of the urethra, and the vestibule, which would prevent the occiput from being so closely applied to the pubes as in the above experiment. It is of manifest importance, looking to the fact that the conjugate at the outlet measures only three inches and three-quarters, that the diameters of the fœtal head which will engage at the outlet should be kept as short as possible—a result which can only be attained by preserving flexion. The outlet being the narrowest part of the pelvis that the head has to pass through, it is hardly likely that it would accomplish the journey in a state of such disadvantage as extension. Moreover, if extension occurred during the passage of the outlet, soon after the occiput had begun to engage the pubic arch, the top of the head ought to come down and bulge the perineum. As a matter of fact, it will be found that if an examination be made at this point the anterior fontanelle is so high that it cannot be reached, while between the vertex and back of the vagina there is a considerable interval. It is only when a good portion of the occiput has passed through the pubic rami that enough of the head has got on to the perineum to distend it, evidence which points to the head being still in a state of flexion.

While I do not believe that flexion is undone at the bony outlet, I am far from believing that delivery through the vulva is effected by extension. In the quotation which I have inserted above, it will be noted that extension at the vulva is said to be the resultant of two forces—viz., the uterus and the pelvic floor. It is claimed by the advocates of this theory that the occiput having become fixed beneath the pubic arch, "the propulsive force is expended upon the frontal extremity of the head, and this causes separation of the chin from the thorax." This statement supposes the uterus to be capable of influencing directly the movements of the fœtal head so far away as at the vulva. But what are the conditions which actually obtain? So long as the head is contained within the bag of membranes, or has not passed through the cervix, its movements are capable of being influenced either by the pressure of the amniotic fluid or by the direct action of the uterine wall. The head once through the cervix, the uterus by its contractions not only squeezes the fœtus through the pelvis and out of itself, but in so doing adapts itself by retraction upwards to the portion of fœtus still remaining in it, until at the time that the head is being born, it forms a cap over the breech or upper pole. It is evident that under the gradually changing relations of fœtus and uterus the latter becomes in the end reduced to a merely driving force. No doubt the force which the uterus applies to the upper pole is transmitted along the trunk; but it is equally certain that the intensity of this force must die away as the head is approached, and when it reaches the latter be comparatively feeble. We may take it that the force is transmitted along the vertebral column to the head, which it reaches by passing through the occipital condyles. Extension of the head means that the extending force must act on the chin, or, in other words, that the uterus must possess the power of voluntarily changing the direction along which the pressure that it applies to the child is transmitted. It is difficult to see how mere arrest of the occiput at the pubic arch is going to secure this desirable end. Bearing in mind, also, the fact that at the time the head is coming through the

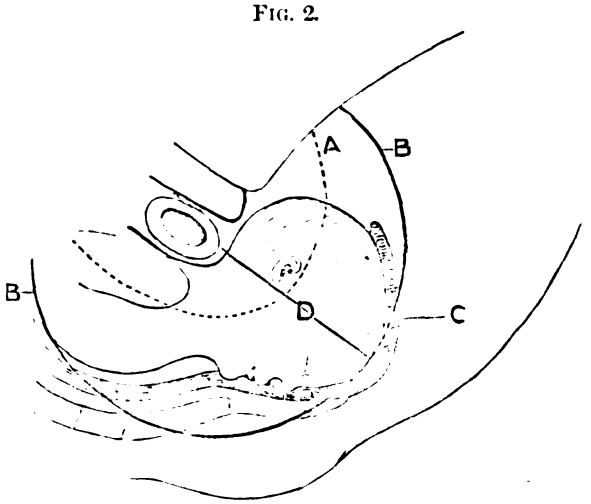
[1] Lusk, pp. 175, 176.

[2] I presume suboccipito-frontal is intended, and not bregmatic.

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vulva the cavity of the pelvis is filled with the thorax and arms of the fœtus, it would be interesting to note the path by which the propulsive force of the uterus picks its way through, and, safely alighting on the chin, tilts it up. There is still another objection to birth by extension. It is the danger with which such a process would be fraught to the mother. After the head has escaped from the bony outlet the perineum becomes stretched and distended in such a manner that the vulva, from looking downwards and very slightly forwards, is carried almost directly forwards. Now, supposing the occiput to have become fixed at the pubic arch and the head to be born by extension, it is evident that in so doing it would describe an arc lying in a plane which would cut the plane of the perineum about its middle at an acute angle, and would thereby execute a movement eminently suitable for splitting the perineum—a

FIG. 2.



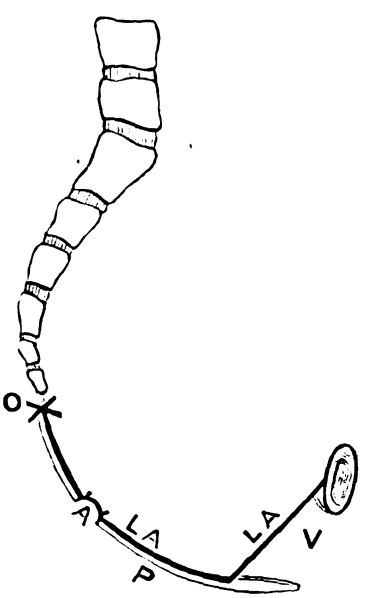
The head passing the vulva. A, The axis of the pelvis. B, The arc which the head would describe in executing the movement of extension. C, The perineum. D, The occipito-frontal diameter, or radius of rotation.

result which, considering that labour is a physiological phenomenon, nature would probably take means to avoid if possible.

I have now stated my own objections against the belief that the head is born by extension. I will next point out that although extension is constantly described in theory as occurring at the outlet, obstetricians have in practice been most assiduous in devising methods to prevent it. For this purpose I quote the following "methods," which have been advocated for the "support" of the perineum:—1. "The thumb is applied anteriorly to the occiput, and the index and middle fingers posteriorly to that portion of the head which lies nearest to the commissure, and pressure is exercised in the direction of the vagina" (Hohl). 2. "Pressure is made on the forehead and face with the tips of the fingers on the perineum behind the anus, close to the extremity of the coccyx" (Ritgen). 3. "Pass two fingers into the rectum, and press the face upwards and forwards" (Ahlfeld). 4. "Seize the head between the index and middle fingers of the right hand applied to the occiput, and thrust the thumb as far as possible into the rectum" (Fasbender). 5. "The physician, standing to the right of the patient, with his face towards the foot of the bed, should pass the left hand between her thighs and press the head upwards and inwards during each pain with the thumb and two fingers, as previously described (i.e., Hohl's method). At the same time the movement of extension, should it threaten danger to the parts, should be hindered by pressing backward upon the frontal region through the perineum with the disengaged hand" (Lusk). Clearly the principle on which each one of these methods is based is maintenance of flexion during the passage of the vulva. Indeed, Dr. Lusk goes so far as to be alarmed lest the movement of extension prove a positive danger to the mother. Either, then, art has devised a better plan for the delivery of the fœtal head than that followed by nature, or else while imagining that we have been improving on nature we have, after all, only been following her. The idea that the head is born by a movement of extension rests upon the belief that the occiput becomes fixed under the pubic arch. I have never been able to verify this statement. On the contrary, I have found that the occiput is constantly progressive, and that just in proportion as it emerges from beneath the pubic arch so do more and more of the forehead and face come into view. In other words, the whole head rotates round the symphysis pubis in a flexed position, so that by the time the chin is born the occiput and nape of the neck are projecting beyond the vulva. The perineum forms a sliding floor, by which the curved axis of the pelvis is continued onwards and the outlet of the vagina carried forwards. Owing to these conditions the occiput has only to revolve round the symphysis pubis, while the forehead and face travel along the wide sweep presented by the concavity of the perineum—a movement which might easily be (and I believe has been) mistaken for extension. Moreover, it will be found that as the head is coming through the vulva the lower margin of the vestibule, and other soft structures filling in the pubic arch, form a strong, sharply defined band over the back of the occiput, and constitute the natural means for pressing the occiput down and preventing it from being tilted up towards the pubes.

The perineum.—The management of the perineum during the transit of the head into the world has been, and still is, a much debated question. I have already quoted five methods which have been advocated for the purpose, and might quote a good many more, but forbear. Of the five methods detailed, the interesting point which I have alluded to is that the principle of one and all of them consists in the maintenance of flexion of the head. Holding the view that flexion is the normal position for the head to be delivered in, I freely admit that the principle is an important one. On the other hand, while stating what attention should be paid to the head, none of these methods take any direct account of the perineum itself. But is the perineum deserving of such consideration? I venture to think that a study of the relations of the perineum will repay the inquirer, and while throwing light upon its action in labour, will also afford the key to its rational treatment. Until the head

FIG. 3.



The perineum. L. A, The levator ani. A, Anus. V, The vulva. O, The point at which pressure should be applied in labour.

descends to the outlet the perineum forms a comparatively insignificant structure; but no sooner does the head begin to pass the bony pelvis than it becomes enormously distended, until at the moment that the head is about to traverse the vulva it forms a bed nearly large enough to completely cover the head, and has carried the orifice of the vagina from looking downwards and slightly forwards to a position pointing almost directly forwards. Is this complete transformation in its relations due simply to stretching

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by the head, or is it materially assisted by some other structure in relation to the perineum? It appears to me that there is a powerful agent besides the head, which has literally been pressed into the service, the action of which, in formulating any plan for the management of the perineum, ought to be carefully kept in view. This agent I believe to be the levator ani muscle. This muscle arises on each side from the back of the symphysis pubis and white line, and, running downwards and backwards by the side of the bladder and vagina, is inserted into the perineum from the central point backwards to the coccyx. The effect which these muscles would exert upon the perineum is evident. With the head pressing backwards upon the rectum, both muscles, and particularly their anterior portions, inserted in front of the rectum, would be put upon the stretch, and by their traction would tend to pull the front of the perineum forwards. In fact the perineum may not inaptly be compared to a hammock, having its attachments behind to the sacrum and hips, while the ropes slinging it above and in front to the pubes are the levatores ani muscles. It will further be noted that a peculiarity of the perineal hammock is that the anterior ropes are not tied to its front only, but are fixed along the whole bed up to the central point, while all between the latter and the vagina is free. The effect of these peculiar attachments is plain. The front of the perineum, immediately adjacent to the vulva, is left free and untrammelled—an obvious advantage, as it is the part which will have to be stretched to allow the head to come through. On the other hand, the portion behind, while much strengthened on its sides by muscle, is weakened along the middle line of its floor, this being the line along which the levatores ani are attached, and which is subjected to the greatest amount of traction. It is along this line that the perineum splits. Granting this view to be a correct one, the principles which should be kept in view are—1. Interfere with the natural tendency of the perineum to be pulled forwards as little as possible. 2. Leave the front of the perineum quite unfettered, to dilate as freely as its structure will admit. 3. Take off the tension from the middle line, along the insertion of the levatores ani muscles. All these requirements are completely fulfilled, together with that fourth and very important one, maintenance of flexion of the fœtal head, by pressure applied just in front of the coccyx in an upward and forward direction. By so doing the perineum is helped forward, the tension of the levatores ani upon the floor of the perineum is relieved, the head is kept flexed and closely applied to the pubes, while the anterior part of the perineum is left free to dilate. The plan I have found most convenient is to apply pressure with the thumb of the right hand, the fingers being free to control the passage of the head through the vulva, should it be deemed desirable to delay the birth till more complete dilatation has taken place. The results which I have obtained by a practical application of these principles to fifty cases of vertex labour at full term are: Forty-three multiparas, two tears; seven primiparas, one tear. Of the three tears, none of them were serious. One was lateral, through the hinder part of the left labium, and one occurred during the birth of the abdomen. The tear in the primipara was half an inch long and only skin deep, the septum remaining intact. It needed only a single catgut stitch to bring it together.

To sum up, the conclusions which I would venture to put forward are:—1. That rotation is not the result of the inclined planes of the pubes and ischial spines, but of the narrowing of the transverse diameter towards the outlet due to the inward, downward, and backward slope of the pelvic floor. 2. That the head in occipito-anterior presentations is born, not by extension, but in a state of flexion. 3. That the perineum is best preserved by a method which maintains flexion of the head, relieves the tension along its floor, and interferes as little as possible with its normal action in labour.

Adelaide-road, N.W.

THE FULHAM MORTUARY.—A member of the Fulham Vestry, at a recent meeting of the Sanitary Committee, described from his own personal observation a revolting state of things at the Fulham Mortuary, which drew forth strong animadversion from the meeting. Ultimately a subcommittee was appointed to visit the mortuary, accompanied by the medical officer, and report the steps necessary to be taken for its better equipment and management.

NOTE OF A CASE OF TUMOUR OF THE BRAIN THE RESULT OF AN APOPLEXY.

BY J. A. CAMPBELL, M.D.

WITH REPORT OF THE STRUCTURE OF THE TUMOUR BY JOSEPH COATS, M.D.

W. M——, aged thirty-three, was admitted into the Carlisle Asylum on Nov. 17th, 1870. He had not been considered well in mind for six years; when a child he had had fits. Though none of his near relatives had been in an asylum, some of them had been very peculiar. Previous to his admission he had been dull and morose, wishing himself dead, and threatening to injure his father.

On admission he was found to have a good memory, to speak coherently, to reply to questions correctly; but he was in a state of very considerable depression, as shown by his appearance, attitude, manner, conduct, and remarks. A careful note was made of his bodily condition, but I need merely quote that he was a dark-complexioned man of 5 ft. 11 in. in height, and 167 lb. in weight. His temperature and pulse were both slightly above normal, but no disease was detected in his various organs. For some time he was returned as being dull and taciturn, seldom conversing with others and always very peculiar in his conduct and habits, never wishing to leave the place, and on the whole industrious and in good health. For nine years he continued in this state, but in October, 1879, he complained of rheumatic pains for a short time. Only once or twice during this period did he show real signs of being dangerous to others, on one occasion attacking a fellow-patient with a spade. Both attendants and fellow-patients thoroughly recognised that he was not a man to be trifled with, so that for the most part he got his own way, and therefore behaved quietly. In October, 1886, after sixteen years' residence, physical examination shewed no indications of disease, except that the respiratory murmur over the right apex was harsher than over the left. His heart was carefully examined, and nothing abnormal was detected about it. In January, 1891, he did not look quite so well as usual, and was therefore allowed one pint of porter daily, but at this time he was 17 lb. heavier than when he came in. On July 3rd he had a paralytic seizure, with slight loss of power on his right side. He complained of a feeling of giddiness, but there was no change in his mental condition, and he spoke as usual. On July 12th he had a fit, after which the paralysis increased. His right arm remained powerless but his leg shortly regained power. During August the patient improved, regained a certain amount of power in his right arm, and more in his leg. In the first half of September he deteriorated, his arm and leg dwindling considerably, and he was reported to have had several slight fits at night. On Sept. 15th a pustular eruption like a half oval in shape appeared over the lower part of the abdomen. He became suddenly comatose on Sept. 30th, and continued so till his death on Oct. 3rd, 1891—three months exactly after the date of his first attack. I thought his first seizure due to an apoplexy in the left hemisphere, in the region of the centres controlling the arm and leg. I considered that the slight fits which were from time to time reported as affecting him at night (though I never was fortunate enough to see him in one) were caused merely by the cerebral irritation consequent on altering blood-clot; and I thought the final attack with complete coma was due to a further and more extensive hæmorrhage, probably in the same locality as the first. In considering the patient's case the question of brain tumour was discussed; but I decidedly favoured the diagnosis of apoplexy from the suddenness of the initial seizure, the partial recoveries of power which took place in the implicated members, the absence of the train of mental phenomena usually witnessed with growing tumours, and the character of the final and fatal seizure.

A post-mortem examination was made forty-one hours after death. The body was rather emaciated. The organs

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were carefully examined, their condition noted, and their weights recorded; and, with the exception of the brain, they were so far normal as not to call for comment. I shall therefore merely quote from my register the account of the appearances of the contents of the skull. Head: scalp thin, calvaria thickened; dura mater was not adherent to the bone, nor was it thickened. The state of the other membranes does not call for notice. On separating the hemispheres there was found to be a tumour the size of an orange in the right hemisphere; it was placed immediately above the lateral ventricle of that side. In consistence it was firm; it appeared encapsuled, and required no dissection to remove it from the brain. The tumour included the gyrus fornicatus and corpus callosum, or had displaced these and caused their atrophy; it lay rather more posteriorly than anteriorly. It did not cause any change in the appearance of the surface of the brain, and its presence could not be detected till the hemispheres were separated. The tumour weighed five ounces. Section of the brain showed no naked-eye changes other than atrophy of the grey matter. The arteries at the base were atheromatous. I examined a minute portion of this tumour, and found large, round, and spindle cells; but I was so much astonished at finding such a large tumour with such a short known period of illness, with such an onset and train of symptoms, that I asked my friend, Dr. Coats of Glasgow, to examine the tumour and give me a report upon it. I told him I had diagnosed sanguineous apoplexy, and that I was exceedingly surprised at the post mortem revelations. The following is the report with which Dr. Coats kindly furnished me:—

"The specimen sent is a pyriform mass, measuring, after preservation in alcohol, 2¾ in. × 2¾ in. × 1¼ in. It is very firm to the touch and generally smooth on the surface. A section having been made through the mass from apex to base, the cut surface is seen to present a somewhat varied appearance. The greater part shows a brown colour, and this presents frequently an appearance of partial disintegration, but without any absolute formation of cavity or cyst. Besides this brown substance there is a whitish structure which looks like fibrous tissue; this is especially seen at the surface, where there is an approach to a capsule formed by this fibrous-looking tissue; but it also extends at one place for some distance into the substance of the mass. Microscopic examination shows the layer on the surface to be composed essentially of spindle-shaped cells. This layer is not absolutely continuous, but covers most of the surface, and it is thin, attaining generally to about the thickness of the twenty-fifth of an inch, although sometimes extending considerably more. In connexion with this layer, but even more in the parts immediately beneath, there are frequently groups of large vessels, thin-walled and distended with blood. Beneath the spindle-celled layer the mass of the tumour is composed of a rather indefinite structure. There are many round cells, which to a considerable extent lie in masses separated by fibrous matter. This fibrous matter has, when the section is treated by ordinary methods, a vague structureless appearance. It runs among the cells forming a kind of basis, and often assuming greater proportions, so as to form strands dividing the masses. It has not, however, the aspect of wavy connective tissue, and on staining it shows no nuclei apart from those of the contained round cells. The appearance of this fibrous matter, suggested fibrine, and this view is completely confirmed by staining with Weigert's fibrine stain. This brings out frequently the finely fibrillated appearance of fibrine and shows that it extends intimately amongst the cells."

Dr. Coats is of opinion that this has been a large blood-clot, which was undergoing the process of organisation. The stages of this process are similar to those in the organisation of a thrombus, as described and illustrated in Coats' Manual of Pathology, second edition, p. 70. After the blood has coagulated there is first a penetration and replacement of it by round cells and bloodvessels, this being the stage represented in the greater part of the present specimen. After this the round cells elongate and spindle cells are produced. The process extends from without inwards, and here the surface has alone got the length of spindle-cell tissue. It is very unusual for a coagulum to undergo this process in the brain, but it is also very unusual for a patient to survive after such a large hæmorrhage as this must have been.

Carlisle.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CONVULSION TREATED BY COMPRESSION OF THE CAROTID.

BY WALTER C. HEARNDEN, M.R.C.S.

IN the issue of THE LANCET of Jan. 2nd there was an annotation giving an account of Dr. Leopold Roheim's treatment of eclampsia by compression of the carotid. The following case occurred in my practice the other day, and from the rapid success of the treatment I think it worthy of record:—

A. H——, widow, aged sixty-one, had been under my care as a pauper patient on and off for some years suffering from chronic rheumatic gout. She was seized with influenza and had a severe attack of bronchitis, which made her very weak, and I had great difficulty in obtaining any nursing or assistance in feeding her. However, she was doing fairly well; when on seeing her on the 15th I found she had paralysis of the right side of the face, arm, and leg. I saw her on the following morning, and in the evening at half-past ten I was sent for to see her, as she was said to be dying. When I arrived I found her in a fit, which the attendant said had been going on for two hours. Her eyes were turned to the right, face and body twitching, and she was puffing away like a steam engine. I looked on it as a case of embolic plugging in the left hemisphere and hyperæmia of the right, as the eyes were turned to the right side; and, having Dr. Roheim's treatment fresh in my mind, I thought I would compress the right carotid. I found it rather difficult, the patient being very fat, the throat moving up and down in the convulsion, and the carotid beating with such force that it was difficult to prevent it running under the thumb. I used the thumb to compress, the rest of the hand getting power from behind the neck. In a few seconds only the twitchings began to cease, then the breathing grew slower and deeper, and in not more than a minute and a half or two minutes the face grew calm, the eyes regained their position, and there was an attempt on the patient's part to wipe the lips with the sound hand. I then left off the compression. For a minute or two the patient went on breathing calmly, then suddenly the eyes went up to the right, the face twitched, the breathing became again puffing, and the body was convulsed. I immediately compressed the carotid again as firmly as possible, and had the great satisfaction of seeing the patient in certainly less than two minutes come out of the fit, give me her hand, and pull herself up in bed, and, although dazed, still sufficiently clear to attempt to put out her tongue when told to do so. I left her to the nurse and she had no return of the fit. I know of no other treatment that could have been adopted in an emergency that would have so rapidly relieved the patient.

Leatherhead, Surrey.

"OCCLUDED OS AT FULL TIME."

BY ROBERT S. COCHRANE, M.B. DUB., F.R.C.S.I.

UNDER this heading two cases are reported by Dr. Nash in THE LANCET of Jan. 30th. About a year ago I met one very similar, which may perhaps be worth publishing.

On the evening of Feb. 25th, 1891, I was called in with my friend, Dr. Atkinson, to the following case. A primipara, thirty years of age, in labour over twelve hours. Pains very frequent and severe. On examining, we found the head low down in the pelvis, completely covered by the uterus. Neither of us could detect any trace of an os; no thickening or roughness, or the least depression appreciable by the finger. The pains increasing and becoming more violent, we drew the patient over to the side of the bed, and introduced a large-sized Ferguson's speculum. Through it, and with the aid of a strong light, we were able to see a very slight indentation where we would expect to find the os. Keeping the speculum in position, we pressed a sound

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against the spot, which soon admitted it, a few drops of blood escaping. The sound was moved round between the head and the womb. By degrees with the fingers we dilated sufficiently to get in a small Barnes' bag. Dilatation rapidly proceeded, the membranes were ruptured, and a healthy child was safely delivered with the forceps.

In this case, had the head not been low down in the pelvis, thus enabling us the more readily to use the speculum and detect the position of the occluded os, there seemed no alternative but to incise the uterus at its most dependent part.

Longford, Ireland.

A CASE OF ACUTE ORCHITIS FOLLOWING INFLUENZA.

By T. GORDON KELLY, M.D. DUB., &c.

IN connexion with the case recorded by Dr. Harris in THE LANCET of Jan. 2nd the following notes may be of interest.

On Jan. 3rd I was called to see a man, J. C——, aged thirty-two. He was complaining of sickness of the stomach, pains in his head, limbs, and back, and a slight nasal catarrh. His temperature was 102·8°; pulse 120. I diagnosed the case as influenza, and put him on quinine, dilute hydrochloric acid, and bark, and a nourishing but plain diet. On Jan. 12th he had become almost quite well again, but had not left his room; and when visiting him again on the 13th I found him complaining of pain, swelling, heat and redness of his left testicle. Temperature 102·4°. I gave him a smart purgative, and had the scrotum supported by a pillow placed edgewise between his thighs, and as the pain was very great I applied belladonna over the scrotum and along the groin. He got on well, and by Feb. 1st had become convalescent.

This case seemed to me to be one exactly similar to that recorded by Dr. Harris, since in this, as in his case, the patient never left his room, had no urinary troubles, and could not account for the swelling in any way. As regards the orchitis, I can only imagine that in some way the influenza brought it on.

Desford, Leicester.

CASE OF UNUSUAL MUTILATION IN CHILDBIRTH.

By J. M. BARBOUR, M.B.

THE following case is perhaps unique in the "accidents" of midwifery.

M. K——, an unmarried woman travelling *alone* in a compartment of a suburban train, was suddenly seized with labour pains. Feeling a protrusion from the vagina, she states she attempted with some force to deliver herself, and broke the presenting limb—an arm. In a moment of pain and frenzy she took a table knife from a tiffin basket, severed the limb above the elbow, and threw it from the carriage window. A few minutes after she alighted from the train, and walked half a mile home. When seen, an hour after this incident, a considerable quantity of arterial blood had escaped from the vagina into cloths and vessels, but an excellent pulse and an entire absence of pains hardly lent credence to her story. On examination the vagina was occupied by a ragged projection, which proved to be the "balance" of an arm presentation. The patient was placed under chloroform and much difficulty was experienced in turning, the management of a jagged stump greatly hindering manipulation. Eventually a full-grown, well-nourished male child was delivered dead, with the right arm severed about two inches above the elbow. There was no funis pulsation; the stump was pale and flaccid, with a general pallor of the entire skin. The uterus was douched twice daily with solution of perchloride of mercury, and the patient made a good recovery.

This case singularly illustrates the exemption from criminality where mutilation occurs *before the child is free from the maternal passages.*

West Cromwell road S.W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

LONDON HOSPITAL.

FRACTURE DISLOCATION OF THE SECOND LUMBAR VERTEBRA; LAMINECTOMY; RECOVERY.

(Under the care of Mr. C. MANSELL MOULLIN.)

THE case is of interest from the way in which it illustrates an observation of Mr. Hutchinson that in fractures of the lumbar spine there is a possibility of recovery altogether unknown higher up in the region of the spinal cord, and also because it bears out the recommendation as regards treatment given by Thorburn for accidents of this particular locality—namely, that they should be left alone for a time to see how far spontaneous recovery will take place, and then, if this is not satisfactory, trephined before degenerative changes have advanced too far. In one point it differs materially from the majority of the cases he quotes According to his observations, the nerves which emerge from the spinal foramina low down are always, or nearly always, more severely injured than those which issue higher up, and that in spite of the fact that while they are still contained in the spinal canal, they lie nearer the axis, and might therefore be expected to enjoy a greater degree of immunity. In this case, on the contrary, the one that suffered most was the second sacral, while the fourth must have escaped almost altogether. There was, it is true, retention of urine, but as it lasted only two days it can only have been due to shock; and though there was some doubt about it at first, certainly after he had been in hospital a week the external sphincter acted well. It is to be regretted that the cutaneous sensibility of the parts supplied by the pudic and lower sacral nerves was not noted. The nature of the injury does not admit of question: the second lumbar vertebra was displaced from the third. Probably as pure dislocation in this region is almost impossible, there was a fracture in connexion with the articular processes, but no evidence of it was obtained at the operation. The cord was above the level of the injury and escaped. So far as the nervous system was concerned, the whole of the violence fell upon the cauda equina; the nerves in the intervertebral foramina do not seem to have suffered. The conditions resulting from injury to the spine, for which Mr. Thorburn recommends operation, in addition to the injuries of the cauda equina, are meningeal hæmorrhage and impacted fracture of the lamina only. Much interesting information on this question may be found in his Jacksonian prize essay, as also in the papers by Gurlt,[1] Ashhurst,[2] and Werner.[3]

D. B——, thirty-eight years of age, a labourer, of average height and strength, was sent to the London Hospital on Jan. 7th, 1891, by Dr. H. C. Male of Grays, Essex, who also kindly forwarded the early notes of the patient. On Jan. 1st, while working in a chalk pit, a ledge upon which he was standing gave way, and he fell, with a considerable amount of débris, some five-and-twenty feet. He does not appear to have been buried or crushed in any way. For a few minutes he was unconscious; then he recovered sufficiently to sit up with assistance, but he did not make any attempt to stand—he felt he could not. His legs were completely paralysed, so far as motion was concerned; there was severe pain in his back, and what he described as pins and needles running down from his loins to his feet. A few hours later, after he had been carried home, he so far improved that he was able to move his right leg a little. Both legs felt numbed; sensation was only slightly impaired upon the right side, but was almost lost upon the left.

Dr. Male, who saw him about an hour after the accident, finding there was considerable displacement, determined to

[1] Handbuch des Lehre von den Knochenbrüchen.
[2] Injuries of the Spine.
[3] Die Trepanation der Wirbelsaule.

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try the effect of manual extension, and succeeded in reducing the deformity, though he could not altogether remove it. Unfortunately, a day or two later, in carrying the patient down some narrow stairs preparatory to conveying him to hospital, a great deal of the advantage that had been gained was lost, and the patient's strength was too much exhausted to permit a second attempt being made. For the first two days there was retention of urine, then the bladder began to recover; but for a time micturition was very slow, and the stream was ejected without force. The bowels were relieved by enemata. On the seventh day after the accident he was brought to the hospital by the ambulance without any difficulty.

On admission the second lumbar vertebra was found to be displaced forwards upon the third, and rotated slightly towards the left, so that the right transverse process was more deeply sunken. Extension was tried, but it had no effect upon the deformity. The patient could flex the right hip and raise the knee with the foot resting on the bed. The quadriceps and all the muscles below were paralysed. On the left side the loss of power was more extensive; the patient was unable even to move the hip-joint. Tactile sensation was good all over the right side (the skin over the gluteal region was not tried), and on the left above the knee; below it was considerably impaired, especially over the foot. The lower extremities felt dead and numbed, and at times there was a pricking sensation in the feet and thighs. Micturition was carried out very slowly. The bowels were constipated; and though the evidence was not satisfactory, it seemed on the whole that there was some loss of power over the external sphincter.

For about three weeks the condition of the patient steadily improved. On the right side the quadriceps recovered, so that the knee could be straightened and the whole limb raised up from the bed, and some power returned in the gastrocnemius. On the left the hip could just be flexed, drawing the foot up. Sensation became practically normal, except over the outer side of the left leg and the left foot. The knee-jerks, however, remained absent; there was no patellar reflex. The nerves continued to be very tender on pressure, and the muscles below the knees on both sides wasted until there was scarcely any fleshy substance left. All the muscles reacted to galvanism, and all but the left tibialis anticus to faradaism. At this point matters became stationary, and as after some weeks there was no evidence of further improvement, the patient was advised to undergo an operation.

Laminectomy was performed on March 3rd (nine weeks after the accident). An incision five inches long was made in the middle line of the back, and the periosteum and muscles stripped off the spines of the second and third lumbar vertebræ. The spines were then removed with bone forceps, the laminæ divided with a trephine, and the dura mater exposed. As this bulged up at once into the gap, and appeared to be under considerable pressure, the right lower articular process of the second lumbar vertebra, which was twisted round upon the third, was removed as well. This seemed to give sufficient room. No vessels required tying. The wound, which was very deep, was sponged out with corrosive sublimate, dusted with iodoform and fastened with deep sutures, and sponges wrung out of carbolic were placed on either side to secure sufficient pressure. The shock after the operation was very slight; there was no retention of urine, and the temperature rose only to 101° on one occasion. A small portion of skin that had been bruised by a retractor sloughed at the upper end of the wound, and there was a little suppuration around one of the deep sutures. Otherwise it healed well and without any trouble.

The day after the operation the patient complained of severe shooting pain in the left ankle, but stated that the sensation of numbness had greatly diminished. The next day the extensors of the toes upon the right side, and the peronei upon both, were able to contract a little. On the sixth day the left gastrocnemius began to recover, and, although there was a good deal of shooting pain and tenderness down both legs (especially the left) for some weeks longer, from the time of the operation the patient gradually regained power over all the muscles except the tibialis anticus and the extensors of the toes upon the left side. Galvanism and massage were commenced upon March 26th, and the patient was allowed to sit up on April 15th. By the beginning of June he had left off crutches and could walk fairly well; the only inconvenience was the loss of power over the dorsal flexors of his left ankle and the consequent dropping of the toes. Several attempts were made to relieve this by means of rubber accumulators, but they seemed to give him more trouble than the complaint.

The patient was shown at the Clinical Society on Jan. 22nd, 1892. He could walk up- and down-stairs without a stick, and stoop down and lift himself up without the least difficulty. The toes of the left foot still dropped, but the muscles were apparently regaining power.

Remarks by Mr. MANSELL MOULLIN. — The shock of the accident may be considered responsible for the loss of consciousness, the general paralysis and loss of sensibility over the lower part of the body, and the retention of urine. These symptoms at least passed off very much sooner than they would have done had they been due to hæmorrhage or pressure. Of the rest, those which disappeared spontaneously in the course of the first three weeks may be attributed to simple bruising, extravasation of blood, or the displacement of the bones, and there can be no doubt that the early reposition of the fragments by Dr. Male, although it was only partial and relapsed to some extent, was of material benefit. The rapidity with which those that had not already disappeared began to clear up after the operation may be regarded as proof that they were really due to compression. It is probable from the early loss of faradaic excitability that the nerves supplying the extensors of the toes and the tibialis anticus on the left side were hopelessly crushed; but I have regretted since that I did not open up the canal more freely upon the left side, as they might then have had a better chance of recovery.

BRADFORD INFIRMARY, YORKS.

COMPOUND DEPRESSED FRACTURE OF THE SKULL; APHASIA; FACIAL AND BRACHIAL PARESIS; TREPHINING; RECOVERY.

(Under the care of Mr. APPLEYARD.)

THIS case of compound fracture of the skull with depression of the bone is an example of the rarer group of injuries of the cranial vault, in which localised symptoms dependent on the cerebral injury attract most attention and call most urgently for relief. It also illustrates the satisfactory recovery which results nowadays from application of the trephine with elevation of the bone fragments in these injuries, when it is possible to render the wound quite aseptic. In such there is no doubt of the necessity for operation. For the notes of this case we are indebted to Dr. J. Lacy Firth, house surgeon.

S. H——, coalminer, aged forty-three, was working in the shaft of a mine at 10 A.M. on July 16th, 1891, when a sharp-angled stone weighing about 7 lb. fell upon his head from a height of seven or eight feet. For a minute or two he lost consciousness, but then recovered, and with support was able to walk home, a distance of half a mile. At 3 P.M., five hours after the injury, the patient was brought to the Bradford Infirmary in a cab. He was still able to walk with support.

On admission the patient was pale and looked ill; lips blue; he was with difficulty able to sit up. On the left side of the scalp, vertically above the external auditory meatus and two inches from the line of the sagittal suture, was a triradiate and contused wound. On raising the anterior flap the parietal bone was found to have sustained a depressed fracture. The depression was roughly the shape and size of a broad almond with the long axis transverse. The depressed fragments were absolutely immovable. The depth of the depression was about one-third of an inch. A good deal of mud had entered the wound. The patient was quite conscious. When asked his name he strove apparently to recollect and utter it, but had to make several efforts before succeeding, and immediately afterwards said "That's it," and was obviously pleased with his success. The expression "That's it" he uttered several times when trying to say other words. Impaired articulation and hesitation in the formation of words rendered his speech very difficult to understand. He appeared to perfectly understand all that was said to him. The tongue on protrusion deviated to the right of the middle line. There was depression of the right corner of

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the mouth when at rest, and impaired power of raising it when asked to raise the upper lip. He could not raise the right arm from the bed, and had no power of grasp. There appeared to be no loss of strength in the right leg. Tactile sensation tested roughly appeared to be unimpaired.

Trephining by Mr. APPLEYARD.—At 7 P.M., nine hours after the injury, chloroform was given. The head was shaved and cleansed with soap, turpentine, and a 1 in 1000 perchloride of mercury solution in turn. The wound was enlarged and the quarter-inch trephine twice applied—one complete ring and two-thirds of a second ring of bone being removed. In both cases the fragments of the outer table came away in the trephine first, and the internal table was sawn through separately. The depressed fragments were now easily removed—first the outer table fragments, and next the inner. The two tables had been separated by the injury of the diploë. The inner table was more extensively fractured than the outer, and loose fragments of the inner table were removed from beneath the uninjured outer table. The dura mater appeared uninjured. No sutures were applied. The wound was dressed with cyanide gauze and sal alembroth wool. Four hours after the operation the patient could raise his arm from the bed.

Second day.—There was no noticeable affection of speech, and the patient had slight grasping power.

Third day.—Wound dressed; it looked well.

Fourth day.—Wound dressed. The anterior flap pulsated markedly. No tenderness or swelling. Grasp remains weak, and the facial and lingual paresis is unaltered.

Fifth day.—Wound healing rapidly. The hand and arm are weaker than yesterday.

Sixth day.—Power of grasp lost again. The triceps appears to be completely paralysed, but the biceps is fairly powerful. For the last twelve hours the patient has had sensations of pins and needles in the forearm from the wrist to elbow.

Eighth day.—Sensation altered, as on sixth day. Grasp still almost absent; facial, lingual, and upper arm paresis less marked. A drop or two of clear serous fluid was expressed from beneath the anterior flap. Morning temperature: right side, 97·6°; left, 96·8°.

Ninth day.—Power of grasp considerably increased. There is incoördination of movement. On attempting to pick up or reach an object the hand digresses from side to side two or three times before succeeding. A drop of serum was expressed from beneath the anterior flap.

Fifteenth day.—The incoördination is less marked and also the disturbed sensation.

Twenty-third day.—There is fair grasping power in the right hand. Facial and lingual palsy very slight. Slight incoördination as before.

Thirty-first day.—Patient discharged.

The patient was seen three months after the accident and said then that he felt perfectly well with the exception that the little finger was somewhat numb and useless. He could, however, flex and extend the thumb perfectly and tactile sensation was perfect. A fortnight later he was seen again. He feels as well as he ever felt in his life. The little finger has lost its numbness. Scar firm. No tenderness of scalp No headache. He has been doing his ordinary work a fortnight.

To the above notes it should be added that the highest temperatures recorded (axillary) were on the evenings of the first three days, and were respectively 100·8°, 99·6°, and 98·6°. After the third day they were for the most part slightly subnormal, and only twice reached the height of 98·6°. For the first fourteen days the temperature in the right axilla was slightly higher than in the left. The difference varied from 1° to 2° F. On three occasions only was it equal on the two sides.

Remarks.—Noteworthy features in the above case appear to be the slight and transient concussion, the difference in extent of the injury to the external and internal tables of the calvaria, the healthy appearance of the dura mater, and the presence of the symptoms of numbness and incoördination in the forearm and hand, the former being first observed on the sixth day and the latter on the ninth, and both persisting to the end of convalescence, and disappearing *pari passu* with the motor paresis. Do not the latter symptoms point to segmental sensory representation in the cortex? and do they not fall more in accord with Dr. Bastian's view of the kinæsthetic function of the cortex in the Rolandic area than with Dr. Ferrier's view of the purely motor function of that area

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Gelatiniform Degeneration of Hydatid Cysts.—Changes in the Blood in the Course of Rheumatic Attacks.

AN ordinary meeting of this Society was held on Feb. 9th, the president, Mr. Timothy Holmes, in the chair.

Dr. MITCHELL BRUCE and Mr. MARMADUKE SHEILD communicated a paper on Gelatiniform Degeneration of Hydatid Cysts. The authors first related the case of a patient, a male aged forty, who was the subject of a large hydatid cyst. The symptoms commenced very obscurely, and the diagnosis was at first dubious. When the usual signs of hydatid cyst declared themselves aspiration was performed, but no fluid escaped, and the cannula was found blocked with tough, jelly-like material. The characteristic hooklets were discovered in this under the microscope, and the diagnosis was verified beyond a doubt. As the cyst was rapidly increasing direct hepatotomy was performed. Much difficulty arose in the operation, from the depth at which the cyst was located in the liver. The operation was described, and the method by which the cyst was evacuated and secured to the abdominal wound. Good union took place, no peritonitis occurred, and the cavity contracted. Unfortunately the patient died eight days after the operation, with all the ordinary symptoms of delirium tremens. His previous habits, for upwards of twenty years, strongly predisposed him to this complication, and it is believed that otherwise the operation would have been quite successful. The authors discussed the general question of solidification of hydatid cysts. They next referred to the peculiar degeneration exemplified in the case related. Its rarity was pointed out and its clinical importance insisted upon. Finally, the surgical question was raised as to the best method of dividing a considerable thickness of liver tissue, with special reference to the causation and checking of hæmorrhage.

Dr. ARCHIBALD E. GARROD contributed a paper on the Changes in the Blood in the Course of Rheumatic Attacks. The work of Malassez, Baxter and Wilcox, Hayem, and Maragliano and Castellino upon the changes in the blood during rheumatic attacks was referred to, and the results obtained by the three last-mentioned observers were quoted at some length. The author's conclusions were based upon some eighty examinations of the blood of rheumatic patients, as many as six or eight observations having been made in the course of the attack in some cases. The corpuscles were counted with a Thoma Zeiss hæmocytometer, 256 squares (equal to 32 squares of Gowers' hæmocytometer) being counted on each occasion. For the estimation of the hæmoglobin percentage a von Fleischl's hæmometer was employed. Results of comparisons of these instruments with others of Gowers' pattern were given. Observations on ten healthy persons and ten chlorotic patients with the instruments used are quoted as standards for comparison. The following conclusions were arrived at:—An attack of rheumatism is always attended with a considerable diminution of the number of red corpuscles, which diminution commences very early in the attack. When convalescence sets in the lost corpuscles are rapidly replaced. In acute cases the loss of red corpuscles is usually about 1,000,000 per cubic millimetre. The rapidity of the diminution and repair is such that within as short a period as ten or eleven days a million corpuscles may be lost and replaced. The development of a fresh rheumatic manifestation during convalescence is attended by a fresh fall, and in this way the phenomena of loss and repair may be repeated several times in the course of the attack. In prolonged attacks there is not a progressive diminution of the number of red corpuscles, but, on the contrary, the numbers remain at or about an even low level. There is no real connexion between the variation of the red corpuscles and the temperature curve, the blood changes being equally marked in afebrile cases. Indeed, these variations afford a far more delicate index than does the temperature chart of the activity of the rheumatic process. The changes in the blood may be equally conspicuous whatever the nature of the rheumatic manifestation which they accompany, whether arthritis, pericarditis, erythema, or pleurisy. The changes

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are not due to salicylic treatment, being equally well marked when no salicylate is given. A loss of corpuscles is sometimes observed when the patient first leaves his bed, but this is not a constant phenomenon, being sometimes absent and sometimes replaced by a fall of hæmoglobin. The variations of the percentage of hæmoglobin frequently follow those of the corpuscles, the worth of the individual corpuscle (obtained by dividing the percentage of hæmoglobin by the percentage of corpuscles) remaining constant. A tendency to falling worth is manifested in many cases, and not only at the period when many new and incompletely developed corpuscles are present. When the worth falls during the acute attack the diminution is usually only transitory; but a progressive fall of worth may set in during convalescence, producing a condition of more or less chronic anæmia. Nevertheless, any conspicuous diminution of worth between the first and last observations is somewhat exceptional. In some few cases the hæmoglobin percentage rises rapidly for a time; whilst the percentage of red corpuscles remains constant, or is falling. Examples of this are quoted which rest upon double observations. As Dr. MacMunn has pointed out, uro hæmatoporphyrin, a pigment discovered by him, is usually present in the urine in considerable quantity during rheumatic attacks; and, since this pigment is one of the products of the action of reducing agents upon hæmatin, it seemed probable that some connexion might be traced between its appearance in the urine and the changes in the blood. In eight cases the blood and urine were simultaneously studied with a view to ascertaining whether any such relation exists, and it was found that the appearance of uro-hæmatoporphyrin in the urine and its disappearance therefrom did not bear any recognisable relation to the variations in the number and worth of the red corpuscles. Patients who were passing uro-hæmatoporphyrin in the urine throughout their stay left the hospital with no deterioration of the blood. Hence it is concluded that the appearance of this pigment in the urine, assuming it to be derived directly from blood-pigment, does not indicate any excessive destruction of hæmoglobin, but rather a perversion of the ordinary processes for the elimination of the effete blood-pigment. The anæmia of rheumatism is of two kinds—an acute oligocythæmia which is rapidly recovered from, and a more chronic condition of pseudo-chlorosis, which may outlast the attack, and which is only observed in a small proportion of cases. The former variety calls for no special treatment, but iron is often of great value in combating the second and more lasting form of anæmia. The consideration of the variations in the number of white corpuscles, and of certain other phenomena, is reserved for a further communication.—Dr. WILCOX said his investigations showed that the blood was reduced in rheumatism, both as regards its corpuscles and the amount of fluid, very much as in other forms of anæmia. During recovery the corpuscles increased in number very rapidly by the addition of new-formed elements; the colour was also greatly and quickly improved by the administration of iron. He did not therefore attach too great importance in slight variations during convalescence. The amount of fluid in circulation was largely accountable for the apparent number of corpuscles as estimated by the hæmacytometer, though their actual quantity might not be affected.—Dr. STURGES referred to the constant association of anæmia with acute rheumatism, particularly in children. It being sometimes very difficult to recognise the disease in young subjects owing to the absence of the usual signs, such as pain &c., the value of acute anæmia as an indication of rheumatism in such cases was illustrated by two children recently under his care, who whilst in this condition developed a pericardial rub and an endocardial murmur.—Dr. OGIER WARD, in connexion with this point, mentioned a very similar instance, and referred to another feature—viz., the loaded condition of the urine, which had a specific gravity of 1030 or upwards. He quoted a case in which the pallor, a faint endocardial murmur, and great concentration of the urine all disappeared under treatment for rheumatism.—Dr. ALFRED GARROD, in reply to Dr. Wilcox, said it was the constancy with which anæmia accompanied rheumatism in children that led him to undertake the present investigation. He laid most stress on variations in "worth" of the corpuscles, this not being affected by variations in the quantity of fluid in circulation. He distinguished also between the early acute oligocythæmia and the later tendency to a progressive fall in the "worth" of the corpuscles which occurred during convalescence in some cases.

Dr. KESER read a paper on the Treatment of some forms of Chronic Bronchitis by the water of Weissenburg (Switzerland). He related two cases of chronic bronchitis in which the plan of treatment followed at Weissenburg has been used with success. The first patient was a lady, forty-eight years of age, who had suffered from bronchitis and emphysema for ten years. There was a considerable amelioration in her condition during the summer months, but never a complete disappearance of the symptoms. She had tried the seaside and country air in England and on the Continent, but without permanent benefit. Treatment by drugs had a temporary effect only. She went to Weissenburg in 1890 and 1891, with the result that the bronchial affection has now entirely disappeared; there is still some emphysema. The second case is one of chronic bronchitis in a phthisical patient, aged forty-three, who was first seen eight years ago. In 1890 the condition of the lungs was satisfactory, but the bronchial affection had increased to an alarming extent. The patient spent several weeks at Weissenburg in 1890 and 1891, and on his return last year nothing abnormal could be found in the chest except prolonged expiration at the right apex. There are at present no signs of bronchitis. Weissenburg is situated in the neighbourhood of Thun, at a height of 874 metres, in the midst of extensive pine woods. Few places are so completely free from wind and dust. The water contains in one litre 0·95 of sulphate of lime, 0·3 of sulphate of magnesia, and many other substances in smaller quantities. The temperature of the water is about 23° C. The patients are expected to observe strict rules concerning diet, amount of exercise, &c. —The PRESIDENT made some inquiries relative to the procurability of the water.—Dr. SYMES THOMPSON mentioned Malvern as affording nearly parallel advantages. He said the water there was very pure, and that as much as thirty tumblerfuls used to be taken before breakfast with great benefit to certain cachectic conditions associated with bronchitic trouble where the secretions were scanty and the balance between ingestion and excretion disturbed as a result of town life. Such conditions as those mentioned by Dr. Keser hastened the restoration of this balance, and it was important to know of a place where they could be found within easy access.

MEDICAL SOCIETY OF LONDON.

Splenic Anæmia in Young Children.

AN ordinary meeting of this Society was held on Feb. 8th, the President, Dr. Douglas Powell, in the chair.

Dr. WALTER CARR read a paper on Splenic Anæmia, based upon thirty cases of the disease observed at the Victoria Hospital for Children, Chelsea. Sixteen were boys and fourteen girls; in age, when first seen, they varied from two months to two years and a half. They were usually wasted, and nearly always more or less anæmic in appearance, often showing the characteristic splenic tint. The spleen was always enlarged, and in about half the cases reached the level of the anterior superior iliac spine. There was frequently also some apparent enlargement of the liver and some swelling of the external lymphatic glands. In the more severe cases hæmorrhages occurred and irregular attacks of pyrexia, both probably due simply to the profound anæmia. Examination of the blood showed the red corpuscles to vary in number from 32 to 78 per cent. of the normal, and the hæmoglobin value of the individual corpuscles to be more or less deficient. The white corpuscles were only slightly in excess, averaging about 1 to 100 red; in only one case was the proportion higher than 1 to 70. Ten of the thirty cases were known to have died either from increasing anæmia and exhaustion or from intercurrent diseases, six could not be traced, 13 had either completely recovered or were steadily improving—one alone, after two years, remained practically *in statu quo*. A necropsy was obtained in seven of the cases. The spleen was found adherent in two, in one it only weighed one ounce, in the others from four ounces to eight ounces and a half; in all it was firm, dark, and distinctly increased in consistence, but otherwise presented no very abnormal appearance, and the microscope showed the enlargement to be due to simple hypertrophy, with some increase of fibrous tissue. The liver was not found distinctly enlarged, and in only two cases markedly tougher than usual. There was no noteworthy change in

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any other organ. The connexion of the disease with ague, congenital syphilis, and rickets respectively was then discussed. The possibility of a malarial origin, either direct or inherited, was referred to, and in two of the children the father had suffered from definite ague; but in the case of a boy aged two years and a half, born in India, with large liver and spleen and marked anæmia, the result of many attacks of ague, after five weeks of treatment with quinine the liver and spleen could no longer be felt, and the anæmia had greatly improved, whereas ordinary cases of splenic anæmia showed no such improvement under quinine. In fourteen of the cases there was either undoubted or probable evidence of congenital syphilis, and seven of these died, but in a large number of other cases there was no indication whatever of specific taint, and even in the most obviously syphilitic cases the spleen and the anæmia were not affected by mercurial treatment, so that the conclusion adopted was that syphilis could be regarded as a predisposing condition only, and not as the sole cause of the disease. In twenty-seven of the cases there was rickets, more or less severe, but it was argued that this could not be the real cause of the disease, because (1) in the great majority of rickety children no splenic enlargement could be discovered; (2) there was no connexion between the severity of the rickets and the size of the spleen or the degree of anæmia; (3) in certain cases there was no evidence whatever of rickets. It was argued, therefore, that splenic anæmia must be due to a separate cachexia, to which both rickets and syphilis predisposed, but which required some further definite exciting cause at present unknown for its development, and that this theory of its origin would account for the similarity in clinical course and in pathological appearances observed in all the cases, whether rachitic or syphilitic, and also for the absence of improvement under the treatment usually beneficial for the two latter conditions. The question was also discussed whether splenic anæmia occurred after infancy, and an apparent case of the disease arising and proving fatal in a boy aged seven years was described. In regard to treatment, mercury, arsenic, and quinine appeared entirely useless, but improvement seemed sometimes to result from iron given in large and increasing doses.

The PRESIDENT inquired if any alteration had been noted in the urine with regard to the quantity of uric acid. He thought it would be interesting to know more about the association of marked anæmia with enlarged spleen, as to whether they were mutually dependent on one another, and also whether there were any abnormalities in connexion with the red corpuscles such as occurred in pernicious anæmia.

Dr. LESLIE OGILVIE said that in childhood it was usual for the spleen to be relatively enlarged, and that an excess of hæmoglobin and of corpuscles was not infrequently met with. In some cases the hæmoglobin was diminished, and in some the red corpuscles appeared nucleated. There were instances of rickets showing marked anæmia, but in which the spleen was not notably enlarged. The red corpuscles in such might be actually increased in number. His experience was that the excretion of urea was increased; this was especially marked and associated with diminution of the red corpuscles during recovery. He did not think that syphilis alone produced so much enlargement of the spleen as when conjoined with rickets.

Dr. COLCOTT FOX, alluding to the enlargement of the spleen in children, said that in three years he had collected sixty-eight cases, five of which he excluded as being tubercular. In age the cases ranged from four months to two years and a half—that is, while the bone changes of rickets were progressing. He thought that when one child was affected in this way, succeeding ones in the family followed the example. He found anæmia usually well marked, the patients exhibiting a waxy, greenish tint, with flabby tissues, and commonly enlarged liver and lymphatic glands. In six cases in which the blood had been examined there was noted a diminution in corpuscles, although leucocytes appeared to be actually increased. In the majority of cases the prognosis was favourable, but in a small number the enlargement of the spleen was progressive, and quite uncontrolled by drugs. Histologically, this appeared to be due to simple hypertrophy, with some increase of fibrous tissue. The changes in hereditary syphilis were apparently identical. He considered the cause was rickets. Recovery took place under treatment with iron and cod-liver oil.

Dr. COLCOTT FOX in another series had collected all the cases of hereditary syphilis which came under his notice, fifty-five in number, of which 47 per cent. had enlarged spleen. He thought that a very large percentage of cases of hereditary syphilis ended in rickets, and that in cases of rickets with enlarged spleen it was often most difficult to exclude syphilis. He had found the spleen extending to the umbilicus in infants of a few weeks. His conclusion was that syphilis was the principal factor, aided by rickets, which might be an outcome of syphilis, and due to disturbed nutrition.

Dr. CARR, in reply, said that he had estimated the corpuscles only in the most marked cases, and that a consideration of the whole number would very much diminish the average computation. The association of the condition with rickets was not so very clear; this disease was absent in some and syphilis in others, so that a third factor appeared necessary to explain it. Apart from intercurrent disease the prognosis appeared good. Systematic observations on the urine were practically impossible to carry out in children, but so far as he had been able to note there was nothing special to remark upon. He thought the anæmia and the splenic enlargement progressed *pari passu*.

OBSTETRICAL SOCIETY OF LONDON.

AT the meeting on Feb. 3rd (Dr. Watt Black, President, in the chair) the following specimens were shown:—

Mr. ALBAN DORAN, for Dr. George Beale: Ruptured Ovarian Cyst from a child six weeks old.

Mr. BUTLER SMYTHE: Distended Fallopian Tubes.

Dr. HERBERT SPENCER: Section through Fœtus, showing Retroflexion of the Uterus caused by Distended Bowels.

Dr. JOHN PHILLIPS: Putrid Extra-uterine Fœtation, with points of Ossification, proving seven months' gestation.

Dr. PLAYFAIR: Tubal Fœtation; Hæmato-salpinx.

The election of officers was proceeded with, Dr. John Phillips and Mr. Targett acting as scrutineers. The Fellows nominated were duly elected.

The following gentlemen were elected honorary Fellows of the Society:—Sir Joseph Lister, Bart., Sir William Turner (Edinburgh), Professor Carl S. F. Credé (Leipzig), and Professor William T. Lusk (New York).

Protracted Gestation.—Dr. PAGET BLAKE narrated a case of Protracted Gestation. The patient, aged twenty-five, had been married two years, and had had two miscarriages at the third month. She menstruated on Sept. 22nd; coitus on Oct. 15th. There was no period in October. Morning sickness soon came on. Confinement was calculated to take place about July 22nd, and on this date there was an abundant secretion of milk. She continued to increase in size, and on Aug. 3rd labour apparently began, but after lasting three or four days the pains ceased, and she was not delivered until Sept. 5th, or 323 days after conception.—Dr. CHAMPNEYS thought that the evidence of protracted gestation was insufficient. There was no mention of the weight, length, or condition of nails and skin of the child, nor was the date of the return of the husband given.—Dr. ROUTH asked if the patient had a pendulous abdomen, as he believed this condition would cause protracted gestation, the uterus being unable to act properly.—Dr. CULLINGWORTH said from a medico legal point of view it would be desirable to obtain the additional information mentioned by Dr. Champneys.—Dr. LEITH NAPIER spoke to the same effect, and also said that secretion of milk and pains resembling labour pains might be found in the non-pregnant state. Most cases of so-called protracted gestation were pregnancies of ordinary duration, preceded by amenorrhœa due to other causes.—Drs. BRAXTON HICKS and PLAYFAIR offered remarks.—Dr. LEWERS mentioned the case of a patient aged forty-nine, who, after thirteen months' amenorrhœa, was found to be merely five months pregnant.—Dr. HERMAN said the history of the time of the coitus was too indefinite.

Annual Address.—The PRESIDENT then delivered the annual address, of which the following is a short abstract: "Gentlemen, in common with the whole of Her Majesty's subjects, the Council of the Obstetrical Society of London has noted with the greatest sorrow the lamented death of his Royal Highness the Duke of Clarence and Avondale. The Council have approved the proposal to petition Government to appoint a Select Committee to inquire into the question of the legal registration of midwives. The ordinary Fellows parted from us by death during 1891 number five.

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Charles Verrall Willett settled in practice in Brighton in 1866, at Shoreham in 1867, and again in Brighton in 1869, at Brandon, Suffolk, in 1878, at Bristol in 1884, in West Kensington, London, in 1887, and again in Shoreham in 1891. He died on March 6th, 1891. Francis Joseph Salter of Leeds died on March 25th, 1891. William E. Steavenson, M.D. Cantab., died on June 1st, 1891. In 1882 he was appointed to organise and superintend the electrical department at St. Bartholomew's Hospital. He was a frequent contributor to medical literature. Dr. James Henry Bennet was born in 1816. He studied at Guy's Hospital, but soon left to become apprentice to his uncle, Mr. Osmond Taberer, in Derbyshire. He studied in Paris, afterwards practised in London, and subsequently in Mentone. He published several works. He became a Fellow of the Society in 1873. Edward Overman Day died August 4th, 1891, at the age of thirty-nine. He studied at Guy's Hospital, and was assistant surgeon and administrator of anæsthetics to the Royal Hospital for Children and Women, Waterloo-bridge-road. Four of our ten foreign honorary Fellows have died during the year: Professor Benjamin Fordyce Barker of New York, Professor Carl Braun von Fernwald of Vienna, Professor Scanzoni von Lichtenfels of Würzburg, and Professor Theodor Hugenberger of Moscow. [A long and interesting account of the work of each of these honorary Fellows was given.] The annual volume recording the scientific work of the Society will presently be in your hands, to speak for itself. Dr. Herbert Spencer's admirable and beautifully illustrated paper on Visceral Hæmorrhages in Stillborn Children is alone sufficient to justify the opinion that the present volume will be found to possess exceptional scientific value. In conclusion, I have to thank the honorary secretaries, and especially Mr. Alban Doran, the senior secretary, for the great assistance which they have rendered me in the discharge of my duties as President."

The usual votes of thanks to the President and the retiring Vice-Presidents and the other retiring members of council were passed. A vote of thanks was proposed to the retiring honorary secretary, Mr. Alban Doran, special mention being made of the extra work he had been called upon to do owing to the illness of the librarian, Mr. Savage.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, FEB. 5TH (CLINICAL EVENING).

Dr. PRIOR PURVIS, Treasurer, in the chair.

Ainhum.—Mr. JOHNSON SMITH, F.R.C.S., showed a case of Ainhum. The patient was a tall, muscular negro, aged thirty-eight, from Jamaica, who had been a sailor for eighteen years. Ten months ago he first complained of pain in the little toe of the right foot, and he noticed a slight constriction on the under surface; this has increased very much in depth, and extended to the upper surface. There is now a very deep constriction on the plantar and inner surfaces of the toe, corresponding to the middle of the first phalanx, and this groove is continuous with a shallow one on the dorsum. The distal portion of the toe is swollen. None of the other toes in either foot are similarly affected. There is much pain in the affected toe, which prevents the patient from sleeping at night.

Dr. EZARD showed a child seventeen months old, with a Sessile Papilloma on the under surface of the tongue, in the middle line, of the size of a threepenny-piece.

Dr. DOCKRELL showed cases of Lupus, Erythematous Leucoderma, Alopecia Areata, and a case of Mixed (diffuse and circumscribed) Scleroderma.

Mr. PURVIS, B.Sc., showed a specimen, of Multiple Abscess of Lung from a child aged three years, following measles and otitis media; and a specimen of Hypertrophied Heart (weight 16 oz.), with pericarditis and mitral disease.

Dr. FULLERTON showed specimens, with microscopical sections, of Carcinoma (cylindrical celled), of Pleura, Peritoneum, and Ovaries from a patient who died five months after the first symptoms appeared.

CLONMEL WATERWORKS.—The Clonmel Corporation have arranged to have constructed waterworks for the town at an estimated cost of £14,437.

Notices of Books.

Medical Notes and Essays. II. Influenza. By Sir PETER EADE, M.D. Lond., F.R.C.P. London and Norwich: Jarrold and Sons. 1891.—A few years ago the writer of these Notes and Essays published his experiences on diphtheria in a little volume, which gave a clear insight into the prevalence and propagation of that disease in country districts. He now has issued this "second fasciculus" of his Notes and Essays to enlighten us as to influenza in East Anglia, and the papers he has collected are well worthy perusal. It is valuable to have the opinion of so observant a practitioner as to the contagiousness of the affection, and, whilst admitting this to be proved, he yet thinks that it is also propagated by aerial infection. Nevertheless, he says that the intense contagiousness which the extremely rapid spread of epidemics implies is not borne out by the history of the disease in various public institutions; "whilst the fact that stands out most prominently in the records is the comparatively small proportion of the inmates attacked, and that even those brought into close contact with each other, or sleeping in contiguous beds, by no means *necessarily* became infected by their sick neighbours" (p. 10). The author's recollections carry him back to the great epidemic of 1847–48—a fact that lends great interest to his observations of the outbreak of 1890–91, with which he here chiefly deals. In succinct manner he describes the leading features of the attacks, and of much value are his observations on the more or less remote sequelæ (p. 17), in which nervous affections play a large part. He does not think that influenza *per se* has been so fatal during this epidemic as on previous occasions, but draws attention to the severity and fatality of the pulmonary complications. His remarks on treatment are judicious and pointed. He reproduces a note published in these columns (March 16th, 1878) on a limited epidemic of influenza in East Anglia in 1878, as well as his paper (THE LANCET, Feb. 1st, 1890) on "Influenza in East Anglia in 1890," and one on "Influenza in 1891" read at the Bournemouth meeting of the British Medical Association. Of considerable value are the records he furnishes of influenza in public institutions and the notes of cases observed in his practice.

New Fragments. By JOHN TYNDALL, F.R.S. London: Longmans, Green, and Co. 1892.—Professor Tyndall possesses in an eminent degree the faculty of writing readable books, and this latest product of his pen will sustain the reputation in this respect that he has long enjoyed. As an interpreter of scientific doctrine to a popular audience there is probably no writer of the English language at the present day who can surpass him; and it is no small part of his merit that the topics which he selects for discussion are such as "come home" to every-day men and women. Hence the distinguished position which he holds in popular esteem—a position which would alone create in his behalf a title to recognition by all who desire the spread of scientific knowledge and the diffusion of scientific sympathies and modes of thought. But Professor Tyndall has still higher claims to recognition, in the fact that he turns this position to excellent account, and is not less judicious in selecting his material wisely than successful in exhibiting it in a fascinating manner. This happy combination of qualities is well illustrated by two papers in the present collection of articles—those, namely, on Louis Pasteur, and on the Origin, Propagation, and Prevention of Phthisis. These both treat of subjects that have been much discussed of late, and the reverberations of controversies not yet extinct may be discovered easily enough in Professor Tyndall's discourse. It is not, however, as a controversialist that he

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comes before his readers, but rather as the reaper of ripe doctrine, who places the results of his labour at his readers' disposal, and leaves for subsequent harvesting the points which have yet to be matured by further discussion. The lurking dangers of such an operation are, on the one hand, that the writer may mistake his own views for the approved doctrine, and, on the other, that he may induce his readers to substitute a little knowledge for a wise reliance upon the opinion of those who know better. But these papers will not incur any such reproach. The paper on Pasteur is, indeed, largely biographical, and the references to the spontaneous generation theory are not likely to provoke contradiction. But the formal subject of the paper upon phthisis presents many perils. The paper, however, hardly corresponds to its title. The origin and prevention of phthisis are not effectively discussed, unless, indeed, by prevention is to be understood the avoidance of such methods of disposing of the sputum as confessedly conduce to the dissemination of its desiccated residue in the form of dust through the atmosphere. To enforce this lesson is, indeed, the motive and burden of the essay, and very effectively it is enforced. Such a lesson can hardly be misunderstood, and the author of the paper may be congratulated on having made an important contribution to the formation of a sound public opinion upon this eminently vital subject. The remaining papers are very diverse, not only in respect of the subjects treated, but also in respect of the classes of readers to which they will appeal. In some, as noticeably in the paper on Life in the Alps, there are marks of haste and some carelessness, but upon the whole this volume is fitted to add to the reputation even of its distinguished author.

Ambulance Handbook on the Principles of First Aid to the Injured. By GEORGE THOS. BEATSON, B.A. Cantab., M.D. Edin., Assistant Surgeon to the Western Infirmary, Glasgow, and Assistant to the Regius Professor of Surgery in the University of Glasgow. Glasgow: St. Andrew's Ambulance Association. 1891.—This work mainly differs from the several handbooks already published in the fact of the various subjects being treated at greater length and in a more interesting way than is usually done. The book contains the gist of the lectures its author was in the habit of delivering at one time for the Association. The plan adopted is to give a short account of the anatomy and physiology of each set of organs or systems in the body, and immediately afterwards to treat of their affections and injuries with the appropriate first aid. The book is liberally illustrated, many of the illustrations having been expressly prepared for it, while others have been taken from recognised works on anatomy, physiology, and surgery. The subjects are clearly and fully discussed, technical and medical terms being avoided as far as possible, so as to afford the reader an intelligent knowledge of how to act in the emergencies of every-day life. It is really much more difficult to write a good, judicious book of this kind than is commonly supposed; but we think the author has succeeded, and as any profits arising from its sale are to be devoted to the objects of the St. Andrew's Ambulance Association, we hope it may reap some pecuniary advantage from the publication. We may at the same time briefly allude to the general work of the Association itself. From its report for the year from June 1st, 1890, to May 31st, 1891, we gather that it has twenty-seven centres, that 135 classes and 4180 pupils have been trained during the year, and that the total number of patients conveyed in waggons since the formation of the Association has been upwards of 10,000. The waggons (fourteen in number) are at the call of any person, by day or night, free of all cost and responsibility, and in the principal centres they are in charge of a trained attendant. A total of 34,486 pupils have been trained at this Association since its formation in 1882.

The Age of the Domestic Animals; being a Complete Treatise on the Dentition of the Horse, Ox, Sheep, Hog, and Pig. By R. S. HUIDEKOPER, M.D. Philadelphia: F. A. Davis. 1891.—Some of the domesticated animals hold such a high place in our social economy, that everything pertaining to them nowadays receives close attention and study. The means whereby their age can be told with something like certainty, has for many years been a subject that has been dealt with by veterinarians and others, in this country and abroad, in books and pamphlets, so that its literature is somewhat extensive. The latest addition to the list is perhaps the most complete and reliable guide yet presented; as Dr. Huidekoper (who is a professor in the American Veterinary College, New York) has largely availed himself of information contained in the works of other writers, and, with what his own experience and observation have endowed him, has produced a treatise that is likely to be accepted as a standard book of reference for some time to come. The age of the animals enumerated is judged by their dentition, the horns of the ox—when it has any—being also considered indicative of the number of years; those of the sheep are not so valuable in this respect. Of course, a knowledge of the age of the horse is of far more importance than is the case with the other animals; as from its earliest days up to its latest it is necessary in all breeds, but more especially in the higher bred and most valuable, to be able to give an opinion as to how old it is; and, fortunately, domestication and civilisation have had less effect on the teeth of the horse than they have had on those of the ox, but more especially those of the sheep and pig. So that from a few months old, up to twenty, twenty-five, or even thirty years of age, its teeth tell a tale with more or less fidelity, but with most reliability up to ten or twelve years. The ox comes next, but it is not allowed to live so long. Then comes the ovine race, still shorter lived, and, owing to the precocity of the finer breeds, the teeth are not such a good criterion of age. The age of the pig is not of much importance, as it goes to the butcher early, and a knowledge of its dentition is only essential in exhibitions, where the judges have to determine how old the exhibits are. But in none of the domesticated animals are the teeth less reliable; for high breeding has exercised a wonderful influence in the early development of the teeth, and disputes as to age have, in consequence, been more frequent with this species than any other. The author's descriptions of the teeth and their development at different periods are good, and we believe accurate, and their value is much enhanced by numerous woodcuts, which show the result of growth and wear year by year. A concluding chapter on the teeth of man as an evidence of age, concludes a very instructive and useful book, which we feel certain will be appreciated by veterinary surgeons, anatomists, and agriculturists.

An Index of Diseases and their Treatment. By THOMAS HAWKES TANNER, M.D., F.L.S. Fourth Edition, revised by PERCY BOULTON, M.D., M.R.C.P. Lond. London: Henry Renshaw. 1891.—This book, which in its earlier editions enjoyed great popularity, has been thoroughly revised and brought up to date by Dr. Percy Boulton, who has certainly bestowed much pains on the task. It is no easy matter to condense the leading facts of diseases and their treatment within a small compass such as this, and yet the amount of information, particularly as regards treatment, is in excess of what is to be found in many a more ambitious work. Indeed, the chief value of the "Index" rests in the therapeutic hints, which may prove of great service to the practitioner, aiding his resources in times of doubt and difficulty. The very extensive appendix of formulæ, with which are included hints as to climate

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and baths, constitute a marked feature of a book which is thoroughly practical and reliable.

An Introduction to Chemical Theory. By ALEXANDER SCOTT, M.A., D.Sc. London and Edinburgh: Adam and Charles Black.—An excellent little manual this, and one admirably fitted to serve as a companion to the practical study of the science. It has long been a moot question amongst teachers as to whether it is better or not to discuss the theoretical portion of chemistry before practical work is entered upon. As a rule the chapters devoted to theory in the average text-book are but few, and this subject in consequence seldom receives the attention it demands. Dr. Scott hopes that this small book may to some extent make up for this defect, and lead, on the part of those using it, to the desire for more knowledge of this most interesting branch of the science. The object for which the book was written is therefore a worthy one, and the subject matter is dealt with in such a way that there is every chance of the hope being realised, if only the work is placed in the hands of the intelligent student.

Dictionary of National Biography. Vol. XXIX. (Inglis—John). London: Smith, Elder, and Co.—The new volume of this excellent dictionary is marked by the care with which each of the biographies it contains has been dealt with by those authors to whom they have been entrusted, and by the manifestly judicious manner in which each subject has been proportioned. The usefulness, fulness, and general accuracy of this work become more and more apparent as its progress continues. It is a classic work of reference as such, without any compeer in English or perhaps in any other language. It is impossible to go through the contents of this volume without being impressed by its intrinsic qualifications in this respect. It affords an almost complete history of Scotland during the period of the Jameses, and the articles on James I. and James II. of England amply repay perusal. Amongst literary men we may note the name of Francis Jeffrey with the history of the initiation of the *Edinburgh Review*, and a very wise criticism of this autocrat of critics. *Apropos* of the episode at Chalk Farm, when Jeffrey and Moore met in mortal combat, which has been immortalised in "English Bards and Scotch Reviewers," the editor states that Lord Byron has "erroneously given the 'leadless pistol' to Moore." This is not accurate. The kilted Caledonian goddess who presided over the destinies of Jeffrey—

> "From either pistol snatched the vengeful lead,
> And straight restored it to her favourite's head."

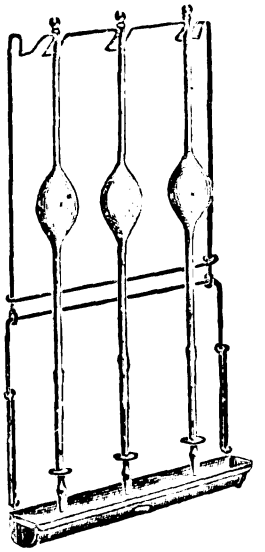
In the footnote relating to the incident, Byron says that when the weapons were examined "the balls of the pistols, like the courage of the combatants, were found to have evaporated." And again, towards the end of the poem, he declares that he had ceased to be alarmed "by Jeffrey's harmless pistol." In the light of these extracts an explanation of giving the "leadless pistol" to Moore might prove acceptable. The life and struggles and work of Douglas Jerrold afford interesting matter for consideration, and a valuable stimulus to those who would penetrate into the literature of that interesting period. A sketch of Jerrold's accomplished son is also given, along with a list of the works which came from his pen. Among the medical worthies, the name of Edward Jenner, discoverer of vaccination (1749-1823), is the first that occurs on opening this volume, and the outstanding facts of his life and works are compiled with judicious care by Dr. Norman Moore. Sir Paul Jodrell, M.D., and Dr. John Jebb (1736-1786), Sir Richard and Samuel Jebb, are also noted in the present volume. A good biographical description is given of Dr. Robert James, the author of a theory of fever and its treatment. His treatment consisted in administering the famous powder which still bears his name, and for which he took out a patent in the year 1746. Its constituents were phosphate of lime and oxide of antimony, resembling the antimony powder of the present B.P. This is the powder which is reputed to have killed Goldsmith. It is historical also in having been prescribed for George III. in 1788. It was Dr. James of whom Dr. Samuel Johnson said, "No man brings more mind to his profession. Dr. Robert Jackson, Inspector-General of Hospitals, who was famous in many ways, has an interesting notice in this volume. He manifested his contempt for the monopolists of the Army Medical Service of his period and for the corrupt administration of the old Army Medical Board by applying his gold-headed cane forcibly to the shoulders of his superior officer, an offence against discipline for which he suffered six months' imprisonment. Notwithstanding this, however, he afterwards became Medical Director in the West Indies and Inspector-General of Army Hospitals. The amount of interesting anecdote and history contained in the work, the evidences of deep and untiring research in its preparation, are so great and so many that the brief notice which our space permits does but scant justice to the labours of those who are responsible for its success.

Repetitorium der Chemie. Von Dr. CARL ARNOLD. Hamburg und Leipzig: Leopold Voss.—A text-book of this kind in our own language would be eminently useful to students of medicine. It deals with both inorganic and organic chemistry in a compass of not more than an inch between the covers, without sacrificing any material that is essential. The index is in its way a lexicon; it consists of no less than fifty out of a total of 612 pages, and is certainly most complete.

New Inventions.

REYNOLDS' "ENEMA RACK."

MESSRS. REYNOLDS AND BRANSON of Leeds have sent us one of their new racks, not made for the storage of enemata, as might be supposed from the name, but for the better care of the syringes usually employed for the purpose of administering them. It is adapted for the ordinary ball rubber syringes, which are suspended on it at full length, and any fluid which drips from them is received in a trough below. The racks are adjustable in length by a slide, and fold up for portability. The cost is small, and the advantages to be obtained from their use considerable—especially in hospitals, where so many syringes, either for the administration of enemata or for dressing of wounds, are required. They could easily be fitted with a cover to keep off the dust.

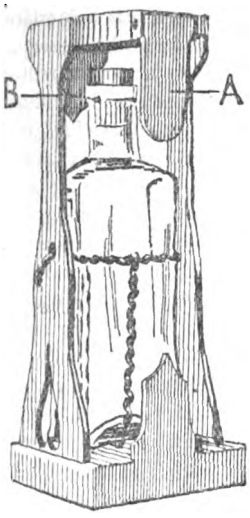


POISON BOTTLE-STAND.

THE problem of enclosing poisons in such a manner that they cannot in any circumstances be administered in mistake for harmless drugs is one that has from time to time exercised the ingenuity of many inventive minds.

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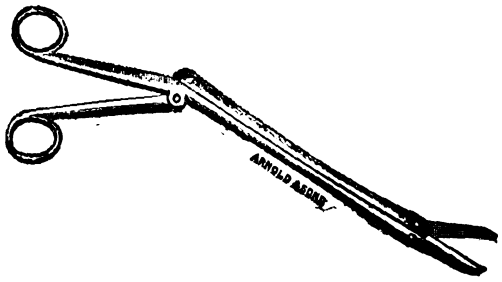
Mr. Z. Mennell, M.R.C.S., is the latest solver of the problem, whose poison bottle-holder is illustrated in the accompanying sketch. His plan is to provide a simple wooden frame, within which the bottle for containing poison swings in a sort of sling made of twisted wire. The bottle, when in position, as shown in the drawing, is prevented from swinging round so as to render its contents accessible, even if the frame be tilted on one side, by the two stops marked A and B in the drawing—one being placed on the front and the other on the back of the frame, in such positions that the neck of the bottle cannot pass them in either direction. It is therefore impossible for the bottle to be taken up and its contents poured out in mistake. But if it be desired this latter procedure is easily accomplished, for the stop marked A is not rigidly fixed, but is hinged to the frame at its upper part; and although the hinge does not permit it to open outward, it does allow of its being closed up against and underneath the top of the frame by the mere pressure of the finger or thumb. The stop can thus be put out of action, and the bottle swung round to be uncorked or withdrawn. When replaced in its sling, or permitted to swing to rest, the bottle automatically assumes the position shown in the drawing, and of course the hinged stop A offers no obstacle to the swinging in of the bottle neck; although by falling into the position shown as soon as the bottle mouth has passed, it automatically blocks the return, and locks the bottle in its position of safety. The stop shown in the front of the drawing at the foot of the holder is a counterpart of the stop B. The holder is simple, efficient, and inexpensive. It is made in various sizes, and can be used with bottles of the most various shapes. Its designer has very happily avoided the faults of insufficient protection on the one hand, and of over-elaboration on the other. Its use would, in our opinion, be well calculated to prevent the very serious mistakes against which it is intended to provide.



NASAL SCISSORS.

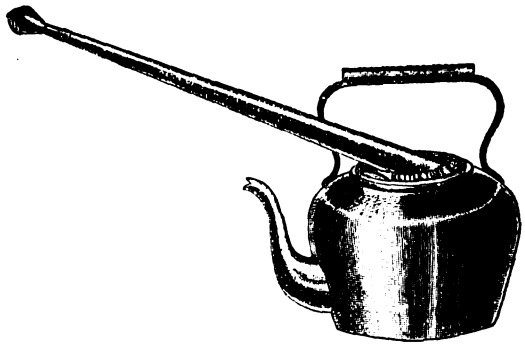
I WAS surprised that scissors such as those shown in the accompanying illustration were not to be obtained of the London instrument makers—at least Messrs. Arnold and Son inquired for me, but could not hear of any having been made. They resemble the ordinary crocodile nasal forceps, but have scissor instead of forceps blades. A glance at the illustration will at once explain their structure and action. They are of use in the division of adhesions across the nasal chambers, in the removal of localised hypertrophies, and in many other intra-nasal operations. They are made by Messrs. Arnold and Son, West Smithfield.

W. J. WALSHAM.



VAPORISING KETTLE TUBE.

MR. ELLIS of Neasden has patented a tube which he claims to be capable of affixing to any ordinary kettle at a moment's notice, thereby converting it into a vapour distributor. It is simple and cheap, and in district nursing it will be found most useful in some pulmonary complaints. The apparatus cannot get out of order, is not cumbersome, and is within the reach of everybody.



CLARKE'S "FAIRY" COMBINATION LAMP.

CLARKE'S "Fairy" Combination Lamp and Food Warmer will be found very useful in the sick room. It is fitted up in a light and elegant frame, in which is placed one of Clarke's "Fairy" lights, set in a glass vessel and protected by a glass shade. The water is soon heated, and maintained at an almost uniform temperature. The little earthenware pan is then placed in the warm water, and its contents are thus kept hot by moist heat. Moreover, where a moist atmosphere is required in the neighbourhood of the patient the food pan can be replaced in the water by an inhaler. Its lightness and compactness, together with its general usefulness, will cause it to be much prized by medical men, by nurses, and by the general public in times when its employment is called for.

SCARLET FEVER IN PUBLIC CONVEYANCES.—An employé of the Manchester, Sheffield, and Lincolnshire Railway Company was fined five shillings for conveying in a railway carriage the dead body of a child who had died of scarlet fever, without having properly notified the fact to the railway company. The magistrates commented on the danger to the public of such a practice.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.—The second quarterly meeting of the session will be held on Monday, Feb. 22nd, at 4 30 P.M., at the library of St. Thomas's Hospital Medical School, Albert Embankment, S.E., Professor W. Turner, F.R.S., in the chair. Papers will be read by Professor Sir W. Turner, on "The Cerebral Hemispheres of Ornithorhynchus Paradoxus;" Professor Sherington, "Note on the Nerve Supply of the Hind Limb of Macacus Rhœsus"; Mr. David Hepburn, "Note on an Abnormal Condition of the Shoulder-joint"; Mr. F. G. Parsons, "Some Points in the Myology of Rodents"; Mr. J. Bland Sutton, "Sections of the 'Velvet' from Stags' Antlers, showing Sebaceous Glands"; Professor W. Anderson, "On the Delimitation of the Regions of the Abdomen"; Mr. F. C. Abbott, (*a*) "A Right Aortic Arch, with Abnormal Arrangement of the Vessels; (*b*) Pulmonary Valve with Four Cusps."

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THE LANCET.

LONDON: SATURDAY, FEBRUARY 13, 1892.

THE manner in which the teachings of experience are found to harmonise with newly made scientific observations and the doctrines that are based on them has seldom been more convincingly illustrated than in the series of papers which we have recently published from the pen of Dr. G. SIMS WOODHEAD. These papers contain the latest information concerning investigations upon the intimate working of the organism in reference more particularly to its powers of reaction against disease and injury. We have in them the declaration of principles which carry forward the great generalisation of "cellular" pathology to a point not dreamt of when the principles of that doctrine were first enunciated, for owing to the marvellous insight into morbific agencies gained by the developments of bacteriology the whole aspect of pathology has been changed since VIRCHOW first showed the importance of regarding cell life as the basis of all morbid change. It is of course quite possible that to phagocytosis, which now holds the field, may be attributed a higher function than it can rightly claim; but it must be confessed that a process which has been shown to operate throughout the animal kingdom, which is in point of fact the attribute of the primal protoplasm from which all animal life proceeds, must play a great part in the human economy. It is concerned with normal as well as with perverted function, and it is a conception which may be applied to boundless extent in either of these directions. Moreover, as Dr. WOODHEAD especially showed, the doctrine, supported by so many laboratory observations, has a direct and important bearing upon the art of healing. No one can rise from the perusal of these papers without feeling vastly enlightened as to some of the most familiar facts of disease, for which heretofore no satisfactory explanation has been afforded.

It was time that attention should be turned to the powers of the organism to resist the inroads of disease. We have been surfeited with bacteriological discoveries, and these have followed so quickly one upon another, that there has been a tendency to regard them as in themselves solving the problems of pathology; whereas the fact has been that these discoveries have only added to the mysteries yet to be unfolded; and the study of the effects of bacterial action upon the infected organism, as well as of the nature of the resistance afforded by the latter to the inroads of the zymotic agents, has accordingly become a necessity. The behaviour of leucocytes to foreign matter in contact with them, which is strictly analogous to the properties possessed by the protoplasmic amœba, and the part thereby played by these elements in the removal of dead or useless parts, has led almost imperceptibly to the wider conception of their antagonism to noxious agents introduced from without. But the reason why they exercise this protective power, and the conditions necessary for them to evince it to the full, are problems still *sub judice*, which will require very careful and detailed consideration. Naturally, much of the argument is at the present stage hypothetical, and that there is room for alternative theories is made evident in Dr. WOODHEAD'S articles. The facts of inflammation and repair can, however, be shown to harmonise precisely with the theory (as it must, we suppose, still be provisionally termed) of phagocytosis; and the causes of failure to overcome the intruding agents must be sought in the lack of the necessary stimulation required to evoke the latent properties of the cells, or in the presence of some powerful depressing influence which inhibits their powers of action. A point of much interest is that of erysipelas, where the inflammatory zone, in which the migrant leucocytes destroy the streptococci, does not overtake the advancing line of the latter; and the practical suggestion to excite inflammatory reaction in front of the invading organisms so as to check their progress has, we are told, been of real service. Herein we have a direct therapeutical gain deduced from a single observation in the laboratory. It is, however, in its bearings upon the general principles of surgery that the new teaching appears of special value. We commend the powerful testimony adduced by Dr. WOODHEAD in regard to the utility of absolute antisepticism in surgery, and the cognate matters of practical detail, to the earnest attention of all surgeons. At the same time, he does well to remind us that the dangers of sepsis are not limited to external contamination, and that lowered states of vitality, which impair the power of resistance to the invasion of organisms from the mucous channels or an imperfect state of the excretory functions may render the body vulnerable from another side.

It must be especially gratifying to Professor VIRCHOW to note how the pendulum of modern research is swinging back to the position indicated by his labours a generation ago in the recognition of the paramount share taken by the connective-tissue cells in the formation of new tissue and in metabolism. The leucocyte, according to present day teaching, has a great part to play in the protection of the organism from invasion of foreign material and in its removal from the body; but beyond that it has comparatively little else to do. It, as it were, clears the ground for the fresh formative processes which spring out of proliferation of the fixed cells and are intended to repair the injury caused by the elements that have been got rid of by means of inflammation and suppuration. It will have been observed that from the consideration of phagocytosis and all it implies, Dr. WOODHEAD passed on to allude to some of the practical results accruing from researches upon blood coagulation, and on the functions of the nervous system. These have their place—a very notable one—in modern science and practice; but undoubtedly the greatest achievements are those which formed the groundwork of his papers, since it is through them that we are enabled not only to afford satisfactory explanations of the pathology of infective diseases, but also to discover the most rational methods of coping with them.

"INSTINCTIVE Criminality, its True Character and Rational Treatment," is the expanded title of a paper read by Dr. S. A. K. STRAHAN, barrister-at-law, before

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the Anthropological Section of the British Association at Cardiff, under the presidency of Professor MAX MÜLLER, on Aug. 25th, 1891. It has since been published in pamphlet form, with prefatory note and appendix, giving cases illustrative of the remarks contained in the text. The opening sentences of the former give a good insight into the object of the writer in bringing this subject forward. "It is so much easier to 'let well alone' than to undergo all the worry and turmoil of reorganisation, that not infrequently ill also is left alone long after it has been recognised as such, not so much from any desire to perpetuate evil or do injustice as from the apathy engendered by the natural desire for 'a quiet life.'" The author proceeds to remark how liable reformers are to ridicule, and even to abuse; and this being so, "it follows that when a proposal embodying sweeping and radical changes in principles which have gone unquestioned for centuries is received with respectful attention and critical consideration, the promoter thereof is justified in assuming that his proposal is timely, and that the public feel some change to be necessary in the direction in which he has pointed." This is the pleasing position in which the author tells us he finds himself, his suggestions as to the proper and different treatment of habitual criminals from that to which they are now subjected having been well received. Dr. STRAHAN undoubtedly deserves much credit for having attempted to put together facts which have been painfully prominent of late, and for making suggestions which must have occurred to those who give a thought sometimes to that other half of the world of which the one half knows so little. It is really lamentable to think how apathetic the public have become to the reports of women being brought before the magistrate for the two-hundredth time, and of both men and women spending a considerable proportion of their lives in prison and in penal servitude. All honour to those who try to remove this apathy; but caution is needed to avoid the opposite extreme.

In his definition of "instinctive criminals," Dr. STRAHAN omits those whose crime has arisen from passion, poverty, or temptation, or even resulted from bad example and associations alone. In the term he only comprises those individuals who take to anti-social ways by instinct or nature, and who murder, steal, lie, and cheat, not because they are impelled to do so by force of adverse circumstances, but "because they are drawn to such a course by an instinct which is born in them, which is too strong to be resisted by their weak volitional power had they the desire to resist, which they have not." There is some truth in this, and for want of an English word the Yankee expression "cussedness" might be suggested. But when Dr. STRAHAN gives this class as comprising "fully two-thirds of our whole criminal population, including offenders of all grades, from the murderer down to the petty thief," we must take exception to this as an exaggeration. Probably 5 per cent. would be a nearer approach to the truth. Still more must objection be taken to the next statement, "To this class also belongs a still larger proportion of prostitutes and habitual drunkards, who, although not criminals in the eye of the law, are anti-social in their instincts. The prostitute ranks with the petty offender of the male sex, she bears all the well marked signs of degeneration found in male thieves, swindlers, and vagabonds, and her existence accounts to a certain extent for the large excess of male over female criminals. It is common in degenerate families to find that while the sons take to crime the daughters take to prostitution." How incorrect this is must be obvious to all who have to deal with prostitutes and habitual drunkards. Among the former vanity, love of dress and idleness are the causes of their fall more than any instinctive criminality, which will only account for a very small proportion. There is an instinctive desire to penetrate mysteries which lead many to their ruin, but it is not this to which the author alludes. With regard to habitual drunkards many of them have lived up to adult or even middle life in perfect sobriety and free from any criminal instinct. Many owe it to the circumstances in which they live and their surroundings. It is much more probable that two-thirds or more of prostitutes and drunkards owe their unhappy position to these causes than to any anti-social instincts. The daily experience of those medical practitioners whose practice has brought them in contact with the poor, or even the criminal classes, has shown them that even the most hardened criminal has his better nature, which will show itself at times. And the object of all laws and penalties must be to teach people to strive with their worse nature and to overcome it. To make pets of criminals in the manner so graphically described by the late CHARLES DICKENS in "David Copperfield," to have the Uriah Heaps and Littimers made interesting subjects of study to admiring visitors is a sure way of keeping them in their criminal career.

Now, as regards insanity, which Dr. STRAHAN declares to prevail very highly among criminals, even to the extent of being forty times that of the average citizen, it is true that prison life favours this unless carefully watched, and the more highly strung organisations are subject to it rather than the dull, instinctive criminal. Besides, this fact, which must be well known to the classes whence "gaol-birds" are derived, ought to be an additional deterrent, which it does not appear to be. To risk losing one's reason as well as one's liberty for some paltry temporary gain ought to act more powerfully than a dread of the "cat."

Suicide is next advanced by the author as a symptom of family degeneration as positive and grave as insanity itself. He shows by careful calculations that suicide is more than ten times as common among our local prison population than among the general population, and nearly five times more common among the inmates of our prisons than among the inmates of our lunatic asylums. Proceeding further, he finds that suicide is about twenty-four times more commonly a cause of death among those who die in our prisons than among those who die outside them. "Could anything speak more eloquently of the wretchedly low level at which the inmates of our prisons have arrived. Weak and ill-developed in body and mind, they are unable to contend successfully against their fellows for an existence, and instinctively they fly for relief to 'nature's cure.'" But is not this opposed to history and fact? In pagan times, and where the pagan spirit now lives, suicide was the refuge, and still is, of men of more than average brain power. The "low, cunning man" is

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not the one usually found to commit suicide. Many of the suicides occur from misadventure in malingerers.

Passing on to the physical side of the criminal classes, Dr. STRAHAN remarks that all who have examined the inmates of our prisons and penal establishments agree that they represent a decaying race. "It must be admitted, then, that the criminal, as met with in our prisons, is a degenerate and morbid specimen of the human family." Granted; but is this a special mark of instinctive criminals? All sin destroys. Out of prison we have deaths from "excessive drinking," from "natural disease aggravated or accelerated by drink," from "delirium tremens"—from a host of secondary causes where drink is the primary one. Again, though syphilis is seldom the immediate cause of death, it is the primary cause in many more cases than is generally known, and this quite apart from gaols or criminals. This summary view of all criminals is an assumption, and contrary to fact, since it assumes that all are instinctive criminals.

The physical description of the criminal is thus given by the author. "The criminal is very closely related to the insane, especially the congenital insane, and personally he bears a strong family likeness to his near relative the idiot. In the criminal we find small, over-large, and ill-shapen heads, paralyses, squints, asymmetrical faces; deformed, shrunken, ill-developed bodies, abnormal conditions of the genital organs, large heavy jaws, outstanding ears, and a restless, animal-like or brutal expression, all of which are common characters amongst the inmates of our idiot and imbecile asylums; and as there is no beauty to be found among the inmates of such asylums, neither is there any to be discovered in our prisons, proving how well founded is that instinctive feeling of repulsion excited by the sight of the ill-favoured and deformed." All this is true of instinctive, but not of criminals in general, and yet the description is made to apply to all criminals.

It is only natural that the author should dwell upon the subject of hereditary influence, the drunkenness of parents, as the cause of crime in the children, &c. But this applies to all. Who can tell its limits? Pushed to its logical conclusion it makes everyone irresponsible. Passing on to the important question of treatment, Dr. STRAHAN first shows how very small a deterrent effect prison treatment has upon offenders. Of a total of 150,559 prisoners received into local prisons during the year ending March 31st, 1891, no less than 58·57 per cent. had been convicted before; 26·78 per cent. had been three times previously convicted, while a percentage of 15·32 had lists of previous convictions varying from eight to two hundred. "The system of treatment which," he says, "I would propose should take the place of the present would be prolonged incarceration upon an indefinite sentence in an industrial penitentiary. Every judge of assize, recorder, and stipendiary magistrate should be empowered when he thought fit to send any person convicted before his court to an indefinite term of incarceration in such penitentiary, provided at least three previous convictions could be proved. In this institution the plank bed and solitary confinement would be unknown. In the place of such treatment every effort would be made to improve the criminal so far as possible morally, physically, and intellectually, and from this place he would be set free on parole, only when it was thought that his anti social instincts had become sufficiently blunted to enable him to mix with society with safety.' There is much common sense in this. Many of the unfortunate women who have been convicted of drunkenness and riotous or disorderly behaviour, including window smashing for the hundredth time, are women whose only real home is the gaol. Taken from their wretched haunts, compelled to live a sober and comparatively healthy life for the short—too short—term of imprisonment, their health improves, and they leave in a better state than they entered, only to return to their old habits. The same remark applies in a modified form to the older and more hardened prostitutes and to many men of the thieving classes. Dr. STRAHAN'S conclusions are good, though not based upon entirely correct premisses. Starting with "instinctive criminals," he passes on to include all prisoners. The degeneration of the individual once having the *mens sana in corpore sano* is entirely neglected and assumed to be the result of heredity. The omission of the corrupting influences of vice on healthy organisations—in fact, a devolution of the race—is necessitated by the natural desire to make out a case. For "practical politics" the fact is sufficiently glaring, and calls loudly for amendment—viz, that "incorrigibles" should be kept for considerable periods in "industrial homes." There are many other points of interest in Dr. STRAHAN'S paper which have been of necessity passed over or briefly noticed, but the more important have been dealt with. The instinctive heredity theory and many side issues, which are all open to question, are not necessary for the treatment suggested.

SPRING is not only the most trying season to health at home, but it is the time of the year for which it is difficult to select any perfectly unobjectionable sanatorium. We have summer and autumn resorts which leave little to be desired, and the list of admirable winter sanatoria, fulfilling the most various and diversified indications, is a very long one, and is constantly increasing. But spring remains the intractable season, and the reason is not difficult to assign. The reason is that at this time the hot stations well to the south, such as Egypt, Algeria, and Morocco, become too warm for comfort, while it is yet too early for the invalid to contemplate a return home. Under these circumstances we should naturally turn to those sanatoria which are intermediate in situation between Africa and the British Islands; such resorts, namely, as those on the northern shore of the Mediterranean—the Riviera, Castellamare, Sorrento, Malaga; or some of the Mediterranean islands, especially Sicily and Corsica; or such resorts as Pau, Arcachon, or Biarritz. Unfortunately none of these resorts is altogether unobjectionable in such months as April and May, though much depends upon season; and a beautiful spring, comparative freedom from cutting winds, and sudden fluctuations of temperature may occasionally be experienced at some of the places indicated, but such good fortune cannot be reckoned upon with any confidence. In fact, throughout Europe spring is a changeful and treacherous season. The reason would appear to be that at this season the westerly wind currents from the Atlantic, which dominate the climate of

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Western Europe during the greater part of the year, give way to a downflow of dry and cold winds from the bleak plateaus of Central Asia. Hence, mildness equability and calm, which characterise so many favourite resorts during a large part of the winter, are hardly to be expected during spring.

These remarks apply with full force to the Mediterranean basin, around which are grouped not only so many places famous in history, but so many of our most popular and valuable health resorts. The spring climate of the Mediterranean is characterised generally by high winds, sudden gales, and irregular fluctuations of temperature. In addition to the considerations adduced above, the Mediterranean probably owes the changefulness of its climate in spring in no small measure to the fact that at this season the sirocco begins to blow, and comes in conflict with the westerly Atlantic winds and the cold easterly and north-easterly winds from Central Asia. With this conflict of winds from various quarters, differing as they do so much not only in temperature but in hygrometric condition, and all converging on the Mediterranean basin, it is not surprising that sudden storms and rapid changes should be frequent.

The spring winds prevalent on the Riviera are well known to constitute the most serious drawback to that delightful region. The most obnoxious of these is the too familiar mistral—a cold and dry north-west wind, of which the old rhyme says, not untruly:

> "Le Parlement, le mistral, et la Durance
> Sont les trois fléaux de la Provence."

The mistral blows off and on during the winter, but not frequently and with only moderate force; but as spring draws on, its visitations become more frequent and it blows with greatly increasing violence. March is usually the worst month. This wind generally blows for two or three or more days consecutively, falling at sundown and rising again the following forenoon. It is of a very parching character and is often accompanied by bright clear skies. The mistral is mostly felt in the western Riviera, and gets milder as we go east. It is very severe at Marseilles and Hyères, serious at Cannes and Nice, much less felt at Mentone and San Remo, and comparatively insignificant at the east of these points. The east wind on the Riviera is less frequent and less violent during spring than the mistral. The north-east wind is one of the great drawbacks of the climate of Genoa. The sirocco is the rain-bearing wind of this region, and is comparatively common in spring. Its depressing and debilitating effects are well known.

Of the places which we have enumerated as intermediate between Africa and the home country, there are several that possess a more stable spring climate and one less vexed by troublesome winds than the Riviera. Such is Malaga, which possesses one of the best climates in Europe, but is, unfortunately, a dull place, with few attractions for invalids; such is Ajaccio, a resort still comparatively undeveloped, but with many great advantages, and with probably a future before it; such is Arcachon, one of the best of the mildly sedative resorts. These sanatoria have not only great merits as winter resorts, but are worthy of special attention as refuges from the disagreeable features characteristic of so many other places during spring. Malaga and Arcachon are old favourites and well known, Ajaccio is a newer claimant for attention, and seems to possess many admirable features. Spring winds are not only very trying and disagreeable in themselves, but in most places they are accompanied by clouds of dust, which are unpleasant to all, and especially hurtful to *poitrinaires*.

We have said nothing regarding the spring climate of the southern Mediterranean shore, as invalids only exceptionally prolong their stay in Egypt, Algeria, or Morocco beyond April. Those who have wintered in these regions should be in no undue haste to exchange the assured sunshine and warmth of the southern Mediterranean shore for the sharp winds and changefulness prevalent at this season on the northern shore. A little discomfort from heat is a less evil than running the risk of fatal chills.

Spring is the great season of the fatalities of the travelling invalid, who so often weathers the winter successfully but suffers serious relapse during the spring months. This unfortunate result is no doubt partly due to the inherent treacherousness of the spring season, but also in large measure to the indiscretions of invalids. In many of the resorts mentioned the warm sunshine and bright skies common in spring entrap the unwary into disregard of the dangers lurking in the cold winds. Hence arise colds, chills, and intercurrent inflammations, which so commonly hasten the progress of chronic disease or precipitate a fatal issue.

MUCH alarm has been occasioned by the reported reappearance of the very infectious foot-and-mouth disease of bovines, which was discovered among some cattle that had come from Denmark, and were exposed for sale in the Metropolitan Cattle Market at Islington on the 4th inst. There might exist some doubt as to whether it really was the malady known to veterinarians as eczema epizootica, and which had been allowed for so long to play havoc, without let or hindrance, among our flocks and herds, but was finally stamped out some six years ago, for, according to the Danish authorities, the disease is not present in Denmark, and since its reported appearance on the 4th inst., special inquiry has been made in the district from which the animals were exported, without finding a trace of the affection. And it is to be noted that this is, of all the infectious diseases of animals, the one which can be most readily detected and has the shortest incubation period. So it is not at all improbable that this has been a false alarm; for if foot-and-mouth disease is non-existent in Denmark, and the animals exposed for sale at the Islington Cattle Market had not come into contact with infected animals—cattle, sheep, or pigs—during transit to this country, they could not have it. All experience proves that it no more arises spontaneously than does any other of the specific fevers; and perhaps the most convincing evidence in this direction is the circumstance that the United Kingdom has been free from it for six years, merely because, when extinguished, it has been kept rigidly excluded by forbidding the entrance of cattle from infected regions. These, so far as we know, are chiefly European countries and India. The malady is unknown in Australasia and the United States of America, never having been allowed to obtain a footing in these

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quarters of the globe, though it has been carried to each of them on at least one occasion. In the States there was an outbreak last year of a disorder not unlike this; but it was not infectious, and was probably due to some irritant on the pastures.

It is somewhat remarkable that, though observed and described on the continent of Europe for more than two hundred years, the disease did not reach this country until 1838, when it spread almost like wildfire everywhere, attacking cattle, sheep, pigs, and poultry, and even people who handled the animals or consumed the milk of sick cows. It caused much consternation as a new disease which inflicted great damage, though it was not particularly fatal, and for many years nothing was done to check its prevalence; as it was supposed to be due to that "something in the air" which was always invoked when the etiology of such plagues was not understood. The success that attended the extinction of the deadly cattle plague in 1866, drew attention to the great relief agriculture would experience were similar measures applied to this foot-and-mouth disorder. Unfortunately, however, the steps taken by the Government were altogether inadequate to combat such an easily dealt with epizootic malady; almost everything being left in the hands of local authorities, who used their own discretion in applying the measures prescribed, and with the result that after some years' trifling with it, at great cost, it was as rampant as ever. When at last the central authority took the mattter up in earnest, it was not long before the scourge was subdued by the use of the pole-axe, compensation being allowed to owners of diseased and suspected cattle. In 1879 the contagion was extinct, and nothing more was seen of the malady in these islands until October, 1880, when it was again introduced in a cargo of foreign cattle disembarked at Deptford; thence it found its way to the Metropolitan Cattle Market; from there it spread so quickly over the land, that at the commencement of December no fewer than twenty-five counties were invaded. So badly was this invasion controlled that, in 1883, seventy-one counties were scourged by it, the outbreaks being 18,732, and the number of animals attacked 461,145. It was not until 1886 that the three kingdoms had again a clean bill of health, so far as this plague was concerned; but the cost of the negligence which had allowed the contagion of this one importation to escape from Deptford and reign for eight years, was most serious, and can scarcely be estimated. During that period 743,168 animals were reported as affected; and as some of the most competent authorities reckoned that the loss on every animal that did not die or was not slaughtered, could not be less than £3 or £4, the money loss alone to the owners of stock must have been, at the lowest computation, £2,500,000. This immense sum does not include the expense of stamping out, which entailed an enormous slaughter of cattle and consequent compensation; neither is any mention made of the expensive machinery which this process demanded, nor yet the heavy loss incurred by the closing of fairs, the stoppage of movement of cattle, and the embarrassment to the milk and meat trades. For it should not be forgotten that in these visitations it is not only the grazier, breeder, and cattle dealer who suffer—though their collective loss is also a national loss,—but the meat and milk consumers share in the disaster. These commodities become scarcer, and therefore dearer, a matter of much moment to the poorer section of the population; while in this malady there is a chance of the infection being conveyed to those who ingest the uncooked milk. Calves which are being suckled by affected cows often die from gastro-enteritis and it might, therefore, be apprehended that infants and young people incur the risk of similar injury.

Let us hope that, as there is some reason to believe, this is a false alarm; or if it be the real malady, that eight years may not again elapse before it is extinguished. Our agriculture cannot now withstand such shocks as the last one proved itself to be, nor will the public readily forgive such laxity in dealing with a disorder the most easily detected, and most readily suppressed of any that can be controlled by sanitary measures.

Annotations.

"Ne quid nimis."

THE PROPOSED GRESHAM UNIVERSITY.

DURING the past week the Councils of King's and University Colleges, and the representatives of the Medical Colleges (designate) in the proposed Teaching University for London have met, and in each case the change of name has been approved. A joint petition from the two teaching colleges has been sent into the Privy Council praying that the alteration of name may be sanctioned, and a letter expressing their concurrence has also been forwarded by the ten London medical schools. It is hoped that this sanction will immediately be granted, and the Draft Charter will then be laid on the tables of both Houses of Parliament. A reply to the objections made by the authorities of the Victoria University is under consideration, and will be drawn up as soon as the various medical schools have given the necessary authority, and will be sent to members of Parliament with the amended Draft Charter. The medical schools of Birmingham, Bristol, and Sheffield have also drawn up a joint protest, pointing out that injury would be inflicted on them if a new Teaching University for London were established. The reply to this is simple. Either of these schools, if sufficiently equipped, can apply to the Victoria University for incorporation, and thus follow the example of the Yorkshire College of Science at Leeds. Or the science and medical colleges at Birmingham and Bristol may so organise themselves as to form a Midland University, on the lines of the Victoria University, with power to take in other properly established colleges, and so complete the number of Universities that would be sufficient to meet the local demands of England. It is rather too much to ask Parliament not to remedy the grievance of the London medical student because all the provincial schools are not in a position to apply for similar privileges. We do not think the case of the Victoria University or of these medical schools is improved by urging that, because the new University will have a very large proportion of medical representatives on its Council, this body cannot be trusted to maintain the standard of medical degrees, as well as a sufficient standard in arts and science. The opinions of Sir George Young and Mr. Erichsen are not to be taken as representative of the views of a Council not yet formed; they were declared to be merely individual statements, and in no way to be looked on as official.

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It is not to be expected that the standard of any new University will be fixed as high as that of the existing University in London, which the Royal Commissioners declared to be an "honours" degree; yet that between this and the standard for an "ordinary qualification" there is ample room for a new degree for London medical students must be clear to every member of the profession who recognises the position of the Victoria University itself, of the University of Durham, and of the Scotch Universities.

PARTRIDGE v. THE GENERAL MEDICAL COUNCIL.

MR. PARTRIDGE, before Mr. Justice Denman and a special jury, applied on the 6th inst. for a *mandamus* to order his name to be placed by the General Medical Council in the Dental List, under the Act of 1878. Our readers may remember the chief particulars of Mr. Partridge's case. He held a diploma from the Royal College of Surgeons in Ireland, under condition of not advertising for business. He violated this condition. His excuse for doing so was alleged to be the failure of his sight. The College cancelled his diploma, and the Council in 1886 struck his name off the Register. The Court of Queen's Bench ordered the restoration of his name on the ground that the Council was bound to judge for itself and not merely endorse the action of the Irish College of Surgeons. Thereafter the Council considered the case and determined to remove the name, as it has power to do. The plaintiff contended that the Council had no right to do this. Mr. Justice Denman, after going elaborately into the case, found no evidence of malice against the defendants, and felt bound, though reluctantly, and expressing some sympathy with the plaintiff, to nonsuit him. Judgment was given for the defendants, with costs, but execution was stayed with a view to an appeal. Mr. Justice Denman asked if anything could be done to let the plaintiff off costs, and Mr. Muir Mackenzie, acting for the General Medical Council, promised to convey the judge's remarks to the executive committee of the Council. All who read the report of this case must share with his lordship a pity that the plaintiff should have become blind. And, undoubtedly, this fact gives an element of pathos to an otherwise completely indefensible case. It was in Mr. Partridge's power to have practised dentistry and to acquire a place on the Dentists' Register without any diploma from a medical authority or college. With good taste he preferred to take such a diploma, and so to place himself in relation with, and under the discipline of, one of the Royal Colleges of the profession, which happily tries to enforce its laws against unprofessional and vulgar methods of practice. Unfortunately, he violated these laws and his promise to keep them, in spite of much patience on the part of the College authorities, and indulged, according to the evidence on his own side, in a huge and bold system of advertisement. We cannot see that the affliction of blindness in one of its members is to dissolve the whole system of College discipline and to give him privileges which he had not before. It is satisfactory to find that the judgment of Lord Denman only confirms all previous judgments as to the absolute power of the Council to judge of professional conduct, so long as the Council acts in good faith.

MEDICINE IN SOUTH AUSTRALIA.

AT a commemoration of the University of Adelaide held on Dec. 16th, 1891, Dr. Verco, orator for the year, gave a detailed and interesting account of the rise and progress of medical knowledge in South Australia and of the Adelaide Medical School. The good old times of early settlement, when city consultant and "scrub" doctor made acquaintance daily with the rough and ready circumstances of pioneer practice, are briefly but graphically sketched. So, too, is the history of the Adelaide Hospital, founded first as a temporary structure in 1839, subsequently expanded, and in 1885 affiliated with the University. In this year the latter arose by the aid of funds originally destined for the requirements of a theological institution—Union College. It was at first intended that its modest curriculum, as far as medicine was concerned, should include merely the subjects taught in the first two years of student life. In a very short time, however, a complete course of study was arranged, and now "the production of the medical practitioner is a native industry." The fact that the standard of medical education is sufficiently high is a satisfactory one, and it is attested by the right of registration freely accorded to the colonial degree in this country, and by the acceptance of its associated course of study by the conjoined London Colleges. In face of the nearly universal superabundance of young, but qualified, medical talent, we do not gain much assurance from a statement that in a few years the medical work of the colony will soon be in the hands of its own graduates, the process of immigration being virtually arrested by "native industry." Upon these matters and others of a like sort Dr. Verco dwells with natural satisfaction. After some further observations on the general progress of medical knowledge in recent years, he closes an instructive address with a series of original and somewhat carefully studied remarks on the preservative and curative properties of a healthy and spiritual religion. In these he asserts the existence of a spiritual prophylaxis, a prevention of disease by religion. Anger, excess, and every form of egotism, prone as they are to corrupt the mental state, will, he avers, find in it the means both of prevention and cure, and the surest hope of progressive vitality rests, he maintains, upon obedience to spiritual law.

THE RISKS OF LEATHER WORKERS.

THERE is a process of softening the leather used for saddlery which is very injurious to the health of the workmen engaged in the craft. M. Etienne Ferrand of Lyons has recently brought forward proposals for remedying this evil. After the leather has been tanned, but prior to its being rendered supple and before it is scraped and polished, grease has to be rubbed into the pores. The entire skin before it is cut is heated and thoroughly dried in a stove. The skin is then spread upon a table, and tallow at a temperature of about 250° C. is poured upon the leather. The workmen rub this melted tallow into the pores of the skin. But the tallow when heated to this extent gives off acrid vapours, which irritate the respiratory organs and occasion much suffering to the workmen. This is due to the presence of acroleine in the vapours, produced by the decomposition of the glycerine. The acroleine, when coming in contact with the air, forms acrylic, acetic, and formic acids, and is readily volatile at ordinary temperatures. A few drops of acroleine volatilised in a room will render the atmosphere almost insupportable. For this reason, workshops and factories where leather for saddlery is made are put by the French Legislature in the second category of unwholesome industries. M. Ferrand proposes that, instead of rubbing superheated tallow into the skins by hand labour, the skins should be placed in stoves with tallow maintained just in a state of liquefaction—namely, from 100° to 120° C. No irritating vapours would then be produced. If it was found that the liquid tallow did not sufficiently permeate the skins, the rubbing by hand could be replaced by rollers or other methods of bringing to bear mechanical friction. M. Ferrand touches, however, upon the real difficulty when he suggests that tallow costs 80 c. the kilogramme and leather 3 fr. 50 c. the kilogramme. By the hand process the workmen are able to introduce so much tallow that the grease in the leather

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represents from 35 to 45 per cent. of the total weight. For doing this the workmen receive a supplementary wage of 3 fr. per day, which, added to their ordinary wage of 5 fr. a day, makes a very considerable difference. Doubtless if some such method as that suggested by M. Ferrand were applied, good leather could be made without any inconvenience or risk to health. But the leather, though equally strong, would not be so heavy, and the workmen would lose their claim to a supplementary wage. Therefore both employers and workmen are opposed to the more wholesome process. M. Ferrand is more likely to be supported by the trade when he urges that in any case there should be, by the side of the workshop where the tallow is rubbed into the leather, a spare room, well warmed and ventilated, where the workmen could seek rest and fresh air between each operation. To this the workmen at least would not object, but the employers would probably complain of the extra expense involved. It seems deplorable that the health of the workmen should be gravely compromised for the sake of increasing the weight of leather by forcing into the pores more grease than is necessary.

"STRANGE DEATH OF A DOMESTIC SERVANT."

AN inquest was recently held at Goring touching the death of Sarah Pearce, aged twenty-one years, a house and parlour maid. From the newspaper report it appears that deceased had complained of feeling unwell for a few days, at the end of which time her mistress found her outside the latter's bedroom door, shivering and clad only in her chemise and stockings. She was put to bed and given some soup. To prevent her further wandering about her room-door was locked. Next morning she was found dead under her bed. Mr. Treharne Symonds, L.S.A., who was called in after the death, said, at the inquest, that he could not form "any possible conjecture as to the cause of death." The jury returned a verdict of "Death from natural causes," with a rider that the girl was neglected by her mistress. If the case is fully and correctly reported in our contemporary, the event shows too clearly that, from whatever cause, the girl was suffering from the delirium of a fatal illness. To our minds it is passing strange that the inquest was not adjourned for a post-mortem examination to be made. We trust the matter will be brought before the Home Secretary, with a view to his considering whether exhumation of the body and an exhaustive inquiry should not be held.

RULES FOR ANTISEPTICS IN OUT-DOOR MATERNITIES.

THE Committee of Management of the General Lying-in Hospital have issued rules for the use of antiseptics, which are meant especially for those practising in out-door maternities. They are to be had for a penny at Vacher and Sons', printers, Westminster. Chiefly they provide for antiseptic powders, consisting of ten grains of corrosive sublimate and one grain of cochineal. They are to be labeled "The Corrosive Sublimate Powders (Poison)." These are, when wanted, to be completely dissolved in a pint of hot water in a clean basin, giving an antiseptic solution of the strength of 1 part in 1000. This solution is to be used thus: The midwife, after thoroughly washing her hands and nails, is to hold them for a full minute in the solution. Sponges are to be kept in for a full minute before use. After labour the external parts are to be washed with the antiseptic solution. A bottle of "corrosive sublimate glycerine (poison"), consisting of two ounces of glycerine in which one grain of corrosive sublimate has been dissolved, is also provided. The fingers are to be dipped in this before making a vaginal examination. Catheters before use are to be plunged in the antiseptic solution for a full minute and then anointed with "corrosive sublimate glycerine." We are glad to see that midwives are not instructed or authorised to use vaginal douches of corrosive sublimate. Where vaginal douches are required they are to dissolve a teaspoonful of the crystals of permanganate of potassium (which they are to carry in an ounce wide-mouthed bottle) in two quarts of hot water at a temperature of 110° F. Rule 11 instructs that the eyes of the child shall be wiped with a clean napkin, and when being washed shall have squeezed over them, the lids being separated, a clean white rag or piece of cotton soaked in the antiseptic solution. The only misgiving we should have is whether it is right to trust such poison in such coarse quantities in the hands of those who can scarcely appreciate their intensity and the risk of accident. The rules might be stated with still more explicitness. Cautions against the use of perchloride douches by midwives should be more expressly stated. Not the least secret of success in antiseptic midwifery is in the homely secret of having absolutely clean hands and nails, with corresponding attention to clothes and instruments. A more elaborate account of antiseptics in obstetric and gynæcological nursing and practice will be found, with directions for use, in Dr. John Shaw's manual.

THE WORKHOUSE INFIRMARY NURSING ASSOCIATION.

THIS Association, which has been engaged for many years in investigating the condition of the inmates of infirmaries and the arrangements in existence for providing a suitable nursing staff for them, have published a report on the country infirmaries. It states that in some of the infirmaries there may be only one nurse responsible for the entire care of the sick of the union, having occasionally as many as forty or fifty cases under her care. It is simply impossible for a nurse to deal adequately with so many patients, and the result is that the care is handed over to the paupers, an account of whose modes of nursing is graphically described in the early pages of "Oliver Twist." Miss Wood, in her report, says "until pauper nursing is banished from our infirmaries these 'disgraces' must be occasionally accepted." We commend in the name of humanity this aspect of the Poor-law to those who are advocating much-desired reforms of it in other directions.

OPERATION FOR JACKSONIAN EPILEPSY.

IN the *American Journal of the Medical Sciences* a case of much interest and importance is related by Dr. Keen and Dr. Mills of Philadelphia. The patient was a young woman of twenty-seven, who for ten years had been subject to fits, at first occurring at considerable intervals, but latterly becoming much more frequent, and with only short periods of freedom. These attacks were at first of the nature of numbness and pricking in the left upper limb, merely sensations, but latterly motor phenomena had been superadded. A typical attack began with a sensation of pricking in the left arm. This was followed by a plaintive cry, and the left arm then became extended at the shoulder. Almost simultaneously the left leg became rigid and the head turned to the right. It is not stated whether the eyes also deviated, but the right arm was affected, becoming flexed at the elbow. Although these attacks occurred sometimes as often as six or seven times in twenty-four hours, there was no paralysis present and no objective sensory changes. An operation was decided upon, and as the centre for the left shoulder seemed to be the focus of irritation, trephining was performed at a point in the skull corresponding to this. The bone was found to be very thick and dense, to be eroded on its inner surface by a small growth

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starting apparently in the pia mater, involving the dura mater, causing its adherence to the pia mater, and finally pressing upon and eroding the inner table. The growth looked like a hypertrophied Pacchionian body, but was subsequently found to contain sarcomatous elements. It was removed, and stimulation of the cortex by the interrupted current was then resorted to, with a view to localising accurately the centre for movement of the shoulder. This was found quite close to the point where the growth was, and it was excised. The wound was then closed, but on account of its sclerosed condition the bone was not replaced. Healing took place by first intention. Subsequently paralysis, gradually spreading, affected the left arm and leg, causing complete loss of power in those limbs; but it cleared up again in a few days, and no permanent loss of power remained, and no sensory impairment. Unfortunately the attacks did not cease, but they became less severe. The case is an exceedingly important one, and we are glad to have it in such detail. There is a curious omission of any report on the condition of the optic discs—a point which was doubtless investigated. It would also be interesting to know whether, after excision of part of the cortex, touches, which apparently were perceived without difficulty, were correctly localised, especially about the shoulder, and also whether the sense of position of the limb was in any way disturbed. These are points of considerable importance, both practically and theoretically, in all cases in which the cortex has been excised.

SUGGESTED REMEDIES FOR OVER-POPULATION.

INASMUCH as excess in anything is an error, it is doubtless correct enough to speak of the evil of over-population. The due relation which is characteristic of true economy allows no exception among the arrangements connected with domestic food-supply and the increasing demands of hungry children. It is nevertheless a matter for argument whether the significance of this assumed evil has been always rightly understoood. Viewed by themselves, such facts as the prevalence of poverty, the scarcity of employment, and their consequences apparent in close unhealthy homes, overcrowded with young children, are certainly discouraging, and contrast unfavourably with the comfortable independence enjoyed by capable and active individuals and by many childless couples. It is clearly unfair, however, to lay the blame of all this misery upon the process of reproduction. We must remember that physical fruitfulness has marked the career of all strong and prosperous races, and this, too, without the conscious employment of any selective method. By their exertions the world's work has been and is for the most part done, and it would be a mistake to diminish its needful complement of workers. It is true likewise that the evils complained of are in no small degree the outcome of other causes than the mere pressure of numbers. Want of thrift, instruction, and forethought, unequal conditions of labour and capital, overcrowding in certain districts, and the like have quite as much to do with the matter as the size of families. We venture therefore to state our opinion that the evil influence freely attributed to this cause is, to say the least, a still uncertain quantity. As regards the various remedies proposed for its repression, we are no less sceptical. Such artifices as the tolerance of illegitimacy, the discouragement of marriage, and a variety of means advocated and employed, notably in France, for the restriction of pregnancy among the married, are open to serious moral objections, which if unrestrained would ultimately ruin the society created with their assistance. Moreover, they do not allow for any reliable method of selecting the surviving progeny. The feeble and the strong would still grow up together, but there would be fewer of both. No less objectionable, notwithstanding its scientific aspect, is the plan suggested by Dr. W. T. Greene, whose paper on the subject we have received—namely, that an artificial process of selection be instituted according to which the apparently feeble or diseased would be deprived by operation of their genital capacity. Apart from the manifest crudeness of this device, we need not show that it encroaches very far on the sphere of personal right. Again, it could hardly be relied upon as a selective method, so little can we trust to the presage of infancy. We fail, therefore, to find in any of the above-mentioned remedies the real cure for this general overcrowding. It does not follow, however, that we would uphold all presently existing customs. That faults are to be found in our marriage system we do not deny. There is that, for example, which allows of early though mature maternity, and there is the imprudence of marriage without reliable means of sustenance. We would also be foremost in denouncing the culpable recklessness which takes no thought of evident constitutional disabilities, though it is not clear how any Legislature could deal with these matters, while much may be expected of judicious education. In emigration we have a method already much and successfully used for the relief of districts burdened with a surplus population. It is to such natural means, combined with the exercise of ordinary prudence in home life, rather than to any of the readier and more showy panaceas we have touched upon, that we would look for that rational adjustment in vital conditions which all of us desire. But, after all, and under any system, we shall long have among us, though it be in diminishing numbers, the poor as well as the rich.

THE HEALTH OF FLORENCE.

AN Italian correspondent writes: "The Syndic of Florence, from the 1st inst., has ceased to transmit to the Prefect the daily bulletin of cases of influenza, no cases of the disease for some days previously to the 1st having been reported to the municipio. In December and January influenza prevailed, though not in epidemic proportions, and the type throughout, as in Rome, was very mild. Typhoid fever, it may be added, figures very low in the Registrar's returns. During the whole month of January there were in Florence (city and commune) only six cases of death from that cause."

MEDICAL REFEREES AND LIFE ASSURANCE OFFICES.

IN the new edition just published of Mr. Bunyon's book upon the "Law of Life Assurance" there is a reference to the vexed question of medical referees and their fees. The author says that a claim has been made by some members of the medical profession, when applied to as the medical referees of parties proposing insurances on their lives, to the effect that they are entitled to a fee for their certificates, and they remark that to this "no objection can be raised." But he adds that medical practitioners have endeavoured to extend the proposition, adding to it this further term—namely, that they are entitled to receive the fee from the insurance office, and not from their patient, and that in three instances the question has been tried in the county court, the point raised being whether there was any contract on the part of the company to pay the fee, and in every case it has been decided in the negative. They suggest that, by way of preventing misunderstanding, the medical man should reply to the applicant to the effect that without payment he will give no answer, whereupon they opine that the company, if continuing to request the information, would be bound to pay for it. We have no doubt that this is perfectly sound advice, but it occurs to

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us that there is an alternative course which would in some instances be preferable to that here proposed, and upon which we should be glad to have our author's view. The medical practitioner might write, not to the company, but to his patient, asking whether the company had authority to pledge the patient's credit for the fee. If the patient replied in the affirmative, well and good; the company need not be asked to pay. If the patient repudiated the company's authority to make any application to the medical attendant in his behalf, the company might be safely debited with the fee, since it would be absurd to suppose that the medical certificate would be given free of charge. If the company has no authority to pledge the patient's credit, it must be taken to pledge its own. Such at least is the common sense view of the situation, and we should be much surprised to learn that it is not also the law.

PURE COAL.

MUCH of our English coal is of a somewhat low quality. Not only does it contain slate and other earthy impurities, but also, unfortunately, pyrites, more than one-half of which consists of sulphur. Our coalfields are being worked out with a velocity which produces anxiety in the minds of all who are interested about the future of the country. We cannot afford to waste even the poorest kind of fuel, and the propriety of restricting exportation has repeatedly been urged with powerful arguments. But in the meantime the burning of impure and dirty coal is a source of tribulation to housekeepers and of injury to manufacturers. According to Mr. Percy Bateson, who in December last read a paper to the Liverpool section of the Society of Chemical Industry, the process of Mr. Lührig, which appears to be the latest improvement upon various previous attempts, renders it possible for colliery owners to clean, and to some extent to purify, without great expense, the coal before it is sent away. The system involves a series of operations, in which are included dry separation, breaking, sizing, washing, recovery of sludge, automatic transportation, &c. It is said that the method is already in successful operation in many places, and from a sanitary, no less than from an economic point of view, everyone must hope for its success.

DEATHS UNDER ANÆSTHETICS.

A DEATH occurring while the patient was under the influence of ether is reported from Bath. The patient, a man aged thirty seven, applied for relief for pains which the officer who saw him describes as being symptomatic of "acute dyspepsia;" but the fact that there was a strangulated hernia appears to have been overlooked, although he had suffered from a rupture for two years. However, he was subsequently admitted into the institution, and it was found he was suffering from strangulated hernia, which it was deemed necessary to relieve by operation. The patient was at this time in an extremely prostrate state, vomiting large quantities of black fluid. After consultation he was put under ether, and ten minutes later the operation of herniotomy was commenced. However, two minutes subsequently the condition of the patient became so grave that the operation had to be abandoned and artificial respiration resorted to. The heart beat for an hour and a half after cessation of respiration. The windpipe was opened and the lungs inflated, but these and other means failed to initiate spontaneous breathing, and the patient died. There are many most unsatisfactory points about this case which perhaps a fuller report than that which has reached us might clear up. We are not told why tracheotomy was performed, although presumably for obstruction. Such obstruction could hardly have been spasm, as it occurred *twelve* minutes after commencing the ether, and subsequently to complete narcosis. If it was due to vomiting, it should have been mentioned, and surely a post-mortem examination should have been made to ascertain whether the vomit was sucked into the air-passages. Such an event constitutes the main danger in these cases, and several instances have occurred comparatively recently in metropolitan hospitals in which, through no fault of the administrator of the anæsthetic, vomit has found its way into the lungs. It seems most extraordinary, unless some such gross impediment to respiration occurred, that, with a heart beating for ninety minutes, respiration could not be restored. Was this efficient? Was there emphysema or any other condition which rendered artificial aeration of the blood impossible? If not, it seems very unusual that twelve minutes of etherisation carefully performed, as we are told it was, could not be counteracted by ninety minutes of artificial respiration.

A death under chloroform is reported from Wolverhampton. The patient, a boy aged eleven, suffering from hip-joint disease, was admitted into the General Hospital for operation. He had taken chloroform successfully twice (in September and October) during last year, and was again placed under its influence by the house physician for a third operation. When the surgical procedure was completed the boy's face grew dusky and his pulse stopped. The house surgeon's report after a necropsy was that death arose from syncope. The facts before us are too scanty to justify any remarks upon the case except to call attention to the fact, now pretty generally recognised, that there is no immunity from subsequent danger enjoyed by those who have passed safely through chloroform administration once or twice on previous occasions.

THE ROYAL BRITISH NURSES' ASSOCIATION.

THE meeting of this Association which was held on Monday last had under consideration a proposal to substitute a Royal Charter for the statutory incorporation under the Companies Act to which the application to the Board of Trade recently made for a licence to register a title without the word "Limited" was a preliminary. By a unanimous resolution the meeting decided to adopt this course, and thus the history of the institution enters upon a new phase. We do not doubt that the committee which has recommended the new departure has carefully considered the alternatives and been well advised as to the choice to be made. But we should, for our part, have been well content to hear that the Society had determined to press its claim upon the Board of Trade, for a position more thoroughly indefensible was never taken up by a public officer than that assumed by Sir Michael Hicks-Beach when he refused the application for a licence upon grounds of such a general character as those alleged in his communication to the Society. His treatment of the Institute of Preventive Medicine was at first equally perverse, but the firm attitude of the promoters induced him in the end to give way. It would, however, be very unreasonable to complain of the Association that it had declined a troublesome and disputatious course if an easier and simpler one be open to it. At the Privy Council Office there will be at least no mistake as to jurisdiction, and no attempt to adjudicate upon the merits of the application without hearing its promoters. In these circumstances the meeting had good ground for the tone of confidence which marked its proceedings, and it would not be surprising if in the end it should prove that the perversity of the Board of Trade turns to the advantage of the Association. In one respect it has done so already, for the Princess Christian has been induced to signify her approval of the institution in a very emphatic way, and to renew a very effective support by announcing that she will head the application to the Privy Council with her own name. While the battle remains to be fought it would as yet be premature to con-

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gratulate the promoters of the British Royal Nurses' Association; but we certainly shall not condole with them upon events which, though apparently untoward, have so far had such excellent results.

INFLUENZA.

THERE is comparatively little to report concerning the epidemics of influenza, either in this country or abroad, for, indeed, in almost all parts it seems to be subsiding. Thus in London—where, it may be noted, the birth-rate has regained its usual supremacy over the death-rate—the deaths directly attributed to influenza amounted last week to 314, as compared with 436 in the preceding week, and the cases in which influenza was noted as a secondary cause fell from 71 to 62. It is gratifying also to record a notable decline in deaths from respiratory diseases—namely, from 1465 and 1192 in the preceding two weeks to 761, a figure which, however, exceeds the corrected average by 279. The total death-rate in the metropolis last week was 30·6 per 1000, the same as at Portsmouth, and exceeded amongst the large towns of England and Wales only by Norwich (39·6) and Preston (31·1). Indeed, the general average amongst the thirty-three great towns noted in the Registrar-General's weekly return was 26·2. The chief fact to record in connexion with influenza has been the appearance in Vienna of an outbreak of diarrhœa, which has been extremely prevalent in that city during the past fortnight. It was at first supposed to be connected with the drinking water; but several of the leading physicians discountenance this theory, which has little to support it, and their general impression favoured its association with the prevailing epidemic. Dr. Bettelheim stated that as soon as this intestinal catarrh assumed an epidemic form, cases of the ordinary type of influenza ceased to appear. It is indeed quite conceivable that the two are related, and that in this enteritis we have only another example of one of the multifarious ways in which the influenza virus acts upon the organism.

ENTERIC FEVER AT THE FOUNDLING HOSPITAL.

AN exhaustive report has been prepared by Dr. John F. Sykes on an outbreak of enteric fever at the Foundling Hospital. The first case was admitted to the infirmary on Oct. 8th of last year, and between that date and Dec. 14th there were thirty-five attacks, with, happily, only one death. At first sight there were certain indications afforded by the special incidence of the disease which seemed likely to become helpful in ascertaining the origin of the malady. Thus, in the east wing, containing 179 inmates, only three, or 1·7 per cent., were attacked; whereas in the west wing, with 185 inmates, no less than thirty-two, or 17·8 per cent., suffered. Then, again, thirty-three of the patients were girls or female officers, only two males—both boys—being attacked. But the inquiry turned out to be very difficult. A continuous operation of the infection seemed indicated by the rapidity with which new attacks occurred within a few days of each other right up to the end of the first week of November; but, notwithstanding a most painstaking inquiry, nothing definite could be made out as to its primary introduction into the buildings, or its origin within them. The cause of the maintained diffusion is referred by Dr. Sykes to a faulty arrangement as to drainage by which the contents of the infirmary drains were made to flow past a grease-trap connected with the cooking room; these drains containing, for fully a week, infected stools from enteric fever patients. This grease-trap is regarded as having formed a suitable incubation chamber; and it is believed that the arrangements connected with it must have secured a rush of warm, expanded air and vapour into the kitchen, the offices, and the neighbouring staircases. When the kitchen was closed at night, and after evening meals, those most engaged in the kitchen—namely, the female staff and some elder girls—would be most subjected to the mischief, whereas the school children would have gone to their school-rooms at a distance. The special incidence of enteric fever on age would also necessarily have had some influence on the attacks amongst the older of the female inmates. The boys would not come under the influence of this defective arrangement in anything like the same way, and to this their immunity is attributed. The method of inquiry adopted by Dr. Sykes is worthy of study and imitation, even though in some respects his labours were not rewarded by a full discovery of all the circumstances which he endeavoured to clear up.

THE USE OF THE ACTUAL CAUTERY IN GYNÆCOLOGY.

DR. V. STOLYPINSKI, in an article in a Russian medical journal, strongly recommends the more frequent use of the actual cautery in gynæcological operations, as, for instance, in the destruction of fungating cancer, for the arrest of bleeding from pedicles, and for the removal of small tumours. He uses it in the removal of the vaginal portion of the os, when required, for malignant disease, and recommends it on account of its easy application, the slight loss of blood, and the simple after-treatment. He reports only one case with an unsatisfactory result, obliteration of the os being found at a subsequent confinement.

DEATH BY HANGING.

THE *St. Petersburger Medicinische Wochenschrift* gives a *résumé* of a paper by A. S. Ignatovski on the cause of death by hanging. He refers the rapid loss of consciousness after suspension to the retarded or arrested circulation in the brain brought about by the increased intra-cranial blood pressure. The effect of this impediment to the circulation is the same as in cerebral anæmia, for in both the nutrition of the brain suffers. It is therefore not, as Leofman teaches, an insufficient supply of blood to the brain, due to compression of the carotids, which interferes with the functional activity of the brain, but compression of the capillaries by increase of the intra-cranial pressure, which has this effect, and which occurs whilst the supply of blood remains the same, or even increases.

SIR SPENCER WELLS IN INDIA.

WE learn from the *Englishman* of Calcutta that Sir Spencer Wells has been the guest of the Medical Society of Calcutta, at a crowded meeting presided over by Dr. Kenneth Macleod. The assembly included most of the leading practitioners in Calcutta, European and native, a number of lady doctors, and some of the more advanced students of the medical college. We can imagine how sincere were the words in which Sir Spencer Wells expressed his pleasure in seeing such an assembly, representing so many different races and creeds, and receiving from it a warm welcome—the more so as the great subject of the evening was entirely congruous. The proceedings were begun by a paper on Ovariotomy in Calcutta by Dr. Joubert. Sir Spencer Wells paid a just tribute to the success of surgery in India, especially to the treatment of elephantiasis by the President, of lithotomy and lithotrity, of cataract and of hernia. Not less to the point was the praise awarded to the profession in India for its less showy but equally important work of an administrative and sanitary kind, fraught with blessing as it is to nearly three hundred millions of our fellow-subjects. Of course, Sir Spencer Wells did not conclude his eloquent address without a reference to ovariotomy in India, which had been so well represented in practice and on paper by Dr. Joubert. He thought the

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success had followed the European success, slowly at first, but gradually coming up to it. Sir Spencer Wells was liberal in his recognition of the other great advances in abdominal surgery, though he claimed that these were largely based on the success of ovariotomy. Not the least interesting part of his address was his allusion to the large number of deaths in Calcutta (12,000 in ten years) from tetanus, especially among infants. According to Dr. Simpson, 500 infants died of tetanus in Calcutta in 1890. Whether microbic or not in its origin, this is certainly a mark of insanitation. It reminds us of the appalling mortality of infants in the Rotunda Lying-in Hospital, a hundred years ago, from trismus nascentium, which was entirely removed by the simple expedient of opening the windows. Sir Spencer Wells supported the proposal to cremate the town refuse as one of the most likely ways of abating this virulent disease. We trust his example will be followed by other men of light and leading, who may be confident of a cordial reception in Her Majesty's Indian territories.

THE INTERNATIONAL MEDICAL CONGRESS OF 1893.

THE profession in Italy is sparing no pains to make this meeting as conspicuous a success as the best of its predecessors. At a recent sitting in Rome an organising committee was formed, with Dr. Baccelli as its president; Professor Edoardo Maragliano of Genoa, general secretary; the Commendatore Professor Pagliani (head of the Public Health Department of Italy), treasurer; and the Commendatore Signor Ferrando, steward (*economo*). There were also elected by ballot the heads of the fourteen sections over which the work of the Congress is to be distributed—to wit, Anatomy, Physiology, Clinical Medicine, Gynæcology and Obstetrics, General Pathology and Pathological Anatomy, Pharmacology, Surgery and Orthopædics, Psychiatry and Neuropathology, Ophthalmology, Dermosyphilopathy, Legal Medicine, Hygiene, Laryngology and Otology, Naval and Military Sanitation. The committee is at this moment engaged in constituting local or subcommittees for the whole kingdom, to consist of the leading practitioners of every province. All this procedure is on the lines of the Berlin committee, which will also be imitated in giving to each provincial representative a distinctive badge, to be worn during the Congress. The committee, moreover, is proceeding to the election of foreign committees with a view to secure the presence at the Congress of the leading members of the profession in all parts of the world, so as to make the gathering as truly an international one as possible, worthy of its predecessors and worthy of Rome. The time of meeting has been fixed for September, the month in which the climate of central Italy is at its best, when in Rome there is no risk whatever from malaria, and when the profession, particularly of North-western Europe, can best be spared from home.

KNEE-JERK IN ACUTE ILLNESS.

IN the last number of the *Neurologisches Centralblatt* there is an abstract of a paper by Dr. Longard of Bonn which deals with the condition of the knee-jerk during feverish conditions and with the influence of psychical conditions upon the phenomenon. In eighty-two patients suffering from phthisis he found distinct foot clonus in no less than thirty, and in seven of those there were active periosteal and other reflexes. Of those seven, six had a high temperature and were much emaciated, and only one was free from fever and fairly strong. In the majority of those there was active idio-muscular contraction in the pectoralis major and biceps, and in only a small number was it absent. The activity of this phenomenon seemed to be proportional to the amount of feverishness. In four cases of typhoid fever the knee-jerks were distinctly increased during the illness or in convalescence, and in one case of acute rheumatism there was a slightly increased activity of the knee-jerk. Of eight cases of croupous pneumonia, in seven there was increased knee-jerk and an increased muscular irritability, but there were among them three cases in which, at the height of the illness, the knee-jerk could not be elicited. Dr. Longard believes that in such acute illness the products of the morbid process may increase the irritability of nervous structures without causing any discoverable structural alteration in them, and he also believes that psychical influences are more effective in modifying the reflexes than has hitherto been supposed. Rosenbach finds diminution of the reflexes during sleep, and that this diminution is proportional to the depth of sleep; and in some of the cases observed by himself Dr. Longard was able to demonstrate a variation in the activity of the reflexes according to the psychical state of the patient. He concludes that the presence of foot clonus, or even of patellar clonus, is not necessarily dependent upon degeneration of the pyramidal tracts.

SMALL-POX IN THE DEWSBURY UNION.

THE Local Government Board have now issued an order definitely prohibiting the admission of small-pox cases into the Dewsbury workhouse hospital, and it is curious to note that this is protested against by one of the guardians on the ground of sympathy with the "needy class who want shelter." If the guardians who want to import small-pox cases from Batley into the workhouse at Dewsbury, where they are kept within a few feet of the needy sick in the infirmary, and where the lives of these sick poor have again and again been endangered, would use their influence in precisely the opposite direction, then their anxiety for the needy class would be more intelligible. The West Riding Council have also seen the matter in the same light as the Local Government Board, and have informed the guardians that, under the circumstances, they will refuse to receive any more pauper lunatics from Dewsbury. This is also objected to by the guardians, who have instructed a committee to wait upon the Asylums Committee of the County Council. In the meantime, we are glad to find that a number of urban authorities within the area of the Dewsbury Union are uniting for the formation of a joint infectious hospital board, the public inquiry for this purpose having been held last week. Some such means of proper isolation has long been wanted, and it is to be hoped that speedy success will follow this initiative step.

RECENT DEVELOPMENT OF ELECTRICAL SCIENCE.

LAST week, at the Royal Institution, Mr. Nikola Tesla, a native of Dalmatia, now settled in America, demonstrated the recent and most remarkable practical results of his investigations in electrical science. These have proved to be the most important advances of recent years; indeed, they may be regarded as a novel departure from the ordinary methods. The great novelty consists in the employment of alternating currents of high potential and frequency, the alternations taking place as rapidly as 20,000 times per second, which may be increased to a million per second by passing the disruptive discharge from a battery of Leyden jars through the primary current of an induction coil. When such a current is passed through a bare metallic wire it glows in the dark, and if one pole merely be attached to a metallic point a bluish flame becomes visible, or if to small discs of various substances, as lime, carbon, or artificial diamond in vacuum tubes, these become brightly incandescent. The incandescence increases to a bright light when

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the hand is brought close to the bulb, and still higher brilliancy is attained by the use of an ordinary metallic shade. A remarkable series of experiments shown by Mr. Tesla was the glowing of vacuum tubes without attachment by any conductors when these were simply held in a space between the two poles, the one terminal being a sheet of metal overhead. This showed the possibility of rendering any space electric (say, a room), and of the employment of vacuum tubes, placed anywhere in this electrified area without connecting wires, to yield light. One of the most important features, from a medical point of view, is that these rapidly alternating currents of extremely high potential appear to be absolutely without any pernicious effect on the human body, for Mr. Tesla made his body a portion of the circuit, and took a vacuum-tube (which glowed brightly) in one hand and an iron rod in the other, with which he touched one of the terminals from which sparks of several inches were being emitted, and yet seemed perfectly unaffected, whereas ordinary currents of probably one-fifth the intensity would cause death instantaneously. The condition of minimal displacement, while it has enabled Mr. Tesla to penetrate into what has been not inaptly described as a new region of experiment, shuts him out from the use of many of the appliances with which in the ordinary uses of electricity we are familiar, and therefore, although the beauty and interest of his experiments may be freely acknowledged, their practical utility or even their promise of practical result has yet to be demonstrated. The exhausted tube is a beautiful and, even under favourable conditions of illumination or rather of darkening, a brilliant object to look at, but it is a very feeble source of light; and there does not seem to have been in Mr. Tesla's experiments any indication whatever of such an increase of efficiency in his use of electricity as points to the use for practical illuminating purposes of such currents as he is able to pass through the human body without inconvenience.

THE LATE DR. H. I. BOWDITCH.

By the death of Dr. Bowditch on Jan. 14th, at the advanced age of eighty-four, there passed away one who in his time rendered great service to medicine, and whose memory will be long cherished at Boston and at Harvard University, where he was once the professor of clinical medicine. The *Boston Medical and Surgical Journal* (Jan. 21st) gives an admirable account of his life, taking note not only of his educational and professional careers, but of his energetic support of the movement for the abolition of the slave trade, in connexion with which may be cited the following fact: "When he was appointed admitting physician [to the Massachusetts General Hospital in 1838], negroes were not received as patients in the hospital. He offered a test case of pneumonia, resigned his position when his negro patient was not admitted, and carried his point, his resignation not being accepted." As may be gathered from this incident, Dr. Bowditch was a man of a chivalrous type and boundless sympathy. "Honest, fearless, outspoken, he made friends of his enemies by the simplicity, purity, and unselfishness of his purpose. He compelled an admiration of the right and a hatred of wrong." As regards his professional work, it may be noted that after graduating he spent two years in Europe, studying chiefly under Andral, Chomel, and Louis. His best-known work is his advocacy of paracentesis thoracis, in which he employed the aspirator invented by Dr. Wyman. This was in 1850, and may be said to have been the starting-point of a measure which subsequently became generally adopted, although not without encountering much opposition. Another subject which much interested him was that of phthisis, and in particular its association with climatic conditions, in which he did for America work similar to that carried on by Dr. G. Buchanan in his memorable inquiry on the prevalence of consumption in this country. He produced many essays on these and a few other subjects, but he published no large work. It is said that he has left "more than 90,000 manuscript papers of records of cases of private patients." He was one of the first supporters of female medical education; he was also mainly instrumental in the creation of the first State Board of Health in the United States in 1869, and acted as president of that board till 1879. He fully earned and merited the esteem and affection with which he was regarded.

HEALTH OF IRELAND.

UNDER this heading Dr. C. F. Moore of Dublin has recently published an article bearing on the health of Ireland, and more especially the sanitary condition of Dublin. He points out by statistics calculated on the last twenty years, taken from the death-rate, of almost every country in Europe, that Ireland ranks, after Norway and Sweden, as the most healthy of the European countries; and if the regulations for the sale of fermented drinks which prevail in Norway and Sweden were adopted in Ireland, he believes the latter country would far excel the other two named in healthfulness. Dr. Moore next refers to the plans for Dublin main drainage, but thinks a good deal might be done to improve Dublin without recourse to increased taxation in experimental, chemical, and engineering works. He draws attention to the accumulation of manure heaps in various parts of the city, and to the number of slaughter yards which the corporation cannot close without giving compensation to their owners, and points out that knackers' yards, tanneries, and other offensive works should be carried on outside Dublin, and all resulting offensiveness should be prevented flowing into the sewers. At a meeting of the Dublin Corporation last Monday Alderman Perry stated that he had personally inspected numerous tenement houses and dairy houses in the city, and that the condition of the former were in many instances most unsanitary. He attacked the Public Health department, which was defended by several members, and ultimately the matter was referred to a committee to inquire into the working, and make such recommendations for the reorganisation, if necessary, of the department as may appear to be necessary, Alderman Perry undertaking to formulate in writing specific statements of default in connection with the present working.

SEED GROWTH AND ELECTRIC CURRENTS.

SOME experiments, very simple, but of quite startling interest, are described in last week's number of the *Chemical News* (Feb. 5th). Dr. James Leicester, of the Merchant Venturers' Technical School, Bristol, has been studying the growth of seeds in what may be described as electrified earth. Scarcely any apparatus was used. A box about three feet long and two feet and a half wide was filled with soil, and near each end two metal plates, one of zinc, the other of copper, each about one square foot in size, were immersed, and were united outside by a copper wire. It is evident that by slow chemical action on the zinc a current will pass through the earth towards the copper, and returning by the outside copper wire will form about the simplest of simple cells. Various seeds were sown in the earth between the plates, and in every case it was found that the seeds grew much quicker than they did when the plates were absent. Similar and even more definite experiments were made with glass tanks, some with and some without the metal plates. All of them were fitted with the same earth, and were treated with the same quantities of water. In one typical instance

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the result is thus stated: "In the case of hemp seed, it was fully an inch above the surface before there was any sign of it in the ordinary vessels." The experiments were varied in several ways, but always with substantially identical results. It was found that if the soil was watered with a little very dilute acetic acid the growth of the seeds was much quicker when the metal plates were present, whereas without them no difference was noticed. Further researches on the growth of plant life are in progress, but have as yet yielded only negative results. It is impossible to anticipate the importance which may in future attach to these remarkable observations. They have no analogy at all with the experiments of Dr. Siemens, also interesting and important, on the stimulation of vegetable growth by electric light. Everyone knows that electric light is closely analogous to solar radiation, and it is not wonderful that the work of the sun's rays can be imitated, if not equalled, by their only important rival, the voltaic arc. But in these experiments there is no question of light or heat radiation, but a subterraneous impulse imparted to the soil.

CHOLERA INTELLIGENCE.

IT is for the first time definitely stated that all cholera in and around Damascus has disappeared; and it had for some time previously ceased at Beyrout. But in the plain of Merj-Ouni, some seventy miles from the latter town, cases are still said to be by no means unfrequent, and the consequence is that Syria and Asia Minor remain under observation as regards the prevalence of this disease.

INDIAN MEDICAL SERVICE.

AS our readers are aware, the question arose some time ago as to whether Brigade Surgeons of the Indian Medical Service could decline promotion to the rank of Deputy-Surgeon-General. Medical officers holding lucrative civil appointments were naturally disinclined to relinquish them, and occasionally preferred to abandon their claim to the higher rank rather than do so. We learn from the Indian press that it has now been ruled that if, after considering all the circumstances affecting any particular case, the Government deem it expedient in the interests of the public service to nominate a Brigade Surgeon for promotion, that officer will not be given the option of refusing it. We said, when the question arose some time ago, that the Government was clearly within its rights in this matter, and that all that could be fairly expected of the Government was that each case should be considered on its merits, and decided in the interests of the public service.

SLEEP AND MORBID SOMNOLENCE.

THE case of Johann Latus, the miner of Breslau, who was recently reported to have lain asleep for a continuous period of four months and a half, though not unique, affords a remarkable example of morbid somnolence. Though we cannot yet speak precisely as to the physiological basis of sleep, we can still gather from observation of associated physical states, aided by the side-light reflected from their pathological counterparts, some idea of its essential meaning. The fact that the brain becomes anæmic during sleep, though probably as much a consequence as a cause of this condition, is instructive nevertheless, as indicating that the molecular tissue changes underlying it are those of rest, the sequel of exhaustion; and further, that they are not merely cerebral, but are shared by every organ. It is manifest, at the same time, that the normal state of periodic sleep must be aided and deepened by this reduction in the ordinary nutrition of the brain. When, again, we come to deal with the causes of morbid drowsiness, the properties and relation of the nutrient blood-supply acquire a fresh interest. It would be impossible, unless we took account of these, to judge of the influence exercised by such well-known causes of unnatural stupor as the various forms of toxæmia, or even perhaps of the similar phenomena connected with obesity, myxœdema, senility, and nervous prostration. In most of these conditions the nerve exhaustion is remediable, and that by means which operate either on or through the circulatory system. Among such are massage and electricity, which act by stimulating its movement if too sluggish, and thus promote waste excretion, while at the same time they aid the direct nutrition of the jaded nerve centres. We may take it, therefore, that the somnolent condition, whether in health or illness, is a natural, and in some degree a remedial, consequence of nervous exhaustion. It may be of transient or of more continuous duration.

HÆMATOMA AURIS IN THE INSANE.

DR. TISHKOFF has examined and reported upon ten cases of hæmatoma auris occurring in patients suffering from general paralysis of the insane, in which disease it differs both clinically and pathologically from other forms of hæmatoma attacking the ear. Hæmatoma auris is due to the exposure of the cartilage of the ear to external influences, rendering it susceptible to morbid changes. It commences with inflammation of the perichondrium, which is followed by absorption of the cartilage caused by the formation of new bloodvessels. The rupture of these vessels creates a cavity between the perichondrium and the cartilage, which increases as the flow of blood continues. The characteristic form of the hæmatoma is caused by the cavity between the cartilage and perichondrium. The blood is slowly absorbed, and the thickness of the walls of the cavity is augmented by a new growth of connective tissue. The exciting cause in the insane is generally maniacal excitement; in the healthy it is always traumatic.

A CHEAP METHOD OF ADMINISTERING FAT.

DR. MERSHINSKI, by boiling milk and lard together for a considerable time, prepares a liquid which contains a large percentage of fat, one litre (one pint and three-quarters) containing from 130 grammes to 170 grammes. He gives half a litre before rising and another at eleven o'clock. "Breakfast," at one o'clock, consists of carbohydrates; dinner, at five, of nitrogenous matter. Experiments prove that the diet is generally well digested, and that the patient increases in weight. Dr. Mershinski considers this preparation very suitable for hospital and union practice in cases of malnutrition not connected with disease of the stomach, liver, intestines, or pancreas.

NEWSPAPER CURES FOR INFLUENZA.

ONE of our religious contemporaries, with doubtful judgment, leaves the region of divinity and professes to give its readers the wisdom of the late Sir Oscar Clayton in reference to the treatment of influenza. It is very curious reading, and somewhat hard on the deceased knight bachelor, whose prescription is given in very lax form, and who probably did not contemplate its general application. A certain "mixture" (*sic*) is to be taken with a tablespoonful of lime juice. We pity the unfortunate reader who takes the instructions too literally. Our contemporary then continues: "If I were you," added Sir Oscar Clayton, "I would eat two oranges a day. They are an excellent thing for influenza. They keep it from the chest." Was there ever a more simple and withal more pleasant protection from so grave a complication as that from bronchitis, pneumonia, and pleurisy by the palatable expedient of taking two oranges a day! Not only so, but it

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is set off with equally palatable accompaniments. "You may have a little fish or chicken, and have two glasses of port wine a day made into negus. Add a bit of lemon or nutmeg. Take plenty of strengthening food," &c. Who can resist such prescriptions, especially when they are said to proceed from "An eminent Court Physician"! Our contemporary naïvely adds that it is a curious coincidence that Sir Oscar Clayton should have died of mere influenza. The suggestion is that people die of the dreaded chest complications. But then there are the two oranges a day to keep these off. It is rather cruel to deal so lightly with the prescriptions of a deceased practitioner. It is hard enough for a medical man to be responsible for prescribing for individual patients without having given to his prescriptions a universal application. Our contemporary must take on itself the great responsibility of any extension in the demand for port wine that may accrue from this paragraph. People are extremely ready to take port wine, especially with the double sanction of a religious newspaper and "an eminent Court physician."

THE LIVERPOOL SOUTHERN HOSPITAL.

AT the meeting of the trustees and subscribers to this hospital it was described by several of the speakers as "a fitting monument of the generosity of the people of this city." The sanitary system has been overhauled at a cost of £2000, and a theatre has been built for the performance of surgical operations. Mr. Wm. Adamson, in seconding the report, referred to the growing recognition of the advantages of the hospital as a clinical school and as an institution for instruction in practical medicine and surgery, and to the fact that the Southern Hospital had been fully recognised by the Royal Colleges of London as a complete school of clinical medicine and surgery, standing in exactly the same relation to University College as the Royal Infirmary of Liverpool.

VARIATIONS IN THE SIZE OF THE PELVIS DUE TO ITS OBLIQUITY.

J. J. FEDOROFF publishes in a Russian gynæcological journal an article on the variations in size of the pelvis of parturient women due to its degree of obliquity. Last year, after careful observation of eight cases, he came to the conclusion that the conjugate diameter varies in length, and that its increase is due to the amount of pelvic inclination. He also found that the adaptability of the child's head to the pelvic brim, in flat and narrow pelves, is considerably increased in Walcher's position—that is, when the child's breech lies higher than usual and the lower extremities are extended. Measurements on thirty-six patients have led him to confirm his previous statements, and also to extend to them the other diameters of the pelvic brim, as in like manner depending on the obliquity and narrowness of the pelvis.

DEATH CERTIFICATION OF INSURED CHILDREN

WE are pleased to notice that the authorities are disposed to supervise with due vigilance the certification of deaths occurring among insured children. Let us take a recent example. At Cheltenham, on Jan. 26th, Mr. M. F. Carter, the acting coroner, held an inquest on the body of an infant who had died suddenly. The child had been ill for a week, but until the evening of his death had received no medical attendance. He was then seen by a medical man and prescribed for, just in time to allow of the latter signing the usual certificate. In this instance, notwithstanding the obvious neglect in delaying so long to summon assistance, there was no suggestion of evil intention on the part of the parents, and a verdict was given in the terms of the certificate, assigning congestion of the lungs as the cause of death. Notwithstanding this result, there can be no question as to the expediency of an inquest in this case. Others of a like sort, but by no means above the suspicion of criminal practice, have been marked by identical characters—the fact of insurance, the same neglectful delay, the same rapidly fatal issue. If we would add anything to the remarks already made it would only be to emphasise the duty incumbent upon medical practitioners to use the greatest circumspection in dealing with such cases. We have nothing to say against the practitioner's judgment in granting the certificate already referred to, but we should, in the absence of specially palliative considerations, regard such parental neglect as here occurred as in itself deserving of exemplary exposure.

THE EDINBURGH UNIVERSITY CLUB.

THE club was at its best on Wednesday night, under the genial presidency of H. Rutherfurd, Esq., barrister-at-law, who showed that while the medical faculty of the University had predominated for 150 years, men of other faculties gave lustre to the University. There was a goodly attendance. Previous to the dinner the annual meeting was held, and the reports were, on the whole, satisfactory. The chief event of the evening, regretted by all, was the retirement of Dr. Pringle from the treasurership, which he had held so ably for five years. His health was very feelingly proposed at the dinner by Dr. Potter.

FOREIGN UNIVERSITY INTELLIGENCE.

Naples.—This university, which was closed because of disturbance amongst the law students, has now been re-opened.

St. Petersburg (Military Medical Academy).—The lectures on Special Pathology and Therapeutics and the clinic formerly under the charge of Professor Manassein have been entrusted, during the vacancy caused by that gentleman's resignation, to Professor Chudnovski.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Alexander Lumnitzer, formerly Professor of Surgery in the University of Buda Pesth, at the age of seventy-one, after many years' ill-health.—Dr. Ed. Coen, lecturer on Pathological Anatomy in Bologna.

THE second of the Hunterian Society's Lectures for 1891–92 will be delivered by Dr. Hughlings Jackson, F.R.S., in the large lecture theatre of the London Institution, Finsbury-circus, on Wednesday, Feb. 24th, at 8.30 P.M. The subject of Dr. Hughling Jackson's lecture will be "Neurological Fragments," and the lecture is open to all members of the profession.

THE 119th anniversary dinner of the Medical Society of London will take place at the Whitehall Rooms, Hôtel Métropole, on Saturday, March 12th, R. Douglas Powell, M.D., F.R.C.P., President, in the chair.

MR. W. W. E. FLETCHER, M.B. Cantab., M.R.C.S. Eng., &c., medical officer of health of the Ormskirk Union, has been appointed to one of the medical inspectorships under the Local Government Board.

MR. W. HEATON HAMER, B.Sc. Lond., M.D. Cantab., M.R.C.P. Lond., has been appointed Assistant Medical Officer of Health of the London County Council, at a salary of £500, rising to £600.

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MEETING OF THE GENERAL COUNCIL OF THE UNIVERSITY OF EDINBURGH.

ON Friday of last week (Feb. 5th) a special meeting of the General Council of the Edinburgh University was held; it was convened by the Chancellor, the Right Honourable A. J. Balfour, in virtue of a requisition presented to him by a quorum of members of Council. Sir William Muir presided, and there was an unusually large attendance of members. The reason of this special meeting was that since the last statutory meeting of Council in the end of October, 1891, two draft ordinances issued by the Universities Commissioners had been received by the Secretary of the Council—viz., General No. 9, Regulations for Graduation of Women, and General No. 10, Regulations as to Assistants and Lecturers. Both were issued in the middle of November, and any amendments or objections had to be submitted to the Commissioners on or before the 16th of the present month. The draft ordinances referred to were considered by the Standing Committee of Council on communications to the Commissioners, and who prepared reports thereon, which were submitted to the meeting on Friday. The report on Draft Ordinance, General No. 9, points out that this ordinance enables the University Court of each University to admit women to graduation in arts and medicine, and makes such provision for their teaching as in the opinion of the committee would tend to place the University education of women in these faculties on a basis of substantial equality with men as far as the necessarily permissive character of the ordinance admits. Exception is taken to there being no opportunity left open for considering any similar provision in future in law or divinity. The committee regard the provisional clauses, recognising extra-academical teaching as qualifying for graduation so long as University classes are not fully available for women, to be fair and reasonable; but they urge that these clauses should be so far retrospective as to enable the courts to take account of students who have already attended regular courses and obtained certificates in examinations of the same character and standard as those for the M.A. degree. This report as well as the following were submitted by Mr. Taylor Innes, advocate, convener of the committee.

The second report was on the ordinance dealing with assistants and lecturers. The committee point out that from want of definiteness they have had difficulty in judging readily of this ordinance, more especially as to the means of increasing the teaching power in the University. The increase is necessary from the admitted evil of excessively large classes, the desirability of dividing large and important subjects into several departments, and the urgent necessity of increasing the number of, and the attendance at, practical classes in the Medical Faculty. In dealing with a former draft ordinance the committee expressed approval of two modes of diminishing the evil of excessively large classes (1) by enlarging the duties and improving the status and emoluments of University assistants; and (2) drawing more completely into the University system the extra-mural teachers in Edinburgh. In addition, there is a third expedient which the committee desire to see adopted—namely, subdividing Chairs, and appointing additional professors. The report then proceeds to deal with the proposals of the ordinance as regards (1) assistants and (2) lecturers. As regards assistants, the committee points out that the provision that they are to be paid out of the University funds will throw an additional burden on these, and will at the same time relieve those professors who at present pay a share, if not the whole, of their salaries. The committee see no reason why professors who draw a large amount of fees from practical classes should be relieved of the burden of paying those who do most of the work, especially as the effect of the present arrangement is to enable the professors to engage either in private research or in private professional practice. The committee further suggests that the duties of assistants shall be approved by the University Court as well as by the Senatus, seeing the duties are defined by the professor. The senior assistants in the Medical Faculty not only deliver lectures in supplement of those of the professors, but, in their absence, deliver lectures in the ordinary courses, and that in addition to conducting practical classes, superintending the laboratories, and reading examination papers and essays; and this being the case, if the Commissioners intend to make a change in their duties by the use of the term "tutoral work," it ought to be clearly defined. They further suggest that the chief assistants should have a distinctive title. The assistants are appointed on the recommendation of the professor. As regards lecturers, the ordinance provides for two classes: (1) the subjects not already taught in the University; and (2) on subjects already taught in part, with a view to preparing candidates for graduation in honours and in subjects not fully covered by the professor's lectures, and also with a view to increasing the teaching power when that is desirable. The ordinance determines that assistants shall be eligible as lecturers and *vice versâ*, and the committee take serious objection to this, and strongly recommend that the same person should not be allowed to hold office in both capacities. The committee further comment on there being no provision for initiating proceedings for the establishment of lectureships. They further regret that ambiguities appear which suggest a doubt whether the lecturers are intended to be really independent and not merely assistants under another name. They also contend that powers over teaching and teachers should be retained and exercised by the University Court. They think, further, that the Court should have power to make appointments of independent lecturers on subjects already taught within the University, not merely when it appears to be necessary, but when it appears to the Court to be desirable. The foregoing gives but an outline of the report, but sufficient to indicate its scope and the main points insisted on.

Dr. HAYCRAFT moved that the following be an addition to the committee's report:—

"The Council regrets that the University Commissioners do not propose the creation of any new chair in the Faculty of Medicine, and submit that if the Commissioners are not prepared to take the initiative in this matter, the staff of the University would remain, in their opinion, inadequate both for teaching purposes and for the direction of original research; that an addition of thoroughly capable and experienced teachers is necessary, as no addition to the medical professoriate has been made since 1836, in spite of the enormous increase of students, the institution of many new classes, and the development of a number of recognised specialities not known at that time. There is ample room in every department of the Faculty for the creation of at least one fresh speciality, and even then the specialisation would not be as great as that in an average German University. It is not to be expected that this addition to the teaching staff will be made by means of assistant lecturers proposed by the Commissioners. In order to obtain and retain the services of capable and experienced men, a University status, independent of the jurisdiction of another endowed lecturer, and emoluments of at least £400 a year ought to be provided."

Dr. Haycraft supported his motion in an admirable speech. Referring to the statistics of forty foreign Universities, he found that at these there was an average of twenty-five or twenty-six professors in the medical faculty; at Berlin and Vienna the number was over sixty. That was evidence of specialisation beyond anything they had in Scotland; and even in the extra-mural school in Edinburgh there was a specialisation going on which was distinctly in advance of the University. Considering the degree of specialisation developed abroad, and the fact that a considerable amount of time was spent by a number of the professoriate of Edinburgh in duties outside their University work, he submitted that, as a result, no great original work could be turned out at the University under present circumstances. He then referred to the inadequate remuneration of the assistants who were doing professorial work, and the fact that the new regulations did not improve their position. He did not think that any man of capacity and experience would ever retain his post with a one-year appointment and an insufficient remuneration, and that entirely under the jurisdiction of any individual member of the faculty. There was no attempt on the part of the Commissioners, and from the knowledge they possessed he did not think there would be any attempt on the part of the medical faculty in the University, to increase the number of men who would be able to remain at the University to take up differential work and add to its prestige. A young teacher might be got to accept the position, but he would take the first appointment elsewhere, and the University would only retain the services of young men or men who had failed to get positions elsewhere.

Dr. BERRY HART seconded this motion, and dwelt on the fact that, although Lister had done much of his great work in Edinburgh, bacteriology, upon which his work was based, had gone to France and Germany.

Mr. TAYLOR INNES accepted the proposed addition to the report, which was accepted without opposition.

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Dr. CATHCART then moved: "That the General Council of the University of Edinburgh deem it advisable that in any scheme of medical reform provision should be made by the University Commissioners for insuring the diminution of the number of systematic lectures, increasing the practical work, and allotting at least two years for the final subjects, and that careful provision be made for more thorough and efficient examination in all the professional subjects."

This was seconded by Mr. CAIRD and agreed to unanimously. This motion originally contained a clause in favour of the establishment of an honours school; but as this clause was to be opposed, it was made a separate motion

Dr. BYROM BRAMWELL, supported by Dr. NOEL PATON, opposed this motion, the former taking the same line of reasoning followed by him at the public meeting of the Reform Association.

On the suggestion of Mr. TAYLOR INNES a compromise was arrived at in the following terms: "That provision be made for honours being awarded in respect of high distinction in special departments of medicine, as well as in respect of high general excellence."

In the discussion on the Honours School, Professor RUTHERFORD enlarged upon the excellence of the University and its present methods, and was criticising the statement of the Reform Association when he was called to order, but indications were afforded by his speech that the attitude of the Senatus towards the Association and its proposals would evidently be strongly antagonistic.

LUNACY IN VICTORIA.

THE report of the Inspector of Lunatic Asylums for Victoria for the year 1890 gives much interesting detail regarding the insane in that colony, which at the end of that year had an estimated population of 1,147,994. The admissions during the year numbered 729, or 75 more than in the previous year. Of those admitted, 581 are stated to have come for the first time under asylum treatment, and 148 had previously suffered from mental affection—viz., 112 once, 24 twice, 6 thrice, 2 four, 2 five, and 2 six times. On Dec. 31st, 1890, the registered insane, as compared with the entire population, bore the proportion of 1 to 304 In New South Wales there is 1 insane person in 377, in South Australia 1 in 410, and in England 1 in 341 of the general population. The report states that the high rate of insanity in Victoria can only be surmised, though various influences at work suggest an explanation. Chief amongst these are (*a*) the facilities offered by the lunacy system for safely and cheaply disposing of weak-minded persons who may have become a burthen to their proper guardians. The cost of medical examination of persons suspected of being insane, as well as of the transport of lunatics and their maintenance in the asylums, are largely borne by the State, not by municipal or district authorities, as in other countries. (*b*) The poor-house system of Britain has no equivalent in Victoria, and in so far is wanting an outlet for a large class of asylum inmates. (*c*) The standard of mental unsoundness in use leads to many persons suffering only from old age, and harmless as regards themselves or others, being certified as insane. (*d*) The mortality amongst patients has been low, resulting in an accumulation of the old and incurable. (*e*) A large number of the population follow nomadic pursuits, and so are especially exposed to some of the most potent causes of mental disease. The average number resident during the year was 3541—namely, 1954 males and 1588 females. The recoveries were at the rate of 39·25 per cent. of patients admitted, comparing unfavourably with the average of recoveries—43·08 for the past twenty-three years. The returns are regarded as showing that the number of incurable cases admitted was larger, and the recoveries were reduced by a larger number than usual being entered as "relieved." The mortality amounted to 7·45 per cent. of the average numbers resident, a slight advance on that for the past twenty-three years, which give 7·18 per cent. as the average. The boarding-out system was brought into force during the year, but the efforts in this direction proved in some measure abortive, the result rather tending to show that the social conditions of the colony would preclude any extensive application of the system. "People of moderate independence apparently shrink from the responsibility involved, and any considerable extension of the system could probably only be achieved at a prohibitory cost." Roughly speaking, about one-half of the inmates are able to work, and they are employed principally in farming, gardening, washing, sewing, and household work, and only a small number have shown any inclination to learn trades requiring skill. The idiot children number eighty-nine, and considerable amount of pains is taken to teach them as far as their condition will permit, object lessons, drill, and useful work constituting part of the training. There are about fifty criminal lunatics in the asylums, and attempts are being made to get separate and more suitable accommodation for this class of the insane, as "their association with other patients is open to manifest objection." In the various asylums classes have been formed where the warders may acquire special knowledge bearing on their duties, but many of the warders failed to take full advantage of the opportunities thus afforded them. However desirable it is that warders (all attendants) should submit to special instruction, we agree with the inspector in questioning the fairness of insisting upon the attendants acquiring a knowledge of psychology, physiology, and anatomy where there was no stipulation to that effect when they entered the service. Dr. Dick concludes with the following judicious remarks on this subject:—"The position would, perhaps, best be met by establishing a limited higher class of warders, admission to which should depend on the possession of certain attainments, to be tested by examination. It is not to be forgotten that some of the most useful and trusted attendants could not hope to bear such a test, and that, conversely, the ability to pass an examination would be altogether delusive as evidence that any particular person was trustworthy or possessed the tact, good nature, cheerfulness, activity, and other qualities essential in an attendant upon the insane." The cost of maintenance per week dropped from 12*s.* 2*d.* *per caput* in 1889 to 11*s.* 11½*d.* in 1890, this latter rate being further reduced to 10*s.* 8*d.* by taking credit for certain payments into the Treasury. Overcrowding is seriously complained of in the asylums as injuriously affecting the health of the patients, impeding management, and necessitating the occupation by patients of portions of the buildings never intended to be used in such a manner, and altogether unsuitable for the purpose. It is to be hoped that the Government will see the necessity as well as the advisability of taking steps ere long to remedy a state of things which not only hampers efficient administration, but also is an indirect source of expense to the colony by retarding recoveries.

THE ROYAL BRITISH NURSES' ASSOCIATION.

A MEETING of the General Council of this Association, summoned by command of the President (H.R.H. Princess Christian), was held at 20, Hanover-square on Monday, the 8th inst, to consider the advisability of proceeding to seek for incorporation by means of a Royal Charter.

Sir DYCE DUCKWORTH presided, and, in moving a resolution authorising the Executive Committee to act in the manner proposed, he said the Association ever since its foundation four years ago had accomplished a great deal of very valuable and good work, but not without exciting opposition in various quarters. Perhaps no good work had ever been carried out in this world without doing so. The Board of Trade had refused the application for registration under the Companies Act, and had shut its doors against them, and now the Association must either go backwards or forward to something else. He hoped the Association would go forward fearlessly, as it had nothing to fear, and in that true British spirit of determination which would take no refusal until something very near absolute success was attained. He believed this Association was pre-eminently fitted to do the work required to be done, and there were no other means which could help forward the Association in its work than by boldly applying for a Royal Charter which would enable it to fulfil all the purposes for which it had been designed, and without which the Association would fall short of its ideals.

Mr. BRUDENELL CARTER seconded the resolution They had practically been invited by the President of the Board of Trade to take some step by means of which the oppo-

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sition to the Association might be unearthed and estimated at its proper value. They would not shrink from the challenge. All the objections urged against the registration of the Association were based upon statements absolutely erroneous, and nothing could be placed before the Privy Council which could afford any valid reason why this Charter should be refused.

Dr. BEZLY THORNE briefly reviewed the situation, and criticised the action of the President of the Board of Trade in assuming judicial functions, and, in so doing, in neglecting to perform one of the most essential duties of a tribunal—that of affording a hearing to both sides. The Association had no alternative but to adopt the suggestion of the Executive Committee.

This resolution was carried unanimously.

Dr. BEDFORD FENWICK said he had been asked to announce on behalf of her Royal Highness the President that she would be kind enough to make the application direct to the Queen in Council in her own name. The Association all over the world owed a deep debt of gratitude to her Royal Highness for what she had already done; and for this last mark of her interest in the work of the Association. Her steadfast determination to uphold justice to nurses would be welcomed and realised by the public as well as by the nursing profession.

Sir EDWARD SIEVEKING moved a resolution from the Royal British Nurses' Association, representing nurses in every part of Her Majesty's empire, expressing heartfelt sorrow with the Queen and the Prince and Princess of Wales in their recent bereavement. Her Royal Highness undertook to sign this address, and to forward it to the Queen and the Prince and Princess of Wales.

H.R.H. Princess CHRISTIAN then said: "At the time of my husband's sad accident I received much sympathy from the members of the Council and from the British Nurses' Association, and I have not had any opportunity of thanking them till now. I beg to return my warmest thanks and his at the same time."

Dr. PRIESTLEY moved a vote of thanks to Princess Christian for presiding, which was warmly accorded and graciously acknowledged.

Her Royal Highness afterwards moved a vote of thanks to Sir Dyce Duckworth for his conduct in the chair.

At the close of the business Mary Anne Sandford was elected first pensioner of the Princess Helena Pension for Nurses. Her Royal Highness then presided at a meeting of the Executive Committee.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

County Palatine of Durham.—Dr. Henry Armstrong has prepared a valuable summary for the Durham County Council on the reports of the medical officers of health for the forty-seven sanitary districts within their jurisdiction. For the twenty-three urban districts the mean mortality was 18·5 per 1000, for twenty-two rural districts it was 17·0 per 1000, the two remaining districts being ports. Spennymoor urban district, long a prominent one as regards faulty sanitary circumstances, takes the unenviable lead as to zymotic death, that rate being 3·4 per 1000. Notification of infectious diseases has not found much favour in the county, for only sixteen districts, including two ports, have adopted it, and only nine districts have as yet made any provision for the isolation of cases of such diseases. As in some other counties, reference is made to the want of uniformity in the plan of construction of annual reports, a want which prevents comparison as regards the several districts. Uniformity often tends to destroy the distinctive character of reports, and to reduce all to a common level; but there is no reason why, as regards the more important matters, there should not be some uniformity as to the subjects dealt with in the reports, and we understand that Dr. Armstrong only wishes uniformity in some such sense. Appended to a general introductory chapter, the report contains a summary account of the leading features attaching to each of the several sanitary districts concerned.

Stapleton Urban District.—This district had during 1891 a general death-rate of 18·0 per 1000, which exceeds that for any of the last ten years, and it is stated that epidemic influenza has been an important factor in bringing about this result, otherwise the ordinary zymotic rate was only 1·2 per 1000. The measures adopted to stay the spread of certain diseases, such as diphtheria, are recorded by Dr. William Brown, who also adverts to the prevalence of overcrowding in cowsheds, to the need for a public mortuary, to the desirability of extending the sewer system to localities where growth of population is taking place, and to the absence of any system for the compulsory notification of infectious diseases.

Aston Manor Urban District.—The general death-rate during last year was 16·9 per 1000. Though this is a trifle higher than the mean for the last ten years, it is rather lower than the rate for 1890, notwithstanding severe prevalence of influenza. As an instance of the class of preventive work going on in this district, it may be stated that during 1891 the number of scarlet fever cases reported was 337. No less than 236 houses were dealt with by stripping, cleansing, and disinfection; 242 lots of bedding and clothing were disinfected; and 124 of the patients were isolated in hospital. And as regards hospital isolation for all the infectious fevers, no less than 224 in all were so dealt with; indeed, the original hospital has been extended as its utility has increased. This and many other matters indicate excellent sanitary work, and good supervision of all that relates to the public health. We note especially that Mr. Henry May is taking proceedings with a view to action under the Housing of the Working Classes Act, 1890.

Chelmsford Rural District.—In a descriptive account of the general circumstances of this rural district, Dr. Thresh refers to the damming up of the river-water at Moulsham Mill outside the town of Chelmsford, and he incidentally notes the injurious consequences to which this gives rise. This bears out what we have recently contended, and it will afford surprise that Chelmsford can allow such a cause of ill-health to remain for so long a period without some real effort to remove it. The various sanitary circumstances affecting the whole rural district have been made the subject of careful study, and a commencement of work by way of distributing causes of death according to soil and topography generally has been made. Standing alone, it is found that as yet inferences are hardly capable of being drawn, but extension of such work might readily lead to valuable information. Many improved water-supplies have been obtained in the district, the housing of the labouring classes is receiving careful consideration, and in several localities the drainage and sewerage have been improved. The general death-rate for 1891 was 15·5 per 1000. The report is typical of what an annual report for such a district should be. It is comprehensive, and yet definite in giving information on all points of importance; and although it covers some fifty pages of printed matter, the author has found no reason for delaying its issue, as is so often done, until its interest and value have been greatly diminished by mere lapse of time.

Stroud Urban District.—Mr. Partridge reports a somewhat extensive outbreak of scarlet fever during the past year, and he explains how, owing to absence of information as to attacks and otherwise, measures of prevention were seriously limited. The hospital had to be closed, as had also the free library. Owing to diphtheria, flushing of sewers was resorted to, and this revealed the escape of sewer-air into houses, indicating the absence of proper means of aerial disconnexion. The general death-rate was unusually high—namely, 19·2 per 1000 living. Although a good public water-supply is available, and is generally in use, yet polluted and suspicious supplies are still resorted to by some. The discovery of these, but not the action taken, is reported, unless the latter comes within the description of improved water-supplies named in the sanitary inspector's appendix.

Bisley Urban District.—Closure of schools had to be resorted to in this district owing to measles, but apart from this, Mr. Partridge reports that zymotic diseases were not prevalent. The general death-rate for 1891 was 15·5 per 1000. A public water company are gradually increasing the number of their house connexions, and sanitary work generally seems fairly well maintained.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6622 births and 5106 deaths were registered during the week ending

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Feb. 5th. The annual rate of mortality in these towns, which had been 35·4 and 32·1 per 1000 in the preceding two weeks, further declined last week to 26·2. In London the rate was 30·6 per 1000, while it averaged only 23·1 in the thirty-two provincial towns. The lowest rates in these towns last week were 13·8 in Bradford, 16·2 in Leicester, 17·1 in Leeds, and 17·4 in Halifax; the highest rates were 27·7 in Blackburn, 30·6 in London and in Portsmouth, 31·1 in Preston, and 39·6 in Norwich. The 5106 deaths included 440 which were referred to the principal zymotic diseases, against numbers declining from 604 to 455 in the preceding three weeks; of these, 240 resulted from whooping-cough, 72 from measles, 38 from diarrhœa, 36 from diphtheria, 31 from scarlet fever, 23 from "fever" (principally enteric), and not one from small-pox. No fatal case of any of these diseases was registered in Birkenhead; in the other towns the lowest zymotic death-rates were recorded in Leicester and Blackburn, and the highest rates in Preston, Sheffield, Salford, and Swansea. The greatest mortality from measles occurred in Liverpool, Derby, Wolverhampton, and Gateshead; from scarlet fever in Cardiff; from whooping-cough in London, Sheffield, Portsmouth, Salford, and Swansea; and from diarrhœa in Salford and Preston. The mortality from "fever" showed no marked excess in any of the large towns. The 36 deaths from diphtheria included 27 in London and 2 in Manchester. No fatal case of small-pox was recorded in any of the thirty-three great towns; 6 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and 2 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1274, against 1397 and 1329 at the end of the preceding two weeks; 101 new cases were admitted during the week, against 116 and 100 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 1465 and 1192 in the preceding two weeks, further declined last week to 761, but were 279 above the corrected average. The causes of 90, or 1·8 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Leeds, Sunderland, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in Leicester, Liverpool, Salford, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 27·2 and 24·7 per 1000 in the preceding two weeks, further declined to 22·0 during the week ending Feb. 5th, and was 4·2 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·3 in Paisley and 18·5 in Dundee to 21·6 in Leith and 24·7 in Glasgow. The 612 deaths in these towns included 20 which were referred to whooping-cough, 10 to diphtheria, 8 to "fever," 8 to diarrhœa, 7 to measles, 2 to scarlet fever, and not one to small-pox. In all, 55 deaths resulted from these principal zymotic diseases, against 72 and 41 in the preceding two weeks. These 55 deaths were equal to an annual rate of 2·0 per 1000, which was 0·3 below the mean rate last week from the same diseases in the thirty-three English towns. The fatal cases of whooping-cough, which had been 24 and 16 in the preceding two weeks, rose again last week to 20, of which 10 occurred in Glasgow, 5 in Aberdeen, and 3 in Paisley. The deaths referred to diphtheria, which had been 9 and 4 in the previous two weeks, rose to 10 last week, and included 4 in Dundee, 2 in Glasgow, and 2 in Aberdeen. The 8 fatal cases of "fever" showed a slight further increase upon recent weekly numbers, and included 6 in Glasgow. The 7 deaths from measles exceeded by one the number in the preceding week; 5 occurred in Glasgow. The 2 fatal cases of scarlet fever corresponded with the number in the previous week, and included 1 in Greenock and 1 in Perth. The deaths referred to diseases of the respiratory organs in these towns, which had been 230 and 211 in the preceding two weeks, further declined last week to 173, but exceeded by 12 the number in the corresponding week of last year. The causes of 59, or nearly 10 per cent., of the deaths last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 54·1 and 41·5 per 1000 in the preceding two weeks, further declined to 33·6 during the week ending Feb. 5th. During the first five weeks of the current quarter the death-rate in the city has averaged 41·6 per 1000, against 38·1 in London and 22·0 in Edinburgh. The 225 deaths in Dublin during the week under notice showed a decline of 53 from the number in the preceding week, and included 3 which were referred to diarrhœa, 2 to whooping-cough, 1 to "fever," and not one either to small-pox, measles, scarlet fever, or diphtheria. In all, 6 deaths resulted from these principal zymotic diseases, equal to an annual rate of 0·9 per 1000, the zymotic death-rate during the same period being 2·9 in London and 0·8 in Edinburgh. The 3 fatal cases of diarrhœa exceeded the numbers recorded in recent weeks. The deaths referred to whooping-cough, which had been 10 and 5 in the preceding two weeks, further declined to 2 last week. Only one fatal case of "fever" was registered last week, against 5 and 3 in the preceding two weeks; this is the smallest number recorded in any week since August last. The 225 deaths in Dublin last week included 24 of infants under one year of age, and 76 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a further decline from the high numbers recorded in the preceding two weeks. Six inquest cases and 2 deaths from violence were registered; and 69, or nearly a third, of the deaths occurred in public institutions. The causes of 20, or nearly 9 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

THE death is announced of Patrick Sinclair Laing, Deputy Inspector-General, Inspecting Medical Officer of the Army and Navy Stores and Auxiliary, aged seventy.

Mr. J. Holt, Surgeon, 1st Bombay Lancers, was accidentally, while playing polo, thrown from his horse, and died a few hours afterwards from fracture of the skull.

ARMY MEDICAL STAFF.—Surgeon-Colonel Geo. Langford Hinde, C.B., to be Surgeon-Major General, vice Sir J. A. Hanbury, M.B, F.R.C.S.I., K.C.B, retired; Brigade-Surgeon-Lieutenant-Colonel Albert Augustus Gore, M.D., F.R.C.S.I, to be Surgeon-Colonel, vice G. L. Hinde, C.B.; Surgeon-Lieutenant-Colonel William Johnston, M.D., to be Brigade-Surgeon-Lieutenant-Colonel, vice A. A. Gore, M.D., F.R.C.S.I. (all dated Jan. 13th, 1892).

NAVAL MEDICAL SERVICE. — The following appointments have been made at the Admiralty:—Staff Surgeons: W. E. Bennett to the *Sans Pareil* and Michael Ronan to the *Alexandra* (both dated Feb. 9th, 1892); Stewart F. Hamilton to the *Durham* (dated Feb. 3rd, 1892); James Porter, for medical duties of ship and Bermuda Dockyard (dated March 4th, 1892). Surgeons: John P. J. Coolican to the *Belleisle* and Thomas R. Pickthorn to the *Vivid*, for Royal Naval Barracks (both dated Feb. 8th, 1892); John D. Menzies to the *Sans Pareil* (dated Feb. 9th, 1892); John L. Bagnall-Oakley to Royal Marine Artillery, Eastney (dated Feb. 10th, 1892).

MILITIA MEDICAL STAFF CORPS.—Hampshire Company: Surgeon-Captain William Collingridge, M.D., from the 3rd Division, Volunteer Medical Staff Corps, to be Surgeon-Major, and Surgeon-Captain William Wellington Lake, from the 1st Division, Volunteer Medical Staff Corps, to be Surgeon-Captain (both dated Feb. 6th, 1892).

VOLUNTEER CORPS. — *Rifle:* 2nd Volunteer Battalion, the Essex Regiment: Surgeon-Captain E. Shedd to be Surgeon-Major (dated Feb. 6th, 1892).—3rd London: Surgeon-Captain G. Hastings to be Surgeon-Major (dated Feb. 6th, 1892).

CHESTERFIELD HOSPITAL PENNY FUND.—At the annual meeting of the promoters of the above fund, held recently, a report was presented by the Committee of Management showing that £90 3*s.* 1½*d.* had been collected in the boxes at various places in the town, whilst Mr. H. Gilberthorpe, the secretary, received amounts during the year amounting to nearly £50. Relief had been granted in 329 cases. The committee are anxious to have a ward set apart in connexion with the Chesterfield Hospital for the treatment of medical cases, so as to avoid the necessity of sending such cases to other hospitals.

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Correspondence.

"Audi alteram partem."

ENTERECTOMY.

To the Editors of THE LANCET.

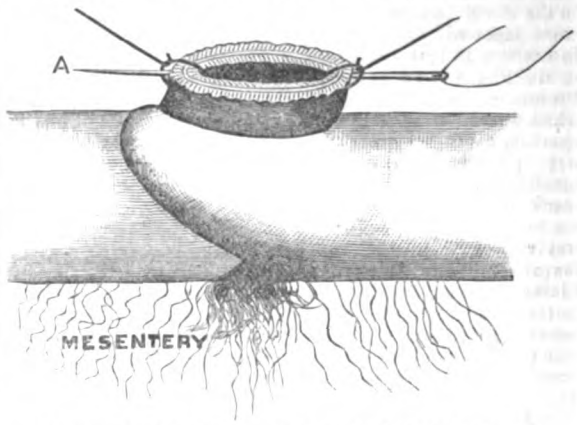
SIRS,—In THE LANCET of Jan. 23rd, 1892, p. 223, under the heading, "A Suggestion for the Treatment of Irreducible Intussusception of the Bowels," Mr. F. B. Jessett makes the following remarks:—

Mr. A. Barker will be interested to hear that last year, in conjunction with Dr. Morrotti, I made a series of experiments with a view of testing the feasibility of the operation. All these experiments, three in number, were successful. The steps I adopted were as follows: In the first place, I created an artificial intussusception, and allowed this to exist from six to ten days before operating for its relief; at the end of this time I found the invagination firmly adherent at the point at which the intussuscipiens receives the intussusceptum; the former was somewhat congested and œdematous. I made a longitudinal incision into the intussuscipiens on the side furthest from the mesentery, directly over the intussusceptum, about an inch and a half long, so as to allow of my being able to have a good view of and sufficient room to cut the intussusceptum across through the opening. I next seized the invaginated piece of intestine with vulsellum forceps and snipped it across about half an inch from the proximal end, catching up and tying any vessel that needed it, then with a series of interrupted sutures stitched the divided ends of the stump around, and returned it into the intestine, closing the longitudinal opening in the intussuscipiens with a double row of chromic gut sutures.

I am proud to learn that so excellent an authority on intestinal surgery as Mr. F. B Jessett now advocates the above operation. It is practically the same operation in every particular that I worked out and demonstrated eight or ten years ago in the Dunedin Hospital, Otago, New Zealand. I sent a notice of my paper on "Resection of the Intestine by a New Method" to the Intercolonial Medical Congress of Australasia, held in Adelaide, August, 1887. The notice was published at the Congress, but as I had a large number of surgical cases for that Congress I delayed the paper until the second Intercolonial Medical Congress, which was held in Melbourne, January, 1889. The paper begins with a description of a new bowel clamp devised by me. A short description of it appears in Treves' masterly work on "Operative Surgery," vol. ii., page 320. The following are extracts from my Congress paper on Enterectomy.

"When the entire circumference of the intestine is involved in a wound the bowel must be invaginated so as to bring the peritoneal surfaces into perfect contact all round, and suture them in that position. How is this to be accomplished? When nature performs enterectomy successfully, she invaginates the upper portion of the intestine into the lower, and when the peritoneal surfaces have united by adhesive inflammation the invaginated bowel sloughs off with impunity. Let us copy nature as closely as possible.

"These temporary ligatures are very important, as they secure the proper relative position of the two cut ends of the gut, and facilitate their subsequent invagination through the opening made in the larger segment of the gut. (See diagram.) If you examine the gut in a living animal, you will find the bloodvessels pass into it from the mesenteric attachment. These divide and subdivide, until they are lost in an invisible anastomosis in that portion of the intestine most distant from the mesentery. I propose to make an opening here in the larger segment of the gut, through which the invaginated ends of the divided bowel may be dragged by the temporary sutures, and when they are accurately sewn together all round they can be pulled back into their normal position. The longitudinal slit in the larger bowel, which begins about an inch from its transverse section, is brought together by a continuous suture. By this simple device the perfect union by suture of a complete transverse section of the bowel, with its peritoneal surfaces in exact position and all the knots of the sutures on the inside, can be accomplished. This opening should be made about an inch from the severed end of the larger bowel; its length depends on the size of the gut to be invaginated. In performing this part of the operation pinch up the coats of the intestine between the finger and thumb and transfix with a tenotomy knife. This operation is applicable to any part of the large or small intestine, and the pyloric end of the stomach may be excised in the usual manner and invaginated through an opening in the centre of the anterior wall of the stomach, sewn up from the inside, and then retracted to its normal position."



From this diagram it may be seen that the peritoneal surfaces are in accurate juxtaposition all round. While an assistant holds the ends of the temporary sutures, the surgeon passes a straight needle armed with stout horsehair through both sides of the bowel; the horsehair is then hooked up from the centre of the invaginated gut, divided, and tied on both sides. In this way twenty sutures can be placed rapidly in position with ten passages of the needle. The temporary sutures are now cut off short, the bowel pulled back, the longitudinal slit in the larger bowel closed with a continuous suture, and the mesentery brought together with four or five interrupted sutures.

In December, 1886, I first proved the ease and feasibility of my operation by successfully excising a cancer involving the entire calibre of the ileum to the extent of four inches. The case was a patient of D. Colquhoun, M.D. Lond., Lecturer on the Practice of Medicine in the Otago University, who very kindly handed it over to me for operation. Two operations were performed on this patient. The first operation, an exploratory laparotomy, revealed a mass of cancer, the size of a large lemon, involving the entire circumference of the ileum to the extent of four inches. As the mesenteric glands were enlarged and infiltrated with cancer, and the gut still slightly permeable, it was deemed unadvisable to attempt excision. The abdomen was completely drained of ascitic fluid and the laparotomy wound sewn up. For two weeks the child seemed wonderfully improved by the operation, which had relieved tension. At the end of the fourth week the bowels became completely occluded, and nothing was retained on the stomach. A consultation of the staff of the hospital was called, and, as there was complete occlusion, it was decided to remove the occluded portion of the gut. The steps of the operation were as follows:—(*a*) My sponge clamps were applied; (*b*) cancer excised; (*c*) smaller segment of gut invaginated into larger; (*d*) artificially created intussuscipiens longitudinally incised in that part most distant from the mesentery; (*e*) invaginated bowel brought outside and sewn up with interrupted sutures; (*f*) invagination retracted, and longitudinal incision closed by continuous suture. The time occupied in the operation from first to last was half an hour. I was assisted by Dr. Colquhoun, Dr. Batchelor, Lecturer on Gynæcology, Otago University, and Dr. Roberts, Lecturer on Pathology, Otago University. For the first three days after the operation the child seemed to be progressing favourably, there being little or no sickness. On the fourth day it got weaker, and sank on the sixth day after the operation. At the post-mortem examination the segment of bowel operated on was removed; union between both cut ends of the bowel had taken place; there was not the slightest sign or symptom of leakage.

In looking over my notes of the above case I find a short account of it, written by Dr. Colquhoun, read by me at the Medical Congress at Adelaide, 1887, in conjunction with my paper on Enterectomy. The limited space at my disposal here prevents me from inserting these notes. At a future date I hope to publish them in full. In the concluding remarks Dr. Colquhoun says: "The operation for resection of the bowel can be safely and speedily performed by the method adopted by Dr. Maunsell."

Last June I wrote a paper for the *American Journal of Medical Science* describing and illustrating (eighteen dia-

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grams) my method of enterectomy for disease and injury in all parts of the intestinal canal. Dr. Sydney Coupland, the local editor, informed me that the very large number of diagrams had delayed its production, but that in all probability it will appear in the next number of the journal. In that paper will be found the following description of my operation in cases of irreducible invagination. "In all cases of obstruction from irreducible invagination where rectal hydrogen inflation in the inverted position under chloroform has failed to reduce the intussusception, perform laparotomy. Having found the intussusception, first try uniform compression of the invaginated portion and gentle traction of the bowel in the usual way above the neck of the intussuscipiens. If this fails, *instead of completely* excising the intussuscipiens with the intussusceptum, as is generally advocated, or diverting the invaginated block from the physiological functions of digestion and assimilation so ingeniously devised by Maisonneuve, proceed to resect the intussusception in the following manner. [A diagram is here introduced showing the intussusceptum dragged out through a longitudinal slit made in that portion of the intussuscipiens most distant from the mesentery, and one inch below the neck of the intussuscipiens.] Gently withdraw the intussusceptum until its neck appears outside the slit in the intussuscipiens; transfix the base with two fine, long, straight needles, armed with strong horsehair or chromicised gut. Now amputate the intussusceptum a quarter of an inch clear of the needles, so as to leave a fair stump beyond them. Transfixing the neck of the intussusceptum previous to its amputation prevents it from flying back inside, and ensures the proper relative position of the different layers of the bowel previous to sewing them up. Having amputated the intussusceptum, pass the needles through and pick up the suture in the middle of the invaginated bowel; divide it and suture the bowel on both sides; leave the ends of the four sutures long, so as to hold the cut ends of the bowel in position until it is completely sutured up circumferentially. Now cut off the long ends of the sutures. Apply Woefler's mixture of iodoform and compound tincture of benzoin, the same that he applies to the surface of the raw stump after removal of the tongue, and withdraw the bowel. It now only remains to sew up the longitudinal slit with a continuous suture."

I arrived in England last May. Since then I have explained the principles of my operation for enterectomy in injury and disease, and its application to all parts of the intestinal canal, to several prominent British and continental surgeons (including Mr. Jessett, whom I assisted to perform my operation on dogs), all well up in the literature of enterectomy. Not one of these gentlemen hinted that the principles laid down in my operation had ever been tried or suggested before.

I am, Sirs, yours truly,

H. WIDENHAM MAUNSELL, M.D,
Late Lecturer on Surgery, Otago University, N.Z.

Stanhope-gardens, Queen's-gate, Jan. 28th, 1892.

INFLUENZA.

To the Editors of THE LANCET.

SIRS,—At the discussion which took place some time ago on the above subject before the Medical Society of London, Dr. Theodore Williams asked me whether I could, in confirmation of my views on the pathology of influenza, point to any necropsies showing an unusual degree of hyperæmia at the base of the brain in such cases. I could not then answer his question in the affirmative, but have since seen a report of an epidemic in the Danish asylum of Aarhus, published by Helweg in the *Hospitals Tidende*, in which the results of eleven carefully performed post-mortem examinations are given. In all cases, without exception, there was found a most intense hyperæmia of the pia mater and brain such as is never seen in any other cases; and this was more particularly marked in the arteries at the base of the brain, which were filled with blood to bursting, and stood out as cylindrical cords, as if they had been injected with wax. The consistence of the brain and spinal cord was increased; in four cases there was also a fresh pachymeningitis, and in one case a fresh lepto-meningitis. It appears from this that the hyperæmia of grip is not simply an ordinary vaso-motor hyperæmia, but a process tending to produce inflammation, the latter, however, becoming only fully developed in particularly suitable cases. A relationship between influenza and epidemic cerebro-spinal meningitis is therefore clearly shown to exist. Although Hellweg has not specified the condition of the medulla oblongata in his cases, it is quite clear, from the description he has given of the arteries at the base of the brain, that intense congestion of that organ must have existed; and the suggestion thrown out by Dr. Sisley at the meeting of the Medical Society just referred to—viz., that the process might be one of anæmia rather than of hyperæmia—is therefore disproved. In any future post-mortem examinations of cases of influenza I would urge pathologists to give particular attention to the condition of the bulb and its vascular supply.

I am, Sirs, yours faithfully,

Harley-street, Feb., 1892. JULIUS ALTHAUS, M.D.

To the Editors of THE LANCET.

SIRS,—In referring to my article in the *Nineteenth Century* you say "it is to be regretted that Dr. Maclagan's conclusions were not submitted for discussion in the medical journals rather than in a lay publication, and without being encumbered with so much hasty and debateable material." May I point out to you that there is nothing in that article which has not, and mainly through the pages of THE LANCET, been submitted for discussion in the medical journals.

On March 29th, 1873, THE LANCET published a paper by me entitled "A New Theory of Fever," in which were embodied the views which, after nineteen years, it now calls "hasty and debateable material." Debateable it may be; hasty it is not. In 1875, in the course of a discussion on the germ theory of disease at the Pathological Society of London, I enunciated the same views in what THE LANCET was good enough to call "a valuable contribution to the debate." In 1876 I published a book on the germ theory of disease, in which "this hasty and debateable material" was fully placed before the profession. In the same year I published, again in the pages of THE LANCET, my original paper on the treatment of acute rheumatism by salicin, in which I gave to the profession the results of my researches on rheumatism. In 1881 appeared my book on rheumatism, in which these researches were more fully laid before the profession.

In 1887 I published, again in the pages of THE LANCET, a paper on pyrexia and hyperpyrexia; and in 1888 a book entitled "Fever: a Clinical Study," which was very favourably reviewed by THE LANCET, and in which will be found "the hasty and debateable material" to which it now objects. In 1890, during the first epidemic of influenza, I published in THE LANCET a paper showing the good results got from the administration of salicin in full and frequent doses in that disease.

When influenza reappeared I sent to THE LANCET a second paper on the same subject; it was not inserted. The expression of regret that my conclusions were not submitted for discussion in the medical journals hardly comes well from the journal which omitted to give me the opportunity of continuing the discussion in its pages.

I am, Sirs, yours faithfully,

Feb. 9th, 1892. T. J. MACLAGAN.

To the Editors of THE LANCET.

SIRS.—In the present flux of comments on the prevailing epidemic I have found it noticeable that little reference is made to the disease as occurring in young children. It seems certain that previous epidemics have varied much in the liability to attack in children and in the fatality from it in them. Thus in 1438 an Italian historian speaks of the large mortality in children from the disease. An epidemic in 1578 described by Ballonius may have been one of pertussis, as it chiefly affected children, but it was described as influenza. And similarly, in subsequent epidemics the greater or less tendency of children to be affected is described. Thus in 1782 it is noted that the disease was least prevalent and least fatal in children. And, generally speaking, I think the same may be said of our present experiences as was said in 1782. The disease in young children as seen by me has differed notably from the complaint in adults. One might reasonably expect to find a bronchial catarrh taking on the graver conditions of capillary bronchitis and broncho-pneumonia in a large proportion of cases, but such does not appear to be the result. The type seems to be that the onset of the disease may be fairly compared to that seen in scarlet

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fever before the occurrence of the rash. But with this an increase in respiration and a dry, hacking, laryngeal cough supervene. No physical signs exist in proportion to the respiratory quickening. The child is torpid rather than in the uneasy condition common in this disease in older persons, and may or may not refuse nourishment. The pulse is somewhat quickened and asthenic in nature; the temperature ranges variably; the skin is dry or may be slightly moist; no profuse perspirations have been observed as a rule. After a few days the fever has gone, but the child is left in a depressed bodily state, and the cough often remains and frequently assumes the paroxysmal type seen in whooping-cough, and is frequently followed, as in pertussis, by vomiting. The temperature runs up occasionally at night, at which time also the cough is most persistent. I may say that this cough is about as amenable to treatment as is that of pertussis, in my experience. One case, in which a faint erythematous blush of skin existed, was in my opinion influenza.—I am, Sirs, yours faithfully,

Feb. 8th, 1892. ARTHUR THOMSON, M.B., D P.H. Camb.

To the Editors of THE LANCET.

SIRS,—In reference to your annotation in this week's issue of THE LANCET on Influenza in Children, I may mention that in this neighbourhood, though few children have been attacked, this winter the number of cases is greater than it was two years ago. One of the complications this winter, both in children and adults, has been the occurrence of otitis media. Of this I have seen no less than ten cases—seven in children and three in adults. In all the cases in adults and in four of the cases in children there was perforation of the membrana tympani, with serous or sero-purulent discharge. In two children and one adult both ears were affected. I do not know whether my experience has been exceptional, but, judging from the few cases of ear disease recorded, it would appear to be so. In THE LANCET for the last two years the only references I can find to this subject are: (1) A letter from Dr. Bronner of Bradford on March 8th, 1890; and (2) a paper on "Influenza and Ear Disease in Central Africa," by Dr. John Bowie, on July 11th, 1891. The cases I have seen are of the more ordinary kind mentioned by the latter, and not like the atypical cases mentioned by Dr. Bronner. As the complication is a somewhat serious one I venture to ask you to call attention to it. I should like to add that in the three years previously to last October I had seen only one case of otitis media in my practice; that occurred in 1890 during an epidemic of measles.

I am, Sirs, yours faithfully,

Feb. 10th, 1892. R. ACKERLEY, M.B. &c. (Oxon.).

To the Editors of THE LANCET.

SIRS,—As a constant reader and an occasional contributor to your pages for forty years, I may perhaps claim a right to put my *spoke* in this "wheel," or rather "woe," of mankind. In some hundreds treated by me with ten grains of soda salicylate and five grains of antipyrin, as long as pain and fever are present, followed by nux vomica, aromatic spirit of ammonia, and dilute phosphoric acid, as a recuperative tonic, with regular liquid nourishment every two or three hours, I have scarcely lost a case, and there are now five patients under my care whose average age is eighty-four years. I find tepid sponging, and when practicable a warm bath, great adjuvants to recovery.

I am, Sirs, yours faithfully,

Cley, Norfolk, Feb. 10th, 1892. W. SUMPTER, M.D.

A SANITARY MODE OF SPREADING DISEASE.

To the Editors of THE LANCET.

SIRS,—Would it be asking too much of our sanitary authorities if we were to request that they would themselves refrain from the systematic neglect of obvious precautions against the dissemination of disease? As matters of health are now dealt with, a very great wrong is being done to the community under cover of rendering it a service. When a complaint of the presence of sewer gas in any house or locality is made, the drains, and not uncommonly the sewers, are opened; but, so far as can be judged by results, no effective means seem to be adopted to prevent the contamination of the atmosphere by this disturbance. Surely, it ought to be a rule of practice among sanitarians that in the process of applying a remedy to existing evils, greater evils should not be created. A number of cases of typhoid fever have recently occurred in the metropolis and the suburbs in which the victims have distinctly contracted the malady when passing through public thoroughfares in process of disturbance for the purpose of repairing sewer pipes. Might it not be possible to saturate the earth, already probably poisoned, around a leaky sewer with carbolic acid or some other disinfectant before that earth is scattered with shovels on the surface of the roadway at the risk of infecting the neighbourhood? I am, Sirs, yours faithfully,

J. MORTIMER GRANVILLE.

Hanover-square, W., Feb. 8th, 1892.

"CONTAGIOUS SYMPATHETIC FEVER?"

To the Editors of THE LANCET.

SIRS,—There is a good deal of vague speculation at the present time, in both lay and medical journals, as to the *fons et origo* of the disease called influenza. Few are satisfied either with the name or with the treatment, and it goes without saying that if the former be empiric so must the latter be, and the profession and the public must be dissatisfied accordingly. It is therefore necessary to formulate a name which will at once express the disease and indicate the lines of treatment. It is with this object in view that I venture to classify the disease as a "contagious sympathetic fever." That it is contagious there can be no manner of doubt: the evidence is overwhelming, and the degree of contagion is in direct proportion to the cubic space of the dwelling and the number of its inmates. A large experience of the three epidemic periods of 1890, '91, and '92, amongst the ill-housed labourers of Dorset, has proved this to my own mind as clearly as a problem in Euclid. Whatever the nature of the poison, its strength and virulence are intensified by overcrowding, bad ventilation, and defective sanitation. In this respect it reminds one more of typhus fever than anything else; its sudden incidence, accompanied with high fever, frequent delirium, epistaxis, dusky lurid flush of the face, suffused conjunctivæ and bright shining, almost glassy, eyes, a not infrequent dull scarlet eruption, and occasionally bullæ on the feet and herpetic eruptions about the face, nose, and chest, all together point to the baneful action of some noxious poison which appears to gain entrance to the body and thence to the blood through the ordinary channels of respiration, and which at first stimulates and quickly depresses the heat-producing centre of the nervous system. So prompt and powerful is this primary stimulation if the poison be at all concentrated, that the reaction is immediate and profound. The initial headache is succeeded in from twelve to twenty-four hours by intense prostration, with muscular pains, chiefly of the lumbar region, but often general; and with these more crude manifestations of the second stage we have exhaustion of the involuntary muscular system, as seen in the heart-muscle and sometimes in the gastro-intestinal, when the latter is primarily involved. Were the disease out-and-out typhus fever, no doubt the initial fever would be more gradual and persistent, but as regards the resulting depression the similarity is beyond dispute, and the same treatment is required in both. There is nothing so marked in the present, and indeed in the recent, epidemics as the strongly "sympathetic" character of the complaint. From the very outset, the entire sympathetic chain appears to be involved, and this will go far to explain the visceral complications and the primary headache. Undoubtedly there is at first high arterial tension, but this speedily gives way, with or without treatment, and then succeeds the more dangerous period of local congestions and embarrassed circulation. It is towards the end of the first or the beginning of the second stage that fainting takes place, unless indeed the heart be already weak and gives way at the outset; so also is it about this time that cough supervenes, or it may be vomiting and purging. Thus we have a contagious sympathetic fever resembling typhus fever, which may prove abortive or follow the course indicated. The extent and variety of the sequelæ prove that individual proclivity and climatic conditions play an important *rôle* in the determination of the result. In fact, I believe, one might say with a strong degree of probability that most of the secondary symptoms of the disorder are due to the conditions named, to which might be added the age and habits of the individual. It is just as difficult to save an old and

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decrepit man or woman from this insidious complaint as it is to cure a case of typhus fever above fifty or sixty years of age, and both are alike destructive to the weak and debilitated at all ages. Influenza (so-called) is not *per se* a grave disease to the young and strong, if ordinary care be taken; but to all others it is of fearful significance under all circumstances. Stripped of its sequelæ and its complications, it is a comparatively simple disease, and by no means difficult to treat if due care be taken to support the patient from the beginning of the second stage; nor is any special remedy wanted to cut it short, as it is essentially of short duration as a contagious sympathetic fever. Of course, this description ignores the quality of the contagion or poison. But to practical physicians this is of small account; and were the alleged germ or microbe demonstrated beyond question, and even an extract of it prepared for injection, it would be of little avail apart from those measures of prevention and cure which are within the reach of all.

I am, Sirs, yours faithfully,

London, Jan. 25th, 1892. ALEX. MCCOOK WEIR, M.D. &c.

"DEATH CERTIFICATES BY UNQUALIFIED ASSISTANTS."

To the Editors of THE LANCET.

SIRS,—Kindly allow me to make a statement in reply to some remarks concerning me that appeared in an annotation in THE LANCET of last week. It seems to me that those remarks are based on two assumptions, both of which are incorrect. First, I deny that Mr. Austerberry is, or has been, my assistant during the last twenty years, throughout which period I have never employed an assistant. Second, Mr. Austerberry has never had authority from me to attach my name to a death certificate, or to any document whatever, and that until a report of the inquest appeared in our local daily paper I was unaware that he had ever done so. I know nothing whatever of deceased, nor of the club to which she belonged, and I can conscientiously affirm that for many years I have never given a death certificate without having personally visited the patient. This statement should exonerate me from all responsibility as to the death certificate referred to.

I remain, Sirs, yours truly,

Hanley, Feb. 8th, 1892. ARTHUR GOODWIN.

*** We have great pleasure in publishing the above disclaimer, and sympathise with Mr. Goodwin in the annoyance to which he must have been subjected by the errors in the report which formed the basis of our remarks.—ED. L.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle Royal Infirmary.

THE annual meeting of the Newcastle Infirmary was held last week, the Earl of Ravensworth presiding. The number of in-patients treated last year was 3295; the number of out-patients and casuals was 20,188. The number of deaths was 260, giving a death-rate of 7·89 per cent., but abstracting the deaths that took place within twenty-four hours of admission, the patients being moribund, the death-rate would be 6·19. A large number of cases of operation were of a very severe character, and such as a few years ago the ablest surgeon would have hesitated to attempt. Amongst other important abdominal operations there have been twenty-four for ovarian cysts, all the patients, with a single exception, having recovered. The financial state of the infirmary is, however, unsatisfactory, there being an excess of expenditure over income of about £2000 per annum. The workmen's subscriptions had amounted to £3200; the Hospital Saturday and Sunday Fund had contributed about £1100. Two large and special legacies had been received during the year—viz., £10,000 from the late Mr. John Fleming of this city, and £6000, being the larger part of the residue of the estate of the late Mr. Robert Walters, also of this city. With regard to a new infirmary building, the report goes on to say "that the committee, until they see their annual expenses met, cannot press upon the public the necessity which exists for a new infirmary, and yet they cannot forget it." The present accommodation afforded by the infirmary is insufficient, and even to lodge the nurses an additional house has to be maintained. There is no isolation ward, which causes great inconvenience and anxiety, and the cost of continued repairs is very considerable. A new infirmary adapted to present requirements, the committee believe, would cause an annual saving. It transpired at the meeting that the estimated cost of a new infirmary would amount to about £140,000.

Lead Poisoning.

An inquest has been held respecting a female worker at one of our white-lead factories. Her age was nineteen, and she had worked irregularly at the lead for about twelve weeks. She had previously been a strong, healthy girl. She left off work for a week, and seemed well on the Saturday before her death. On Sunday she was seriously ill, becoming insensible, and had convulsions, from which she died on the Monday morning. The evidence of the surgeon in attendance showed very clearly that the convulsions (epileptiform) and her death were due to lead poisoning, and the verdict was in accordance. Another inquest has since been held on a married woman aged thirty, a worker at the same factory. Her husband said she had always been a healthy woman until she went to the lead works, where she worked about five months. After she had worked there nine or ten weeks she had bad eyes, and complained of her head. The surgeon to the works said he attended her first last September for neuralgia of the head, and that when called to her on the Tuesday before her death she had frontal headache; he saw her again the same night, when she was in a state of stupor after a fit. He thought her death, which took place on the following Thursday, was due to convulsions, originating from some disease of the brain. He did not treat her for lead poisoning, as there were no symptoms of lead poisoning at all in her case, and a verdict was given in accordance with the medical evidence. I always record cases of death where lead is the suspected cause in these notes. After all precautions are taken the loss of life to the female workers in the factories is very great, and of course it will continue until this labour is abolished; and the sooner this is done the better.

Durham County Hospital.

At the annual meeting of the Durham County Hospital, held last week, the report stated that 349 in-patients had been treated during the year, and 1098 out-patients, including 231 casualties. The financial state of the hospital was satisfactory. A discussion took place on the want of interest taken in the hospital by the general body of subscribers, and amongst other suggestions it was mooted that the hospital should be made free, and the ticket system abolished. Matters seem to be working now in this direction amongst many of our northern hospitals.

Sunderland: Remarkable Longevity.

During the week ending Jan. 30th 47 deaths have been registered as having occurred in the borough of Sunderland, giving a mortality of 18·5 per 1000. Of 16 deaths in the Bishopwearmouth south district, 7 resulted from old age, the aggregate number of years being 566, with an average of 80·6. The ages of 5 others who died in the remaining districts of the borough amounted in the aggregate to 367, with an average of 73·2. There have been no deaths from influenza during the past week.

Death of Mr. Henry Featherstonhaugh, M.R.C.S., late of Newcastle.

Mr. Henry Featherstonhaugh, formerly in extensive general practice in Newcastle, but who retired many years ago, died on the 1st inst at his residence, Ravensworth-terrace, Gateshead, of pneumonia, after two days' illness. Mr. Featherstonhaugh was formerly house surgeon at the Gateshead Dispensary, and was well known and respected on both sides of the Tyne. He was in his seventy-seventh year, and has left a widow, but no children.

I am pleased to say that Dr. Heath of this city, whose serious illness was reported in our local papers a short time ago, is now very much better. He has been seen by Mr. Page and Dr. George Murray.

Newcastle-upon-Tyne, Feb. 10th.

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SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Professor Crum Brown and the Statement of the Association for the Reform of Medical Education.

PROFESSOR CRUM BROWN has considered it his duty to write a letter to the chairman of the Universities Commission on the statement submitted by the Association for the Reform of Medical Education, and he has had the courtesy to circulate copies of it. Only two paragraphs of the letter need be quoted here, for the enlightenment of old Edinburgh students. He says: "The lecturers who have signed the document presented to the Commissioners have given a novel definition of lectures. They tell the Commission that lecturing consists in the dictation of the details of the subject. Of such lecturing it is no question as to how much or how little of it there ought to be; it is clear that there ought to be none. I understand by lecturing something very different from this. The duty of a lecturer is to present to his students a clear, well-arranged, well-balanced exposition of the principles of the science he teaches, illustrating the application of these principles by means of well-chosen examples. This is a high ideal, but one to be aimed at. If lecturing degenerates into the reading of a published or unpublished text-book, it ceases to be true or efficient lecturing. A lecturer or professor who dictates the details of his subject to his students does not do his duty, and the cure is not to give him less of that bad work to do, but to relieve him of it altogether and set him on the right road." The question which these sentences suggest is, Did his colleagues see this letter? To old students and those connected with, or who know the springs of things in, the school there is a charming simplicity and individualism in the opinions which, if accepted by the school at large, would do much to obviate the necessity of reform associations.

Proposed Extension of the Royal Infirmary, Edinburgh.

Negotiations have been reopened between the Royal Infirmary and the managers of the Sick Children's Hospital and the Merchant Company, to ascertain if arrangements cannot yet be come to for the acquisition of ground more suitable for the purposes of extending the buildings than the plans recently suggested and referred to here.

Health of Edinburgh.

The mortality last week was 100 and the death-rate 20 per 1000. Diseases of the chest accounted for 50 deaths and zymotic diseases for 4. The intimations for the week were: typhus fever 2, typhoid fever 1, diphtheria 5, scarlatina 24, and measles 30.

Feb. 9th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

The Irish Colleges' Conjoint Scheme.

THE following is an outline of the five years' curriculum for the diploma in Medicine, Surgery, and Obstetrics of the combined Colleges, as agreed to by the Committee of Management:—First year: (1) Demonstrations and Dissections, six months; (2) Practical Chemistry, three months; (3) Practical Pharmacy, three months; (4) Lectures, (*a*) Physics, (*b*) Elementary Biology, (*c*) Theoretical Chemistry, each six months. Second year: (1) Hospital, nine months; (2) Demonstration and Dissections, six months; (3) Lectures, (*a*) Anatomy, six months, (*b*) Physiology, six months, (*c*) Histology, three months, (*d*) Materia Medica, three months. Third year: (1) Hospital, nine months; (2) Demonstrations and Dissections, six months; (3) Lectures, (*a*) Medicine, (*b*) Surgery, six months each, (*c*) Forensic Medicine and Hygiene, (*d*) Pathology, three months each. Fourth year: (1) Hospital; (2) Midwifery Hospital, including Diseases peculiar to Women and to Newborn Children, if not deferred to fifth year, six months; (3) Operative Surgery, three months; (4) Lectures, (*a*) Midwifery, six months, (*b*) Mental Disease, three months. Fifth year: (1) Clinical Study in recognised British or Foreign Hospitals, nine months, including (*a*) Surgery, (*b*) Medicine, (*c*) Ophthalmic and Aural Surgery, (*d*) Fevers; (2) Midwifery Hospital, unless taken in fourth year, six months; (3) Vaccination. As contrasted with the existing four years' course, there are some changes and additions. For example, only one course of anatomical lectures will be required instead of two; but attendance on lectures will be required during the first year on physics and elementary biology, six months each. A three months' course of lectures on mental disease will be obligatory, a certificate for vaccination, and during the fifth year nine months clinical study in hospital. Attendance on fever cases and in ophthalmic hospitals is transferred to the fifth year, while hygiene is not made a separate course from forensic medicine, as was expected, but is combined with that subject, contrary to the regulations of the English colleges. Requiring attendance on lectures on mental diseases is a step in the right direction—that is, if the lectures are clinical lectures delivered in a hospital for the insane, otherwise they would be useless, and a mere waste of the student's time and money. Of course this is only a draft report of the Committee of Management, and has to be considered by both Colleges.

Typhoid Fever in Dublin.

Mr. Maguire, who has had great experience as a sanitary engineer, has lately reported to the Public Health Committee of the Corporation, of which he is a member, on the subject of the prevalence of typhoid fever in Dublin and its possible prevention. He is of opinion that the city may be freed from its unenviable pre-eminence in epidemics of typhoid fever by carrying out the following reforms: 1. A main drainage system to purify the Liffey and the lower gravel subsoil now saturated with sewage. 2. A thorough reconstruction or renewal of all street sewers now imperfect in section, size, gradient, or level, or which may allow of leakage of sewage into subsoil. 3. A thorough reconstruction and renewal of all connecting house drains from houses to public sewers which are now allowing the escape of sewage into subsoil, or sewer air into houses which are not laid on concrete foundations having sufficient even gradient, which are too large in section to flush thoroughly or liable to become choked by any defects, or which pass from one house under any portion of another house. 4. The provision of proper intercepting traps, with easy access for inspection and cleansing, on every house drain, placed in the open areas where such exist, or otherwise in the most suitable sanitary position where the street-connecting drain enters the premises, always provided with fresh air inlet or outlet arrangements. 5. The proper construction and arrangement of all internal sanitary fittings, pipes, and drains. 6. The impervious paving of all stables, stable yards, dairy yards, and cowsheds, back yards, lanes, and streets, and the constant efficient cleansing of the same to prevent soakage of filth into subsoil. 7. The abolition of all privies, ashpits, and manure heaps. 8. The constant rigid inspection of all dairies and farm yards, and the effectual prevention of all infection therefrom. 9. The maintenance of the purity of the water-supply and distribution.

National Hospital for Consumption.

The general meeting of the supporters of this movement will be held on Wednesday, the 17th inst., in the Hall of the Royal College of Physicians. The meeting will be presided over by Dr. J. M. Finny, president of the College.

The annual meeting and dinner of the Dublin branch of the British Medical Association will be held at the College of Physicians on Thursday, the 18th inst.

Mr. W. I. Wheeler, F.R.C.S.I. &c., was last week sworn in as High Sheriff for the County of Kildare.

Feb. 9th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Septic Broncho-pneumonia of Intestinal Origin.

SEVESTRE, speaking on this subject at a meeting of the Société Médicale des Hôpitaux, held on the 22nd ult., reminded his audience that, in calling attention to these cases five years ago he had formulated the following conclusions:—1. In badly nourished children the intestinal contents may undergo decomposition, the products giving rise to fetid diarrhœa and septic enteritis. 2. This morbid condition may be the starting-point of general infection, revealing itself clinically most commonly by pulmonary congestion and broncho-pneumonia. 3. The best means of

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combating the diarrhœa and preventing the lung complications consist in the exhibition of such intestinal disinfectants as calomel and naphthaline. (To this list M. Sevestre would now add naphthol, betol, and benzonaphthol.) The above conclusions were based on clinical grounds only. M. Sevestre announced that M. Lesage was now prepared to endorse them from a bacteriological point of view. This observer stated, in effect, that he had proved the exclusive dependence of broncho-pneumonia occurring in the course of septic enteritis on the presence in the lung tissue of the bacterium coli. There had been examined five cases in which pulmonary lesions, together with swelling of the spleen, had been noted during life. In one instance there was found post mortem intense generalised congestion of the lungs, which floated in water, became paler, and soon resumed their normal tint. Microscopical examination revealed the presence of the bacterium coli. In one of the lungs, islets of broncho-pneumonic consolidation were found enclosed in the congested tissue. In another case the broncho-pneumonic process had reached the suppurative stage. In these consolidated areas the bacterium coli was found to the exclusion of all other micro-organisms. Inoculated into animals, its virulence proved to be identical in degree with that of the same micro-organism as found in its usual habitat, the intestine. The bacterium derived from the suppurating nodules had acquired pyogenic properties, for its introduction into the areolar tissue of the rabbit and the guinea-pig provoked the formation of a local abscess, followed by death in four or five days. M. Lesage also discovered the bacterium coli in the air of wards occupied by several children under treatment for septic enteritis, as also in the sterilised milk supplied to the little patients and to their neighbours in the same room. The bacterium was found to be growing in the milk as a pure culture. The above interesting facts lead M. Lesage to recommend the isolation of these little enteritic patients in special wards. While admitting the important part played in this class of cases by the bacterium coli in the production of the above-mentioned pulmonary complications, M. Sevestre does not feel justified in attributing to this microbe the exclusive *rôle* claimed for it by M. Lesage. Accepting as true the contamination of the milk, even previously sterilised, supplied to a large children's ward, he is of opinion that such a mishap may be best averted by the hospitalisation of the infecting patients in a number of small wards. Alluding to the suggestion advanced by M. Comby, that the stools be disinfected by means of cupric sulphate or corrosive sublimate, M. Sevestre pointed out some practical difficulties, in that the motions are often passed, not into bed-pans, but into the bed. I fail to see why the same disinfecting process should not be applied to the bed linen. This discussion seems to point to the fact that, in future, greater attention must be paid to intestinal antisepsis than has hitherto been the case, if we wish to avoid complications which too frequently prove fatal, not to mention the infection of patients under treatment for other diseases who may be occupying contiguous beds.

The Nerve-compression Treatment of Hiccough.

Every practitioner has met with cases of hiccough which seem to resist all known methods of treatment. As the continually recurring spasmodic contraction of the diaphragm is not only highly distressing to the sufferer, but may, through the exhaustion it produces, be the immediate cause of death, it is a matter of importance to be acquainted with a ready, speedy, and sure method of controlling this symptom. In many instances it is probably due to the presence of unabsorbable fluid in the stomach, and the rational remedy is an emetic, preference being given to apomorphine administered hypodermically. When, however, hiccough occurs as a neurosis, an infallible remedy is found in digital compression of the phrenic nerve, if we may believe M. Leloir (Acad. des Sciences, 18th ult.). This is not at all a new idea, for it is mentioned by several English authors. But the somewhat extensive experience of the method possessed by M. Leloir is worth recording. That gentleman tells us that five years ago a girl of twelve was brought to him in order to be treated for incoercible hiccough which, recurring every half minute, had lasted for one year, and had, as may be imagined, greatly interfered with sleep and nutrition. M. Leloir applied digital compression for the space of three minutes to the left phrenic nerve in the interval between the heads of origin of the sterno-cleido-mastoid muscle, and definitely cured his patient, who had previously tried all the known anti-spasmodics of the codex. M. Leloir has since successfully applied his method in a large number of cases of chronic and recent hiccough which had proved refractory to other remedies. He states that he has not met with an instance in which this compression, exercised for a few minutes—sometimes only a few seconds—did not prove effectual.

The Microbe of Influenza.

In 1890 Babès recorded having observed in cases of this hydra-headed scourge a small organism resembling in form the diplococcus, from 0·2 μ to 0·3 μ in diameter, forming in gelose pale, transparent cultures. A little later Kovalsky, as the outcome of his researches in the same field of inquiry, obtained somewhat similar results. More recently Pfeiffer of Berlin, and contemporaneously with him Canon, confirmed by independent inquiries the foregoing. According to these latter observers, the blood of persons affected with influenza contains a special bacillus, which they consider to be the *materies morbi* of this disease. In this country the research for the hidden bacteriological entity of this curious epidemic is not less ardent than abroad, and the secret bids fair to be yielded up in full view before long. Yesterday, at the Academy of Medicine, M. Cornil, in conjunction with M. Chantemesse, made an interesting contribution towards this end, of which I transcribe the salient points. A drop of blood was taken from an infant, the subject of influenza, and inoculated into the vein of a rabbit (No. 1). The day after the blood of the rabbit was found to contain microbes responding to the description of Babès and Pfeiffer, very small and more difficult to be seen than those found in septicæmia in the same animal, but capable of being stained by methylene blue and fuchsin in Ziehl's solution. In length they measure about one-twentieth the diameter of a red blood disc. The blood of the animal inoculated on sweetened gelose gave characteristic cultures and became surrounded at the expiration of twenty-four hours by an opaline zone which, under a magnifying power of 100 diameters, gives the appearance of very fine granules. The cultures, when stained and examined under the microscope, displayed the same micro-organisms as those found in the blood itself; they appear free, or in little agglomerations, or enveloped in small particles of gelose. These cultures were used to inoculate another rabbit (No. 2), the blood of which contained a bacillus similar to that from which the cultures were procured. This bacillus was easily cultivated in sweetened bouillon. From the rabbit the virus was transferred to a monkey. A few drops of the bouillon culture were placed in the nasal fossæ. It is probable, however, that this injection penetrated into the pharynx and was swallowed, for the symptoms presented later by the monkey were diarrhœa, fever (38·5–39·5 C.), weakness, with tendency towards sleep—symptoms which lasted several days, and were followed by depression and subnormal temperatures. These same micro-organisms were found in the sputa as well as in the blood of several patients attacked with influenza, not only during the climax of the febrile state, but for days after the fall of the temperature. A little blood from one of these patients, a young woman, the subject of uncomplicated influenza, was injected into a vein in the ear of a third rabbit, which the following day manifested the same symptoms, elevation of temperature &c. observed in the others, and in the blood of which the same bacillus was found in abundance. These observations, therefore, of no less an authority than Professor Cornil and his collaborator confirm in essential details the researches of Babès, Pfeiffer, and Canon, and lead them to the conclusion that influenza is an infectious disease caused by the bacillus in question, which by its form, its culture, and its reaction to staining agents they believe to be the micro-organism special to the universal malady. The disease, as manifested in the rabbit, is not of a severe type but of somewhat long duration. These animals grew thin, lost appetite, and were found to contain in the blood for over three weeks the bacillus in abundance. M. Cornil adds that the bacteriological researches hitherto made in connexion with influenza and other microbic affections go to show that the presence of the former strongly predisposes to infection from one or other of the latter, and hence the variety of complications. As to the bacillus itself, they repeat that it is not easy to distinguish it owing to its minuteness and the difficulty of staining it. It cultivates slowly at 37c. in gelose or in sweetened bouillon, and readily lends itself to re-culture in artificial media. At the expiration of twenty-four hours the culture in gelose appears as a very fine pink, cloud-like outline. In bouillon the

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culture is scarcely visible to the naked eye. These media preserve their transparency in presence of the culture, but interspersed here and there with very fine granules. In concluding this notable contribution to the pathology of influenza, MM Cornil and Chantemesse express the hope that the discovery of the micro-organism will go far towards perfecting our study of the diagnosis, the prophylaxis, and the treatment of this disease.

Epidemic of Rabies.

What is described as a veritable epidemic of hydrophobia has appeared amongst the domestic animals in the Commune of Pepieux in the arrondissement of Carcassonne. As many as forty of these animals, including dogs, cats, and even sheep, have been put to death. Several accidents to persons are mentioned. A man of thirty-five was bitten, and is now under treatment at the Pasteur Institute. The Mayor of Pepieux has ordered that all dogs be put under observation for forty days. At Ventenac d'Ande, in Narbonne, a mad dog has bitten two young girls of fourteen and fifteen. The animal was then allowed to escape to a neighbouring village named Bize, where it bit another victim. It finally escaped back to its home at Ventenac, and was not put to death before it bit two of its master's servants. All these cases are under treatment at the Pasteur Institute. There is considerable excitement in the locality, where naturally the result of the treatment is anxiously awaited.

Paris, Feb. 10th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Tuberculin.

THE rumour that Koch will publish a new article very soon on further progress made by him in the perfecting of tuberculin is denied on good authority. The fact of his continued unwearied efforts to that end, however, is confirmed.

An Alleged Cure for Cancer.

Professor Adamkiewitsch of Cracow, who has been experimenting in Vienna with a remedy for cancer for months past, has showed the Society of Medical Men there a patient who, he says, has been completely cured by the process. He stated that the glands, which had been slowly but steadily growing for half a year, had completely disappeared after a fortnight's treatment. The cure took place under the influence of injections which have no effect on other than cancerous formations. He maintained that the efficacy of his remedy is now beyond doubt, but Professors Billroth and Kundrat controverted the statement that the remedy is an absolutely certain one.

Antinervin.

The alleged efficacy of a new medicine largely used against influenza in the recent epidemic in Glogaw has attracted the attention of the medical world here. Its name is antinervin. It almost always alleviates the pains in the head and back, has been observed to cause a rapid reduction of the fever, with copious perspiration, and no unfavourable effects have been traced to its administration. Eight powders of half a gramme, taken in two days, generally sufficed to arrest the disease. It is about five times cheaper than antipyrin. It has been tried in the Royal Clinics of Turin and Genoa, and the heads of these establishments report favourable results.

The Berlin Society for the Cure of Mental and Nervous Diseases celebrated its twenty-fifth anniversary yesterday.

Dr. Heinrich Rosenthal, editor of the *Allgemeine Medizinische Zentralzeitung* (*General Medical Central Journal*), died here on Feb. 7th, in his fifty-eighth year.

Berlin, Feb. 9th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

A Secretary of Public Health.

WITH the opening of Congress there is a renewal of the agitation for a National Public Health Service. There is certainly great need of definite legislation on this subject, for at present that service is in a very anomalous state. There is in existence a National Board of Health without either power or means to do active work. There is the Marine Hospital Service, a bureau of the Treasury Department, to which is assigned limited power relating chiefly to quarantine, and which can expend the contingent epidemic fund under the direction of the Secretary of the Treasury; but there is no well-defined Public Health Service with adequate powers and means such as a nation should have which is exposed on every hand to the invasion of foreign pestilences capable of prevention by a thoroughly organised and equipped Department of Health. The present movement to secure legislation is undertaken by the American Medical Association, and it promises to unite and concentrate upon this great question the energies of the entire profession of the country. The form of central organisation which the Association proposes is a Department of Public Health presided over by a secretary, who shall be a member of the Cabinet. The ideal of the Association is certainly very high, and, it is to be feared, quite unattainable at this time. There is a strong prejudice against increasing the number of departments of the general government, and it is too true that the people are as yet far from realising the value of a department devoted to the protection and promotion of the public health.

The Pan-American Medical Congress.

The movement to assemble an American Medical Congress, composed of representatives from all nationalities of the Western hemisphere, during the Columbian Exposition, 1893, is progressing very satisfactorily to its projectors. A committee on organisation has been created which contains representatives from nearly every county in North and South America, and nearly all of the West India Islands. The correspondence of the local committee shows a hearty cooperation of the profession of these countries in the undertaking.

An Important Decision in a Suit for Malpractice.

A man who had been operated upon at the New York Hospital brought a suit against that institution for alleged ill results. On trial the question raised was as to whether the surgeon had performed the operation skilfully, and a verdict was rendered in favour of the hospital. Subsequently the same person brought a suit against the surgeon on the same grounds. The judge decided that the plaintiff had no standing in court, remarking, "It seems to me, upon every principle, that it is in the interests of justice, and in accordance with public policy, that after a man has had his day in court, and has been granted and accorded every opportunity of fully and fairly presenting his case, and after he has made his election and tried his case, he should not be allowed to come into court and try the same question over again."

New York, Jan. 26th.

Obituary.

SIR GEORGE EDWARD PAGET, K.C.B., M.D., D.C.L., LL.D., F.R.S.

IF there were any need of evidence as to the great esteem and affection, we might say veneration, in which the late Professor of Physic in Cambridge was held it was amply shown by the large attendance at his funeral on the 4th inst., when, at the service in his College chapel, where he had for so many years been a regular attendant, the Bishop of the diocese, the Vice-Chancellor, and practically all the heads of houses, professors, and resident members of the Senate, besides many friends from a distance, were present; and he was followed to the grave by numbers who could not gain admission to the chapel, including all, or nearly all, the medical men of the town. All bore witness to the loss of a common friend, of a highly gifted and eminently upright man, who had devoted a long life unceasingly, energetically, and in the best spirit to the interests of the University, the medical school, the medical profession, and the town and neighbourhood of Cambridge. He combined in a high degree and in a very unusual manner the somewhat opposite qualities of accuracy and precision and their natural associates—truthfulness and conscientiousness—with the facility of arriving at correct results, great acuteness and rapidity of decision, with clear, calm, far-sighted judgment. Few men can so quickly seize upon and so forcibly expose the weak points, the flaws, in a pro-

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posal or an argument as he was wont to do, a power which was attributable to his possessing in a pre-eminent manner the faculty of quick, close attention—the faculty, that is, of bringing his mental batteries to converge at once on the subject before him. Hence his opinion, though speedily formed, was carefully formed, not easily changed, and not often wrong.

No wonder that he was so highly regarded and confided in by his University, that he was elected and re-elected a member of the Council of the Senate and of the General Board of Studies and on many syndicates; no wonder that his influence was so great in promoting that development of the natural science and medical schools which has been a striking feature in the recent life of the University. To the qualities above mentioned he added a genial, kindly, friendly disposition, which grew with his advancing years, and a high, dignified, gentlemanly bearing which never deserted him or was thrown off its balance. Altogether he was an admirable representative of the University and the profession, combining the best features of both; and the members of both could feel that on all occasions their interests were safe in his hands. His great qualities evinced themselves also in the practice of his profession. He was a first-rate physician, and universally acknowledged to be so—conscientiously accurate in investigation, careful in diagnosis, shrewd in estimation of character, and judicious in treatment, leaving no detail uncared for. Decided, yet kind and considerate, he won the confidence of practitioners and patients, and bore the palm, without a rival, in practice in the University town and county till a late period of life. Not setting up to be an orator, he spoke clearly, saying well, vigorously, and emphatically what he intended to say, waxing warm, with flashing eye, when upholding the interests of the medical school or his profession against the opposition which he sometimes had to encounter. His last speech in the Arts School, not many days ago, when inveighing against a plan for ceding the site of the medical school-building for another purpose, will not be forgotten by those who heard it. On less important and on more convivial occasions he never failed to interest and amuse his audience by the amount of his knowledge and life experiences and by those stories and anecdotes and personal narratives of which he had so inexhaustible a fund, and of which he was so good a teller. Social by nature and with a keen sense of the humorous, and a large store of it in himself, he thoroughly appreciated and enjoyed to the full the society which a university town affords, and belonged to several clubs which lose in him one of their most animated and agreeable members. In general politics he was a decided Conservative; in University politics he happily took on the whole a liberal view, and was in favour of advance, of increase of the range of teaching, of better remuneration of teachers and examiners, of contributions from the College funds for the purpose, of extension of University influence, and of many other changes that have taken place. He was also one of those who, in the recent discussions, expressed the decided opinion that both the dead languages ought no longer to be made compulsory subjects of examination for all students who enter the University.

He watched with brotherly pride the rising career of Sir James Paget, who rarely took an important step in life without seeking advice from him; and the happy relations between the two often gave to members of the University the opportunity of seeing and the delight of hearing the renowned and eloquent surgeon. The last occasion was the Founders' day at King's College, Dec. 6th, 1890, when both were present, and Sir James, in his never-failing charm of style, replied to the toast of the visitors, and alluded in feeling terms to the advantage he had through life derived from the wise counsel of his elder brother. The two present not a few reminders of William and John Hunter; and since the time of those illustrious men no brothers have risen to such eminence in the respective branches of their profession.

Sir George Paget was the seventh son of Mr. Samuel Paget, a merchant at Yarmouth, and was born on Dec. 22nd, 1809. His early education was at the Charterhouse, and he was entered at Caius College in 1827, a contemporary and life-long friend of Professor Selwyn. It may be mentioned that an elder and a younger brother of his were also members of Caius College, and that the younger held a fellowship and College living. Sir George Paget pulled in the College boat, enjoyed his undergraduate life, and did not claim to have been a hard worker, but came out eighth wrangler in 1831, the same year with Dr. Budd, subsequently physician to King's College Hospital, who was at the same College and third on the list. He was elected in 1832 to one of the two fellowships which at that time were given to those who, being natives of Norfolk, should qualify in medicine. He graduated as M.B. in 1833, and as M.D. in 1839. The mastership of the College was then also assigned to a Norfolk man; and had the then master, Dr. Davy, who died in 1839, lived a few months longer, Paget (then and always a great favourite in the College, and acting as College bursar) would in all probability have succeeded to the mastership and have lived the comparatively quiet life of the head of a house, devoting his talents and energies more exclusively to the business of the College and of the University. As it was, he threw himself into the practical work of the profession with greater success than any of his predecessors in Cambridge. In 1851 he relinquished his fellowship, and with it the prospect of the mastership of his College, by marriage with Clara, daughter of Thomas Fardell, L.L.D., Vicar of Soham, and took a house in the town. They had several children, and Lady Paget survives. In 1881 his close connexion with the College, to which he was greatly attached, was renewed by his election to a professorial fellowship under the new statutes. This gave him, he said, as much pleasure as his earlier election in 1832, and he held this fellowship till his death. In 1841 he was elected physician to Addenbrooke's Hospital. The vacancy took place intentionally during his absence on the Continent, but the activity of his friends defeated the plan and secured the election for him. He immediately commenced clinical teaching and clinical lectures, which had not been done before, and thus brought the hospital more distinctly than had previously been the case within the range of university study. It was through him also that clinical examination at the hospital was instituted as part of the test in the examination for medical degrees and licence to practise, and it was a worthy source of pride to him that Cambridge was thus placed in the van of effecting this important addition to medical examinations. He resigned the office in 1884, but continued to take a warm interest in the affairs of the hospital, and seldom failed to attend and take part in the meetings of the governors; and during the whole period of his connexion with the hospital an unbroken harmony was maintained between the governors and the medical staff. An excellent marble bust of him by Wiles of Cambridge, raised by a subscription headed by the Prince of Wales, was presented to the hospital, and stands in the entrance passage as a memorial of the long and good work he did there.

In 1864 he was elected, without opposition, representative of the University on the General Medical Council. The best evidence of his good work there is afforded by the fact that he was chosen by the members of the Council to be their President in 1869; and his courtesy, good judgment, and discretion, together with the admirable manner in which he conducted the business of the Council, rendered his resignation of the office in 1874 a source of universal regret. About this time he was urged to come forward for the Presidency of the College of Physicians, and there was every reason to suppose that he would have been elected; but he declined to do so, on the ground that the duties involved in the satisfactory fulfilment of that office were scarcely compatible with his work in Cambridge. It caused some regret among the members of the profession in Cambridge that Paget and Humphry should, on similar grounds, though they might appear adequate to them, have declined to come forward for the presidencies of their respective London Colleges. In 1872, on the death of Dr. Bond, the unanimous feeling was gratified by the Crown appointment of him as Regius Professor of Physic. He was thus placed at the head of the School of Medicine, then fairly started on its prosperous career, to the furtherance of which his wise administration and energy and the confidence reposed in him not a little contributed. With keenly observant eye he watched over its interests, and was ever present to defend its cause. He fulfilled to the last, with his wonted care and conscientiousness, the various duties of the professorship, giving his lectures, taking part in all the examinations for M.B., and, which is now no light matter, presiding at all the exercises for M.B. and M.D., as well as presenting candidates for their degrees, and acting as chairman of the Special Board of Medicine. He received the honour of K.C.B. from the Queen, having attended both

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the Prince of Wales and the late Duke of Clarence and Avondale during their residence in Cambridge; and honorary degrees were conferred on him by the Universities of Oxford, Dublin, and Edinburgh. The influenza chill seized him on Jan. 14th. He never rallied from the depressing effects of the malady, and died on the 26th, in his eighty-third year.

It is to be regretted that he published so little. "A Notice of an Unpublished Manuscript of Harvey," in 1850; the Address, which he delivered as President at the British Medical Association at Cambridge, 1864, in which he strongly advocated the claims of natural science to a larger share of the teaching and the endowments of the University and the Colleges; the Harveian Oration at the College of Physicians in 1866; and occasional contributions to current medical literature, by their excellence of style and wealth of knowledge, create the wish that his pen had been more frequently employed to the advantage of the profession, and that he had yielded to the often expressed wish that he would commit to writing the many and varied experiences of his professional and his University life. He was a frequent attendant at the meetings of the Cambridge Medical Society, and always impressed his hearers by the sagacity of his remarks and the fertility of his memory in supplying illustrations from his practice often from years long gone by. The loss of such a man, it need scarcely be said, must be long and greatly felt by many old pupils and friends both in and out of the University of Cambridge.

SIR MORELL MACKENZIE, M.D.

SIR MORELL MACKENZIE was of Scottish extraction, the branch of the family from which he sprang having their ancestral home at Scatwell, in Ross-shire. He was the eldest son of the late Mr. Stephen Mackenzie, who practised at Leytonstone, in Essex, where the subject of this notice was born in 1837. Sir M. Mackenzie's father was a man of great cultivation and knowledge, being especially skilful in the treatment of diseases of the nervous system on the borderland of insanity. His mother was a daughter of Mr. Adam Harvey of Lewes, in Sussex, a lady of considerable gifts and energy of character, which were severely taxed when her husband was thrown from his carriage, causing fracture of the skull and death, without a return of consciousness. The widow, *enceinte* at the time, was left with eight children, and with very scanty means. Morell Mackenzie was at the time at Dr. Greig's school at Walthamstow, where he received a very sound education. As a boy, whilst bright and intelligent, he displayed no extraordinary powers or force of character. The truth probably was his abilities rendered his school tasks easy, and his work excited no enthusiasm. The sudden death of his father and the altered circumstances of the family, however, called forth his latent powers. It was necessary for him to do something for a livelihood, and he obtained a clerkship in the Union Insurance Office. The work was, however, uncongenial, and he determined upon a medical career, and to accomplish this he devoted his evenings to preparation for the matriculation of the London University. It is doubtful if he would have been able to carry out his intentions but for the generous aid of his maternal aunt, Miss Harvey, who not only defrayed the expenses of his education at the London Hospital, where he passed a most distinguished career, but continued her aid after he had become qualified in 1858, and enabled him to complete his professional education by studying for a year in Paris, and for a year subsequently in Vienna, and then afforded him the means of starting in practice. In 1859, when visiting Pesth, he became acquainted with Czermak, who had just rendered practical the discovery by Garcia of an instrument for the direct examination of the larynx. Impressed with the importance of the aid to the diagnosis and treatment of diseases of the throat afforded by the laryngoscope, and rapidly acquiring dexterity in its use, Morell Mackenzie came back to England, where he was the first to introduce the instrument. On his return he was appointed resident medical officer to the London Hospital, which office he held for eighteen months, and then became its first registrar. In 1861 he took his M.B. degree with honours in three subjects, and his M.D. in the following year. In 1866 he was elected assistant physician to the London Hospital, and in 1873 became physician. He was lecturer on physiology, jointly with Dr. Hughlings Jackson, for several years during this period. It will thus be seen that his medical training was exceedingly general, that his experience of medicine in all branches exceptionally wide, and that he was interested in the scientific as well as in the practical field. During these years he had, ever since his return from the Continent, been steadily pursuing his observations on diseases of the throat, and determined to devote himself to this subject.

Morell Mackenzie commenced practice in 1862, and his success from the first was remarkable. He was a genuine believer in specialism as the means of advance in the study and treatment of disease, and took an active part in forming the various special departments at the London Hospital. His articles on specialism in the *Fortnightly Review* in 1885 were somewhat aggressive assertions of his opinions on this subject, which excited a good deal of attention. The history of the Throat Hospital has been somewhat chequered. Dissensions have more than once arisen amongst the staff, and led to its reconstruction, and some years ago the Prince of Wales withdrew his patronage from the institution. Here, however, Mackenzie did his best work; his powers of teaching and demonstration, his manipulative dexterity and skill in operating, attracted large numbers of physicians from all parts of the kingdom, and, indeed, from all parts of the world. The publication of his monograph on "Growths in the Larynx," based on 150 observed cases and reports of 100 consecutive cases in 1871, raised him to a premier position in this department of his subject. His representative position as a leading laryngologist was recognised by his being appointed president of the Section of Laryngology of the International Medical Congress held at Copenhagen in 1884, and by the fact that when the British Laryngological Society was founded in 1888 he was elected its first president.

His very extensive practice compelled him to resign his office of physician to the London Hospital in 1874, but he continued to give a summer course of lectures at the London Hospital until 1885. His practice was an extremely large and lucrative one, but was enormously increased by the number of patients from whom he would not receive, or who were not in a position to offer him, a fee. He recognised in the fullest manner the claims of his professional brethren, and placed his services unreservedly at their disposal. He was extremely fertile in resources of treatment, not only as a curative means, but as regards palliative measures where nothing else could be attempted.

Sir Morell Mackenzie was an industrious writer. He obtained the Jacksonian Prize of the Royal College of Surgeons in 1863 for an essay on "The Pathology and Treatment of Diseases of the Larynx." In 1865 he published the first edition of "The Use of the Laryngoscope," which ran through three editions. He next published a monograph on "Hoarseness, Loss of Voice, and Stridulous Breathing in relation to Nervo-Muscular Affections of the Larynx"; in 1871 appeared "Growths in the Larynx," already alluded to; in 1879. "Diphtheria: its Nature and Treatment"; in 1883, "Hay Fever," which ran through three editions; and a semi-popular work on the "Hygiene of the Vocal Organs" in 1886, which has been translated into seven languages. He wrote the articles on Diseases of the Larynx in Russell Reynolds' "System of Medicine," and in the later editions of Aitken's "Principles and Practice of Medicine" revised the chapters on the Laryngoscope and Diseases of the Larynx. He brought out alone, or with the collaboration of his colleagues, four editions of the Pharmacopœia of the Hospital for Diseases of the Throat. He contributed frequently to the Transactions of the Clinical and Pathological Societies and to the medical journals, the most important of these smaller publications being an article on the "Differential Diagnosis and Treatment of Bronchocele" in THE LANCET of 1872. His *magnum opus*, however, was his systematic work on "Diseases of the Throat and Nose," the first volume of which appeared in 1880 and the second volume in 1884. This immediately took its place as the standard work on the subject. That such an amount of literary work should have been accomplished by one of the busiest physicians of his day is in itself remarkable; but it is simply extraordinary when, in addition to the professional demands on his time, his indifferent health, caused by almost constant asthma, is taken into consideration. With respect to his writings, all reviewers are agreed in recognising his clearness, precision, and literary style. He endeavoured to deal exhaustively with whatever subject he wrote upon, and took extraordinary and scrupulous care in working up the history and bibliography of every subject, never being

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satisfied until every reference had been verified. In the latter matters he often obtained the aid of successive assistants and secretaries, but no one can claim to have done more than prepare the ground for him to work upon, for not a line and not a word passed without revision and re-revision several times before it satisfied his critical judgment. He was undoubtedly possessed of great literary powers, based on a sound education, retentive memory, and unusually wide reading. Writing was to him, in a great measure, a recreation. His article on specialism, already alluded to, was characteristic of his polemical bent. He was never content with occupying a defensive position, but at once carried the war into the enemy's camp with a vigorous assault, fearless of consequences to himself.

The fact that he was called in consultation with those already in attendance on the case of His Imperial Highness the Crown Prince of Germany, the nature of the malady from which the distinguished patient suffered, and the momentous importance attaching to the opinion formed and the issue of the malady, directed public attention to him in a manner which is rarely the fortune, bad or good, of any member of the profession. For his services to his patient whilst yet Crown Prince, Her Majesty conferred the honour of knighthood upon him, and when his illustrious patient ascended the throne as the Emperor Frederick III he, in very gracious terms, bestowed on Sir Morell Mackenzie the Grand Cross and Star of the Hohenzollern Order. After the fatal termination of the Emperor's illness a lamentable controversy arose in consequence of an attack upon his conduct and skill contained in a report by Professors Gerhardt and von Bergmann, which was replied to by Sir Morell Mackenzie in a book entitled "The Fatal Illness of Frederick the Noble." It is unnecessary to again enter into the details of the case or the mode in which the controversy was carried on. All are agreed as to the difficult and delicate position in which Sir Morell Mackenzie was placed, and most would probably now like to take an indulgent view of the manner in which he conducted his case. There are, however, two points which in justice to him should be touched upon. In the first place, it has been often asserted that he, whilst recognising the cancerous nature of the disease, concealed this knowledge with the intention (laudable or otherwise) of benefiting his patient's position with regard to the contingent vacancy in the throne. The present writer had frequent opportunities of discussing this question with Sir Morell Mackenzie, who never deviated from the position he took up in his report of Feb. 12th, 1888, which was printed in THE LANCET of Feb. 18th of that year. His position he then clearly defined by pointing out that it was one of those rare instances in which the clinical symptoms were indecisive, that the microscopical examinations of Professor Virchow had shown no evidence of cancer, and that the progress of the case alone permitted its characters to be determined. The second point is as to his entering upon a controversy upon the case, and the manner in which he conducted his share in this. Whilst deeply resenting the attack made upon him, Sir Morell Mackenzie hesitated whether to reply. The opinion of his intimate friends was somewhat divided on the subject, and he asked the advice of several statesmen, who thought he ought to take action in the matter. His decision was finally determined by the opinion of the highest authorities in this country, informing him that, as the statements contained in the reports of Professor Gerhardt and von Bergmann were contained in an official State document, and were not a mere newspaper attack, he was bound to reply to them. As to the mode in which the reply was actually carried into effect, those who advised him had of course no share or responsibility. Opinions differed as to the wisdom and form of the reply. Whilst some approved of it, the great majority of medical men, including the Royal Colleges of Physicians and Surgeons, who passed condemnatory resolutions on the matter, regarded it as an improper manner of vindicating his professional character and skill, no matter how these were aspersed and whatever provocation he received. The views of THE LANCET on the matter were fully expressed at the time.

In person Sir Morell Mackenzie was of tall stature and of slender build. He had a massive forehead, deeply set eyes, somewhat prominent cheekbones, due to his Scottish blood, and a mouth expressive of great determination. His eyes and complexion were dark, and his black hair had not a silver streak at the time of his death. He had a most impressive and kindly manner, which added greatly to his attractiveness. His tastes were highly artistic, he had travelled widely, and nearly all his holidays had an educational character. At one time he visited Norway to study the leper establishments, at another taking up geology, or, again, architecture. From the nature of his profession he was brought into contact with most of the eminent and interesting personages of the day, several members of the Royal family being patients at different times. He was profusely hospitable, his circle of friends unusually wide, and greatly attached to him. He was of an affectionate nature, a loyal husband and a devoted parent. To his fatherless brothers and sisters he acted a father's part, and was most generous, not only to those who had claims upon him, but to greater numbers who had not.

Sir Morell Mackenzie was never robust. For more than thirty years he had suffered severely from asthma, which increased upon him as years advanced. This necessitated the most careful management at all times, and curtailed many enjoyments. His intimate friends are agreed that his constitutional vigour was severely taxed by the mental and physical strain which his close and anxious attendance on the Emperor Frederick entailed, and that his health was never entirely regained. He had an attack of influenza in November last, which left him extremely prostrate and more than ever a sufferer from asthma. He became much worse on Jan. 19th, and was confined to his bedroom with bronchitis and asthma. The latter was so severe that for several nights he could not go to bed. He became a little easier and again able to lie in bed, and hopes were entertained that he might recover. On Feb. 3rd, however, he had a fit of coughing and difficulty of breathing, followed by syncope, and he passed away quite painlessly and unconscious in about ten minutes. Memorial services were held at St. Thomas's, Regent-street, and St. James's, Westmoreland-street, Marylebone, on the morning of his funeral, which took place at Wargrave, where he had a country residence and spent some of his happiest hours. The memorial services were numerously attended by very representative congregations, but his funeral was very quiet and simple, in accordance with his expressed wishes. He leaves a widow and five children, one of the latter of whom has all but completed his medical education.

G. R. TATUM, F.R.C.S. ENG., M.R.C.P. LOND.

ON January 18th, 1892, passed away at Salisbury a venerable gentleman of the medical profession, George Roberts Tatum, at the advanced age of eighty-four years, after a long period of failing health. He was the brother of Thomas Tatum, who for many years was surgeon, and subsequently Consulting Surgeon, to St. George's Hospital, London, and of the Rev. Wm. Tatum, formerly rector of St. Martin's, Salisbury. His father was Thomas Tatum, a captain in the South Wilts Militia, his grandfather John Tatum, who was the first physician to the Salisbury Infirmary; and his great grandfather Thomas Tatum, M.D., of Salisbury, who died at Mere. The subject of our memoir was a man of extremely brilliant mental power and of great ability in the exercise of his profession. After studying at St. George's Hospital he obtained his L.S.A. in 1829, M.R.C.S. Eng. in 1830, and F.R.C.S. Eng. in 1843. In 1839 he went to Paris to study at the Hôtel Dieu, where he attended the lectures of the famous Dupuytren. He used to recount how well he remembered Dupuytren drinking his bowl of milk and walking off with a long loaf of bread under his arm, with a proud air. Such was the primitive fare they then used to provide for the medical lecturers. In Paris he witnessed the sacking of the Archbishop's palace, and saw the priests' robes floating down the Seine. He entered the palace with the mob, and picked up a leaf from Procopius' "Wars of the Vandals" when they were destroying the library. Mr. Tatum was house surgeon of the Salisbury General Infirmary from Nov., 1833, to March, 1841, and this institution owes much to him for its capital working organisation and local prestige. He was elected an Honorary Surgeon in 1841, and discharged the duties of that office with great ability up to 1860, when he was elected a Consulting Surgeon, which position he continued to hold up to the period of his decease. Of fine physique and presence and with intellectual powers of such a high order, for scholastic attainments and knowledge of his profession, as well as for brilliancy of wit and repartee, Mr. G. R. Tatum was locally without a superior.

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JOHN BARKER MAWER, L.R.C.P.LOND., M.R.C.S.

MR. JOHN BARKER MAWER died at Bucharest on Jan. 31st, aged seventy-six. Invited by the Roumanian Government, he went out to Bucharest in 1858, where he exercised his profession up to within a few days of his decease. Mr. Mawer was for many years Physician to the Brancovani Hospital and other public institutions. He was the author (in Roumanian) of "The Bringing-up of Young Children," and contributed several articles to current medical literature. He was a correspondent of THE LANCET during the Russo-Turkish war of 1877 and 1878, and, aided by friends in England, he mainly sustained a hospital of thirty beds for Roumanian soldiers. He declined a Roumanian decoration, saying that he was sufficiently compensated when the Prince and Princess—now King and Queen—of the country visited his hospital and personally thanked him for what he had done for their wounded. He also refused a Russian decoration, but on the ground that he had done nothing for Russian soldiers. He accepted the "Medjedie" from the Sultan, as he received Turkish wounded and tended some of them even after the closing of his hospital. Courteous, gentle, and charitable, Mr. Mawer was beloved by all classes. He was buried in the Protestant Cemetery on the 2nd inst., his coffin hidden by crowns and wreaths, one of the most prominent of which bore the inscription, "From the British colony, with sincere regret and esteem."

JOHN BASSETT, M.D. ST. AND., M.R.C.S.

WE regret to record the death of Dr. John Bassett, for many years one of the professors of midwifery in Queen's College, Birmingham, which occurred on Jan. 25th at his residence at Handsworth. Dr. Bassett was in his sixty-seventh year, and had retired from active practice; indeed, his health for more than a year past had been so very unsatisfactory that his death was not unexpected. He was educated at Guy's Hospital, where he entered as a student in 1843, having among his contemporaries Norman Chevers, Cleveland, and Braxton Hicks, with whom he maintained friendships only severed by death. Coming to Birmingham in 1846, after taking the membership of the Royal College of Surgeons, he was appointed house surgeon to the old Lying-in Hospital, and after a period of useful experience in that capacity he started in practice in Hockley. When Sydenham College was founded by Dr. Bell Fletcher in connexion with the General Hospital, Dr. Bassett joined the staff as lecturer on materia medica, which post he subsequently gave up in order to assume the chair of midwifery. At the amalgamation with Queen's College he became one of the joint professors of midwifery, a position he retained till a year or two ago, when failing health compelled him to resign. He was for a long time a member of the College Council, his resignation having been received at the last annual meeting of the governors of the College. In 1879 he delivered the Ingleby Lectures, which were published in the *Birmingham Medical Review*. His other contributions to medical literature were chiefly on obstetric subjects, among which his paper on Secondary Hæmorrhage is generally regarded as a classic. Dr. Bassett was twice married, and leaves a widow and two daughters. His son, Dr. H. Thurstan Bassett, died in South Africa last September. The profession in Birmingham will long remember Dr. Bassett as a worthy and amiable colleague, a devoted teacher and an honourable and upright man, who filled for many years a very useful position in the medical school, and did his duty without any thought for himself.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council, held on the 11th inst., the minutes of the quarterly Council on Jan. 14th were read and confirmed.

The address of condolence to Her Majesty on the occasion of the decease of his Royal Highness Prince Albert Victor was read and entered on the minutes. Also the address of condolence to their Royal Highnesses the Prince and Princess of Wales on the occasion of the decease of H.R.H. Prince Albert Victor, prepared by the President and Vice-President, and forwarded by them. A letter of the 4th instant from Sir Francis Knollys was then read, expressing, by desire of their Royal Highnesses, the Prince and Princess of Wales, their heartfelt thanks to the President, Vice-President, and Council for their warm sympathy. Letters of the 25th ult., from Mrs. John Wood and Mrs. Berkeley Hill, thanking the Council for their resolutions of condolence, were also read.

Mr. A. E. Durham was elected a Vice-President for the remaining period of the Collegiate year, in the vacancy occasioned by the death of Mr. Berkeley Hill.

It was agreed that, as recommended by the Nomination Committee, the qualification for the office of Examiner for the Fellowship or Membership be unrestricted—that it be no longer necessary that the examiner be a Member or Fellow for either examination.

Mr. H. G. Howse, being eligible, was re-elected a member of the Court of Examiners in Surgery. Mr. Marcus Beck was elected an Examiner in Surgery in the place of the late Mr. Berkeley Hill. A letter of the 27th ultimo, from Mr. Wilde, was read, reporting that the action of Steele *v.* Savory had been dismissed by Mr. Justice Romer, with costs. The shorthand notes of the trial of the action were directed to be entered in the minutes.

The Council, in pursuance of their resolution on March 4th, 1889, proceeded to the further consideration of the infraction of Section xvii. of the By-laws, and resolved again to defer the consideration thereof to the next meeting of the Council on March 10th. In reference to this subject the Council determined that the Fellows and Members concerned be informed of this resolution.

Letters were read from Dr. Liveing, reporting the proceedings of the Royal College of Physicians on matters affecting the two Colleges.

The Council elected Mr. Marcus Beck a trustee of the Jacksonian Fund, the Hunterian Fund, and Sir Charles Blicke's bequest to the library, in the place of the late Mr. John Marshall.

Mr. Bryant, the President of the College, was appointed Hunterian Orator for the year 1893.

Medical News.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 4th inst. Sir George Humphry was appointed to preside over the acts kept by candidates for the degree of Doctor of Medicine, and Dr. D. Macalister to preside over the acts kept by candidates for the degree of Bachelor of Medicine during the vacancy in the Regius Professorship. The proposal to appoint a Demonstrator to assist Professor Dewar, at a stipend of £100, and to abolish the office of assistant to the Professor, was carried by a majority of six. The following degrees have been conferred:—

Bachelors of Medicine and Bachelors of Surgery.—John Atlee, George Newstead Edmondson, Trevor Halket Evans, Lewis Gladstone Glover, St John's; Donald Harvey Attfield, Peterhouse; Harold Barr Grimsdale, Gonville and Caius; Edward Branson Wrench, Downing; William Carling, non-collegiate.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, IRELAND.—The following gentlemen, having passed the necessary examinations under the conjoint regulations, have been admitted Licentiates of the Colleges:—

Ernest Harris Beaman, Henry Bouchier Hayes, Thomas Francis Dillon, John Joseph Michael Dowzer, John Henry Elmes, Malcolm Ferguson, Frank Williamson Foott, Edward Fitzgerald Frazer, William Cope Hamilton, Melville Keay, Herbert Buxton Ludlow, Edmund William Lynch, John Michael Mangan, Richard Moynahan, Alfred William Power, George Henry Russell, John Grant Warren, Reginald Joseph White, George Thomas Whyte, David Ernest Williams.

MEDICO-PSYCHOLOGICAL ASSOCIATION. — At the next quarterly meeting of the Association, to be held at Bethlem Hospital, London, on Feb. 18th, at 4 P.M., Dr. Ewart will read a paper on "Epileptic Colonies," and Dr. Hack Tuke will read for Dr. Jacobson, of Copenhagen, a paper entitled "Relations between Syphilis and General Paralysis." The Dissertations for the Bronze Medal and Prize must be sent to the President not later than the 30th of May, 1892. The examination for the Gaskell Prize will take place in July. Particulars may be obtained of the General Secretary.

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LEPROSY IN THE TRANSVAAL.—A Reuter's telegram states that the Transvaal Government have had their attention directed to a number of lepers in Kaffir kraals to the north-east of Pretoria, and a report has come from Maritzburg that no fewer than fifty kraals at Ixapo—a division of Natal—were infected with the disease.

SMALL-POX IN MOROCCO.—Accounts from Mogador give grievous details of the extensive spread of small-pox in Morocco. Mellah appears to be the nucleus of the infection, and is described as being in a horrible condition of filth, whilst a large part of its inhabitants, chiefly on account of the ravages of the epidemic, are stated to be in great distress from the want of food and medical necessaries.

REMOVAL OF HUMAN REMAINS.—Application has been made by the rector and churchwardens of St. Helen's, Bishopsgate, to the Consistory Court of London for a faculty "to authorise the removal, on sanitary grounds, of a large number of remains of persons formerly buried" under the church, and disturbed in the work necessary for its restoration, to the consecrated burial-ground at Ilford.

AN INFECTIOUS DISEASES HOSPITAL FOR MEXBOROUGH.—At the meeting of the Mexborough Local Board on the 3rd inst. it was reported that an interview had taken place that day with the agent of Mr. Andrew Montagu, and that arrangements had been definitely made for the gift to the town of an acre of land on the western side of the cemetery for the purposes of land for an infectious diseases hospital.

MONTGOMERYSHIRE INFIRMARY.—The annual report for the past year (the twenty-fourth) shows that the work of the institution had been satisfactorily performed. There was a slight increase during the year to the number of in-patients, and the number of out patients under treatment remained about the same as in 1890. The year's subscriptions were less, attributed to several causes, and the expenditure shows an addition, accounted for by special cases requiring extra treatment.

THE RADCLIFFE INFIRMARY.—A quarterly court of the governors was held on the 27th ult. The auditors' report was adopted. The chairman entered into considerable detail on the financial condition of the infirmary, and regretted that he had to declare a very considerable deficit it was the more vexatious because the receipts had not fallen off. But overspending had come upon them, and in its most insidious form, for nearly every item in the accounts is slightly raised, with the result that the expenditure was £470 in excess of the receipts. As to the remedy, it must be economy and retrenchment. It is proposed to transfer £205 from a fund called the establishment fund to the general income of the house, and £400 from the Lancashire fund to the building account.

THE SEWERAGE OF CAMBRIDGE.—For many years the attention of the local authorities has been given to the diversion of the sewerage of the borough from the river. The corporation, as the urban sanitary authority, has just come to a final decision on the question. At a meeting held last week the committee to whom the subject had been referred recommended the acquiring of sixty-seven acres of land adjoining the Milton-road at Chesterton for the purpose of precipitating the solids, and utilising and purifying the effluent, and the coöperation of the Chesterton sanitary authority in this scheme is to be solicited. The committee's recommendations were agreed to. Instructions were given to prepare the plans for the whole scheme, and application is to be made to the central authority for sanction to borrow the estimated cost, amounting altogether to about £120,000.

ORKNEY AND ZETLAND ASSOCIATION.—At the dinner in connexion with the annual meeting of this Association, held last week in the Waterloo Hotel, Edinburgh, Sheriff Thoms, on behalf of the Fair Islanders, presented to Dr. Sturrock (Tranent) a gold chain and pendant in recognition of his having last August left some friends and gone ashore at the Fair Isle to render assistance in a critical case of sickness. In his reply Dr. Sturrock said the nearest medical man to Fair Isle was at Dunrossness, about forty miles distant, and he suggested that for the benefit of the islanders a Fair Isle woman should be sent to Edinburgh to undergo a course of training at the maternity hospital and at the surgical and medical wards of the Royal Infirmary. For this object about nine months' study and funds would be required.

DISINFECTION OF CATTLE SHIPS.—The owner of a cattle ship was fined £5 by Mr. Mead at the Thames Police Court this week for neglect to disinfect the cattle spaces, as required by the Animals Order of 1886.

THE LATE MR. T. H. BARTLEET.—Last week a meeting was held of the committee appointed to arrange for a memorial of the late Mr. T. H. Bartleet, honorary surgeon to the General Hospital, Birmingham. Mr. W. Septimus Harding presided. The chairman stated that apparently about £250 would have to be disposed of. Several suggestions were made as to the form the memorial should take. Ultimately, it was decided that a stained glass window should be placed in the chapel of the new hospital.

OPEN SPACES.—The Tottenham Local Board has decided to purchase Bruce Castle and grounds, situate at Bruce Grove, Tottenham, at a cost of £15,000, for the purposes of a recreation ground for the use of the inhabitants of Tottenham, and negotiations are in progress for acquiring other open spaces for similar purposes in other parts of the parish. The St. Luke's Vestry has undertaken to maintain the "Oval" at Windsor-terrace, City-road, as a recreation resort. Trees and seats will be provided by the Metropolitan Public Gardens Association.

ROYAL METEOROLOGICAL SOCIETY.—At the ordinary meeting of the Society, to be held at 25, Great George-street, Westminster, on the 17th inst., at 7 P.M., the following papers will be read:—"Report on the Phenological Observations for 1891," by Edward Mawley, F.R.Met.Soc; "The Untenability of an Atmospheric Hypothesis of Epidemics," by the Hon. F. A Rollo Russell, F R Met Soc.; "The Origin of Influenza Epidemics," by Henry Harries, F R. Met. Soc.; "Note on a Lightning Discharge at Thornbury, Gloucestershire, July 22nd, 1891," by Ernest H. Cook, D.Sc.

DEATHS OF CENTENARIANS.—The death is announced of Mrs. Hennings, aunt of the Rev. Gerald W. Bruce, vicar of Harwich, in her 103rd year. She was an extensive reader, and was endowed with keen perceptive powers and a remarkable memory.—Samuel Shields died near Londonderry last week at the authenticated age of 108 years.—The death has been reported to the Burnley Rural Sanitary Authority of Robert Moore, of Barrowford, near Rochdale, at the age of 101.—Mrs. Clegg died last week near Enniskillen, aged 101 years. Deceased resided for more than eighty years in the same house. She leaves forty-seven grandchildren (out of sixty) and twenty-four great-grandchildren.

ADULTERATION IN THE CITY OF LONDON.—Dr. Sedgwick Saunders, the public analyst for the City, in his report to the Commissioners of Sewers on the articles analysed last year, states that 169 analyses were made of food and drink. No improvement had been shown in the action of the public respecting the advantages to be obtained by their taking the initiative in submitting samples for analysis, and, as heretofore, the Act would have remained a dead letter in the City if he had not continued to employ the inspectors to collect samples for analysis. That peculiarity had not been confined to the City, for of 27,465 samples analysed during the year by public analysts throughout the kingdom, all but 107 samples were obtained by officers of local authorities. Ever since the passing of the first Act in 1875 there had been a steady diminution in the percentage of articles examined and found adulterated by public analysts.

FOOTBALL CASUALTIES.—On Saturday, during the match Shepley against Honley (Huddersfield and District Challenge Cup competition), played at Honley, the Shepley full back, in a scrimmage, was seriously injured. Medical assistance was at once obtained, but subsequently he was conveyed to the Huddersfield Infirmary, where it was found that his "spine was broken," and he lies in a precarious condition. On the same day a young man was admitted into the Leeds Infirmary suffering from a fractured leg, sustained while playing in a match between the second teams of Otley and Kirkstall, and during the progress of the final round of the Keighley Charity Cup competition at Lawkholme, between the Ingrow and Keighley Shamrocks, an Ingrow halfback fractured his clavicle; also on the same day a youth, aged twenty, died from "lock-jaw" following an accident received whilso playing on the previous Saturday for Caton against Morecambe Church Institute at the latter place.

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AN INSANITARY PORT.—The Board of Trade has issued a notice that in consequence, as they assume, of the insanitary condition of the Port of Santos, Brazil, the British Consul there has suggested that no ships should for the present be chartered for that port.

THE SEWERAGE OF MATLOCK.—The preliminary work of carrying out a sewerage scheme is occupying the attention of the local board of Matlock, Bath. The estimated outlay is about £9000. It is proposed to carry the effluent through Crowford, and join the works belonging to that village.

FRENCH HOSPITAL AND DISPENSARY.—The twenty-fourth annual dinner in aid of the funds of this institution will take place at the Hôtel Métropole (Whitehall Rooms) on Saturday, the 20th inst., at 6.30 P.M., the French Ambassador in the chair, supported by the Lord Mayor and the Sheriffs of the City of London.

NEW SOMERSET HOSPITAL, THE CAPE.—The work of adding a new wing to this institution has been successfully completed. The wing faces Table Bay, the extension being towards Mouille Point. It is two storeys high. The ground floor is fitted up as a children's ward. The first floor is divided into twenty cubicles for the nurses. The cost of this addition is £6000.

DENBIGHSHIRE INFIRMARY.—The annual report—the eighty-fourth—shows a slight increase in the number of in-patients and a decrease of out-patients. The disbursements exceeded the year's income by a small amount. A special effort, with only partial success, had been made to obtain additional subscriptions. The result of the testimonial to the late chairman, Mr. Gold Edwards, was that he donated the amount raised towards support of a free bed, which will be called after his name.

THE CITY OF LONDON TRUSS SOCIETY. — The report for the year 1891 is satisfactory. The applicants relieved in the course of the year numbered 9584, bringing up the total assisted since the foundation of the charity in 1807 to 470,829. The year's total income from all sources amounted to £4370 4*s*, and the expenditure to £5179 6*s*. 8*d*. The Society continues to vigorously carry on its good work in the relief of sufferers of all ages from hernia in all parts of the United Kingdom.

MEDICAL NOTES IN PARLIAMENT.

The Opening of Parliament.

THE sixth session of the present Parliament began on Tuesday, the 9th inst. There are many important matters affecting the public health and the profession most closely in touch with it already set down for discussion, of various shades of interest and utility, intended to secure to the people better means of living under conditions tending to their welfare. The Queen's Speech alludes to the establishment of local government in Ireland and the improvement of national education. Among the private members' Bills already on the table of the House the questions of the hours for labour in shops, in mines, and elsewhere will be introduced by Mr. Provand, Mr. Pritchard Morgan, Sir John Lubbock, and Sir J. M'Kenna. Sanitary improvements are recommended by Mr. Stephens in his Bill to enable local authorities to deal separately with the sewage of their districts; by Lord H. Bruce, who has tabled a Bill to provide improved cottages for rural labourers; and by Mr. Knowles, the advocate for the registration of plumbers. Bills dealing with the liquor question have been presented by Mr. Conybeare, Dr. Cameron, Mr. B. Rowlands, Mr. Broadhurst, and Mr. Johnston; while Colonel Kenyon Slaney and also Mr. Quilter have put forward Bills intended to secure the purity of beer. Mr. Mather wishes to give local authorities the power of assisting the hospitals out of the rates, and the Poor-law question receives attention from Mr. Pickersgill, Mr. Cobb, and several other hon. members.

Foot-and-Mouth Disease.

In the House of Commons on Thursday, Mr. Chaplin, Minister of Agriculture, was questioned at great length as to the outbreak of foot-and-mouth disease. He explained the steps which had been taken by his Department, and assured the House that he was not without hope of preventing the escape of the disease beyond the metropolitan area.

The Influenza.

In answer to Colonel Howard Vincent and Mr. Cobb, Mr. Walter Long, who replied for Mr. Ritchie, said that the Local Government Board having been of opinion that a further investigation ought to be instituted with reference to influenza, with a view to discovering its origin and the best mode of checking its fatal prevalence, an inquiry had already been commenced, and was now being conducted by the medical department of the Board with the assistance of pathological and other experts. In reply to further questions, Mr. Long said that if anything should result from the present inquiry, or if the Board should see their way to offer any assistance to local authorities or the general public, they would do it at once and to the very best of their ability.

BOOKS ETC. RECEIVED.

BRYCE & SON, Glasgow.
Tuberculosis and its Successful Treatment. By Robert Bell, M.D., F.F.P.S. 1892. pp. 60.

CASSELL & COMPANY, London.
The Year-Book of Treatment for 1892. pp. 486.

COX, HORACE, "The Field" Office, Bream's-buildings, London, E.C.
Poultry for the Table and Market *versus* Fancy Fowls. By W. B. Tegetmeier, F.Z.S. 1892. pp. 111.

KEGAN PAUL, TRENCH, & Co., London.
A State Iniquity; its Rise, Extension, and Overthrow. By Benjamin Scott, F.R.A.S. 1890. pp. 401.

LIVINGSTONE, E. & S., Edinburgh.
Yellow Fever. A Monograph. By James W. Martin, M.D. 1891. pp. 56. Price 4*s*. net.

LEWIS, H. K., Gower-street, London, W.C.
Coca and Cocaine; their History, Medical and Economic Uses, and Medicinal Preparations. By Wm. Martindale, F.C.S. Second Edition. 1892. pp. 76. Price 2*s*.

SIHLER, CHR., Cleveland, O.
The Hydriatic Treatment of Typhoid Fever, according to Brand, Tripier and Bouveret, and Vogl. By C. Sihler, M.D., Ph.D. pp. 340.

SPRINGER, JULIUS, Berlin.
Die Untersuchung des Pulses. Von M. von Frey. 1892. pp. 260.
Handbuch der Arzneimittellehre. Bearbeitet von Dr. Theodor Husemann. 1892. pp. 687.
Lehrbuch der Geburtshulfe. Von Dr. Max Runge. 1891. pp. 504.
Lehrbuch der Untersuchungsmethoden innerer Krankheiten fur Studirende und Aerzte. Von Dr. F. Wesener. 1892. pp. 490.

THACKER, SPINK, & Co., Calcutta.
Aids to Practical Hygiene. By J. Carter Battersby, M.B., B.Ch. Dub. 1891. pp. 165.

THOM & CO., Dublin.
Royal University of Ireland. The Calendar for the Year 1892. pp. 389.

The Liverpool Medico-Chirurgical Journal, No. 22, January, 1892 (Medical Institution, Liverpool, and H. K. Lewis, London); price 3*s*. 6*d*.—On the Ambulance Organisation and Medical Arrangements of an English Army Corps in the Field; by Surgeon-Captain C. J. Addison (J. T. Lemon, Netley).—Influenza, and how to go through it; by Clare Goslett (A. Iredale, Torquay, and Simpkin, Marshall, & Co. London, 1892); price 3*d*.—O Problema Medico-Legal no Processor Urbino de Freitas (Imprensa da Universidade, Coimbra, 1892).—Die Menschliche Stimme: nach Chas. Lunn's "Philosophy of Voice"; von Ludwig J. Trug (Druck und Komm, Dusseldorf, 1892).—Elektro-therapeutische Studien; von Dr. A Sperling, Berlin (Th. Grieben's, Leipzig, 1892).—The Public Health (London) Act, 1891: a Handbook for the Use of House Property Owners; by Wm. H. Blanch (P. S. King & Son, Westminster, and E. W. Allen, London, E.C.); price 1*s*.—National Leprosy Fund: Journal of the Leprosy Investigation Committee; edited by P. S. Abraham, M.A., M.D. Irel.; No. 4, December, 1891 (Macmillan & Co., London); price 2*s*. 6*d*.—A Portrait Gallery: Our Celebrities; January, 1892 (Sampson Low, Marston, & Co., London); price 2*s*. 6*d*.—The Advertiser's A B C Directory, 1892 (T. B. Browne, Victoria-street, London); price 10*s*. 6*d*.—Journal of British and Foreign Health Resorts; No. 1, new series, January 1892 (1, Paternoster-buildings, London, E.C.); price 1*s*.—De l'Hydronéphrose Intermittente; par MM. F. Terrier et M. Baudouin (Félix Alcan, Paris 1891); pp. 308.—Quelques Cas d'Hystérie Male et de Neurasthénie; par le Professeur Grasset. Leçons Recueillies et Publiées par le Dr. S. Jeannel (G. Contet, Montpellier, et G. Masson, Paris, 1892).—Das Scheidensekret und seine Bedeutung für das Puerperalfieber; von Dr. Albert Doderlein (E. Besold, Leipzig, 1892).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BARRETT, W. P., M.R.C.S., has been appointed Medical Officer for the Folkestone Sanitary District of the Elham Union, vice Bateman, deceased.

BAYLEY, J. H., M.B., C.M. Edin., has been appointed Assistant House Surgeon to the Northampton General Infirmary.

BROOKS, C., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Northern Hospital, Liverpool, vice R. D. Mothersole, resigned.

BULLIVANT, S., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Visiting House Surgeon to the Mansfield and Mansfield Woodhouse District Hospital.

CADMAN, A. W., has been appointed a Demonstrator of Anatomy at King's College.

CHILD, EDWIN, M.R.C.S., has been reappointed Medical Officer of Health for New Maldon.

COLLINGRIDGE, WILLIAM, M.D., D.P.H., M.R.C.S., has been reappointed Medical Officer of Health for the Port of London.

CRESSY, GEO. J., L.R.C.P., L.R.C.S. Irel., has been reappointed Honorary Surgeon of the Mansfield and Mansfield Woodhouse District Hospital.

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FAUSSETT, H. J., M.D., M.Ch. Dub., has been reappointed Medical Officer of Health for the Tamworth Urban and Rural Sanitary Districts.

FLETCHER, F. J., L.S.A., has been appointed, *pro tem.*, Medical Officer of the Grantham Union, vice Collingwood, deceased.

FOWLER, Dr. J. KINGSTON, has been appointed a Physician to the Brompton Hospital for Consumption, vice Dr. F. T. Roberts, resigned.

GOWIN, EDMUND H., M.B. Edin., &c., has been appointed House Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, vice Dr. E. C. Williams, resigned.

GOULLET, CHAS. ARTHUR, M.R.C.S., L.R.C.P. Lond., has been appointed Surgeon to the St. John's Wood and Portland Town Provident Dispensary, N.W.

GREENWOOD, WM., M.R.C.S., has been appointed Medical Officer of Health for Ogsett.

HARVEY, GEO., L.R.C.P. Edin., L.R.C.P. Irel., has been reappointed Medical Officer of Health for the Matlock Bath Urban Sanitary District.

HAYMAN, S. A., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of the Workhouse, Abingdon Union.

HINDE, F. R. B., M.B., C.M. Edin., has been appointed Medical Officer of the Sawbridge Sanitary District for the Bishops Stortford Union.

HOBSON, LEWIS JOHN, M.D. Lond., B.S., F.R.C.S. Eng., has been appointed Honorary Consulting Physician to the Royal Bath Hospital and Rawson Convalescent Home, Harrogate.

HUNT, ROBT., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the Blackburn Union.

HUTCHINSON, WM., M.D., C.M. Glasg., has been appointed Medical Officer for the Finchingfield Sanitary District of the Braintree Union, vice Forrest, resigned.

JORDAN, J. F., M.B., B.Ch. Irel., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Surgeon to the General Hospital, Birmingham, vice Haslam.

KNYVETT, H. F., L.R.C.P., L.R.C.S. Edin., has been appointed House Surgeon to the Northampton General Infirmary, vice Durrant.

KIRTON, CHAS. S., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Adviser to the Salvation Army, Farm Colony, Hadleigh, Essex.

LEA, J., B.A., M.B., B.C., has been appointed Assistant House Surgeon to the Northern Hospital, Liverpool, vice S. J. Palmer.

LOWNDS, C. E., L.R.C.P., L.R.C.S. Edin., L.F.P.S Glasg., has been appointed Medical Officer of the Workhouse, Great Ouseburn Union.

MUNRO, J. M., M.B., C.M. Aberd., has been reappointed Honorary Surgeon of the Mansfield and Mansfield Woodhouse District Hospital.

PALMER, S. J., M.B., M.R.C.S., has been appointed House Physician to the Northern Hospital, Liverpool, vice C. Brooks.

PANTING, JOHN, M.A. Cantab., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Middlesex Hospital.

SAUNDERS, WM. S., M.D. U.S., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health and Public Analyst for the City of London.

SEAR, F. M. T., M.B. C.M.[s] Edin., has been appointed Medical Officer for the Parish of Lerwick.

WHITCOMBE, PHILIP, M.R.C.S., has been reappointed Medical Officer of the Hospital at Gravesend.

WILDING, W. F. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health, Hindley, vice Aspinall, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOARD OF WORKS FOR THE LEWISHAM DISTRICT.—Analyst. (Apply to Mr. Wright, Board of Works Offices, Catford, S.E.)

BRADFORD INFIRMARY AND DISPENSARY.—Honorary Gynæcologist.

CANCER HOSPITAL (FREE), Fulham-road, S.W.—Two Surgeons.

CENTRAL LONDON SICK ASYLUM DISTRICT.—Assistant Medical Officer and Dispenser at the Asylum, Cleveland-street. Salary £100 per annum, with board and residence.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant Physician. (Apply to the Secretary. Office, 24, Finsbury-circus, E.C.)

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E.—Resident Medical Officer for two years. Salary £80 per annum, with board, lodging, and washing.

EAST LONDON HOSPITAL FOR CHILDREN, Shadwell, E. — House Physician. Board and lodging provided.

GENERAL HOSPITAL, Birmingham.—House Governor. Salary £300 per annum, with board and apartments.

HENLEY UNION.—Medical Officer for the Hambleden District of the Union. Salary £70 per annum and the extra remuneration provided by the Order of the Poor-law Commissioners, and 15*s.* per case for Midwifery cases. (Apply to Mr. Lloyds, Clerk to the Guardians, Henley-on-Thames.)

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Assistant Physician.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.—Vacancy on the Honorary Medical Staff.

HUDDERSFIELD INFIRMARY.—Senior Assistant House Surgeon. Salary £50 per annum, with board, lodging, and washing.

HUDDERSFIELD INFIRMARY.—Junior House Surgeon. Salary £40 per annum, with board, lodging, and washing.

LINCOLN ODDFELLOWS' MEDICAL INSTITUTE.—Resident Medical Officer. Salary £200, with Midwifery and Vaccination fees. House free, with allowance for coal, gas, rates, two Assistants, and Dispenser. (Apply to Mr. Coulson, 12, North-parade, Lincoln.)

LINCOLN ODDFELLOWS' MEDICAL INSTITUTE.—Doubly Qualified Assistant. Salary £120 per annum, out-door. (Apply to Mr. Coulson, 12, North-parade, Lincoln.)

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary £80 per annum, with apartments, board, and attendance. (Apply to the Secretary, Leith Offices, 34, Moorfields, Liverpool.)

LIVERPOOL EYE AND EAR INFIRMARY.—House Surgeon: Salary £80, with residence and maintenance.

LONDON HOSPITAL, Whitechapel, E.—Assistant Surgeon.

NEWPORT AND COUNTY INFIRMARY, Newport, Mon.—House Surgeon. Salary £100 per annum, with board and residence (no stimulants provided).

NEWTON ABBOT UNION.—Medical Officer and Public Vaccinator for the Teignmouth (No. 9) District of the Union. Salary £75 per annum, which is to include all extra fees, with the exception of 10*s.* 6*d.* for each case of Midwifery attended, and the usual payment for vaccination. (Apply to the Clerk, Union Offices, Newton Abbot.)

NORTHUMBERLAND COUNTY ASYLUM, Morpeth.—Clinical Clerk. Board and residence provided.

PARISH OF LOCH GOILHEAD AND KILMORICK, N.B.—Medical Officer. Salary £70 per annum.

RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY AND SEAMAN'S INFIRMARY.—Resident Medical Officer. Salary £120 per annum (£10 allowed for substitute during annual holiday), with furnished apartments, gas, firing, and attendance.

ROTHERHAM HOSPITAL.—Resident House Surgeon. Salary £100 per annum, with board, furnished apartments, and washing, but exclusive of wine, spirits, and beer.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road, S.E.—Resident Medical Officer. Salary £70 per annum, with board and apartments.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL, Albert Embankment, S.E.—The Chair of Chemistry.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY, DISPENSARY, AND CONVALESCENT HOME.—House Surgeon (to act as Secretary). Salary £40, with board and lodging.

TOWER HAMLETS DISPENSARY.—Resident Medical Officer. Salary £120 per annum, furnished rooms, coals, gas, and attendance. (Apply to Secretary, Tower Hamlets Dispensary, White Horse-street, Stepney, E.)

UNIVERSITY OF GLASGOW.—Three Assistant Examiners. The annual fee to each Examiner is £30, and the term of office in each case is four years from April 1st next.

WEST BROMWICH DISTRICT HOSPITAL.—House Surgeon. Salary £80 per annum, with board, residence, and washing.

Births, Marriages, and Deaths.

BIRTHS.

BRETT.—On Feb. 7th, at Shepherd's-bush-road, W., the wife of W. G. Brett, M.R.C.S., L.R.C.P., L.S.A., of a daughter.

DAVIES.—On Feb. 3rd, at Lansdown, Stroud, Gloucestershire, the wife of Albert Barnes Davies, M.R.C.S., of a daughter.

DEACON.—On Feb. 4th, at Selhurst-road, South Norwood, the wife of Dr. Deacon, Army Medical Staff, of a son.

ROBERTSON.—On Feb. 8th, at Gonville House, Roehampton, S.W., the wife of A. Milne Robertson, M.D., of a son.

MARRIAGES.

CAVE—COOKE.—On Feb. 9th, at the Church of SS. Philip and James Oxford, Edward John Cave, *M.D.* Lond., of Crewkerne, Somerset, to Helen Cassandra, eldest daughter of the late Rev. S. H. Cooke, Vicar of Northbourne, Kent.

KEIFFENHEIM-TRUBRIDGE—CUNNINGHAM.—On Feb. 3rd, at St. Philip's, Kensington, L. W. Keiffenheim-Trubridge, M.D., M.R.C.S., L.R.C.P., of Cliveden-place, Eaton-square, S.W., to Eva Beatrice, third daughter of the late James Elliot Cunningham, Lexham-gardens, Kensington.

SHARP—HART.—On Feb. 3rd, at Christ Church, Bradford, Percy Sharp, L.R.C.P., M.R.C.S., L.S.A., of Brant Broughton, Newark-on-Trent, younger son of the late John Buckley Sharp, Esq., of Bradford, to Florence Elizabeth, youngest daughter of the late John Hart, Esq., of London.

SPITZLY—SHEDDEN.—On Dec. 21st, 1891, at the Kirk, Paramaribo, Dutch Guiana, South America, by the Rev. Dr. Zaalberg, John Henry Spitzly, M.R.C.S. Eng., L.R.C.P. Lond., Senior Surgeon of the Military and Colonial Hospital, to Janet Shaw Farquhar, daughter of the late Lewis Shedden, and niece of James Crawford, Thurmaston, near Leicester, England.

STORRS—GRAHAM.—On Feb. 10th, at St. James's, Norlands, Notting-hill, by the Rev. Townsend Storrs, father of the bridegroom, assisted by the Rev. G. Earle Stodart, senior curate, William Henry Townsend Storrs, M.R.C.S., L.R.C.P., of Macclesfield, to Isabel Marian, second daughter of the late Major H. A. Graham, 105th Madras Light Infantry, and of Mrs. Graham, of Trevallyn, Sandown, Isle of Wight.

DEATHS.

BURDER.—On Feb. 6th, at South-parade, Clifton, Bristol, suddenly George Forster Burder, M.D., F.R.C.P., F.M.S., aged 67.

CURTIS.—On Feb. 8th, at Petersfield, Collins Curtis, M.R.C.S., aged 55.

FEATHERSTONHAUGH.—On Feb. 1st, at his residence, Gateshead-on-Tyne, Henry Featherstonhaugh, M.R.C.S., aged 76.

GOOD.—On Jan. 30th, at his residence, Dorchester, John Good, M.R.C.S., aged 74.

HELE.—On Feb. 5th, at Rowley House, Aldeburgh-on-Sea, Suffolk, Nicholas Fenwick Hele, M.R.C.S. and L.S.A., aged 57.

KINGSLEY.—On Feb. 5th, at Mortimer-road, Cambridge, Dr. Geo. Henry Kingsley, aged 65.

MAWER.—On Jan. 31st, at Bucharest, John Barker Mawer, L.R.C.P.L., in his 76th year.

RAYNE.—On Jan. 21st, at Cambridge-gardens, W., W. Theodore Rayne, M.R.C.S. Eng., L.R.C.P. Lond., of influenza and pneumonia, after a very short illness.

REID.—On Feb. 2nd, at his residence, Aberdeen, William Reid, M.D., C.M. Aberd., aged 55.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, February 15.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. R. Marcus Gunn: Cataract.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Genito-Urinary Tract.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. J. S. Bristowe: On the Cure or Subsidence of Ascites due to Hepatic Disease.—Dr. Donald Hood: Hæmatemesis, with special reference to that form met with in early adult female life.

Tuesday, February 16.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor V. Horsley: The Brain.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Erythema and Allied Affections.—Bethlem Hospital: 2 P.M., Dr. Percy Smith: General Paralysis of the Insane.—Charing-cross Medical School: 8 P.M., Dr. J. Braxton Hicks: The Diagnosis of Pregnancy.
PATHOLOGICAL SOCIETY OF LONDON.—Discussion on Phagocytosis and Immunity, by Dr. G. Sims Woodhead, Professor Burdon Sanderson, Professor Klein, Dr. J. G. Adami, Dr. W. Hunter, Dr. A. A. Kanthack, Dr. Sidney Martin, Dr. A. E. Wright, Mr. T. J. Bokenham, Mr. Cartwright Wood, and others.

Wednesday, February 17.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. J. Mitchell Bruce: Complications of Phthisis.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Q. Silcock: Myopia.—Parkes Museum (Margaret-street, W.): 1 P.M., Dr. Louis C. Parkes: Dwelling-Houses.
ROYAL METEOROLOGICAL SOCIETY (25, Great George-street, Westminster).—7 P.M. Mr. Edward Mawley: Report on the Phenological Observations for 1891.—Hon. F. A. Rollo Russell: The Untenability of an Atmospheric Hypothesis of Epidemics.—Mr. Henry Harries: The Origin of Influenza Epidemics.—Mr. Ernest H. Cook: Note on a Lightning Discharge at Thornbury, Gloucestershire, July 22nd, 1891.
EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Dr. R. Sisley: Is Influenza Etiologically Distinct in Man and in Animals?
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Address by the President (Dr. R. Braithwaite).

Thursday, February 18.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
ROYAL INSTITUTION.—3 P.M. Professor E. Ray Lankester: Some Recent Biological Discoveries.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. Barlow: Illustrations of Abdominal Disease in Children.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Ormerod: Electrical Testing.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Mr. W. R. Stewart: Some Complications of a Chronic Middle Ear Suppuration.
HARVEIAN SOCIETY (Stafford Rooms).—8.30 P.M., Mr. Pepper: Disease of the Mastoid Bone.

Friday, February 19.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. J. Mitchell Bruce: Complications of Phthisis.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: Actinomycosis (Sections, Human and Bovine).—Charing-cross Medical School: 8 P.M., Dr. J. Braxton Hicks: Version.
ROYAL INSTITUTION.—9 P.M. Professor Percy F. Frankland: Micro-organisms in their relation to Chemical Change.

Saturday, February 20.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: General Paralysis of the Insane.
ROYAL INSTITUTION.—3 P.M., Right Hon. Lord Rayleigh: Matter, at Rest and in Motion.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Feb. 11th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Feb. 5	29·60	W.	41	39	71	51	34	·02	Cloudy
,, 6	29·86	W.	43	41	56	51	41	—	Cloudy
,, 7	29·91	S.W.	50	49	58	54	41	·03	Cloudy
,, 8	29·79	S.W.	47	46	72	52	46	·04	Raining
,, 9	30·29	S.W.	44	43	56	50	43	10	Overcast
,, 10	30·32	W.	50	49	55	52	43	·03	Overcast
,, 11	30·43	W.	47	45	55	50	43	·03	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

FOREIGN BODY IN THE EAR.

To the Editors of THE LANCET.

SIRS,—R. W., aged forty-three, railway signalman, came to the Infirmary stating that when six years of age, something got into his left ear, but that as no ill effects ensued, his parents had nothing done. About six months ago he began to hear noises in the head, with buzzing on the left side. These got worse and he found himself getting deaf. He came to the infirmary, and on examination I detected a foreign body. After carefully syringing the ear for some time a large stone, covered with cerumen, escaped. The drum appeared quite normal, and the patient now hears quite well and is free from noises in the head. This stone, a drawing of which I send, exact size, must have been in the external auditory canal without inconvenience or doing harm for about thirty-seven years. The reason why he experienced the noises &c. during the last six months was, I think, on account of the wax accumulating sufficiently to completely block up the canal.

I am, Sirs, yours faithfully,

FRED. A. A. SMITH, M.D.,
Hon. Surgeon, Cheltenham Eye, Ear, and Throat Infirmary.

February, 1892.

G. P.—It would be well for the parties in the dispute to meet and endeavour to come to an understanding. There would seem, according to the statement of our correspondent, to be no reason why the matter should not be amicably settled.

Mr. A. T. Spence is referred to a general notice given above.

C.—Yes, in an early number.

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CONDENSED MILK.

To the Editors of THE LANCET.

SIRS,—The very large quantity of condensed milk which is used by all classes for feeding young infants makes it important that the report in *The Times* of Feb. 6th on the quality of much of the condensed milk that is now being sold, particularly to the poorer classes, should not pass unnoticed. By the use of the "separater" it is possible to reduce the quantity of cream from its normal standard in cows' milk of about 3 per cent. to ·03 per cent.—that is, from 3 per cent. to 3 per 10,000. If the quantity of cream be estimated by volume, it is found to amount to about 10 per cent.—that is to say, in ten ounces of milk we shall have one ounce of cream. Therefore, on this calculation, an infant taking thirty ounces of milk a day—that is, a pint and a half—will receive fifteen drops of cream, instead of three ounces, the quantity for human milk (a pint and a half). Now, although it is generally found necessary to dilute cow's milk with an equal quantity of water for young infants, this, of course, is done chiefly to reduce the proportion of casein, which is so much greater in the milk of the cow than in that of the woman. Seeing that human milk contains as much cream as that of the cow, it does not seem wise to remove or reduce the proportion of cream. How far it is proper to remove it almost entirely, as is done in some of the condensed milks, need not be discussed. This point is deserving of attention. By the old-fashioned mode of skimming it was not possible to extract the cream nearly so completely as is done by the separater, and thus skimmed milk is a very different thing from separated milk. To sell one for the other would probably be considered by a jury a fraudulent imposition. At least, let us hope so.

I am, Sirs, yours faithfully,

London, Feb. 10th, 1892. ROBERT LEE, M.D.

Mr. Edward Shaw.—We are not aware of any separate monograph. Our correspondent will find ample information in Reynolds' System of Medicine, vol. v., and in Pepper's System of Medicine, vol. iii.

Common Sense is thanked for his communication. Mistakes of the kind are inevitable where information is drawn from various sources.

Inquirens.—Our reply must be in the negative.

AFRICAN FEVER.

To the Editors of THE LANCET.

SIRS,—With reference to your note regarding African fever, I may say that I should be very glad to have any communication from Africa or elsewhere. I have had during the previous few months various samples of blood from the West Coast of Africa, and an examination of them goes to prove that Laveran's observations with regard to malaria are correct. I have recently published my opinion with regard to the black-water fever, and therefore do not need to refer to it again; but, as far as my experience goes, it is only a form of malarial fever. The difficulty, I apprehend, with these medical men is that they go out to the tropics without having had any instruction with regard to the climatology and the various differences which disease takes in the tropics. For the last few years I have been trying to give men going to tropical regions information about these subjects, and I shall always be glad to do so in the future.—I am, Sirs, yours faithfully,

Edinburgh, Feb. 9th, 1892. ROBERT W. FELKIN, M.D.

To the Editors of THE LANCET.

SIRS,—I have read with much interest the letter of Dr. Harford-Battersby in your issue of the 30th ult., in which he mentions the so-called black-water fever of West Africa. From my experience of this form of malarial fever the appearance of the pigmented urine is merely a symptom of an unusually acute attack of ordinary remittent fever. I have never known true hæmaturia to occur in the course of a malarial fever: red corpuscles being very rarely found in the urine under the microscope, but hæmatin crystals are frequent. May not the appearance of this blood pigment in the urine be nature's method of eliminating it from the system in which it is set free by the malarial poison? I have noticed that in the few cases I have seen there was less discolouration of the skin after the fever abated in those who passed "black water," than in those who did not, and I believe that this discolouration is due, not to jaundice, as is commonly taught, but to the presence of free hæmatin in the blood. I believe, too, that the fatality of this form of fever is increased by the dread in which it is held. I should be glad to receive any information on this subject from any of your readers.—I am, Sirs, yours faithfully,

H. ATHILL CRUTTWELL, L.R.C.S., L.R.C.P.Edin.
(Late Medical Staff, Niger Territories.)

Kensington-park-road, Feb. 10th, 1891.

THE BRUSSELS GYNECOLOGICAL AND OBSTETRICAL CONGRESS.

To the Editors of THE LANCET.

SIRS,—I am authorised by Dr. Jacobs, General Secretary to the Congress, to state that the following gentlemen have been elected honorary presidents:—Drs. Priestley, Playfair, Watt Black, Elder, Galabin, Gervis, J. Williams, Bantock, Champneys, White, and Herbert Spencer; and Mr. Lawson Tait and Mr. J. Knowsley Thornton.

I remain, Sirs, yours truly,

ALBAN DORAN,
English Secretary to the Congress.

Granville-place, W., Feb. 9th, 1892.

POOR LAW MEDICAL OFFICERS ABROAD.

THE Irish dispensary doctors are not the only medical officers appointed to attend on the poor who are bestirring themselves to get their grievances redressed. The Spanish "parish doctors" have for some time past been discussing their grievances in the medical press, and have also lately held a congress for the better ventilation of their wrongs, which seem to be chiefly traceable to the parsimony and oppressive behaviour of municipal and parochial boards. The Italian parochial medical officers have also a serious but somewhat strange cause of complaint against the parochial authorities, which they are about to hold a congress at Milan for the purpose of discussing. According to a law passed some three or four years ago a medical officer, after three years' satisfactory tenure of a post, is entitled to have his appointment confirmed, after which he cannot be discharged by the local authorities. This security of tenure, however, does not please the local boards. The consequence is that they are evincing a disposition to terminate the engagements while they can do so—that is, before the three years have expired. Against these vexatious tactics appeals are constantly being made by the medical officers receiving their *congé*, first to the provincial medical council, then to the prefect, and finally to the Minister of the Interior, the results being apparently very uncertain and unsatisfactory.

Cyclops.—We think it would probably be held that (1) an unqualified assistant is not liable to any prosecution or penalty for vaccinating children.—2. The certificate states that the child has been vaccinated "by me"; and a practitioner who signs such certificate appears to be technically guilty of an offence under 30 & 31 Vict., cap. 84, Section 30. But if these words be omitted, the certificate could hardly be held to be a false one.

Medicus will see in another column of our present issue an article which deals with the subject of his communication.

Syntax should communicate with the Chairman of the Prisons Board, Sir E. F. Du Cane, Home Office, Whitehall.

Censure.—A solicitor should be consulted on the matter.

SAMARITAN HOSPITAL FOR WOMEN AND CHILDREN, BELFAST.

To the Editors of THE LANCET.

SIRS,—The paragraph from your Irish correspondent in THE LANCET of Feb. 6th in reference to the annual meeting of the above hospital is very complete and very fair. Permit me to add, however, that the bequest of £1000 by the late Miss Charters will, according to custom, be added to the endowment fund, and only the interest be used as income. The committee have always made it a rule to keep the expenditure within the income; so there is always a balance in hand. If larger hospitals would do the same, there would be less crying out for want of funds. Unfortunately, the managers of many hospitals are not large subscribers to the funds. The committee of the Samaritan Hospital are all subscribers, and everything is done in a business-like manner.—I am, Sirs, yours faithfully,

W. K. MCMORDIE, M.D.,
Surgeon to the Hospital, and Member of the Committee.

Belfast, Feb. 6th, 1892.

THE CASE OF EXCISION OF THE ILEO-CÆCAL VALVE AT ST. THOMAS'S.

To the Editors of THE LANCET.

SIRS,—I would wish to make the following additions to the case of resection of intestine reported in the "Mirror" of your issue of Feb. 6th. The operation for restoring the continuity of the bowel, after removal of the growth by Mr. Sydney Jones, was performed by Sir William MacCormac. The merit of the diagnosis of the case is due to Dr. Bristowe, under whose care the patient was at first.

I am, Sirs, yours faithfully,

Lambeth Palace-road, Feb. 8th, 1892. H. BETHAM ROBINSON.

*** With respect to the case referred to above, we understand that Mr. Sydney Jones would have performed the second stage of the operation had he not been prevented from doing so by the expiration of his term of office as surgeon to the hospital.—ED. L.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Althaus, London; Dr. Atkinson, Surbiton; Dr. Ackerley, Ashburton; Mr. Alsop, Newton Abbot; Dr. Brock, London; Mr. Brew, Kerry; Messrs. Boyd and Co., Belfast; Mr. Bagshawe, St. Leonards; Messrs. Bowles and Co., London; Dr. Baudouin, Paris; Messrs. Burgovne, Burbidges, and Co., London; Dr. Barbour, London; Dr. Barron, Ilkley; Mr. T. Bryant, London; Mr. T. B. Browne, London; Mr. E. Biles, West Ham; Mr. Buckley, Oldham; Mons. Barrier, Courville; Mr. H. Brown, Edinburgh; Mr. Bunshaw, Kathiawar; Messrs. Bailey and Son, London; Mr. Birchall, Liverpool; Messrs. Clarke, Son, and Platt, London; Professor Charteris, Glasgow; Messrs. Coxeter and

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Post-graduate Lecture
ON SOME
GENERAL PRINCIPLES OF THE DIAGNOSIS OF DISEASES OF THE NERVOUS SYSTEM.

Delivered at the National Hospital for the Paralysed and Epileptic.

BY W. R. GOWERS, M.D., F.R.S.,
CONSULTING PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL; PHYSICIAN TO THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.

GENTLEMEN,—If we look back over the progress of medical science, three epochs of discovery stand out in special salience, contrasting, in the steepness of the rise in knowledge they present, with the more gradual progress of other branches and of the same subjects at other times. These are, first, the revolution in the conception of diseases of the heart and circulation which Harvey's great discovery entailed; secondly, the penetrating extension of knowledge of all the thoracic diseases which was effected by the invention of the methods of auscultation and percussion, and the discoveries which followed that invention; and, thirdly, the enormous advance in our knowledge of the nervous system and its diseases which the last quarter of a century has witnessed. This has been largely due to the development of microscopical research, in some degree to the progress of experiment, but very much to the extraordinary increase in the capacity for investigation which the general progress of science has produced, and to the fertile field presented by these diseases for the exercise of that faculty. The results of the application of the chemical and microscopical investigation to the urine and the transforming revelations made through the invention of the ophthalmoscope and the laryngoscope, are hardly less remarkable, but their range is more limited than those of the progress effected during the three great epochs in discovery that I have mentioned. The last of these concerns us in a special manner, because it has taken place in our own time and is still in active progress. It is to certain consequences of it that I desire to direct your attention to-day—consequences that are of the utmost importance to the practitioner in his daily work. How great, how wide and profound, has been the change that our knowledge of diseases of the nervous system has undergone cannot, indeed, be realised by all members of our profession. A large number of those who studied before the change took place have been unable to follow the new development of knowledge,—the successive stages of which have followed each other with a rapidity almost bewildering, and the difficulty has been enhanced by the freedom with which investigators have revelled in a novel nomenclature, embracing alike the new and the old, in part essential, but in still larger measure superfluous. The exigencies of practice, with its increasing demand on the time and energy of the practitioner, and its unceasing echo of the cry (shall I say of a colleague's daughter?) "Give, give!" has made it often impossible for him to attempt, or, attempting, to continue, to follow the successive discoveries. Without a knowledge of their scientific features he has generally found it impracticable to use them, and so he has either rested content with that which he learned of old, or has gained a fragmentary knowledge that has served only to mislead him. Those, on the other hand, who have learned the subject as we have it now, cannot realise the change, for they have but one of the terms needed for the comparison; while the large number of practitioners who studied medicine during the period in which the change was taking place, learned a little of the new and a good deal of the old, and acquired a mixture containing many incompatibles, with the common consequence that may be described in terms of metaphor, not inexact, as "mental turbidity."

To clear your minds and get rid, as far as may be, of all that prevents a clear vision of disease, to learn how most usefully to see disease through the clearer media, and, above all, to see it in such a way as shall enable you to treat it with such advantage as is attainable—these, I conceive, are the objects that bring together here the members of this post-graduate course. But I am not sure that the students of to-day, or at least many of them, who have acquired the latest and fullest knowledge of these diseases, have learned, in equal measure, how to use their knowledge, or are free from the need of that training in method which the practitioner feels so keenly. The reason for this, or at least the conditions that make it probable, you will perceive when I tell you the nature of the difficulty that is experienced and the character of the need that is felt.

Let me, however, first give you an illustration of the change that has come over our knowledge of diseases of the nervous system during the last quarter of a century. I remember, twenty-five years ago, listening to a lecture on "chronic spinal meningitis," given by one of the most competent teachers of the day, which presented the latest and clearest opinions on the subject. The malady, as described in that lecture, had no existence. In the case on which it was given, the membranes of the spinal cord were certainly in a perfectly normal state. The symptoms then thought to prove the existence of chronic meningitis are now known to depend solely upon changes within the spinal cord itself. The pathology had been inferred from analogy, but the new means of investigation we have since obtained, coupled with the more extensive and precise observation which I have mentioned as so salient a feature of recent progress, have proved that the analogy was false and the malady quite different from that which was supposed to exist. The symptoms which were then ascribed to chronic meningitis are, indeed, now known to manifest more than one distinguishable disease. But the chief source of practical difficulty is not the mere correction of erroneous inference, and the displacement of the work of fancy by ascertained fact; it depends on the vast increase in our knowledge of the anatomy and physiology of the nervous system and on the application of this to disease; it depends, further, on the revelation, effected by microscopical research, of the extent and variety of degenerative processes in all parts of the nervous system. It depends, lastly, on our ever-widening perception of so-called "functional," really nutritional, diseases for which no anatomical cause has yet been discovered, which have been distinguished or recognised by means of (1) the increased exactness of observation, (2) the aid received through the differentiation of processes formerly confused with these, but now known to depend on structural change, and (3) in consequence of the special indications afforded by the discoveries now being made of the vast range of influence of toxic agents on the nervous system. Can we wonder, then, that our knowledge has been changed, even to the point of transformation, and that those familiar only with the old should be almost lost in the mazes of the new? The practical effect of these changes is to render the customary methods of diagnosis wholly inapplicable to a large proportion of cases of disease of the nervous system, to render it useless, or more than useless in the case of a large number of the nutritional affections that are called "functional," and of the structural maladies that are called "degenerative," as well as many of the maladies that depend on the visible and conspicuous changes that are called "organic."

The student has to acquire his knowledge of all diseases by the method of "types," and the same method is employed in the practical diagnosis of most other maladies. Indeed, in the case of many, no other system of recognising the nature of a case could be employed than that of observing the correspondence of the symptoms, in character and course, with those of a certain form which is known by a special name. But when we turn to the diseases of the nervous system that I have indicated, we meet with a series of maladies the variety of which is almost infinite. When we consider the various structures comprised in the "nervous system," their diversity of function, the extremely numerous combinations of structure and function that may be deranged at the same time, all mutually acting and reacting to produce the manifestation of disorder; when we consider further the variety of nutritional and degenerative processes to which these structures are liable, and also the degree and extent to which they are influenced by toxic blood states—agencies that we are only beginning to perceive in their nature and diversity,—we can readily understand that it not only may be, but that it must be, true that the diseases we meet with are so numerous and so diverse as entirely to

baffle an attempt to range them under definite types, that can be designated by definite names. But in the series they form, there are here and there aggregations, as it were, in which the morbid process corresponds, at least in its chief features, varying only in minor points. These we treat as types, and call by names, and by them the student learns the general features of the classes of disease in which they occur; but they seldom stand alone or are marked off by any well-defined boundary. Intermediate cases connect adjacent groups—cases that combine the features of two or several, or present some characteristics of one and some of another, and very often symptoms that cannot be recognised as pertaining to any recognised type. Of these forms, numerous as they are, the student for the most part remains ignorant. He has enough to do to become acquainted with the more familiar groups, and the method by which he learns the features of these cannot take in the intermediate varieties. When he proceeds to practical work he soon finds himself confronted by cases the like of which he has never heard of, and which he cannot find described in any text-book of these diseases. If he attempts to identify them, to bring them under some recognised type, and to give them some definite name, he is at once and completely baffled. He is baffled of necessity, for the cases belong to no type, and no name can be given to them that does not involve more error than truth. It cannot be otherwise, for to constitute types and assign designations that would include even the chief of these varieties would be to multiply both types and names beyond the capacity of the human mind to learn, or its power to retain. In the case of these diseases, therefore—diseases that are so frequent as to make up at least half the cases of affections of the nervous system which the practitioner has to treat,—the method by which he has acquired his knowledge, and by which he is able to deal successfully with almost all other classes of disease, fails him entirely; and yet in most instances he has nothing to put in its place. "The old order changes"; but it is "giving place to new" with a slowness which, at the present day, is a source of perplexity and difficulty widely felt, and constitutes a really serious obstacle to the practitioner's work. That it is so—that I am not exaggerating the facts—will be, I am convinced, confirmed by most of those who bring to their work the earnest and thorough spirit which strives to understand the cases that have to be treated, which strives after light, and is not content merely to deal, in darkness, random strokes.

What, then, is the remedy? What new method of diagnosis can be adopted? Happily, there is a means of meeting the difficulty, before which its formidable features will vanish, and the ever-growing accumulation of facts, the ever-increasing variety of definite morbid states of the nervous system, however numerous, however complex, however unfamiliar, may be dealt with as readily, as surely, as the diseases of any other class, or as the affections of the nervous system that do correspond to types, and may be recognised by such correspondence. Indeed, I had almost said that the method I am about to recommend enables you to deal with these diseases more readily and more surely than the other. At least, it has the advantage of placing the practitioner at once in the position needed for the adequate and wise treatment of the malady so far as such treatment is within our reach.

The method you should adopt is this: Whenever you find yourself in the presence of a case that is not at once and completely familiar to you in all its details, forget for the time all your types and all your names. Deal with the case as one that has never been seen before, and work it out as a new problem, *sui generis*, to be investigated as such. Observe each symptom carefully, and consider its significance. Then put the several symptoms together, and consider the meaning of their combination, especially whether there is any one part of the nervous system at which disease might cause them all. Lastly, consider the way they came on, as indicating the nature of the lesion, comparing this with the evidence of their seat, and remembering also that their character may in itself tell you something of their probable nature. When described in the abstract, this may seem a lengthy process. It may even seem a formidable process. As a rule, it is neither. The common symptoms, even those presented by uncommon cases, are not numerous, so far as concerns their general character and actual nature. The question of localisation is only an application of the common physiology of the nervous system, of the facts that should be familiar to every student, and can be re-learned, if necessary, with ease, by every practitioner. All the knowledge needed for this method is that which every student gains, or ought to gain, in the course of his studies; it is only the mode of using the knowledge that is new and has to be acquired. But the student should remember the great importance of "keeping up" his physiology and anatomy of the nervous system, or at least those parts of it which are needed in practical work. There is no department of medicine that consists more largely of applied physiology and applied anatomy than these diseases. For this reason they should engage the attention of the student early in his hospital work, instead of, as is often the case, being relegated to a late period on account of their supposed difficulty—a period when his science has got "rusty," or has slowly vanished, until even its nomenclature awakens a mere echo from bare walls. As a matter of fact, much of the student's hindrance is due to this postponement. The application of his knowledge should be made to retain it.

But for the successful use of this method it is essential that the knowledge, though neither extensive nor profound, should be firmly grasped and boldly used. Herein lies the chief practical difficulty. Timidity is almost a greater hindrance to diagnosis than is ignorance. You must feel sure of the meaning of symptoms, you must weigh the evidence with care, and then you may and must feel confident that your conclusion is trustworthy. This confidence and boldness can only be acquired by familiarity with the process, by observing its use by others, and afterwards repeating it for yourselves, thus becoming so familiar with the language of disease that you can read it with ease, can see at once the meaning of its words, and perceive with readiness the significance of its sentences. It is by affording an opportunity for this that the attendance on the practice, especially the out-patient practice, of special hospitals, is of peculiar value to the student, whether pre-graduate or post-graduate. A series of cases of the same class pass before him, in each of which he can observe the character of the symptoms and the process of diagnosis, and thus he gains, in a short time, a familiarity with the features of disease, and a quickness in perceiving their meaning, that he could not obtain in a long period of work at a general hospital, where such cases are few and far between, and the lesson of one is more than half forgotten before another instance comes before him.

In all this method of dealing with unfamiliar maladies there is nothing that is not within easy reach of the average student or practitioner. If any difficulty is felt, it is only, as in so many subjects, the first step that costs a conscious effort. Once learned, the method becomes more easy with each repetition, and is acquired the more speedily if repeated under slightly varying conditions. Soon, its steps cease to be consciously felt, and in a short time even a student, who has been fairly grounded in the elementary knowledge, becomes able to use the method with precision, and succeeds, in four-fifths of the cases that would otherwise baffle him, in arriving at a diagnosis in which a physician, whose attention has been given for years chiefly to these diseases, can find little or nothing to change. Note, moreover, that the method indicated is that which the most experienced physician has himself to adopt in the case of a large proportion of the cases that come or are sent to him. So infinitely various are the morbid states of the nervous system, so diverse their manifestations, that a very large number of the cases seen are practically new, even to a man of the largest experience, and if asked he has to confess that he has not seen before any case precisely similar to, and often not one even approximately resembling, that before him. Yet, by employing this method, he is able to arrive without difficulty at a diagnosis as sure as when the malady is of a common type. The only difference between his work and that of the student is that the latter has to adopt the method, with scrupulous care, in a larger proportion of the cases that he sees. He has to deal with a larger number as essentially new problems, to be worked out *de novo*. If he does this, as I have said, his errors will be few and rare, and only a small proportion of the cases will baffle his efforts. But never forget the essentials of the proceeding. Remember that you must for the time discard entirely your types and names. When you have made your diagnosis in the manner I have described, then, and then only, may you

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consider how far the case corresponds to a type and can be called by a familiar or unfamiliar name.

The last point suggests a common difficulty. The desire for a name is strangely strong in the case of the majority of patients. Unless their disease is designated, they go away unhappy, discontented, distrusting. "But you have not told me what is the matter with me" is their parting plaint. What are you to do? In a very large number of cases no recognised name can be given to the disease that does not involve more error than truth. A few patients are sufficiently sensible to endure the knowledge of the fact and be content with it. In the case of most, the best plan is to give them a descriptive designation, and to write it down, that there may be no mistake, or it will come back to you some day in altogether altered form, so changed that you do not recognise your own production. The descriptive designation need not necessarily be short, although often it can be, and is then satisfies as much, provided the words are unintelligible. "Cephalic dysæsthesiæ" makes many a sufferer content. "Paroxysmal neuralgic pains, due to damage to the third and fourth posterior spinal roots, owing to a stationary lesion of the intervertebral articulations," delighted one good woman whom I lately saw, and who earnestly desired to know what was the matter with her, no doctor, she said, having as yet informed her. But always adhere strictly to fact in these descriptions, and avoid words that are apt to mislead because used in various ways. If you use the term "sclerosis," for instance, the chances are that the patient will look up the word in some medical dictionary, will identify his malady with insular sclerosis, read, forecast his future, and become utterly miserable.

To sum up in a few words the necessary change. Discard in the first instance all attempts to identify or to name, and try instead to read the malady, tracing the symptoms to the seat of their cause, and discerning the nature of the morbid process by their character and course. The method has the great practical advantage of taking you at once to the elements that should guide your treatment, and of enabling you to treat wisely a case the like of which you have never heard of, and a name for which you may not know. Mind, I do not say that you need adopt this process in every case of disease of the nervous system that comes before you. There are many that do belong to familiar types, cases that are characteristic and perceived at once to be such—cases of common chorea, for instance, of idiopathic epilepsy, many forms of hemiplegia, and the like. But the method is needed in all unfamiliar maladies, and in all cases even of familiar aspect that present some unusual feature; often, such a feature, in the end, is found to indicate that the case merely resembles superficially that to which it seemed to correspond, and is really quite different in nature. How real and how extensive is the need for the change in method I have described can only be realised by those who have to correct the mistakes or supplement the deficiencies of those who first attempt to make a diagnosis of such cases as I have indicated. In many cases a practitioner candidly confesses his inability. I often receive a letter saying, "I cannot make out what is the nature of the disease; I have seen nothing like it before, and I cannot find its features described in any text-book." Yet the case, as a rule, readily yields to the application of the method I have described. More often, however, the practitioner has endeavoured to make a diagnosis by the familiar system of types, and has, as it were, forced the case into the receptacle that seemed to correspond most nearly to it, but into which it did not really fit, and has given it a corresponding name, more or less erroneous, and often ludicrously wrong. I abstain from giving you instances; the statement of the fact will suffice, and examples are so numerous that some one would probably find that the cap fitted him with unpleasing precision.

I should like to have given you some instances of the working of this method, but for this there is not time. You will find it easy and more useful to work out such examples for yourselves, beginning with familiar diseases, but treating them, for the occasion, as unfamiliar. I hope, however, shortly to give you in another lecture a series of examples of its use, although not nominally such, by describing and analysing some of the more important diagnostic signs, or "diagnostic guide-posts" as we may call them. Familiarity with these is of extreme value, and most of them will afford illustrations of the use of the method I have just described.

Clinical Lectures
ON
STRICTURE OF THE ŒSOPHAGUS,
WITH FOURTEEN ILLUSTRATIVE CASES, IN FOUR OF WHICH GASTROSTOMY WAS SUCCESSFULLY PERFORMED.

BY DAVID NEWMAN, M.D.,
SURGEON TO THE DEPARTMENT FOR DISEASES OF THE THROAT AND NOSE AT THE ROYAL INFIRMARY, AND ASSISTANT SURGEON TO THE WESTERN INFIRMARY, GLASGOW; PRESIDENT OF THE GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

LECTURE III. (*Concluded.*)

I HAVE now discussed at sufficient length the intra-œsophageal operations for the relief of stenosis, and we may now pass on to consider the other methods either of relieving the stricture or of introducing food through an artificial opening.

Œsophagostomy, or the establishment of a fistulous opening in the neck for the relief of stenosis of the gullet, was first suggested in 1615, but on account of the obstacles to performing such an operation without anæsthetics, and probably also from the erroneous belief in the dangers and difficulties in its execution, surgeons were deterred from adopting it until 1738, when it was for the first time successfully performed. The whole subject has been very fully discussed in a valuable and exhaustive monograph by Terrier,[1] which I would strongly recommend you to read. While twenty years ago, or even at a more recent date, the operation was looked upon as very dangerous, more recent experience has demonstrated that it is not only quite a legitimate surgical procedure, but, under favourable circumstances, one of very high value when resorted to for the removal of foreign bodies only. I cannot here refer to those instances in which œsophagostomy has been employed for the removal of foreign bodies further than to show you that a consideration of the statistics up to the present day gives most encouraging results. Dr. T. M. Markoe, in the *New York Medical Journal* of May 1st, 1886, says, referring to cases in which œsophagotomy was performed for the removal of foreign bodies: "I am indebted to my friend Dr. S. W. Gross of Philadelphia for the following statement, which he very kindly gleaned for me from his abundant statistical resources. The whole of the persons operated upon up to date (1886) is eighty-two. Of these cases, sixty-three were successful, and nineteen followed by death; of the eighty-two cases, the foreign body was found and removed in seventy-four, and of these fifty-seven recovered and seventeen died. The foreign body was not found in seven cases, and in one case it was found, but slipped into the stomach and passed per anum. ..... Of the sixteen fatal cases of œsophagotomy, eight are stated to have died of abscess provoked by the lodgment of the foreign body, two from exhaustion, two from septicæmia, one (of pneumonia, and the rest not clearly stated."

The operation of œsophagostomy is only suitable when the disease is situated at and limited to the upper few inches of the gullet, and where there is evidence that firm adhesions have not formed between the œsophagus and neighbouring parts. In some cases the stenosis is so complete that it is very difficult to introduce the point of a knife into the lumen of the tube; and, moreover, although it is easy to determine the upper limits of the stricture, it is seldom possible to make out where the lower margin is. Mr. H. A. Reeves, in the Transactions of the Clinical Society of London, vol. xv., p. 32, gives the following as his conclusions:—"1. That internal œsophagotomy being out of the question, and the stage for gradual dilatation being passed, and in consequence of the great mortality of gastrostomy, and also because of the more frequent occurrence of malignant stricture in the upper portion of the tube, œsophagostomy is by far the preferable operation. 2. That even in cases where the stricture is as low down as the manu-

[1] De l'Œsophagotomie Externe, Thèse de Paris, 1870.

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brium sterni (its depth being rarely very great), œsophagostomy is indicated as a preliminary or exploratory operation; and if it be found that the little finger or sound cannot be got through the narrowing, gastrostomy may be performed. 3. That if it result that the opening in the œsophagus has been made below the stricture (as in most cases would be desired), the operation can be completed by stitching the mucous membrane to the wound edges, and the stricture may, if thought proper, be dilated through the opening at the time of operation or subsequently. 4. That if diseased œsophagus be reached, and no opening into it can be made through healthy walls, then it may be carefully perforated, either by the finger or the thermo-cautery. 5. Œsophagotomy has been many times done, and œsophagostomy several, and never have these operations caused any grave local or general symptoms, or, as operations, led to the death of the patient, whereas gastrostomy has proved most fatal. 6. The operation should be done on the left side of the neck, and a sound should, if possible, be passed, that of Vacca Berlinghieri being the best. The skin incision should be rather nearer the mid-line than that for ligature of the common carotid, and should extend from half an inch above the episternal notch to the level of the upper border of the thyroid cartilage. The surgeon should stand on the left of the patient, looking obliquely down and across his or her body. A tube with a funnel-shaped end should be passed and tied in place, and nourishment administered as soon as the tendency to vomit caused by the anæsthetic has passed off. It is necessary to make the opening in the œsophageal walls with a sharpish stab, to prevent the loose mucous membrane being pushed before the knife. The edges of the wound may be stitched up, and care taken that no food gets into it. 7. The operation should be undertaken before the patient's strength is much exhausted, and even before obstruction is complete, because, frequently, attempts to swallow produce spasmodic suffocative dyspnœa, as in the first case related. 8. In severe cases of simple fibrous or syphilitic stricture in the nuchal or upper thoracic portion of the tube, œsophagostomy is indicated, as then the operation might be made curative as well as palliative. 9. Internal œsophagotomy must be limited to an extremely small percentage of cases, and some think it not justifiable, and excision of the diseased part of the œsophagus is yet in its merest infancy, so that œsophagostomy is the best resource left us, and the operation, if performed with care, is not very difficult."

The question of what operation should be employed is so important that I will not hesitate to discuss in detail the points raised by Mr. Reeves. From his own showing œsophagostomy is only suitable for those cases in which the disease occupies the upper part of the canal, and he says that this portion of the gullet is most frequently attacked, but unfortunately he does not state very clearly what he means by the upper portion of the tube. From what has been said in a former lecture, you will observe that I have come to the conclusion that the most common spot to find the primary tumour is immediately behind the cricoid cartilage; so that, if the patient presents himself to the surgeon sufficiently early, a successful œsophagostomy may be performed. But, as a rule, the aid of the surgeon is not asked until the disease has extended beyond the limits just mentioned. When the patient is seen at an early stage and the healthy œsophagus can be exposed below the site of the disease, so that the healthy mucous membrane can be stitched to the skin, then I think œsophagostomy may be employed. But to make an incision in the neck, and through the tumour into the lumen of the canal, seems to me unjustifiable when gastrostomy may be performed. You will therefore perceive that the operation is very limited in its application. Of the cases which I have brought before you, in not one of them could it have been performed in the hope of having a satisfactory result. If, for example, in the cases of Mrs. C—— (Case 4) and W. F—— (Case 3), I had opened the œsophagus in the neck, the probability is that within a few weeks I would have had to contend with a large fungating mass protruding through the fistula, whereas by performing gastrostomy the wound is far removed from the site of the tumour. Before concluding the discussion of this subject it would be advisable to refer to statistics, and in doing so I may say briefly: observe that out of twenty-nine cases operated on by œsophagostomy ten lived over one month, while the great majority of the remaining nineteen died within a week of the operation. The most successful case recorded is one operated upon by Hadlich[2] in 1880; the patient was sixty years of age, and was suffering from severe dyspnœa, the cause of which is not stated, and no necropsy was permitted, when the patient died thirteen months after the operation. With such unfavourable results it is not surprising that œsophagostomy has fallen into disuse.

In performing œsophagostomy the patient should be placed upon his back with the head and shoulders slightly raised, and, an anæsthetic having been administered, the face should be turned to the right. The surgeon, standing to the left of the patient, should then make an incision through the skin and subcutaneous tissue three or four inches long, along the inner border of the left sterno-mastoid muscle. The superficial fascia, the platysma myoides, and the deep fascia should then be divided, the inner edge of the sterno-mastoid exposed, and the muscle drawn outwards and upwards by a broad retractor, so that the carotid sheath is exposed to view and held to one side by an assistant. The connective tissue having been separated with the finger or a blunt instrument, care being taken not to injure the superior or inferior thyroid arteries or the recurrent laryngeal nerve, the left lobe of the thyroid gland and the trachea are exposed. These structures should be drawn forwards and to the right by a second assistant, when the lower part of the pharynx and œsophagus will be seen lying behind. In cases for which œsophagostomy is required, a tube cannot be introduced through the mouth, so that the operator is not assisted, as in œsophagotomy, by its presence in the canal. When the gullet is found, an incision should be made in its wall. If the operation be undertaken for malignant disease, the lower down the opening is made the better, and if possible the margins of the mucous membrane should be carefully stitched to the edges of the cutaneous wound. In cases of cicatricial stenosis the incision should be made immediately below the stricture. A soft flexible tube should be introduced, and kept in position with sticking plaster, while a drainage-tube may be passed through the lowermost limits of the wound and the edges united by sutures. The after-treatment must be carried out with great caution, special care being required in the introduction of the feeding-tube. A good plan is to have a soft curved elastic tube, from 4 in. to 5 in. long and of the size of a No. 9 bougie, with a shield the same as a tracheotomy tube, fixed in permanently, and through which, when the patient is fed, a soft inner tube of smaller size is passed into the œsophagus. This avoids the danger of lacerating the wall of the œsophagus or of adjacent tissues.

You may reasonably ask me, Is it not possible, in cases where the carcinomatous growth is situated high up, as in those of W. F—— (Case 3) and Mrs. C—— (Case 4), to excise the growth and remove the whole of the disease? When the disease is limited to that part of the œsophagus immediately behind the larynx, and there is no involvement of lymphatic glands, then one might consider the propriety of performing a radical operation with the object of attempting a cure. In neither of the cases just mentioned could such a procedure be thought of; for, as is usually the course of events in such circumstances, both patients allowed the disease to advance too far before they were seen. This is, however, not always the case, and the enterprising surgeon has not been always satisfied by simply supplying the patient with food through a wound in the neck or stomach, but he has on several occasions attempted a radical cure by excising portions of the œsophagus. One of the most successful œsophagectomies was performed by Czerny in 1877, when he excised a small portion of the canal along with a carcinomatous growth with a good result. The lower end of the gullet was united to the wound, and after four months the patient fed herself so conveniently through the fistula in the neck that she refused to have a subsequent operation performed for uniting the divided ends of the œsophagus. Novaro, Billroth, Israel, and von Bergmann also performed this operation, and their patients lived for seven weeks, four weeks, seven days, and one day respectively. Dr. Ashhurst, in his statistics, mentions twelve instances in which œsophagectomy was performed, and he states that eight proved fatal, giving therefore a mortality of 66 per cent. Œsophagectomy has therefore been practically abandoned, unless in very exceptional cases.

The first occasion in which gastrostomy was performed was for the removal of a knife which had been in the

[2] Deutsche Zeitschr. f. Chir. 1882, Bd. xvii., p. 138.

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stomach for six weeks. Shovel operated in 1635 by making a vertical incision through the left hypochondrium an inch and a half below the ribs. The wound healed well. Between 1635 and 1849 no cases of gastrostomy are recorded. In the latter year Sédillot operated unsuccessfully for cancer of the œsophagus, and from that time until 1876, when Verneuil obtained the first success, the recorded cases constitute an unbroken series of failures. Since 1876, for cicatricial stricture alone, I find 48 cases of gastrostomy recorded, giving 25 recoveries and 23 deaths within a month of the operation; and for malignant disease, 280 operations have been performed, with 126 recoveries and 154 deaths within a month of the operation. Within the last few years gastrostomy has been more successful, probably because greater care has been bestowed upon details, and the operation has been resorted to at an earlier stage in the disease. For example, Knie[3] has operated upon 13 cases with only 3 deaths, and Credé[4] upon 26 cases with 4 deaths.

I cannot occupy time in discussing statistics in detail, or in giving you references, but I would like to tell you the facts which have been impressed upon me in studying the subject, so that you may be guided, as I have been, to know when to operate. In the large majority of the unsuccessful cases the operation was performed too late, and hence we find that a considerable number of the patients succumbed to shock within twenty-four hours, while a large percentage also died from exhaustion, inanition, or extension of the disease a few days after the operation. Within recent years comparatively few deaths have been caused by peritonitis, pneumonia, or septicæmia. The statistics which I have now produced give a very different result from those collected by Verneuil, and published in 1879. He then showed that out of 30 cases in which gastrostomy had been performed for malignant disease, only one survived a month. On the other hand, I find that since 1884 out of 113 cases recorded 80 have lived over thirty days. The most successful cases have been operated upon in one instance by James Murphy,[5] and in another by William Whitehead. The first of these patients lived for 403 days, while the other was alive at the end of the thirteenth month.[6] The operation of gastrostomy, which you have seen me perform successfully on three occasions this session, is the one most frequently employed in cases of stricture which are impermeable to bougies, and in malignant disease. As you observed, the method of operating was as follows: While the patient (take for example Case 3) was under the influence of chloroform an incision was made through the abdominal parietes an inch below and parallel to the left costal cartilages. The incision was an inch and a half long, and extended outwards and downwards from the margin of the left rectus muscle; with some difficulty, on account of the complete collapse of the organ, the stomach was felt. About a couple of square inches of the stomach wall were dragged through the incision in the parietes. A circle of sutures, each including about a quarter of an inch of stomach wall, was passed through the serous and muscular coats. The radius of this circle was about one-third of an inch. Each suture overlapped its neighbours by about one-eighth of an inch, so that when they were all introduced they resembled in form the tyre of a wheel. After all the sutures had been inserted in the stomach wall, the free ends were passed through the subcutaneous tissue and skin and tied externally, so that when the operation was completed an area of stomach wall about the size of a shilling was exposed to view. Through the centre of this area two silver sutures were passed parallel to one another, and about a quarter of an inch apart. This method of stitching, by which the peritoneum and muscular tissue were left free and in full contact with the wall of the stomach, gave a broad base for adhesions and ensured the formation of a complete sphincter. After the operation the patient complained of thirst, but otherwise he was perfectly comfortable. Two-thirds of a grain of morphia were injected subcutaneously between the time of the operation and midnight. The patient was fed upon nutrient digested enemata and peptonised meat suppositories. Five days later a small galvanic cautery was introduced into the stomach between the two silver loops, which were held apart, so as to make a little tension upon the intervening area of stomach. Then a small gum-elastic catheter (No. 3) was passed into the stomach through the opening thus made, and fixed in position by means of adhesive plaster. He was now fed with milk, four ounces being given every two hours, in addition to the nutriment administered by the rectum. Every day larger tubes were inserted, so that a week later a piece of elastic tubing the size of a No. 17 œsophageal bougie was introduced, and beef-tea, milk, masticated porridge, and corn flour were poured into the stomach through a filler by the patient himself. After the food was so taken the tube was withdrawn, the patient remained in the recumbent posture, and held a small pad of gauze over the opening. Within from fifteen to twenty minutes the wound contracted, so as to prevent the escape of the contents of the stomach. Only a ring of mucous membrane, one-twelfth of an inch broad, is interposed between the opening in the stomach and the cutaneous surface. Within a few days this also disappeared. For the last two days the patient has been out of bed.

In respect to the operation of gastrostomy, it is very important to operate in two stages, the first consisting of exposing and stitching the stomach to the parietes, the second of opening the stomach after firm adhesions have formed, so as to obviate the danger of the contents of that viscus escaping into the peritoneum. With reference to the first stage of the operation, a method a little different from that usually employed was adopted. The sutures did not include the peritoneum or muscular tissue, but, from the stomach wall, they passed through subcutaneous tissue and skin only, and were tied externally. By this arrangement a considerable surface of the stomach was left in contact with the sides of the wound in the parietes; the two serous surfaces were not brought together, and so a broad and firm base for adhesion was secured. At the same time the formation of a complete sphincter was assured, as demonstrated by the cases shown. Regarding the second stage of the operation there is nothing worthy of note. The patients now wear elastic tubes always, and no fluid escapes, but if the tube be removed for a quarter of an hour in any of the cases the fistulæ contract, and prevent the passage of the smallest quantity of the contents of the stomach, and so enable the patients to walk about in comfort. The sphincter action is therefore as good as could be desired. In selecting cases for operation the surgeon is very often hampered by the patient refusing to have anything done until he is so reduced in strength that so serious an operation must be attended with danger. Under favourable circumstances, and with due caution on the part of the operator, gastrostomy, when performed in two stages, should not be attended with much danger; but when the patient has allowed himself to reach the last stage of starvation before he seeks the aid of the surgeon, how can a favourable result be expected? The needles used were ordinary sewing-machine needles, round and with an eye in the point. These were fixed on handles, and by heating in a spirit lamp were bent at an obtuse angle and tempered by dipping in oil. The sutures were silk cord, boiled in carbolised wax. The advantage of using a round needle is that it passes easily through the serous and muscular coats, and, when it reaches the more dense submucous layer, the difference in resistance is easily detected, and the danger of passing the suture into the cavity of the stomach is averted. It has been advocated by some surgeons that a double row of stitches should be inserted, but the disadvantage of unduly increasing the number of sutures employed is that the operation becomes very prolonged, and thereby the danger of death from shock is increased. One row of sutures is quite sufficient to keep the parts in apposition until adhesions form.

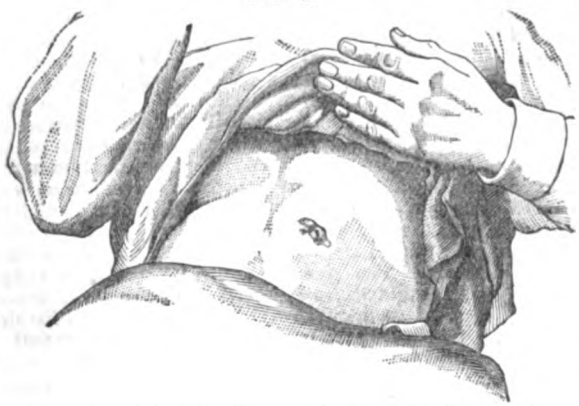
When the stomach has been empty for a considerable time, it is found to be situated to the left of the middle line, the pylorus occupying a position close to the left margin of the rectus muscle, while the bulk of the organ is drawn up under the arch of the diaphragm. Consequently, in cases of stricture of the œsophagus, where the patient has been starved, the stomach is not to be looked for in its normal position. Labbé recommends an incision two inches in length extending from the left linea semilunaris outwards, parallel to and half an inch below the costal cartilages. Durham advises a vertical incision to be made three or four inches in length over the upper part of the linea semilunaris, while Sédillot makes a crucial incision through the upper part of the left rectus. Again, Hahn of Berlin recommends the following operation which he has performed

[3] Clinical Reports of the Surgical Hospital of Moscow, 1886.
[4] Archiv für Clin. Chir., Bd. xxxiii., Heft iii., 1886.
[5] British Medical Journal, vol. ii. 1889, p. 930.
[6] Ashhurst's Surgery, vol. vi., p. 40.

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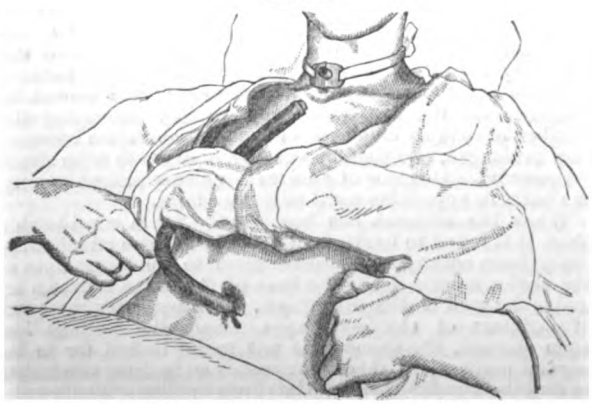
in eight cases. An incision is made parallel with the lower edge of the last lower rib and the abdominal cavity opened. A second incision is made in the eighth intercostal space, close to the juncture of the eighth and ninth costal cartilages, through skin and muscular tissues, in a direction obliquely from above downward and outward. The parietal peritoneum at this point is punctured by a pair of curved dressing forceps, or incised; this is enlarged by spreading the forceps. The thumb and index finger of the left hand are introduced into the first-made abdominal wound, and the stomach sought for at a point corresponding as nearly as possible to the fundus. This is grasped by the dressing forceps and drawn through the eighth intercostal space, until the stomach wall overlies the surrounding integument for the space of one centimetre. After covering the wound made first with antiseptic gauze, the stomach, in case the opening is to be made at a subsequent sitting, is sutured by means of its serous covering only to the edges of the wound. In case it is to be opened at once, the serous, muscular, and mucous coats are together attached to the opening in the intercostal space. The abdominal wound is then sutured. After numerous trials upon the cadaver, Hahn found that there was no danger of wounding the diaphragm if care was taken to always select the space between the cartilages of the eighth and ninth ribs, inasmuch as the former has its attachment to the cartilages of the seventh rib towards the median line, acting in such a manner as to leave the eighth intercostal space uncovered and free for operation.

FIG. 1.



Case of cancer of the œsophagus at the level of the lower edge of the cricoid cartilage (Case 3). The illustration shows the gastrostomy wound with the feeding-tube withdrawn, and the complete sphincter action of the muscles of the parietes, by which action no food escaped externally. If the patient lay on his back for a few minutes after taking food he could afterwards walk about with freedom. The gastrostomy was performed on Nov. 6th, 1890, and the patient enjoyed good health till the end of the following July. During the autumn he lost flesh and became very weak; no involvement of lymphatic glands; tumour in œsophagus remained stationary. He was readmitted to the Royal Infirmary on Nov. 5th, 1891, and died on the following day from syncope and congestion of the lungs. Post-mortem examination: No great laryngeal obstruction, no glandular involvement or secondary formations. Microscopic section proved the tumour to be a scirrhous cancer.

FIG. 2.



Case of epithelioma of the œsophagus behind the cricoid cartilage (Case 4). Gastrostomy was performed on Jan. 29th, 1891, and tracheotomy on March 28th, for œdematous laryngitis. The illustration shows feeding and tracheotomy tubes in position. The patient improved during the spring and summer months, but when seen in October the cervical glands were involved and the larynx obstructed. She has not been seen since October.

FIG. 3.



Epithelioma of the lower end of the œsophagus (Case 7). The illustration shows the feeding tube withdrawn. Sphincter action was very complete, so that the tube could not be left out for more than a few minutes. The patient progressed favourably during the early summer, and the disease advanced very slowly; but not receiving proper attention at home, he was found dead in bed from starvation.

The advantages claimed for the operation are as follows:—1. A small and contracted stomach can with greater ease be drawn forward and attached at this point. 2. The attachment seems to be more reliable than when made to the edges of the abdominal wound. The contents of the stomach, on account of the better closure of the opening, do not come into contact with the wound to the same extent as in the older methods. 3. The feeding of the patient can be better accomplished; the closure of the space by the approximation of the ribs acts as a pinch-cock, thus preventing fluids from finding their way out alongside of the feeding-tube. 4. No obturator or other means of closing the opening later on is necessary. A gradual dilatation of the fistula, owing to the resistance offered by the cartilages of the ribs, cannot occur.[7]

By the results of the statistics of recent operations the surgeon is certainly encouraged to resort to gastrostomy as soon as the patient is unable to take sufficient food by the mouth, in those cases where it is inadvisable or impossible to feed him by tubes.

A CASE OF SYRINGOMYELUS.

BY J. HUGHLINGS JACKSON, M.D., F.R.S.,
AND
JAMES GALLOWAY, M.A., M.B.

THE patient, Mary H——, aged forty-seven, is a stout healthy-looking woman. Her grandfather died at an advanced age in the Bethnal-green Infirmary, suffering from a nervous disease which caused contraction of the lower extremities. Her father and mother are alive and in good health. The patient's paternal aunt suffered from rheumatic fever, and her sister died in the London Hospital of heart disease following rheumatic fever. The patient was born in London, but spent part of her childhood in the United States. She has been married twice, and has had ten children. Of these, eight are alive and healthy, and two (twins) died in infancy. No evidence of syphilitic disease nor of alcoholic over-indulgence is obtainable; she has led a careful life, and has enjoyed good health in spite of the nervous affection to be described. Menstruation ceased two years ago.

When twelve years of age, while in St. Louis, U.S., she suffered from a cut on the radial border of the extensor surface of the right forearm, about two inches above the wrist. The tendons were exposed, but the wound seems to have healed after causing very little trouble.

[7] Centralbl. f. Chirg., No. 11, 1890.

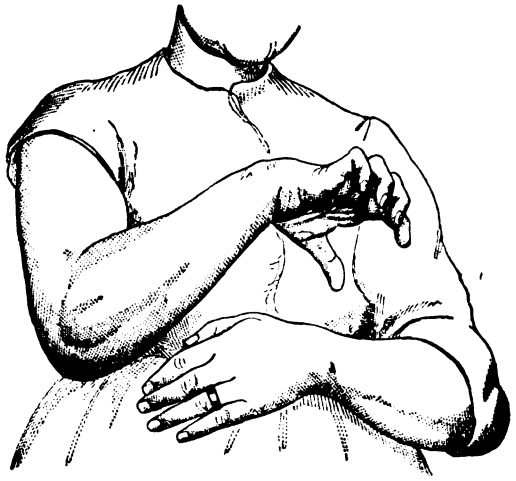
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Twenty-two years ago, when pregnant, she had an attack which she calls sunstroke, while in the garden on a hot summer afternoon. On this occasion she remained unconscious for two hours and was under medical treatment. After this attack she observed that she was gradually losing sensation in the right arm and hand, and on the right side of the body. She is not quite certain that there was not some loss of sensation in this region even before the attack mentioned. The impairment of sensation increased, and she soon observed that there was loss of power in the forearm and hand, especially affecting the third, fourth, and fifth digits. Having to grasp objects by the right thumb and forefinger she felt awkward at work, and the arm became easily fatigued. Fifteen years ago she received a severe scald on the right forearm, and her attention was especially attracted to the loss of sensation about this time. Since that time she has frequently burnt and otherwise injured her right fingers and arm, being unable to feel that water was too hot for washing in. On a recent occasion she pinned her shawl into the skin of her right breast, and was unaware of the injury inflicted till some time afterwards. Twelve years ago she sustained a laceration of the skin over the right elbow. She thinks she poisoned the wound by removing a piece of skin with a pair of rusty scissors. There resulted considerable inflammation round the elbow, and an abscess, forming in the right axilla, was opened and treated in the ordinary way. For two years and a half at least she has noticed that the third, fourth, and fifth fingers have been contracted and stiff. Eight months ago, while wringing clothes in the awkward manner referred to—grasping by the right forefinger and thumb, resting the elbow on the edge of the tub and using the left hand—she suddenly noticed a cracking sound in the right elbow, and had to stop work on account of pain in moving the joint. The same night the right elbow swelled greatly, and remained large for many months. She says the elbow became "dropsical," and she has been unable to use the joint effectively since that day.

In September, 1891, she was admitted to the London Hospital under the care of Mr. Waren Tay. The condition of the right elbow exactly resembled that observed in Charcot's joint disease, but no signs of tabes dorsalis were discovered. The arm was placed on a splint, the fluid became absorbed, and the elbow diminished in size. The joint, in spite of the great changes observed, was uncomfortable rather than painful. On leaving the surgical wards she was transferred to the care of Dr. Hughlings Jackson. The following conditions may now be observed: The right elbow and forearm are considerably larger than the left. The right elbow-joint is quite disorganised, and there is some, though not excessive, osteophytic growth in the neighbourhood of the joint. The forearm can be moved laterally at the joint for about a quarter of an inch with much grating. Movements at the elbow cause a little discomfort, but little or no pain; complete extension is impossible on account of the altered relations of the joint surfaces; the other movements are abnormally free, and are attended with grating in the joint. The right wrist has also been somewhat swollen, and slight grating can be obtained on movement. The third, fourth, and fifth digits of the right hand are permanently flexed and contracted, the second and first digits show similar changes, but not to the same extent. Wasting of the thenar, hypothenar, and interossei muscles is well marked. (Fig. 1.)

The following results of the reactions of the affected muscles to electricity are communicated by Dr. James Taylor: "All the muscles of the affected side, including the facial muscles, react to the interrupted current, but the current required to produce the reaction is greater than that required for the muscles of the (left) unaffected side. This difference in reaction is most marked in the small muscles of the hand. To the continuous current, similarly, a greater current is required to produce a reaction, but there is no qualitative change. K.C.C. is always greater than A.C.C." Over an area, including the front and back of the right upper extremity, the right side of the scalp, face, and neck, and the right side of the trunk to about the level of the tenth dorsal vertebra there exists marked alteration in sensation. The patient cannot distinguish between painful sensations and contact. Thus she cannot tell the difference when the skin is touched with the finger or the sharp points of a pair of compasses. The locality is readily distinguished, but both tests appear as if "a weight" had been placed on the part. Over this region, also, the patient cannot distinguish between heat and cold. She feels and localises the point of contact when hot and cold objects are applied, but cannot tell which is the hot or which the cold object. The muscular sense in the arm is retained. At the level of the tenth dorsal vertebra on the right side there is a region about one inch in breadth where the markedly altered sensations shade rapidly into normal sensation. In the middle line the limit of altered sensation is well marked. The sensation of the mucous membrane of the right side of the tongue, mouth, palate, and fauces is affected in a fashion similar to that of the body. A touch can be readily localised, but a painful sensation is felt only as a touch.[1] The sense of smell seems to be less acute on using the right than when using the left nostril, and there seems to be slight diminution of taste on the right side of the tongue, but the results obtained on examining these special senses are not very trustworthy. The senses of sight and hearing

FIG. 1.



Engraving to show the position assumed by the right hand. From photograph. (Mary H——.)

are normal. There is no alteration in the movement of the eye, and the fundus oculi is normal. The lower extremities are normal in all respects, and beyond a slight systolic murmur at the base of the heart no other morbid phenomena are noticeable. (Figs. 2 and 3.)

The lesion characteristic of syringomyelus appears to be of congenital origin, and consists essentially of a mass of neuroglia situated in the deeper parts of the posterior fissure of the spinal cord, behind the central canal. The quantity of the abnormal tissue varies greatly in amount in different cases, and at different levels in the same case. This variation is due probably to two causes—to the amount which persists originally after development ceases, and to the increase which this original quantity subsequently undergoes. The cavity from which the disease is named is probably in the first instance nothing more than the early posterior extension of the central canal of the cord, which has failed to become filled up. At the same time, the existence of the embryonic neuroglia in this position probably interferes with the proper development of the posterior columns of the cord. The case now recorded emphasises the fact that the condition mentioned may exist for long in the cord, simply as a deformity, without causing evident symptoms. As has been noted, the patient refers to a period at least twenty-two years ago as the date of commencement of her present symptoms. During the twenty-five years of her life preceding that period she had suffered from no sign of the disease. In a case recently described by one of us (Dr. J. Galloway), typical lesions of the disease were found in a patient aged forty-three, who had been in robust health till two years before death, which occurred from the exhaustion following acute mania, and only a few weeks before

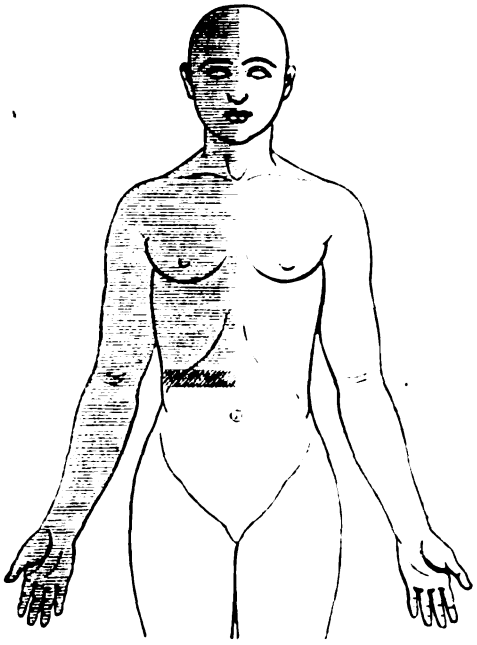
[1] To this striking "abolition of sensibility to pain and to temperature, with preservation of sensibility to contact and to the muscular sense," Professor Charcot proposes to apply the term "dissociation syringomyélique." Bruhl: Contribution à l'Etude de la Syringomyélie. Paris, 1889, p. 14.

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death were any symptoms noted pointing to a lesion of the spinal cord.[2] (Figs. 4 and 5.)

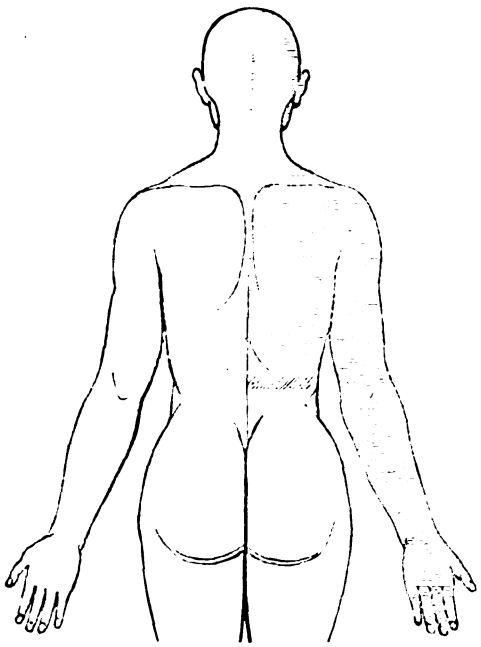
It is important to observe that the early signs, before marked degenerative changes in the cord supervene, consist of the loss of sensation to pain and of the power of distinguishing between heat and cold, while the ordinary contact sensation remains practically intact. This is of interest, as so far as is known at present the conducting tracts for painful sensations, at all events, exist in the lateral columns, while the degenerative changes which result from the increased growth or necrosis of the neuroglia mass are shown most prominently in the posterior columns and in the grey substance of the cord. (Fig. 6.) The alteration in sensation in this case involves the head and neck, the area of distribution of the cutaneous branches of the upper cervical nerves, and of the fifth cranial nerve. This phenomenon is a somewhat rare symptom of the disease, but it is well known that the lesion may continue upwards through the cervical cord, under and involving the floor of the fourth ventricle, and even into the third ventricle, associated with dilatation of the lateral ventricles of the brain. A case very similar to the present is recorded by Dr. Bruhl in his recent work on this subject. In the case referred to the diagrams of altered sensation are almost identical with those appended to the case now described.[3] The case of our patient affords also an example of an acute arthritic degeneration occurring during the course of syringomyelus; the condition of the joint is now exactly similar to the well-known arthropathy so often met with in tabes dorsalis. Although the patient had an axillary abscess it was probably of infective origin, and had nothing in common with the painless collections of pus especially occurring on the fingers described by Morvan, and now considered to be associated with certain forms of syringomyelus. It is interesting to note also in this connexion that in spite of the fact that the patient has frequently received injury on the right arm, no abscess or "whitlow" has occurred except in the single instance above referred to. The question of the identity of certain forms of syringomyelus and anses-

FIG. 2.



Area of analgesia and thermo-anæsthesia, horizontal lines. Area of transition, oblique lines. (Mary H——.)

FIG. 3



Area of analgesia and thermo-anæsthesia, horizontal lines. Area of transition, oblique lines. (Mary H——.)

FIG. 4.



Section through cervical spinal cord, showing the usual disposition of the neuroglia mass, its relations to the posterior columns of the cord &c., the cavity from which the disease is named. The grey horns are undisturbed. (From the case quoted in the text. Trans. Path. Soc.)

FIG. 5.



Section through the dorsal region of the spinal cord. A small quantity of the abnormal neuroglia is seen surrounding a cavity in the usual position. There is great destruction of the grey matter of the cord. (From the case quoted in the text. Trans. Path. Soc.)

FIG. 6.



Section through the cervical spinal cord. Almost complete destruction of the central regions of the cord may be observed. (From Dr. Turner's case. Trans. Path. Soc., vol. xxxix.)

[2] Trans. Path. Soc. Lond., 1890–91

[3] Bruhl, loc. cit., pp. 138–143.

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thetic leprosy has recently received attention in France.[4] In this particular case the absence of trophic disturbances characteristic of the form of syringomyelus described by Morvan, as well as the fact of the anæsthesia existing in such a well-marked area without any tendency to a macular arrangement, preclude the suggestion of the diagnosis of leprosy in this case, and emphasise the fact that syringomyelus is a much wider disease than the forms of it distinguished by trophic changes, and in this wider category we believe the case under consideration has a place. It may be of interest to mention that a patient presenting many symptoms of syringomyelus was shown at a recent meeting of the Neurological Society by Dr. Ferrier. Of this important case we learn that Dr. Ferrier's diagnosis has been verified by necropsy since he exhibited the patient. A very complete bibliography of the cases reported both in English and foreign literature will be found in the works already quoted by Bruhl and Verchère.

REMARKS ON THE OPERATION OF EXCISION OF THE BREAST AND ITS AFTER-TREATMENT.

BY A. PEARCE GOULD, M.S.,
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IT may be thought that some apology is due for offering to the profession any remarks upon a subject so trite as the operation of excision of the breast. But surgeons recognise the importance of paying attention to small details, and I venture, therefore, to refer to points in the conduct and after-treatment of this operation, attention to which has in my hands been followed by greater comfort and more speedy recovery of the patients. I will not occupy the valuable space of this journal by a new description of the old operation of excision of the mamma, but will at once deal with certain special points.

1. *The Incision.*—Some difference of opinion exists as to the best direction for the elliptical incision which is almost invariably employed. In a clinical lecture published in THE LANCET of May 9th, 1891, Mr. Christopher Heath discusses this matter from the point of view of the more or less perfect drainage of the wound which can be obtained. Another point considered to be of importance is the ease with which the incision can be prolonged into the axilla for the removal of infected glands. I would submit that neither of these considerations need have any weight with the surgeon. There is no wound which is more easily and uniformly treated without resort to any means of drainage than that left after removal of the breast and axillary glands. It is sometimes convenient to prolong the incision into the axilla, but it is never necessary to do so, for it is quite easy to clear out the axilla completely through the wound made for removal of the mamma. Quite recently, I have had to operate upon two cases of scirrhous tumour situated in the upper portion of the mammary gland, and I made my incisions so that the long axis of the ellipse of skin removed was vertical. In both cases it was quite easy to remove the whole of the axillary fat and glands through this incision. This is the most extreme case. Two considerations only should guide the surgeon in planning his incisions — one paramount, the other of secondary importance. The first is the complete removal of the nipple and the skin over the tumour when that is malignant; the second is to have the cicatrix parallel to the fibres of the pectoralis major. In most cases these two objects are best attained by the same incision—one enclosing an ellipse of skin parallel with the anterior fold of the axilla when the arm is at a right angle with the trunk.

2. *The Axillary Glands.*—When the mamma is not the seat of a malignant growth, of course the surgeon will not invade the axilla, and even when the disease is sarcoma, the axillary glands should not be removed unless obviously diseased. During the last year I operated upon two patients with sarcoma of the breast, in whom secondary growths occurred in the axillary glands. But in cases of carcinoma of the mamma I am strongly of opinion that it is the surgeon's duty, as a matter of routine, to remove all the axillary glands in their packing of fat. When I first made this assertion, in a paper read before the Medical Society of London, March 27th, 1882,[1] I was mainly influenced by theoretical considerations. Since then I have had, and seen, several cases where disease could only be recognised in the axillary glands after their removal, because it existed in foci of the size of a white mustard-seed or peppercorn. I have followed this practice in every case of operation for cancer of the breast since 1880, and have never had cause to regret it. Where the glands are obviously diseased all surgeons are agreed that they should be removed, and difference of opinion only arises in the cases where no enlargement of the glands can be detected. It is assumed that in such cases no glandular disease exists, and it is asserted that the removal of the glands is an unnecessary extension of the operation and an additional danger. But the assumption is not well founded; for it is only when careful examination of the glands after removal has shown them to be free from cancerous infiltration that we can be sure that they are not infected, and then it must be remembered that it is just in these cases that the axillary glands can be removed with practically perfect safety. There is no adhesion to vessels, muscles, or bone to render the operation hazardous. It is useless to refer to statistics in this matter. The cases where in the past the glands have been excised as well as the mamma, of course, show a rather longer convalescence, and even a higher mortality than those where only the breast has been excised, for they include all the severer cases, such as those requiring extensive dissection, and those where the glands are adherent to the axillary vessels or their large branches. But where the glands are not obviously diseased there is no risk of wounding any important vessel or nerve, and their free removal in no way adds to the danger of the operation if the wound is aseptic. It is best to remove the axillary glands and fat in one mass, first separating it from the pectoral muscles, then from the serratus magnus, then from the subscapularis, and lastly from the vessels on the outer side. The fat should be removed quite up to the clavicle, as the chain of glands extends up to that bone. A raspatory is the best instrument to use when anything more than the finger is needed. The intercosto-humeral nerve should be preserved, and this can easily be done in all cases where the glandular infiltration is limited.

3. *Arrest of Hæmorrhage.*—The most convenient plan is to pick up with pressure forceps any spurting arteries as they are cut, and then, when the breast is detached from the pectoral muscle, to carefully search for any smaller bleeding points and treat them in the same way. Then proceed with the clearance of the axilla, and if any artery is divided, seize it also with forceps. Now remove the forceps in the order in which they were put on, taking great care not to open up the compressed ends of the arteries. Occasionally one or more arteries will require to be twisted—a ligature is never necessary. Sponges should be used only to dry the wound, and should never be rubbed over it; the less they are used the better. No bleeding point, however small, should be neglected.

4. *Irrigation.*—The wound should be thoroughly flushed with a solution of bichloride of mercury (1 in 2000), after the hæmorrhage has been arrested. I generally use four or five quarts of the solution, and find it a good plan to flush the wound with it just before fastening the last suture. Care must be taken to express all the fluid, and if this is done there is no fear of corrosive sublimate poisoning. Besides its action as an antiseptic, this solution is a valuable astringent, and greatly diminishes the subsequent serous exudation, and in this respect is far superior to carbolic acid solution.

5. *Suture and Drainage.*—I have obtained the best results with a continuous suture of the finest chromicised catgut introduced at intervals of half an inch, and each loop caught up—the button-hole stitch. A drainage-tube should not be employed.

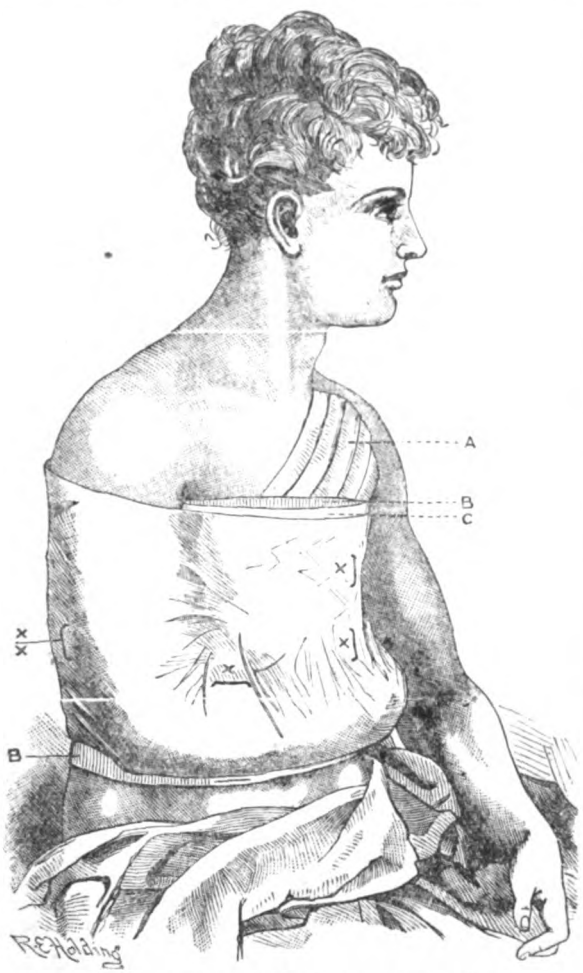
6. *The Dressing.*—The dressing should fulfil two conditions. It ought to be aseptic, and it should secure exact apposition of the wound surfaces without any movement, until primary adhesion has taken place. The rounded, firm, and yet elastic chest wall is admirably adapted for a surface of

[4] F. Verchère. A review in the Revue des Sciences Médicales, vol. xxxviii., p. 324. See also a translation of the above in "Brain," 1891, p. 368, by Dr. Cagney.

[1] See THE LANCET, vol. i. 1882.

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counter-pressure. Immediately over the wound I place a fourfold dressing of boric lint, large enough to extend about an inch in all directions beyond the wound surface. This is fixed in place by strips of strapping, cut two inches wide. They are fixed to the back at the level of the spine of the scapula, passed round the chest to the opposite shoulder, and put on from the lower edge of the dressing up to the anterior fold of the axilla. They are applied sufficiently firmly to keep the flaps of skin well and evenly pressed against the thorax, and so prevent any bagging in the wound. Over this a dressing of alembroth gauze or wool is fastened on with a roller bandage carried round the trunk in an ascending figure-of 8. Lastly, the arm is fixed to the side, with the forearm lying across the trunk, the elbow bent at a right angle. This should be done by means of a sling, not by bandages. The best sling for the purpose is a



A, Strapping. B, Figure-of-8 bandage over outer dressing. C, Sling, showing its two folds. ×, Pins fastening the sling to the bandage.

common chamber-towel folded in two lengthwise. The forearm and arm are dropped between its two layers, the hand being just within one end, and then the other end is passed round the back under the opposite arm, and the two ends are pinned together and to the underlying bandage. Additional pins should be placed behind the arm and above the forearm. In this way the arm and forearm are securely, evenly, and comfortably fixed, and by removing two or three of the pins the outer layer of the sling can be turned down, and the hand and forearm washed every day, without in the least disturbing the position of the arm and the rest of the dressing. One special feature of this dressing is that there is no bandage or sling over the shoulder or round the neck—a most important matter for the patient's comfort, as the head and neck can be moved quite freely. A bandage passed round or over the neck is more than uncomfortable—it is inefficient, for it is sure to get loose.

The *after-treatment* can be dismissed in a few words. The first trouble to combat is the pain in the back, which inevitably comes on when a patient lies in bed with the arm fixed to the side. For the first twenty-four hours a firm pillow should be carefully placed under the arm of the affected side so as to support it well; this may be entirely successful in relieving the pain. After the first day I like the patient to be raised into a sitting posture, well supported by pillows or a bed-rest; this at once relieves the pain. On the second and each successive day the sling should be gently turned back; and while one hand is placed upon the arm to keep it fixed against the chest, the fingers, wrist, and elbow should be flexed and extended, then washed, dried, powdered, and again fixed in the sling. This is a great refreshment to the patient, and in no way disturbs the wound or the dressings over it. On the fourth or fifth day, if all is well, the patient may get up and sit on a chair. On the seventh day the dressing should be removed, care being taken in turning back the deepest part of it not to break down the union of the wound edges and surfaces. As a rule union will be found complete if the edges have been brought into exact apposition without undue tension, and if the dressing has been affixed with the requisite amount of pressure. All the stitches should be cut and gently removed, and the tender cicatrix should be protected by a dressing of a double layer of sublimate gauze fixed on with collodion, and over that a light boric lint dressing may be fastened by a figure-of 8 bandage round the body. The patient, if in a hospital, may now go home and return in a week for the removal of this dressing, when, if the cicatrix is firm, no further treatment will be needed. It is not necessary or wise to keep the arm fixed to the side after the first week; there will not then be any troublesome stiffness of the shoulder afterwards. In his recently published "Manual of Operative Surgery" Mr. Treves states that "the patient may usually be ordered up on the eleventh day, and may leave the hospital on the fourteenth." As stated above, I have found it not only possible, but desirable, to allow my patients up much earlier than this, and lately they have, as a rule, left the hospital before the tenth day, some of them on the eighth day.

I append very brief notes of the cases of excision of the mamma under my care in the Middlesex Hospital last year up to the time of my leaving for my annual holiday. These cases were treated in the manner described above. In all except Cases 1 and 2 the axillary glands and fat were removed.

CASE 1.—Alf. D——, aged forty-nine. Cystic tumour of breast; operation on Jan. 23rd; got up on Jan. 27th.—Jan. 31st (ninth day): Dressings and sutures removed; wound healed except at two small points, where edges had not been brought into perfect apposition. Went home same day.

CASE 2.—Emma S——, aged forty-two. Multiple involution cysts of both breasts; right breast removed on March 28th—April 4th: Dressings and sutures removed; wound entirely healed.—6th (tenth day): Left hospital. This patient returned ten days later.—17th: Left breast excised.—23rd: Dressed; sutures removed; wound entirely healed. She stayed in hospital until May 4th on account of rheumatic pains in the shoulder.

CASE 3.—Emma Y——, aged sixty-three. Scirrhus of right breast and axillary glands; operation on May 7th.—15th: Dressed; sutures removed; wound entirely healed.—18th: Left the hospital.

CASE 4.—Frederick H——, aged forty-one. Scirrhus of right breast and axillary glands; operation on May 9th.—16th: Dressed; sutures removed; wound healed, except two small spots where edges had not been brought into exact apposition.—17th: Went home (ninth day).

CASE 5.—Annie B——, aged sixty-two. Scirrhus of left breast and axillary glands; operation on June 27th.—July 3rd: Got up—4th: Dressed; sutures removed; wound entirely healed. The patient left the hospital on July 6th.

CASE 6.—Mary W——, aged fifty-three. Sarcoma of right breast and axillary glands; operation on July 15th.—July 20th (sixth day): Dressings and sutures removed; wound entirely healed.—21st (seventh day): Went home.

CASE 7.—Emily B——, aged forty-two. Scirrhus of left breast and axillary glands; operation on July 20th.—25th: Got up.—26th: Dressed; sutures removed; wound entirely healed.—27th (eighth day): Went home.

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SUBPERITONEAL HYSTERECTOMY.[1]

BY HEYWOOD SMITH, M.A., M.D. OXON.

IN giving the above title to this paper I have not aimed at its being accurately descriptive. A more proper title would be "An Intra-pelvic yet Extra-peritoneal Treatment of the Stump in Cases of Hysterectomy." I propose briefly to sketch the methods most commonly in use for the treatment of the cervical stump, quoting from the papers and speeches of various operators, to quote some cases of intra-pelvic treatment of the stump by those who have so operated, then to narrate those cases in my own practice, and finally to make some observations which I hope will tend to show the intra-pelvic and extra-peritoneal method will eventually become *the* method of treatment, where practicable, in cases of fibrous tumour of the uterus. In dealing with the stump in supra-vaginal hysterectomy we are brought to face a totally different condition than we have in the pedicle of an ovarian tumour, for we have to manipulate a stump composed of contractile tissue, which by its shrinkage, when constricted as a whole, relaxes the pressure on the vessels and opens up the danger of fatal hæmorrhage. To obviate this danger the majority of operators prefer to bring the stump outside the abdominal wound, where it is open to observation and can be further constricted from time to time as necessity requires. If, however, we can carry out a method whereby the vessels can be effectually secured, and at the same time do away with the disadvantages of the clamp, we shall, I venture to think, see our cases get well more rapidly and our patients less exposed both to danger from septic absorption as well as to inconvenience from tension on the stump and the abdominal wound and from the inevitable crowding of the bladder.

A case was reported by Dr. Christian Fenger to the Gynæcological Society of Chicago in 1888, which, though a pedunculated fibro-cystoma, yet involved the suturing of uterine contractile tissue. This case recovered after some suppuration in the stump. Dr. Bantock exhibited a tumour before this Society in 1888, where, after its removal, an enormous surface was left. After tying many bleeding points he stitched the anterior half of the peritoneum to the posterior, completely obliterating the raw surface. He also, in 1889, brought before the Society a case of fibroid of the uterus removed by Dr. Vincent Jackson of Wolverhampton. In this case peritoneal flaps were stitched over the cut surface. In vol. v. of the *British Gynæcological Journal* Dr. Rakuza of Odessa reports five cases of supra-vaginal amputation of the uterus with three recoveries, and two deaths from peritonitis. In 1890 Mr. Reeves brought forward a case where, after tying the broad ligaments, he tied each uterine artery separately, and treated the stump after the intra-peritoneal method. In the *Medical Press* of Nov. 25th and Dec. 9th, 1891, Mr. Reeves has published a paper on Hysterectomy in which he advocates this method of operating, giving two cases. He quotes a Dutch operator who had had forty-four cases with four or five deaths, and Dr. Chrotak of Vienna, who had done ten cases, all successful. At a meeting of the Gynæcological Society of Chicago, January, 1890, Dr. Henry Byford introduced a new method, that of vaginal fixation of the stump, where the end of the stump is brought into the vagina through an opening made in the anterior fornix. At a meeting of the American Gynæcological Society, Dr. Skene suggested "dilatation and inversion of the cervix," which would fulfil the indications without wounding the vagina. In the *American Journal of Obstetrics* for April, 1890, there appeared a paper by Dr. James Goffe of New York on "A New Method—the Intra-abdominal but Extra-peritoneal Method of disposing of the Pedicle in Supra-vaginal Hysterectomy for Fibroid Tumour, with Report of Four Successful Cases." His method of operating was shortly as follows: Anterior and posterior flaps were stripped off the uterus, the stump transfixed and tied inside the flaps, and the whole stitched over with catgut. Dr. Goffe says: "In regard to the operation itself, while each of the different features has been used by different operators, I know of no one having combined them all into a systematic method till I did so myself. The advantages are that it has all the elements of safety that any of the operations in use have, and, I believe, more; moreover, it leaves no ligature in the pelvis to give trouble, and, above all, it restores the organs to their proper relation in the pelvis." Mr. Meredith, in his paper read before the Medical Society in 1890, indicates the possibility of securing the uterine stump intra-abdominally. In the discussion that followed Mr. Treves said: "The bloodvessels going to the mass were easy to find and to ligature. Having secured these, the ligaments on each side were divided and a V-shaped section of the cervix was made, leaving a kind of flap on each side. When the tumour was removed in this manner a large gash was made in the peritoneum, and after this was stitched up there remained a closed seam running across the pelvis." Mr. Lawson Tait, after criticising this method of operating, went on to say: "We all know perfectly well that if we could secure the vessels in our stumps effectually, and then drop the stump back in the abdomen, we should have at once, in all probability, a 5 or 6 per cent. mortality for these dreadful operations." Dr. Elder of Nottingham said "he was quite at one with Mr. Treves in regarding the clamp as the relic of a barbarous age, and thought the day was not far distant when it would be relegated to the limbo of antiquity and its use superseded by an intra-peritoneal method more in accordance with the advanced surgery of to-day." In THE LANCET of Nov. 29th, 1890, there appeared a paper on "Supra-vaginal (Abdominal) Hysterectomy with the Scissors, a Contribution to the Discussion on the Treatment of the Uterine Stump," by H. N. M. Milton of Cairo. He shows that the blood-supply can be efficiently controlled, even when the vessels are large, by ligaturing them separately. He then describes the formation of the anterior and posterior flaps, showing that by separating the peritoneum from the sides of the cervix at the points of union of the incisions all fear of injuring the ureters may be avoided. He then narrates three cases in which he thus operated with success. In THE LANCET of Sept. 26th, 1891, he writes that he has been successful in a fourth case. Dr. Widenham Maunsell of Otago, New Zealand, described in 1887 an intra-peritoneal operation where he sewed the peritoneal flaps over the stump, but he also closed the cervical canal by vivifying its sides, a method which I venture to think unadvisable, as closing the natural exit to any pus that might be formed. Dr. Sinclair, in a letter to the *British Medical Journal* of Nov. 14th, 1891, describes the intra-pelvic operation, "finishing the stump like a plastic operation." His cases, ten or twelve, all recovered.

I will now briefly relate my own experience.

CASE 1.—S. T. W——, aged thirty-five; married nineteen years, never pregnant; admitted into Warrington Lodge, Aug. 28th, 1890. Tumour first felt two years ago; grown rapidly; constant pain; first flooding one year ago. Operation, cælio-hysterectomy. Long incision, tumour drawn out of abdomen, elastic ligature placed round its base, uterine wall cut round about one third up, and tumour shelled out of its bed in the cervix; uterine arteries tied separately; stump mopped over with hot carbolised oil. The peritoneum was sewn over the stump with an uninterrupted suture of China twist with Lembert's stitches. Operation lasted eighty minutes; tumour weighed six pounds. Temperature rose on second day. On the sixteenth day after the operation, as the temperature indicated pus, I passed a sound carefully up the cervical canal and evacuated a quantity of thick offensive pus. (I had not at that time seen Dr. Goffe's paper where he had the same experience.) Patient discharged well thirty-six days after operation.

CASE 2.—J. H——, aged thirty-five; married ten years; no children; admitted Feb. 24th, 1891; ailing seven years. Tumour felt two years and a half ago. Operation, cælio-hysterectomy, Feb. 27th. Long incision; two large tumours continuous with one another drawn out of pelvis; broad ligaments clamped on each side with long pressure forceps and divided; elastic tube passed round the base of the tumour, which was then cut away; cut surface large, contracted rapidly; profuse hæmorrhage; uterine arteries ligatured with chromicised catgut; whole length of raw surface from the end of one broad ligament to the other laced with an uninterrupted chromicised catgut suture, the stitches over the stump being Lembert's. On the fifth day the temperature rose, and on the eighth day it was 103·4°. There was a large swelling on the right of the pelvis; by

[1] Abstract of a paper read before the British Gynæcological Society on Feb. 11th, 1892.

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aspiration it proved to be a hæmatocele; free incision and some offensive, broken-down blood-clot evacuated. This had to be done more than once, but the patient eventually did well. The occurrence of this hæmatocele, which was large, affords a good proof that if the peritoneum is well sutured it heals quickly and so firmly as to withstand the pressure of fluid (blood or pus) upwards without giving way.

CASE 3.—A. H——, aged forty-six years and nine months; married twenty years and nine months; one child aged twenty. Had been under the care of a specialist at one of the large general hospitals, who said he could do nothing for her. Admitted May 27th, 1891. Uterus jammed up on the right anterior aspect of the pelvis by a large hard tumour. Operation on June 3rd. A long incision below the umbilicus was made, the front of the tumour covered with the left broad ligament; this was tied and divided. The tumour, which is unusual in fibroids, was extensively adherent to the bottom of the pelvis. It was separated and drawn out of the abdomen, an elastic ligature was passed round the cervix and the tumour peeled off the uterus, which was considerably torn; the peritoneal flaps were then made, the cervix transfixed and tied inside the flaps, and the uterus cut away. The pelvic peritoneal wound was closed as in Case 2. A sponge wrung out of tincture of matico was temporarily packed into the pelvis. A glass drainage-tube was inserted, which was removed on the third day. The operation lasted ninety-five minutes. Indications of suppuration supervened, the os uteri was dilated, and the silk ligature that was round the cervix and the catgut ligature of the uterine artery came away. In this case the closed peritoneum over the uterine stump held and resisted the suppuration of the cervical tissue going on just below it.

I will now briefly sum up the lessons to be learnt from the cases: (1) That, where it is possible of application, the subperitoneal method holds out as good a prospect of success as any other, and leaves the other pelvic organs free and unfettered by any constriction or adhesion; (2) the best methods, it appears to me, are those of Dr. Goffe and Mr. Milton, and so far carried out in a modified way by myself. The main points in the operation seem to be: (1) Make the peritoneal flaps sufficiently large, as they can be reduced, but not added to; (2) secure absolutely every bleeding branch of the uterine arteries, if possible, separately; (3) lace the whole pelvic peritoneal wound across with an uninterrupted suture of chromicised catgut, taking care that Lembert's stitches are used over the uterine stump, so that it is entirely sealed with peritoneal covering.

It is recommended that the cervical stump be divided as low down as possible, for the proportion of connective tissue to contractile tissue is greater than in the upper part of the uterus. There will therefore be less shrinking the more the amputation is carried through the cervix proper. I would also point out the great advantage of using tincture of matico as a styptic where there is any oozing. It is very effectual, and seems to do much less harm than others. There remain three points for discussion: 1. Shall we use a drainage-tube? Where there is any oozing, Yes; but where the pelvis, after the lacing, remains dry, No. 2. Shall the cervical canal be destroyed by caustics? Shall it be transfixed and tied, or shall it be left free? If the bloodvessels are quite secured, No, as such ligature tends to set up suppuration within the cervical canal, and if the canal is obliterated the natural exit of any pus that may form is cut off; better leave it free. I here close, and trust that this paper may be the means of calling attention to a method of performing the operation of hysterectomy that, when we have mastered its details, will prove more scientific than the abdominal fixation of the stump, will leave the parts with their relations unaltered, and pain from unnatural tension impossible, and that will give results, as shown in the numerous cases that have recovered among those related in this paper, that, considering the greater gravity of the operation, will compare not unfavourably with those we have arrived at in ovariotomy.

Harley-street, W.

THE New York Health Department officers have, it is stated, found thirty-seven victims of typhus fever among the 267 Hebrew passengers of the steamship *Massalia*, of the Fabre line, from Naples, which landed 717 emigrants on Jan. 30th.

THE TREATMENT OF INOPERABLE MALIGNANT NEOPLASMS BY THE ANILINE DYES.[1]

BY PROF. DR R. VON MOSETIG-MOORHOF OF VIENNA.

TRANSLATED AND MUCH CONDENSED BY F. F. BURGHARD, M.S. LOND., F.R.C.S. ENG., ASSISTANT SURGEON TO KING'S COLLEGE HOSPITAL.

PROF. MOSETIG-MOORHOF thinks it desirable, in consequence of the numerous inquiries made of him and the appeals for the publication of cases, to put on record the results that he has obtained up to the present time in the treatment of malignant growths too advanced for operative relief by the injection of the aniline dyes. In 1883 he injected a 1 per cent. watery solution of aniline trichlorate (free of all traces of arsenic) into a man fifty years of age, who was the subject of a sarcoma of the inguinal region as large as an orange. The injection was repeated every two or three days well into the tumour. In two months' time the mass had decreased to a nodule the size of a nut; it had in part broken down and in part shrivelled up. The man remained well for a year, and then died of an acute pneumonia without any relapse having taken place. Notwithstanding this very successful case the treatment had to be abandoned for a time, owing partly to the unpleasant constitutional effects that were produced and partly to want of material. In 1890 Professor Stilling's pyoktanin (Merck's preparation) was tried, and owing to the fact that it combines a certain amount of antiseptic power with a high degree of innocuousness it has been largely used since. The technique of the treatment is then given at some length. A special syringe, holding from two to three grammes, is used with long and wide cannulæ. A Pravaz syringe does not hold sufficient, and with a small needle greater pressure has to be exerted on the piston. Some special curved cannulæ are used for injections into the tongue. The needle must be most carefully rendered aseptic, and the syringe should be used for no other purpose. An aqueous solution should be used, and should be carefully filtered (if possible, through an aseptic asbestos filter), as it has always a tendency to precipitate, and so block the cannula. To avoid this, also, it is advisable not to use a more concentrated solution than 1 in 500. Disinfect the skin. The cannula should be plunged into healthy skin immediately beyond the tumour, and pushed in deeply towards the edge of the growth. When it has penetrated the latter, the solution should be slowly injected. As much as from two to twelve grammes of the 1 in 500 solution may be injected at each sitting, the injections being made either at one spot or at several, as may seem necessary. Where the surface of the growth is ulcerated, the needle must be introduced further away and pushed deeper, as there is always an escape of the fluid from the surface of the ulcer. In tongue cancer it is important not to inject through the floor of the ulcer. Such a proceeding may be followed by cellulitis from the introduction of septic matter from the floor of the ulcer along the track of the needle. In cases of enlarged submental glands or epithelioma of the floor of the mouth the injections should be made from the out side.[2]

The objections brought forward against the treatment are then dealt with. Prof. Mosetig-Moorhof affirms that in his experience, and after many hundreds of injections, there is no danger of any coagulation occurring if the drug is injected by accident directly into the blood stream. This clinical experience is supported by Ehrlich's experiments, where it was found that the methylene blue when injected into the bloodvessels of dogs caused no coagulation and no ill effects. This point was further exemplified in a case of very large pulsating soft sarcoma of bone in a child where a profuse rush of blood occurred through the cannula, and where pressure had to be applied after the injection had been made in order to check the bleeding. Here the drug

[1] Wiener Klinik, January, 1892.

[2] Details of cases where the drug was used in malignant disease of various viscera in a somewhat tentative manner, and with no great results, are here omitted, as they do not greatly enhance the value of the paper.

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must have got into the blood stream. Nevertheless the pain disappeared and the boy felt better.

It has been found that the harder varieties of sarcoma and the carcinomata, especially the former, are likely to derive more benefit from this injection treatment than are the softer, more vascular, and rapidly growing sarcomata. The tumours of the soft parts are likewise more amenable to the treatment than are those of bone. Inflammation never occurs, unless septic material has been introduced with the cannula. Hence the precautions to render the instruments aseptic, and to avoid injecting through ulcerated surfaces. Some œdema may occur soon after injection, and persist for some days. This is probably due to the pressure of the fluid and its slow absorption from the site of injection. Pain is rarely felt for more than a few minutes. It is due to the distension of the parts by the large amount of fluid injected. In some cases it may last an hour or two. In only two cases, where twelve grammes had been injected at one spot, there were some shiverings and a slight rise of temperature.

The benefits are thus enumerated:—1. Relief of pain, usually very marked and often very rapid. This is explained by Ehrlich's observation that in the living subject these dyes are found first of all to affect the nerve endings. This relief of pain after a few injections may be permanent. There is, however, no relief of the distressing pain in case of "carcinome en cuirasse." 2. Improvement of general health. The relief of pain leads to natural sleep, improved appetite, and gain in weight. 3. Mental improvement. It cheers and lightens a patient's end by exciting hopes and rousing him from hopeless despondency. 4. Improvement in function of various organs—e.g., the tongue may become movable in epithelioma linguæ &c. 5. Shrinking of the tumour. Even in the softest and most rapidly growing tumours some retardation of the growth may be produced and perhaps some diminution in bulk. In suitable cases this may be very marked, and may either occur from breaking down of the growth or shrinking up of it. The two processes are usually combined. Secondarily affected glands may shrink as a result of injections into the primary growth. 6. Cicatrisation of a malignant ulcer may occur, especially when the drug is directly applied to the surface. 7. A foul ulcerated surface will clean and fœtor will diminish. It is therefore found in actual practice that shrinking of the growth, and even actual cicatrisation, may be obtained. Sufficient time has not yet elapsed to enable any opinion to be formed as to relapses. Only two out of more than seventy cases treated by Professor Mosetig-Moorhof have up to the present time (one year from the beginning of the treatment) relapsed. The treatment should only, of course, be used in cases that are beyond the reach of operation. It cannot do harm, and may do much good. As an example of the good results to be obtained, there is appended a table of ten cases out of seventy or more treated by Professor Mosetig-Moorhof.

TEN CASES OF MALIGNANT NEOPLASMS TREATED BY ANILINE DYES.

No.	Age and sex.	Nature of tumour.	Duration of disease.	Duration of treatment.	Number of injections.	Amount of methyl violet solution.	Result.
1	Female, aged 66	Myeloid of lower jaw	1 year	7 months	84	230 grammes	Tumour disappeared, leaving shell of bone. No return in 8 months.
2	Male, aged 65	Subperitoneal pelvic sarcoma	1½ ,,	6 ,,	22	66 ,,	Reduced to one-third its original size. Stationary 8 months.
3	Female, aged 32	Supramammary sarcoma	4 years	3 ,,	67	201 ,,	Reduced to half its size. Treatment interrupted by pregnancy.
4	Male, aged 45	Sarcoma of neck	3 ,,	6 ,,	73	219 ,,	About one-fifth of size. Lost pain. Cicatrisation of ulcer. Under treatment still.
5	Female, aged 65	Epithelioma of cheek and eyelid	2 ,,	1 month	21	21 ,,	Almost entirely cicatrised. Small spot left. Under occasional treatment still.
6	Female, aged 47	Epithelioma of nose and eyelid.	10 ,,	8 months	46	70 ,,	Disappearance and complete cicatrisation of ulcer. Local recurrence.
7	Female, aged 68	Carcinoma fibrosum of breast and axillary glands	2 ,,	4 ,,	30	96 ,,	Reduced by one-half. Still swelling of glands. Cicatrix of ulcer up to small spot.
8	Male, aged 45	Epithelioma of tongue and glands	8 months	6 ,,	96	96 ,,	Partial cicatrisation. Glands stationary. Tongue movable.
9	Male, aged 60	Epithelioma of palate and cheek	1 year	4 ,,	125	125 ,,	Reduced to one-third its size. Improved health.
10	Female, aged 38	Carcinoma vaginæ recurrent after amputation of uterus	4 years	3½ ,,	40	40 ,,	Shrinking and cicatrisation of ulcerated parts. Death 7 months later from cancer of pelvis.

Weymouth-street, W.

A COMPLICATED CASE OF FRACTURES OF LOWER LIMB, TREATED BY A MODIFICATION OF THE DOUBLE INCLINED PLANE.

BY R. E. INGRAM-JOHNSON, L.S.A.

I WAS called on Feb. 19th, 1891, to an accident at the Morrison Pit of the South Moor Colliery Company. It was stated that several tons of coal had "come away" and fallen on a man, smashing his leg "all to pieces." He had been brought to the surface when I arrived, and the limb had been partially straightened and put on straight splints by some "first aid" men, who had also applied a tourniquet over the middle of the thigh. On examination I found there was a compound comminuted fracture of both tibia and fibula, the tibia about the middle third for about three inches being broken into fragments. The wound admitted of the finger being easily passed in so as to remove one or two loose pieces of bone. There was a second wound extending from just below the knee along the internal border of the tibia downwards for about four inches, and then curving backwards to about the middle line of the back of the leg. This formed a large muscular flap which was turned over backwards. I washed this wound well with 1 in 20 carbolic lotion, brought the edges together with sutures passing deeply through the muscles, and dressed with iodoform. There was some hæmorrhage from the wound communicating with the fracture, so I plugged it with iodoform wool and dusted iodoform on the top. There were two fractures of the femur, one just above the condyles, and another (oblique) at the junction of the middle with the upper third of the shaft. I found a small punctured wound over the upper fracture, but I did not probe it, so cannot say whether it communicated with the fracture or not. The pelvic region and perineum were much bruised and lacerated, there being a great amount of ecchymosis, so that the catheter had to be passed for four days. The left leg was bruised, and there was a wound across the patella exposing the bone. I found that the ordinary Liston's splint would be useless, as there was so much injury to the leg, and as the perineum was too severely bruised to admit of the use of a perineal band; so after putting the thigh up in a temporary box-splint and the leg on a back splint with foot piece, I gave orders at once for a modification of the double inclined plane to be made for me. This consisted of a double inclined plane made of two boards, each twelve inches wide, one extending from underneath the buttocks to the knee, and the other from the knee to four inches below the foot.

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In the thigh piece were four slots, two on either side, sixteen inches apart on the outer side, and ten inches apart on the inner side, and two straight splints, one for the outer side to extend the whole length of the thigh piece, and one for the inner side to reach from just below the perineum to the knee. These were each four inches wide, and each provided with iron bolts with screw ends, to work in the slots, so that they might be moved backwards and forwards towards the middle line, so as to fix the thigh when it was brought into position. These bolts were to be secured underneath by winged nuts. In the lower portion of the inclined plane was a foot piece, moving in a slot longitudinally; this was fixed by a nut underneath, which held it perpendicularly as regards the plane. There were also two triangular pieces cut out of the board, leaving a piece in the middle the shape of the leg from two inches below the knee to where the heel would be when the leg was in position. To apply the apparatus, which was done on Feb. 20th, I removed the splints from the thigh piece, padded it, and slipped it under the limb. The femur was then brought into position, and held there whilst I applied the side splints and fixed them. I then put on a straight splint over the top of the thigh, to prevent any upward displacement and bandaged all together. The next thing was to fix the foot to the foot piece; this was done and traction put on the leg till the fracture was reduced and the foot piece was then fixed, and the ankle and leg up to just below the wound were firmly bandaged to the apparatus. The dressings were then applied to the wounds and the limb left undisturbed, except that from time to time the side splints were tightened and the top splint removed to allow of inspection of the fractures.—March 23rd: Removed apparatus, and gave a stimulating liniment to rub the thigh and knee.—25th: Began slight passive movement of knee.—April 6th: Encased thigh in plaster-of-Paris.—10th: Patient was able to move about the house with crutches and left foot in a sling. Large wound almost healed.—May 18th: Removed plaster-of-Paris case.

The patient is now able to walk long distances with only a stick for support. His injured leg is not quite an inch shorter than the other, although several small pieces of necrosed bone have come away from the tibia, and there is still more to come. There is remarkably little necrosis considering the comminution at the seat of fracture. The patient is a man of twenty-four years of age, and of splendid physique. The width of the splint and the position in which the foot piece can be fixed upon it, I claim, has prevented the possibility of any eversion of the foot, and the two triangular spaces on either side of the leg allow of the application of dressings &c. with no pain to the patient or risk of disturbing the fractures. The side splints at the thigh effectually prevent any sideways displacement, and, if combined with a splint at the top, close the limb, as it were, in a box, and prevent any movement of the bone in any direction. Another advantage is that they are easy to tighten or remove. Their removal can be accomplished without any movement of the limb.

South Moor, near Chester-le-Street.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON THE EFFECTS OF INFLUENZA UPON THE MIDDLE EAR.

BY SIR WILLIAM DALBY, F.R.C.S.,
CONSULTING AURAL SURGEON TO ST. GEORGE'S HOSPITAL.

AMONGST the various ulterior effects which the influenza has left upon its subjects it might have been expected that the tract of mucous membrane which lines the middle ear would have been included with tolerable frequency; and although this has in a measure proved to be true, it has occurred in a manner somewhat different from what might have been anticipated. It is true that a certain number of persons during the high temperature stage have for the first time in their lives been attacked with acute inflammation of the middle ear, ending in a few hours with perforation of the tympanic membrane, but these cases, so far as my experience goes, have been comparatively rare; equally rare, it seems to me, have been cases in which persons with ears that have always been healthy have become affected with non-purulent catarrh of the middle ear, combined with obstruction of the Eustachian tubes. I have (in common no doubt with other surgeons) been called to some cases where rapid and acute inflammation of the middle ear has taken place, and to some in which septicæmia has shortly followed, but such instances form a very small proportion to the considerable numbers whom I have observed to be affected in a different manner. These have been confined chiefly to those persons who are and have been for many years the subjects of perforations. There are a good many people who, having perforations, have learned under treatment so successfully to manage them by the use of an absorbent cotton pad that they hear fairly well, and have so minute a quantity of discharge as to be barely noticeable, and in this way continue for many years in a very comfortable condition in respect of hearing and local inconvenience. Many of this class, after an attack of influenza, come back again complaining of further loss in hearing power and greatly increased discharge, which has proved intractable to ordinary measures. The pads have ceased to have their accustomed effect on the hearing for the whole day, and now, in consequence partly of getting soaked with discharge, they are useless. But beyond this the congested condition of the tympanic cavity of itself dulls the hearing so much that the ordinary results of pressure on the stapes are gone for the time. Again, there are many subjects of perforations in whom the cavity of the tympanum has ceased to secrete purulent matter, a condition of a perforation which may be described as dry, and which often remains so for many years. I have observed many of these to resume their previous activity in regard to discharge after an attack of influenza, although for long periods, notwithstanding ordinary colds and exposure to all sorts of variations in climate, they have continued healthy. Thus a person with healthy ears has little to dread from influenza so far as this mucous surface is concerned, but it may become a serious trouble to one whose ears have formerly been the seat of inflammation.

Savile-row, W.

CASE OF HEPATIC ABSCESS.

BY JOHN MCMUNN, L.R.C.S.I., &c.

A SOLDIER, aged thirty-three, of moderate drinking habits, had served six years in the army, two of them in Bengal. He had ague in 1888. While coming through Suez early in November, 1890, his appetite failed. He arrived at Aldershot on the 19th of the same month. Then his eyes looked yellow and his urine was high coloured. On Dec. 1st he became impatient at the hospital, but was discharged in a week. At the time of his discharge he complained of epigastric pain. There was no history of sweats or rigors. When I saw the patient on Jan. 2nd, 1891, he weighed 8½ st., his height being 5 ft. 5½ in. He was worn-looking, anæmic, and slightly jaundiced, with weak pulse, normal temperature, clean tongue, regular bowels, and slight cough. The urine was strongly acid, sp. gr. 1020, clear, plentiful, fragrant, and free from sugar and albumen. He complained of his stomach. There was an epigastric tumour, solid, firm, smooth, rounded, fixed, visible, in diameter three inches, slightly tender, and scarcely moving with respiration. Treatment: quinine, nitro-muriatic acid, and rest. Jan. 10th: Temperature (2 P.M.) 99°; pulse 96.—18th: Doubtful deep fluctuation.—21st: Temperature (2 P.M.) 97·8°; pulse 96.—22nd: Temperature (2 P.M.) 97·8°; pulse 96. The tumour was explored with a needle and afterwards freely opened. Four ounces of thick chocolate-coloured pus escaped. A drainage-tube was inserted, and the whole covered with linseed poultice moistened with carbolic oil. Temperature (6 P.M.) 101°; at 9 P.M. it was normal.—23rd: Sweated a little last night.—26th: Evening temperature 101°. Headache.—27th: Evening temperature 100·5°.—28th: Abundant discharge, which seems to come from a superficial cavity, with an upward inclination from opening. A painful and tender cord runs from the edge of the liver to the umbilicus.—Feb. 3rd: Discharge not so free.—5th: Temperature (6 P.M.) 99°. Headache. Patient not so well.—8th: Tumour, which had gradually shrunk, more prominent, coincidently with decreasing

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discharge; evening temperature normal. A probe was allowed to ferret its way through softened tissue for about two inches backwards, suddenly it dropped into a large cavity, and pus welled up in abundance, the passage was enlarged with dressing forceps, and this second cavity drained and dressed with carbolic oil.—18th: Since last date syringed through drainage-tube with Condy's fluid; tube expelled from a shallow dimpled recess representing the wound.—24th: Patient joined regiment October, 1891, in the best of health.

The total amount of matter expelled was about three pints.

Gloucester-road, N.W.

NOMA AS A COMPLICATION OF ENTERIC FEVER.

By JOHN DONALD, M.A., M.B.

As noma is a rare complication of this disease, a few remarks on two cases in which it occurred may prove interesting.

On Sept. 9th, 1891, I began to attend two children, Lizzie B——, aged four, and Jane B——, aged eight, both of whom were found to be suffering from enteric fever. They had been ailing for about a week, Lizzie B—— having been taken ill a day or two before her sister. The symptoms all through were much alike in the two cases, the nervous symptoms predominating. There was marked prostration, and great restlessness and delirium of a low type. The temperature varied from 102·5° to 104°, and the pulse ranged from 110 to 130. Diarrhœa was present in both, but persisted longer, and was with difficulty controlled in the elder. No rash could be found in either case, and there were no lung complications. The tongue was dry and cracked, and there were abundant sordes on the lips and teeth. About Sept. 13th the pulse became very weak, and there was a tendency to heart failure. This was combated with stimulants, given freely in the form of diluted brandy; but it was with difficulty that they were roused from their lethargic condition to partake of this and other necessary nourishment. With the persistence of such a low "typhoid" state, the prognosis was very bad, and when noma set in their recovery was practically hopeless. On Sept. 16th a hard swelling was felt in the right cheek of the younger, which gradually increased in size and got tense and glazed externally. Ulceration took place internally, but the disease did not follow the rapid course that sometimes occurs. The child remained in a comatose condition till Sept. 20th, when she died, before perforation of the cheek had taken place. On Sept. 18th noma was found in the right cheek of the elder girl, and pursued a similar course, till she died, in the same comatose condition, on Sept. 22nd.

Noma as a rule follows on some debilitating disease, but for its development the presence of foul air and bad sanitary arrangements are usually regarded as essential. Here the conditions were present, as the cases occurred in a small, badly ventilated house in a narrow street. In another case, which I saw during convalescence from measles, where a fatal issue likewise took place, the house was permeated with bad smells. It is probable that the micro-organisms supposed to cause this disease gain entrance to the tissues locally, as it is difficult to conceive how they should select such a site, if they were introduced into the circulation in the first place. In the cases of enteric fever referred to it is easy to comprehend that the state of the mucous membrane of the mouth was such as to furnish a suitable spot for the inroad of disease germs. In regard to local treatment, no violent measures were resorted to, as the low, practically hopeless condition of the patients did not seem to warrant any such. So much of the ulcerated tissue as could be scraped easily away was removed, and antiseptic washes were freely employed to cleanse the mouth.

Glasgow.

AN UNUSUAL CASE OF TWINS.

By GEORGE JOHN O'REILLY, L.K.Q.C.P.I., &c.

I ATTENDED Mrs. K—— on the 8th ult. in her fourth confinement. There was nothing unusual to note in the history of this pregnancy, except that she complained of not having felt the movements of the child for some ten days before delivery. During the labour I felt satisfied that I noticed the movements of the fœtus during examination. When delivery was effected an eight months' embryo presented itself in a macerated condition, the cuticle peeling off in several places. When I grasped the uterus to express the placenta I noticed that organ was larger than usual after delivery, and that the surface was lumpy and uneven. I examined per vaginam, but could not detect anything abnormal. I gave a dose of ergot and waited results. Labour pains soon set in, and became stronger every minute, and on again examining I found the head of a second fœtus presenting. After a short time a living child was expelled, and as it was very feeble I had it wrapped in cotton wool, and kept near the fire. The placenta came away within a short time. There was little or no hæmorrhage. The case terminated normally. The mother made a good recovery and was up on the eleventh day. I hardly expected the child to live, and did not weigh it at birth. However, the infant has lived, and takes its nourishment well, and seems to thrive. On the twenty-first day it weighed with cotton wool and shawl 3 lb. 1 oz. A week afterwards it weighed 3 lb. 5 oz. There was only one placenta; the cords of both were attached within a short distance of each other; two-thirds of the placenta were of a livid red colour and of firm consistence, and to this portion the firstborn was attached. The cord was three times as thick as that of the living child, the other one-third portion of placenta was healthy. There was a distinct line of demarcation between the two portions. The stillborn child was unfortunately not weighed, but I should say it was from 4 to 5 lb.

Highgate, N.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Prœmium.

SEAMEN'S HOSPITAL, GREENWICH.

NOTES OF TWO FATAL CASES OF INFLUENZA.

(Under the care of Dr. JOHN ANDERSON, C.I.E.)

THESE two cases are specially interesting, as showing the mode of death in cases of influenza which are not fatal in consequence of bronchitis, pneumonia, or some other similar complications. Both patients died from syncope due to cardiac failure induced by the influenza alone, and in both no cardiac lesion, either of the walls or of the valves, existed. In the second case the histological examination, showing that the heart structure was quite normal, was made by Mr. Hewlett, M.B. Lond., Demonstrator of Bacteriology in King's College. For the report of these cases we are indebted to Dr. M. H. Spencer.

CASE 1.—A. C——, a sailor, aged thirty-five, was admitted into the hospital on Jan. 11th, 1892. He was taken ill eleven days before admission with pains "all over him," accompanied by some cough, but had not kept his bed. When he was admitted the temperature was 101·6°; respiration 42; pulse 118. Auscultation revealed only sibilant rhonchus over the greater part of the lungs, with some small râles, most marked over the left lower lobe. No impairment of resonance anywhere over the lungs. The heart sounds were normal. The urine was free from albumen. There was a good deal of cough, with profuse watery expectoration. Ammonia mixture ordered every two hours. For the next two days the patient remained in much the same condition, the temperature still continuing high, ranging between 102·4° and 103·4° at night, and falling to between 99° and 100° in the morning. The dyspnœa, however, had diminished. At midnight on Jan. 14th the pulse for the first time showed signs of failure. Stimulant was freely given, and quinine and digitalis were ordered. On the 15th his condition was much worse. The pulse was 140, and although the bronchial signs over the lungs had diminished

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in intensity, he was attacked with urgent paroxysmal dyspnœa, each attack threatening to prove fatal. The expectoration was still profuse and watery. On the following day the dyspnœa had become more constant and was extreme; the countenance was dusky, and there was no improvement in the condition of the pulse. Temperature 103·2°. During the night there was slight hæmoptysis, followed soon after by loss of consciousness, the patient lapsing into a condition of coma, and dying early on the morning of the 19th.

Necropsy.—The body was well nourished. On opening the thorax, both lungs were found to be enormously distended throughout their entire bulk. On the right side the liver was pushed down by the lung, so that its free edge nearly reached the umbilicus. The pulmonary tissue, on section, was greyish and dry; there was no œdema. The heart was natural in appearance except for some thickening of the coronary arteries. The cardiac muscle looked healthy, and there was no dilatation of the ventricles. No evidence of disease was discovered in the other organs.

CASE 2.—E. P——, aged forty-eight, a sailor, was admitted to the hospital on Jan. 19th, 1892. The patient had been ill for six days before admission. His illness began with a shivering fit, which was followed by some cough, which had been increasing lately. During the two days before admission he had been suffering much from pains in the head and back. On admission, his complexion was very dusky. The lungs were resonant all over, the breath sounds were somewhat harsh over the upper lobes in front, and over the right base there were crepitant râles; the tongue was furred; the urine was loaded with urates, and contained a trace of albumen. Temperature 101°. After rising to 103° the temperature on the 21st dropped suddenly to normal, and with this fall of temperature the patient's condition seemed to improve considerably. He progressed favourably until the 27th, when a sudden change for the worse took place in his condition. He was suddenly attacked in the night with oppressive and urgent dyspnœa; the face became livid, and he was to all appearances dying. He rallied, however, after the administration of stimulants. Ether and ammonia with digitalis were given every two hours, and brandy was taken freely. On the next day the pulse, which had showed every sign of failure, had improved, and there was no urgent dyspnœa. Over the lungs there were still crepitant râles and rhonchi at the bases, but no fresh signs. Up to the morning of the 30th this temporary improvement continued, but at 1 P.M. he was again suddenly attacked with urgent dyspnœa; this time the heart showed rapid signs of failure, and the pulse soon became imperceptible at the wrist. There was no improvement after an injection of twenty minims of ether, and he died in about five minutes after the onset of the paroxysm.

Necropsy.—The right lung was pretty generally adherent from old pleurisy. The left was free. There was considerable congestion of both lower lobes, and some œdema of the right upper lobes, but no consolidation. The heart was flabby in appearance, and on its surface there was a rather unusual amount of fat deposited. There was no valvular disease save for some thickening and opacity of the posterior mitral cusp; no mitral or aortic incompetence. Heart muscle: Histologically this was found to be perfectly healthy; striation well marked. There were no traces of either fatty or fibroid degeneration. It was specially stained for micro organisms, but none were seen. The liver was enlarged and fatty, and the spleen enlarged and soft. The other organs, including the brain, were healthy in appearance.

STROUD GENERAL HOSPITAL.

AMPUTATION AT THE HIP-JOINT.—LIGATURE OF THE FEMORAL.—OPERATION FOR COMPOUND FRACTURE OF THE PATELLA.

(Under the care of Mr. STORRY.)

ALTHOUGH these three cases from the Stroud General Hospital present no exceptional features, the results of treatment have been so satisfactory that they are well worth recording. The first case of sarcoma of the femur shows the result of amputation at the hip-joint by the method of Furneaux Jordan, and the advantages of that method; it is, however, too soon to say that there is no likelihood of the appearance of secondary growths. Cases 2 and 3 are notable for the aseptic course of the wounds after operation; this is more especially remarkable in Case 3, where the wound had been inflicted before the man applied for treatment. There is no more satisfactory result of such an injury known to us. For the notes of the cases we are indebted to Mr. A. W. Waller, house surgeon.

CASE 1.—E. W——, tailoress, aged twenty-three, a fairly healthy-looking girl, was admitted into Stroud Hospital on Sept. 24th, 1891, suffering from a tumour at the lower end of the right femur. Her family history was good; both parents were alive and healthy, and no phthisis, syphilis, or malignant disease could be traced in any near relative. Previously she had always enjoyed good health, and had never had any serious malady. In June she first noticed a small swelling at the inner side of the lower end of the right femur, which caused some pain and stiffness on walking, but not at other times. It slowly increased in size, and in August she consulted a medical man, and was given a course of iodide of potassium, the leg being kept at rest on a back splint, and subsequently put into a plaster-of-Paris case. No benefit was obtained by these means and the tumour continued to enlarge until Sept. 24th, when she presented herself at the hospital for treatment. At that time a rounded tumour could be felt situated on the inner condyle of the right femur and occupying an area rather larger than a crown piece. The skin and soft parts were normal and freely movable over it, but the tumour itself was fixed, its outline ill-defined, and it had an elastic semi-fluctuating feel. On deep pressure it was painful, but there was no elevation of temperature and the glands in the groin were neither enlarged nor tender. There was some effusion into the knee-joint, and movement of it caused pain. No organic disease was present, and the urine was free from albumen. Palliative treatment was tried for three weeks, but during that time the tumour very rapidly increased in size until it attained a bulk about as big as half a cricket-ball. As it was evidently a new growth, it was thought desirable to ascertain its pathological characters before operating, so the patient was anæsthetised and a small portion removed for microscopic examination. It proved to be a mixed, small round-celled and spindle celled sarcoma. Amputation at the hip-joint was then advised. Some delay was caused by the reluctance of the patient and her friends to consent to this procedure, and it was not until a week later that she was placed on the operation table, and then suppuration had taken place in the incision, causing the temperature to rise on the previous day to 102°. Ether was the anæsthetic used, and a slight modification of Mr. Furneaux Jordan's method of amputation employed. The limb was rendered bloodless with an elastic bandage and an Esmarch's tourniquet passed round the thigh, as high up as possible, beginning from the front, crossed at the back, the two ends brought up on either side, again crossed over the groin, and then passed round the hips, crossed at back, and hooked in front. A short circular flap of skin and fascia was raised, everything divided down to the bone, and the limb rapidly sawn off about five inches below the great trochanter. The femorals and all other vessels that could be seen were ligatured and the tourniquet removed, but practically no hæmorrhage occurred at this stage of the operation. An incision was next carried up outer side of the stump to a point about midway between the crest of the ilium and the great trochanter, the muscles stripped off, and the rest of the femur extracted by opening and cutting round the capsule. A few vessels spouted, but were at once secured and very little blood was lost. At this time the patient became rather collapsed from the shock, and the pulse was rapid and feeble, but it soon improved after an enema of brandy. The flaps were sutured with silver wire, two large drainage-tubes inserted, and the stump dressed with iodoform gauze and carbolised wool. The patient was removed to bed covered with hot blankets and surrounded with hot water bottles, stimulants being given both by the mouth and rectum. She soon recovered from the anæsthetic without vomiting, but did not rally from the shock for some time, and three hours afterwards her temperature was two degrees (Fahrenheit) below normal. During the night she was restless, but took some nourishment, and on the following morning her temperature had risen to 100·6°, and she was free from pain. On the third day after the operation the temperature rose to

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103°; the discharge soaked through the dressings, so they were removed and the stump redressed. It was looking remarkably well and free from inflammation. On the sixth day it was again dressed; the flaps were found to be uniting well, but there was still a considerable amount of discharge, and a little pus oozed from one point. For the next month it continued to progress favourably, and all healed with the exception of a short sinus which formed at the outer corner of the stump, and continued to discharge. She, however, gradually regained her strength, and a week before leaving hospital was able, with assistance, to attempt to get about on crutches. On Dec. 9th, seven weeks after the operation, she was discharged. She has since been under supervision, and has made almost uninterrupted progress. Lately, however, she has at times complained of rather severe paroxysms of occipital headache lasting for an hour or so, and occasionally accompanied by vomiting, but she has no optic neuritis, and the attacks do not seem to affect her general health. The stump is healthy, the cicatrix firm, and remains soundly healed. With the aid of iron and cod-liver oil she is putting on flesh, appears brighter, and is, to some extent, able to resume her old occupation as a tailoress.

CASE 2.—J. P——, aged forty-seven, a contractor, was admitted into Stroud Hospital suffering from an aneurysm of the left popliteal artery. He was a stoutly built, healthy looking man, but inclined to be plethoric. He gave a good family history, none of his relatives having suffered from any hereditary disease. His own health had always been good with the exception of an occasional attack of gout. There was no history of syphilis. He stated that two months previously to admission he had strained his knee in lifting a sack, and this had been followed by pain and stiffness in the joint for about a month, after which he noticed a swelling at the back of the knee, which gradually increased in size. On admission, on July 22nd, 1890, all the signs of a sacculated popliteal aneurysm were well marked. The left popliteal space was occupied by a circumscribed ovoid tumour about the size of a hen's egg, pulsating with an expansile impulse, immediately checked by pressure on the femoral artery. There was no thrill over it, but a soft bruit could be heard on auscultation. The knee was semi-flexed and movement painful and limited. There was also slight œdema around the ankle. The posterior tibial artery could be felt pulsating, but not the anterior. There were no signs of an aneurysm anywhere else, and the radials appeared to be normal and free from atheroma. The other organs were healthy, and there was no albumen in the urine. As sufficient assistance for continued pressure on the femoral was not obtainable, it was decided to ligature the femoral artery. This was done on July 23rd. The artery was exposed at the apex of Scarpa's triangle by the usual incision, a No 3 chromicised catgut ligature passed round it through a small opening in its sheath, and firmly tied. A drainage-tube was inserted, the wound closed, stitched with silver wire and dressed antiseptically; the whole limb was then enveloped in cotton-wool. All pulsation in the sac was immediately arrested and its size slightly diminished. After the operation the limb became cold and the foot rather dark coloured, but in about three hours it began to lose its lividity, to feel warmer, and regain its normal appearance. Next day the sac felt firmer, and was entirely free from all pulsation. The tibial arteries could not be felt, but the limb was warm, though slightly œdematous. There was very little pain, but there was a feeling of numbness and tingling. During the next few days the leg, and especially the foot, became very painful, necessitating the use of hypodermic injections of morphia. The sac remained free from the slightest pulsation, and was perceptibly contracted and consolidated. No pulse could be detected in either of the tibials at the ankle. At the end of a fortnight the operation wound had united by first intention, and was entirely healed. The pain had ceased; all œdema had subsided, but the limb remained stiff and weak. On Aug. 18th the patient left the hospital. The aneurysmal sac was then very much diminished in size, was hard, the limb could be moved without pain, and the patient could bear some weight on it. He was provided with crutches, and not allowed to put the foot to the ground. In August last, thirteen months after the artery was ligatured, he was again seen and examined. No sign of the aneurysm could be felt in the popliteal space, nor could any pulsation be detected in either of the tibial arteries. The movements of the leg were perfect. The man complained of occasional numbness and pain about the instep, which at times even kept him awake at night, but otherwise he was as well as ever, and was able to attend to his business without the slightest inconvenience.

CASE 3.—H. H——, aged twenty-eight, a timber hauler, was assisting to move some timber on March 31st, 1890, when he slipped and fell, falling with his right knee, which was flexed, upon the edge of a triangular iron instrument called a "scraper," used for scraping the bark from timber. On admission to the hospital a few hours after the accident the following condition of the joint was found. There was a transverse wound about three inches long running across the patella, cutting directly down to the bone and completely opening up the knee-joint. The patella was fractured into three pieces. The upper fragment consisted of nearly half the patella itself, the lower part of the bone was divided into two fragments, one small piece of bone was lying almost loose, separated from the surrounding tissues, whilst the other fragment and larger portion was still attached to the ligamentum patellæ. The patient was immediately put under ether, when Mr. Storry enlarged the incision transversely right and left, removed altogether the smaller loose portion of the lower half of the patella, and, having cleaned and cut off some sharp corners of bone, sutured the remaining upper and lower fragments with two wire sutures, leaving the ends long and outside the skin wound. The portions of bone came into excellent position, but left a small gap where the loose portion had been removed. Two openings were made into the joint on either side of the patella, and drainage-tubes inserted. The joint was well syringed out with (1 in 20) carbolic solution, while the skin wound was brought accurately together with catgut sutures and dressed with iodoform and boracic wool, and the limb placed on a McIntyre's splint. There is nothing much to record after the operation, the temperature never rose above 100° F., and the joint was dressed for the first time four days after the operation, when the drainage-tubes were removed. The leg was dressed once a week for the next fortnight. Subsequently, when an attempt was made to unwind and withdraw the wire sutures from the patella, the wire in each case broke off short close to the bone, and was consequently left alone. The limb was put up in a plaster-of-Paris casing, and the patient was allowed out of bed with crutches six weeks after the operation. In November, 1890, eight months after the operation, the patient was examined by Mr. Storry, who found the knee-joint perfectly useful. Absolute bony union had occurred, and scarcely a ridge could be felt where the bone had become united. The man had been at work for a month, and declared he could use the joint as well as ever, and had felt no inconvenience from the wire sutures which were left in the patella. In February, 1891, he was again seen, when he was doing his old work of timber hauling, the movements of the joint remained perfect, and he could even kneel on it without any discomfort.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Discussion on Phagocytosis and Immunity.

AT the meeting of the Society on the 16th inst. the PRESIDENT introduced the subject in a few words. The discussion was to show how the blood dealt with morbid material introduced into it. He then called upon Professor SIMS WOODHEAD, who in his address said that the phagocyte theory was closely associated either with "chemiotaxis" or the humoral theory. The latter appeared to be in direct opposition to Metchnikoff's theory, though there was an attempt now being made at a reconciliation and combination of the two. At present he was in favour of the theory of phagocytosis. Metchnikoff and Buchner must be regarded as the leaders of the two sides in this controversy, though the result of their work was now being corroborated or disproved by others. Metchnikoff's view was that amœboid cells, in contact with micro-organisms, retained their activity

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and function, whilst the incorporated germs died and disintegrated. Many leucocytes appeared to have lost this power; but as a primitive function of protoplasm it was capable of being stimulated into action when required. Although so much stress had been laid on leucocytes at first, it had been shown later that not all the cells concerned were true leucocytes, but were fixed tissue cells deprived of their processes and occupied by a large nucleus. These were the microphages or final phagocytes, and were far more active and aggressive than the macrophages or leucocytes. Their ordinary function was to remove useless effete matter, but they appeared to combine together in the performance of the more difficult task of attacking living organisms. The amœboid cells were limited largely to the removal of innocuous material, organic or inorganic, which was a different form of the phagocytic function. It had been shown that the mesoderm cells in sponge were capable of attacking and digesting a living organism like leptothrix, and it was assumed that the scavengering power still remained, but that the attacking power had been lost by disuse. Tissue resistance meant power of reaction of its cells, and cells, which in the first instance would be destroyed by invading bacteria, might by acclimatisation acquire the power of resisting them. He then referred to Metchnikoff's original experiments with the Daphnia and the mode of absorption of the Monospora bicuspidata, and proceeded to discuss the question of erysipelas, in which it was alleged that the streptococci were outside the zone of leucocytes, so that if the cells played any part it must have been in removing dead organisms killed by the fluid extruded. With regard to this, he would say that "what was sauce for the goose was sauce for the gander," and there was no more evidence for this mode of destruction than for digestion in the first instance by the cells. Recently Metchnikoff laid more stress on the action of fixed cells. Anthrax bacilli had been demonstrated within leucocytes, stained by aniline dyes. Inasmuch as bacilli stain when dead, this was no evidence of their ingestion, whilst living; but Metchnikoff had shown that vegetable germs retained the power of reproduction by isolating three such cells with the contained organisms and obtaining a pure culture. Although thoroughly degenerated bacilli did not take the stain, in some cases, where cells were breaking down owing to the bacilli being numerous and getting the upper hand, the organisms stained perfectly. In Frank's experiment on rats one only died out of twenty-two; the bacillus anthracis was killed *in situ*, being localised by the density of the tissue and the congregation of leucocytes. The idea of chemiotaxis was originally suggested by botanists. Experiments showed that deleterious materials were avoided, whilst nutrient ones were taken up and inert ones were not regarded; but after a time the cells became accustomed to the first variety and approached them. Metchnikoff stated that similar phases occurred in the body, and that with the gradual increase of poison its paralysing effect was not produced, and it was treated as inert matter. In opposition to this, Emmerich and Mattei suggested the presence of an anti-biotic fluid constituting the products of bacteria. They afterwards receded from this, and attributed its production to the cells of the host. This condition of "acclimatisation" Buchner pointed out might be maintained, but was usually soon lost. This process of chemotaxis and getting rid of devitalised microbes he looked upon as the cause of recovery and acquirement of immunity in acute germ disease. There were instances where the same substance in different degrees of dilution either attracted or repelled cells, and it was shown by Schultz that yeast was actually more active in *dilute* solutions of corrosive sublimate, iodine, or carbolic acid than in simple solutions. To demonstrate the difference in action between fluids and cells of the body upon micro-organisms pathogenic organisms were enclosed in paper or pith envelopes and inserted under the skin of animals. Under these conditions growth and development continued within, whilst the animal, though susceptible, did not suffer from the specific disease. Here fluids had free access, the cells alone being excluded. These processes, however, could not be considered the sole factors. It would seem as though the reacting and congregating leucocytes constituted the first line of defence, the epithelium of the capillaries and lymph tracts the second, and when these were broken through the animal system lay at the mercy of the invading germs. It had been suggested that by breaking up the leucocytes some bactericidal material might be set free, as was suggested by the action of quinine in certain diseases; but on experiment it was found that animals inoculated after treatment in this way died sooner than the "controls," and it was concluded that active leucocytes exerted the more powerful resistance. Diphtheria and tetanus were instances of toxæmia due to development of bacteria in unhealthy areas of the system or their introduction in large numbers, and could be resisted by destroying the bacteria before this toxine could be produced in sufficient quantity to give rise to the characteristic symptoms. Immunity could be established by the system becoming accustomed to small doses of the poison. It was an extremely difficult thing to account for special immunities for the several diseases. Many theories had been proposed and disposed of without a satisfactory explanation being arrived at.

Dr. BURDON SANDERSON declared that he was an opponent of the theory of phagocytosis, and said that he would endeavour to place before the Society the difficulties that he and those who thought with him had in accepting the theory. He would only touch the question of the action of the leucocytes. The facts themselves were not in dispute, but the interpretation of them might, he thought, be found without ascribing to leucocytes any other than their known physiological properties; whereas those who believed in phagocytosis allowed to leucocytes an extraordinary power which was not in accordance with the accepted principles of biology. An organism as a whole, such as a human being, had a certain power of recovering from injuries and of resisting micro-organisms, which might reasonably be termed a specific power. All were agreed that on the invasion of the organism by an exciting cause of disease leucocytes collected at the point of entry. Those who believed in phagocytosis attributed this to a specific power of the leucocyte to counteract the particular disease, and not to their ordinary physiological properties. These latter were essentially three: (1) Amœboid movements; (2) the power of incorporating solid particles; and (3) their subjection to a kind of allurement or repulsion which many substances had over them, known as "chemiotaxis." Whenever an injury happened to the body, provided it was of moderate intensity and capable of producing ordinary inflammation, a migration of leucocytes towards the injured spot set in. The explanation was that so long as the surroundings were normal the leucocytes remained quiescent, but that as soon as a devitalisation of any part occurred, a flow of leucocytes from the normal to the abnormal part set in, and that this was a physiological process was shown from the fact that it occurred during the absorption of a tadpole's tail. As the movements of leucocytes were independent of the nervous system, it would be as reasonable to attribute to the tadpole's leucocytes an appreciation of the advantage which would accrue to the frog from an absorption of its tadpole tail as it was to ascribe to the leucocytes the wonderful specific power of acting differently to the various specific infections.

Professor KLEIN admitted his inability to accept the arguments advanced by the supporters of the phagocyte theory, and in support of his position he stated that the question of phagocytosis embraced a very much wider field of observation than was included in the views already advanced. Some investigators included all instances in which bacteria were found engulphed in cells. This, he contended, was the first error, and illustrated his remark by exhibiting a number of photo-micrographs showing a dozen instances of micro-organisms contained in cells which were breaking down under their influence, thus reversing the process described. He said that the influence of chemiotaxis, as shown in the cells of bile-ducts in which psorosperms were growing, was of quite a different nature to that asserted. In the many cases of immunity in which inoculation was not followed by disease, were the bacilli killed by leucocytes or some other agent, or by the two in combination? He referred to the experiment of Emmerich and Mattei, in which it was shown that the micrococcus of swine erysipelas, which would kill a rabbit when injected subcutaneously, did not do so when introduced into the circulation; and further, that an animal so treated acquired immunity from infectability by subsequent inoculation, and that phagocytes cannot then be found at its site. Reference was made also to the observation of Metchnikoff—that after forty-eight hours living bacilli can still be found in the blood of an immune animal; but it was stated that in such cases there

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was not a commensurate number of cells containing the micro-organisms. In the dog, cat, and rat, which were insusceptible, it was extremely difficult to find any adequate number of bacillus-bearing cells after inoculation. In the next place, he would ask if there were any well-established cases in which bacilli were known to have been destroyed by lymph or other juices—and here he alluded to experiments being carried out by Dr. Frederick Andrewes, and which showed that pus already dead, and even when twenty-four hours out of the body, had a rapidly noxious effect upon these organisms. When anthrax was introduced into the dorsal lymph sac of a frog hours elapsed before any bacilli were seen enclosed in cells, the lymph itself being capable of destroying them. Professor Klein then gave an account of some experiments, in which it was found that a rapid diminution in bacilli occurred within two hours of their introduction into the body, which was not at all in accordance with the time observed in their gradual approach and engulfment by cells. He thought it was much simpler to assume that the juices of the body were germicidal, though Buchner's explanation gives little account of what takes place with regard to the bacilli after they are weakened by exposure to them, as to whether they are then taken up and carried away by cells, acting as scavengers. That important part of the cell's duty had yet to be proved.

Mr. KANTHACK said the question at issue was "whether immunity from infective diseases or lesions was caused by phagocytosis—that is, through the phagocytes alone and through nothing else." The chief points are: I. The influence of the body fluids; II. Chemiotaxis; III. Phagocytosis. I. Do the living fluids of the body play no part in the production of immunity? The serum of many animals has a marked bactericidal power outside the body, but we cannot establish any general law, because there is no necessary correlation between the natural insusceptibility of an animal to a disease and the bactericidal power of its serum over the microbe causing such disease. This has been put forward as a grave objection to the so-called humoral theory. But he thought wrongly, for it is impossible to draw any logical inference as to the artificial causation of immunity by contrasting a naturally immune animal with a naturally susceptible one. In future, experiments should be made in such a manner that the bactericidal power of the serum of a naturally susceptible animal be tested (*a*) before it has been immunised, and (*b*) after it has been artificially immunised. If, then, any law can be established, we must expect to find one or more of three conditions—namely, after the acquisition of immunity the serum should be (1) either more bactericidal, (2) or possess greater attenuating powers, (3) or possess greater destructive power over the toxines of the microbes. It is too narrow to judge by the bactericidal power alone, for it is impossible to disconnect the bacteria from their metabolic products, and it is these which cause the disease. As long as the poison is not neutralised, it matters not whether the bacilli are eventually killed or not. To give examples, we find—(1) Under the first heading that (*a*) the serum of a guinea-pig after artificial immunisation kills the vibrio Metchnikovi; (*b*) the serum of a guinea-pig after immunisation has greater bactericidal power over the bacillus Chauvœi. As an exception, we may mention the serum of a sheep protected against anthrax. But, on the other hand, Christmas succeeded in extracting from the organs of an immunised rabbit a substance which had greater destructive power over the anthrax bacillus than a substance similarly extracted from the organs of a rabbit not protected against anthrax. According to Bouchard, it has been proved for nine infective processes that the serum of the immunised animal has greater bactericidal power than the serum of the same animal in the non-immunised condition. These are anthrax, charbon symptomatique, cholera, erysipelas, diphtheria, tetanus, pneumonia, and the lesions caused by the vibrio Metchnikovi and the bacillus pyocyaneus. (2) Under the second heading we find that (*a*) the serum of an immunised rabbit attenuates the streptococcus of erysipelas; (*b*) the serum of an immunised rabbit attenuates the bacillus pyocyaneus. (3) Finally, under the third heading, we find that (*a*) the serum of an immunised animal neutralises the tetanus toxine; (*b* and *c*) the same has been asserted with regard to the toxines of diphtheria and pneumonia. (1) Those who object to test-tube experiments as being artificial do not hesitate to use little paper bags filled with germs, and place them under the skin of refractory or immunised animals. Such experiments are as little natural as test-tube researches, for (*a*) we thus localise the process by artificial means; (*b*) the fluid which passes through the paper may be of an inflammmatory nature, and is not necessarily the same as the normal body fluids. In studying the artificial production of immunity, the absolute followers of Metchnikoff are prone to neglect the most important part in the causation of infective diseases and lesions—namely, the chemical products of the microbes which undoubtedly cause the phenomena of such diseases. (*a*) We find that an animal made immune against a living microbe can also resist the toxine of such microbe to varying degrees. Examples are tetanus, pneumonia, diphtheria, vibrio Metchnikovi, pyocyaneus, charbon symptomatique, and others. (*b*) *Vice versâ*, an animal made immune against the toxine also resists the living microbe. Therefore the processes responsible for these results must assumedly be the same. Now immunity against toxines cannot in any way whatever be explained by means of phagocytosis. He concludes, therefore, that at the present state of knowledge it is impossible to assert that the living plasma (or body fluids) are of no consequence. 2. Chemiotaxis has of late been introduced as a welcome support to the phagocytic theory. Certain chemical substances, according to their degree of concentration, attract or repel the phagocytes, but if the phagocytes are in a medium already containing these chemical substances, equally distributed, they will not be attracted on adding more of these substances unless they be added in a highly concentrated condition. Analysing this, we have three possible cases:—(*a*) The metabolic products of the microbe are present in equal quantity in the tissues and at the seat of lesion, therefore no migration of phagocytes can take place. (*b*) If the degree of concentration is higher at the seat of lesion, we shall have a migration of phagocytes thereto. (*c*) If the degree of concentration is higher in the blood, the phagocytes may migrate back into the blood. This teaches us nothing as to the acquisition of immunity, for (1) if true, it is simply a statement of concomitant facts; (2) on such a view our successes in the production of immunity become merely a matter of chance and good fortune; (3) it supposes, without the slightest foundation, that in an animal immunised against a microbe, the toxine of such microbe circulates in its vessels; and, lastly, it neglects the fact that, besides diapedesis, we have, as a rule, hand in hand with positive chemiotaxis, a great general increase of phagocytes and leucocytes, depending of necessity on a stimulation not of the leucocytes and phagocytes, but of the elements giving birth to these bodies. Hertwig, in his monograph, sums up this theory in the following manner: "(*a*) In an immunised organism the negative chemiotaxis, which the body exhibited before being made immune, has been replaced by a chemiotaxis behaving positively towards the specific virus." If so, we ask, Why and how? We are also told that "the effects of the metabolic products of microbes show themselves as positive and negative chemiotropism and also as acquired irritability (Reiznachwirkung). The existence of positive chemiotropism explains the localisation of the virus through the attraction of leucocytes and subsequent phagocytosis. The existence of negative chemiotropism explains the possibility of a general infection by means of a diffusion of the micro-organisms. By means of suitable injections of bacillary products a negative may be changed into a positive chemiotaxis, and thus a cure be effected." This is mystical and unsatisfactory, and treats of the body as though it were a specimen on the microscopic slide. 1. By causing fever artificially in a susceptible animal, two or three hours after the temperature has begun to rise considerably there is a very great increase of leucocytes, not only of the so-called lympho-cytes, but also of the larger elements, and this leucocytosis persists for more than twelve hours. On inoculating the animal when in this conditi on with anthrax it will die just as usual; yet here the army of phagocytes was increased at least tenfold. 2. Thus the increased number of phagocytes *per se* is not sufficient. They require also the special training. And here we come to the most unsatisfactory part of the theory. Before an animal is immunised the phagocytes are more or less inert against a particular microbe, but as soon as ever a relative immunity is established they are extremely voracious. We must ask, why does phagocytosis appear now or why are the cells suddenly enabled to destroy what previously perhaps killed them? 3. The occurrence and importance of vaccine fever during

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the process of immunisation points to more general changes than a mere change of habit of the phagocyte alone. 4. That changes occur in all the tissues has been shown by Emmerich, who succeeded in protecting animals by inoculating them with the tissue juices of such as had been immunised. 5. Some of the methods of immunisation, as the injection of so-called antitoxine, or of small repeated doses of poison, &c., point strongly to general changes in the body, the phagocytes being altered with the rest of the body. 6. Lastly, phagocytosis does by no means explain many of the phenomena mentioned in the first part of the discourse.

MEDICAL SOCIETY OF LONDON.

On the Cure or Subsidence of Ascites due to Hepatic Disease.—Hæmatemesis, with Special Reference to that Form met with in Females in Early Adult Life.

AN ordinary meeting of this Society was held on Feb. 15th, the President, Dr. Douglas Powell, in the chair.

Dr. J. S. BRISTOWE read a paper on the Cure or Subsidence of Ascites due to Hepatic Disease. He took as his text four cases which were under observation up to the present time. 1. A governess, aged forty-four, who came to St. Thomas's Hospital in the summer of 1886. She was depressed and lacrymose, and suffered from delirium and hallucinations. She had jaundice, ascites, œdema of the legs, and diarrhœa; also suffering from bronchitis and an attack of poly-arthritis during her stay of nine months and a half. There was no albuminuria and no enlargement of veins. Five, thirty-two, and thirty-four pints of fluid were removed by paracentesis abdominis on three several occasions, and she left greatly improved on May 24th, 1887. She was again admitted on Aug. 29th, 1889. Her complexion was sallow, she still had bronchitis, and eighteen and twenty pints of fluid were removed from the abdomen. She left on Jan. 12th, 1890, and has continued well since except for the bronchitis. She was seen last week. The case was a typical one of chronic alcoholism, as was borne out by the mental condition, and an attack of peripheral neuritis on the second occasion, and it may be accepted that the ascites was due to cirrhosis of the liver which still existed, and was liable to induce a recurrence of the ascites. 2. A gentleman aged thirty-five who had fallen into intemperate and immoral habits in 1878. He was lost sight of till Oct. 8th, 1882; he was then weak and thin, suffered from sickness, and for three weeks had had œdema of the feet and ascites. On Nov. 20th he was worse, was irritable and rambling, and had in addition some fluid in the left pleura. On Nov. 22nd he was admitted to St. Thomas's Home, with jaundice and dyspnœa, the left pleural and the peritoneal cavities being full of fluid. A month later he was improved in all respects. Three pints of fluid had been removed from the pleura, and he left on Jan. 24th, 1883, for New Zealand, where he has remained in fairly good health. Here, again, was a very clear alcoholic history; and though the ascites got well without tapping, there could be no doubt, from the fact of the development of this form of dropsy and of jaundice, that his liver was at that time affected with early cirrhosis. 3. A man in good circumstances, aged forty, who kept an eating-house. He was known to drink many glasses of spirits daily, and was seen in consultation on Oct. 24th, 1888. His complexion for some time had been sallow, and for six weeks there had been enlargement of the abdomen and œdema of the legs. In addition the liver was enlarged and there was jaundice. He was enjoined to abstain from alcohol, to take a tonic and a pill of mercury digitalis and squill. He was tapped five times; nine, thirteen and a half, nineteen and a half, nineteen, and fifteen pints being removed. On Dec. 28th the liver was smaller, and he had gained flesh; four tappings were performed since, the quantity of fluid removed being eight to sixteen pints, the last occasion being in August, 1889. After that he went to Vichy, and on his return took cold and was laid up with bronchitis and pleurisy. He was tapped again on Feb. 5th and March 3rd, and twice since, and has been taking 1-16th of a grain of iodine off and on. On Feb. 8th, 1892, he was in excellent health and spirits, and carried on his business with his old energy, going to market three times a week, but he continued to take gin-and-water. In this case paracentesis was performed fourteen times in the course of a year and ten months, the alcoholic history was indisputable, and that the ascites depended upon the hepatic disease is shown both by the enlargement of the liver and the temporary jaundice. 4. A lady, aged twenty-four, belonging to a respectable and wealthy family, with small and delicate physique, and usually enjoying good health, was seen April 30th, 1890. At the end of the preceding year she had a sudden and profuse attack of hæmatemesis while abroad; there was a recurrence on arriving at a seaport in England, and since reaching home there had been two more, the last on the day preceding the consultation. Latterly there had been pain and uneasiness after food, with loss of appetite. She was anæmic and weak, and was treated for the ensuing twelve days as a case of simple ulcer of the stomach, with great improvement. The abdomen then filled rapidly in three days. Eleven pints were removed on May 15th, and by the 28th paracentesis had been performed three times, nine pints being withdrawn on each occasion. The liver was now found to be enlarged. The general health had improved, and the gastric symptoms had disappeared. After another tapping a small nodule could be felt, and the idea of cancer was entertained. In June she was tapped four times, the quantity removed being from four to fifteen pints. It was then found out that a brother had been under treatment for a congenital syphilitic affection of the eye. This led to the diagnosis of syphilis, and iodide of potassium was prescribed in ten-grain doses. Later the quantity was increased and mercury was added. In August she was tapped four times, and in September thrice, the quantity being from four to seven pints. Altogether paracentesis was performed twenty-seven times, the last occasion being Sept. 22nd, 1890. She was now better than she had been for years. The causes of obstruction were threefold: 1. True cirrhosis affecting the small vessels and capillaries. 2. Cancerous and syphilitic growths occupying the transverse fissure compressing or involving the portal trunk, and occlusion by thrombi. 3. Obstructive disease of the heart or lungs causing "nutmeg" liver. The first three cases belonged to the first and the fourth to the second class. With regard to the mode of recovery in these cases, it was, in the first place, amply proved that there is a fairly free communication between the portal vein and the systemic veins, and hence when portal obstruction exists there is a tendency for the blood of the portal circulation to be shunted into some of these other veins which gradually dilate, so that without any beneficial change in the liver itself the ascites may disappear. The œsophagus, as shown by Drs. Wilson and Radcliff, has a ring of veins which is largely concerned in the process, and the consequent varicose condition of the submucous veins in this part and their tendency to rupture are the source of the profuse hæmoptysis and melæna in the late stages, though the vessels of the stomach and duodenum are the ones affected at first. Sometimes, however, there is no evidence that the anastomosing veins have dilated, and on this supposition alone recurrence of ascites after renewal of bad habits would be inexplicable. Moreover, in the case of a chronic inflammatory process dependent on an irritant locally applied, cessation of the influence would be likely to be followed not only by arrest of the disease, but also by some amelioration in so much of it as had recently occurred and was amenable to treatment. In the first three cases there was jaundice, which implied a wider or profounder change than that producing ascites, and which subsided. Again, as in Case 4, there are causes of obstruction which are removable. The efficacy of treatment depends largely on the accuracy of diagnosis. Doubtless there are many cases of visceral syphilis which are misinterpreted to the detriment of the patient. A simple and fairly successful treatment is to promote the general health by suitable diet and tonics, to cut off alcohol, to tap from time to time without waiting for extreme distension, and to regulate the bowels. Bearing in mind the tendency to spontaneous diarrhœa, purgative measures were not to be recommended, and diaphoretics were of little use; more was to be hoped for from diuretics, especially copaiba in ten-grain doses and the pill of mercury, digitalis, and squill. There was no objection to the use of mercury and iodide of potassium in the early stages.—The PRESIDENT, referring to œdema of the legs, said he should be inclined to attribute it rather to the general condition of the heart and circulation, and he thought that rest and deprivation of alcohol was to some extent answerable for the improvement that took place under treatment, apart from local considerations.—Dr. HAVILAND HALL suggested

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that repeated tapping was liable to produce peritonitis and adhesions, thus introducing fresh areas for absorption and collateral circulation, and cited an illustrative case. He referred to some of the drugs recommended for cirrhosis. — Dr. HADDEN mentioned a necropsy recently made on a man who fourteen years before had been a patient with cirrhosis hepatis and ascites under Dr. Murchison, and was tapped. The cirrhosis was well marked, but there was no ascites, and death was due to other causes.—Mr. MARMADUKE SHEILD, referring to paracentesis, said that great care was needed to ensure absolute cleanliness of the instruments, and that the fluid should be evacuated slowly through a fine trochar. He thought the very rapid dropsy in the fourth case suggested thrombosis. The presence of retinitis or choroiditis afforded the best indication of congenital syphilis.—Sir HUGH BEEVOR mentioned a case in which great œdema of the legs occurred in an alcoholic subject, there being nothing to explain it. In another case of cirrhosis the gradual dilatation of veins on the right side of the abdomen was obvious to the sight.—Dr. SIDNEY PHILLIPS mentioned a case not syphilitic, which cleared up under iodide of potassium, and he thought this a good drug to give in cirrhosis hepatis, in doses up to forty grains, three times a day.—Dr. PASTEUR, referring to the ascites of young children, said that many of them were doubtless due to tubercle, and cleared up.—Dr. BRISTOWE, in reply, said he regarded œdema of the legs as due to the collection of fluid in the pelvis and pressure on veins there. He mentioned other cases similar to those quoted, but of which the notes were less complete. He thought the examination of the eyes was of great value in recognising syphilis, but said that the signs were so slight as to have been overlooked by skilled observers. In young children tubercle, alcoholic cirrhosis, and congenital syphilis had to be considered in the production of ascites.

Dr. DONALD HOOD read a paper on the Hæmatemesis of Early Adult Life in Females. The author wished to draw attention to the clinical phenomena accompanying this form of hæmorrhage, stating that from his own experience of the symptom he would feel inclined, in a large majority of instances, to look upon it as but denoting a state of passive congestion, or stasis in the vessels of the stomach, and as being directly due to the anæmic condition so generally found accompanying this form of hæmorrhage, and not necessarily the result of ulceration. His personal experience is confined to about forty cases, and as supplemental to these he brought before the Society 155 cases collected for him by Dr. Goodall, late Medical Registrar to Guy's Hospital, from the clinical and pathological records of that hospital during a period of twenty years. It was noted that during that period no case is recorded at Guy's Hospital of a young girl succumbing to an attack of hæmatemesis due to gastric ulcer. During the same period of twenty years sixteen patients were admitted suffering from a fatal peritonitis, the result of a perforating ulcer. Eight were men and eight were women. Ulcer of the stomach, regarded as causal in producing fatal peritonitis, is equally fatal to both sexes, and at much the same time of life. It was asked why it should not be equally causal with regard to hæmorrhage; clinically severe hæmorrhage, excepting as the result of incipient cirrhosis, being markedly rare among males in early life. In discussing the etiology of hæmatemesis, cases would appear to fall into one of three fairly well-defined groups—the period of early adult life, largely composed of anæmic girls, and comprising the cases referred to by the author; the period of middle life, in which the hæmorrhage is usually due to cirrhosis or ulceration, hæmorrhage from cirrhosis being much more frequent among the female sex than is supposed to be the case; and, lastly, the period of advanced life, in which malignant disease and ulceration are about equally met with. In the course of the communication reference was made to two cases published by the late Dr. Murchison, in which a minute pore-like orifice was found leading into a bloodvessel. In both of these repeated attacks of hæmatemesis occurred before death. Hæmatemesis is so frequently found accompanying the anæmia of girl life that it would appear to be one of the results of that profound blood change, and when the gastric symptoms of anæmia are compared carefully with those due to ulceration of the stomach, a marked difference will usually be found to exist, the stomach symptoms of anæmia being generally of less intensity. The author considered the matter as one of importance, having special regard to treatment, for he maintained that in a very large majority of cases of hæmatemesis occurring in early adult female life and complicated with anæmia, a treatment based on saline aperients combined with iron will give better results than one which would be urgently demanded if an ulcer of the stomach were the source of hæmorrhage.—Dr. HABERSHON acknowledged that these cases did not afford proofs by post-mortem examination, and referred to the long experience of Dr. Brinton and of the late Dr. Habershon, which left the impression in their minds that actual ulceration did occur, though it was often no doubt superficial. In many cases the hæmatemesis appeared to occur at what would be the menstrual period in girls suffering from anæmia and amenorrhœa.—Dr. SIDNEY PHILLIPS pointed out that the two main points were (1) the occurrence of gastric ulcer without hæmatemesis, and (2) (?) the occurrence of hæmatemesis without gastric ulcer. He mentioned cases in men and women in whom sudden hæmatemesis had caused death, and no lesion had been discovered post mortem. Some cases of hæmatemesis were associated with violent pulsation of the aorta, pain and vomiting, and hypochondriasis.—The PRESIDENT alluded to cases which had proved fatal and in which no lesion had been discovered post mortem. He referred to a specimen in the Middlesex Hospital museum in which a minute aneurysm had ruptured, and suggested this as a possible cause. He noticed that patients usually got well rapidly after the occurrence of hæmorrhage, possibly through the clot affording some protection to the site.—Dr. HOOD, in reply, mentioned two patients in whom there had been no hæmatemesis, but in whom a large number of healed ulcers were found in the stomach after death. He remarked on the wonderful rapidity of recovery after hæmorrhage. His plan of treatment was to give nothing by the mouth for two days, then small doses of opium, feeding by enemata.

CLINICAL SOCIETY OF LONDON.

Perforation of the Vermiform Appendix.—Acute Appendicitis.—Relapsing Appendicitis.

AN ordinary meeting of the Society was held on Friday, Feb. 12th, the President, Sir Dyce Duckworth, in the chair.

Dr. D. B. LEES read notes of four cases of Perforation of the Vermiform Appendix. Case 1: A man aged twenty-seven was admitted into St. Mary's Hospital on Oct. 17th, 1890, with a history of having caught cold on the 15th, followed the next morning by pain in the right iliac fossa, which came on gradually. The bowels had been regular, but he had vomited. There was moderate distension of the abdomen, with some tenderness over the appendix. He diagnosed a lesion of the appendix, but in view of the mildness of the symptoms did not deem it necessary to interfere. In twenty-four hours, however, the man was in a hopeless condition. At 9 P.M. he began to vomit, the matter being at first dark green and then black, and he died six hours later—less than four days from the onset of the attack. Post mortem the appendix was seen to be perforated at the tip, and contained concretions. A section of one of the larger concretions showed a white nucleus enveloped in white stratified layers. It was evident that the concretions had formed within the appendix and had been there some time previously to the illness. Case 2: A lad aged seventeen was admitted on Nov. 22nd, 1890. He had been seized with a sudden sharp pain in the right iliac region on the 20th. It grew worse, and he vomited. The abdomen was moderately distended, tympanitic all over, and tender on pressure. No lump could be felt. Dr. Lees called in Mr. Page, and some hours later the appendix was cut down upon and found to be perforated, outside which a concretion was seen. There was some local peritonitis. A ligature was placed round the appendix, and the distal part removed. There was a direct communication between the perforated appendix and the peritoneal cavity. He made a perfect recovery. Case 3: A man aged twenty was admitted on Jan. 3rd, 1892. Early on that day he had been seized with an acute pain, at first referred to the umbilicus, but ultimately settling down in the region of the vermiform appendix. Vomiting began two days later, and the bowels were so loose that he was sent into the hospital with a diagnosis of typhoid fever. He was

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evidently suffering from peritonitis, for the abdomen was swollen, especially on the right side. It was very tender on pressure, and some tumefaction could be made out in that region. Mr. Silcock was called upon to operate, and made an incision two inches long over the right linea semilunaris. When the peritoneum was opened the cæcum came into view with a deeply congested piece of omentum adherent to it. This piece was taken away, upon which some pus escaped, but the appendix could not be seen. By careful search, however, it was discovered behind the cæcum and closely adherent to the parts around. The appendix was then seen to be ruptured in two places, and it was accordingly ligatured and removed, and the man made a good recovery. Case 4: A man aged seventeen or eighteen was admitted on Feb. 5th, 1892. Three days previously, while waiting at table, he had been suddenly seized with a sharp pain in the abdomen, followed by vomiting. There was a distinct swelling above the middle of Poupart's ligament on the right side, which was painful and very tender. A deep seated, tense swelling was made out by careful manipulation. The same evening Mr. Page operated, and immediately the peritoneum was opened there was a flow of pus with a strong fæcal odour. The appendix was felt in the neighbourhood of the wound, but was so firmly adherent to the parts around that it was impossible to remove it or even to ascertain whether there was a perforation or not. Beyond it the abscess was cut off from the general peritoneal cavity by strong adhesions. The abscess was therefore washed out, a drainage-tube inserted, and the wound closed, and since that time the progress of the patient had been perfectly satisfactory. On the fifth day a small concretion came out of the wound the size of a grain of wheat. Dr. Lees pointed out that all these cases were essentially of the same nature, and it was curious to remark that they all occurred in persons of the same sex and at about the same age. He asked what explanation could be given of this fact. The cases showed that perforation of the appendix did not necessarily give rise to collapse, and the symptoms might be so mild as not to suggest the necessity for an operation.

Mr. PAGE recorded a case of Appendicitis where operation and removal of the Appendix were performed after the symptoms had lasted without intermission for twelve weeks. There was a large swelling in the iliac fossa, the thigh was acutely flexed, and the man was extremely ill. The abdomen was opened by incision as for iliac ligature, and the appendix, swollen and rigidly distended, was found with much difficulty embedded in a mass of adherent omentum. It was removed a quarter of an inch from the cæcum after the application of a proximal ligature. No fluctuation being felt in the iliac subperitoneal swelling, it was not opened, but a few days after the wound had healed by first intention pus began to flow from the track of the drainage-tube. For many weeks there was profuse burrowing suppuration, and the man's life was in great danger, but he was ultimately discharged well, and has been at work in good health since. The case was recorded as an instance of subperitoneal suppuration, and to illustrate the dangers which may arise in cases where there has not been perforation, and the cause of the appendicitis has been other than concretion. Although by no means suggesting that operation and removal of the appendix are to be carried out in all cases, for many no doubt recovered without surgical interference, the author nevertheless advocated early operation in cases where the symptoms were severe, and where a distinct iliac swelling was to be felt. There were no means of determining the precise nature or of predicting the course of any case, and the character and grade of the symptoms had to be the measure of the need for operation. The presence of active inflammation was certainly no bar to it in the early and acute stage. Cases of "relapsing" appendicitis, in which of course a period of quiescence would be chosen as the time of operation, are destined in all probability to become much less common than they were. The operation itself was probably much easier in the early stage than when the parts were firmly matted together by adhesions, and there was then also less risk to the patient than is entailed by delay and the chances of suppuration. In support of this he referred to cases operated on by McBurney, Stimson, and others in the early acute stage, and to a case of his own, to be described with Dr. Lees', where a perforated appendix was removed on the third day with the best possible results. It was desirable to examine all cases having acute intra-abdominal symptoms under an anæsthetic, for where the general condition and history were suggestive of appendicitis, the presence of a distinct iliac swelling would be a great help to the surgeon in deciding as to the propriety of operation.

Mr. PAGE next read a short account of a case of Relapsing Appendicitis. The history was that of a medical student who had had several attacks of appendicitis in the course of five years, and who was submitted to operation during a period of quiescence after an acute attack in October last. The abdomen was opened by an iliac incision, and the appendix was found sharply kinked, distended with mucus, and its walls much thickened, but there were no signs of concretion or ulceration. It was bound by adhesions to the cæcum throughout its whole length and to neighbouring coils of intestine by firm adhesions. An uninterrupted recovery followed the removal of the appendix, and the patient has remained free from discomfort up to the present time. It appeared that in this case there had been no other cause than kink to account for the attacks, and nothing short of an operation could possibly have freed the patient from the risk of their recurrence.

Mr. PAGET read notes of an unusual case of Sloughing of the Vermiform Appendix. The patient was a man of twenty-five, who had never had any sort of trouble with his bowels. An acute abscess formed round the cæcum, and when Mr. Paget opened it the vermiform appendix floated out with the pus. No foreign body or concretion was found at the operation or afterwards in the dressings. The appendix had sloughed off at its base; it had a pinhole perforation at its free end.

The PRESIDENT remarked that the term "typhlitis" appeared to have been replaced by "appendicitis," a word which might be American, but was certainly not English. He would undertake to say that it would not appear in the nomenclature of diseases now in course of compilation by the Royal College of Physicians nor in the Transactions of the Society. He urged that there must be many causes of tumefaction in the ileum unassociated with disease of the appendix, such, for example, as local inflammation of the caput coli, for which a purge was an effectual remedy. He inquired of Dr. Lees how he recognised "tenderness over the appendix." Many cases of the sort arose, he believed, from catarrh of the appendix, which might be determined by cold. From the condition of catarrh to the formation of concretions was but a step. Post mortem a very large number of appendices were found to contain concretions.—Mr. FREDERICK TREVES considered that the shortness of the mesentery to the appendix favoured its folding over and forming a band, and thus conducing to concretion formation. These concretions were neither foreign bodies nor fæcal matter, and as a matter of fact there were some cases in which, though there was some local induration, no concretion could be found. Many acute cases terminated favourably, and no general rule for operating could be laid down, each having to be considered on its own merits. He protested against the desperate hurry displayed in America in dealing with these cases. In one or two cases of his own in which operation had been refused the patients recovered without it. If operation became general, some lives might be saved, but certainly many patients would be subjected to operation without actual necessity. The results in recent cases showed the deaths to be about 1 in 50. Recovery had taken place after one or many attacks with almost complete obliteration of the appendix. After an attack of inflammation swelling at the site of the cæcum indicated persistent inflammation, and was an indication for operation. In others pain referred to the labium or scrotum or the bladder was important. He recommended that the incision should be made at what was known as McBurney's point, two inches internal to the anterior superior spine of the ileum, as it was safer to approach the appendix from outside and behind the cæcum. Ventral hernia was specially liable to ensue, but was less liable to follow when there was inflammation and a tube was used. As a further precaution he allowed a month to elapse before the patient was allowed to get up.—Dr. DYSON (Folkestone) mentioned two cases in which, after mild symptoms lasting three days, there were sudden collapse and death; both occurred in boys; there were sickness and tenderness, but no local swelling. He mentioned a similar case in the practice of a colleague. The advisability of operating was considered in all, but in two was negatived, and in the third the operation proved unsuccessful. Post mortem all had suppurative peritonitis

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following perforation of the appendix with a concretion. He asked what guide there was to operation in such cases. From personal experience he was not disposed to agree with Mr. Page as to the necessity of operating in recurrent cases.—Mr. SILCOCK quoted a case in which he had operated recently. His incision was a little to the outer side of the linea semilunaris; he came upon the cæcum immediately.—Mr. BRUCE CLARKE reported the case of a woman who, after a blow on her side, was found after an interval of forty-eight hours to have a local spreading peritonitis. He determined to cut down without delay, adopting the incision referred to. The distended cæcum was readily found, but the appendix had sloughed off, and was found in the pelvis with a concretion in the lumen at the orifice. There was a large aperture in the colon, but recovery was complete. He thought there was more difficulty in deciding as to operation in chronic than in acute cases.—Dr. LEES said that in the cases reported there was no yielding of the scar. The concretions were often true calculi.—Mr. PAGE agreed as to the yielding of the scar after rapid healing. He congratulated the College of Physicians upon their intention of getting rid of the term "appendicitis," and he thought the term "caput coli" might follow.

EPIDEMIOLOGICAL SOCIETY.

A MEETING of this Society was held on Jan. 20th, Dr. E. O. Hopwood in the chair.

Brigade-Surgeon R. PRINGLE, M.D., read a paper in which he proposed to answer the question: What is efficient vaccination? It was, he maintained, such a system as conferred an immunity against small-pox equal to that acquired by a previous attack, which rendered revaccination superfluous, and the isolation of the sick in hospitals, except for their better treatment, needless. He disputed the value of the cicatrices as a test of success; for though a good cicatrix was positive evidence, so many accidents might interfere with the course of the successive stages in the development of the vesicles that after a normal incubation and papulation—which distinguished true vaccination from mere local irritation, and which were best observed from the third to the fifth days—had been passed through, a scar might be left from which nothing could be learned. He denied the existence of any direct ratio between the number of insertions and the degree of protection conferred; for when, as he had often seen in the Himalayas, some fifty men had been inoculated with the same variolous lymph by a single insertion over a space the size of a sixpence, and in the same place, the resulting eruption differed in every case, showing their dependence on individual susceptibilities under an identical mode of procedure. Dr. Pringle strenuously asserted the non-necessity of revaccination, which he had refused to practise during his thirty years of Indian service. He had been in consequence a marked man, but after his retirement he had his reward in the unwilling testimony borne to the success of the method by a hostile department when a special commission was appointed to inquire into the astonishing immunity from small-pox enjoyed by his districts at a time that the mortality in the North-west Provinces generally was awful—viz., in the epidemic of 1883-4. At first they were disposed to doubt the correctness of the returns, but they ended by ascribing the exemption from small-pox solely to the system of arm-to-arm vaccination he had carried on uninterruptedly for the twenty years from 1864. He quoted a remarkable passage from an ancient Hindu work, which showed that true vaccination was known and practised in India centuries before the birth of Jenner: "The small-pox produced *from the udder of the cow* will be of the same mild nature as the original disease. ..... the pock should be of a good colour, filled with a *clear* liquid, and surrounded by a circle of red. ..... There will be only a slight fever of one, two, or three days but no fear need be entertained of small-pox so long as life endures." Pasteur's attentuation of virus by successive cultures has been applied in India for hundreds of years to inoculations with variolous lymph, which the document in question directed to be taken from "the most favourable cases," and he had seen series of such selected inoculations in which there was no general eruption, and the local phenomena were scarcely distinguishable from those of vaccination.

Dr. WILLOUGHBY heartily agreed with Dr. Pringle as to the objectionable method of collecting the mixture of sanio-purulent and foreign matters supplied as calf lymph from the vaccine department of the Local Government Board, which he only used when it was demanded by parents, and he deplored the appalling amount of what passed as vaccination among general practitioners and the public, but when put to the test proved a delusion and a snare. But he could not concur in deprecating the practice of revaccination. Granting that it was needless, even if practicable, when the primary operation was really perfect, and that its successful performance was evidence of that having been imperfect, what stronger argument could one have in favour of continuing it until all vaccinators had attained to Dr. Pringle's ideal? One need but look to Germany, which up to the year 1874 was in much the same condition as England as regards vaccination, but had suffered heavily from the epidemic of small-pox in 1871-2, imported by French prisoners and carried by French refugees into other countries. The absolute exemption enjoyed by the population of Frankfurt at a time when the prisoners massed there were being decimated was rightly ascribed to the compulsory revaccination of every child at the end of its school life, which had been in force for more than a generation; and one of the first acts of the Imperial Parliament was to extend it to the whole empire. Since that, Germany had enjoyed an absolute immunity from epidemics, while the deaths in Prague had been 650, and in Vienna as many as 900 in a single year. Indeed, analyses of the cases reported throughout the empire showed that for some time past they had been exclusively among foreigners recently arrived, or the disease had been contracted from them by Germans who, born before 1860, had escaped the operation of the present law, and infants not yet vaccinated.

Dr. COPEMAN entirely agreed with Dr. Willoughby on the value and purpose of statements as to number and area. Some authoritative directions there must be; the public vaccinators followed the official regulations, while many private practitioners made one small insertion in order to indulge the prejudices of ignorant parents, and it was almost wholly among these unfortunate children that cases of post-vaccinal small-pox occurred. The analogy of all experimental inoculations proved that there was a ratio between the quantity of virus introduced and its effects, though not so absolute with living as with chemical poisons; and the area abraded approximately represented the probable absorption of lymph; but it was especially important in dealing with the children of the poor, whose arms were exposed to every conceivable form of septic infection, that the wounds should be so arranged as to dry and heal as early as possible.—Dr. PRINGLE agreed with Dr. Willoughby as to the superiority of lymph taken at the earliest possible period, at all events before the eighth day, but pointed out that the development of the vesicles depended on the temperature being more rapid in warm weather, and mostly so in children much exposed to the sun and air. In India, as was well known, vaccination could not be successfully performed in the hot season, though small-pox was then most rife, the progress of the vesicles being so unduly accelerated that the normal stages were not gone through.

HUNTERIAN SOCIETY.

A MEETING of the Hunterian Society was held at the London Institution on Jan. 27th, Dr. Stephen Mackenzie, President, in the chair.

Dr. GALLOWAY exhibited a case of Peculiar Disturbances of Sensation, with Muscular Wasting due to Syringomyelia. The details of this case will be found on another page.—Dr. JACKSON concurred in the diagnosis, and to him Dr. Galloway was indebted for permission to exhibit the case.—Dr. STEPHEN MACKENZIE thought the diagnosis was justified, and referred to other cases.—Mr. OPENSHAW asked how the unilateral nature of the symptoms could be explained.—Dr. TURNER remarked that he had seen one case on the post-mortem table, being attracted to examine the cord by the extreme muscular wasting of the subject.—Dr. NEWTON PITT remarked on the unilateral distribution of the symptoms and their slow progress. He had a specimen of the joint affection due, on post-mortem examination, to a glioma of the cord, with distension of the canal.—Dr.

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GLOVER LYON said he had a case under his care which he had at first taken to be progressive muscular atrophy in a young subject. He thought the present case aberrant in that the wasting was not so extreme as the complete loss of power might indicate.—Dr. GALLOWAY replied.

Dr. FRED. J SMITH showed a case of Symmetrical Local Asphyxia The patient, a woman aged forty-five, had noticed the condition for some seven or eight years. The case was of interest in that her father suffered in precisely the same way, indicating the constitutional nature of the malady.—Mr. SYMONDS mentioned a case of a similar nature which he had brought forward some years ago, in which scleroderma was associated with the vascular changes.—Dr. NEWTON PITT said that many conditions were included in local asphyxia, and said that if it were associated with hæmaturia, then quinine was of great value in treatment. He referred to a case of his own, in which syphilis and peripheral neuritis seemed to have an etiological connexion with the asphyxia.—Dr. S. MACKENZIE had seen many cases in which scleroderma was associated with local asphyxia. He had paid much attention to hæmoglobinuria, but had not been fortunate enough to find a single case with local asphyxia in addition.

Mr. C. J. SYMONDS showed a case of Trigeminal Neuralgia affecting the left infra-orbital branch of the nerve. The patient was a middle-aged man, for whom, after all other methods of treatment had been exhausted, Mr. Symonds had excised about one inch and a half of the infra-orbital nerve with immense relief to the patient.

Mr. OPENSHAW showed a case of Subdural Hæmorrhage; trephining; recovery. The patient, aged forty-two, fell and struck his head on Sept. 12th, 1890. For three days he complained only of severe head pain; on the fourth day he became delirious, and on the fifth fits commenced to appear. Mr. Openshaw saw him soon after the fits had begun. From the character of the fits and from the increasing depth of the oncoming coma, Mr. Openshaw was led to diagnose hæmorrhage within the cranial cavity causing pressure. He therefore immediately proceeded to operate. A flap was turned down from the skull, and as no signs of fracture were apparent, a trephine was applied. The dura mater bulged into the trephine hole; it was incised, and five ounces of blood-clot and serum were removed. The patient made an extremely rapid and satisfactory recovery, with the trephined piece of bone growing *in situ*.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

AN ordinary meeting of this Society was held on Jan. 8th, Mr. T. Gunton Alderton, Vice-President, in the chair.

Microscopical sections of Aural Polypi were exhibited by Mr. R. Lake, and pathological specimens by Mr. H. Percy Dunn.

Mr. EDMUND OWEN reported a fatal case of Unrecognised Cervical Caries in a servant girl, who was admitted under his care into St. Mary's Hospital on May 29th, 1891. Until that time she had been treated as an out-patient at a general hospital for "rheumatism." She had pains in every branch of the superficial cervical plexus and in the distribution of the great occipital nerve, and she was very ill. She was at once placed flat on her back, with a small cushion under her neck and big sand-bags on either side. The post-pharyngeal abscess was evacuated, and for a time the girl improved. Pains persisted, however, and she lay constantly with her hands up to her head. After lying about five months in the horizontal position and growing steadily weaker, Cheyne-Stokes respiration set in, and she died on Nov. 11th, 1891. A vertical section of the upper cervical vertebræ and the cord was exhibited, showing disappearance of the transverse atlo-axoid ligament and pressure of the odontoid process against the cord; also suppuration in the neighbourhood of the first four cervical nerves. Mr. Owen remarked on the too frequent mistaking of the neuralgiæ of central spinal disease for "rheumatism," and said that, if an error had to be made, far better was it to mistake rheumatism for spinal disease than spinal disease for rheumatism; for whilst the former error would be more inconvenient than harmful, the latter might not only prove an irremediable calamity, but might well be reckoned a stupid blunder. Discussion followed, in which Drs. W. Hill and Batten, and Messrs. Lunn and Keetley, took part, and Mr. Owen replied.

An ordinary meeting of this Society was held on Friday, Feb. 5th, Dr. Chas. Wells, President, in the chair.

Pathological specimens were shown by Mr. Percy Dunn, and Dr. Campbell Pope exhibited a case of Malignant Disease of Tonsil in a man aged forty.

Mr. HOWARD MARSH read a paper on Some Points in the Operative Treatment of Cancer of the Breast. He alluded first to the earliest age at which the disease is met with. Last year he had under his care an unmarried female, thirty years of age, with carcinoma of the left breast, which, in spite of operation, ran its fatal course in nine months. Similar cases at the ages of twenty-seven, twenty-three, and twenty-one had been recorded, and Sir J. Paget had told him that he had seen one in a girl aged nineteen. They were rare, and very quickly fatal. On the other hand, the author had lately operated on an old lady aged eighty-three, where the operation was successful. He thought the old bore operations favourably. He had also operated during the puerperium without any unfavourable symptoms. The author had been much impressed by the fact that recurrence of carcinoma of the breast seemed to be comparatively early in cases in which the wound healed by primary union, and to be postponed in cases in which the healing of the wound was delayed. He hardly knew how to make use of this observation, except to confirm the practice of freely removing the gland and skin, and laid special stress on the importance of dissecting away all the subglandular areolar tissue and pectoral fascia, as well as, of course, any glands that could be felt in the axilla. The healing of the wound in modern surgery was so rapid that any carcinomatous elements left behind were uninjured, and would soon grow actively. When, however, the condition of the tissues was modified by free suppuration or other disturbing agency, the "cancer elements" that had escaped removal might apparently be destroyed.

Surgeon-Lieut.-Colonel HENDLEY, C.I.E., read a paper on the Indigenous Medical Systems of India, giving his experiences in the native States, in which he had served for more than twenty years. He reviewed the practices of the orthodox Baids (Hindu physicians) and Hakims (Mussulman practitioners), who have absolutely no knowledge of anatomy or physiology, and described the Yunani or Greek humoural system, which is that practised by the Hakims. Surgery was relegated to barbers and quacks, known as jhairahs, in whose hands gangrene from tight bandaging and other atrocities were frequent. To these must be added Sathiyas or Couchers, who operated on the eye with filthy instruments with an alarming percentage of failure. Jain and Sikh priests practice empirically amongst their religious disciples; but the common people rely most on charms, superstitions, ceremonies, fulfilment of vows, and fervent worship at shrines. Quack medicines were sold everywhere, and legislation was imperatively necessary against the sale of secret remedies containing poisons. The confidence of the people was waning, and the European system making great strides. For example, in his own district, Jaipur, with a population of 3,000,000, his major operations in surgery had risen from ninety-seven to 236 per annum in his central hospital in ten years; while in that period in his dispensaries, which had increased from sixteen to twenty seven, upwards of 2000 major and 67,000 minor operations had been performed. Medically also the progress was as marked. Thus in 1890, 170,000 new cases had been seen, against 57,000 in 1881, and in all 1,100,000 new cases had been treated in ten years. In the prevention of disease much was due everywhere to improved sanitation, vaccination, regulation of fairs, &c., and the number of native medical men in private practice was also increasing. In conclusion the author spoke in highest terms of the advantages of the Indian Medical Service.

MANCHESTER PATHOLOGICAL SOCIETY.

THE fourth meeting this winter of the above Society was held at Owens College on Wednesday, Jan. 20th, T. C. Railton, M.D., M.R.C.P., President, in the chair.

Löffler's Diphtheria Bacillus.—Dr. ASHBY showed stained specimens of Löffler's Bacillus of Diphtheria, and also pure test-tube cultivations, which he had obtained through the

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kindness of Dr. A. Baginsky of Berlin, and drew attention to the fact that the diagnosis of diphtheria by means of the detection of the bacillus in the membranous exudation had now begun to assume some practical shape, and there was a good prospect of the diagnosis being arrived at with certainty in doubtful cases without any great difficulty and with considerable rapidity. The most ready method was to detach a small piece of membrane and place it for five minutes in a 2 per cent. solution of boracic acid, then to draw the piece of membrane along the surface of sterilised blood serum in a test-tube, and maintain it at a temperature of 37° C. for twelve to twenty-four hours. At the end of this time, if the bacilli were present, characteristic small, white, rounded colonies were visible along the tract of inoculation. The bacilli were stained with a pure carbol-fuchsine, and examined with an oil immersion lens. To obtain a pure cultivation a second or third preparation must be made. The bacilli were thicker than the tubercle bacilli, mostly joined together in twos or more, and their ends were darker than the central portions. If an enlarged experience confirmed these observations, a notable advance had been made in the diagnosis of diphtheria.

Rupture of the Heart.—Dr. DIXON MANN exhibited the heart from a case in which rupture of the aorta immediately above the valves had taken place. The patient had three separate attacks of hæmorrhage into the pericardium, manifested by collapse, the last proving fatal. The aorta presented patches of atheroma.—Dr. R. T. WILLIAMSON also showed a specimen where an aneurysm of the left ventricle had burst into the pericardium. The patient had suffered from angina pectoris, and death occurred suddenly. The aneurysm was situated at the posterior surface of the left ventricle, about midway between apex and base. There was marked atheroma of the coronary arteries, but the cardiac muscle appeared normal, except at the seat of the aneurysm.

Tubercular Tumour of the Choroid.—Dr. HILL GRIFFITH showed sections and drawings of a Tubercular Tumour of the Choroid which had burst through the outer side of the globe and formed a prominence the size of a filbert covered by the thinned sclerotic, the rest of the eye being filled with stratified blood-clot. There was total separation of the retina, and the sight was entirely lost. The patient was a boy aged two years, under the care of Dr. Glascott; the eye had been inflamed six weeks, and the bulging had been present one week. Microscopically, numerous caseating centres were found with giant cells and reticulum; no examination for bacilli was made.

Micro-Photographs.—Dr. Harris showed with the aid of the limelight a very beautiful series of micro-photographs, illustrative of the more common diseases of the lungs.

Dr. Railton, Dr. Kelynack, Mr. Roberts, and Mr. Westmacott showed card specimens.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Section of Anatomy and Physiology was held on Jan. 15th, Dr. Brooks in the chair.

Exhibits.—1. Professor FRASER exhibited a beautiful collection of photographic enlargements of serial sections of embryos and of brains. He explained how they were made, and pointed out the great advantages of using this method of reproducing such sections as contrasted with old methods of copying with the camera lucida.—The CHAIRMAN complimented Professor Fraser on his work, and suggested the advisability of supplying with such reproductions line tracings, which would bring the important point of the sections more clearly before the untrained eye.—Professor FRASER, in reply, agreed with the Chairman, and explained how such tracings might be simply and quickly produced with the aid of photography.—2. Professor BIRMINGHAM exhibited a specimen in which the transverse ligament of the atlas was ossified, except at the extremities, which still remained fibrous at the attachments to the bone. The odontoid process could be rotated freely within its ring.—The CHAIRMAN asked some questions about the specimen, to which Professor Birmingham replied.

Papers.—1. Dr. ROBERT H. WOODS read a paper on a few applications of a physical theorem to membranes in the human body in a state of tension. The theorem was that if P be the pressure of fluid contained in a membrane curved circularly in two directions at right angles to one another, and if r_1 and r, the two radii of curvatures, and T the tension at a given point,

$$\text{then } P \propto T \left(\frac{1}{r_1} + \frac{1}{r}\right).$$

This theorem, when applied to the heart, shows that the tension in the walls is not the same for different points on the heart wall, nor can it be constant for the same point in different stages of contraction, on account of the variation in the radii of curvature, but will be greater according as the curvature is more gradual and the heart more dilated. The organ, then, will have to make a greater effort at the beginning than towards the end of systole. But the heart wall is thinnest when most dilated; hence we have the two factors contributing towards the difficulty of commencing systole. The paper went on to show that this difficulty is, in part at least, got over by the columnæ carneæ and musculi papillares which cross the cavity of the heart, and thus act more directly on its wall, as well as economising space. An example was taken from the pathological condition known as prostatic bladder. The ridging on the interior of the bladder was an attempt to form columnæ carneæ of its own for the purpose of raising the pressure of the urine with the view of overcoming the resistance to its outflow. The same theorem, when applied to the uterus, explains the reason why an abnormally large collection of liquor amnii renders the organ almost powerless in expelling the fœtus, and also explains why letting a quantity of liquor amnii escape facilitates its expulsion. The author exhibited some specimens of hearts hardened under moderate interventricular pressure, and proved that if the thickness of the wall at different points be substituted for the tension (to which it may be taken as proportional), the formula

$$t \left(\frac{1}{r_1} + \frac{1}{r}\right)$$

is constant, or that the thickness of the heart at any point bore a definite relation to the curvature at that point. The want of a tendency to heal in varicose veins was also explained in a similar way, for the more dilated the vein the higher the tension in its walls, and the less availed any effort it could make at contracting to its normal size. The author also deduced that in an adult heart the pressure in the left ventricle is about six times and a half that of the right. There is reason to believe that the pressure in the left ventricle is a little over nine feet of water; that in the right would, on this assumption, be equal to a head of seventeen inches of water.—Professor FRASER doubted the applicability of such precise mathematical rules to structure in animal bodies. He would like to know if Dr. Woods' conclusions might be applied to all hearts.—Professor BIRMINGHAM said that in applying these conclusions to the heart of man, he would like to hear from Dr. Woods how he accounted for the distribution of the columnæ carneæ on the interventricular septum. In the left ventricle above, where the curvature is most open, the columnæ carneæ are almost absent, while they are numerous below, where the curve is reduced. On the right side of the septum, which is convex, the columns are much better developed. Professor Birmingham also referred to an old theory of the use of the columnæ carneæ—namely, that by whipping the blood they caused it to give off its gas more readily, as when flat soda-water is whipped up it gives a renewed discharge of gas. He much preferred Dr. Woods' scientific explanation.

THE LAHORE MEDICAL SCHOOL.—The Punjab Government has provisionally sanctioned an additional professor to the Lahore Medical School, pending reference to the Secretary of State for India.

THE WREXHAM INFIRMARY.—The annual report for 1891 (the fifty-ninth) shows that the good work of the charity is year by year being extended. The cots in the children's ward have all been nearly constantly occupied during the year. The continued generous support of the working classes in the district had appreciably relieved the committee from anxiety in the financial position of the charity. The sum of £400 had been invested in the course of the year, and the invested funds now amount to £2150. A nursing institute has been established in connexion with the infirmary, and the work, for nearly three months of its existence, had been successful and satisfactory.

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Reviews and Notices of Books.

A Practical Treatise on the Diseases of the Ear. By D. B. ST. JOHN ROOSA, M.D., LL.D. Seventh Revised Edition. New York: William Wood and Co. 1891.

THE fact that this well-known work has reached its seventh edition is a sufficient proof of its excellence and general appreciation. The present edition is in some respects an improvement upon the others, for the author has been sensible enough to omit certain speculative and theoretical paragraphs upon the value of electricity as a diagnostic agent, which he now frankly confesses have not sufficient basis to be of practical utility.

The book opens with a learned, laborious, and interesting historical account of otology. Throughout the treatise the historical accounts of methods of treatment are well sustained, particularly those upon perforation of the mastoid process. The author truly remarks that there is no department of medicine in which so much has been written with so little exact knowledge. He certainly does not err in this respect. The book is valuable, inasmuch as the author has been at considerable pains to separate the wheat from the chaff. His conclusions are fearlessly stated, and gathered not so much from the writings of others as his own large experience. Any surgeon carefully reading this work will be materially aided in discriminating between curable and hopeless diseases. Aural surgery largely suffers from treatment directed to incurable cases. This the author of this book does not hesitate to point out; indeed, he plainly states that chronic proliferous catarrh is an incurable affection. He also gives us a plain opinion on the value of operations upon the tympanic membrane and ossicles in non-suppurative affections of the middle ear, and plainly hints at their experimental nature and generally disappointing results. Dr. Roosa speaks in condemnation of operations upon the nose in cases of deafness, and he shares in the opinion of some others that those who now enthusiastically adopt and advise these operations will in time relinquish them. Another excellent feature of this book is the abundance of well-selected illustrative cases, which greatly enhance the clearness and clinical value of the descriptions of varieties of disease. The work is thus far from being an elementary one; yet it may well be studied even by a beginner. Aiming as it does at being a very complete treatise, it is to be regretted that here and there omissions occur upon which an author of this note should be expected to give us in detail the value of his undoubted great experience. The important and complicated subject of "malingering" deafness is very shortly dismissed, and "hysterical" affections, often most difficult to detect and deal with in practice, do not receive the notice they deserve. In the description of the affections of the external ear there is no notice of lupus erythematosus or of Raynaud's disease. Again, in the article dealing with the cerebral complications of suppurative middle-ear disease, we think the symptoms of cerebral abscess should have been more fully discussed, with the operations for its relief. In connexion with this it may also be urged that the author hardly sufficiently recognises the extent and value of the work that has been done on this subject on our side of the Atlantic.

The chapter on Deaf-mutism is a good one, and the extensive tables given of this affection are most interesting and important. We think, in regard to this part of the subject, that more attention might have been devoted to the description of the methods to be employed for estimating the amount of hearing in children.

The book is illustrated by 140 woodcuts. These are generally well executed. Taking a general estimate of this book, it may safely be pronounced to be one of the best treatises on the known diseases of the ear in the English language. As such it will be of great value to the student and the practitioner.

The Principles of Chemistry. By D. MENDELÉEFF. Translated from the Russian (Fifth Edition) by GEORGE KAMENSKY, A.R.S.M., of the Imperial Mint of St. Petersburg. Edited by A. J. GREENAWAY, F.I.C., Sub-editor of the Journal of the Chemical Society. In Two Volumes. London: Longmans, Green, and Co. 1891.

CHEMICAL science probably received no greater impetus than when the law of the periodicity of the elements was firmly established about the year 1870. Chemists do not hesitate to ascribe to the Russian chemist, Mendeléeff, whose painstaking and accurate observations have since excited universal admiration, the credit of elaborating and developing this law to such a pitch of perfection as to enable him, with his clear and characteristic foresight, to foretell not only the existence, but also the properties of unknown elements. But the germ or essence of the law was beyond cavil contained in a paper on the Law of Octaves communicated to the Chemical Society in 1866 by our own countryman and colleague, J. A. R. Newlands. With this communication Mendeléeff confesses he was not acquainted, although in the work under notice he rather frankly refers to Roscoe, De Boisbaudran, Nillson, Winkler, Brauner, Carnelly, Thorpe, and others as the true founders of the law (the further development of which, he says, still awaits fresh workers), inasmuch as they verified the adaptability of the periodic law to chemical reality. Putting quibbling on one side, we may accept that the conception of the law of octaves or the periodic functions of the elements is due to Newlands, and later also to Mendeléeff; but to the latter chemist we owe the development of the law, so that it now shares an importance equal to that of the law of gravitation itself. In short, Newlands might be called the discoverer and Mendeléeff the master of the periodic law.

Messrs. Kamensky, of the Imperial Mint, St. Petersburg, and A. J. Greenaway have done well to translate the eminent *savant's* work, and English students may now read the story of the principles of chemistry just as they are set forth and charmingly taught by the illustrious Russian philosopher. The work possesses more than ordinary interest; it marks an important epoch in the history of chemical science, for it was in preparing for the first edition of this book that the author was led to those considerations which resulted in the discovery of the periodic law in its present form. In regard to the treatment of the subject, it would amount to presumption to suppose that there would be anything likely to meet with our disapproval. Suffice it to say that the way he has dealt with the subject betrays the true spirit of the philosopher. He expresses the belief, for example, that the time has come to turn aside from visionary contemplation, from platonic aspirations, and from classical verbosity, and to enter the regions of actual labour for the common weal, and to prove that the study of science is not only an excellent education for youth, but that it instils the virtues of labour and truth, and creates solid national wealth, material and mental, which without it would be unattainable. Science, which deals with the infinite, is itself without bounds. It is gratifying to find that one so eminent as Mendeléeff joins issue with those, and ourselves amongst the number, who boldly denounce the pernicious system of teaching on strictly examination lines and for the mere purposes of cram. A schoolboy of average intelligence would read through the chapters in large type with interest and profit, while the advanced student will find in the footnotes in small type details involving the discussion of theory, and details of a historical as well as technical character. The beginner is not suddenly

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introduced to a consideration of hard and new facts concerning a substance he never heard of, but to an account of the simple and familiar substance, water and its compounds. Then follow eight chapters on the non-metallic elements and their relations. In this dissertation all mention of the halogens is omitted until in the tenth chapter sodium chloride, so familiar to everybody as common table salt, is described. Then come the chlorine group, or the halogens. Salt treated of in the chapter alluded to involves of course a reference to the metal sodium to which the attention of the reader is more fully drawn in Chapter 12, an account of spectrum analysis being opportunely included. The metals, potassium, lithium, &c., follow, in natural sequence. Taking advantage of the student's knowledge so far, he is next introduced in the closing chapter (14) of the first volume to a consideration of the valency and specific heats of the metals; magnesium, calcium, and barium being also dealt with in this section. The first chapter in the second volume is devoted to the subject upon which no greater authority than Mendeléeff can speak—that is, the grouping of the elements and the periodic law. This, to us at any rate, is the most interesting portion of the work, and the footnotes, which enter into historical details of interest, and more fully into theoretical considerations, are here assigned a greater space than the text. The possibility of foretelling the properties of still unknown elements, the logical way Mendeléeff predicted the properties of a new element, and the subsequent discovery of germanium by C. Winkler, the actual properties of which were found to entirely correspond with those which were thus foretold, form a fascinating story. Interesting is it also to hear that when in 1871 Mendeléeff wrote a paper on the application of the periodic law to the determination of the properties of yet undiscovered elements, he did not think he should live to see the verification of this consequence of the law; but such was to be the case. Three elements were described—ekaboron, ekaaluminium, and ekasilicon, and after the lapse of twenty years he had the indescribable pleasure of seeing them discovered and named after those three countries where the rare mineral containing them are found, and where they were discovered—Gallia, Scandinavia, and Germany. We are tempted to linger over and discuss many details of an equally absorbing interest, but space does not permit us to recount anything like all the brilliant results which followed upon this law, and we must refer our readers to the scholarly papers contained in the appendix. The first is a lecture delivered at the Royal Institution on May 31st, 1889, and bears the title of "An Attempt to Apply to Chemistry one of the Principles of Newton's Natural Philosophy." The second is the substance of the Faraday lecture delivered before the Fellows of the Chemical Society at the Royal Institution on June 4th, 1889. It is entitled "The Periodic Law of the Chemical Elements." As illustrating the marvellous exactness with which he was able to foretell new elements consequent on a knowledge of the law, we cannot resist quoting a few lines from this memoir. "I foresee," he said, "some more new elements, but not with the same certitude as before. I shall give one example, and yet I do not see it quite distinctly. In the series which contains mercury, lead, and bismuth we can guess the existence of an element analogous to tellurium which we can describe as di-tellurium, Dt having an atomic weight of 212, and the property of forming the oxide $Dt O_3$. If this element really exists it ought in the free state to be an easily fusible, crystalline, non-volatile metal of a grey colour, having a density of about 9·3, capable of giving a dioxide, $Dt O_2$ equally endowed with feeble acid and basic properties. The compounds of the new metal will be easily reduced, and it will form characteristic definite alloys with other metals."

Following on the discussion of the grouping of the elements and the periodic law the nine remaining chapters deal with the rest of the elements classified according to its requirements. No pains have been spared to bring the subject matter into harmony with the results of modern research, and a description of the industrial processes of recent introduction has not been overlooked. In exemplification of this, we find the research of Moissan on fluorine referred to on page 483, and a description of Chance's process for the recovery of sulphur from alkali waste on page 197.

English-speaking students of chemical science owe a real debt of gratitude to the translators of this volume, inasmuch as in giving as far as possible a literal rendering of the original work, so that the spirit of the master, as it were, may be caught, they have afforded them the opportunity of reading and studying one of the most entertaining and instructive accounts of the progress of chemical science with which we are acquainted, and to review which has afforded us much pleasure and reward.

On Harelip and Cleft Palate. By WILLIAM ROSE, M.B., B.S. Lond., F.R.C.S., Professor of Surgery in King's College, London, and Surgeon to King's College Hospital, &c. London: H. K. Lewis. 1891.

MR. WILLIAM ROSE enjoyed special advantages in his early professional life as an assistant of the late Sir William Fergusson, and it is not to be wondered at that he should have devoted special attention to a branch of surgery in which his master so greatly excelled. Having had considerable experience in the operative treatment of harelip and cleft palate, he has done well to lay the fruits of it before the profession; and no exception whatever is to be taken to the form in which it is done. The book is thoroughly practical, candid, and unbiased, and does equal credit to the author's professional skill and literary ability. Mr. Rose's colleague, Mr. Carless, has contributed the chapter on the development of the upper jaw, palate, nose, and lip, which affords an admirable account of this interesting section of human embryology.

Manual for the Physiological Laboratory. By V. D. HARRIS, M.D. Lond., and D'ARCY POWER, M.B. Oxon. London: Baillière, Tindall, and Cox.

PRACTICAL work in all the branches of medicine has during the last few years received much attention in training schools, and a large share of the examination for the diplomas and the various qualifying bodies consists not so much in eliciting what the candidate can say, but more and more the crucial test is coming to be what he can do. In the domain of physiology, which forms the basis of all rational medicine, the value of practical knowledge and practical methods can scarcely be over-estimated, and this volume is so constructed that its use in the laboratory cannot fail to greatly aid the student in acquiring both. Familiarity with the microscope is essential. In this volume it is described and illustrated in a full and efficient manner. Histological methods, including a description of the various microtomes, methods of staining, mounting, and injecting specimens, are given in detail. The second part of the book is devoted to practical methods of viewing and preparing for consideration and judgment the various tissues of the body, and the last portion—Practical Physiology, strictly so-called—has been adapted to meet the requirements of senior students preparing for the higher examinations in physiology. Coming from the hands of such practical physiologists as are the authors, the volume before us cannot but put the reader into possession of the most modern style of inquiry into physical functions, and the student cannot fail to derive great assistance in his laboratory work from an attentive perusal of its pages.

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THE LANCET.

LONDON: SATURDAY, FEBRUARY 20, 1892.

FEW people doubt that the water-supply of London will before long be taken over by the London County Council. Extravagant fears, and hopes perhaps equally extravagant, are felt in regard to the proposed change. As to the fears they are certainly chimerical. In England we do not annex other people's property without compensation, and it is certain that if the London companies part with their valuable rights they will do so on equitable terms. Probably they will receive more than the actual market value of their shares. No scheme that can be adopted by an English Parliament will injure the value of the property which to so many people is a matter almost of life or death. On the other hand, the advantages to be gained by the public in such a conversion, although upon the whole very evident, are not without some elements of risk. For the assumption of all water rights by London would involve very considerable expenditure, and if a London County Council pledged to penurious economy were elected, the work might be insufficiently done, while the benefit of the great experience gained by the present private companies might be lost. Upon the whole, it appears highly probable that London would gain, as the great towns of the North have gained, by a municipal management of the water-supply.

We are anxious to do full justice to the London water companies. They were not to blame for the bad supply which, even in quite recent times, led to or fostered epidemics of cholera. Of late years they have done their best to improve the supply. Doubtless their action was stimulated partly by the action of Parliament, and still more by the growing force of public opinion and public knowledge. Companies which pay dividends cannot be expected to be anxious to incur unnecessary expense; but the London water companies are entitled to full credit, not only for an earnest endeavour to meet the demands exacted by the progress of sanitary science, but also for skill and energy in meeting them. London water is a very different thing from what it was when, in the not far past, it was our duty to denounce it, not only as an incessant danger to public health, but also as a convicted and notorious offender against it. Some of the older among our readers may remember the time when we had to record not only constant turbidity in the water-supply, but also the frequent presence of living organisms of all kinds. The stoppage of a water-pipe by an eel which had grown and fattened in it was not an infrequent thing. The compulsory removal of the intake from the Thames to places above Hampton effected a great improvement, while the more careful supervision of the river, and, above all, more efficient filtration, were hardly inferior in their beneficial effects. We admit that formerly we, together with most sanitary authorities, underrated, as many are now inclined to trust unduly to, the value of filtration. It is now fully recognised that careful filtration, even sand filtration, diminishes in a most important degree the danger of zymotic contamination. Filtration is now carried out with great care, and the water supplied to London seldom shows any urbidity perceptible to the eye. Even now further improvement might probably be effected, and it is a matter of wonder to us that powdered gas coke, the value of which as a filtering agent has been so conclusively proved by Professor PERCY FRANKLAND, has not been employed. Possibly it has been tried on a sufficiently large scale, and has been found unsuitable; but if so, no record of such experiments has reached us. On the other hand, it must not be forgotten that in the classic researches of Professor BURDON SANDERSON and Dr. E. FRANKLAND on the cholera virus it was shown that the rice-water discharges of cholera, enormously diluted with water and carefully filtered through Swedish paper, were still capable of communicating the disease to mice, and that there are many other examples on record of the futility of even apparently perfect filtration.

It is well known that the water-supply of London is at the present time derived from the following sources: the Thames above Hampton, the New River, the Lea, and deep wells. Of these the Thames is the most important, and for our present purpose the others may be ignored. Now while recognising to the utmost the value of modern improvements, we find ourselves unable to abandon our old belief that the Thames affords a most unsatisfactory water-supply. The Thames drains a large and highly populous area, and pollutions of all kinds pass inevitably into it. Every storm of rain carries down in muddy streams the washings of towns, villages, manured fields, and pigstyes. In spite of all care human sewage certainly finds its way into the stream even at distances not far above the intakes of the great companies. At the mouth of the Wey, close to Shepperton, a cluster of houses with cesspools certainly pollute the water, for the cesspools fill during flood time and empty as the water recedes. Such at least was the state of things at the time of our last inspection, and we have no reason to suppose that any change has been effected. This, at all times unpleasant, might evidently become a source of urgent danger if a single case of cholera or choleraic diarrhœa occurred in one of the cottages. In the same way barges and even house-boats, in spite of the prohibitions of the Thames Conservancy, might evidently and at any time communicate some deadly pollution to the water-supply. London would then be protected only by the filters, and surely nobody would drink with comfort water which, having received the cholera virus, had been purified solely by passage through sand. As to other pollutions we have ourselves seen the putrid bodies of dead dogs floating in the river within half a mile above the intakes of the companies.

One other argument in regard to the present London water-supply must be noticed, although it has lately been stated by Sir T. FARRER with very great force. The present water-supply of London will before many years have passed be insufficient. After seasons of drought the water companies draw off from the Thames and the Lea almost if not quite as much as could possibly be permitted. Any considerable extension of the intake would either be impossible or would leave the river an empty and muddy ditch. If, therefore, the water-supply of London remains in the hands

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of the present companies they will have ere long to face the necessity for some great extension of their supply. It is evident that if the extension of London continues at its present rate the existing supply will be found inadequate ere long in regard to quantity as well as quality.

Twenty-five years ago or thereabouts a number of proposals for a new supply of water to London were discussed; and on a future occasion we may find it desirable to review these schemes, some of which have become impossible, while others are still worthy of attention. The subject has suddenly acquired a new interest, as the Government has promised yet another Royal Commission of inquiry. Although our faith in Royal Commissions has been rudely shaken of late years, not from their inefficiency, but from the systematic way in which their conclusions have been ignored, it must be admitted that before action is taken in a matter of such magnitude the latest results of scientific investigation should be considered.

IN the January number of *The Climatologist* (Philadelphia) there appears a paper by one of the editors, Dr. J. M. KEATING of Colorado, on "The Rest Cure in Phthisis." The main contention of the writer is that in physical rest under good hygienic conditions, and combined with superalimentation and tonic measures generally, we have one of the best means of re-establishing and maintaining nutrition in phthisical patients. The treatment of phthisis has in the main followed one of two directions—the effort to find some agent capable of arresting the infective and destructive processes in operation, and the adoption of measures of which the great aim is the promotion of nutrition. The former of these, however well conceived *a priori*, has, as we know from bitter experience, been a failure in practice; whereas the latter, although obviously more or less of a *pis aller*, has always achieved a considerable and encouraging amount of success. We endeavour to promote nutrition by careful feeding, tonics, a well-ordered life, change of air, climate, &c. Dr. KEATING'S paper raises the very apt and important question whether, in addition to these measures, regarding the utility of which we are all agreed, we should advise rest or activity. The prevalent idea amongst practical men is, we take it, that if a case of phthisis be far advanced and much debility and emaciation be present, rest is indicated not as holding out any hope of cure, but simply because effort is difficult and painful to the patient and achieves no good purpose; whereas in early cases of phthisis, with nutrition still fairly well maintained and a considerable amount of physical vigour still remaining, exercise is believed to be desirable as tending to promote appetite, digestion, and nutrition, and to help the expansion of the affected lung. Exercise, further, involves usually life in the fresh air, and removal more or less from the vitiated atmosphere and the habits of invalidism of the sick-room. Hence, in the opinion of most authorities, are most probably explained the good effects which so often follow a resort to high altitudes, and the adoption of the hardy and vigorous modes of life for which the mountain sanatoria offer at least considerable inducements.

While the above ideas are more or less the accepted dicta and the working rules of most physicians who have given great attention to the study of phthisis, yet we are all alive to the fact that much injury is sometimes done by the unguarded recommendation of active habits in unsuitable cases, and the reminder that in certain instances rest rather than activity is indicated is not inopportune. We should be glad of any evidence that would help us to differentiate the two classes of case, as the distinction is without doubt a real and practical one. It would be a very great misfortune if from one extreme we were to pass to the other, and accept the doctrine that rest, inactivity, and invalidism were the points to be aimed at in phthisis—a doctrine that had a long trial, and of which the results were most disastrous. Dr. KEATING quotes Dr. WEIR MITCHELL, who speaks as follows regarding the application to phthisis of his well-known methods of super-alimentation, massage, and electricity, which have achieved such good results in cases of nervous breakdown:—"I have ventured, without much hope, to treat three cases of phthisis in the same manner. There are cases of this nature in which exercise wearies; there are others which we cannot, for various reasons, send away to more genial climates; and in such instances we are driven to stand by, and, with no more hope than oil and tonics give, merely watch the slow decline of our patients. I believe that sometimes, and especially in the very earliest stages of consumption, my treatment will save a small percentage of such people; but as yet I only venture to make the suggestion, and wish distinctly to state that my experience in this form of its usefulness is limited." These are cautious words, and do not offer any very substantial basis of opinion. Dr. KEATING goes somewhat further, and mentions several cases in which "massage, electricity, Swedish movements, respiratory gymnastics, cold surface sponging, milk diet, and sensible rest" seem to have achieved a cure. He teaches that "for the unfortunate many who are obliged to antagonise soil and climate influences, who are obliged to withstand dampness, want of sunshine, and great changes, a 'rest-cure' treatment should have added to it the systematic inhalation of compressed oxygenated air, possibly medicated, and also a thorough course of pulmonary gymnastics," and to these measures in combination he looks with considerable confidence.

It is notable that Dr. KEATING, while strongly advocating physical rest, no less emphatically urges the importance of those measures which tend to exercise the lungs. We all recognise that one of the chief, perhaps the very chief, reason for advising active habits is that such habits bring the lungs into fuller play, promote the circulation of pure air in the pulmonary alveoli, and tend to expand the contracted and cicatrised lung. It is a fair question how far these ends might be achieved by pulmonary gymnastics as distinct from general physical exercise. We suspect much difficulty will be met in carrying out pulmonary gymnastics with the requisite regularity and thoroughness. We have also to remember that regular physical exercise involves the very important points of fresh air and mental distraction, and that these cannot be ignored with impunity.

Dr. HERMANN WEBER some years ago advocated a plan which he had found useful in cases of active and pyrexial phthisis. This was the erection of hammocks in sheltered

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and sunny positions, the patient to spend as nearly as possible the entire day in them, fresh air being thus secured in combination with rest. The obvious difficulty in the way of this suggestion is the question of climate, such a measure being clearly impracticable unless warmth and sunshine can be reasonably expected.

It is probable that the "rest-cure in phthisis," if ever extensively employed, will be found to involve special difficulties of its own. We have the awkward fact to face that most phthisical patients at some stage of their malady become dyspeptic, and that super-alimentation and rest will probably be found impracticable in such cases. Then, experience seems to prove that our most valuable drug or food in phthisis—viz., cod-liver oil—is rarely well tolerated unless the patient be able to indulge in regular physical exercise. Still, we need a reminder sometimes that the off-hand recommendation so often made to patients suffering from phthisis of "plenty of exercise and fresh air" is a very dangerous and unscientific piece of advice and that we need carefully to distinguish between those cases in which exercise and activity seem to offer the best hope and those in which rest fulfils, at all events, a very useful function.

ALTHOUGH the report from the Committee of Delegates of the two Royal Colleges on the scheme for a five years' curriculum was received and adopted by the two Colleges in the second week of January, we understand that the synopses indicating the ranges of subjects in the various examinations will not be issued until some time in March. Meanwhile it may not be inopportune to consider the position assigned to one of the subjects which has given, and, indeed, seems still to be giving, the greatest trouble—viz., materia medica. The chief cause of difficulty appears to be the desire to treat this subject as one which might, and perhaps should, be in part studied before registration, and before the commencement of the ordinary studies at a medical school. This notion, although it probably had its origin in the old days of pupilage, still appears to present certain attractions to those who think that a great deal of useful knowledge may be picked up in the desultory instruction likely to be given by a member of the Pharmaceutical Society, or in the ordinary routine of a public hospital, infirmary, or dispensary, or of general practice. During many years this attempt to crowd in some kind of information before registration has been upon its trial at the examinations of the Conjoint Board, and the results, so far as medical education is concerned, have been disastrous. Students have been encouraged to present themselves for examination in the medicinal actions of drugs before they could possibly be familiar with the terminology of physiology or therapeutics, and the outcome has been most discouraging to all concerned. The percentage of rejections in this subject has been wholly disproportionate to its importance, and although the examiners in materia medica have thus practically indicated that an impossibility was being attempted, and indeed have, we believe, made representations to that effect, no change was sanctioned until a protest came from the examiners in medicine against the ignorance of students presenting themselves at the final examination. It has been asserted that many aspirants for qualification have been found lamentably at fault when asked to prescribe for the simplest maladies, and that poisonous drugs have been ordered in doses which betrayed complete ignorance of toxic properties. The complaint having reached a climax when students and examiners were equally dissatisfied, it has at last been resolved to attempt something by way of improvement. In the new scheme it is set forth that before the third examination students shall have attended a course of lectures on pharmacology and therapeutics during not less than three months, and for the purposes of examination the subject of materia medica has been subdivided into practical pharmacy, pharmacology, and therapeutics. The first division, practical pharmacy, may be taken at the candidate's option (or peril) at the first or the third examination, and as this branch may be studied almost anywhere it scarcely seems worth very much consideration until the issue of the synopsis of examination. With regard to pharmacology and therapeutics, however, the case is different. In the published regulations they appear under the heading of medicine, and they are associated under that heading with medical anatomy, pathology, forensic medicine, and public health. According to these regulations pharmacology appears to be defined as being equivalent to the "physiological action of drugs." This definition is, doubtless, somewhat new and somewhat arbitrary, but there can be little real objection to it if this subject is not divorced from that of therapeutics. Taken together, the terms may be regarded as embracing a knowledge of the actions of drugs both upon the healthy body and in disease, and thus there could be no chance of misunderstanding as to their scope. It is rumoured, however, that it is possible, or even probable, that pharmacology and therapeutics will be separated, the latter subject being reserved for the examiners in medicine. The advantage of such separation is not obvious, since if they desire to satisfy themselves about the student's knowledge of prescribing, of doses, or of the appropriate remedies to be employed in any given case, it was always, and would continue to be, within the power of the examiners in medicine to test this knowledge either in the paper, or, better still, during the practical examination. On the other hand, the separation of therapeutics from pharmacology would probably lead to confusion and discussion. If pharmacology means physiological action only, examiners in this subject would be precluded from touching upon many of the most important actions of some of the chief drugs, and the association of ideas between the physiological and the therapeutic action would be lost. It has often been asserted that the basis of rational therapeutics lies in the application of physiological knowledge, but it has never been considered that pharmacology or the physiological action of drugs was capable of standing alone. If this subject is to be treated in a separate paper, it is probable that it will soon attain very undesirable prominence; while therapeutics, if taken as a small part of a composite subject, will be proportionately belittled. Both for purposes of study and for purposes of examination pharmacology and therapeutics should be linked together. This has been recognised so far as the regulations affecting the teaching by lectures are concerned; it will be much to be regretted if the rumours

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of separation of these subjects eventually prove to be well founded, and thus the proper balance is upset in the final arrangement of what should be mere matters of detail.

Annotations.

"Ne quid nimis."

THE GRESHAM UNIVERSITY.

THE Committee of the Privy Council has consented to the change of name of the proposed Teaching University, and the Draft Charter, with this alteration only, has been laid on the table of both Houses of Parliament. There will evidently be a considerable opposition to its passing through the House of Commons, as objections have been raised to several clauses by different bodies; but it is impossible for any changes to be made therein, as it must be passed or rejected *en bloc*. Most of the objections on the Arts side are urged against the collegiate training, which is the key-stone of the Charter, the objectors being in favour of recognising evening class instruction in its stead. The difficulty of securing adequate certificates of any proper course of study under such circumstances led to the abandoning of certificates altogether in Arts and Science in the University of London, and the same difficulty would probably arise in the case of the new University. Thus a second purely examining body in London would be created, and this with the disadvantage of being a merely local one. It is stated that out of the large number of persons attending the classes of the University Extension Society in London during the year 1890 only one completed the course, so that there is very little evidence of a continuous curriculum of study being followed by such students. The arguments for the Charter from the Arts' standpoint have been well put by the Bishop of London in a letter to the Lord Mayor expressing his gratitude to him and to the Gresham Grand Committee for uniting the London Teaching Colleges, King's and University, with the old Gresham foundation. Unfortunately, the Bishop of London, Sir John Lubbock, Lord Ripon, and others have altogether ignored the medical side of the scheme, and the question has thus been treated as if it were only one of amalgamating King's and University Colleges with Gresham College. We would point out that as the Royal Colleges of Physicians and Surgeons and the University of London have failed in passing their schemes, the success of the present movement alone offers a prospect of removing the disabilities under which London medical students are now placed. The objection of Victoria University to the proportion of the medical element being so large in the Council as fourteen, possibly sixteen, in forty, is very unfair to the medical teachers in London, who are probably quite 300 in number, and whose influence will doubtless be very great, but certainly not "paramount." The contention that such a Council will exert its influence to unduly lower the scientific training of the graduate is an unjust reflection on the London medical teachers, who will surely be as jealous of the reputation of the degrees conferred by them as are the teachers elsewhere. No safeguards against lowering the standard of degrees are inserted in the Charter of the Victoria University itself. If the Gresham degrees were unduly lowered, they would soon become worthless as marks of professional knowledge. A statement of the reasons why the medical schools of London should form a large part of the proposed Gresham University has been drawn up by the delegates of the various medical schools, and will shortly be made public, so that we hope that more attention will be given to the importance of the medical aspect of the question.

THE FOOT-AND-MOUTH DISEASE.

THE Government officials have evidently not succeeded in repelling the invasion of foot-and-mouth disease alluded to last week, for up to the present date there have been outbreaks in different parts of London and Kent, one of them as far distant as the Isle of Sheppey. There is much reason to fear a further extension, as the origin of some of these outbreaks is difficult to trace. It would almost appear as if the malady had obtained a foothold in London before the arrival of the incriminated Danish cattle, for the Government of Denmark has intimated that it is not present in that country; therefore the infection could not come from that quarter of Europe. Already the invasion has caused much inconvenience, hardship, and loss, and in view of the fact that there are now only four small countries from which live cattle can be safely obtained—Sweden, Norway, Spain, and Portugal—the question may well be asked why the importation of living beasts should be tolerated at all. The animals are generally subjected to much suffering in transit, and, considering that contagious disorders are so rife among them on the Continent, great risk is always incurred of having infection brought here with these importations, as in the present instance. It would be far better to depend upon dead meat from abroad than live stock importations. Should the malady become prevalent, then it must be remembered that the milk is infective, and prudence demands that, in localities where there is any chance of that fluid being derived from diseased cows, it ought to be boiled, especially if intended for young children.

FOG.

FOG has long been a subject ripe for legislation, and the reply given by the Marquis of Salisbury to Viscount Middleton in the House of Lords last week was, it must be admitted, somewhat disappointing. It contained no very distinct promise of any attempt being made out of the resources of science to grapple early with the difficulty. He agreed, however, that there were certain remedies which might be adopted if it were expedient to carry out a particularly drastic line of legislation. Considering that at the present time there are no fewer than 700,000 houses within the metropolitan area, in which no less than 40,000 tons of coal are being daily consumed, the remedy, if it is to be a remedy at all, must of necessity be a drastic one. This admitted, what form or shape is it to take? Coal for the present is, and probably will be for a long time to come, our chief source of fuel, and it is with this kind of fuel that we have to deal. The adoption of one particular kind of fuel — viz., anthracite, which is to all intents and purposes smokeless — has been suggested. But can this be carried out in practice, seeing that the yield of ordinary household and steam coal in our collieries far exceeds that of anthracite, while, as Lord Salisbury suggested, the price of that class of coal would be so enormously increased as to prevent its use for all ordinary purposes? It has been boldly proposed also to burn the coal in closed chambers, as in the retorts of our gas works, at a fixed point in or near the city, and so to supply the metropolis with gaseous, and hence smokeless, fuel. If any step may be characterised as drastic, surely this is one. Then there is the question of the enforced adoption of certain stoves and fireplaces, which by their construction shall ensure perfect combustion and the production of invisible or smokeless gaseous products. So long as coal is our common fuel, the remedy, it seems to us, must lie in the

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general adoption of some such arrangement. We have always shown a lively and practical interest in this vitally important matter, because it is one which affects the health and well-being of a large proportion of the community. At the present moment we are engaged on a prolonged and exhaustive inquiry into the action of a new stove which is said to produce no smoke, although it is stated to burn the commonest kind of coal at an economical rate. We hope to lay before our readers the results of this inquiry in the course of a few weeks. In no case can it be supposed that scientific measures will prevent the inevitable formation of mist; but if London fog can be stripped of its colour which is coincident with its irritating character, and which is due to the presence of carbon particles, tarry matter and sulphur, then a vast improvement will have been accomplished, and a giant stride onward in hygienic science achieved. As we have pointed out more than once, even when coal is perfectly burnt or consumed, we still have to deal with the products of combustion of sulphur, which element occurs to the extent of from 1 to 2 per cent. in most kinds of coal. Carbon, hydrogen, sulphur, and nitrogen in coal, when completely burnt in air, produce carbonic acid (CO_2), watery vapour (H_2O), sulphurous and sulphuric acids (SO_2 and SO_3), and a trifling quantity of free nitrogen. Given, therefore, the complete consumption of the coal—that is to say, that no smoke or unburnt carbon is produced,—what is to be done with the combustion products of sulphur? and how will these products (SO_2 and SO_3) alter the character of the fog? We suggested in a leading article some time ago that probably lime or any of the alkalies placed at some point in the chimney could be used to absorb these acids, and those who claim to have secured the perfect combustion of coal by the adoption of a particularly constructed stove should be induced to put this simple suggestion into practice.

THE LEPROSY INVESTIGATION COMMITTEE.

THE fourth number of the Journal of the Leprosy Investigation Committee (Macmillan and Co.), which is issued under the auspices of the National Leprosy Fund, contains an account of the proceedings of the Committee up to the close of last year. It announces the approaching publication in India of the report of the Commission sent to that country in 1890, which will include an appendix containing the results of the laboratory work. Amongst the contributions to this number of the Journal are reports on leprosy in Russia from Dr. Hellat, who records the steps taken to control the disease in the Baltic provinces, and expresses himself strongly in support of its infectiousness, and the necessity for isolation as the sole means to check its spread. Dr. Fagerlund gives an account of leprosy in Finland; and there are two communications from Brazil—one from Consul-General Abbott, and the other from Dr. Azevedo Lima—describing the Leper Hospital at Rio and the condition of leprosy in the country. Dr. Lima says that leprosy has apparently increased in Brazil of late years, but there are no precise data on the point. At any rate, he thinks there must be more than 300 lepers scattered through Rio, many of whom come from the interior. Then follows an abstract of a paper by Dr. Julius Goldschmidt, giving a sketch of the disease in Madeira, where the hospital records show a notable diminution in its extent, there having been during the last fifteen years only one or two cases admitted annually. He estimates the total number of lepers at present in the island to be seventy, or six to 10,000 inhabitants. Although phthisis is not infrequently the cause of death in leprosy, yet a phthisical patient has never contracted the latter disease. Dr. Goldschmidt says that complete isolation of all lepers and their families is the only measure which can eradicate leprosy, and he urges also the inculcation on the healthy part of the population of sound principles of diet and hygiene to enable them the better to resist it. An important contribution to the question of vaccination in relation to leprosy is made by Drs. Beaven Rake and G. A. Buckmaster, founded on observations on vaccine lymph taken from lepers at the Almora Asylum. Forty cases were examined, and in not one were indubitable leprosy bacilli found in the lymph, although in two cases there were some "suspicious-looking rods." In one of these the vesicles were raised over tuberculated ears, and in the other over anæsthetic patches—localities which, they remark, are not likely to be selected for vaccination or for obtaining lymph to be used on healthy individuals. The question of the communicability of leprosy by vaccination is fully discussed in the forthcoming report of the Leprosy Commission. Meanwhile, as evidence of the slight risk of so transmitting the disease, these writers mention the very low proportion of lepers in India that have been vaccinated, the experience gained in Trinidad, the fact that they have never seen undoubted leprosy in any child under the age of six years, and the sole known case of alleged successful inoculation of leprosy—that of Arning in Hawaii—being open to the objection that leprosy is endemic in the Sandwich Islands, and that the disease has appeared in the relatives of the inoculated subject.

INFLUENZA.

THE Registrar-General's returns for the week ending Feb. 13th bear out the opinion that influenza and its associated high mortality are fast declining in this country. The death-rate in London has further declined from 30·6 to 24·6, which is precisely the same rate as obtained at Brighton, and which, moreover, is not far exceeded by any of the thirty-three great towns in the list. The deaths in the metropolis directly attributed to influenza fell to 183, and the cases in which influenza was noted as a secondary cause to 33, the figures under these heads during the preceding week being 314 and 62. The number of deaths from diseases of the respiratory organs was 560, or only 45 above the corrected average. Dr. Tomkins, the medical officer of health at Leicester, reports that influenza is still moderately prevalent in that town, but that the type is considerably milder than last year. Dr. Cameron Kidd, the medical officer of Bromsgrove, Worcestershire, in his report for the month of January showed how much influenza had increased the mortality amongst the aged. Since his report was written he stated that there had been a marked decrease in the epidemic. We understand also that there is a similar subsidence of influenza on the Continent.

HOUSING OF THE WORKING CLASSES IN CHELSEA.

THE Vestry of Chelsea has recently received a deputation from a number of inhabitants of the parish requesting that body to move the London County Council to devote to artisans' dwellings a particular site which had been cleared a short time since for the Chelsea approach to the new Battersea Bridge. The vestry agreed to memorialise the Council in the matter, and we presume that the Council will shortly be called upon to decide the question. Considerable clearances in Chelsea, it is said, have led to the displacement of many of the working classes, and if, without undue sacrifice of public money, accommodation can be provided for working people, it is a very proper thing to do. London, however, cannot afford to be extravagant in these matters, and everything must depend upon the question whether the monetary value of the site makes it prohibitory of being used in this way. The

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changes which are taking place in the metropolis displace more than poor people; small tradesmen, professional men and others, all have to give way to the necessity for metropolitan improvements. No doubt inconvenience is experienced, and every effort should be made to minimise this; but we believe that the true policy of London is not necessarily to attempt to preserve land for any particular class, but to give greater facilities for people to live outside the more crowded portions of the metropolis, and to reach their work by an increase in the train service. London is far too densely crowded in many parts, and to attempt to rehouse working people under such conditions in these localities is no act of kindness to them, nor does it show consideration for their real welfare.

INFIRMARY ACCOMMODATION FOR TOXTETH.

THE need for proper infirmary accommodation in connexion with the Toxteth Workhouse has long been pressing, and matters were in a somewhat forward condition for making the necessary provision until the guardians met again last week, when it was decided that the intended loan of £43,500 for the infirmary was to be withdrawn, and that the contractors and architects should be approached with a view of getting rid of the whole business, until at some future date the subject should be again considered. The attitude of the guardians in this respect is a very serious one. At the meeting in question it was stated that no less than 176 inmates of the workhouse ought to be in an infirmary, which means that a large number of sick people are at present inadequately provided for. And not only so, but there is no proper means for the isolation of infectious cases. Thus the admission of two cases of typhus fever rendered necessary the removal of 100 persons from the ward in which the fever cases had to be accommodated. The utter wastefulness of such a state of affairs must be obvious to all who know the value of the accommodation thus rendered useless. But this is not the only drawback. So long as infectious cases cannot be properly isolated, so long must the sick poor, who are practically detained against their wills by reason of infirmity, be exposed to a source of danger and of death to which those who are responsible for their humane and proper treatment ought not to subject them. We trust that both official and local pressure will be put upon the guardians to right the present evil.

TRACHEAL TUGGING AS A SIGN OF ANEURYSM.

THE value of "tracheal tugging" as a sign of thoracic aneurysm has been investigated by Mr. Harold Grimsdale, of St. George's Hospital, who has communicated the results of his investigation in an interesting paper in the current number of the *Practitioner*. This sign, it may be recalled, was first mentioned by Surgeon-Major Oliver in a letter to this journal in 1878 (vol. ii., p. 406), and it consists in the sense of downward traction of the larynx with the systole when the thyroid cartilage is gently raised between the finger and thumb. But little attention was paid to the sign until last year, when we published communications from Dr. McDonnell of Montreal on the subject (THE LANCET, March 7th and 21st, and April 4th), and since then the observation has been frequently confirmed in connexion with aneurysms of the arch which impinge on the left bronchus. At a recent meeting of the Clinical Society Dr. F. Taylor showed a case which presented the sign in question. Mr. Grimsdale, whilst admitting that the sign is of value, being perhaps one of the earliest indications of an aneurysm in the above situation, shows clearly that it is a phenomenon which is frequently present in the absence of any aneurysmal dilatation of the vessel. In conjunction with Dr. Ewart, an examination was made of 118 hospital patients, among whom no fewer than fifty-one presented "tracheal tugging," the males preponderating. They noticed, however, degrees in the extent to which the tugging took place, and of four cases in which it was "marked," two were cases of aneurysm of the arch, one of emphysema and bronchitis, and one of chlorosis. Seventeen cases showed "moderate" tugging, twenty "slight" (including one of probable aneurysm of the ascending aorta), and seven "very slight." It is especially noted that of ten cases of mitral disease the sign was present only in one; in four of aortic valvular disease it was present in three. It was also present in only one of five cases of phthisis. It was increased by exercise and excitement, was synchronous with the cardiac systole, and almost always more marked during inspiration than during expiration (an exception to this rule being a case of emphysema, in which it was very marked during expiration). In discussing the *modus operandi* of the phenomenon, and endeavouring to harmonise some of the apparent anomalies as regards its presence or absence, Mr. Grimsdale inclines to the belief that it depends upon the aorta being brought into contact with the left bronchus during inspiration by the downward and forward displacement of the heart. He found, further, that it decidedly preponderated in people with full chests and prominent infra-clavicular regions, whilst in the flat-chested and stooping patients it rarely occurred, even under excitement. It would seem, then, that as a positive sign of aneurysm even marked tugging may not be absolutely diagnostic; but its absence "certainly denotes absence of any gross dilatation" of the part of the vessel near the left bronchus. The best plan to obtain the sign is for the observer to stand behind the patient and to gently raise the trachea by the tips of both index fingers placed beneath the cricoid cartilage.

THE PROPHYLACTIC INFLUENCE OF TOBACCO.

DR. V. TASSINARI, of the Institute of Experimental Hygiene attached to the University of Rome, has been attempting to demonstrate the prophylactic advantages of tobacco smoking. He recalls the fact that in the eighteenth century, and even in the seventeenth, a certain number of medical men—Willis, Dimerbrock, and others—advised their friends to smoke in times of epidemic. At Strassburg, in 1842, Ruef called attention to the fact that the workers at the tobacco manufactory were exempt from almost all the prevailing epidemics. Pécholier, in the *Revue d'Hygiène* (1883, p. 523), proclaimed the same opinion, and Dr. Walter Cock of Texas was rash enough to recommend, in 1889, the use of tobacco as a preservative against phthisis. An American dentist—Dr. Miller of New York—made experiments in 1884 with the smoke of tobacco on the micro-germs of dental caries, and declared that the results were satisfactory and conclusive. Dr. Vassili of Naples employed in 1888 a small balloon, which he lined internally with a layer of gelatine containing cholera bacilli. He found that by drawing through this balloon the smoke of from one to four cigars—the number of cigars required depending on their strength in nicotine—the gelatine was completely sterilised. Dr. V. Tassinari has now repeated these various experiments, and maintains that the smoke of tobacco either entirely destroys or in any case retards, the development of the bacillus of cholera, of anthrax, and of pneumonia. Dr. Tassinari published twenty-one charts indicating the action of tobacco on various known microbes, according to the nature of the tobacco and the amount consumed. The latter varied from one to six grammes, smoked in from ten to thirty minutes. The bacilli of Asiatic cholera and that of Friedländer

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(pneumonia) were always completely destroyed, no matter what sort of tobacco was used. The bacillus of anthrax resisted better, and that of typhoid was hardly affected by the smoke. As a practical result of these experiments Dr. Tassinari insists on the utility of smoking as a means of preventing the decay of teeth. He seems to imagine that women suffer more from dental caries than men, and attributes this difference to the fact that but few women smoke. It must be confessed that these experiments are not conclusive. There is a great difference between the sterilising of microbes in nutritive gelatine and in the human being. No one doubts the antiseptic qualities of nicotine. Sulphurous acid is also an antiseptic, but it still remains to be proved that London fogs and London smoke save the metropolis from zymotic disease.

METROPOLITAN PUBLIC GARDENS ASSOCIATION.

THE task which this Association has set itself is the very laudable one of securing available vacant plots of ground in the metropolis and transforming them into gardens for the health and recreation of the people. The Association is alive to the many reasons that could be urged for the existence of these open spaces in increasing numbers and dimensions. Besides the effects—mental, moral, and physical—on the individuals there is the wider consideration of sanitary effects on the population in general. The provision of public recreation grounds is not a mere question of ornamental philosophy, though of the purest sort, but it is a question of social economy and expediency. Those who live in the outskirts of the metropolis have many evidences of the growth of this already vast collection of bricks and mortar. Spots once green and fertile are now soot-begrimed and unrecognisable after the brief period of three or four years, and the consequent aggregation of the population requires yearly to be set off with more extended lung areas in this great city. This Association works in conjunction with the National Health Society. Its membership is increasing, and the good which it has already succeeded in effecting is testimony to the value of its aims. Its work is yearly increasing, and will increase so long as the builder plies his trade.

THE ETHICS OF LIFE INSURANCE AND DEATH CERTIFICATES.

A DOCTOR OF MEDICINE, who has practised for twenty years in the manufacturing districts of Lancashire, writing to *The Times*, seriously impeaches the good faith of his medical brethren in giving certificates to procure life insurance. He says that in his district it is the custom to insure the lives of pretty nearly every man, woman, and child. This is especially the case, it would seem, whenever any serious disease declares itself. And the people classify doctors as "good" or "bad," according to the talent and readiness which they show in giving a euphemism to a disease that is likely to be counted an objection by an office. There are, according to this authority, many "good" doctors who will modify phthisis of two years' duration into bronchitis of three months, cancer of two years' duration into tumour of three months, and so on. This is a serious charge, coming from a medical brother. It is true, he admits that the agents of the various offices, hotly competing with each other, are half willing to have such false and misleading certificates, and that they connive at them, seeing that they are paid according to the business they do. "Doctor of Medicine" declares that virtue and truth do not pay, and that he has had to suffer for refusing a certificate to an obvious drunkard. The evil does not stop here. One lie has to be followed by another, and the death certificate has to be incorrect. Not only so, old people and children, according to this writer, are frequently done to death for the sake of the insurance money. We cannot believe that any serious number of medical men would be parties to such fraudulent transactions, and we hope to see these injurious statements contradicted. If not, it is a matter for grave inquiry. If such charges against any medical man could be substantiated, they would surely amount to "infamous conduct in a professional respect."

SULPHONAL.

IN a lecture delivered at the Congress of German Neurologists in Baden, June, 1891, Dr. Gilbert of Baden Baden describes four cases which were treated in the Sanatorium there. Two of the patients were under treatment for the sulphonal habit, as it had become a perfect mania, so much so that the absence of it caused symptoms similar to those experienced when overcoming the morphia habit. This was not the case with the other two, but serious symptoms were evident. Besides the well-known injurious effects produced by the use of sulphonal, all the four patients were unable to write straightly and distinctly. The characters were unsteady, and in an ascending line from left to right. Attention is called to the fact that although the effects of sulphonal are well known, still it is used as freely as ever. In Germany it can even be obtained at chemists' shops without medical prescription. In conclusion, when the use of this drug seems unavoidable, it is recommended that it should be prepared as follows. Boiling water is poured on the dose of sulphonal and the mixture is cooled by constant stirring until it is just palatable. By this means precipitation is nearly avoided, and the drug enters the stomach in a dissolved form. Thus sleep is said to be generally produced in from fifteen to twenty minutes, and the troublesome feeling of weariness, enervation, &c. usually experienced by the patient on the day following the use of sulphonal does not appear.

THE PHYSICIANSHIP IN ORDINARY TO THE PRINCE OF WALES.

THE appointment of Dr. Broadbent as Physician in Ordinary to His Royal Highness the Prince of Wales will give general satisfaction to the profession. Dr. Broadbent's general reputation as a physician eminently entitles him to this post. It would be unsatisfactory if His Royal Highness had selected a mere specialist as his ordinary adviser. His health is a matter of the highest importance to the nation, and it is most desirable that it should be in the care of one who can regard it from many sides, and bring to the service a large experience.

THE INDIAN OPIUM TRAFFIC.

THE controversy respecting the Indian opium traffic still goes on much after the manner of an artillery duel at long range, and so far without any definite result. A comparison of the arguments used on either side is nevertheless instructive. On the part of the Indian Government we are met with an unqualified denial that the opium habit is decidedly on the increase in the country under its rule, even among those classes or in those localities where it admittedly prevails, and by an assertion that it is effectually held in check by legal restriction. At the same time we are told that opium smuggling tends to develop into a regular trade—a fact which at all events does not strengthen confidence in the decline of the habit. The opposite side of the question was lately presented to the public of this country in a letter by Mr. Donald Matheson, in which he criticises the position and arguments of the non-interference party. The Government of India, he reminds us, is more than a merely regulating authority. It holds a strict monopoly of the trade in opium, is at once the grower, manufacturer, and

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vendor of the drug, and he is naturally disposed therefore to view the question of its use and abuse chiefly from a commercial standpoint. He points out that a statement that the opium consumption is as yet small in comparison with the population of the Indian Empire really furnishes a strong argument in favour of prohibition, inasmuch as it shows that the evil, if early dealt with in this way, may still be effectually extirpated. Finally, he quotes the authority of a declaration made by upwards of five thousand medical practitioners of the United Kingdom to the effect that the opium habit is morally and physically debasing, and that the drug itself should therefore in ndia, as in England, be classed as a poison and sold for medicinal purposes only. Nothing could be simpler or more scientifically accurate than this presentation of the subject. Thus much even the Indian Government may fairly be expected to concede, and we cannot doubt that it would do this and support the admission by practical legislation, but that there come in the rival interests connected with usage and revenue. We can all appreciate in some degree the resulting difficulty of its position, but this is no reason why the work of reform so greatly needed should be neglected. It remains to be seen whether a process of reduction, gradual if not rapid, in this injurious traffic cannot be effected without serious dislocation of present fiscal arrangements. Meanwhile we regard it as an obvious duty to maintain towards it an attitude of opposition, of which we may say that it is not the less impartial because condemnatory of the common use of a purely thera eutic and poisonous agent.

ROYAL COLLEGE OF PHYSICIANS.

THE series of lectures for the present year are announced as follows:—*Milroy:* by Dr. Francis Warner, "On the Physical and Mental Condition of School Children," March 8th, 10th, 15th, and 17th. *Goulstonian:* Dr. Sidney Martin, "On the Chemical Pathology of Diphtheria, compared with that of Anthrax, Infective Endocarditis, and Tetanus," March 22nd, 24th, and 29th. *Lumleian:* Dr. Pye-Smith, "On Certain Points in the Etiology of Disease," March 31st, April 5th, and 7th. The Milroy and Goulstonian lectures will be delivered in the theatre of the Examination Hall, Victoria Embankment.

THE LOCK HOSPITAL, LIVERPOOL.

IT is interesting at all times to contrast the position of a particular disease or operation at the present period with the views of its etiology and treatment held not exactly in the remote but in the comparatively immediate past. The reopening of the Liverpool Lock Hospital has afforded Mr. Fred. W. Lowndes an opportunity of reviewing, in the course of his address on that occasion, the history of its foundation in the form of a ward within the walls of the old infirmary, in 1749; its progress in 1833; and after a period of closure its reopening on Aug. 31st, 1891. Its important work has been performed in a quiet and unostentatious way. Increasing accommodation has been found for a class of patients with whose unfortunate maladies there is but little sympathy beyond the profession, to which, above all, they must look for assistance in times of direst trouble. By the erection of hospitals of this kind objectionable patients were removed from the general hospitals and treated by various methods, which speedily became the subject of study. Mr. Lowndes refers to what may be called the period of confusion in the treatment of venereal disorders, of misconception of its origin, and the generally erroneous nature of its dogmas. The subject is instructive from more than one point of view. The horrible scenes witnessed in metropolitan hospitals were loudly denounced so long ago as 1823 by Sir Astley Cooper, who, observing the miserable treatment of these unfortunate patients, condemned it in no measured terms: "When so infamous a practice prevails I cannot satisfy my own feelings by resorting to milk-and-water language. Patients are compelled to undergo so infamous a system of treatment that I cannot bear to witness it." These words and others like them had been repeated to the students of Guy's Hospital over and over again without any avail. On one occasion they fell on the attentive ear of one who could not rest until they were sent broadcast over the country in the columns of THE LANCET. Within a week of their publication in THE LANCET the venereal wards of Guy's Hospital were opened "under new and improved regulations." The march of progress and investigation has continued ever since. Mr. Lowndes truly remarks "that venereal diseases still demand our careful study, and it follows naturally that provision must be made for the careful observation and treatment of those suffering from them," if not in general hospitals, then in those specially set apart for such treatment. To these assistance cannot be denied on grounds either economic, charitable, humane, or moral; and, although certain pseudo-philanthropists have deemed it their duty to maintain the contrary, to the members of the profession of medicine it is not necessary to point out that a poor person suffering from venereal disease in an acute form, by whose fault soever, is as great an object of charity as any patient can be.

THE TREATMENT OF THE STATUS EPILEPTICUS.

THE *St. Petersburger Med. Wochenschrift* publishes an account of a method of treating the so-called "status epilepticus," which has been successfully adopted by Dr. Kernig. He gives the following particulars of a case treated by this method. A girl in the Obuchoff Hospital in St. Petersburg, after suffering a whole night from almost continuous epileptic convulsions, next morning was unconscious, but without any œdema of the lungs, and with a fairly good pulse. On the convulsions being renewed a hypodermic injection of 0·02 gramme of hydrochlorate of pilocarpine was given, and 1·5 grammes of camphor in an emulsion. Profuse perspiration followed, and the convulsions immediately ceased, but for an hour pulmonary œdema and collapse seemed imminent. These symptoms, however, passed off, and were followed by sound sleep and a good pulse. The patient was made to lie on her side to prevent annoyance from the excessive secretion of saliva.

THE DUSTMAN.

WILL the time ever come when our old enemy the dustman will be abolished? That his rule in many houses is still autocratic all will agree. He removes what he chooses, and will remove almost anything else "for a consideration." If "untipped" he is apt to be offensive; if "tipped," his care and attention in the removal of house refuse still depend greatly on the amount of the "tip." Of the cart in the street and the coadjutor of the dustman we have before spoken; and if we again allude to an unpleasant subject it is only to recognise that here and there a sanitary authority has done something for the public protection. The vestry of St. Giles' has made a step in advance which must have been marked with approval by many a Londoner. In this parish the open and commonly overfilled cart has been replaced by a neat iron waggon covered in segments by curved iron lids. Any one of these thrown open will receive the house tribute without serious risk of the cloud of filthy dust which commonly follows the progress of the dustman. We do not doubt that so enlightened a vestry has issued strict orders that the carts shall never be overfilled. In that case one of the smaller terrors of the London streets has been removed. The Public Health Act of 1891 gave new

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powers to householders, which doubtless have had practical results; but some recent proceedings in the North London Police-court show that there is still great room for improvement. As usual, a public-spirited individual raised the question of the removal of house refuse, and issued a summons against the vestry clerk of Islington. After the issue of the summons the grievance was removed, and the summons therefore withdrawn, but not without a remark from the magistrate that the complainant had done the public good service.

CONSULTATION FEES RECOVERED BY LEGAL PROCESS.

A FELLOW of the College of Physicians is hindered by the by-laws of his College from enforcing payment of his fees in a court of law. And sometimes he has to suffer loss at the hands of ungrateful patients for want of such a power. Mr. Frederick Turner, M.R.C.S., of Buxton, brought an action against Mr. Isaac Ash, of Higher Buxton, to recover £22 fees for certain consultations with the defendant's medical adviser. THE LANCET was referred to as approving a fee of one guinea per consultation in the circumstances, the charge made with an allowance. Various practitioners of Buxton gave evidence in a similar sense. We are surprised that Dr. F. H. Collins, secretary to the Medical Ethical Association of Manchester, having been called for the defence, should, as is reported, have stated that he had never heard of a case of a doctor being consulted twenty-six times in thirteen days. He did not deny that the charges were the regular ones. The judge summed up firmly in favour of Mr. Turner's claim, and the jury, after a short absence, allowed it. The case seems to us interesting as showing that, apart from the by-laws of colleges, there is a remedy for consultants in courts as well as for general practitioners. It is well reported in the *Buxton Advertiser* of Feb. 13th.

INSANITARY DWELLINGS.

AN action has recently been heard in the Court of Queen's Bench which is of considerable importance especially because it may be expected that it will be followed by others where the circumstances are in any way similar. The Housing of the Working Classes Act, 1890, contains a provision which was previously a part of the Housing of the Working Classes Act, 1885. This provision is that "in any contract made after the passing of this Act for letting for habitation by persons of the working classes a house or part of a house, there shall be implied a condition that the house is at the commencement of the holding in all respects reasonably fit for human habitation. In this section the expression 'letting for habitation by persons of the working classes' means the letting for habitation of a house or part of a house at a rent not exceeding in England the sum named as the limit for the composition of rates by Section 3 of the Poor-rate Assessment or Collection Act, 1869." In London this is equal to a rent not exceeding £20. In the case in question the plaintiffs alleged that the tenement was insanitary, that the drainage was defective, and that the flushing apparatus of the water closet was defective so that it was without water-supply, with the result that bad smells prevailed, and four of their children eventually suffered from diphtheria and died. The defendants on their part alleged that the tenement was in a condition reasonably fit for habitation when the plaintiffs took it, and that the insanitary condition of the premises which caused the death of the children was due to the uncleanliness of the plaintiffs themselves, and to their not allowing the rooms to be sufficiently ventilated. In the end the jury returned a verdict for the plaintiffs, with £77 10*s.* damages. With the condition of the house we need not concern ourselves. It was admitted to be faulty, and it is immaterial for our purposes who was responsible for its defects. But the question may seriously be asked, Is the evidence that diphtheria is due to faulty drainage sufficiently strong for a definite opinion to be formed on this point? The published reports of the case make no reference to medical evidence on this point. It appears to have been accepted that insanitary conditions and diphtheria must necessarily be related as cause is to effect. There is not a word as to whether diphtheria was prevalent in the school which the children attended, or any reference to inquiry as to whether there were grounds for suspicion of the milk-supply. The relation of diphtheria to faulty sanitary surroundings is not of a very certain character. Dr. Thorne, discussing this subject in his recent work on diphtheria, says: "I am inclined to regard the influence of a sewage-polluted air as operating in much the same way as the scarlet fever poison, in so far as predisposition to diphtheria is concerned." But this is all, and a hasty conclusion that occurrences of this disease are actually due to such condition is not one which should be made. We need not say that we have no desire to defend persons who may let insanitary houses, nor do we fail to see that the decision in the case to which we have referred may serve as a useful stimulus to landlords. But the fact that an etiological question such as the causation of diphtheria has now attained a monetary importance makes it very necessary that it should not remain obscure. We would gladly see, if it were possible, cases of this sort referred by the Court to a sanitary expert for inquiry and report.

RULES FOR ISOLATION HOSPITALS.

THERE is a not unfrequent demand for a model code of regulations for the control and management of isolation hospitals, their staff, patients, visitors, &c., but owing to the wide differences between the institutions which have been provided by sanitary authorities no general code has ever been compiled. Every new set of rules is therefore of interest, and for the information of those who are concerned in the administration of isolation hospitals we would draw attention to a code which has just been issued by the Health Committee of the Nottingham Town Council. The rules have been compiled by Dr. P. Boobbyer, the borough medical officer of health, and have received the approval of the corporation.

PHAGOCYTOSIS IN RELATION TO IMMUNITY.

THE discussion which opened at the Pathological Society last Tuesday served to show how difficult and intricate is the question of immunity from specific diseases, and also how various may be the interpretations put upon the results of experimental observation. The physiological fact of phagocytosis is generally allowed, and there does not seem to be any serious difference of opinion as to the existence of an influence on the behaviour of leucocytes, to which the term "chemiotaxis" has been applied. But, as Professor Burdon-Sanderson pointed out in the weighty remarks that he made, the wider application of phagocytosis to protection of the organism against the attack of infective virus implies a very great addition to the known powers and properties of the leucocyte. Dr. Sims Woodhead, who naturally went over some of the ground which he has recently dwelt upon in these columns, and who, on this occasion, was the sole advocate of the doctrines of Metchnikoff, anticipated this objection in his remarks on the necessity for special stimuli to evoke the latent properties of these protoplasmic elements of the body; and although Dr. Klein, who assumed a very militant attitude towards the whole theory, pointed out the selective power of the various specific poisons for special tissues, yet it is open to conjecture that it may be just in these tissues that

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the phagocytic action takes place in such diseases. Dr. Klein's criticism, founded on conditions in which leucocytes are apparently destroyed by microbes rather than the reverse, was not so weighty as were his interesting observations upon the behaviour of anthrax bacilli introduced into the lymph sac of the frog. Here he came to close quarters with the supporters of phagocytosis, since he was dealing precisely with a class of experiments upon which a large part of their argument rests. Mr. Kanthack's contribution to the debate was a thoughtful and thorough consideration of the matter. He advanced many objections to the assumption that phagocytosis by itself is adequate to explain the phenomena of artificially induced immunity. But, as we have said, the subject is one which bristles with difficulties, and it is not possible as yet to harmonise the several observations. We cannot expect that the debate will succeed in determining a problem that is engaging the profound attention of the most advanced and thoughtful school of pathologists. It will, however, serve to indicate those parts of the question which most demand investigation, and thus tend to its further elucidation.

INFLUENZA AS AN INFECTIOUS DISEASE.

UNDER the title of "Influenza and the Laws of England concerning Infectious Diseases," Dr. Sisley has reprinted a paper which was read before the Society of Medical Officers of Health. In the course of his remarks he notes with satisfaction the action which the Dover sanitary authorities considered it was "their privilege and duty" to take—viz., to issue in the name of the mayor, aldermen, and burgesses a solemn warning to the public of the dangerous and infectious character of influenza, together with the further information that the disease is often spread by careless exposure of infected persons, and ending up with the threat from the Public Health Act of the usual penalty for wilful exposure of an infected person. Counsel's opinion on the powers of sanitary authorities as to influenza is appended, but it cannot be said to advance matters very materially. Asked whether influenza comes within either the common law rule or the statutory description, it is gravely answered that "it must be within both or neither," that the question is a "very doubtful one," and that a mere announcement of intention to act on the Public Health Act would not expose the local authority to hostile proceedings, and might meanwhile do good. The advantage of making an empty threat seems very much open to question. Merely to threaten to act without the intention, and possibly the power, to do so is far more likely to lead to callous disregard of the really useful provisions of the Public Health Act than to produce any marked influence upon an epidemic which already shows cheering indications of abatement.

THE GYNÆCOLOGICAL AND OBSTETRICAL CONGRESS.

THE official programme of this Congress has just been issued. It bears the signatures of the President, Dr. Kufferath, Professor of Obstetrics at the University of Brussels, and the general secretary, Dr. Jacobs. The Congrès International Périodique de Gynécologie et d'Obstétrique will in future assemble every four years in Belgium and Switzerland alternately. Communications and discussions may be delivered or spoken in French, English, or German. Each member of the Congress must subscribe 30 fr. (24s.) or pay a composition fee of 300 fr. (£12), which will admit him to all future meetings. The opening of the first session will take place at Brussels on Wednesday, Sept. 14th, at 1 P.M., the proceedings to conclude at 6 P.M. on Monday, Sept. 19th. The sittings will be held every day after Wednesday from ten to twelve in the morning and from three to six in the afternoon. Gentlemen who wish to read papers at the Congress are requested to make known their intention before July 1st, 1892. All who desire to join in the discussion on the three chosen subjects (pelvic suppuration, extra-uterine pregnancy, placenta prævia) are recommended to send in their names to the general secretary before Aug. 15th. An exhibition of gynæcological and obstetrical instruments will be held during the sitting of the Congress. For forms of application for admission and all desired information concerning the Congress a letter must be addressed to Dr. Jacobs, General Secretary, 12, Rue des Petits Carmes, Brussels.

DIPHTHERIA AT ESHER.

IT is not many months since we sent a commissioner to report upon the prevalence of diphtheria at Esher. At that time there was a strong local feeling that the disease was in some way connected with the new system of sewers, but the evidence obtained went to show that the grounds for this belief were not very substantial and that other causes had doubtless been in operation. The disease unfortunately still prevails; and the Local Government Board have requested the Kingston rural sanitary authority to instruct Dr. Gibbes, their medical officer of health, to prepare a report as to its continuance, as to the causes of its diffusion, and as to the means taken for its prevention.

WASHING OUT THE STOMACH IN CHLOROSIS.

THE *Wiener Klinische Wochenschrift* refers to a communication by Dr. Pick, who publishes the results of some observations he made in Nothnagel's clinic to determine the relation which exists between affections of the stomach and those not infrequent cases of chlorosis in which the leading symptoms are of a gastric character. Some connexion between the two has been proved to exist in some cases of pernicious anæmia. The *Wochenschrift* does not consider that Dr. Pick's contribution gives a decided answer to the question, but points out the importance of one result of the experiments. He found, as others have done before him, in all the cases an atonic condition of the stomach, which had not digested the food taken on the previous day, although the patient was fasting at the time of the observation. In these cases Dr. Pick was able to cure the chlorosis quickly by washing out the stomach at stated intervals. In several instances no benefit had been derived previously by treatment with iron. Washing out the stomach prevents abnormal decomposition, which by auto-infection causes the blood dyscrasia. Dr. Pick, with the same object in view, and with equally favourable results, administered creasote when flushing could not be resorted to.

CEREBRAL ABSCESS.

IN the Bulletin of the Johns Hopkins Hospital the results of an examination for micro-organisms in the pus of a cerebral abscess is reported by Dr. William H. Welch. The patient, who had met with an accident ten days before his admission to the hospital, and had, the day before admission, what was called a fit, was found to have a suppurating wound below and to the outer side of the left frontal eminence. There was a depressed fracture of the skull underneath, and on this being elevated and removed the dura mater appeared normal. After the operation, for a few days the patient's general condition seemed good; but he soon became dull and lethargic, with periods during which he was much brighter. Without presenting any urgent symptoms previously, he complained of headache, and quickly passed into a condition of stupor and died somewhat suddenly. At the necropsy a large collection of

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green offensive pus was found occupying the centrum ovale in the frontal region, not extending so far back as the central convolutions. The grey matter was only involved at one point, in the middle frontal convolution. Cover-glass preparations were made from the pus in the abscess, and numerous cocci were found in pairs and in small clumps. They presented the usual appearances of the staphylococcus pyogenes. An attempt was also made to obtain cultures on agar-agar, but these, tried in various ways, remained sterile. An interesting point occurs in the fact that the pus had a distinct odour of sulphuretted hydrogen, and a suggestion is thrown out by Dr. Welch that the coccus named (for no other organism was found) may produce in the brain decomposition leading to the production of this gas.

MASON SCIENCE AND QUEEN'S COLLEGES, BIRMINGHAM.

THE legal difficulties as to the amalgamation of these Colleges have been settled by Mr. Justice Chitty in the Chancery Division of the High Court of Justice. He referred the petition of Queen's College to chambers for approval of the scheme, expressing the opinion that, speaking generally, it was a highly beneficial arrangement. By the scheme the medical part of the education now carried on at Queen's College will be transferred to the Mason Science College, thus avoiding a reorganisation of Queen's College and a large extension of its buildings. We look upon this amalgamation as a precursor of a Midland University, and are pleased that such a satisfactory arrangement between colleges so distinct in their inception should have been arrived at.

HYPODERMIC INJECTION OF IODOFORM IN LOCALISED TUBERCULOSIS.

DR. WEIDEMÜLLER, in the *Münchener Med. Abhandlungen*, reports very favourably upon the treatment of localised tuberculosis by the injection of iodoform. This treatment was adopted in twenty-two cases, comprising four of disease of the elbow-joint, four of the knee, five of the ankle and tarsus, and three of the wrist. Of the six remaining cases two were due to multiple tuberculosis, two to indolent abscess, and two to fistula after resection. A solution containing from two to three grammes of iodoform in glycerine was used in each instance, with the following results: two patients were cured, eleven considerably improved, three slightly improved, and in one case only was the treatment entirely unsuccessful.

THE SANITARY STATE OF PUDSEY.

A TRENCHANT REPORT has been issued by Dr. W. L. Hunter on the sanitary state of Pudsey. There is no regular system of drainage, the becks act as main sewers, the road drains are old, shallow, permeable rubble structures, and when opened are frequently found to be more than half full of sediment, some pipe drains being "solidly full." The drains have no means of ventilation, whilst the sewage which escapes from them gets into mill-dams or directly into one of the streams which flow round the town. House drainage, too, is much the same. In some districts scarcely a house is properly drained, and, although a notice was given in 1890 that all sinks should be trapped and disconnected, hardly any of the house-owners took notice of the requirement. Much the same applies to nuisances, and it is added that, on account of what is considerately termed "leniency" on the part of the Board, very little notice is taken of any orders issued as to nuisances. The general death-rate was 21·7 per 1000 last year. This is not a specially excessive one, but the conditions obtaining in the place are precisely such as lead to sudden and heavy preventable mortalities. The building by-laws are antiquated, and damp walls and foundations, together with "jerry" structures, are not uncommon; the slaughter-houses are, in many instances, very defective; and it is clear that grave sanitary defects exist in abundance. The local press, in referring to the report, admits the energy and ability of the sanitary staff, and points to certain excellent work on their part. But it adds that Pudsey is practically in the same state to-day as it was twenty years ago.

THE TREATMENT OF ECZEMA.

THE *Gyógászat* publishes an account of Dr. Berthold Löwengard's new treatment of eczema. He had under his care a child six months old suffering from severe seborrhœa, which had resisted all the ordinary methods of treatment. Upon having recourse, however, to a 2 per cent. solution of creoline, in three weeks' time the disease had entirely disappeared, not a symptom remaining. He has made use of a solution of creoline with equally favourable results in papular and pustular eczema and in eczema of the genital organs. One of the latter cases was complicated with anal fissure, but this healed in four days after treatment with creoline and strict attention to cleanliness. Dr. Löwengard was occasionally obliged to substitute other remedies for the creoline in the course of treatment, but he succeeded in all cases in relieving the painful symptoms of the acute stage.

THE OFFICE OF INSPECTOR OF EXAMINATIONS.

THE appointment of inspectors and visitors of examinations for the General Medical Council will be made for the present year by the Executive Committee. In future the appointment will be made by the Council at its May session. For 1892 the Executive Committee will assign duties to the inspectors and visitors. The committee will meet on Monday for this and other purposes. Those who intend applying should lose no time in doing so.

THE ACTION OF STRYCHNINE ON THE STOMACH.

THE *Khirurgicheski Vestnik* publishes an account of some experiments by Gamper on the action of strychnine on the stomach. Observations were made on seven persons, five of whom were in health, one suffered from gastralgia with excessive secretion of gastric juice, and the last (Gamper himself) from gastric catarrh. The observations extended from twenty to thirty days, and during the first and last week no strychnine was given to excite the stomach. Ewald's test-breakfast was given, and observations were undertaken to determine the volume of gastric juice, the percentage of total acidity, the proportion of hydrochloric acid by weight, the digestive power of the juice, the result of fermentation and the absorbent power and movements of the stomach. Nitrate of strychnia was given at breakfast time in doses varying from 0·002 gramme to 0·005 gramme, but sometimes increased to 0·015 gramme. The activity of the stomach was increased in all respects, with the exception of that due to the ferment and the lactic acid. Gamper attributes the usefulness of the drug to the increased excitability of the medulla caused by the strychnine.

THE TREATMENT OF PULMONARY GANGRENE.

DR. O. HEWDKE of Warsaw, in the *Deutsche Medicinische Wochenschrift*, gives particulars of his treatment of pulmonary gangrene, with notes of four cases. In all these the usual remedies, such as turpentine, creasote, inhalations of carbolic acid, &c., had been tried without effect.

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He then made antiseptic injections into the gangrenous tissue, and during this treatment considerable improvement was observed, amounting in one case to almost complete cure. The syringe used had a capacity of 2·5 cubic centimetres, and was provided with a needle from 5 to 7 centimetres long. Dr. Hewdke first made use of menthol, but as this caused unpleasant symptoms, he substituted a ¼ to ½ per cent. alcoholic solution of thymol, which could be well borne to the extent of from 2 to 2·5 cubic centimetres. Local irritation of the skin or subcutaneous tissue was not observed, except where the injections had been frequently repeated. The mechanical part of the treatment presented no difficulties. Immediately the needle reached the cavity a paroxysm of cough occurred, followed by free expectoration, the patient both tasting and smelling the injected fluid. Dr. Hewdke, with other observers, recommends the selection of recent cases and those presenting superficial and non-tuberculous cavities for this method of treatment.

WE regret to have to record the death of Dr. John W. Taylor, medical officer of health of the borough of Scarborough, which took place suddenly on the 15th inst. from heart disease, while visiting a patient. Dr. Taylor was J.P. for the North Riding, and was frequently engaged by the Local Government Board in investigating outbreaks of zymotic disease, and last year he made a report as to the prevalence of typhoid fever on the Teesside.

The State Board of Health of Louisville, Kentucky, are beginning the prosecution of quacks and travelling doctors for acting illegally. This is one of the many signs of a determination on the part of medical authorities in the States to advance education and to draw a just distinction between those who are and those who are not educated.

THE council of the Sanitary Institute have accepted an invitation from the town council of Portsmouth to hold their annual congress and exhibition in that town in the autumn of this year.

YELLOW FEVER appears to be raging with unmitigated fury at Santos, Brazil. As many as 150 persons are reported as dying in one day.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6459 births and 4514 deaths were registered during the week ending Feb. 13th. The annual rate of mortality in these towns, which had declined from 35·4 to 26·2 per 1000 in the preceding three weeks, further fell last week to 23·1. In London the rate was 24·6 per 1000, while it averaged 22·2 in the thirty-two provincial towns. The lowest rates in these towns last week were 16·6 in Bradford, 17·0 in Birkenhead, 17·3 in Huddersfield, and 17·9 in Leeds; the highest rates were 25·6 in Oldham, 27·1 in Newcastle-upon-Tyne, 30·6 in Preston, and 32·0 in Nottingham. The 4514 deaths included 336, which were referred to the principal zymotic diseases, against numbers declining from 604 to 440 in the preceding four weeks; of these, 192 resulted from whooping-cough, 66 from measles, 46 from diarrhœa, 39 from scarlet fever, 34 from diphtheria, 8 from "fever" (principally enteric), and one from small-pox. The lowest zymotic death-rates were recorded in Brighton, Norwich, and Bradford, and the highest in Oldham, Wolverhampton, Swansea, and Blackburn. The greatest mortality from measles occurred in Swansea, Sunderland, and Liverpool; from scarlet fever in Swansea; from whooping-cough in London, Oldham, Sheffield, Bristol, Wolverhampton, and Blackburn; and from diarrhœa in Swansea and Preston. The mortality from "fever" showed no marked excess in any of the large towns. The 34 deaths from diphtheria included 18 in London, 3 in Sheffield, 2 in Manchester, and 2 in Newcastle-upon-Tyne. One fatal case of small-pox was recorded in Oldham, but not one in any other of the large towns; 8 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and 1 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of last week was 1244, against numbers declining from 1397 to 1274 at the end of the preceding three weeks; 117 new cases were admitted during the week, against 100 and 101 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 1465, 1192, and 761 in the preceding three weeks, further declined last week to 560, but were 45 above the corrected average. The causes of 92, or 2·0 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Portsmouth, Bristol, Norwich, Sunderland, and in seven other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Preston, Sheffield, and Sunderland.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 27·2, 24·7, and 22·0 per 1000 in the preceding three weeks, further declined to 20·8 during the week ending Feb. 13th, and was 2·3 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·1 in Edinburgh and 17·1 in Leith, to 27·2 in Greenock and 30·9 in Perth. The 578 deaths in these towns included 22 which were referred to whooping-cough, 10 to diarrhœa, 6 to measles, 4 to scarlet fever, 3 to "fever," 1 to diphtheria, and not one to small-pox. In all, 46 deaths resulted from these principal zymotic diseases, against 41 and 55 in the preceding two weeks. These 46 deaths were equal to an annual rate of 1·7 per 1000, which was 0·3 below the mean rate last week from the same diseases in the thirty-three English towns. The fatal cases of whooping-cough, which had been 16 and 20 in the preceding two weeks, further rose last week to 22, of which 11 occurred in Glasgow and 6 in Aberdeen. The 10 deaths referred to diarrhœa showed a further increase upon recent weekly numbers, and included 4 in Glasgow. The 6 fatal cases of measles were within one of the number in the preceding week, and were all recorded in Glasgow, where 2 of the 4 deaths from scarlet fever also occurred. The fatal cases of diphtheria, which had been 4 and 10 in the previous two weeks, declined to 1 last week, which was registered in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had declined in the preceding three weeks from 230 to 173, further fell last week to 146, but slightly exceeded the number in the corresponding week of last year. The causes of 41, or more than 7 per cent., of the deaths last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 54·1, 41·5, and 33·6 per 1000 in the preceding three weeks, further declined to 31·8 during the week ending Feb. 13th. During the first six weeks of the current quarter the death-rate in the city has averaged 40·0 per 1000, against 35·8 in London and 20·9 in Edinburgh. The 213 deaths in Dublin during the week under notice showed a decline of 12 from the number in the preceding week, and included 3 which were referred to whooping-cough, 1 to measles, 1 to "fever," 1 to diarrhœa, and not one either to small-pox, scarlet fever, or diphtheria. In all, 6 deaths resulted from these principal zymotic diseases, equal to an annual rate of 0·9 per 1000, the zymotic death-rate during the same period being 2·2 in London and 0·6 in Edinburgh. The fatal cases of whooping-cough, which had declined in the preceding three weeks from 10 to 2, rose again to 3 last week. The death referred to "fever" corresponded with the number in the previous week, and was certified as enteric fever. The 213 deaths in Dublin last week included 29 of infants under one year of age, and 73 of persons aged upwards of sixty years; the deaths of infants showed a slight increase, while those of elderly persons showed a further decline from the high numbers recorded in recent weeks. Six inquest cases and 8 deaths from violence were registered; and 59, or more than a third, of the deaths occurred in public institutions. The causes of 14, or nearly 7 per cent., of the deaths in the city last week were not certified.

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Correspondence.

"Audi alteram partem."

THE GRESHAM UNIVERSITY.

To the Editors of THE LANCET.

SIRS,—In your leading article of last week you referred to a quotation, or supposed quotation, from a speech of mine, with the perfectly justifiable remark that any words of mine were merely the expression of a personal opinion, and therefore, of course, unimportant in the discussion of a question of medical education. But I am not disposed to sit down under the false imputation of having said a foolish thing, and of having injured a good cause by my folly.

In a document put out by an anonymous committee sitting at the Outer Temple, with Mr. C. S. Roundell of Merton College, Oxford, for chairman, and Mr. J. S. Hill, of the Chelsea Branch of the London University Extension Association, for Secretary, after stating that "there is every reason to fear . . . the standard of degrees in the Gresham University will be unduly lowered," this committee without members, whose chairman and secretary are alike unknown to University education and to medical education in London, proceed as follows: "These apprehensions are confirmed by the official utterances of prominent promoters of the scheme, who have not hesitated to purchase the coöperation of the medical schools by the ominous suggestion that the mere qualification granted by the General Medical Council shall also qualify candidates (*per saltum*) for the Albert M.D. degree."

The use of the cant phrase *per saltum* shows that reference is made to my speech at the Westminster Hospital Medical School, which was (very imperfectly) reported in *The Times*, and still more imperfectly quoted—I might say garbled—in the *Quarterly Review*. To all I said I adhere.

In the case of students now studying in the medical schools who have satisfactorily performed a part of their course, I should rejoice to see, and I believe there will be no legal difficulty in providing, that they should have access to degrees in the Gresham University without being compelled to begin their students' course over again. This, however, must be subject to their giving satisfactory evidence of scientific and general attainment. Further, seeing that all students will be compelled to obtain a qualification outside the University at or about the time when they would, if the degrees conferred a qualification, be going in for an M.B. degree, I think it would be well for the medical authorities to consider whether they may not with advantage dispense with the M.B. degree altogether, and allow licentiates to proceed to the M.D. degree, as has sometimes been the case in other universities, *per soltum*. That the standard of the M.D. should in this way be lowered I have not proposed, and am sure it would be scouted by the authorities I was addressing, as such a proposal would deserve. That I said the mere qualification should also qualify for the M.D. degree is an entire mistake.

I am, Sirs, yours truly,

Whitehall, S.W., Feb. 17th, 1892. GEORGE YOUNG.

POST-MORTEM APPEARANCES OF THE BRAIN OF INFLUENZA PATIENTS.

To the Editors of THE LANCET.

SIRS,—With your permission I will briefly state the results of post-mortem examinations of the brain made at the West Riding Asylum in cases of influenza, in order that they may be compared with those quoted by Dr. Althaus from a Danish medical periodical. The morbid conditions described by the Danish observer and dwelt upon by Dr. Althaus in his letter may be summarised as follows:—(1) Hyperæmia at the base of the brain, arteries at base filled to bursting; (2) a most intense hyperæmia of the pia mater and brain; (3) increased consistence of brain and spinal cord; (4) fresh pachy- and lepto-meningitis. In addition, Dr. Althaus infers from the description that intense congestion of the medulla existed. During the spring and early summer of last year the brains of thirteen cases dead of influenza and its pulmonary complications were examined here. The results may be stated as follows, with strict regard to the morbid conditions specified above: 1. The arteries at the base are described as "healthy," "normal," and "atheromatous"; there is no mention of congestion. It is quite improbable that congestion in a remarkable degree should have escaped notice and record. 2. In two cases the "internal membranes" are described as "congested," in one as "perhaps congested." In two others it is stated that the pia contained but little blood. In the remaining cases the lepto-meninges were either normal or showed the changes of chronic brain disease (thickening, opacity). As regards hyperæmia of the brain itself, one case showed "much injection of grey and white matter throughout," and "the internal capsules were notably injected." In another the grey matter was "slightly congested." In a third the white matter was "congested in the posterior part of the brain." In two other cases the brain is described as "pale." In the remaining cases the colour was the average. 3. There is no note of increase in consistence in any of the cases; in nine the brain is said to have been of "reduced consistence." 4. No pachy- or lepto-meningitis in any of the cases. Lastly, if we take (as Dr. Althaus does) the state of the arteries at the base of the brain as a criterion of the vascular condition of the medulla oblongata, it may be inferred that no congestion existed in this organ in these cases, an inference which may be drawn with the greater confidence in view of the fact that the bulb is invariably examined in every necropsy held here. It is therefore extremely improbable that noteworthy congestion would have escaped detection. Apart from the testimony of the records, I am informed by my colleagues, who made the examinations, that they have no recollection of remarkable hyperæmia in any of these cases, whether at the base of the brain or elsewhere. I am, Sirs, yours faithfully,

EDWIN GOODALL, M D Lond., B.S., M.R C.P.,
Pathologist, West Riding Asylum, Wakefield.

Feb. 15th, 1892.

DEATH UNDER ETHER.

To the Editors of THE LANCET.

SIRS,—I beg to forward the particulars of a case of death under the influence of ether, which occurred on Jan. 29th at the Royal United Hospital, Bath. On Jan. 27th I admitted into the hospital, under the care of Mr. Freeman, S. D——, aged thirty-seven, a dustman, who was suffering from a small strangulated right inguinal hernia. He had attended as an out-patient at the hospital on the previous day (and was seen by one of the honorary assistant medical officers), complaining of symptoms which appeared to be due to his drinking habits, he making no mention of the rupture. The patient, although very weak, walked to the hospital on the day of admission. He was placed in bed and the usual measures for taxis were employed; but, these proving unavailing, and his general condition becoming rapidly worse, he was given an enema of brandy, and taken to the operating theatre for the purpose of performing herniotomy. On examination no sign of organic lesion was discovered in the chest, and ether was slowly administered by myself. There was some struggling at the commencement, but anæsthesia was induced in from six to eight minutes, and the operation was begun by Mr. Freeman. Two minutes later breathing ceased (the temporal pulse persisting), after three or four shallow respirations. There was no stertor or mydriasis. The tongue was immediately drawn forward, the head thrown back, and artificial respiration performed, enemata of brandy and injections of strychnia being given and the faradaic current employed to the phrenic nerves. A few ounces of dirty bilious fluid escaping from the mouth soon after, tracheotomy was performed to obviate the risk of any foreign matter being sucked into the lungs. Although artificial respiration was continued for an hour and a half, all efforts to resuscitate the patient were ineffectual, no signs of vitality being noted after the cessation of breathing. A post-mortem examination was made by myself thirty-six hours later. Rigor mortis was marked. On opening the hernial sac a small knuckle of ileum was alone seen. This was very deeply congested, but the congestion did not extend to the mesenteric border, involving only about two-thirds of the circumference of the gut. The bowel was adherent to the sac round the neck, and there were a few flakes of recent lymph on the abdominal side of the ring. Beyond a few atheromatous patches on the aorta above the sigmoid valves and slight

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marginal emphysema, no abnormal appearance was detected in any of the organs of the body.

I am, Sirs, yours obediently,
E. H. BIDDLECOMBE, M.B Lond.,
Resident Medical Officer, Royal United Hospital, Bath.
Feb. 15th, 1892.

THE ASSOCIATION OF DIPLOMATES AND STUDENTS OF THE LONDON MEDICAL SCHOOLS AND THE PROPOSED GRESHAM UNIVERSITY.

To the Editors of THE LANCET.

SIRS,—I am sending you a parchment skin with print of petition attached which you have kindly consented to place in your office for signature by diplomates and students of the London medical schools interested in the movement. May I ask you to be good enough to allow me to announce through the medium of your columns that the original petition is, by consent of the President of the British Medical Association, placed in the Library of the Association at No. 429, Strand, and that other parchment skins have been sent to the deans of the various London hospitals for signature by students and resident diplomates. My committee have found it impossible to send the original petition from house to house, and they trust that the diplomates will so far consult their own personal interests as to put themselves to the slight trouble of calling to sign the petition at one of the places where the skins are left.

I am, Sirs, yours faithfully,
ERNEST W. GREENWOOD, Hon. Secretary.
Serjeants' Inn, Temple, Feb. 17th, 1892.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Hospitals.

DURING the past week or two many of our local medical charities have held their annual meetings, and, unfortunately, with the majority of them financial difficulties are the rule, income and expenditure balancing on the wrong side. At the Children's Hospital a good year's record of work was presented. In the out-patient department 10,571 cases have been treated; whilst the number admitted as in-patients was 1249, the average cost of these latter being £5 18*s.* 9*d.* The reputation of the hospital as a training school for nurses is maintained, 280 applications for admission to the nursing staff having been received during the year. The total expenditure had been £7330, and the ordinary income from subscriptions &c. had fallen £1000 below this amount. Mr. Oliver Heywood, who for many years has been one of this hospital's warmest supporters, foreshadowed the possibility in the near future of some application of public moneys to the support of medical charities, and the Mayor, in his speech at the meeting, more than hinted at the same thing. As a Bill has been introduced into the Commons this session having for its object this very proposal, it is possible public attention may be directed to the matter of rate support to hospitals.—The Hospital for Skin Diseases (which was originally an off-shoot of the Lock) wants to extend its work by providing accommodation for in-patients, and the committee are doing their best to obtain funds for this purpose.—The report of the managers of the Eye Hospital was the exception to the rule; for, without any diminution of efficiency, they were able to point to a balance of £957 in excess of expenditure. They referred with gratitude to the support they receive from the adjoining districts and places outside Manchester, from whence, as with most of our other hospitals, so many of the patients come. Nearly 18,000 out-patients and 1241 in-patients is the record of the year's work here in bald figures.—The Clinical Hospital for Women and Children had its annual meeting, presided over by the Bishop, and the only unsatisfactory item of its report was the adverse financial one. The report showed a deficiency of £1625, and, unless help be forthcoming, the work of the charity will have to be curtailed. Here again Mr. C. Schwann, M.P., who moved a vote of thanks to the staff, alluded to the possibility of support being given from the rates for public hospitals, and expressed himself as being of the same opinion as the Mayor in this respect.—The eighth annual meeting of the Dental Hospital was held yesterday. Up to the present only out-patients have been dealt with, the present accommodation not permitting the treatment of in-patients. The committee appeal for funds to provide a new building, in which the latter can be received. They have procured a suitable site from moneys received from the late Mr. Procter, by whom so many other Manchester charities have been helped, and hope at an early date to have funds sufficient to commence building operations. Last year 12,072 patients were treated, a considerable number of whom were attended in the evening, thus preventing loss of time to poor people engaged at work during the daytime.—At the annual meeting of the Blind Asylum a very discordant note was struck. This institution contains 170 patients, and usually pursues the useful tenour of its way without attracting much public attention. This year, on submitting the minutes for confirmation, a proposal to advance the secretary's salary by £50 was opposed by Messrs. Hobbs and Helm, both of whom have taken an active part in the management. The proposal was, however, adopted by the meeting (which was a comparatively small one); but when the names of the members of the Board for the ensuing year were before the meeting these two gentlemen were blackballed and others substituted. This action has caused much adverse criticism, especially as Mr. Helm is known throughout the city as a warm-hearted philanthropist, helping in the work of more than one local charity with his time, energy, and money.

Hospital Sunday.

Sunday last was set apart as Hospital Sunday, and Saturday next will be Hospital Saturday. This is the twenty-third time in which funds have been raised in this manner for the hospitals here. Last year upwards of £8800 was obtained. Sunday last was, unfortunately, a wet day, and not propitious for the occasion. The committee appeal strongly this year for assistance from the numerous towns and districts which furnish so many of the patients to our hospitals, though many of these have of late years either erected or enlarged their own local hospitals.

Town Refuse.

Suburban districts, like cities, are getting the problem of disposal of their refuse prominently thrust upon them. The Withington Local Board, whose township borders closely on us, has been making application to borrow money for the erection of a destructor, but was opposed by one of our boards of guardians on the ground that the site was in too close proximity to their workhouse. Seeing, however, that the distance therefrom was between three and four hundred yards, and that many towns have them working, apparently without nuisance, in the midst of dwelling-houses, the opposition appears scarcely called for.

Drink or Apoplexy?

It sometimes happens that the police are blamed for keeping persons locked up in a cell as drunk when the unfortunate individual has been suffering from cerebral hæmorrhage. The difficulty which is at times experienced in diagnosing these cases has received an unfortunate illustration recently. A man who had been drinking and fighting was taken to the infirmary with a scalp wound. After being dressed he was sent away in charge of the police, who locked him up as drunk, but shortly afterwards brought him back to the infirmary by order of the inspector, who thought him suffering from something more than drink. He was again examined by the house surgeon, together with another resident officer, who both failed to detect any symptoms of serious injury, and he was again sent back to the police cells. The following morning he was admitted to the infirmary in an unconscious condition, and died a few hours afterwards. At the post-mortem examination was discovered a fracture at the base of the skull, with extensive hæmorrhage into the brain.

Medical Scholarship.

Slowly year by year the number of prizes and scholarships in the medical department of the college are increasing. Under the will of the late Mr. Henry Agnew £1000 is provided to found another medical scholarship. By the same will the Children's Hospital benefits to a like amount.

Influenza &c.

Hitherto we have escaped the prevailing epidemic fairly well. Four or five deaths a week the last month is the sum total of the mortality caused by it, and at present there are

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no signs of any serious extension. The death-rates of both Manchester and Salford have of late been below our usual average. The carelessness of the public, or some sections of it, with regard to infection had an illustration last week, when a man was summoned and fined for taking the dead body of his child (who had died from scarlet fever), enclosed in a coffin, by passenger train from Manchester to Macclesfield, the coffin being placed in an ordinary third-class compartment.

Manchester, Feb. 16th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle Dispensary.

FROM the report read at the annual Court of Governors of the Newcastle Dispensary, the Mayor in the chair, it appeared that 8378 letter patients and 15,355 casuals had been treated during the past year. The financial state of the institution was satisfactory. The receipts amounted to £8200, and the ordinary expenditure to about £3000, so that there was a substantial balance in hand. The committee, having regard to the strong financial position of the institution, felt that they would be carrying out the wishes of the founders and aiding the recovery of the patients if provisions for establishing a convalescent home were made, or arrangements entered into so that patients could be sent to some such home. The Mayor suggested that, having regard to the size of the city, a dispensary might be placed at each end, which would relieve the patients and their friends, who at present had to travel a long way to the Central Dispensary.

North of England Microscopical Society.

At a meeting of this Society held last week in the Hancock Museum, Newcastle, Mr. R. Ellis, F.R.C.S. Ed., in the chair, Mr. G. E. Williamson, F.R.C.S., gave a demonstration of the methods of preparing animal tissues for the microscope microtomes of American and other designs capable of cutting with rapidity and accuracy to the ten-thousandth part of an inch in thickness. A portion of the retina of the human eye, having been embedded in paraffin, was thus cut. Mr. Williamson also showed practically how the paraffin and xylol method, besides supplying the requirements of a large class of students, could be modified to serve as a quick and reliable guide to the surgeon in the diagnosis of diseased tissue.

Malton Dispensary.

The annual meeting of the Malton Dispensary has been held, and the report showed that the institution was working very efficiently, and its benefits had been fully appreciated by the poor. A sum of £600, which was left by the late Mr. Beckett, had been invested, and there was a balance in hand on the year's working of £15 8*s*. Since the opening of the dispensary nearly 18,000 patients had been treated.

Newcastle Health Society.

Dr. Hume inaugurated the second session of the Newcastle Health Society on the 6th inst. by a lecture on the Human Foot and Foot Clothing. Dr. Hodgkin presided, and the theatre of the Literary and Philosophical Society was crowded. The complex and beautiful structure of the foot was illustrated by limelight views.

Influenza in the Northern Counties.

I think there is a general subsidence of the influenza epidemic in the Northern Counties, where its ravages have been very serious. The medical officer of the Northallerton sanitary authority has reported that it prevailed in the district during the whole of January, and has materially increased the death-rate, particularly amongst the aged. In the Normanby district of Middlesbrough the death-rate is still reported as exceptionally high. Dr. Glen states that this is not to be wondered at when the vast numbers of persons who were stricken with influenza is considered, the disease in many cases being complicated with some chest affection. Towards the end of last month he says there was a marked decrease in the number of cases of influenza, but several cases of measles were observed in the northern part of the district. In the Whitby district and various parts of North Yorkshire a grave form of pneumonia has been prevalent, and the medical practitioners have been fully occupied. I hear, however, that lately the attacks have been less numerous and not so severe.

Darlington: the Nursing Difficulty.

At a late meeting of the Darlington Guardians Dr. Drury stated that the greatest difficulty had been found in treating the poor and the class above the poor, owing to their ignorance of nursing. As showing the want of practical knowledge which prevailed, he instanced the use which had been made of the beef supplied to the poor for the purpose of making beef-tea. The liquid, he said, resembled water, whilst the meat, which had been boiled in large chunks, was put into a pie.

Berwick: the Improvement of Spittal.

A movement is on foot by the Berwick sanitary authority to improve the village of Spittal, the watering-place and suburb of Berwick. Spittal, which derives its name from a leper hospital founded here by Edward I., is a place of considerable natural attractions. It has already some good hotels and lodging-houses, and a mild chalybeate spring—the spa well, once in considerable repute in scorbutic and allied affections. It is proposed to publish the analysis of this spring and to borrow £1000 from the Local Government Board to replant the main street with trees and to improve the sewerage. In former times Spittal fishermen were much addicted to smuggling, and it was one of the most noted places on the coast for landing contraband goods. In the old houses were secret holes and nooks made to stow away a whole cargo. In some instances the soil underneath the kitchen floors was entirely removed to form places of concealment for kegs of brandy and gin and bales of tobacco.

I regret to hear that the accounts of Dr. Heath's health are not so satisfactory this week.

Newcastle-on-Tyne, Feb. 17th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal Edinburgh Hospital for Sick Children.

THE annual meeting of the contributors to this hospital was held on Feb. 12th. In the report submitted to the meeting it was pointed out that the distance from town of the building at present used was somewhat against patients finding their way to it, and that the dispensary work had been carried on at considerable disadvantage. The number of patients treated in the wards during the year was 571, the number at the dispensary 6054, and the number of vaccinations 111. The number of patients treated since the hospital had been instituted was 173,770. The income for the year was £5044, being a considerable increase over the preceding year, and the expenditure was £6047, which, however, included special outlay on their present premises. The legacies showed a considerable falling off. Reference was made to the negotiations with the Royal Infirmary; but as these had fallen through, the directors had decided to rebuild the hospital on the old site, and the architect had prepared plans which had been approved by the Board. They had been requested to confer again with the Royal Infirmary managers, and they would of course be glad to meet them, and to talk over the possibility of mutually satisfactory arrangements being made if practicable. Intimation had recently been received by the directors of several large benefactions; one of these was a gift of £10,000 from Lady Jane Dundas, in memory of her sister, Lady Caroline Charteris. Half that sum was to be expended under special arrangements on the new building, the design for which the donor has seen and approved, and the other half was to be devoted to the perpetual endowment of ten beds in the hospital.

Health of Edinburgh.

The mortality last week was 75, and the death-rate 15 per 1000. Diseases of the chest accounted for 30 deaths, and zymotic diseases for one. The intimations for the week were: Typhus fever 1, typhoid fever 1, diphtheria 3, scarlatina 18, and measles 92.

The Universities Commission.

The commissioners have just issued four ordinances dealing with the following: Regulations for degrees in medicine (Ordinance 16); regulations for degrees in arts (Ordinance 11); regulations for degrees in science (Ordinance 12);

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and regulations as to examinations (Ordinance 13). The points of interest in these bearing upon the medical curriculum and examinations will be referred to fully next week.

Edinburgh Royal Infirmary Extension.

On Monday a conference took place between a deputation of the managers of the Royal Infirmary and the directors of the Sick Children's Hospital with reference to the proposed acquisition of the site of the latter for the extension of the Royal Infirmary. The agreement come to was that the managers of the Royal Infirmary should make a definite proposal to the directors of the Sick Children's Hospital with reference to the acquisition of the property.

Aberdeen Hospital for Sick Children.

The report for last year submitted at the annual meeting of the subscribers and friends of the Children's Hospital shows that during the year 555 patients were treated in the wards, as compared with 484 in 1890. Of the 555 patients, 346 were cured; 84 improved; 42 unfit; 31 died, and there were 50 in the wards on Dec. 31st. Of ophthalmic cases 94 were treated in the wards, and there were 43 out-patients. The dental operations during the year numbered 52. In the out-door department there were 757 cases treated. It is noted that of the fatal cases 6 died within twenty-four hours of admission. The convalescent cottage, known as the Eidda Home, was open from June 3rd to Oct. 30th, and during that time 47 children had the benefit of several weeks' stay in the country, and 9 more were received into Dyke Neuk Cottage—a convalescent home also situated on Deeside a few miles from the city, and under private management. The increased number of patients means a proportionately larger expenditure for the year, which was £2001 2*s.* 2*d.* as compared with £1717 8*s.* in 1890; and the accounts for the year show a deficit of £101 2*s.* 8*d.* At the end of 1890 the debt on the hospital was £1670 5*s.* 7*d.*; but during the year legacies and donations were received amounting to £2374 10*s.*, and the available portion of this sum has reduced the debt to £716 7*s.* 11*d.*

The late Dr. J. W. Hutchem.

In his report on the health of the city of Aberdeen, submitted to the Town Council on Monday, Dr. Hay says: "It is with very painful feelings that I allude to the death from influenza, during the month, of Dr. J. W. Hutchem, my medical assistant for the past three months at the hospital. Dr. Hutchem was greatly esteemed by myself, the matron, the nursing staff, and the patients, alike for his high personal qualities, his professional ability, and the faithfulness of his services.'

Health of Aberdeen.

The death-rate continues high; that for the present month exceeds the average of the last ten years by nearly 30 per cent. For the last week it was over 29 per 1000. During the week five deaths from influenza were recorded.

Seizure of Unwholesome Food.

During the month of January the sanitary inspector seized as unfit for human food 1746 lb of beef, 38 lb. of mutton, 12 lb. of potted meat, and 1946 lb. of fish. At the police-court, on Saturday, 13th inst., two farmers were each fined £5, with 16*s.* 3*d.* of expenses, for having in their possession or owning two parcels of beef which was intended for human food, and was unfit for such purpose.

Professor Grainger Stewart is now rapidly recovering from his attack of influenza, and is expected to be able shortly to resume his professional duties.

Feb. 16th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Surgeons in Ireland: the New Schools of Surgery.

THE new schools which have been built in connection with the Royal College of Surgeons were formally opened by the president of the College, Mr. Croly, a few days since. The schools constitute a new wing at the rear of the College, and include a dissecting-room, a smaller dissecting-room for lady students, a chemical laboratory, and a lecture theatre. The School of Surgery of the College was established in the year 1790, and in the following year the Government gave a grant for its improvement. In 1811 a further grant of £2000 was made by the Government for the same purpose. The school buildings were gradually enlarged, and in 1882 a sum of £3500 was expended by the College in further improvements. In 1885 the school was opened to lady students, many of whom have since passed with distinction for the licence. In 1889 the Carmichael School of Medicine, which had been in existence from 1826, and the Ledwich School of Medicine, which was established in 1836, were amalgamated with the College of Surgeons School. This necessitated increased accommodation, and last year the College resolved upon the construction of the building, at a cost of £5000. The principal dissecting-room, which accommodates 400 students, is seventy-four feet in length, by sixty-four wide and about twenty-two in height. The roof, of which the central portion is higher and is glazed, is supported by metal columns and beams; it is composed of asphalted concrete, and is fireproof. The floor is of concrete asphalted, and is also fireproof. The ladies' dissecting-room is about thirty feet square. The chemical laboratory is sixty-four feet by twenty-eight. It is already filled with chemical appliances, and has been used in connexion with the chemical lectures during the last few days. Dissecting tables of teak extend round the walls of the principal dissecting-room, and the ladies' dissecting-room is also fitted with teak tables. All the rooms are provided with electric lamps, and are heated by a system of hot-water pipes. There is also a bone-room, in which specimens of human bones are preserved for purposes of study, and a lift extends through the rooms by means of which the subjects are raised from a cellar below, where they undergo a process of preparation before being used for dissection. Mr. H. Gray Croly, President, will give a banquet on Monday evening, March 14th, at the College, to celebrate the first biennial presidency of the College. His Excellency the Lord-Lieutenant has accepted Mr. Croly's invitation to be present.

Irish Dispensary Medical Officers.

A conference to consider the grievances of dispensary medical officers in Ireland was held on Wednesday at the College of Surgeons. Representatives of the Irish and British Medical Associations, the Irish Graduates' Association, and also delegates from various meetings held by Poor-law medical officers were present. The three chief requirements for the present medical officers of dispensaries would appear to be compulsory superannuation, increase of salaries, and some modification of the visiting ticket system.

Proposed Hospital for Consumption.

Opinions are divided as to the necessity for an institution for phthisical patients near Dublin. It is pointed out that to add another hospital to those already existing would be very unwise, and would add another tax on the charitable public, already overburdened with appeals. It is suggested that instead of a separate hospital for consumption being erected at an enormous expense, which would require several thousands of pounds annually to keep it up, additional wards might be erected in connexion with the Royal Hospital for Incurables, which could be carried out and endowed at a comparatively moderate expenditure. A meeting of the promoters will be held this week to consider the matter.

Green-street Court-house.

The Lord Chief Justice last week, in addressing the Grand Juries of the City and County of Dublin, spoke in strong terms in reference to the insanitary condition of the court-house. He said he did not know who was responsible for this condition of things. If it was the Government who were to blame, it was a disgrace to them, and the same would apply to the Corporation. The place was pervaded by a mephitic atmosphere, and exhalations which proceeded from beneath the floor of the courthouse were pestiferous, and sometimes absolutely overpowering. His lordship said that if he did not find before the next Commission that some practical move had been taken to remedy the state of things, he would summon a meeting of the common law judges and take counsel with his brethren on the bench as to whether they could not go elsewhere. The disgraceful condition of this courthouse has on numerous occasions been referred to in these columns, but redress seems as far off as ever. If the Government, who are primarily to blame, would subscribe handsomely, the Corporation and the citizens would undoubtedly help to erect a proper courthouse in place of the present inconvenient and dangerous structure.

University of Dublin: Tercentenary.

It is contemplated to establish a graduates' memorial of the tercentenary, to take the shape of a building in which

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the various College societies can be accommodated. A meeting of those interested in the movement took place on Tuesday, and was presided over by Lord Rosse, Chancellor of the University. Already some 6000 circulars have been issued to graduates of the University, both at home and abroad, and the replies already received have given convincing proof that a fund will be obtained which will be ample for the proposed project.

Health of Dublin for the Last Quarter of 1891.

During the December quarter the births registered in the Dublin Registration District numbered 2133, or 24·6 per 1000, and the deaths 2584, or 29·8 per 1000, being 2·4 above the average for the fourth quarter of the past ten years. Zymotic diseases caused 335 deaths, or 109 over the number for the preceding quarter, the increase in the mortality being principally due to the prevalence of enteric fever, which caused 105 deaths, being 54 in excess of the average for the corresponding quarter of the last ten years. There were only 4 deaths registered from typhus fever. Whooping-cough caused 48 deaths, influenza and its complications 32, measles and scarlatina 2 each, and diarrhœa and dysentery 83. To deaths from diseases of the respiratory system were due 626.

Ulster Eye, Ear, and Throat Hospital.

The twenty-first annual meeting was held on Feb. 15th, and from the report I learn that 1515 patients were treated during the year, of whom 179 were intern. The committee urge the need of extension of the premises, and state that, with £600 in addition to the £400 they have in hand, they could undertake the desired addition. Owing to the fact that in order to put the public and private departments of the hospital in the best condition a considerable sum of money has been spent, the debt has increased to £130 12*s.* 5*d.* The total receipts for the past year amounted to £542 15*s.* 9*d.*, and the total expenditure to £647 19*s.* 11*d.*, of which £91 8*s.* 11*d.* was for furnishing. In the medical report I gather that some fifty-two operations for cataract were performed in the past year without the loss of a single eye. Clinical instruction has been given to a class of students of the Belfast Medical School, in accordance with the regulations of the Royal University, and the most perfect scientific appliances are being provided for demonstration and instruction.

Belfast Hospitals.

On Feb. 15th Captain M'Calmont, M.P., asked the Chief Secretary in the House of Commons whether, in consideration of the fact that a sum of close upon £16,000 is voted annually by Parliament for the maintenance of hospitals in Dublin, he would be prepared to recommend that an annual grant should also be made to similar institutions in Belfast, which are of necessity supported entirely by voluntary contributions. In his reply, Mr. Jackson, M.P., said he was not aware of any proposal to make grants from public moneys to the hospitals in Belfast or any other cities of the United Kingdom. Nor did he think, if such a proposal was made, that it would meet with the approval of the House. It is felt in Belfast that Dublin has no special claim whatever to this grant. Belfast now pays a larger sum to the Imperial revenue than does Dublin, and the mere argument that custom or prescription gives a right will not stand in these days. It is also urged that Dublin has a metropolitan title. Then, again, in the question of population, Belfast is now as large; indeed, some authorities say it is larger than Dublin. In commerce it is far away the leading city of Ireland, and it can hardly be urged that the Dublin hospitals are, as compared with those in Belfast, entitled to be called metropolitan. It is quite evident that this subsidising of the Dublin hospitals out of the Imperial exchequer is an anomaly which will have to be done away with sooner or later.

Mr. Thomas George Stevens, L.R.C.P.I. &c., has been appointed Assistant Medical Superintendent of Dundrum Criminal Lunatic Asylum.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Treatment of Pneumonia following Influenza.

IN these days of influenza, in which disease pulmonary complications are so common, the opinion of such a competent therapeutist as M. Huchard on the treatment of these complications may be worthy of transcription. That authority (Soc. de Thérapeutique, Feb. 10th) reminded his audience that the pneumonia observed amongst sufferers from the prevailing epidemic assumed various types. In some, the pneumonic fever belongs to the ordinary fibrinous variety, the characteristic micro-organism being the pneumococcus. In another class of cases we meet with bastard pneumonia, in the non-rusty expectoration of which we find the streptococcus. This kind of pneumonia is apt to relapse more than once. Other varieties of pneumonia are those characterised by (*a*) rapid evolution with purulent expectoration; (*b*) pulmonary collapse, or "massive" congestion of the lung with gummy expectoration; (*c*) abundant subcrepitant râles without a souffle, death occurring from dyspnœa and adynamia. Empyema or pulmonary gangrene may be superadded, and bring about a fatal result. In all these forms the dominant factor is the state of nervous asthenia in which the patient is plunged, and, consequently, all modes of treatment should be directed less to combat the actual pulmonary lesion than to sustain the action of the heart, and, in a subsidiary degree, encourage the elimination of the toxines through the renal filter. This double object is attained by the administration of digitalis given from the very commencement concurrently with an exclusively milk diet. M. Huchard has for a long time discontinued the employment of the infusion of foxglove, preferring crystallised digitalin in a solution of 1 in 1000. Of this solution he administers forty or fifty drops (equal to one milligramme of the alkaloid) once a day for the first two days. Should the prostration be profound hypodermic injections of caffeine, ether, or camphor (in solution of 1 in 10 in sterilised olive oil), twice or oftener a day. If within a week a resumption of this digitalis treatment be indicated, half of the above dose is given. Intestinal and buccal antisepsis is also given a prominent place in the treatment, five or six *cachets* a day of fifty centigrammes each of benzonaphthol being relied on for the one, and a mouth-wash of corrosive sublimate for the other. Should the caffeine, ether, or camphor prove insufficient remedies for the asthenia, M. Huchard has recourse to subcutaneous injections of sulphate of strychnia two or three milligrammes a day. In all cases the treatment is completed by the daily exhibition of one or two teaspoonfuls of a mixture composed of equal parts of tincture of kola and tincture of coca, the vehicle employed being either a cup of hot milk or diluted curaçao.

Lady Students in Paris.

From a report just issued I learn that the number of ladies pursuing their studies at the various faculties of Paris has increased from 152 in the year 1890 to 252, the actual figures. An analysis of the nationality of these fair aspirants to academic honours tells us that at the Faculty of Medicine 18 are French, 6 English, 3 Roumanians, 2 Turks, 1 Greek, 1 American, and no less than 103 Russians. At the Faculty of Sciences there are 14 foreigners to 5 natives. At the Faculty of Letters, however, the French take their revenge, 82 out of 97 being *citoyennes* of the French Republic. Three ladies, all Russians, have graduated during the last year as Doctors of Medicine.

Erysipelas at a School.

It is not often that one hears nowadays of a school being evacuated on account of an epidemic of erysipelas. Such, however, has been the case recently at Vitry-le-François, where the pupils of the ladies' college have been sent to their respective homes from this cause. The *Progrès Médical* remarks very truly that such an occurrence as a serious outbreak of erysipelas should be an impossibility in these enlightened days.

Traumatic and Gastric Origin of Tachycardia.

Professor Le Dentu relates the following case in a recent number of the *Médecine Moderne*. A cabman, aged forty-nine years, fell off his box, and when picked up was found to have sustained an extensive scalp wound, with denudation of the skull. On the following day the patient had an attack of tachycardia (from 200 to 300 pulsations a minute), lasting about fifteen hours, the attack being preceded and followed by arhythmia and cardiac intermittence. There was only a trifling elevation of temperature (37·8° to 38·7° C.), and no cardio-vascular or cerebral signs or symptoms were observed. For some time previous to the accident the patient had suffered from palpitations, but there appears to be no reason to doubt that the above access was caused by the traumatism. Such a connexion

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has not, to my knowledge, been pointed out before. With regard to the gastric origin of this distressing neurosis, a case recently treated by Dr. Barnard of Paris is very instructive. The patient was an American lady, aged about forty-two. She was found lying flat on her back, not daring to make the slightest movement. The cardiac pulsations were so rapid that their enumeration was almost impossible. There were no abnormal cardiac sounds, and the other organs were recognised to be healthy. The patient had suffered previously in the same way in her own country, and she had never derived benefit from any of the remedies, including digitalis, that had been administered, the attacks seeming to subside spontaneously. The remedies now successively tried were a belladonna plaster and an ice-bag over the heart, bromide of potassium, bismuth, and digitalis. Not the slightest benefit accruing, Dr. Barnard administered at 11 P.M. an emetic of twenty grains of ipecacuanha and one grain of tartar emetic. The vomiting brought the pulse down at once to 112, and the patient was left for the night, much relieved. On the following morning the pulse was 82, and the lady quite well. Dr. Barnard, I believe, was led to try an emetic in this case by a remark made by his patient to the effect that, in a previous attack occurring in London, she dated her recovery from the moment when, "in consequence of the nasty messes prescribed by her doctor," the stomach rebelled and expelled its contents.

Jacques Inaudi.

Poeta nascitur non fit. The feats of Jacques Inaudi at the Académie des Sciences last Monday week seem to prove that the above axiom is as applicable to arithmeticians as to poets. Inaudi is a native of Piedmont, twenty-four years old, and of short stature. The size of the head is rather below the normal standard, the forehead is very lofty and straight, and the facial angle well developed. That his calculating powers are of a very high order, and his memory something quite extraordinary, is proved by the following experiments performed before the assembled academicians. Facing the audience and consequently turning his back to the blackboard, M. Darboux writes on this latter the following figures: 4,123,547,238,445,523,831 and 1,248,126, 158,234,128,910, and, after having called them out, asks Inaudi to subtract the one from the other. Inaudi repeats the numbers quite correctly, closes his eyes firmly, and immediately answers correctly. M. Darboux then puts the following question: "What number is it whose square and cube added together equal 3600?" In less than two seconds Inaudi replies "15." M. Poincarré then gives the following problem: "Give the square of 4800, subtract one and divide by six." At the same time, M. Bertrand asks: "On what day of the week did March 11th, 1822, fall?" Inaudi replied immediately, "The 11th of March, 1822, was a Monday, and a person born on that day would have lived to-day, had he survived, so many hours, minutes, and seconds." (All these figures were found correct.) "The result of the calculation proposed by M. Poincarré is 1960." These astonishing feats of rapid calculation greatly surprised the scientific men present, and the Academy forthwith appointed a committee, composed of MM. Darboux, Poincarré, Charcot, Chauveau, and Tisserand, whose duty it will be to report on the mnemotechnic methods employed by this wonder of the nineteenth century. It is said that Inaudi can hardly read or write.

Paris, Feb. 17th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Treatment of Cancer.

IT is reported that several Berlin cancer patients have asked Professor Billroth of Vienna whether he would advise them to subject themselves to the treatment proposed by Professor Adamkiewicz of Cracow, and that Professor Billroth has answered that he has not yet seen any cancer patient cured by the treatment.

Rohrbeck's Disinfector.

A work which has been carried on for a long time past with great care and perseverance has now been finished. Its purpose was to clear up the numerous obscurities and contradictions that had come to light in the researches of various observers on sterilisation and disinfection. It was undertaken by Dr. Hermann Rohrbeck and H. C. J. Duncker, a veterinary surgeon in the service of this city. Their first endeavour was to find sure aids and means of control for the practical execution of the requirements that the articles to be disinfected must be interpenetrated by saturated steam of 100° C. It was possible to ascertain the heat in the inmost parts by means of electric contact-pyrometers, but the difficulty has hitherto been to determine the moisture there. Dr. Rohrbeck proved in 1889 that different kinds of steam possess different disinfecting powers, and that it is necessary entirely to remove the air from the articles to be disinfected if the steam is to penetrate them thoroughly. He constructed a disinfector which warrants the production of saturated steam and the complete elimination of the air. Duncker afterwards invented new electric pyrometers and hygrometers, which enabled one to observe the advance of the steam inwards step by step. It deserves special mention that the condensation of the steam in Rohrbeck's apparatus, with a view to removing the air, considerably increases the temperature of the articles to be disinfected.

Professor Virchow.

On the 9th inst. Professor Virchow addressed the following to one or more of the Berlin papers: "Cincinnati papers publish lengthy advertisements, according to which the 'great German physician,' Dr. Karl Virchow Schick, has arrived there from Berlin and opened his consultations. It is alleged that he has made important discoveries in the germinal treatment of chronic diseases, and that his prescription is used by 806 doctors in Europe. Permit me to remark that, according to the official lists, there is not and never has been a physician of this name in Berlin or in Prussia, and that such a one from the other states of the German Empire is also not known. It is hoped that this notice will suffice to induce the American papers to oppose the tactics of the gentleman in question."

Professor Franz König of Göttingen, an eminent German surgeons, celebrates his sixtieth birthday to-day.

Berlin, Feb. 16th.

VIENNA.

(FROM OUR OWN CORRESPONDENT.)

The Coagulation of the Blood.

THE experiments of Dr. Ernest Freund of Vienna on the conditions which prevent the coagulation of the blood have been from time to time reported in the pages of THE LANCET. He has found that the non-coagulation of the blood in the living bloodvessels is due to the physical action of the walls of the vessel, and he has been able to preserve shed blood from coagulating for many hours or even days by contact with oily liquids and fatty matters, such as vaseline or oil. The blood could also be kept liquid in animal membranes or parchment paper tubes soaked in physiological solutions of common salt (½ per mil.). From these experiments he has come to the conclusion that the physical condition for coagulating the blood is adhesion. In his paper on "The Formation of the Phosphate of Lime as a cause of Coagulation," Dr. Freund has pointed out that coagulation of the blood is due to phosphate of lime being formed and becoming insoluble. His views have been confirmed to a great extent by Green, Ringer, Sainsbury, Haycraft, Pekel, and others. It has also been found by Arthus and Pagès that the blood remains liquid if the lime salts are made insoluble by the addition of a small quantity of oxalate of ammonium, and that the coagulation is then produced again by adding a solution of calcium chloride. These latter facts have been made use of by Dr. Wright in his recent experiments on blood transfusion. But while in the experiments of Arthus and Pagès and Wright the blood remained liquid on account of the formation of an insoluble lime salt, Dr. Freund has now found a substance which prevents the coagulation of the blood by keeping the phosphate of lime dissolved. By receiving the blood into a vessel containing small quantities of citrate of ammonium or of citrate of sodium it loses its coagulability, as has been shown by experiments made by Dr. Freund at a recent meeting of the Vienna Society of Physicians. In this case the phosphate of lime is kept dissolved by the action of the citric salt. Solutions of from 0·2 to 0·4 per cent. were used. By these experiments a new direction seems to be given for

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working out practical problems like that of blood transfusion and of hæmostatic action.

Influenza.

According to the last official return the influenza is decreasing in Vienna, only 118 cases having been notified during the week from Feb. 7th to 13th. It is to be noted that the disease was raging more among the wealthy people than the poor.

Vienna, Feb. 16th.

THE SERVICES.

AS we announced some time ago, Surgeon-Colonel Bradshaw will, on promotion, succeed to the post of Principal Medical Officer of Her Majesty's Forces in India on the retirement of Surgeon-Major-General Thomson.

It is rumoured that Surgeon-Major F. W. Trevor is likely to be the successor of Surgeon-Major Rogers as Principal Medical Officer of the Egyptian Army. The latter officer becomes the head of the Egyptian Sanitary Service, a post vacated by Surgeon-Major Green Pasha.

Surgeon-Lieutenant-Colonel H. Comerford has been appointed Principal Medical Officer on the staff at the Curragh.

By the retirement of Brigade-Surgeon-Lieutenant-Colonel R. Collins the medical staff loses a very valuable officer of excellent judgment, common sense, and administrative capacity. Previously to joining the Woolwich garrison this officer was stationed at Gibraltar, where he acquired considerable reputation by his sound professional knowledge, kindly disposition, and readiness to help everyone.

ARMY MEDICAL STAFF.—The undermentioned Surgeons on probation to be Surgeon-Lieutenants (dated Jan. 30th, 1892):—Edgar Montagu Pilcher, M.B., Henry Percival Johnson, William George Bevts, Harold Arthur Stalkartt, M.B., Henry Nason Dunn, M.B., Samuel Henry Withers, M.B., Edwd. Maudsley Morphew, Ernest Chester Anderson, Nicholas Tyacke, Robert Hughtrede Edward Holt, Lionel Arthur Mitchell, M.B., Charles Christie Fleming, M.B., John Hennessy, M.B., Claude Buist Martin, M.B., George Johnstone Buchanan, M.B., Charles Bunbury Lawson, M.B., George Edgar Hughes, Joseph Francis Mary Kelly, M.B., Gilbert Stewart Crawford, and John Donald Alexander, M.B.

BENGAL MEDICAL ESTABLISHMENT. — Surgeon-Lieutenant-Colonel John Burke Gaffney (dated Oct. 18th, 1891), and Surgeon-Lieutenant-Colonel Woodforde Finden (dated Nov. 2nd, 1891), to be Brigade-Surgeon-Lieutenant-Colonels.

NAVAL MEDICAL SERVICE. — The following appointment has been made at the Admiralty:—Surgeon William Spry to the *Victory* (dated Feb. 22nd, 1892).

VOLUNTEER CORPS.—*Artillery:* 1st Dorsetshire (Southern Division, Royal Artillery): Surgeon-Lieutenant J. R. Philpots resigns his commission (dated Feb. 13th, 1892).—2nd Kent: Surgeon-Captain F. Smith to be Surgeon-Major (dated Feb. 13th, 1892).—*Rifle:* 2nd (Renfrewshire) Volunteer Battalion, Princess Louise's (Argyll and Sutherland Highlanders), Surgeon-Lieutenant M. H. Taylor to be Surgeon-Captain (dated Feb. 13th, 1892).

Obituary.

PROFESSOR ALEXANDER LUMNITZER, M.D.

WE regret to have to chronicle the death of Dr. Lumnitzer, Professor of Surgery at the University of Budapest, and since 1885 a life member of the Upper House of the Hungarian Parliament. Professor Lumnitzer, the most esteemed and popular surgeon in Hungary, was born in 1821 at Kapuvár, in the county of Sofron, where his father was the superintending manager of the domains of Prince Esterhazy; his grandfather was a renowned botanist; the late Dr. Mérei, whom some may still remember as a successful physician and founder of the Children's Hospital at Manchester, was Lumnitzer's maternal uncle. After finishing his preliminary education in Pozsony and Köszeg, and devoting a good deal of attention to classical and modern languages, he pursued his professional studies at Budapest and in Vienna, and graduated at both places in 1844 and 1846 respectively. At Budapest he was assistant to Professor Balassa, and at Vienna to Professor Schuh. Lumnitzer now took the opportunity of visiting foreign universities and hospitals, particularly those of Paris, London, and Zurich. When in Paris he attended the lectures and cliniques of Velpeau, Ricord, Malgaigne, and others. During the Hungarian war in 1878–79 Dr. Lumnitzer served on the staff of General Görgey as director-in-chief of the field hospitals. After the Russian intervention and the capitulation of Világos, Dr. Lumnitzer, by way of punishment, was enrolled as a subordinate attendant on the sick at an Austrian military hospital, in which degrading position he was kept till the fall of Field-Marshal Haynau. In 1861 Lumnitzer was appointed second surgeon to the Rochus Hospital at Budapest, and in 1864 was promoted to be chief surgeon. He again found time to visit the principal schools of surgery on the Continent and in England. In 1872 he was nominated Professor Extraordinary and in 1880 Professor Ordinary of Operative Surgery at the University, which post he filled with so much credit and usefulness till his death. Distinctions began now to shower upon him. He was a member, afterwards Secretary, Vice-president, and President of the Royal Medico-Chirurgical Society of Budapest. In 1866 he obtained the Knighthood of the Iron Crown; in 1878 was made President of the National Board of Health, and appointed a Crown Councillor. In 1869 he was elected chief physician of the city of Budapest, and in 1878 he represented Hungary at the Sanitary Congress in Paris. In 1885 his sovereign conferred upon Dr. Lumnitzer the dignity of Member of the House of Magnates. Lumnitzer was an easy writer, a fluent speaker, and the author of valuable works and many professional treatises. The introduction of antiseptic surgery in Budapest owes much to him; he tried also experiments with Koch's method, and his report on that subject is his last contribution to clinical surgery. Lumnitzer was a great and skilful surgeon. The new generation of Hungarian medical men are his pupils; on them he never ceased to impress the importance of thorough work, and that without well-grounded knowledge there was no hope of future usefulness and success. In clinical instruction he called particular attention to the minutest details, and despised show and superficiality; in his strict conscientiousness he would point out his own mistakes, and discuss the difficulties which led to errors of diagnosis, and marked out the way in which they should be avoided. By his sympathetic, gentle, and genial nature, ever ready to assist with advice and otherwise, he secured for himself the universal love and esteem of his pupils and professional brethren, as well as the confidence of his patients. He died on the 30th ult., in the seventy-first year of his age, of phthisis, aggravated by a long-standing induration of part of the right lung, the result of pneumonia. He was buried beside his son-in-law, the late Dr. Géza Antal, amidst every manifestation of sincere sympathy and the sorrow of his many friends and the public.

FOOTBALL CASUALTIES. — On Saturday, in the Scottish League match, Rangers against Vale of Leven, the Vale of Leven centre forward sustained a fracture of his clavicle.—On the same day, in a match at Caversham, near Reading, a player of the Newbury Reserves sustained a compound fracture of the left leg, and was conveyed to the hospital; also, on the same day, during a game between the White Lane (Chapeltown) and Carhouse (Rotherham) Clubs, a young man met with serious internal injuries. Medical assistance was obtained, when it was found he was suffering from "rupture of the intestines," and he died the following day.—On the same day a young man, in a match between Werneth A. and Oldham Horners, was kicked in the abdomen. Medical aid was procured, but death ensued on the following day. — On the same day a youth, in a game at Tunbridge Wells between the St. John's Team and the Excelsiors, received a serious injury to the abdomen. Medical assistance was obtained, when it was found he had sustained a "severe contusion of the bowel on the right side, a laceration of the kidney; acute peritonitis following." He died on the following Friday.—On Monday, whilst playing against the Wolverhampton Wanderers, in a match at Oxford, a player fell and broke his arm.

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Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen, having passed the necessary examinations, have been admitted by the two Colleges diplomates in Public Health:—

Adams, Percy Targett, M.R.C.S., Ophthalmic Hospital, Maidstone.
Bryett, Lewis T. Fraser, M.B. Lond., L.R.C.P. Lond., M.R.C.S., Girdler's-road, West Kensington.
Crosskey, Roger, L.R.C.P. Lond., M.R.C.S., Shortlands, Kent.
Daniel, W. Patrick Taylour, L.R.C.P., M.R.C.S., Robert-st., N.W.
Duthie, R. Campbell, M.B. Aberd., Stonor-road, West Kensington.
Elliot, Andrew, M.B. Edin., Edinburgh.
Greenwood, G. Spencer, L.R.C.P. Lond., M.R.C.S., Ossett, Yorkshire.
Hamerton, George Albert, M.D. Brux., L.R.C.P. Lond., M.R.C.S., Southampton-street, Strand.
Johns, John Francis, M.B. Durh., L.R.C.P. Lond., M.R.C.S., Southampton.
Macnamara, Hugh Winckworth (Surg. R.N.), L.R.C.P. Lond., M.R.C.S., Chatham.
Marsh, Thomas Alfred Perry (Surg.-Capt. Army), L.R.C.P. Lond., M.R.C.S., Aldershot.
Perry, Allan (Surg.-Capt. Army), M.R.C.S., the Guards' Hospital.
Stott, Hugh, L.R.C.P. Lond., M.R.C.S., Colney Hatch.
Tyrell, Walter Guy Beauchamp, L.R.C.P. Lond., M.R.C.S., Great Malvern.
Westcott, William Wynn, M.B. Lond., M.R.C.S., Camden-road, N.
Wood, W. Edmund, M.B. Lond., M.R.C.S., Dulwich.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, in addition to those mentioned in our issue of the 6th inst. as having obtained the L.R.C.P., having passed the necessary examinations, and having conformed to the by-laws and regulations, were, at the ordinary meeting of the Council on the 11th inst., admitted Members of the College:—

Boyes, William Isaac, M.B. Melb., Endsleigh-gardens.
Gregerson, William Jens, M.B. Melb., Endsleigh-gardens.
Phillips, Alfred Stanbury, L.S.A., Stonehouse, Devon.

UNIVERSITY OF LONDON.—The following candidates have passed the Intermediate Examination in Medicine:—

First Division.—Harold Budgett Meakin, St. Bartholomew's Hospital; William Thomas Pugh, Middlesex Hospital.
Second Division.—Evelyn Geo. B. Adams, St. Bartholomew's Hospital; Lizzie Bennett, London School of Medicine for Women; Cecil Edward Carpmael, Guy's Hospital; Alice Mary Corthorn, London School of Medicine for Women; Percival Clennell Fenwick, St. Thomas's Hospital; John William Haines, St. Bartholomew's Hospital; Arthur Cecil Hovenden, Guy's Hospital; Gerald Stanley Hovenden, Guy's Hospital; W. David Jones, University College; Reginald Gower Kirton, London Hospital; Chas. Harris Langford, St. Bartholomew's Hospital; Antony Alexander Martin, St. Mary's Hospital; Alfred Miller, Guy's Hospital; Thomas G. Nicholson, B.Sc., St. Thomas's Hospital; Leonard Arthur Parry, Guy's Hospital; Cecil David Dale Roberts, Queen's College, Birmingham; Arthur Stanley, St. Mary's Hospital; Thomas Harold Woodfield, St. Bartholomew's Hospital.

ROYAL COLLEGE OF SURGEONS IN IRELAND: FELLOWSHIP EXAMINATION.—The following gentleman, having passed the necessary examination, has been admitted a Fellow of the College:—

William Deane, L.R.C.S.I., 1879, Surgeon-Captain, Indian Medical Service.

THE *Surrey Advertiser* publishes the following, which may have interest for athletic members of the profession. "At Guildford a few days ago, just before the commencement of the County match between Surrey and Middlesex, a boy was run over by a cart near the football field, with the result that his leg was fractured near the thigh. The Surrey player, Mr. J. J. Knox, who is a doctor by profession, was near at hand, and he skilfully set the injured limb, the unfortunate youth subsequently being conveyed on the police ambulance to the Royal Surrey County Hospital. Mr. Knox is assistant to Dr. Skimming, of East Molesey."

HUNTERIAN SOCIETY.—The following gentlemen have been elected office bearers for the ensuing session:—President: Frederick Gordon Brown. Vice-Presidents: Thos. E. Bowkett, J. Dundas Grant, M.D., C. J. Symonds, M.S., and R. G. Tatham. Treasurer: F. Charlewood Turner, M.D. Trustees: H. I. Fotherby, M.D., and F. M. Corner. Librarian: Arthur T. Davies, M.D. Orator: John S. E. Cotman, M.R.C.P. Ed. Secretaries: John Poland and R. Hingston Fox, M.D. Council: S. H. Appleford, M.D., H. W. Denton Cardew, Sir Andrew Clark, Bart., M.D., T. Rowing Fendick, J. Langton Hewer, M.D., T. Mark Hovell, Francis R. Humphreys, Stephen Mackenzie, M.D., T. Horrocks Openshaw, M.S., Reginald J. Ryle, M.B., F. J. Smith, M.D., and Henry J. Thorp.

THE CITY LYING-IN HOSPITAL, CITY-ROAD.—The annual meeting was held at the hospital last week. In the past year 455 in-patients had been treated, and 1555 out-patients received the benefits of the charity. The balance sheet showed a deficiency of £161.

ROYAL METEOROLOGICAL SOCIETY.—The usual monthly meeting of this Society was held on Wednesday evening, the 17th inst., at the Institution of Civil Engineers, 25, Great George-street, Westminster, Dr. C. Theodore Williams in the chair. The papers read included one by the Hon. Rollo Russell, M.A., on "The Untenability of Atmospheric Hypothesis of Epidemics," and another by Mr. H. Harris on "The Atmospheric Origin of Influenza Epidemics."

THE ADELAIDE CHILDREN'S HOSPITAL.—His Excellency the governor, Lord Kintore, presided at the annual meeting held on Oct. 26th last, at the institution, North Adelaide. The record of the past year's work reflected great credit upon the management. The hospital contains four general wards, two special wards, an ophthalmic ward, and a contagious ward. Accommodation is provided for forty-two patients, and usually the whole of the cots are occupied. A new building for the treatment of contagious diseases is urgently required. The facilities which the institution offers to those wishing to undertake the duties of nursing are much appreciated by the public. The cash statement showed a balance at the banker's of £1240 5*s.* 10*d.* The endowment fund now stands at a total of £2995 11*s.* 6*d.*

PRESENTATIONS.—Mr. C. M. Brady of Wigan has been the recipient of a handsome case of cutlery from his professional brethren on the occasion of his marriage. The case bore the following inscription:—"Presented to C. M. Brady, Esq., by a few of his medical friends on the occasion of his marriage, Feb. 16th, 1892."—The nurses of University College Hospital, on Feb. 11th, presented the secretary, Mr. Newton H. Nixon, with a handsomely fitted luncheon basket on the occasion of his birthday. We understand that the idea originated with the nurses whilst returning from their last summer trip to Richmond, annually organised by Mr. Nixon.—Mr. H. E. Dixon, L.R.C.P. Lond., M.R.C.S., has been presented by his friends, on his leaving Abingdon, with a valuable gold watch, bearing an appropriate inscription. At a meeting of the Society of Medical Officers of Health, held on Feb. 15th last at 20, Hanover-square, W., a handsome tea and coffee service was presented to Samuel Robert Lovett, L.R.C.P., medical officer of health for the district of St. Giles', London, by the Society of Medical Officers of Health, in acknowledgment of his many years of devoted services as treasurer of the Society.

ÆSCULAPIUS LODGE, No. 2410.—An ordinary meeting of this lodge took place at the Café Royal, Regent-street, on Wednesday, the 10th inst. A large number of members sent apologies for their absence in consequence of excess of professional work. The following officers, members, and visitors were present:—Bros. J. Brindley James, P.M., W.M., Thomas Dutton, M.D., P.M., as I.P.M. and secretary; Deputy Inspector-General Matthew Coates, M.D., R.M., P.M., as S.W.; Deputy Inspector-General Belgrave Ninnis, M.D., R.M., P.M., J.W.; Jacob Pickett, M.D., S.D.; George Crawford Thomson, M.B., J.D.; Anthony Nutt, I.G.; E. Henry Ezard, M.B., Org.; N. E. Yorke Davies. Visitors: Bros. Alfred Heald, P.M., No. 163; A. J. Phillips, No. 463; W. Molesworth St. Aubyn, No. 2369; and C. M. Simpson, M.D., No. 1056. Bros. Herbert G. Blackmore, Lewis Lewis, Montague Cheale, Frank Reid, and Clifford Luxmore Drew, M.B., made further progress in masonry, the ceremony being performed in an able manner by the W.M. Bro. Surgeon-Major William G. Black, F.R.C.S. Ed., M.R.C.S. Eng., was elected a joining member. After the routine business was concluded the brethren sat down to a capital banquet. In the after-dinner speech the W.M. alluded, in most feeling terms, to the much-lamented death of the R.W., Bro. Prince Albert Victor, Duke of Clarence and Avondale, Prov. Grand Master of Berkshire stating it was only two months ago at that festive board he alluded to the happy event of the Prince's engagement to Princess May of Teck. The sad loss masonry had also experienced by the untimely death of Bro. Colonel Shadwell Clerke, Grand Secretary, who was an hon. member of the Æsculapius Lodge, and who only last October consecrated the lodge, was also mentioned.

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VIENNA HOSPITAL FOR CONSUMPTION.—Baron Albert de Rothschild has forwarded a donation of 100,000fl. to the society interested in promoting the above hospital.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR.—The Queen has become an annual subscriber of £10 to the funds of the hospital, which has also been honoured by a visit from Her Majesty.

WIGAN MEDICAL SOCIETY.—The following have been elected office-bearers for 1892:—President: J. B. Stuart, Esq., J.P., F.R.C.S. Ed. Committee: C. M. Brady, ex-president, W. C. Barnish, R. Cowan, G. H. Monks, jun., J. A. Marsden, and M. Benson. Treasurer: G. H. Monks, jun. Hon. Secretary: W. Berry, F.R.C.S.I.

SOCIETY OF ARTS.—At the meeting of the Indian Section of the Society on Thursday afternoon, March 3rd, Surgeon-General Sir W. J. Moore, K.C.J.E., will read a paper on Indian Sanitation and the International Congress of Hygiene. The chair will be taken at 4.30 P.M. by Sir Owen Tudor Burne, K.C.S.I., C.I.E., a leading member of the Indian Committee of the Congress. Sir Douglas Galton and other authorities will take part in the discussion.

SUICIDE OF A LIVERPOOL MEDICAL PRACTITIONER. Shortly after twelve o'clock on Saturday last Mr. Arnold, L.R.C.P., F.R.C.S.I., of Park-road, Liverpool, was found dead in his surgery, and beside him was a vessel which had contained poison. The deceased gentleman was medical adviser to the police at the Essex-street Bridewell. He had been suffering from insomnia and depression following an attack of influenza.

LONDON FEVER HOSPITAL.—A very satisfactory report of the past year's work of this institution has just been circulated. During the year 515 patients were admitted, and, as in previous years since 1883, there was no case of typhus fever, and not a single patient admitted for one kind of fever contracted another while in the hospital. Scarlet fever had furnished the great majority of cases, and in these the mortality did not reach 1 per cent., as against 5 per cent. for the whole metropolis.

THE NEW INFIRMARY, SOUTHPORT.—The annual report for the year 1891 is just issued. There has been a considerable increase of in-patients treated during the year, and a decrease in the number of out-patients. The statement of receipts and expenditure shows a small deficit balance. An energetic effort is being made to celebrate the present year—Southport's centenary—by the erection of a new infirmary, the prospects in respect to which were very encouraging. The Scarisbrick trustees had, subject to the sanction of the Court of Chancery, promised a site of five acres in the Scarisbrick New-road, estimated to be worth £4840, while the fund for the erection of the proposed building now amounted to £7472.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Mr. Walter Davidson, of Cairnie, Fifeshire, bequeathed £1000 to the Edinburgh Royal Infirmary.—By the death of Mrs. Joseph Cole, of Pedmore, a bequest of £500, left by her late husband, becomes payable to the Stourbridge Dispensary, and Mrs. Cole also bequeathed £100 each to the same Dispensary and the Guest Hospital, Dudley.—The late Mr. John Palmer Stocker, of Oxford-terrace, Hyde-park, London, bequeathed £200 to the City of London Truss Society, £100 each to the St. Mary's Hospital, Paddington, the Hospital for Sick Children, Great Ormond-street, and the Hospital for Cancer, Brompton.—Mr. John Coppin, late of Bingfield House, Northumberland, bequeathed £500 each to the Newcastle Convalescent Society and the National Hospital for Consumption, Ventnor.—The late Mr. Charles H. Wagner, of the Hagley-road, Edgbaston, bequeathed £500 each to the General Hospital and the Queen's Hospital, £300 to the General Dispensary, £100 to the Children's Hospital, Birmingham, and £50 to the German Hospital, Dalston.—The late Mr. Samuel Maples, of Nottingham, bequeathed £1000 each to the General Hospital, Nottingham, the Nottingham General Dispensary, and the Free Hospital for Sick Children, Nottingham.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on February 16th, 1892.

Hospital.	Beds occupied. Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	Total accommodation.
Eastern Hospital	189	57	..	29	..	275	442
North-Western Hospital	198	32	..	13	..	243	411
Western ,,	102	20	..	10	3	135	224
South-Western ,,	177	43	..	14	1	235	350
South-Eastern ,,	198	13	1	37	2	251	424
Northern ,,	328	15	..	7	...	350	469
Totals	1192	180	1	110	6	1489	2321

SMALL-POX.—*Atlas* hospital ship, 0.

MEDICAL NOTES IN PARLIAMENT.

The Albert University.

IN the House of Commons on Monday last Mr. Roby asked the Vice-President of the Committee of Council on Education whether the Charter of the proposed teaching university had been reconsidered, and when it would be laid on the table of the House. In reply, Sir W. Hart-Dyke said that the Charter was practically settled, and would be laid on the table during the week.

Insurance of Children.

In reply to Colonel Dawnay, the First Lord of the Treasury feared that it would not be possible for the Government to introduce a measure during this session to amend and regulate the laws relating to the insurance of children.

Foot-and-Mouth Disease in Kent.

Referring to newspaper reports that this disease had spread to Kent, Mr. Chaplin confirmed the truth of the statements, and stated that from inquiries he had ascertained that the outbreak had occurred at Minster in the island of Sheppey, and an order had been issued prohibiting the removal of animals from that district, and cutting it off from other parts of the country.

Hours of Railway Servants.

In the House of Commons on Tuesday, the 16th inst., Mr. Akers-Douglas moved: "That the Select Committee be reappointed to inquire whether, and, if so, in what way, the hours worked by railway servants should be restricted by legislation; that the Committee do consist of twenty-six members; that the following be members of the Committee—Sir Michael Hicks-Beach, Mr. Channing, Mr. Radcliffe Cooke, Mr. Crawford, Baron de Worms, Mr. Alfred Gathorne-Hardy, Mr. Herbert Gladstone, Mr. Heneage, Mr. Howorth, Mr. M'Innes, Mr. MacNeill, Mr. Walter M'Laren, Mr. Maguire, Sir Herbert Maxwell, Mr. Milvain, Mr. Muntz, Mr. Murdoch, Sir Joseph Pease, Mr. Pickard, Sir Edward Reed, Sir Albert Rollit, Mr. Somervell, Sir George Trevelyan, Sir Henry Tyler, Mr. Vernon, and Mr. Johns Wilson; that the Committee have power to send for persons, papers, and records; that five be the quorum." The motion was agreed to.

The International Sanitary Conference at Venice.

In the House of Commons, on Thursday, Dr. Farquharson asked the Under Secretary of State for Foreign Affairs whether the draft of the protocol submitted on behalf of England to the International Sanitary Conference at Venice, which had to be withdrawn in favour of propositions submitted by the French delegates, was drawn with the assent and aid of the Medical Department of the Local Government Board, or of any other competent official medical advisers of the Government.—Mr. J. W. Lowther replied that the protocol referred to did not contain any new medical regulations or proposals on questions of hygiene, and it was not therefore necessary to consult the medical advisers of the Local Government Board upon it. The protocol was not withdrawn as stated in the question. The proposals submitted by the French delegates were submitted as amendments to the protocol. All the departments of Her Majesty's Government interested were consulted in the preparation of the instructions to the British delegates.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BISHOP, T. H., M.R.C.S. Edin., has been appointed House Surgeon to the Royal Portsmouth Hospital, vice John Watson, resigned.

BOND, CHARLES K., L.R.C.P. Lond., M.R.C.S., D.P.H., has been appointed Medical Superintendent of the Bradford Corporation Fever Hospital.

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BRYANT, J. H., M.D., B.S. Lond., has been appointed Medical Registrar and Demonstrator of Practical Medicine to Guy's Hospital.

BULLAR, J. F., M.B., F.R.C.S., has been reappointed Honorary Medical Officer to the Hampshire Nurses' Institute.

DE BUTTS, STANLEY B., M.R.C.S., L.R.C.P., has been appointed Inspecting Medical Officer to the Army and Navy Cooperative Society, Westminster, vice Surgeon-General Laing, deceased.

GUNTHER, THEODORE, M.D Tubingen, L.R.C.P. Lond., has been re-appointed Medical Officer of Health for Teddington.

HALPIN, J. E., L.R.C.S.I., L. and L.M. K.Q.C.P.I., has been appointed Medical Officer to the Fifth District, Mansfield Union, vice H. Parry Jones.

JAMES, L. L., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer of the Workhouse, Rochford Union.

JOYNT, H. NOBLE, M.A., M.D., Dipl. State Med. Dubl., has been appointed to a Colonial Surgeoncy in Fiji.

LITTLETON, P. R., M.R.C.S., has been reappointed Medical Officer of Health for the Ashbourne Rural and Urban Sanitary Districts.

MACNABB, L. A., M.B., C.M. Durh., has been appointed Medical Officer to the South Shields Workhouse, vice Pope, resigned.

SELLERS, A. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Thornhill and Whitley Sanitary Districts of the Dewsbury Union.

SIMMONS, W. WICKHAM, B.A., M.B., has been reappointed Resident Medical Officer to the City of London Hospital for Diseases of the Chest, Victoria-park, vice Dr. Chaplin, resigned.

TENCH, MONTAGUE, M.D. Brux., M.R.C.S., L.R.C.P., L.S.A., has been appointed Medical Officer and Public Vaccinator to the High Exeter District of the Dunmow Union.

VERRALL, THOS. J., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Consulting Surgeon to the Brighton, Hove, and Preston Provident Dispensary.

VICKERS, C. WM., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer of Health for the Paignton Urban Sanitary District, vice Mudge, deceased.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BURTON MEDICAL ASSOCIATION.—Dispenser. (Apply to Mr. A. Blant, Ebenezer, Shobnell-road, Burton-on-Trent.)

CANCER HOSPITAL (FREE), Fulham-road, S.W.—Two Surgeons.

CENTRAL LONDON OPHTHALMIC HOSPITAL, 238A, Gray's-inn-road, W.C.—House Surgeon.

CENTRAL LONDON SICK ASYLUM DISTRICT.—Assistant Medical Officer and Dispenser at the Asylum, Cleveland-street. Salary £100 per annum, with board and residence.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—Assistant Physician. (Apply to the Secretary. Office, 24, Finsbury-circus, E.C.)

COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer. Salary (which will be a progressive one) commences at £100 a year, with furnished apartments, board, washing, and attendance.

DENBIGHSHIRE INFIRMARY, Denbigh.—House Surgeon. Salary to commence at £85 per annum, with board, residence, and washing in the house. (At end of year a gratuity of £15 is usually given by the committee.)

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester-square.—Demonstrator.

DISTRICT INFIRMARY, Ashton-under-Lyne.—Assistant House Surgeon and Dispenser. Salary £50 per annum, with board and lodging.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.—Vacancy on the Honorary Medical Staff.

HOXTON HOUSE ASYLUM, London, N.—Assistant Medical Officer. Salary £120 a year, rising £10 a year to £160, with board, lodging, and washing.

HUDDERSFIELD INFIRMARY.—Senior Assistant House Surgeon. Salary £50 per annum, with board, lodging, and washing.

HUDDERSFIELD INFIRMARY.—Junior House Surgeon. Salary £40 per annum, with board, lodging, and washing.

LINCOLN COUNTY HOSPITAL, Lincoln.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

LINCOLN ODDFELLOWS' MEDICAL INSTITUTE.—Resident Medical Officer. Salary £200, with Midwifery and Vaccination fees. House free, with allowance for coal, gas, rates, two Assistants, and Dispenser. (Apply to Mr. Coulson, 12, North-parade, Lincoln.)

LINCOLN ODDFELLOWS' MEDICAL INSTITUTE.—Doubly Qualified Assistant. Salary £120 per annum, out-door. (Apply to Mr. Coulson, 12, North-parade, Lincoln.)

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary £80 per annum, with apartments, board, and attendance. (Apply to the Secretary, Leith Offices, 34, Moorfields, Liverpool.)

LONDON HOSPITAL, Whitechapel, E.—Assistant Surgeon.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Physician to in-patients.

LONDON TEMPERANCE HOSPITAL, Hamsptead-road, N.W.—Assistant Physician.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—House Surgeon for six months. Salary at the rate of 50 guineas per annum, with residence in the hospital, board, and washing.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Junior House Surgeon for six months. Residence in the hospital, board, and washing are provided, and an honorarium of 5 guineas at the expiration of term of appointment.

MANCHESTER ROYAL INFIRMARY (MONSALL FEVER HOSPITAL).—Assistant Medical Officer at Monsall Fever Hospital, for twelve months. Salary £100 per annum, with board and residence.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Two Assistant Surgeons.

MIDDLESEX HOSPITAL, W.—Anæsthetist for twelve months. Salary £100.

MONTROSE ROYAL LUNATIC ASYLUM.—Junior Assistant Medical Officer. Salary £80, with board &c.

NEWPORT AND COUNTY INFIRMARY, Newport, Mon.—House Surgeon. Salary £100 per annum, with board and residence (no stimulants provided).

NORTHUMBERLAND COUNTY ASYLUM, Morpeth.—Clinical Clerk. Board and residence provided.

ORMSKIRK UNION RURAL SANITARY AUTHORITY.—Medical Officer. Salary £300. Appointment for four years.

PARISH OF LOCH GOILHEAD AND KILMORICK, N.B.—Medical Officer. Salary £70 per annum.

POPLAR HOSPITAL FOR ACCIDENTS, Blackwall, E.C.—Assistant House Surgeon. Salary £50 a year, with board and lodging.

QUEEN'S COLLEGE, Birmingham.—Professor of Therapeutics.

RAMSGATE AND ST. LAWRENCE ROYAL DISPENSARY AND SEAMAN'S INFIRMARY.—Resident Medical Officer. Salary £120 per annum (£10 allowed for substitute during annual holiday), with furnished apartments, gas, firing, and attendance.

ROTHERHAM HOSPITAL.—Resident House Surgeon. Salary £100 per annum, with board, furnished apartments, and washing, but exclusive of wine, spirits, and beer.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY, DISPENSARY, AND CONVALESCENT HOME.—House Surgeon (to act as Secretary). Salary £40, with board and lodging.

VESTRY OF THE PARISH OF BERMONDSEY.—Analyst. The fee for each analysis is 10s. (Applications to be sent to Mr. Harrison, Clerk, Town Hall, Spa-road.)

WEST BROMWICH DISTRICT HOSPITAL.—House Surgeon. Salary £80 per annum, with board, residence, and washing.

Births, Marriages, and Deaths.

BIRTHS.

GIBSON.—On Feb. 14th, at Brook House, Godalming, the wife of C. J. Gibson, of a son.

GILES.—On Feb. 12th, at Albemarle House, Hounslow, the wife of Bernard Faraday Giles, M.D., of a daughter.

LAMB.—On Feb. 17th, at Palace-court, W., the wife of W. H. Lamb, M.B. Lond., of a daughter.

LEDIARD.—On Feb. 11th, at Lowther-street, Carlisle, the wife of Henry A. Lediard, F.R.C.S. Eng., of a daughter.

QUICK.—On Feb. 15th, at Pentreve, Torquay, the wife of John Quick, M.R.C.S., &c., of a son.

SCHOFIELD.—On Feb. 16th, at Camberwell House, Camberwell, the wife of Frank Schofield, M.D., of a son.

STILES.—On Feb. 15th, at Sherwood House, Hornsey-rise, the wife of C. B. Stiles, M.B., C.M., of a son.

MARRIAGES.

CANTRELL—LUCAS.—On Feb. 9th, at St. George's, Hanover-square, Thos. J. Cantrell, M.D., of Brighton, to Louisa, relict of John Lucas, Esq., late of Sydenham.

FENN—TODD.—On Feb. 13th, at the Church of St. Matthias, Richmond, Surrey, Edward Liveing Fenn, Esq., M.D., M.R.C.P., of Grey Friars, Colchester, to Edith, second daughter of Chas. John Todd, Esq., of The Terrace, Richmond.

FISHER—RINGLAND.—On Oct. 11th, at St. Margaret's, Anfield, Alexander Fisher, M.A., M.B., C.M., youngest son of Alexander Fisher, Edinburgh, to Gertrude Emmeline, eldest daughter of the late Robert Ringland, of Killyleagh, county Down, Ireland.

HURRY—HILL.—On Feb. 16th, at St. Mary Abbot's Church, Kensington, Jamieson Boyd Hurry, M.D., of Reading, to Gertrude Louisa, daughter of Arthur Hill, Esq., J.P., of Erleigh, Court, Reading.

MACKAY—DARLING.—On Feb. 16th, at Wallace-green Church, Berwick-on-Tweed, by the Rev. W. Ainslie Walton, M.A., B.D., Paisley, and the Rev. James McLeish, Wooler, William Bertie Mackay, M.B., Ch.M. Edin., M.R.C.S. Eng., to Jessie Wilson, youngest daughter of Adam Darling, Governor's House, Berwick-on-Tweed.

MACNAUGHTON—PERCY.—On Feb. 16th, at the Windsor Hotel, St. Vincent-street, Glasgow, by the Rev. Dr. A. Bonar, Finnieston Free Church, Dr. J. B. Macnaughton, London, to Mrs. Agnes Fawcett Percy, 22, Glencairn-drive, Pollokshields, Glasgow.

SIMPSON—BENNING.—On Feb. 16th, at Christ Church, Tynemouth, by the Rev. H. R. Wild, M.A., Curate of Christ Church, assisted by the Rev. J. Phillips, M.A., Chaplain of Orford, Warrington, William Allan Simpson, M.B. Edin., &c., N. Shields, to Mary Isabella (Mabel), daughter of Major Charles Stockdale Benning, The Limes, Dunstable, Beds.

WILKINSON—CRUICKSHANK.—On Feb. 15th, at St. Jude's, South Kensington, Cumac Wilkinson, M.D. Lond., M.R.C.P., son of Judge Wilkinson, of Sydney, N.S.W., Australia, to Jessie, daughter of the late Alexander Cruickshank, Esq., of Byron, Inverell, N.S.W., Australia.

DEATHS.

GOOLDEN.—On Feb. 15th, Francis Goolden, M.R.C.S., of the Wilderness, Maidenhead, aged 71.

PRESTON.—On Feb. 15th, at Sumner, Christchurch, N.Z., A. Chevallier Preston, M.R.C.S., aged 35. (By cable.)

RAYNER.—On Feb. 11th, at Bournemouth, Thomas Rayner, M.R.C.S., L.S.A., aged 59 years, late of Cambridge-street and Edgware-road, Hyde-park, youngest son of the late Thomas Ingham Rayner, Surgeon, of Birstall, Yorkshire.

SHERIDAN.—On Feb. 9th, at Stowmarket, Suffolk, John Wilton Sheridan, Physician and Surgeon, Stowmarket.

SMYTHE.—On Feb. 10th, at Hong Kong, Surgeon-Captain R. H. Smythe, of Glanmire, county Cork, son of the late Rev. R. H. Smythe, Rector of Carrick-on-Suir.

SYMPSON.—On Feb. 10th, at James-street, Lincoln, Thomas Sympson, F.R.C.S.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, February 22.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. Wm. Lang: Corneal Affections.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Nervous System.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Evening. Mr. H. H. Clutton: Two cases of Arthrectomy of Elbow joint.—Dr. Sidney Phillips: Case of Acromegaly.—Mr. Pearce Gould and Mr. Watson Cheyne: Results of Operations for Old Unreduced Dislocations of the Shoulder.—Dr. James Taylor: Case of Friedrich's Ataxy.—Dr. Ormerod and Dr. Aldren Turner: Specimens of Syringomyelia Cords. Dr. Leslie Ogilvie: Case of Floating Spleen.—Sir Hugh Beevor, Bt.: Unusual case of Osteo-arthritis.—Mr. Bruce Clarke: A case of Claw Hand produced by Pressure of a Splint on the Nerves of the Forearm.

Tuesday, February 23.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor V. Horsley: The Brain.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Acne.—Bethlem Hospital: 2 P.M., Dr. Hyslop: Senile Insanity.—Charing-cross Medical School: 8 P.M., Dr. Cullingworth: Practical Diagnosis in the Diseases of Women.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Mr. W. G. Macpherson (communicated by Mr. A. Bowlby): Antiseptic Preparations of Catgut and Silk, their Relation, Wound Infection.—Mr. Thomas Bryant: Case of Torsion of the Spermatic Cord, with Strangulation of the Epididymis and Testicle in an Incompletely Descended Organ.

Wednesday, February 24.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. C. Theodore Williams: Pleurisy.—Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Intra-ocular Tumours.—Parkes Museum (Margaret-street, W.): 1 P.M., Dr. Louis C. Parkes: Hospitals.
HUNTERIAN SOCIETY.—8.30 P.M. Dr. Hughlings Jackson: Neurological Fragments. (Second Hunterian Society Lecture.)

Thursday, February 25.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
ROYAL INSTITUTION.—3 P.M. Professor E. Ray Lankester; Some Recent Biological Discoveries.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Mr. Arbuthnot Lane: Spinal Caries and its Treatment.—National Hospital for the Paralysed and Epileptic: 2 P.M., Mr. Victor Horsley: Surgery of the Nervous System.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Mr. George Stoker: Impaired Movements of the Vocal Cords.
BRITISH GYNÆCOLOGICAL SOCIETY.—Dr. Granville Bantock will exhibit Specimens showing various methods of Hysterectomy. Adjourned Discussion on Dr. Heywood Smith's paper on "Sub-peritoneal Hysterectomy."

Friday, February 26.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. C. Theodore Williams: Fibroid Phthisis.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: Leprosy, Glanders (Sections).—Charing-cross Medical School: 8 P.M., Dr. Cullingworth: Pelvic Peritonitis.
CLINICAL SOCIETY OF LONDON.—Living Specimens at 8 P.M.:—Mr. Davies-Colley: A case of Repaired Traumatic Separation of the Epiphysis of the Head of the Femur.—Dr. Abercrombie: A case of Unusual Congenital Deformities.—Dr. Arthur Davies: A case of Myxœdema. Dr. Hadden: A case of Microcephalic Idiocy.—Mr. L. A. Dunn: A case of Sarcoma (?) of the Face and Neck.—Dr. Wallis Ord: A case of Microcephalus. Papers at 9 P.M.:—Mr. Bland Sutton: A case of Cholelithiasis; removal of impacted gall-stones through an incision in the common duct; recovery.—Mr. Stanley Boyd: A case of Pachymeningitis Hæmorrhagica Interna treated by Trephining.—Mr. Davies-Colley: A case of Fusiform Sarcoma of the Laminæ of Dorsal Vertebræ; pressure upon spinal cord; rhachiotomy; cure.
ROYAL INSTITUTION.—9 P.M. Sir David Salomons: Optical Projection.

Saturday, February 27.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Hyslop: Alcoholic Insanity
ROYAL INSTITUTION.—3 P.M., Right Hon. Lord Rayleigh: Matter, at Rest and in Motion.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Feb. 18th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Feb. 12	30·47	N.W.	39	38	52	47	37	...	Overcast
,, 13	30·53	N.W.	40	38	73	45	37	..	Bright
,, 14	30·35	N.W.	38	35	..	43	35	..	Cloudy
,, 15	29·49	N.W.	41	40	48	43	36	·10	Raining
,, 16	29·66	E.	29	..	68	34	27	·14	Overcast
,, 17	29·51	N.	23	..	60	34	21	..	Bright
,, 18	29·17	N.W.	27	..	60	36	23	·05	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

RELIEF OF THE ITCHING OF MEASLES &c.

AN ointment composed of lanoline 50 parts, vaseline 20 parts, and distilled water 25 parts has been found by Dr. Klein to be a most soothing application for the relief of the itching accompanying the rashes of measles, scarlatina, and chicken-pox.

Bethnal Green.—Facts are to be carefully noted. If they show clearly that a practitioner covers an unqualified person who does all the medical attendance, and that the said practitioner signs certificates of death in cases which he has not personally attended, they should be transmitted to the General Medical Council and to the Registrar-General with a request for attention to them.

Dr. Craigie.—We have already referred incidentally to the point raised by our correspondent; but probably, as the epidemic is rapidly subsiding, there would be no advantage now in further discussing the question.

Mr. Charles Slater.—Yes.

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THE MEDICAL PROFESSION AND THE LAY PRESS.

DR. MACNAUGHTON JONES has sent us the letters of the editor of a London evening contemporary, referring to an article on astigmatism which appeared in that paper, in which Dr. Jones's name and sentences from a work of his were quoted, ostensibly to impress the importance of the subject of astigmatism on the public. The greater part of the article, however, was taken up with the praises of a certain optician's glasses. In this correspondence regret is expressed that anything should have been inserted calculated to annoy or injure any professional man, and an explanation is given of the way in which the article came to be written.

Tyro.—In the By-Laws and Regulations of the Royal College of Physicians occurs the following:—"On the 10th day of April, 1878, the College passed the following resolution: 'No Fellow, Member, Extra-Licentiate, or Licentiate of the College shall be authorised or entitled by virtue of any Diploma or Licence granted by the College to assume the title of Doctor, or to append to his name the title of Doctor of Medicine, or the letters M.D., or any other letters indicating that he is a Graduate in Medicine of a University.'"

Medicus (Liverpool).—The answer must be in the negative, at all events until further light is thrown upon the subject.

Delta.—The question is still an open one, and seems likely to remain so for some time to come.

G. P. is referred to the reply given to another correspondent, who propounds a similar query.

Mr. Donaldson (Londonderry).—Yes, in an early number.

INJUSTICE UNDER THE NOTIFICATION ACT.

To the Editors of THE LANCET.

SIRS,—May I ask you kindly to give me advice on the following? Under the Notification Act I sent in a certificate to the medical officer of health to say a certain R. H—— was suffering from erysipelas. The 2s. 6d. is disallowed in my quarterly bill, and on calling on the borough accountant I find that against the entry is written, "R. H—— said he had not erysipelas." This, the accountant says, was written by the medical officer, and is signed by him. On calling on the medical officer, he informs me that the man R. H—— stated that he did not have erysipelas, and that was his reason for withholding the 2s. 6d. fee. R. H—— has since died, and I have seen his wife, who has signed a paper to state that I did attend her late husband for erysipelas. The reason I am writing this is that if the patient's word is to outweigh ours, what is the good of the Notification Act?

I am, Sirs, faithfully yours,

February, 1892. J. W.

*** We refrain from comment on the above case until time is given for a reply by the medical officer of health. If the statement of the patient is to supersede and neutralise the notification of the medical man, and the medical officer of health is to be the active agent in such a result, the notifier may well ask, What is the use of the Act? We wait for a reply.—ED. L.

C. P. M. S.—1. Unless an agreement exists with a principal by which the assistant is to receive fees for special services, such as those mentioned, the principal is entitled to whatever is earned in the practice.—2. The coroner must pay £1 1s. for evidence, if given in a professional capacity.—3. It is usual for magistrates to allow 10s. 6d. for each day's attendance at the police-court.—4. Our correspondent is entitled to £1 1s. for each day's attendance at assize. Sundays do not count. It is customary to allow second-class travelling expenses, but not hotel expenses.

Perplexed.—Such coöperation with an obvious quack is decidedly unprofessional conduct. It is not very different from that of a practitioner who is associated with an unqualified assistant not under his immediate supervision. It should be protested against by the whole profession of the town, and the protest should be forwarded, with proofs, to the licensing body whose diploma is held by the practitioner, and to the Medical Council.

Mr. J. L. Firth (Bradford).—The paper has been received, and will appear very shortly.

Dr. Hedley (Brighton).—The paper is marked for insertion.

TREATMENT OF ECLAMPSIA.

To the Editors of THE LANCET.

SIRS,—Having noticed in THE LANCET of Jan. 2nd, 1892, Dr. Leopold Roheim's treatment of eclampsia by compression of the common carotid, I beg to state that during the last four years I have often successfully practised this method, having obtained the idea when reading Solly on the Human Brain, where, in his article on "Epilepsy," he recommends ligature or compression for the fits.

I am, Sirs, yours truly,

J. B. SPEARING, L.R.C.S.I., L.A.H.

Broughton-in-Furness, Feb. 13th, 1892.

INFLUENZA.

DR. R. SISLEY, controverting the air-borne theory spoken of by Dr. Fitzgerald in THE LANCET of Nov. 7th, 1891, says he believes that teaching to be entirely erroneous. He has not seen any evidence in this epidemic and in this country that disease has anywhere occurred under circumstances which exclude the possibility of infection having been contracted from human sources. The rate of spread of influenza has a direct relation to the rate of human transit in a country. In Europe it was rapid; in India it was slow. In proof of this he quotes the report of Surgeon Roberts, of the Indian Medical Service, which gives a description of the attack which occurred in the valleys of the Hindu Kush during last autumn, and which appeared at Gilgit in December, 1890. This report states that "the evidence in favour of its having spread by human intercourse along the lines of road communication, and not disseminated by the atmosphere, is so great indeed that in this instance it seems impossible to find any support for the latter theory."

MR. JAMES PARKER writes that he has used a pill of quinine, iron, and zinc valerianate for prostration in cases of influenza with markedly good results. He thinks the prepraation is worthy of a more extended trial.

DR. E. FURNISS POTTER is of opinion that phenacetin is a most valuable drug to use in influenza as an antipyretic, hypnotic, and anodyne. He also notes a resemblance between the temperature of influenza and that of enteric fever.

DR. MOWBRAY TAYLOR has had successful results in treating influenza with a salt of picric acid—the picrate of ammonium. As the basis of his treatment he administers a saturated solution of this salt in from five to ten-minim doses, every four hours, with ten minims of the liquor morphiæ in a little chloroform water. Being a derivative of carbolic acid, he thinks it owes its success to its chemical properties as a germicide when absorbed into the system.

MR. W. J. BLACK points out that the contagious nature of influenza is referred to in Cullen's Synopsis, January, 1785, page 174, under the heading "Catarrhus e Contagio." Hooper's Medical Dictionary, 1820, states the same. Our correspondent refers also to the Cyclopædia of Medicine, 1833. The Army Medical Reports, 1859, places the disease amongst the miasmatic and zymotic diseases. Mr. Black also points out glaring instances of disregard of this old experience.

"POISON BOTTLE-STAND."

To the Editors of THE LANCET.

SIRS,—When reading in the current issue of THE LANCET an account of Mr. Mennell's bottle-stand, by which the inadvertent use of poisonous drugs may be avoided, a very ingenious electrical contrivance which I saw about two years ago in the establishment of a chemist at a well-known seaside resort was recalled to my mind, a description of which may probably be of interest to some of your readers. Under each bottle containing a poisonous substance, as it stood on its shelf, was placed a small metallic disc, which was connected by a wire with a battery. When a bottle was removed a bell was immediately rung, and continued to ring until it (the bottle) was replaced, thus giving unmistakable evidence of the fact that a poisonous drug had been touched. In a word, the action was that of an ordinary electric bell *reversed*—i.e., the bell rang when pressure on the disc (caused by the weight of the bottle) was removed, and *vice versâ*. I may mention that Mr. —— assured me at the time that the apparatus worked well, was most simple of construction, and very inexpensive. Individually, I must confess I do not see why there should be any necessity for such appliances, as, if one will only exercise ordinary care in dispensing medicines, we should not read of so many lamentable accidents in the daily papers.—I am, Sirs, yours faithfully,

H. CLINTON DAVIES, L.R.C.S., L.R.C.P. ED., &c.

Hackney, Feb. 13th, 1892.

MEDICAL CHARGES IN SOUTH AFRICA.

THE *Port Elizabeth Telegraph* has a very sensible article on a discussion in the Afrikander Bond on unreasonable medical charges in country places. The *Telegraph* is properly sceptical of the truth of such charges. The rough and long journeys to be made and the hard professional duties to be done make good charges a binding duty on the medical adviser. The value of his life and time must be considered.

Dr. W. Arthur Bullen.—A medical man notifying cases of scarlet fever is not required to specify rash or any other symptom. The Act mentions no points or particulars of diagnosis, but provides only that every medical practitioner "on becoming aware" that a patient is suffering from an infectious disease to which the Act applies "shall send to the medical officer of health a certificate stating the name of the patient, the situation of the building, and the infectious disease from which, in the opinion of such practitioner, the patient is suffering."

Mr. W. R. Goodfellow.—The decision of the magistrates was not inconsistent with physiological laws.

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COMMUNICATIONS not noticed in our present issue will receive attention in our next.

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ABSTRACT OF

Contributions

TO THE

PHYSIOLOGY AND PATHOLOGY OF THE MAMMALIAN HEART.[1]

(From the Cambridge Pathological Laboratory.)

BY C. S. ROY, F.R.S., M.D.,
PROFESSOR OF PATHOLOGY,
AND
J. G. ADAMI, M.A., M.B.,
FELLOW OF JESUS COLLEGE, CAMBRIDGE.

IN studying the action of the mammalian heart we have sought to examine the organ under conditions, unexcised and intact, as nearly approaching the normal as are compatible with the employment of exact methods of research—in short, to make our observations approach in exactitude those which have been made upon the hearts of cold-blooded animals. And we have found two instruments of especial use—one, which we term the "cardiometer," a form of cardiac plethysmograph or oncograph, which records the changes in volume of the whole heart; the other a myocardiograph, whereby we could record the contractions or expansions of any part or parts of the auricular or ventricular walls without interfering with the movements of the heart as a whole. In most cases we employed this instrument to obtain simultaneous records of the contraction of one auricle and one ventricle. These instruments are fully described in our complete paper which will shortly be published.

In order to interpret the results gained by any form of recording apparatus applied to the mammalian heart it is necessary to keep in mind continually certain elements of the mechanics of the subject, for neglect to do this has led to much confusion and erroneous statement. Thus the ventricles may be looked upon as roughly spherical, and it is most important to remember the relationship between the circumference and the cubic contents of a (elastic) sphere, according to variations in the diameter or circumference of that sphere. When such a sphere is enlarged a very slight diminution in its circumference is capable of throwing out a quantity of the contained fluid, whose expulsion in a sphere of smaller diameter would be associated with a very considerable diminution of circumference. For example, reduction by one inch in the circumference of a sphere of five inches in circumference is accompanied by a reduction of the contents equal in amount to that which accompanies the lessening by a quarter of an inch of the circumference of a sphere of ten inches in circumference, although in the one sphere the circumference is lowered one-fifth, in the other one-fortieth. It is important also to keep in mind that the strain on the walls of a hollow spherical shell increases uniformly with the circumference—in other words, that the resistance to contraction of the ventricular walls becomes greater as the circumference is increased. It is well also to note that a change of pressure in the aorta or pulmonary artery has the same effect on the resistance to contraction offered to the left or right ventricular walls as obtains in the case of a parallel-fibred voluntary muscle by increasing or lessening the weight against which it is made to contract by single induction shocks, causing maximal contractions. If the weight be increased, although the same amount of work be done, the extent of shortening in contraction is diminished, and *vice versâ*. An analogous result takes place in the case of the ventricles. When from any cause the resistance to contraction is increased, or the force of contraction is reduced, their walls contract less completely, so that there is an increase in the amount of "residual blood" left in the cavities at the end of systole. The presence of such residual blood can be determined by the cardiometer, and, indeed, by the naked eye, in a variety of conditions, among which, as we proceed to show, vagus excitation is to be included.

Studying the action of the vagus upon the heart, we find that excitation of this nerve slows and weakens or stops the auricular contractions, and this weakening or arrest is a potent factor in bringing about the increased systemic and pulmonary venous pressure and in modifying the action of the ventricles. Up to a certain point the ventricles tend to follow the "sinus" rhythm, and to this extent vagus slowing of the auricles induces ventricular slowing. But when the vagus excitation reaches a certain degree (varying in different animals), the ventricles begin to beat independently of the sinus and auricles; and this rhythm, which is at first slow and irregular, gradually becomes fairly rapid and almost completely regular. This rhythm, we show, must be looked upon as the same as that which, as Wooldridge and Tigerstedt observed, makes its appearance when the ventricles are severed from the auricles. We point out, however, that the independent ventricular rhythm of vagus action is characterised by the slowness with which it establishes itself. This characteristic is due to the lowering of the excitability of the ventricles produced by vagus action, and we adduce a considerable number of facts showing that the vagus *does* lower the excitability of the ventricles, and that, by means of muscarin and by discontinuous stimulation of the vagus, it is possible to isolate the influence of the vagus on the rhythm and force of the auricles from its influence upon the excitability of the ventricles. The power of the vagus to stop the ventricles temporarily can only be explained by this diminution of their excitability. We show that, with a certain degree of vagus excitation, irregularity of the ventricles necessarily results, in consequence of the sinus and the idio-ventricular rhythms interfering with one another; that this is the common cause of irregularity; and that irregularity may also be caused by the auricles not responding to all the impulses which reach them from the sinus.

In consequence of this slowing of the rhythm and lessened excitability of the ventricular walls, the ventricles become distended in diastole, this distension being also aided by the fact that the increased venous pressure must lead to a greater amount of blood being poured into the cavities between the beats. And this dilatation of the ventricles is not simply diastolic, but is also systolic—the ventricular cavities are relatively distended at the completion of systole. It must not, however, be thought that this increase in the residual blood indicates a lessened force of contraction of the ventricular muscle due to the action of the vagus. Of such weakening of the ventricular muscle we find no proof. A consideration of the principles enunciated at the beginning shows that residual blood is not a necessary indication of lessened force of contraction, and that, if the ventricles be dilated, a comparatively slight extent of contraction leads to the expulsion of a comparatively large quantity of blood. And, as a matter of fact, we find that, while through the slowing of rhythm which accompanies vagus excitation, the output of the heart—that is to say, the amount of blood expelled in a given time—undergoes considerable diminution, the "contraction volume" or amount of blood thrown out at each individual beat is not lessened, but, on the contrary, greatly increased. The diminution of arterial pressure does not suffice to explain this increase. We therefore conclude that, as stated above, the vagus does not lessen the force of contraction of the ventricles.

Studying the effect of direct excitation of the nervi augmentores (accelerantes) upon the heart, we show that the acceleration of the rhythm may be extremely slight if the heart be beating fast, and that the acceleration and augmentation of force of the heart bear no constant proportion to one another. The augmentor nerves increase the diastolic expansion of the auricles and also increase their systolic contraction; but these two effects do not go hand in hand. Excitation of the augmentors increases the output of the heart, owing to the increased force and frequence of the auricular contractions, the result of this being that the pressures in the systemic and pulmonary arteries rise, while the systemic and pulmonary venous pressures fall. If there be but little quickening, the contraction volume of the ventricles is increased. The augmentors, on direct stimulation, cause a slight increase in the diastolic expansion of the ventricles, which is passive

[1] Communicated to the Royal Society on Feb. 11th, and printed by the kind permission of the President and Council.

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in nature and due to the increased force of the auricular contraction. The force of the ventricular contractions is increased; they contract more completely, diminishing the amount of residual blood, in spite of the fact that the arterial pressure is usually somewhat raised. Reflex excitation of the vagus produces results which are the same as those of direct excitation of the nerve, and the curves are more typical and satisfactory than those obtained on direct excitation. Excitation of a mixed nerve like the sciatic usually produces effects on the heart similar in kind to those due to direct excitation of the augmentors, but the phenomena are complicated by the greater rise of the pressure in the systemic arteries. Sometimes the increase in force of the ventricle more than counterbalances this increased resistance to contraction, and the amount of residual blood in the left ventricle is reduced; in other cases the increase in force of the ventricular contractions is not sufficient to counterbalance the increased resistance, and the residual blood in the left ventricle is increased.

We show that excitation of the central end of a mixed nerve like the sciatic or splanchnic usually affects both the augmentor and vagus centres in the medulla, and that, in nearly all cases, the augmentor centre is the more strongly excited of the two, so that augmentor effects show themselves during the excitation, but are succeeded by vagus action on ceasing to excite the nerve. In many cases augmentor effects alone show themselves. When excited reflexly the augmentor centre ceases to act earlier than the vagus; the opposite, therefore, to what takes place with direct excitation. In rare cases the excitation of the vagus centre may be stronger than that of the augmentor from the first. Although, in the absence of any augmentor action, the vagus does not reduce the force of the ventricular systole, it does unmistakably have the power of inhibiting the strengthening influence which the augmentors exert upon the ventricular contractions. As to the part played by the vagus in the economy, we show that vagus excitation relieves the heart of work, and therefore of waste, to as great an extent as is compatible with a continuation of the circulation, and conclude that the vagus acts as a protective nerve to the heart, reducing the work thrown upon that organ when from fatigue or other cause such relief is required by it. The presence of fibres in the sciatic and other mixed nerves which cause reflex excitation of the vagus would seem to indicate that this nerve may be used by other parts of the body to diminish the output of the heart and lower the blood-pressure, thereby reducing the activity of the circulation as a whole. The influence of the blood-pressure in the systemic arteries on the degree of vagus activity and the readiness with which the vagus centre is called into play by raising the intercranial pressure indicate that the vagus mechanism is specially employed in lowering the circulation so as to limit cerebral congestion. The vagus acts chiefly in the interests of the heart and central nervous system. The power of the vagus over the heart is limited, and the idio-ventricular mechanism which comes into play when the vagus action exceeds a certain limit must be looked upon as the means by which arrest of the circulation and death is prevented, whenever from any cause the nerve exerts a maximum influence. The power of the vagus to lower the excitability of the ventricles makes their temporary arrest possible; but this reduction of the excitability of the ventricles cannot be kept up, no matter how strong the stimuli applied to the nerve, for a period long enough to endanger the economy.

The function of the augmentor in the economy is to increase the work and tissue waste of the heart as part of the mechanism by which the nervous system governs the circulation, and the augmentor mechanism sacrifices the heart in order to increase the output of the organ and enable the ventricles to pump out their contents against a heightened arterial pressure. Such excessive action of the heart is limited by the vagus, which, as we have seen, readily steps in so soon as the call for an increased supply of blood has ceased. It may do so earlier, presumably because the increased blood-pressure or the fatigue of the heart calls for vagus intervention.

Considering the mode of interaction of the vagi and augmentores, we point out that when the vagi are paralysed by section or atropine, the augmentores have no control over the cardiac rhythm, and that therefore they can only act by inhibiting the influence of the vagi on the rhythmic centre of the heart. When neither nerve is acting on the auricles they contract with a certain force, which is increased by the augmentores and diminished or inhibited by the vagi. The force of the ventricular contractions is increased by augmentor action; this increase can be inhibited by vagus excitation, which latter has otherwise no power to reduce the strength of ventricular contractions. The force of the heart's contractions is influenced by other factors than the vagi, augmentores, and other nerves. The pressure of the blood in the coronary arteries is one of the most important of these factors. If this be lowered, the contractions of both auricles and of ventricles diminish in strength, while a rise of pressure in the systemic arteries causes an increase in the force of the heart's contractions, so that the force of the heart's contractions is to a certain extent regulated automatically by changes in the blood-pressure in the aorta, which is one of the variable quantities affecting the work of the left ventricle. Change in the volume of blood in the body affects greatly the contraction volume and output of the heart. Injections into the veins of a volume of defibrinated blood equal to one-tenth of the total blood in the body may double the output. It is important to note here that there is no increase in the strength of the ventricular contractions; increase in the work, therefore, of the ventricles due to increase in the output has no tendency to automatically increase the force of the ventricular contractions, as is the case with rise of pressure in the systemic arteries. We refer to the bearing of this in cases of plethora. Increase of the watery constituents of the blood increases the contraction volume and output to the same extent (though only temporarily) as does transfusion of blood, but acts more unfavourably on the heart, seeing that the work done by the ventricles is increased, while the nutritive value of the blood supplied to the coronaries is diminished. The increased output of the heart both in plethora and in hydræmia is due to rise of pressure in the systemic veins, increasing the volume of blood which enters the right ventricle during diastole. We refer to the bearing of these facts upon the treatment of chlorosis and heart disease.

In strictly physiological conditions, and in spite of the beautiful mechanism by which the force of the ventricular contraction is regulated, the heart, like the voluntary muscles of the body, is liable to fatigue when the work thrown upon it greatly exceeds that required to maintain the circulation under ordinary circumstances. We take as example the increased work thrown upon the organ during active muscular exertion, and show that exertion and endurance of fatigue are limited mainly by the limited power of the heart to continue supplying the increased amount of blood which is required by the acting voluntary muscles. We show that those luxuries which are forbidden or limited in "training," and which are known to hinder prolonged exertion, such as water, alcohol, tobacco, caffein, all directly weaken the force of the heart's contractions, and, in the case of water, place the organ under a disadvantage; also that fatigue of the heart leads to dilatation of the organ. On comparing the power of fatigued ventricles to carry on increased work, as compared with well-nourished, unfatigued ventricles, it is found that not only is the strengthening effect of the augmentor nerves upon the individual contractions less in the former case, but also that the fatigued, and therefore dilated, heart is *per se* unfavourably placed for meeting increase in the work thrown upon it. An explanation is given of the reason why in heart disease failure takes place during exertion. The part played by the vagus in protecting the diseased heart from harmful overwork is referred to, and it is shown that irregularity of the heart in disease may be explained by the mode in which this nerve, when acting powerfully, releases the ventricles from the control of the rhythmic centre in the sinus. The chief forms of rhythmic and arhythmic irregularity are considered, and it is shown that these correspond with the forms of irregularity which can be produced by vagus action. The irregular heart expends more energy, and its tissues therefore are more wasted, for a given amount of work than the heart which is beating regularly. The effect upon the heart of imperfect aeration of the blood is, first of all, to produce powerful vagus action from the medullary centre; this is usually, though not always, accompanied in curarised animals by diminution of the output of the heart. But reasons are given for assuming that the output would be increased in uncurarised animals, owing to the high venous pressure which results from

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struggling. Besides the vagus action, it can be shown that asphyxia causes progressive weakening both of the auricles and of the ventricles, and attention is drawn to the fact that the considerable rise of pressure in the systemic arteries in asphyxia is accompanied by vagus effects upon the heart, and not by augmentor action, as is the case, so far as we know, in all other instances in which the vaso-constrictor centre is excited in the normal individual. It is noted that the change in the heart and circulation which takes place during asphyxia points to the conclusion that, when the total amount of oxygen in the blood is lowered, it is for the benefit of the economy that those organs, such as the central nervous system, whose continuous blood-supply is a vital necessity, should be richly furnished with blood by constriction of the vessels of the spleen, kidney, and digestive system, whose blood-supply can be cut off temporarily without danger to life, and also that the heart should carry on the circulation in a manner involving as little as possible waste of its own substance. This, as we have seen, it is the function of the vagus nerve to bring about.

Lecture

ON

TISSUE- OR CELL-FIBRINOGEN IN ITS RELATION TO THE PATHOLOGY OF BLOOD.

Delivered at the Theatre of the Laboratories of the Conjoint Colleges of Surgeons and Physicians, on Feb. 4th, 1892,

BY A. E. WRIGHT, M.D. DUB.,

LATE GROCERS' RESEARCH SCHOLAR.

THE first step in the direction of the acquirement of a control over the processes of coagulation in the living body was made by Wooldridge when he succeeded in demonstrating that intra-vascular coagulation could be obtained by the injection of solutions of tissue-fibrinogen. I do not think that I am over-estimating the importance of this discovery; for when it had been confessed by Schmidt's own pupils[1] that the injection of practically unlimited quantities of fibrin ferment into the vessels made the blood more liquid instead of producing coagulation in it, it became evident that there was no possibility of influencing the coagulability of the blood by following the lines of the fibrin-ferment theory. Now Wooldridge's work was a departure on new lines, and he succeeded in the most brilliant manner in demonstrating that it was possible by working upon these new lines to obtain a practical control over the phenomena of coagulation in the living body. It is to the facts that Wooldridge discovered, and to such others as I have been able to add to them or to bring into relation with them, that I would wish to direct your attention this afternoon. And to begin with, I would like to say that in ascribing the credit of the method of producing intra-vascular coagulation to Wooldridge I believe that I am only giving him what is strictly his due; for, although Groth,[2] one of Schmidt's pupils, had described the occurrence of intra-vascular coagulation in connexion with the injection of leucocytes in 1884—i.e., before the date of Wooldridge's publication—he had elicited the phenomena in a much less distinct manner, and he had not determined to what constituent of the leucocyte the intra-vascular coagulations were due. Instead of this he ascribed these coagulations to a production of fibrin ferment in the blood—that is to say, Groth ascribed his coagulation to a cause which we know to be quite ineffective. I think we need not therefore consider a question of priority here; but, on the other hand, we shall do well to keep in view the fact that Groth was successful in obtaining intra-vascular coagulations by the injection of the expressed juice of lymph-glands, and we have to note also that Groth regarded his experiments as conclusive as to the participation of leucocytes in the processes of coagulation. Groth's work thus opens up a number of important issues, which we shall have to consider in connexion with the production of intra-vascular coagulation by tissue-fibrinogen.

First, with regard to the relation of white corpuscles to coagulation, we are met by the fact that Wooldridge not only did not consider that Groth's experiments proved the existence of any such relation, but he went further than this, and expressed it as his opinion that the leucocytes of the blood had not been shown to stand in any relation whatever to coagulation. Wooldridge based this view, for the one part, on certain defects in conclusiveness in the evidence which had been adduced by Schmidt and his pupils to implicate the leucocytes in the processes of coagulation. Schmidt had, for instance, described the superior coagulability of the so-called granular layer which is seen above the corpuscular layer in horse blood which has been kept from coagulation by cooling; and Schmidt had asserted the granules of that layer to be with certainty derivatives of disintegration of white blood-corpuscles, and upon this assumption he had concluded that the superior coagulability of the granular layer was evidence of the participation of the leucocytes in coagulation. Wooldridge, however, pointed out that there was a flaw in this evidence, inasmuch as Schmidt had not excluded the possibility of these granules being derivatives of the plasma—i.e., the possibility of their being simply a precipitate produced in the plasma by cooling. In this connexion Wooldridge showed that peptone plasma gives such a precipitate on cooling, and I may say that I have observed that a similar precipitate can invariably be produced by the action of cold upon decalcified plasma. It follows, I think, that the argument from the superior coagulability of the granular layer must be finally abandoned. Again, with respect to the experiments of Groth and afterwards of Krüger,[3] in which an increased coagulability was observed after leucocyte injections, Wooldridge drew attention to the fact that the experiments were conducted with insufficiently isolated leucocytes, and pointed out that a fallacy was, in his opinion, introduced into them by the fact that the lymph plasma which was injected along with the lymph cells contained a coagulative substance—namely, tissue fibrinogen. Further, Wooldridge repeated the experiments of Groth and Krüger with washed leucocytes, and found that he obtained a diminution instead of an increase of coagulability in the blood. These appear at first sight to be very grave, if not fatal, objections to Schmidt's view of the important *rôle* of the white corpuscles in coagulation; still I hope to be able to show that it is possible to settle satisfactorily with them.

First, with regard to the defective isolation of the cells which was insisted upon by Wooldridge, it must be conceded that Groth's leucocytes were not at all isolated. They were simply injected along with the inter-cellular fluid of the lymph gland. With regard, further, to Krüger's attempt at isolation by means of filtering off the lymph plasma, Wooldridge is probably also correct in stating that this method is entirely ineffective, inasmuch as any attempt to filter off leucocytes from a solution of tissue fibrinogen would be rendered futile by the fact that a considerable amount of tissue fibrinogen would invariably be retained on the filter. It is evident, therefore, that we have to concede to Wooldridge that neither Groth's nor Krüger's experiments were performed with isolated leucocytes.

When we come to the second heading of the objection, which is based upon the fact that the lymph plasma contains tissue fibrinogen, and would thus introduce a fallacy if not effectually separated from the leucocytes before injection, we must, however, pause for consideration. It is not at all necessary to meet this objection by asserting that there is no tissue fibrinogen in the lymph plasma. Wooldridge was a very careful observer, and we may well accept the fact upon his statement; but we may, on the other hand, with advantage inquire how the tissue fibrinogen got into the lymph plasma; and when this question is once formulated, it is easy to see that the answer must be that the tissue-fibrinogen is almost certainly derived from the disintegration of leucocytes, inasmuch as Wooldridge himself has shown that the lymph cells contain this substance. We thus see that if the coagulative substance of the lymph plasma was derived from the leucocytes, the contamination of the leucocytes with this plasma

[1] Jabowicki, Birk, Köbler: Disserts., Dorpat, 1875, 1877, 1880. Edelberg's contradictory results (Archiv f. Exp. Path., 1880) may be neglected. They were obtained with extraordinarily impure fibrin-ferment solutions.

[2] Dissert., Dorpat, 1884.

[3] Zeitschrift f. Biolog., 25, p. 189.

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in the experiments of Groth and Krüger cannot be considered to vitiate their results with reference to the connexion between leucocytes and coagulation. Lastly, as to Wooldridge's objection that the injection of washed leucocytes from lymphatic glands produces increased fluidity instead of increased coagulability of the blood, it will be evident among other things that the extraction of the contained tissue-fibrinogen in the processes of washing would easily account for this result, the injection of washed leucocytes being in point of fact equivalent to an injection of attenuated leucocytes.

Having thus cleared our way from the obstacles which seemed at first to forbid us to contemplate the possibility of there being an essential unity in the results obtained by Wooldridge with tissue-fibrinogen injections and the results obtained by Groth and Krüger by their injections of leucocytes, we may proceed to inquire whether there are any positive grounds for assuming the fundamental identity of the phenomena. And here we have, first of all, to note the fact that tissue-fibrinogen—or, as I might perhaps venture to call it, "cell-fibrinogen,"[4]—though found also in the cells of the testicle, and I believe also of yeast—is yet pre-eminently a constituent of the leucocytes of the thymus and of the lymphatic system generally, and we must regard these leucocytes as at least potential blood leucocytes. Here, then, we have immediately an important link between leucocytes and tissue fibrinogen. With reference to this, however, we again find that Wooldridge was not satisfied of the conclusiveness of the argument. There might well be, argued Wooldridge, all the difference in the world between the leucocyte of the lymphatic system and the leucocyte of the blood; and further than this there was, in his opinion, distinct reason to believe that the lymph cell puts off its old nature and assumes an altogether new one when it once obtains access to the blood stream. This was Wooldridge's view; and here again, since I wish to push my argument beyond the leucocyte of the lymph to the leucocyte of the blood, I am compelled to dwell a little on the question as to whether a lymph cell is in any way demonstrably different in its chemical character from a blood leucocyte. If I understand Wooldridge aright, the experiment he relied upon as establishing a difference between the leucocyte in the gland and the leucocyte in the blood was the following. He took lymph cells and added them to "strong peptone plasma," which is not coagulable by the addition of leucocytes. He then collected his leucocytes again from this strong peptone plasma and proceeded to add them to a weak peptone plasma, which is invariably coagulable by the addition of leucocytes. The leucocytes which he now added, however, failed to coagulate it, and the conclusion which was drawn by him from this fact was that the leucocytes had undergone some fundamental alteration in their chemical constitution during the period of their stay in the strong peptone plasma. Such a change of nature Wooldridge considered to be associated with the passage of the lymph cell over the threshold of the blood. The experiment in question is, however, hardly sufficient to establish this, and it is not at all difficult to put a different construction upon it than that which Wooldridge attributed to it. I think we are, in fact, constrained to do so in view of the facts which have been elicited by Rauschenbach in connexion with the chemical and physiological properties of the leucocytes. The researches in question I believe conclusively establish that though there is an undoubted line of distinction which can be drawn between leucocyte and leucocyte, that line cannot be drawn so as to include all the white blood-corpuscles in one category and all the lymph cells in another. Rather the distinctions can be more naturally explained with reference to differences in maturation in the leucocytes whether these occur in the blood stream or without it. The physiological differences between leucocytes are apparently only quantitative differences, but they are at least very appreciable quantitative differences, and they permit of our sorting the leucocytes into two classes. The basis of this classification would be the greater or less stability of the leucocyte as shown by its resistance to disintegration when it is introduced into a spontaneously coagulable plasma. It is, however, to be noted that such a coagulable plasma has the power of disintegrating any leucocyte[5] whatever which is added to it, and of using up one of its constituents, not, it must be noted, its paraglobulin, but its tissue- or cell-fibrinogen in the formation of fibrin. When, however, it comes to be a matter of choice, the plasma naturally employs for its purposes the more easily disintegrated leucocytes which have been described by Rauschenbach as the α-leucocytes. These α leucocytes are distinguished from the β leucocytes, also by certain more strictly chemical characters. They, for instance, stain in carmine only with extreme difficulty, whereas the β-leucocytes take on the stain almost instantaneously. Again, the α leucocytes further show their defect in stability by undergoing a slimy metamorphosis when they are treated either with NaCl solutions of moderate strengths, or with dilute caustic alkalies. These characters are, I think, possibly due to the presence of considerable quantities of tissue-fibrinogen in the α-leucocyte.

When these differences between leucocytes had been established Rauschenbach proceeded to the study of what we may call the geographical distribution of the α- and β leucocytes, but it is only possible to glance at the main results of his most interesting work so far as they affect the questions at present more directly under discussion. It is, for instance, of direct importance to us to note that both α- and β leucocytes are found to be present in the lymph glands, and, further, that the same two varieties of leucocytes are found also in the blood. We thus see that Rauschenbach's observations do not support the theory of the essential duality of the blood leucocytes and the lymph leucocytes. Rauschenbach's work further indicates the lines upon which the explanation of Wooldridge's experiment is to be sought, for we can now see how it is almost certain that Wooldridge must have added to his "strong peptone plasma" a mixture of α- and β leucocytes, and it is probable that he would, under the circumstances, only have recovered the less easily disintegrated β-leucocytes from it—i.e., leucocytes whose coagulative power may have been inadequate to bring about coagulation in his weak peptone plasma. The result obtained would then easily be accounted for without the hypothesis of the leucocyte putting on a new nature when it entered the blood. Similarly we could on these lines account for Wooldridge's observation that the inter-cellular fluid of the lymph glands was much more potent in inaugurating coagulation than the isolated lymph cells. The α-leucocytes, which disintegrate easily, would naturally pass into solution in the lymph plasma and impart their coagulative efficacy to it, while the more resistant cells, which survive the chemical processes involved in isolation, probably consist of β leucocytes in which the coagulative power is at its minimum. This may in part account for the relative coagulative inefficacy of the leucocytes employed by Wooldridge in his injection experiments. We shall, however, have to return to this subject at a later stage of this lecture.

We have in this manner, if my arguments are correct, disposed of the objections which Wooldridge raised to admitting the coagulative influence of leucocytes, and we have now only to establish that the phenomena observed after the injection of tissue-fibrinogen are identical with the phenomena seen after the injection of leucocytes, before we proceed to vindicate that wider importance for tissue-fibrinogen coagulations which would naturally accrue to them if they were shown to stand in relation to any increased disintegration of leucocytes in the blood.

I shall therefore proceed to describe to you from Wooldridge's work on the subject and from work of my own, which was directed to follow up Wooldridge's researches, the phenomena observed after the injection into the blood of solutions of tissue-fibrinogen, and I shall then bring these into connexion with the results obtained by Groth by injections of leucocytes into the blood. I may say that I am only concerned here in putting before you the main facts of my work on the subject. The actual experiments and the general details I have already communicated to the Royal Irish Academy, and the paper has just appeared in their Proceedings.[6]

The injection of a solution of tissue-fibrinogen into the vessels is followed by an increase of the coagulability

[4] This term would appear to be a more appropriate one than tissue-fibrinogen, since this proteid appears to occur not in the inter cellular substance of tissue, but in the cells themselves. It appears also to be more widely distributed in free cells than in cells which are found in tissues.

[5] According to Rauschenbach's researches the plasma has the power of disintegrating not only leucocytes, but many other varieties of animal and vegetable cells.

[6] Proc. Roy. Irish Acad., third series, vol. ii., No. 2.

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of the blood, which is at its height immediately subsequent to the injection. If the quantity of tissue-fibrinogen injected is large enough, the increase of coagulability leads to the immediate occurrence of intra-vascular coagulation. The coagulation which occurs under these circumstances in the case of the dog occurs only in the portal vascular area; but I have been able to show that we can determine it to any predetermined vascular area by increasing the venosity of the blood in the veins of that particular district, or we can generalise the coagulation and obtain it all over the vascular system, both in the arteries and the veins, by increasing the amount of CO_2 in the blood generally. These alterations in the direction of the "positive phase of coagulation," to use Wooldridge's convenient expression, form, however, only a part of the effects which result from the injection of a solution of tissue-fibrinogen.

We have further to deal with a negative phase of coagulation—i.e., with a condition of diminished coagulability brought about by injections of tissue-fibrinogen. This diminished coagulability was described by Wooldridge in connexion with the blood of the extra-portal vascular areas, where intra-vascular coagulation had occurred in the portal system. I have, on the other hand, I believe, succeeded in establishing that the negative phase of coagulation is due to a general reaction of the system to the injection of tissue-fibrinogen, and that it is possible, by slow injection of moderate amounts of tissue-fibrinogen, to obtain a general diminution instead of a general rise of coagulability. The blood has, therefore, the power of breaking down tissue-fibrinogen into some substance or substances which condition the loss of coagulability. I will here adduce from my note-books an experiment, which seems to me to establish distinctly the sequence of events which I have just described.

EXPERIMENT 1.

Dog 119.—Cannulas inserted into the jugular vein and the carotid artery, and animal anæsthetised with a mixture of ether and chloroform. Samples of blood drawn off from the carotid to determine the condition of coagulability. Sample 1 (5.43 P.M.): Can invert tube at 5.51 P.M.; time, 8 minutes. Ran in 10 cc. of tissue-fibrinogen solution at 5.43 P.M. Sample 2 (5.44 P.M.): Still liquid 1 hour after. Ran in 10 cc. more of tissue-fibrinogen solution. Sample 3 (5.45 P.M.): Still liquid 1 hour after. Sample 4 (5.46½ P.M.): Still liquid one hour after. Sample 5 (5.48 P.M.): Still liquid 1 hour after. Ran in 10 cc. more tissue fibrinogen. Sample 6 (5.50 P.M.): Can invert tube at 5.58 P.M.; time, 8 minutes. Sample 7 (5.51 P.M.): Can invert tube at 6.4 P.M.; time, 13 minutes. Ran 10 cc. more at 5.52. P.M. Sample 8 (5.53 P.M.): Can invert tube at 6 P.M.; time, 7 minutes. Ran in 10 cc. more at 5.54 P.M. Sample 9 (5.55 P.M.): Can invert tube at 6 P.M.; time, 5 minutes. Ran in 10 cc. more. Sample 10 (5.56 P.M.): Can invert tube at 6 P.M.; time, 4 minutes. Ran in 10 cc. more. Sample 11 (5.58½ P.M.): Can invert tube at 6.2 P.M.; time, 3½ minutes. Sample 12 (6 P.M.): Can invert tube at 6.4 P.M.; time, 4 minutes. Sample 13 (6.2 P.M.): Can invert tube at 6.9 P.M.; time, 7 minutes. Sample 14 (6.7 P.M.): Can invert tube at 6.14½ P.M.; time, 7½ minutes. Ran in 20 cc. more tissue-fibrinogen solution. Sample 16 (6.14 P.M.): Can invert tube at 6.16 P.M.; time, 2 minutes. Sample 17 (6.16 P.M.): Can invert tube at 6.20 P.M.; time, 4 minutes. Sample 18 (6.19 P.M.): Can invert tube at 6.22 P.M.; time, 3 minutes. Sample 19 (6.22 P.M.): Can invert tube at 6.26 P.M.; time, 4 minutes. 6.26 P.M.: Clamped the trachea to increase the coagulability of the blood, and ran in 20 cc. more tissue-fibrinogen solution. Death occurred instantaneously, and both sides of the heart and the whole of the aorta were found occupied by a solid clot. No clot in the portal vascular area. Urine gave a very distinct biuret reaction.

We have thus proved that the positive and the negative phase are successive in time, and it was evident that the positive phase is associated with the presence of tissue-fibrinogen, as such, in the blood. It still, however, remained to be determined to what the negative phase of coagulability is due, and I have ventured in my paper referred to above to suggest that it is due to the presence in the blood of albumoses which have been split off from the tissue-fibrinogen by the action of the blood. The evidence upon which I based that suggestion is as follows: (*a*) The plasma from the negative phase areas no longer contains any of the injected tissue-fibrinogen. (This, I may remark, is an observation which was made by Wooldridge.) On the other hand, the blood of the negative phase areas was found by me to have acquired the characters of peptone or albumose blood—that is to say, it clots with CO_2, and on dilution. Coagulation can also be inaugurated in it by an addition of lime salts or of tissue-fibrinogen or leucocytes. Further, (*b*), there is a very close analogy between the distribution of the areas of the positive and the negative phase after tissue-fibrinogen injections and the distribution of coagulability after injections of peptone. For instance, the coagulability is in the case of tissue-fibrinogen injections increased up to the coagulation point in the portal area and to a lesser extent in the venous system generally. Similarly in the case of peptone injections the coagulability is retained in the venous system, and especially in the portal venous system, long after it has been lost in the arterial system. Again, the positive phase after tissue-fibrinogen injections can be extended to the arterial system by rendering the blood there venous; and I have been able to show we have something quite similar in the case of peptone injections, for it is only necessary to render the arterial blood venous in order to restore its lost coagulability to it. Lastly (*c*), I would point out that an excretion of albumose or peptone occurs both in the dog and in the rabbit after the injection of tissue-fibrinogen into the veins or into the subcutaneous tissue. Here, again, I think we have evidence that the tissue-fibrinogen is broken down into albumose in the system.

On the whole, therefore, I think we may perhaps regard it as pretty well made out that the occurrence of a negative phase after tissue-fibrinogen injections stands in some close relation with the liberation of albumose by the disintegration of tissue-fibrinogen in the blood.

(To be concluded.)

ON IRREDUCIBLE DISLOCATIONS OF THE GREAT TOE AND OF THE THUMB SUCCESSFULLY TREATED BY OPERATION.

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THE analogies seen in the following two cases lead me to report them together.

CASE 1. *Dislocation of great toe backwards; unsuccessful attempts at reduction; operation; recovery.*—William G——, aged forty years, groom, was admitted into Queen's Hospital, Birmingham, under my care, on June 18th, 1889. Shortly before admission a horse he was riding slipped on a granite roadway and fell on its side, with the patient's right foot beneath it. The man says that his heel came first to the ground, and that the whole weight of the horse came on to the toe of his boot with the foot in a vertical position. The sole of the boot was bent transversely across towards the front of the limb. The pain of the accident was exceedingly severe, and he was unable to stand. On admission the right great toe was found completely dislocated on to the back of the metatarsal bone; it was slightly abducted and was flexed at the phalangeal joint. It could be moved laterally without much pain. The rounded head of the metatarsal bone projected prominently in the sole of the foot, the skin being stretched tightly over it. There was already a great deal of effusion into the tissues. The diagnosis of the injury could be made without any difficulty. Chloroform and ether mixture was given by the house surgeon, and attempts made at reduction by traction and manipulation in all directions. I first saw the man on the following day, and although the parts were much more swollen recognition of the exact nature of the case was quite easy. The limb was thoroughly cleansed with hot water, soap, and turpentine, and an anæsthetic again administered. All attempts at reduction being unsuccessful, the limb was made bloodless by elevation, an elastic tourniquet applied, and a two-inch vertical incision made, with its centre over the head of the metatarsal bone, which lay immediately beneath the skin. The head of the bone was found to have thrust itself between the heads of the flexor brevis pollicis muscle, the internal head of

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which was about half torn across. The anterior ligament with its embedded sesamoid bones was torn away from the metatarsal bone, and had "shut back" behind the rounded head, constituting itself the chief, if not the entire, obstacle to reduction. The tendon of the flexor longus pollicis lay on the inner side of the metatarsal bone. With the parts exposed before me I was unable to reduce the displaced bone until I had completely divided the anterior metacarpo-phalangeal ligament and the sesamoid bones by a free vertical incision made in their middle line. Reduction was then effected at once, but the dislocation just as easily recurred. The wounds between the sesamoid bones, the capsule, and the muscle were sutured closely with catgut, and reduction then remained permanent. The tissues around were infiltrated with coagulated blood. No vessel was tied at the operation. The parts were dusted with powdered boracic acid, a small drainage-tube introduced to the deepest crevice in the wound, the skin brought together with wire sutures, and a dry absorbent dressing applied. The limb was put up on a Nevill's splint, to which it was firmly fixed by strapping, and swung in a Lawrence's cradle.—June 26th: Wound dressed for the first time; perfect primary union; tube and sutures removed. Temperature 98·2°; pulse 70.—July 13th: Wound dressed again and found absolutely well, with skin pale and shrivelled and toe in perfect position. No attempts at movement were ordered to be made. The limb was put up in plaster-of-Paris, and the patient was sent home. A few weeks later all the dressings were discontinued, and the man returned to his work without feeling any inconvenience from his injury.

CASE 2. *Unreduced dislocation of thumb backwards; operation four months afterwards; cured.* — Elizabeth N—— aged seven years, was admitted into the Birmingham Children's Hospital, under my care, on Nov. 27th, 1890. From the mother I learnt that about four months previously the child had slipped, and in falling had caught her right thumb against the side of the door. She felt great pain at the time, and was at once taken to the Birmingham General Hospital, where she was seen by a junior officer, who kept her under observation and treatment for more than two months. What treatment was adopted or what opinion was given I could not satisfactorily elicit from the mother, but she seemed very much surprised when I told her that the child's thumb was "out of joint." On admission the thumb was found completely dislocated backwards. The head of the metacarpal bone projected markedly forwards, and was covered by a resistant layer of soft parts. The base of the first phalanx lay behind the metacarpal head, and was slightly abducted. The phalangeal joint was semiflexed and readily movable. When the child closed its fist the thumb stood straight outwards, and could not be brought anywhere near to the flexed fingers. No pain had been complained of for several weeks. On Dec. 1st, the limb having been previously sterilised and an Esmarch's tourniquet applied, I made a two-inch incision over the front of the metacarpal head in the line of the thumb. Below the skin the bone was covered with newly organised fibrous tissue, which was divided, and the articular surface of the metacarpus exposed. The phalanx lay completely behind the metacarpal bone, and had attached to its base the anterior metacarpo-phalangeal ligament which had been torn from its upper attachment, and had "shut back" behind the metacarpal head. The heads of the flexor brevis pollicis muscle had been torn apart, and lay posteriorly to the metacarpal bone, where they had become attached by newly formed fibrous tissue. The anterior ligament was freely divided vertically at its middle, and, after a few fibres of the internal head of the short flexor had been divided transversely, reduction was with little difficulty effected. The tendon of the long flexor was not seen; it certainly did not lie between the bones. Displacement after reduction easily recurred, but was overcome when the divided ligament and muscle were sutured together in front of the metacarpal bone. No vessels were tied. The wound was dusted with powdered boracic acid, and dressed with dry absorbent dressings without drainage. The limb was put up with the phalanges acutely flexed towards the palm, the fingers bent over them, "fist like," and the whole hand firmly bound with bandage. The arm was carried in a sling, and no splint of any kind applied.—Dec. 7th: Wound dressed for first time; perfect primary union; all sutures removed. Temperature 98·4°; pulse 82. — 20th: Wound dressed again; quite well; thumb in perfect position, with a little movement of flexion and extension.—27th: Made out-patient, merely wearing a thumb-stall, and without any tendency to return of the deformity. I saw the child a few weeks later, and improvement was still going on, but there was slightly limited movement in the joint when compared with the other limb.

Several theories have been advanced as to the cause of the irreducibility in this class of injury. The one most generally accepted, and the one still taught in most of our modern text-books, is that it depends upon the tight embrace of the two heads of the flexor brevis pollicis muscle, between which the metacarpus is supposed to be thrust as through a button-hole. A point of greater importance, however, lies in the fact that the head of the bone pushes its way through the muscle above the level of the sesamoid bones, the anterior metacarpo-phalangeal ligament being at the same time torn away from its metacarpal attachment, and these two structures, which are closely incorporated with each other, "shut back" behind the protruding head and become closely applied to the anterior part of the articular surface of the displaced phalanx. The "shutting back" of these structures is due partly to their own elasticity and partly to the pull of the remaining attachments to them of all the short muscles of the thumb or great toe. In the first of the above cases the inner head of the flexor brevis pollicis was to some extent torn across, and the neck of the metacarpus was only loosely held by the sides of the rent through which it passed; but the sesamoid bones lay between the base of the phalanx and the back of the misplaced head, and constituted in themselves the sole obstacle to reduction, and when these structures were split vertically the head slipped back to its proper position with the greatest ease. A precisely similar condition existed in the second case. An excellent description of this arrangement of parts was given many years ago by Dr. Lauric.[1] He says: "The end of the metacarpal bone is driven completely through the inner fibres of the external head of the flexor brevis muscle. The anterior ligament is completely torn from the metacarpal bone, and remains attached to the phalanx and sesamoid bones in such a manner that the torn ligament and the sesamoid bones are carried backwards by the phalanx and placed between it and the metacarpal bone. The state of parts is aggravated and rendered permanent by the contraction of the muscles attached to the sesamoid bones and the anterior ligament. The result is that the opening in the ligaments by which the metacarpal bone escaped is thrown back nearly half an inch, and the remains of that ligament and sesamoid bones form a partition between the displaced ends of the bone which forms a mechanical obstacle to the reduction."

Mr. J. C. Wordsworth published a paper in THE LANCET (vol. ii. 1863, p. 443) on "Dislocations of the Thumb at the Metacarpo-phalangeal Joint," showing that the difficulty in reducing them arises from malposition of the tendon of the long flexor. He describes three cases, one of which "was irreducible, and here the long flexor tendon was found between the ends of the bones, having passed round the ulnar side of the head of the metacarpal bone, and by traction having been drawn across the joint." It is possible that Wordsworth's explanation may be the true one in a few cases, but the peculiar displacement of the long tendon between the bones will not be found in all these irreducible dislocations.

The first of my cases is of especial interest, because of the rarity of the accident in the foot, and because, so far as I can ascertain, it is the first dislocation of the great toe which has been treated by open operation. Its likeness in every detail to the analogous injury of the thumb was conspicuously striking, and its treatment by open incision in an exsanguineous limb was simple and satisfactory. The second case is chiefly of interest because of the length of time—four months—which intervened between the accident and the operation. Although much organisation had gone on in the damaged tissues, it was still possible without great difficulty to effect a return of the dislocated bone. It is worth noting, too, how readily displacement recurred in both cases, and how completely this was overcome by closely suturing the opening in the flexor muscle and between the sesamoid bones. This procedure is better than that of excision of the extruding metacarpal head, as has been sometimes recommended. Mr. G. R. Turner read a paper before the Clinical Society of London (Mar. 9th, 1888) on "A Case of Dislocation of the Thumb backwards, in which excision of the head of the metacarpal bone was

[1] Medical Gazette, vol. xxi., 1837, p. 93.

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practised eleven days after the accident." The usual anterior incision was made, and "the lateral aponeuroses of the short flexor divided. The main obstacle to reduction was found to be the flexor longus tendon, which had slipped inwards. Dislocation was reduced, but easily recurred. The head of the bone was therefore excised and a good recovery followed." Although there is now but little danger or difficulty in excising the metacarpal head, it appears to me that recurrence can be prevented in the manner adopted in my own cases, and that excision therefore is altogether unnecessary.

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A NEW TREATMENT OF ACUTE GONORRHŒA.

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WITH A NOTE ON THE ACTION OF THIS TREATMENT, AND OF SOME ANTISEPTIC INJECTIONS ON THE GONORRHŒAL DISCHARGE,

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NOT feeling at all satisfied with the results of the various treatments of acute gonorrhœa usually adopted, I devised the following method. The patient is first made to micturate, and thus remove the discharge from the urethra as far as possible. The endoscopic tube, warmed and oiled, is then passed into the urethra, the patient lying on a couch. As a rule the passage of the instrument gives rise to but slight pain, but occasionally in sensitive patients, or where inflammation is very acute, a 10 per cent. solution of cocaine previously injected up the urethra will be found useful. The urethra is then thoroughly mopped with dry cotton wool fixed in a stilet and examined by the electric light. The exact limit of the inflammation can then be clearly seen. It is, as a rule, quite five inches from the meatus; it may be four inches even so early as the third day of the disease. The implicated surface is at once to be recognised by its swollen, bright-red appearance, as contrasted with the rosy colour of the healthy urethra. Occasionally distended vessels can be seen coursing over the inflamed surface. It is important not to pass the endoscope needlessly far beyond the posterior limit of inflammation, which is usually sharply defined. The diseased membrane should be now carefully remopped with dry cotton wool, so as to remove every vestige of secretion and have a perfectly clean surface. A mop of cotton wool on a stilet, and charged with a solution of silver nitrate (ten grains to the ounce of water), should then be passed down the endoscopic tube and thrust through its distal aperture. The tube and the mop are then withdrawn simultaneously. By this means the walls of the urethra contract upon the mop and are thoroughly moistened by the solution. For the two inches of the urethra near the meatus a fresh mop is used, so as to completely saturate this portion of the passage, in which the disease commences, and where also the inflammation is most intense. The patient will always complain of slight burning pain for a few minutes; but this gradually passes off, and in ten minutes or so he feels quite comfortable. He is recommended to take a hot bath at night and to remain quiet, in bed if possible, the following day. The diet is regulated as usual. A saline purgative, with an alkaline or copaiba mixture, is given internally, and the patient is instructed to use a mild cleansing injection, such as Condy's fluid (one drachm to the pint). But it should not be left to his unaided discretion to accomplish this task for himself. There is art even in such a slight proceeding as the administration of an injection. The injection is required to clean the diseased passage, not to distend the canal violently throughout its whole length. A glass syringe with a bulbous nozzle holding *only* two drachms is used. The patient, having micturated, should fill this syringe with hot water, and, removing any air that remains, insert the nozzle between the lips of the meatus, keeping it on the floor of the urethra and pressing these lips from side to side on to the nozzle. He now carefully empties the syringe up the urethra. As the meatus is a vertical slit, if he presses the lips on to the nozzle vertically the aperture will gape, and so the injection will escape by the side of the nozzle and not pass up the canal. Hence the importance of lateral pressure. This warm water is simply intended to clean out the passage. Now he takes the medicated injection and uses it in a similar manner, only this time he removes the syringe but keeps the injection up the urethra quite half a minute by pressing tightly the lips of the meatus. As regards the frequency of injection, the oftener the better. I always recommend quite six times a day, but not the last thing at night time, as the distension of the canal which may result predisposes to chordee. I use only a two-drachm syringe, for after many experiments I have proved that this amount of fluid, when injected into the urethra after death distends the canal completely for rather more than four inches. If this amount be injected into an inflamed and thickened urethra, not to mention its tendency to spasm, more of the urethra must be distended, and this is not only unnecessary, but for manifest reasons unadvisable.

Forty-two cases of acute gonorrhœa have now been treated by me in this manner. With two exceptions the condition had existed in every case for many days, and in several instances was associated with severe chordee. The average time taken before these patients were well was a little under twelve days. As this duration is calculated from the date of the beginning of treatment to the date of the first visit at which the patient was found to be quite free from discharge, the above average result is somewhat in excess of the true time before cure, for more than one patient has stated that he had been already well for two or three days. Early cases, as might be expected, are more amenable to treatment than those which have been established for some time. Two of the forty-two cases attended to were of two days' standing only. In each the inflammation was intense, and had extended backwards about four inches. The urethra was lined with thick purulent discharge clinging to the walls, and so difficult to remove that it certainly would not have been washed away by any injection. The discharges were well mopped away, and the patients treated in accordance with the method described. The result was in each case a complete cure in five days, without a single annoying or bad symptom. Cured cases have been examined with the endoscope, and a perfectly healthy and normal urethra was invariably found. The immediate effect of the treatment is to produce a fairly free purulent discharge during the first twenty-four to forty-eight hours. The pus is thick, and often stringy and very tenacious. The discharge rapidly diminishes in amount after this time, often being quite slight in four or five days. It is watery in appearance, and usually disappears entirely in seven or ten days. From the time the treatment is adopted the patient is quite free from scalding on micturition, and should he have suffered from chordee, the dilatation of the urethra which the treatment entails diminishes, and often abolishes, that terrible complication.

From these results it seems clear that the treatment compares most favourably with the ordinary treatments, for under it gonorrhœa becomes a quite curable disease in a limited time, and does not result necessarily in that only too prevalent disease, gleet. It is not an abortive treatment in the old sense of the term, when powerful caustics were applied blindly and, as a rule, unsuccessfully. The idea of the abortive treatment was, however, less in fault than the method of its execution, and most of the objections to it would be removed if the technique I have advocated had been employed. It is not suggested that a discovery has been made by which every case of acute gonorrhœa can be conducted to a rapid and satisfactory conclusion. There are two classes of cases which cannot be treated successfully by this method: namely, those in which the meatus is abnormally small, so that the passage of the endoscope is impossible; and those in which the disease has extended so far back that it is out of reach of the application. The strength of the solution of silver nitrate may be modified as experience dictates, and the question of a second application will sometimes arise. In none of the forty-two cases has this been found necessary.

The main points of the treatment are: 1. The treatment rests in the hands of the surgeon instead of being left to the patient. 2. The urethra can be thoroughly cleansed, so that there is no doubt that the remedy is applied directly to the affected mucous membrane. Examination of the

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urethra by the endoscope immediately after micturition and injection almost always shows that there is still a thick coagulated discharge adherent to the walls, indicating the mechanical difficulty an injection would have had in acting directly on the mucous membrane. 3. The exact extent of the inflammation can be seen, and the remedy applied to its extreme posterior boundary. 4. The remedy is applied to the urethral walls when they are distended and stretched by the endoscopic tube, so that all furrows are obliterated. 5. Stronger applications can be used with safety because the remedy is no longer applied blindly or by unskilled hands, and I have no hesitation in saying that the use of the endoscope allows play for a good deal of delicacy in touch. 6. There is no fear of the application carrying the infected material to the distal part of the urethra, and thus giving rise to complications.

BACTERIOLOGICAL NOTE.

Previous to the employment of the treatment described above trials were made of the value of some antiseptic injections. These were not found, however, very satisfactory, whether regarded from the clinical or bacteriological point of view. Of those injections usually employed, a large number, such as the salts of zinc and lead, boracic acid, sodium salicylate (5 to 20 per cent.), and carbolic acid (1 per cent.), have practically no bactericidal action. Corrosive sublimate in solution of 1 in 20,000 and 1 in 10,000 was shown by Friedheim in the Breslau clinic to be actively antiseptic, but decidedly irritating; the latter strength, indeed, produced intense inflammatory symptoms. Our own experience, while confirming to a certain extent these observations, leads us to attribute both less antiseptic power and less irritating action to the perchloride. The solutions employed were much stronger than the above—viz., one grain to six ounces (about 1 in 2000), two grains to six ounces (about 1 in 1300), and three grains to six ounces (1 in 860). No toxic or inflammatory complications occurred.

For microscopical examination the urethral secretion was collected as pure as possible, spread on a cover glass, fixed, stained with Löffler's methylene blue, and examined with a high power ($\frac{1}{12}$ oil immersion). The examinations were continued for a long time, usually at intervals of from three to six days. With the 1 in 2000 injection the patients experienced a little pain with the first injections, but this soon passed off, and the scalding on micturition was greatly diminished. There was no rapid change in the character of the secretion, which gradually decreased as the case progressed. Microscopically, the discharge became slowly less purulent, and at an early stage the proportion of young epithelial cells to pus cells increased. The gonococci steadily diminished in number and became less typically distributed, but after the lapse of so long a period as thirty-eight days could still be demonstrated. The cases lasted on an average from six to eight weeks, but many patients had still a slight gleet when they ceased to attend the hospital.

With the 1 in 1300 injection better results were obtained. This injection gave rise to no more pain than the weaker solution, and had a more decided effect on the micro-organisms. In several cases the cocci had disappeared in from fourteen to twenty-one days. The changes in the microscopic appearance of the secretion were similar to those following the 1 in 2000 injection, but took place more rapidly. The average duration of the cases was forty days, but during the last ten or fifteen days the discharge was hardly perceptible. The 1 in 860 solution proved too irritating, and did not show any superior bactericidal action over the 1 in 1300 injection. Thinking that some of the lack of success with these injections was due to the formation of a coating of coagulated albuminous material which protected the micro-organisms from the action of the antiseptic, a 1 in 1000 solution of iodide of mercury and sodium was employed. This, however, caused very considerable pain, did not diminish the scalding, and did not appear to be of such value, either clinically or microscopically, as to warrant a persistence in its use. Silver nitrate in solution of from 1 in 4000 to 1 in 2000 was the injection selected as most efficient by Friedheim, and was said to rapidly diminish the number of micro-organisms, and by its astringent action to aid the cure. Such solutions have been long in use at the Lock Hospital, but have for some time been given up as being clinically a failure. The difficulty of destroying the micro-organisms associated with gonorrhœa has long been recognised. This difficulty is not due to the resistance of the gonococcus; it is indeed easily attacked by destructive agents, but apparently is due to the impossibility of reaching it by means of injections. It is well known that though the gonococcus acts at first quite superficially, yet it rapidly passes into the deep layers of the mucous membrane and into the submucous tissue, where it is shielded from the action of antiseptics and covered by a dense layer *of* purulent discharge. It became obvious from the attempts recorded above, as well as from frequent examinations of the urethra after injections, that to be effective the medicament must be applied in some way which would permit of the perfect cleansing of the urethra from discharge, and render it certain that the solution reached the inflamed mucous membrane. The method devised by Mr. Cotes realises these conditions. The question of the specificity of the gonococcus does not affect the *rationale* of the treatment, since, whatever opinion is held on this point, there is no doubt that Neisser's micro-organism is present in and associated with the purulent urethritis of gonorrhœa.

The effect of the new treatment on the character of the discharge is at once very marked. Examined microscopically, the discharge during the first twenty-four hours after treatment is often chiefly purulent, but in many cases even in so short a time as this there is considerable alteration in the relative number of the pus and epithelial cells. These latter increase rapidly, so that in forty eight hours a specimen of the discharge has the appearance met with during the third or fourth week in cases by injection. Indeed, in some cases treated early, the discharge at the end of two days consists almost entirely of epithelial cells of various types with a small admixture of pus cells. There is, in addition, a certain amount of exudation, so that the cells are found entangled in a fibrinous material. The effect on the cocci is very marked also. They are very considerably diminished in number in twenty four hours, and when met with are often free in the exudation or attached to the epithelial cells, while scanty in their usual situation in the interior of the pus cells. This diminution of the cocci goes on rapidly, and their absence from the pus cells and their presence free or in epithelial cells become more marked. In some cases no gonococci can be found forty-eight hours after treatment, and in nearly all cases they are absent after seven days. It is obvious that the local application of silver nitrate solution has a very powerful effect in causing the elimination of the micro-organisms, and that, whether regarded clinically or microscopically, this treatment is most efficient.

ON A CASE OF

HEREDITARY SUPPRESSION OF FINGERS,

AND THE RELATION OF THIS KIND OF DEFECT TO CROOKED LITTLE FINGER, WITH REMARKS ON THE DISAPPEARING LITTLE TOE.

BY R. CLEMENT LUCAS, B.S., M.B. LOND., F.R.C.S.,
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IN the Guy's Hospital Reports for 1880–81 I described a remarkable family, in which there existed an apparently irrepressible tendency to the production of supernumerary digits—a proclivity so strongly marked that out of a total of eighty descendants traced from a particular individual no less than twenty-four, or 30 per cent., presented supernumerary fingers or toes, and this without any reinforcement by the intermarriage of relatives. In that short paper I incidentally mentioned two other deformities which had attracted my attention by their tendency to hereditary transmission; one of these was harelip and cleft palate, the other the simple and very common defect of a crooked little finger. In the particular family referred to a new defect had made its appearance in one individual in the shape of cleft palate and harelip combined, which, in tracing the family history, I found had been foreshadowed by a harelip which occurred in a great-uncle. With my mind bent on the observation of minor defects which might foreshadow graver evils for future generations, I began tracing back from the greater pronounced deformities to discover anything of a milder nature in the parents or ancestors which might indicate that a particular deformity would be likely

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to appear, and I discovered, in reference to cleft palate, that the congenital absence of a lateral incisor tooth of the upper jaw in a parent might foreshadow the greater deformity in the offspring. Three observations bearing on this were recorded in the Clinical Society's Transactions for 1888. Now the other minor defect to which I alluded in the paper of 1880—viz., a crooked little finger—has never forced its importance upon my mind until within the last few months. I said in the paper referred to that I had frequently traced this defect through three generations. It is exceedingly common, this congenitally bent little finger, and therefore is probably in the main merely a general expression of the tendency to suppression of the digit which is so little used, and which is constantly cramped by a large proportion of the population for many hours during the day in the occupation of writing.

That this is the probable explanation of the origin of the defect is borne out by the fact that the little finger when presenting this congenital bend is frequently also abnormally short. Further, the defect of the little finger may not be a mere flexion, but be accompanied by a lateral displacement of the terminal phalanx; or this slight lateral displacement may exist alone, or be associated with a shortened finger. If, as I suggest, the commonly found crooked little finger is but an expression of hereditary neglect brought about by little use and cramped position, it will bear an interesting relation to the fast disappearing little toe. This latter useless little appendage, which is almost as much out of date as the pineal gland, has got before the anatomy books in its downward descent under generations of boot pressure. It has long since lost one of its extensor tendons; so that, if perchance a second one be now found, it is recorded by enthusiastic young anatomists as an abnormality. The flexor tendons are, however, still described as two in number; but so common is the suppression of one of these that a perfect and complete development of two flexors is, I am inclined to believe, falling into that interesting heap of cast-off anatomy amongst which anatomists dig up the homologues of their abnormalities. I am interested to see that Professor Macalister, in his work, states that the second and third phalanges of the little toe are, after a certain period of life, commonly found ankylosed, which is a further proof of the downward descent of this appendage. The future of the human foot would appear to be a gradual suppression from without inwards of the toes, and a further strengthening of the great toe line on the inner side. That this is all that is required is abundantly proved by observing the thousands who, even at the present time, use only the great toe as a means of progression. I was much interested some few years ago by observing the foot of one of the finest athletes of the day. He was an All-England three-quarter at football, a champion short- or mid-distance runner, and the finest football kick of his day; yet he wore a boot so narrow that only the great toe could approach near to the end of it. All this brilliant performance was done by the great toe alone, and he showed on the running path and in the football field that swiftness, agility, and strength were, so far as the foot is concerned, centred in the line of the great toe. The enormous and increasing power of the great toe tendons is further illustrated by the feats of the ballet dancer, and a *première danseuse* would without doubt be soon hissed off the stage if she were seen to balance herself on any part of the foot other than the great toe. There are still some anatomists I believe who affect to be enamoured of the beauties of the savage foot, but its picturesqueness never appealed to my imagination. It is a long-toed, long-heeled, low-arched splay foot, useful no doubt to prevent the limb it supports from sinking too deeply into the native sands, or to aid the hands in upward-tree progression, but as distinct from the civilised foot as the huge hoof of the Shire horse is from that of the thoroughbred. At present the great-toe line of support is apt to rebel against the undue strain put upon it, and gout and osteo-arthritis attack the most used joint of this series at a time antecedent to their appearance in other joints; hence, just as Her Majesty is said to be the most overworked woman in the realm to which hereditary responsibility has fitted her, so the metatarsal phalangeal joint of the great toe, from its responsibility, must be regarded as a queenly joint at present not quite equal to the strain required of it—at least when such strain is associated with a queenly table. So, too, the beautiful longitudinal arch on the inner side of the foot, in weakly, fast-growing lads, and especially when the age of puberty bears a relation to immoral practices, yields under the superimposed burden, and there is a reverain to a lower type and a less elastic tread. But a more general reversion to a lower human type is brought about by syphilis and rickets, which may thus be regarded as debasing diseases, for either of these in hereditary transmission is apt to lead to stunted growth, an ill-shapen head and a flattened nasal bridge, conditions and appearances which are usually regarded as peculiar to a lower type of humanity. But I am straying somewhat from the disappearing little toe and its possible cousinship to the crooked little finger. All the arguments I could adduce in favour of the view that the future of the human foot was a further development of the inner side and a suppression from without inwards of the toes, I put forward in an introductory lecture to my course of Anatomy delivered in 1888; and the idea stimulated the poetic genius of one of our students, who threw the fancy into a rhyme so clever that it may be worth while to reproduce it from the *Guy's Hospital Gazette* of Oct. 13th, 1888:—

"DIGITI MINIMI DECESSUS.

"'*Man is losing his little toe. . . . and can do without it.*'—Mr. Clement Lucas, in his opening lecture.

"If thou must go, thou feeble, foolish digit,
Fain would I speed thy slow degenerate way!
I daily feel a disagreeable fidget
Whenever I've occasion to display
Thy doubtful outline, and thy form chaotic
(Born of a taste in boots, perhaps erotic).
Thou art a shock to my æsthetic sense,
And offerest no kind of recompense
In way of use; of every function shorn,
Except to act as basis for a corn.
When thou art gone I'll still maintain my grace,
Still walk erect wherever I may be;
Still I'll belong to the athletic race,
Waltz with the fair, and kick mine enemy!
So *pace* Schopenhauers, and *pace* Mallocks
When I've acquired a hypertrophied hallux,
To monodactyle type thus simplified,
Life shall be simpler too, and so—beatified.

When future science forgets thee in thy prime,
Methinks a great mind from a northern clime
May then discuss thy remnants, and declare
He finds a true *prophetic organ* there!

F. G. H."

To return to the crooked little finger. I was examining Mr. H. E. G—— for insurance on Nov. 14th, 1891, when I noticed as he presented his hand that the little finger was crooked and short. I asked if there were not others of his family with the same defect, and he replied that his fourth child, a son, had precisely similar little fingers. I pressed him further for his family history as to any similar defects, and after some hesitation on his part I procured the following account. His father and mother he believed to have been perfect, and he knew nothing of their ancestors. His father married twice, and his two half brothers had on each hand the second finger shorter than the third; or, as he put it, the second and third fingers had changed places. Mr. G.'s eldest daughter and second child was born with no fingers on the right hand and a small thumb. One half brother only is married, and he has one child unmarked. I have already alluded to Mr. G——'s fourth child having his father's peculiar little fingers. One of his father's brothers married his mother's sister, and they had five children, one of whom, a daughter, is married and has an only daughter with a thumb absent on the right hand. Another of his paternal uncles is married, and has a family. His eldest daughter, first cousin to Mr. G——, is married and has three children, of whom the eldest, a boy, has no fingers on the left hand. In this family there is shown to be a peculiar tendency to a shortening or disappearance by suppression in development of particular digits, and it is the first instance I have come across which would seem to indicate that shortened crooked little fingers may lie in close proximity to the more serious deformity of further suppression of other digits. It was the observation of the peculiar little finger that led me to obtain the extraordinary history just detailed. It is now well established that a tendency to the production of supernumerary digits is strongly hereditary, but there is less accumulated evidence as to a like hereditary proclivity in the case of suppression of the fingers or toes. It would seem that nature, having arrived at a tendency to suppression in a particular individual—of which the earliest indication may be a shortened or bent finger,—in some of his descendants may sweep away wholesale the fingers of a hand. There is an obvious reason why there should be less opportunity of

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establishing heredity in cases of suppression than in superabundance, because in the former the loss is apparent, and is classed by the general public as a deformity to be avoided; whereas supernumerary digits are usually removed by surgeons during infancy, and thus the tendency is concealed.

I am well aware that there is a wide gap of evidence between the suggested origin of the crooked little finger and the establishment of a hereditary tendency to suppression of digits, and it is possible they depend upon two processes so distinct as scarcely to be related. Such suppression as occurs from disuse through generations upon generations, or through ages upon ages, and which I maintain can be shown to be taking place in the case of the little toe, is so gradual and so general that any idea of deformity is completely enshrouded by time. It is only when we observe an abrupt suppression in development that we regard the result in the light of deformity. When such tendency exists, no doubt in-breeding would increase and perpetuate the defect; and it is not improbable that in families where several well-marked instances occur there may have been an accidental union in the parents of two individuals, each with a slight deviation from normal in the direction of the result produced. Hence the importance of observing minor defects which, increasing by generation, may be pregnant with graver deformities in the unborn future.

Finsbury-square, E.C.

THE CONTINUOUS ADMINISTRATION OF OXYGEN IN A SEVERE CASE OF BRONCHO-PNEUMONIA FOLLOWING INFLUENZA; RECOVERY.

BY WILLIAM COLLIER, M.D., M.R.C.P. LOND.,
AND
HORATIO P. SYMONDS, F.R.C.S. ED.

THE patient, a lady aged fifty-seven, was attacked with influenza about the middle of January of the present year, from which she was recovering, when, on Feb. 1st, a relapse set in, accompanied by the development of lung symptoms, which gradually increased in severity. On the morning of Feb. 5th her condition was as follows:—Slightly cyanosed. Temperature 101·4; pulse 108; respiration 30. Urine free from albumen. She was troubled with a most persistent dry cough, unattended with expectoration, which had been kept in check by the inhalation of the chloroform mixture described in THE LANCET of Jan. 30th. Over the lower half of the lungs, both anterior and posterior aspects, abundant sharp large and small crepitations could be heard. In addition, near the inferior angle of the scapulæ on either side the breathing was bronchial in character, especially so on the right. At 9 P.M. the same day the temperature was 100°; pulse 96; respiration 38. The following morning the patient was decidedly more cyanosed, the respiration had increased to 40 per minute, and her pulse was weaker. On Sunday, Feb. 7th, her condition remained stationary. In the region of the inferior angle of the right scapula the breathing had now become tubular in character and the percussion note dull. A patch of dulness with bronchial breathing was detected over the base of the left lung. On this day we agreed to try the effect of oxygen, and gave it for short periods, with the result of slightly diminishing the cyanosis and improving the pulse. On Feb. 8th (the following morning) the patient was decidedly worse. Her respiration had increased to 50 per minute; pulse 120; cyanosis much more marked. She was lying in a drowsy, semi-conscious condition, unable to sleep on account of the dyspnœa. She had voided very little urine in the past twenty-four hours, which contained a heavy cloud of albumen. We now decided to push the oxygen and to administer citrate of caffeine hypodermically. A good stream of oxygen was turned on, the mouth piece being held well over the mouth. At the end of twenty minutes the respiration had fallen from 50 to 40, the pulse from 120 to 106, and it had improved in character; the lips had assumed a ruddy in place of a purple tint, and the patient was dozing calmly. The stream of oxygen was now diminished and the nurse instructed to keep a small quantity playing over her mouth during the day. At our evening visit we found that she had rested more calmly throughout the day, and that the cough had apparently been much benefited by the oxygen. Her general condition, however, gave us much anxiety, as the rapid improvement of the morning had not been maintained, and it was clear that the mischief in the lung had in no way abated. The nurse was instructed to continue the oxygen throughout the night. On our arrival on the morning of Feb. 7th we found the patient in a critical condition. She was quite unconscious of her surroundings, and could with difficulty be aroused; the cyanosis had much increased; pulse 120; respiration 45. On inquiry, we found that our oxygen cylinder had become exhausted at 3 A.M., and that the patient had been without any for six hours. Two hours and a half later we were enabled to borrow a cylinder in the town, and at once recommenced the administration. She was next seen in the afternoon at 3 P.M., when a distinct improvement was noticed. At our evening visit at 9 P.M. the improvement all round was most marked. The temperature had fallen from 102° to 99°; the pulse from 120 to 104; the respiration from 45 to 38. From this point up to the present time the improvement has been continuous and uninterrupted. The administration of oxygen was kept up throughout Tuesday night (Feb. 9th) and Wednesday, after which it was given for short periods, the intervals between the administrations being gradually lengthened as the lungs cleared, so that for the past few days no oxygen has been required. For some days past the patient's temperature has been normal; pulse about 80; respiration 27. The lung symptoms all point to a gradual clearing up of the mischief.

Remarks.—We would point out that up to the time we agreed to administer the oxygen continuously the patient's condition had steadily grown worse, and that she was then in a very critical condition. The continuous administration was immediately followed by unmistakable improvement, as shown by the marked fall in the rate of respiration and pulse and improvement in colour. The oxygen also enabled her to get more sleep and rest than had been the case for some days. Further than this, it had a marked influence on the very troublesome and intractable cough—so much so that after we had given up the continuous administration the nurses were so certain of the relief likely to follow oxygen inhalation that they gave her a small quantity from time to time to check it. The rapid return of all the bad symptoms on the Tuesday morning, when the patient had been without oxygen for six hours, and the equally marked improvement within a few hours of its readministration, appeared to us a crucial test. The conclusion we formed was that for oxygen to be of value in these cases it should be administered more or less continuously. The oxygen cylinders were supplied daily by Brin.

Oxford.

A CASE OF SCIRRHUS OF THE BRAIN SECONDARY TO THAT OF THE BREAST.

BY THOMAS WILSON, M.D., B.S. LOND.,
HON. GYNÆCOLOGIST TO THE WOLVERHAMPTON AND SOUTH STAFFORDSHIRE GENERAL HOSPITAL.

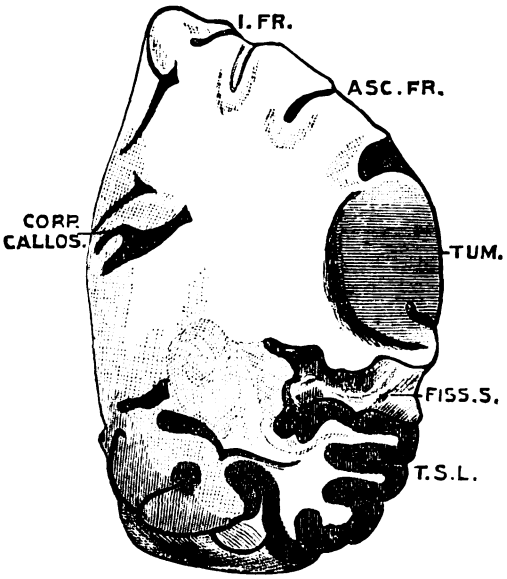
THE following case occurred while I was resident medical officer at the National Hospital for the Paralysed and Epileptic, and has been recalled by the similar case published by Mr. Beadles in THE LANCET of Oct. 3rd, 1891. For permission to publish the notes I am indebted to Dr. Charlton Bastian, under whose care the patient was.

Charlotte M——, aged sixty-eight, was admitted to the Hospital for the Paralysed and Epileptic, Queen-square, London, under the care of Dr. Bastian, on March 1st, 1887, complaining of fits and left-sided paralysis. In November, 1886, the patient had had her left breast removed in St. George's Hospital, and I am indebted to Mr. Bull, at that time surgical registrar, for his courtesy in supplying notes of the case. From these it appears that a large scirrhous growth, extending from the outer margin of the breast into the axilla, was removed, together with the breast, which contained a very small hard growth, by Mr. Dent on Nov. 18th. The axillary tumour could not be entirely removed at the time of operation, and it was thought that recurrence had taken place before the patient left St. George's Hospital for a convalescent

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home. About a fortnight after Christmas the woman was sitting reading one day, when she suddenly began to feel giddy and sick, and in two or three minutes lost consciousness for a short time. During this attack urine was passed, and on coming to there were vomiting and diarrhœa; no paralysis of any part was observed immediately after this attack. Five or six weeks later the patient was wakened from sleep by a feeling as if something were pricking in the left side of the mouth; she got out of bed, and then twitching began at the left angle of the mouth, followed by twitching in the fingers and thumb of the left hand; then the patient fell down, and her head turned to the left and bumped the floor spasmodically. This attack lasted over an hour, the convulsions being almost entirely left-sided, and there being no loss of consciousness. One or two fits have occurred since this, but the woman does not remember anything about them. The left arm and leg have gradually been getting weak since about Christmas, and the patient has noticed that food tends to collect in the left cheek since a week or two after the first fit. There has been slight headache (not localised); no vomiting, except on one occasion after the first fit, as above described. The patient's health previous to the tumour in the breast had been good. She had borne eight children, one dying of "water on the brain" at four years of age. A sister and a cousin on the father's side had cancers; two brothers died of phthisis; there was no other family history of importance. On admission the woman was dull, taking little interest in what was going on around her, but giving quite rational and clear answers to questions. There was some weakness of the left leg, great weakness of the left arm and at the left angle of the mouth, while the movements of the rest of the left face were decidedly, but not greatly, weaker than those of the right; the faradaic and galvanic reactions were normal and equal on the two sides of the face. The left half of the tongue was also weak, and articulation rather thick and indistinct. The knee- and radius-jerks were active, greater on the left, and there was well-marked ankle-clonus on the left side; none on the right. There were slightly diminished tactile, markedly diminished and altered painful, and much diminished thermal sensations all over the left arm and leg and left half of the face and trunk, the sense of position being also very imperfect in the arm and leg, especially the former. The right plantar reflex was active, the left absent; no other superficial reflex could be obtained. There was no hemiopia or any other affection of any of the special senses. The edges of both optic discs were blurred all round, and there was slight swelling of the papillæ, but no hæmorrhages; the pupils were equal and their reactions normal. The heart's impulse was diffused and fairly strong, and a soft systolic murmur was heard at the apex and over the whole left side of the heart; there were a few dry râles in each lung; the urine contained no albumen or sugar. There was a large scar running upwards and outwards in the situation of the left breast; some thickening was felt in the axilla and a few small hard glands just above the left clavicle and in the left posterior triangle. The left arm was much swollen from the middle of the arm to below the middle of the forearm, the swelling being very solid and not easily pitting for the most part. During her stay in hospital the patient complained of occipital and frontal headache almost every night, and there was a little wandering delirium occasionally. The hemiplegia gradually increased, and became absolute by about March 24th.—April 4th: The temperature has been irregularly raised for three days, varying from 100° to 103°; the woman is very drowsy and mutters a good deal; there is occasional Cheyne-Stokes breathing, and there has been complete incontinence for several days, and considerable tympanites came on three days ago and continues. The left limbs are quite flaccid, the right still preserving their tone. Knee-jerk and ankle-clonus have quite disappeared on the left side, the right knee-jerk being present, though slight. There is no plantar reflex to tickling on either side; to prick of pin the right is still rather greater than the left. The patient gradually became more and more unconscious, and died comatose on April 9th. A few hours before death the left lower limb was observed to be very livid and congested, presenting a marked contrast to the right one, and the day before death the œdema of the left hand and arm, which had been very marked ever since admission, almost entirely disappeared.

At the necropsy, made eighteen hours after death, nothing worthy of note was observed about the calvaria or dura mater. On reflecting the latter, the convolutions over the parietal and greater part of the frontal and occipital lobes on the right side were found to be markedly flattened; over the whole left hemisphere there was considerable wasting of the convolutions, with excess of fluid. There was a moderate amount of atheromatous degeneration in all the vessels at the base of the brain. No tumour could be seen on the surface. A vertical transverse section through the lower end of the fissure of Rolando cut through a tumour in the right hemisphere the size of a walnut, hard in consistence, in marked contrast to the adjacent brain substance, which was softened, and from which the tumour was marked off by a pretty sharply defined margin. The colour of the section of the new



Tracing from a photograph, actual size, of the vertical transverse section passing through the lower end of the right fissure of Rolando. TUM., Tumour. FISS. S., Posterior limb of the fissure of Sylvius. T.S.L., Temporo-sphenoidal lobe. 1 FR., Superior or first frontal convolution. ASC. FR., Ascending frontal convolution. In the temporo-sphenoidal convolutions the grey cortex comes out well, but in the upper part of the section the details are very indistinct, owing to the white softening affecting this part.

growth was on the whole greyish yellow, with numerous small hæmorrhages and many small points of fatty degeneration. On its outer side the tumour involved the cortex for about an inch, at one point, situate about an inch above the lower end of the fissure of Rolando, entirely replacing the grey matter; and the growth was limited to the ascending frontal and parietal convolutions, both of which it invaded at their lower ends. The rest of this section of the right hemisphere showed white softening of the whole centrum ovale, and this change was found to extend forwards as far as the genu of the corpus callosum and backwards as far as half an inch in front of the rostrum. The ventricles were distended with clear fluid, and the ependyma thickened and opaque. The pons, medulla, cerebellum, and cord presented no unnatural appearance. An infarction the size of a Tangerine orange was found on the posterior surface of the lower lobe of the right lung. Both lungs were extremely emphysematous throughout. There was considerable fibroid thickening of the mitral and aortic valves, and in the mitral valve were also some small atheromatous foci. The aorta showed merely slight atheromatous change near the heart. The right auricle and ventricle were greatly distended with black fluid blood, and also contained some rather firmly adherent decolorised clot. The liver and kidneys were much congested. No new growths were discovered on careful searching in any of these organs, nor in the uterus or ovaries; but in the spleen two or three small foci were seen under the capsule. There were some small hard glands above the left clavicle, and along the posterior border of the sterno-mastoid. There was no definite sign of recurrence

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in the old operation scar, except just in one part, where there was a little hardening. Under the microscope the cerebral tumour presented the typical appearances of scirrhous carcinoma.

This case is one of very great interest from many different standpoints. In the first place, it would appear that, after all, scirrhus affecting the brain is not a very uncommon affection. Mr. Beadles notes in his communication that in a total of 202 post-mortem examinations in cases of cancer growths in the brain substance were found in four cases, a proportion of 2 per cent.; and doubtless many cases of secondary and some of primary cancer in the brain run their course either with no symptoms at all, or with such indefinite ones that they are not diagnosed before death, and are not found afterwards from want of examination of the cranial cavity and its contents. But where the growth is situated in or near the motor area of the cortex, as in Mr. Beadles' case and the present one, the symptoms thrust themselves upon one, so that even he who runs must read.

Thus in the case now under consideration grave cerebral mischief was indicated at the beginning by epileptiform attacks and gradually increasing hemiplegia. The gradual onset and the distribution of the paralysis, the headache, epileptiform attacks, and double optic neuritis, taken together, indicated that the disease was in the right hemisphere, and that it was in all probability a tumour; while the removal some time previously of a tumour of the breast, and this tumour having been proved to be scirrhus, made it in the highest degree probable that we had to do with scirrhus of the brain. Further still, the mode of onset and spread of the convulsions in the second attack, as described in the history, showed that the irritative lesion at that time bordered closely on the cortical motor centre for the left lower face, which is situated at the lower part of the ascending frontal and parietal convolutions, and the correctness of this indication was beautifully demonstrated at the necropsy. In passing it may be remarked that the occurrence first of a sensory aura (pins and needles), immediately followed by clonic spasm in the same parts, is of interest in connexion with the theory that the motor area of the cortex contains sensory cells. The relation of the case to the surgery of the brain is also of much interest and importance; for if the indications afforded by the history and present state of the patient had been correctly interpreted and acted upon soon after the second fit, there can be little doubt that the tumour could easily and safely have been removed, and thus the patient's life prolonged, and the softening, which would seem to have been secondary to, and probably in some way caused by, the tumour, possibly prevented. Taking all the circumstances of the case into consideration, however, it is quite open to doubt and argument whether this would have been a desirable consummation.

Wolverhampton.

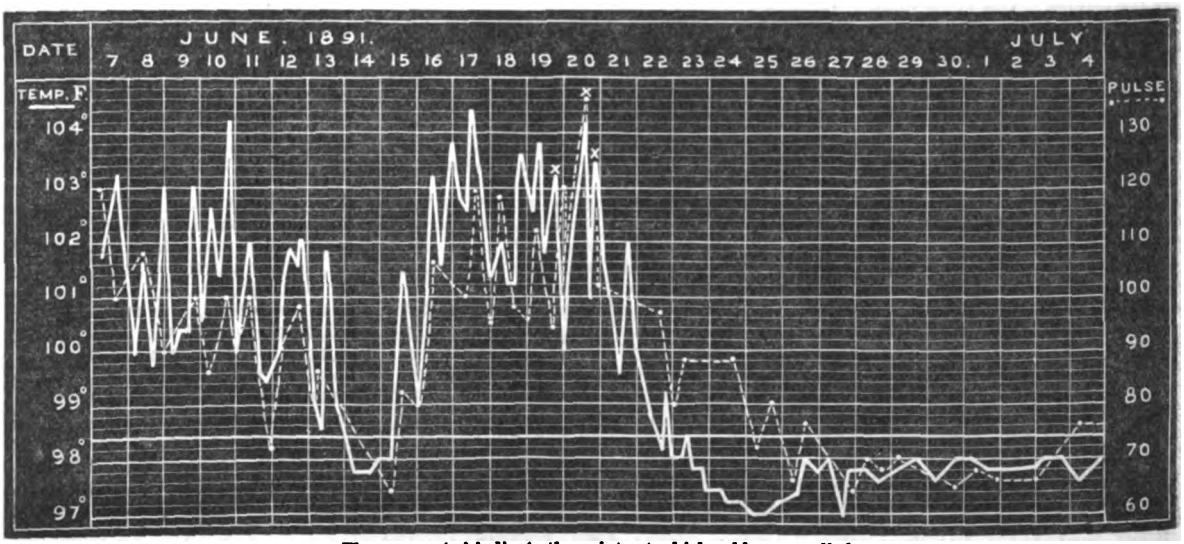
A CASE OF

INFLUENZA PNEUMONIA TREATED BY THE EXTERNAL APPLICATION OF COLD.

BY WM. GORDON, M.A., M.B. CAMB., M.R.C.P.,
PHYSICIAN TO THE DEVON AND EXETER HOSPITAL.

VERY little has been said about cold sponging for the reduction of temperature in influenza pneumonia. Certainly in the dangerous pneumonias occurring in elderly people I am sure the less said about it the better; and, indeed, in many such there is very little temperature to reduce. But I believe there are a few cases in younger patients where life is in peril, largely from the effect of continued high fever, and where it becomes needful to reduce this fever in some way or other. Quinine may fail, as in the instance I am going to relate, and when the choice lies between cold and some depressing drug, such as antipyrin, I should certainly prefer cold. In THE LANCETS of Jan. 31st and Feb. 7th, 1891, Dr. Fenwick's valuable analysis of 1000 cases of ordinary lobar pneumonia demonstrated the advantage of cold in sthenic cases of that disease, and it was chiefly from the perusal of his paper that I felt induced to try the effect of cold in the present instance. This instance is the only one in which I have used it, because no other case coming under my notice has presented what I consider the indications for it—viz., a previously sound patient and a high temperature of sufficient duration and degree to be in itself a source of danger.

Charles W——, aged twenty-eight, an hotel servant, was admitted to the Devon and Exeter Hospital on June 7th, 1891, suffering from pneumonia of the left base. He had been of temperate habits and in good health until attacked by influenza a week previously. In spite of cough and malaise, he remained at work up to the morning of his admission, when he was seized with severe stabbing pain in his left side. When admitted his temperature was 101·8°; pulse 120; respiration 24. There was then little to be detected except fine crepitation over the left lower lobe. Sputum rusty. He complained greatly of pains in the back and limbs, as well as of the pain in the left side. Ten grains of salol were administered for the former, and for the latter a broad piece of strapping was applied round the left half of the chest. This double relief procured him a fair night's sleep. A mixture was given containing quinine, iron, and nux vomica, with some liquor ammoniæ acetatis. During the next few days the physical signs became more developed. There was friction below and outside the left breast, while tubular breathing and bronchophony became marked over the back of the lung. Dulness finally reached as high as the spine of the scapula, accompanied by complete loss of vocal fremitus, weak breath sounds, and ægophony. The heart's apex could not be felt, but the right border of the cardiac dulness extended a quarter of an inch to the



The crosses (×) indicate the points at which cold was applied.

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right of the right edge of the sternum. On June 12th there was much improvement: the rusty tinge began to leave the sputum, and the physical signs indicated commencing resolution in the lung and absorption of whatever fluid had been poured into the pleura. On the evening of the 13th the temperature was normal, and by the morning of the 15th the patient seemed on the high road to recovery. Towards night, however, the temperature rose again, and on the 16th friction sounds, fine crepitation, tubular breathing, and bronchophony, with dulness, were all present at the right base. At the same time the signs in the left lung began again to extend. On the 18th there were gastric pain and tenderness, with vomiting of everything, and on the night of the 19th violent noisy delirium set in, with a temperature of 103·2°; respiration 40; pulse 120, but regular, slight cyanosis and intense thirst. Except that the pulse remained regular, and that its rate was not excessive for his temperature, he seemed as bad as he could be. The delirium I thought was due partly to the long-continued fever (including the first attack), and partly to the insomnia caused by the fever. So at midnight he was placed under the ice-pail arrangement mentioned by Dr. Fenwick. After an hour the temperature was 101°. The pails were then removed, and a further fall to 100° occurred in the next half hour. The result was a very marked improvement in his condition, the violence of the delirium abating. There was no untoward symptom, no tendency to collapse. In the morning he continued better, but still wandered a little in mind. A dose of chloral (ten grains) and laudanum (ten minims) was then given. He slept several hours, and awoke quite free from delirium, which never returned. Encouraged by this result, directions were given to repeat the cold as often as the temperature reached 103°. This did not occur until the afternoon of the 20th, when the pulse was 136 and the respiration 52. He was sponged all over with tepid water, which was gradually cooled down with ice. Again the temperature fell to 100·4°, with marked improvement, the pulse falling to 118 and the respiration to 40. At 10.30 P.M. the temperature again reached 103°, and again he was sponged. From this time the temperature fell steadily except for evening rises, and was subnormal on and after the 23rd. The pulse and respiration fell more slowly, and the latter did not reach normal, but continued at a rate of twenty-two breaths per minute. (I have observed this same persistent rapidity of breathing in other cases, even with a very low pulse-rate.) On July 15th he went to the seaside almost quite well.

It will be noticed that at no time was there any approach to hyperpyrexia. The cold was used simply to minimise the depressing influence of a pretty steady temperature of 103° to 104°. I do not think the patient could have recovered if we had allowed the fever to maintain its level, and I have no doubt about the very obvious and decided improvement after each application of cold. Every care was taken to avoid unduly prolonging the application, the cold being removed when 101° was reached; also to avoid too rapid cooling.

Exeter.

TWENTY CASES OF FIBRO-MYOMA AND OTHER MORBID CONDITIONS OF THE UTERUS TREATED BY APOSTOLI'S METHOD.[1]

BY J. INGLIS PARSONS, M.D.,
PHYSICIAN TO OUT-PATIENTS, CHELSEA HOSPITAL FOR WOMEN.

ELECTROLYSIS OF ORGANIC TISSUES.

FOR convenience this can be divided into a polar and an interpolar action. As there is considerable difference between them it is necessary to consider them separately. The polar action is distinguished by the collection of acids and bases at the positive and negative poles respectively. It follows, then, that some of the tissues must have been deprived of these bodies, which are thus found in a free state of dissociation. Since this deprivation may be expected to exercise a profound influence on the nutrition of the tissues concerned, it is important to ascertain its origin—whether in fact it takes place from the tissues in contact with the poles or from those lying between them through which the current passes, or from both. Before entering on this question it is necessary to point out that a secondary effect is produced at each pole, by which acid and alkali albumen are formed, and as the accumulation increases a caustic action is developed, which may cause absolute destruction of tissue. This caustic action appears to be most powerful at the positive pole, because the acids are more destructive than the bases. Most observers, including Apostoli, consider either that the poles are equal in this respect or that the excess is on the side of the negative. If the process be watched on the web of a frog's foot under the microscope, there can be no doubt that the positive pole is the more destructive. Extensive coagulation is also seen at this pole, while it is almost absent at the negative.

Coming now to the interpolar action of the current, we find that it is quite different. For instance, there are no free acids or bases to be found, consequently there is no secondary caustic action—in fact, no change can be seen in the frog's foot under the microscope, although we know that something is going on. In the first place a transport of elements occurs. When the acid is separated from its base, one or both of them must cross the intervening space to reach their respective poles. That they do not do this in a free state can be proved by the electrolysis of a solution of iodide of potash, so arranged that there is a solution of starch in the interpolar region but not at the poles. Although iodine is found at the positive and potash at the negative pole, no discolouration of the starch occurs in the interpolar region. The transport of elements appears to exercise a denutritive effect, which in the case of tumours cannot easily be made up again, but which in the healthy tissue is soon recuperated, and, like the effect of moderate physical exercise of the muscles, leads ultimately to increased nutrition. A more important point is to ascertain whether the acids and bases found at the poles are extracted from the tissues in contact with them, or from those in the interpolar region, or from both. In a paper published in March, 1888, I demonstrated by experiments with simple salts that the molecules in the interpolar region were not decomposed by the current, although an exchange of atoms between them took place during the passage of the current. Since then the late Dr. Steavenson demonstrated by experiment that the acid of a simple salt in the interpolar region can be made to give up its base in exchange for another and a different element. The conclusion to be drawn from this is, first, that the current does not deprive the interpolar region of any of its molecules, although it can under certain circumstances alter their composition. The importance of this from a practical point of view can hardly be over-estimated. For instance, if a tumour lies within reach of the electrode we can not only deprive some of its tissues of various acids and bases, but we can also cauterise and destroy some part of its substance; whereas, if it lies in the interpolar region, we can at the most only influence its nutrition by the transport of elements and subsequent polarisation and possibly some osmosis.

Porret's observation that osmosis occurred through a porous partition between certain liquids during the passage of electricity is not of much practical value. It is more than probable that this only occurs to a very limited extent between living cells, because even in the laboratory it is not very manifest unless a strong current is used with badly conducting fluids, conditions which do not often occur in the human body. The same may be said of polarisation. After the passage of a current the human body acts like a secondary battery, and becomes stored with electricity, which is gradually given off in an opposite direction to the original current. It is very doubtful whether this has any therapeutical effect of any importance. I have always found that the quantity of electricity thus disposed of represents but a small fraction of the original current.

FIBRO-MYOMATA.

Electrical Resistance.—When the constant current is applied to the uterus of normal size and position by one electrode intra-uterine and another on the abdominal surface, the direction taken by the current is along the abdominal wall, down the side of the pelvis, across the broad ligaments, and through the walls of the uterus. If the fundus touches the abdominal wall, it then passes directly through. When electricity is applied to a uterine tumour, the current may either pass directly through the abdominal

[1] Paper read before the Obstetrical Society of London, Jan. 6th, 1892.

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wall to the tumour, or, if the tumour is large and has a high resistance, it may pass along the capsule and not touch the central portion, or, again, it may miss it entirely and go round by the broad ligament. It depends entirely upon the conductivity of the tumour as compared with the tissues surrounding it and the healthy tissues. It is necessary to bear this in mind when giving a prognosis in any case, and much of the success of the treatment will depend on its recognition. I have found by experiment that the fibrous tissue of an old fibroma has a very high resistance, about ten times that of muscle; while the capsule is very often a better conductor than the substance of the tumour. In my own experience it is impossible on this account to produce any effect on fibrous tissue by the interpolar action; the current misses it out entirely, or else passes by the more fluid cells which are in contact with it. Of course it can be destroyed by the caustic action of the poles. The relation of the tumour to the intra-uterine electrode must be taken into account. For instance, if a tumour is submucous and the electrode is brought into direct contact with it, and it alone, the current must of necessity pass through. With an intra-mural tumour we never can be sure that this takes place, and it will only be acted on if its resistance is the same or lower than that of the tissues surrounding it. A large tumour, other things being equal, has a lower resistance than a small one, because the resistance of a conductor is inversely proportional to the area of its cross section. It becomes evident from the foregoing that before we form an opinion in any given case we must consider: (1) the position of the tumour in relation to the cavity of the uterus; (2) its relation to the abdominal wall; (3) its age and consistence, whether hard or soft; (4) its sectional area.

Method of Application.—For the external electrode nothing answers so well as Apostoli clay; although other substances can be used, they are more likely to produce ulceration of the skin. For the internal electrode I have used a copper stem, insulated, and terminating in a platinum end from which the current is given off. The copper stem, on account of its pliability, is very useful when the uterine cavity is distorted and the sound only passes with difficulty.

The results of fourteen cases of fibro-myomata obtained by treatment have been as follows:—

Hæmorrhage.—In all cases this has been arrested or improved. In six cases the subsequent history has been traced out to March, 1891, and up to this date no return of hæmorrhage had occurred. In Cases 1 and 2 a period of over three years has passed without any relapse since the treatment was begun, although in each case the hæmorrhage threatened life, and everything had been tried without avail except abdominal section. Case 6 was not so successful, the hæmorrhage was controlled and kept within bounds as long as the treatment was carried on, but she always relapsed at the end of a month or six weeks if it was discontinued. I advised removal of the appendages, but the patient refused. I heard from her in March, 1891. "You will be pleased to hear that I am better, and do not lose so much." In Cases 13 and 14 only a few applications were made, but even then it was stopped, in one for over a year, and in the other for six months. In three cases—Nos. 5, 9, and 12—it was reduced to a normal amount, but I have not been able to trace out the subsequent history. In quite half the cases there was an increased loss at the commencement of the treatment, but especially with those of a severe type.

Pressure Symptoms.—The relief in this direction was most marked, and I think can only be explained by a diminution in the size of the tumours. It can easily be understood that even a slight shrinkage in the size of a tumour would afford great relief to various structures which had already, to a great extent, accommodated themselves to its presence. This was very marked in Case 13. She was unable to take more than a few short steps at a time, from pressure on the sacral plexus and consequent loss of power over the muscles of the lower extremities. The muscular weakness disappeared after three applications. On the other hand, Case 4, who suffered from pressure on the bladder, showed no improvement after several applications, because it was an unsuitable case. The tumour was ten years old, and probably composed of fibrous tissue alone, which I have shown is almost unaffected by electricity. In contrast to this the bladder symptoms of Case 14 disappeared entirely after eight applications, although the tumour was also ten years old, but then it was much softer, and therefore more amenable to the influence of the current.

Diminution in Size.—That this takes place to a limited extent in most cases no one with practical experience can deny. The amount to expect will depend on the size and consistence of the tumour. An old hard tumour composed of fibrous tissue alone, as in Case 4, remains unaltered, while a soft tumour (Case 11) entirely disappeared. This case is a remarkable one, because the patient became pregnant two years after treatment, showing that it is no bar to conception. This fact might be of the greatest importance if an heir to a title were required. It is evident that removal of the appendages would destroy all possibility of so favourable an issue. In one instance (Case 7) the tumour was removed on account of its size; although electricity had stopped the metrorrhagia and removed the pressure symptoms, the diminution in size was not sufficient. The patient, who was single and had to get her living as a governess, was always open to unkind remarks on account of the size of her abdomen. Dr. Travers successfully performed hysterectomy.

Pain.—If the current be used too strong it is invariably followed by some pain in the abdomen for a day or two following the application; but this soon passes off. Local pains are often relieved after one application. Dysmenorrhœa in suitable cases usually disappears gradually.

Galvano puncture.—Differences of opinion are often expressed upon this point. In properly selected cases it is most useful. At the same time I cannot go as far as Apostoli. He advises that this measure should be resorted to when the blunt electrode cannot be passed, or when a salpingo-ovaritis has not been sufficiently relieved by intra-uterine applications, or when a fluctuating tumour presses into the vagina and demands rapid evacuation. Nothing, to my mind, can be more hazardous than to drive a sharp trocar into a projecting tumour in the uterine canal when we are unable to estimate with precision its position either by touch or sight. His method in this direction appears to me to be faulty. The steel trocar recommended by Apostoli has only a celluloid sheath to protect the vagina. As a consequence, after each puncture a small sinus is left communicating with the vagina, a condition of affairs which is very likely to lead to septic infection, in spite of antiseptic precautions. The trocar which I use has in addition a loose sheath, a second insulation, which does not project above its surface. When a puncture is made this insulating material is in contact with the healthy tissues, while the bare metal lies in the tumour, and the cauterisation is confined to the latter alone. By this means no sinus is left, the seat of puncture is closed in a few hours, and the risk of septic infection is reduced to a minimum. All the punctures were made through the anterior vaginal wall, although Apostoli advises that this should never be done. The tumour lay between the uterus and bladder, and there was no other way of getting at it.

Unsuitable Cases.—Many cases in addition to those described have come under my notice, but they were unsuitable for treatment. Such cases come under the following heads:—1. Old-standing hard tumours, over ten years' duration, causing pressure symptoms without hæmorrhage. 2. The presence of pronounced disease either of the ovaries or tubes associated with, or secondary to, a fibro-myoma. 3. Slow-growing tumours that give rise to no symptoms. 4 Fibro-cystic tumours. Of this class Case 16 is a good example. Several applications were made, but the tumour continued to grow, and abdominal section was finally performed by Dr. Travers. The treatment failed in one case of hæmatocele and two cases of anteflexion with severe dysmenorrhœa. It succeeded in a case of neuralgic dysmenorrhœa and one of primary amenorrhœa.

Conclusions.—Apostoli's treatment is of great value in a large proportion of cases. 1. It stops the growth of the tumour, sometimes reduces its size, and may possibly cause its disappearance. 2 It stops hæmorrhage in most cases. 3. It relieves pain and pressure symptoms. 4. It does not prevent pregnancy.

Queen-street, Mayfair, W.

ROYAL UNIVERSITY OF IRELAND.—The following examiners have been appointed for the current year:—Medicine: J. F. O'Carroll. Midwifery: J. W. Byers and A. J. Smith. Medical Jurisprudence: M. F. Cox and C. Y. Pearson. Materia Medica: F. J. Quinlan and William Whitla. Ophthalmology: D. D. Redmond and H. R. Swanzy. Sanitary Science: Sir C. A. Cameron and Anthony Rochr. Chemistry: E. A. Letts.

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THE ELECTRIC DOUCHE.

BY W. S. HEDLEY, M.D. EDIN., &c.

AT page 231 of his book on Electro-therapeutics Erb mentions the electric douche. No information, however, is given beyond a reference to a paper by Trautwein. I have not been able to get access to this article, nor am I aware whether the subject has any other literature. It is therefore because it may possibly interest those who are in the same position that I venture to put together the few following points, which are the outcome of an experimental inquiry recently undertaken for my own information. The action of electrised water by means of the electric bath has long been recognised as by far the least painful way of applying the current to the body. But the efficacy of this procedure depends in most cases on a general and distributed action rather than on any strictly localised effects. The electric douche therefore seems to have been devised as a means of retaining the advantages of the electro-hydriatic method and at the same time presenting facilities for strict localisation and accurate dosage, and securing the advantages of a labile as well as a stabile action. The method of application, apart from certain non-essential details, is much of the nature of what would be known in hydrotherapeutics as the "movable jet douche" (douche mobile), and the nozzle is so arranged that the electrised stream escapes in the form of a more or less condensed jet or jets, which, with a certain minimum of pressure, remain unbroken and continuous for a reasonable distance after emerging from the pipe, and therefore for that distance retain their electric conductivity. (Of course there ought to be a means of regulating temperature and pressure.) With this arrangement one pole may be placed in contact with some indifferent part of the patient's body, while the other is connected to the internal metal of the douche, with the result that when the douche is set in action the second pole is brought to the patient by and in the fluid, and may be concentrated as a single jet or distributed as many small jets. The fluid is, in fact, the second electrode.

Let us inquire, then, by direct experiment, how much current this water conductor carries, and how much enters the body of the patient. The following experiments are necessarily only a selected few, but a sufficient number of results are quoted to give some general ideas. Details of the apparatus are also as much as possible omitted. It need only be mentioned that, permanent water pressure not being available, a hand pump drawing from a suitable vessel was used for the douche, which was fitted with a nozzle or rose (having its outer edge insulated with india-rubber) of the size mentioned below. The electric apparatus consisted of a Leclanché battery of seventy-four cells (with a milliampère meter in circuit) and a fair-sized induction coil. One pole was attached to a large electrode on which the patient sat, and the other connected with the metal of the nozzle or rose, well insulated wire being used for the connexions. The following results were obtained:—

TABLE A.

Plain water at 98° F., continuous current.

Nozzle.	E. M. F.	Pole to douche.	Distance of nozzle from body.	Current passing.
1. ¼ in. jet (single).	75	−	1·5 in.	5 milliampères.
2. Do. do.	"	"	0·5 in.	15 milliampères.
3. Rose 2 in. dia., forty-nine perforations.	"	"	1 in.	5 milliamperes.
4. Single jet.	"	+	18 in.	Deflection (taken on reflecting galvanometer) right off scale. Probably quite 100 microampères.

TABLE B.

Salt water (½ lb. to 7 gal.), temperature 98° F., continuous current.

Nozzle.	E. M. F.	Pole to douche.	Distance of nozzle from body.	Current passing.
1. Rose.	75	−	1·5 in.	7·5 milliampères.
2. Single jet.	40	+	18 in.	20 milliampères.

TABLE C.

Plain water, temperature 98° F, alternating current.

Nozzle.	E. M. F.	Pole to douche.	Distance of nozzle from body.	Current passing.
1. Rose.	x	+	1·5 in.	Subject cried out "Stop." Milliampère meter (alternating current) in circuit did not register.
2. Single jet.	"	+	12 in.	Noise marked in telephone. Subject felt current.

Several readings were taken with alternating current and salt water, all showing that the effect was much stronger with salt water than with plain. These experiments seem to show that electricity can be imparted to the human body by means of the electric douche, provided that sufficient electro-motive force be used and the stream of fluid be continuous. Table B shows that when salt water is used strong currents may be passed over considerable distances with a very moderate electro-motive force. Table C shows that by using coil currents, which always possess a comparatively high electro-motive force, as much current as a patient can comfortably bear may be passed over many inches of space. Its current-carrying capacity being thus established, we may glance for a moment at its possible therapeutic effects.

There was a time in the days of "brutal hydrotherapeutic empiricism," when both physician and patient had a (not altogether inexplicable) dread of the "hydrostatic douche." This, however, has given way before a more enlightened method of administration, and the douche is acknowledged to possess stimulating and alterative properties of no mean order. It seems not unreasonable, therefore, to suppose that in the combined electric and hydriatic procedure we may have a therapeutic agent of considerable power. It claims that, according to variations in temperature, force, and duration, it may be resorted to as an agent more gentle and adaptable than even the "electric hand" of the physician, or may be made to become so potent and concentrated as to prove a veritable electro-hydriatic moxa. It presents itself as a means of general electrisation by bringing the various parts of the body successively under its influence; it claims an action that may be strictly localised; and, further, offers itself as a means of producing, through various motor inhibitory and secretory reflexes, those influences on nervous centres and glands which can undoubtedly be brought about by other and more painful methods of peripheral electrical excitation. If it can establish claims of this kind, a field of usefulness seems to lie before it in a class of cases which readily suggest themselves.

Brighton.

AN INQUIRY INTO THE RELATION THAT EXISTS BETWEEN MILD AND SEVERE FORMS OF SOME DISEASES.

BY E. DONALDSON, B.A. T.C.D., L.R.C.P.I., &c.

IN the different departments of science well-marked phenomena lead us to look for or infer the existence of less striking examples of the same or similar phenomena. Prof. Jevons, in his "Principles of Science" (p. 549), writes: "We must regard those changes which we can observe as the comparatively rare aggregates of minuter changes. On a little reflection we must allow that no object known to us remains for two instants of exactly the same temperature. If so, the dimensions of objects must be in a perpetual state of variation." He quotes Prof. Tyndall, as follows: "An upright iron stone influenced by the earth's magnetism becomes a magnet with its bottom a north and its top a south pole. Doubtless, though in an immensely feebler degree, every erect marble statue is a true diamagnet, with its head a north pole and its feet a south pole. The same is certainly true of man as he stands upon the earth's surface, for all the tissues of the human body are diamagnetic." He further illustrates this truth: "The sun's light produces a very quick and perceptible effect upon the photographic plate; in all probability it has a less effect upon a great variety of substances. We may regard every phenomenon as an exaggerated and conspicuous case of a

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process which is in infinitely numerous cases beyond the means of observation." We find the same truth exemplified in physiology and pathology. Parturition has its minor manifestation in menstruation. Shelley wrote of "Death and his brother Sleep." The "oral whiff" is an exaggeration of the cardio-pneumatic impulses which can be detected in most, if not all, persons. Dr. Hughlings Jackson says: "A fit of epilepsy is an excessive caricature of the normal physiological process during what is called a voluntary action." Mr. Hutchinson has pointed out that rare diseases are sometimes exaggerated forms of what is common. There is a principle which governs the relation between mild and severe forms of some diseases, and which appears not to be recognised in medical writings. The principle is that some well-marked varieties of disease can only occur in communities where less marked varieties are not uncommon If we find in a community rare cases of astigmatism of six dioptres, we are sure to find a large number with less astigmatism. If we find more cases of severe myxœdema in women than men, we may conclude that milder forms of this disease are oftener found in women than men. The functional activity of the thyroid is greater in women. Complexity of function without corresponding complexity of structure practically lowers the level of evolution, and Dr. Hughlings Jackson has taught us that disease frequently first attacks the least organised parts. Hence the fact that women have myxœdema more than men comes under the law of dissolution—the reverse of evolution.

To what diseases does the principle that the worst cases occur amongst those who suffer most frequently apply? It applies to diseases in which inherited predisposition plays an important part—e.g., myxœdema, exophthalmic goitre, Raynaud's disease, &c. It holds good also where there is no marked inherited predisposition, as in myopia. In other cases there is no relationship between frequency and severity. A disease may be equally liable to occur in the two sexes or at any age, but owing to greater exposure to exciting causes one sex or persons of a certain age may suffer oftenest. Infants have purulent ophthalmia less severely than adults, and oftener. If this principle is not recognised error is likely to follow. A physician of great experience writes as follows: "If I may judge from my own experience, these rudimentary cases of Graves' disease are more common in men than in women. Men, as everyone knows, are much less frequently affected with exophthalmic goitre than women, and it would appear (at all events as far as I can judge from my own experience) that when men do become affected with Graves' disease the clinical picture is apt to become imperfect." If the principle I have mentioned applies to exophthalmic goitre, it will be found that women suffer oftener than men from the mild as well as from the severe forms. Von Graefe was probably in error when he said that exophthalmic goitre was more likely to be fatal in men. A distinguished ophthalmic surgeon writes that bad myopia is found oftenest amongst hospital patients, while the benign form is found oftenest amongst private patients. Mr. Priestley Smith has met this by statistics and arrived at a different conclusion—one that is quite in harmony with the principle I am discussing. The question as to the relation that exists between mild and severe myopia is rendered difficult by the fact that some cases of severe myopia differ etiologically from the milder cases. These cases are not, however, sufficiently numerous to vitiate the conclusion that the severest cases occur amongst those who suffer oftenest.

Some difference of opinion exists as to whether mild cases of myopia and albuminuria are to be looked upon as physiological or pathological. It would be well to look on this question in the light of the principle that in communities where the mild forms often occur the severer forms are likely to occasionally crop up. It was thought that albuminuria occurring in association with acute infective diseases was sometimes due to high temperature. It is probable that many of these cases are really mild forms of parenchymatous nephritis due to the different poisons acting on the kidneys.

Londonderry.

LUNACY CASE.—An action against Dr. Littlejohn and Dr. Hay of Edinburgh for £1000 and £500 damages respectively, on the ground that they did "falsely, wickedly, and maliciously swear that the pursuer is a dangerous lunatic," was heard by Sheriff Orphoot in Glasgow on the 18th inst. The pursuer conducted his own case, and, after hearing both sides, the sheriff took the case to avizandum.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. MARY'S HOSPITAL.

SOME INTERESTING SKIN CASES.

(Under the care of Mr. MALCOLM MORRIS.)

WE present our readers this week with an interesting series of cases illustrating four of the rarer kinds of cutaneous eruptions. Case 1 is recorded because of the apparent absence of a source of contagion and on account of the rarity of the affection in England. Kral has made some interesting observations with regard to the nature of the fungus in this disease, the result of which he gave to the International Medical Congress in Berlin. Case 2 describes a chronic and obstinate affection, also of unusual character, which ultimately yielded to treatment. Mr. Malcolm Morris, who has had Case 3 under observation since 1878, thinks this undoubtedly a case of Hebra's prurigo from a consideration of the following facts: The relapses of severe eczema, the above attack being an example of the length of time the disease has persisted, the existence of large indurated inguinal and femoral glands, the extreme irritation, the thickening of the skin, and the great depth of the natural furrows. With reference to Case 4, Mr. Malcolm Morris regards this sudden appearance of the erythematous band, separated from the original mischief by healthy tissue, as an additional argument in favour of the essentially erythematous and neurotic character of lupus erythematosus. The patient is a stout and well-nourished woman, who, however, suffers slightly from asthma. For the notes of these cases we are indebted to Mr. L. E. Parkhurst, house physician.

CASE 1. *Favus of the Scalp.*—F. S——, aged ten, was admitted to St. Mary's Hospital on Oct. 20th, 1891. He was sent to the hospital from an inland Somersetshire village. There was no history of exposure to infection or of any source whence infection might have arisen; no cats or canaries in the house. It occurred first when the boy was three months old, and has persisted ever since, growing steadily worse in spite of treatment. No other members of the patient's family have suffered, although he has for years past shared a bed with a younger brother. On admission the head was found to be covered with the characteristic yellow crusts, with mousy odour, extending all over the scalp. The hair was scanty, there was great irritation, and the general health was poor. Hyposulphite of soda fomentations were applied every four hours, and cod-liver oil and iron given internally; subsequently fomentations of resorcin solution. He is still in hospital, but there is marked improvement in every way. The irritation of the scalp early disappeared, and the crusts are all gone. New hair is growing everywhere on the scalp. General health greatly improved.

CASE 2. *Relapsing Pustular Dermatitis of Palms and Soles.*—C. K——, aged fifty, married, was admitted to hospital on Nov. 6th, 1891. There was no history or suspicion of syphilis. She had facial erysipelas eighteen months ago, and when convalescent noticed a breaking of the skin on the soles of the feet, which then discharged a watery fluid; this next attacked the palms. Pustules first appeared twelve months back; they were very painful until pricked, and used to come out in crops, the average duration being about a week. She has not been able to put her feet to the ground for more than a year. She was seen from time to time as an out-patient, but no improvement resulted. She then presented a dry, deeply fissured dermatitis of both palms, with numerous deep-seated pustules over the thenar and hypothenar eminences, about a quarter of an inch square, and containing a thick creamy pus. These are very painful until they are lanced. On the feet there is hypertrophy and thickening of the skin of the soles, with similar deep-seated pustules, but no deep fissures; there are also patches of psoriasis on the knees and elbow; the condition of the palms and soles, however, in no way suggested psoriasis, but was rather of an eczematous character. She was treated at first with a salicylic ointment, and subsequently

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a weak and then a strong tar ointment. She improved greatly, especially when given biniodide of mercury internally; this is curious, as syphilis is not suspected. She was troubled at first with urticaria, and until the strong tar ointment was used had crops of pustules from time to time. She was discharged on Jan. 15th, 1892, quite well. There were no pustules after the end of November on the hands, but they persisted about a fortnight longer on the feet. She can now stand and walk without pain. The general health has all the time been excellent.

CASE 3. *Hebra's Prurigo.*—A. H——, aged twenty-seven, was admitted to hospital on Dec. 7th, 1891. When three months old a red raised spot appeared on the left cheek, which gradually spread and affected the whole body, save the nose, forehead, lower lip, scalp, and soles of the feet. One of his earliest recollections is the excessive irritation of his skin and the consequent scratching thereby set up, and the itching has continued ever since, but with occasional intervals of slight amelioration. He has suffered severely from asthma and chronic bronchitis for many years. Three months back, and suddenly (after getting heated from some slight labour) the irritation became more than usually severe, and affected the abdomen in the first instance; the skin in this region felt hot, became red, then inflamed, and discharged "a watery matter," and assumed a deep purple colour. On the legs a similar condition followed in a few days, but more gradually; it began to spread up the abdomen, and then appeared in the arms, but independently and not by direct extension. On admission he presented a rough, dry, scaly skin, which was greatly thickened, and had all the natural furrows deepened. On the arms were numerous blood crusts, a multitude of deep fissures, and a discharging eczema; the legs were similarly affected. The front of the lower abdomen was occupied by a deep pigmented—not erythematous—patch of purple colour and irregular but sharply defined outline above, merging into the redness and eczema of the legs below. There was no exudation from the surface of the abdomen, and no papules could be made out owing to the great thickness of the skin. He was suffering from asthma and bronchitis somewhat severely, and had slight fever. He was treated at first by cod-liver oil massage, followed by a mild tar ointment. The skin condition has improved greatly, and the pigmentation over the abdomen has quite gone, but the asthma is worse than ever.

CASE 4. *Lupus Erythematosus.*—E. C——, aged twenty-four, was admitted to hospital on Dec. 10th, 1891. The disease appeared first on the skin of the cheeks (she thinks both about the same time were affected) in 1884, and has been very intractable. She was in hospital in 1887, in 1888, and again in 1891. It has gradually spread, and assumes at present the typical butterfly outline with numerous scars indicating the atrophic stage. There are also on the scalp two dry scaly patches, quite distinct from that on the face, which have also reached the atrophic condition. The interesting feature about the case is that in October last the patient noticed one day that a faint rosy band had appeared outside the old eruption, extending round the chin from temple to temple, and this has gradually darkened, until on admission it presented the appearance of a band of simple erythema one inch wide, and separated by a narrow band of healthy skin from the old eruption, which it in no place joined. This has gradually darkened, and is getting purple, but there is no sign of scarring. Treatment has been directed to the old patch only, and has consisted in cautery (twice applied), followed by a salicylic acid ointment. She has improved greatly.

METROPOLITAN HOSPITAL.

LIGATURE OF THE LINGUAL ARTERY FOR HÆMORRHAGE FROM EPITHELIOMA OF THE TONGUE.

(Under the care of Mr. WALSHAM.)

HÆMORRHAGE in consequence of epithelioma of the tongue ulcerating into the lingual artery is not very common. In this case, owing to the ulcerative chasm being far back in the tongue and the patient being unable to open his mouth widely and protrude that organ, it was difficult to determine the exact source of the hæmorrhage. As the bleeding on admission was very severe perchloride of iron was at once applied to restrain it. This treatment was successful for a time, but on the recurrence of hæmorrhage Mr. Walsham was sent for. The lingual artery was easily found and tied. The hæmorrhage ceased at once, and the wound for exposing the artery healed by the first intention. Mr. Walsham proposed removing the gland and the tongue by Kocher's method, but the patient would not give his consent. The indications for the performance of this operation are mainly four: (1) Before removal of the tongue; (2) for hæmorrhage after removal of the tongue; (3) in cases of malignant growth of the tongue too extensive for removal &c; and (4) in some cases of macroglossia.[1] For the notes of this case we are indebted to Dr. Marshall, senior house surgeon.

John M——, aged fifty-two, was admitted to the hospital on Dec. 11th, 1891, with severe arterial hæmorrhage from the mouth. On examination the tongue was considerably fixed on the right side, and a new growth, apparently epitheliomatous in nature, was found involving the posterior third of the right side of the tongue and the floor of the mouth. The growth was deeply ulcerated, and at one spot a cavity was found passing deeply into the base of the tongue. On the right side of the neck was a mass of indurated and enlarged glands. The hæmorrhage was checked temporarily with perchloride of iron, but in the course of about four hours it recurred to such an extent as to endanger the patient's life. About six hours after admission Mr. Walsham was sent for and ligatured the right lingual artery in the submaxillary triangle. The hæmorrhage, which had stopped, but recurred whilst the patient was on the operating table, immediately ceased.

On Jan. 3rd the patient left the hospital, no further hæmorrhage having occurred since the operation.

SOUTH DEVON HOSPITAL, PLYMOUTH.

CASE OF ATROPHIED KIDNEY, WITH PERINEPHRITIC ABSCESS; NEPHRECTOMY; FÆCAL FISTULA; RECOVERY.

(Under the care of Mr. WHIPPLE.)

THE most likely explanation of this case seems to be the following. Five years ago there was a small calculus in the pelvis of the left kidney. This eventually blocked the ureter, causing atrophy of the kidney, and later on ulcerated through into the descending colon, and was thus got rid of. The present abscess was probably caused by the escape of some intestinal contents into the perinephritic tissues. In removing the kidney, which was adherent to the colon, where the stone had ulcerated through, some damage was done to the wall of the latter, leading to formation of the fæcal fistula. At the operation the escape of fæcal-smelling gas occurred long before the kidney or colon was reached, and certainly was not due to a wound of the colon. For the complete account of this case we are indebted to Mr. W. Gifford Nash, late house surgeon.

M. B——, aged thirty-eight, wife of a marine, was admitted on Aug. 1st, 1891. She stated that she began to suffer pain in the left loin five years ago. At first the attacks of pain occurred at intervals of three or four months, but latterly every three or four days. The pain, which was very severe on the left side of the abdomen, caused vomiting. During the last year the pain had been more constant, and had radiated to the left groin and thigh. For the last three weeks the pain in the thigh and knee had been severe and the thigh had been flexed. Four years ago she had frequency of micturition for six weeks, but latterly had only passed urine twice a day. Two years ago micturition was painful. When admitted she was a well-nourished woman, complaining of pain in the left loin, thigh, and knee. The left thigh was flexed. There was a distinct swelling in the left lumbar region, reaching as low as the crest of the ilium and extending upwards under the ribs. It had a hard rounded border in front, was extremely tender, and apparently fixed. Fluctuation was not obtained. There was no frequency of micturition, and no pain was felt during the act. The urine was acid, sp. gr. 1010, and contained a trace of albumen; under the microscope were seen numerous pus cells, but no crystals, blood, or casts. In two days she passed ninety-eight

[1] Jacobson: The Operations of Surgery, p. 482, second edition.

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ounces of urine. On Aug. 5th the swelling was explored by the lumbar incision. On cutting through the lumbar aponeurosis and exposing the hard and condensed perinephric fatty tissue there was an escape of gas with a foul fæcal odour. On tearing through the condensed fat, an abscess, containing about three ounces of pus, was opened. The kidney itself was found to be extremely shrunken, and was therefore removed. In doing this it was much torn, as it was intimately adherent to the surrounding tissues. The lumbar muscles were sutured with catgut and the wound closed, except where a drainage-tube was inserted. On Aug. 8th there was a little fæcal discharge from the wound, which continued for a week. The patient, after the operation, immediately lost all the pain in the loin and groin, but a sinus remained until the silk ligature on the pedicle of the kidney came away on Nov. 26th. After this the sinus healed, and the patient was able to leave the hospital on November 30th. The kidney removed was about the size of a testis. The cortical tissue was the seat of chronic interstitial nephritis. There was nothing found to account for the atrophy or the perinephritic abscess.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY

Antiseptic Preparations of Catgut and Silk.—Torsion of the Spermatic Cord.

AN ordinary meeting was held on Tuesday, Feb. 23rd, Mr. Timothy Holmes, F.R.C.S., President, in the chair.

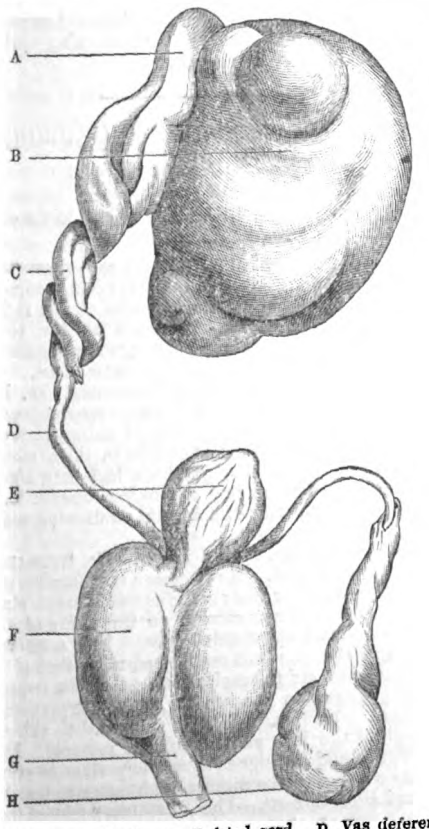
Mr. W. G. MCPHERSON (Army Medical Staff) supplied a paper on Antiseptic Preparations of Catgut Silk and their relation to Wound Infection (communicated by Mr. A. Bowlby). The author first alluded to the observations of various surgeons on the causation of suppuration in wounds by ligatures supposed to be aseptic, and then described his own experiments. These were conducted in three series: (1) Experiments testing the purity of dry material supplied by surgical instrument makers; (2) experiments testing the purity of material preserved in "antiseptic" solutions; (3) experiments with specially contaminated silk to test the antiseptic value of such solutions. Control experiments were also made. A description was then given of the preparation of the silk used for surgical purposes, and it was pointed out that in its manufacture it was subjected to various processes which were well calculated to destroy any organisms it might contain, although this was not the object directly in view. The various experiments and their results were then given in detail, and attention was particularly directed to the results obtained with different kinds of material, the object of the writer being to ascertain the most reliable material for ordinary surgical use, and the best means for preserving it in an efficient condition. The following conclusions are then drawn:—(1) All so-called "antiseptic" preparations must be received with considerable caution, and there is good reason for rejecting such preparations of catgut; (2) asepsis can with certainty be obtained by the cheapest, simplest, and most efficient means of all—namely, by boiling or steaming; (3) material thus rendered aseptic may be readily kept aseptic in bottles containing no solutions of any kind; (4) the methods of keeping ligature material aseptic by means of solutions, as suggested from time to time by various surgeons, are unnecessary; (5) the most aseptic material sold by surgical instrument makers is probably the fine undyed silk twist, untreated by any antiseptic material.—The PRESIDENT said he had never experienced any ill effects from the use of catgut for ligatures and sutures.—Mr. HOWARD MARSH mentioned a case in which he had amputated through the thigh. He had used catgut, carbolised and sent direct from the instrument makers', for his deep ligatures. In spite of every care at the time of the operation, within forty-eight hours the wound became foul along the tracks of the sutures and ligatures, and the case finally terminated fatally. In his own mind there was no doubt that this was due to a septic condition of the catgut and of the carbolic preservative fluid. At St. Bartholomew's Hospital there was a profound mistrust of material obtained from the instrument makers' for ligatures, and no house surgeon would think of allowing anything to be used which he had not himself prepared. When properly prepared he thought that there was no particular difference in this respect between silk and catgut, though he himself preferred silk.—Mr. BARWELL referred to a paper of his on tying arteries in their continuity, which he had formerly read before this Society, in which he had quoted from a work on the preparation of catgut how that the intestine was first partly macerated for the removal of everything except the muscular coats, and that the muscular coats still containing putrefactive organisms became converted into catgut, and without further sterilisation were stored in carbolised oil, which was known not to be a sufficiently powerful germicide for their destruction. He kept his materials for sutures and ligatures in solutions of perchloride of mercury or of carbolic acid for long periods before using them.—Mr. BRUCE CLARKE had for several years given up catgut kept in carbolised oil for silk rendered aseptic by boiling. He described the form of bottle in use at St. Bartholomew's Hospital for storing ligatures. These bottles were ordinarily kept corked, and were filled with some antiseptic solution. During use the cork was removed, and a rubber cap which was kept in the antiseptic solution in the bottle was stretched over its mouth and the ligatures drawn out through it.—Mr. STANLEY BOYD referred to the work that had been done on the Continent on this subject, by which catgut kept in carbolic oil had been for some time condemned. He mentioned Volkmann's case, in which a patient died of anthrax, produced by a catgut ligature, which had originally been made from the intestines of a sheep which had died of anthrax. He believed that it was important that the material used should be non-absorbent, and he used silkworm-gut for deep sutures and horse-hair for superficial ones, and found both very satisfactory.—Mr. GOLDING BIRD agreed with Mr. Boyd that the texture of the substance used was of great importance. Those substances which were least liable to be digested—such as silk-worm gut, silk, or wire—were the best.—Mr. WATSON CHEYNE agreed with the general feeling which had been expressed as to the unreliability of the materials as they were supplied by the makers, and said that he should never think of using anything which he had not himself rendered aseptic. He had not experienced much suppuration from the use of catgut sutures or ligatures, though they might contain putrefactive bacilli, as Mr. Barwell had stated, which were not destroyed by after treatment with carbolic oil. It was probable, however, that micrococci rather than bacilli were most injurious to wounds. At King's College Hospital the materials, as obtained from the makers, were loosely reeled and rendered aseptic by immersion in strong carbolic solution (one in twenty). He agreed with the first three conclusions of the author; but with the fourth, though perhaps unnecessary for experienced bacteriologists, who were aware of the many sources of contamination, yet for others he thought that it would be safest for them to use some antiseptic solution in which to keep their sutures and ligatures.—Mr. HEYWOOD SMITH thought that silkworm gut was the best material for sutures.—Mr. BOWLBY, on behalf of the author, stated that one reason why he had recommended that ligatures should be preserved in a dry state was that they were then somewhat less liable to be a source of bacterial infection, as it was well established that organisms required some moisture for their development. In the paper silkworm gut had not been referred to, as it was unsuitable for ligatures on account of its stiffness.

Mr. THOMAS BRYANT communicated a paper on Torsion of the Spermatic Cord, with Strangulation of the Testicle. The author recorded a case of this hitherto unrecognised affection, which occurred in a boy aged fifteen, with an imperfectly descended testicle, and which he saw in consultation with Dr. Fox of Barnet, in September, 1889. The case in many points simulated one of strangulated hernia; indeed, it was at first so diagnosed. In an exploratory operation undertaken for its relief its true nature was at once revealed, when an imperfectly descended testicle, black from venous congestion brought about by complete torsion of the cord, was exposed. Three half-twists made inwards completely untwisted the cord, and an attempt was made to save the testicle, as it was quite warm. The wound healed kindly after the operation, but the testicle wasted. A good recovery ensued. When this case first occurred it was thought to have been unique, but in the summer of 1891 a preparation was forwarded by Mr. G. Nash, of the South Devon Hospital, to the Royal College of Surgeons

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for examination, which was clearly of the same kind. This case is therefore fully quoted by the author, with the account of the preparation as given by Mr. Targett, the Pathological Curator to the College. In both of the cases brought forward the twisting of the cord took place in boys; in both the accident affected the left side, and in both there was an incomplete descent of the affected testicle. In the author's case the torsion took place within the inguinal canal; in Mr. Nash's case it was reported to have occurred in the external ring. No explanation of the process by which the torsion of the cord was brought about is attempted, for the author states that neither accident, nor any of the changes which take place in the organ during its physiological descent, seem capable of helping us towards a solution of the problem. That cases similar to the two now published have occurred before the author has no doubt, and he is equally sure that such cases have been described amongst those of inflammation of an ectopic testicle. He believed that one such has been published by Mr. Jacobson (p. 471 in vol. iii. of Mr. Holmes's last edition of his "System of Surgery"). He also maintained that if his own case had not been operated upon, its true nature would never have been recognised; and if it had been allowed to run its natural course, it would probably have been described as one of gangrene or disorganisation of the testicle from acute inflammation. He was disposed to think that many of the cases of atrophy of the testicle which has taken place after a supposed inflammation coming on without any clear cause are of this nature, the strangulation of the cord in such cases being less severe. As an appendix to the paper the author gave a case of the same kind, which was reported to him by Dr. W. Keen, of Philadelphia, United States, and which in every way supports the views put forward by the author.

The Secretary then read a communication from Mr. BLAND SUTTON describing a specimen of Axial Rotation of the Testis in an old pug dog, and the specimen was exhibited. In it the cord of the right testicle (which contained a large tumour) had



A, Epididymis. B, Testis. C, Twisted cord. D, Vas deferens. E, Bladder. F, Prostate. G, Penis. H, Testes in sac.

rotated two and a half times, the disposition of the organs being shown in the accompanying figure. Cases similar to those of Mr. Bryant had been described by Nicoladoni and Cohen in Germany, and abstracts are furnished by Bramann in Langenbeck's Archives, vol. xl.—Mr. W. [G. SPENCER showed a specimen which had already been recently exhibited by him at the Pathological Society, which, though somewhat resembling, was not really similar to Mr. Bryant's cases.—Mr. HULKE asked if in Mr. Bryant's cases there had been long mesorchia. He referred to a paper which he had read before this Society in 1866, in which he had described large sacs in the scrotum, in which the testes had floated in and out of the peritoneal cavity, suspended by long mesorchia.—Dr. HERBERT SPENCER referred to Mr. W. G. Spencer's specimen, and asked Mr. Bryant if at the time of the operation in his case he had noticed any band. He was of opinion that extravasated blood at the time of birth sometimes prevented the descent of the testes into the scrotum, and that a band sometimes remained in after life as a sign of this extravasation.—Mr. BRYANT, in reply to Mr. Hulke, said that in this case the testicle was only just showing through the external abdominal ring, and that there was a long mesorchium; in reply to Dr. Spencer, he said the testicle was rotated one and a half times, and there was no sign of any band.

MEDICAL SOCIETY OF LONDON.

Arthrectomy.—Epithelioma of Tongue.—Old Dislocation of Shoulder treated by Operation.—Floating Spleen.—Friedreich's Disease.

A "CLINICAL EVENING" of this Society was held on Feb. 22nd, the Vice-President, Mr. Reginald Harrison, in the chair.

Mr. CLUTTON exhibited three cases in which he had performed Arthrectomy by a new method for the relief of tubercular disease of the elbow-joint in children. During 1888 four such cases were submitted to operation at the Victoria Hospital for Children, one of which had eluded search, though when last seen the result was quite equal to that in those shown. The operation consisted in opening the joint by dividing the olecranon and removing all the diseased structures with a sharp spoon and scissors. The parts were reunited and kept absolutely at rest. No passive movement was at any time performed, and a plaster-of-Paris splint was continued for three or four months. The range of movement now present was obtained entirely by the patients themselves. The results were seen to be but little short of the normal. If the cartilages at the time of operation were firmly fixed to the bone beneath and the wound kept aseptic, the joint would not ankylose, even though it be kept at rest for some months; whereas if the cartilages be detached and a movable articulation be required, the ends of the bones must be removed as in the ordinary method of excision.

Mr. BRUCE CLARKE exhibited a case of Epithelioma of the Tongue which had been seen in the gummatous stage, but, the patient having absented himself for many months, the disease was now too far advanced for operative interference. He proposed to inject a solution of aniline dye with a view of exhibiting the effect to the Society on some future occasion.—Mr. MARMADUKE SHEILD mentioned a case in which he had injected pyoktanin into a malignant growth without obvious effect. He remarked that the development of the growth in the centre of the tongue, as in the case exhibited, was unusual, though he could recall two others.—Mr. WATSON CHEYNE alluded to three cases of malignant disease, two being sarcoma, so treated, in which no improvement resulted. In one diffuse suppuration occurred in the neck after injection by the mouth.

Dr. SIDNEY PHILLIPS showed a man affected with Acromegaly who had attended among his out-patients for sciatica. So far as could be gathered from the history, the patient being unaware of the condition himself, its duration had been five years. There was very marked hypertrophy of the feet and hands, the nails were flattened, longitudinally striated and cracked, the face exhibited considerable enlargement of the lower jaw, with thickening of the cartilages of the nose and of the outer edge of the orbits, the lower lip, tongue, and tonsils were hypertrophied, and several teeth had fallen out. The pelvic bones were enlarged, there was an increase of the dorsal and lumbar curves of the spine, and the ribs were thickened. The thyroid gland was not to be felt, and appeared atrophied. There was some high-pitched resonance over the manubrium sterni. On the back was a pedunculated molluscum fibrosum, such as had been noticed in previous cases. The man suffered from headache

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and profuse sweats. Sight was failing, owing possibly to the presence of choriditis, which had been observed. The thigh and leg on the side affected by sciatica were wasted. There was no great increase of appetite and no loss of taste, such as had been described. An unusual feature in the case was an extension of the enlargement to the forearms.—Mr. TAYLOR inquired as to the affection of the fields of vision in relation to the possible presence of an enlarged pituitary body pressing on the optic tract.—Mr. MARMADUKE SHEILD asked for information relative to the mode of enlargement of bones.—In reply, Dr. PHILLIPS said there was no limitation of fields, and that he was unaware that any minute examination had been made of the bones in these cases. There was thickening, but no elongation.

Mr. PEARCE GOULD exhibited a case in which he had operated for Old Unreduced Dislocation of the Shoulder. There had been paralysis and some wasting, with great pain in the limb, from pressure on the nerves. An attempt at reduction under chloroform having proved unsuccessful, on April 5th, 1890, he had made an incision as for excision of the head of the humerus, and, having divided all the muscles in connexion with the great tuberosity, managed to replace the bone. Although the humerus had been dislocated two months, there was now practically as good movement as in the healthy limb. Many of the paralysed and wasted muscles had recovered, and there only remained some defect in those supplied by the ulnar nerve, which had been most profoundly injured.

Mr. WATSON CHEYNE showed a second case of the same sort, but in which four months had elapsed between the dislocation of the bone and its restoration, the man, in addition, having failed to attend the hospital subsequently. In consequence of this and of having had to divide all the muscles with the exception of part of the pectoralis major, as well as to clear out the glenoid cavity, range and power of movement were somewhat defective, and the head of the bone had slipped slightly forward.—The VICE-PRESIDENT referred to the history of these cases, and the improvement introduced by this method of treatment.—Mr. MARMADUKE SHEILD, referring to his own paper at the Medico-Chirurgical Society, deprecated the application of great force in attempts at reduction. Excision, he thought, was easier and preferable in cases of long standing. The results were very satisfactory. Where there was fair movement and no trouble from pressure on nerves it was better not to interfere.—Dr. SOLOMON SMITH inquired as to the cause of difficulty in replacement after the muscles were divided freely, and whether in the second case there was any chipping of the glenoid rim to account for the bone subsequently falling forward.—Mr. PEARCE GOULD referred the difficulty in reduction to the great shortening and tension of muscles, fasciæ, and ligaments. He advised that when replacement was called for one good effort should be made under chloroform, and if this failed, operation should be proceeded with. He agreed entirely with the remarks of Mr. Sheild. — Mr. WATSON CHEYNE referred to the danger, in using force, of rupturing the axillary artery. He had observed no chipping of the glenoid fossa during his operation.

Dr. LESLIE OGILVIE showed two cases of Floating Spleen, occurring in two boys in the same family. Both had suffered from rickets. The elder one was able to depress and protrude the organ, as a tumour, by voluntary effort.—Sir HUGH BEEVOR mentioned a case previously shown, where there was great laxity of the abdominal wall on both sides.

Dr. JAMES TAYLOR demonstrated a case of Friedreich's Ataxy in a boy. There were choreic tremors, marked ataxy, nystagmus, and cramps in the legs. There was some degree of lateral curvature, thermal impressions were delayed, and knee-jerks were lost. The disorder had come on six months after recovery from diphtheritic paralysis. An elder brother was rather worse, the third, a girl, being unaffected. The boy exhibited the "humped foot" (talipes equino-varus) usually met with in this disease. Replying to Mr. Clutton and Dr. Ormerod, he could not say when the foot deformity occurred. There was no history of alcohol, syphilis, or neurosis.

HARVEIAN SOCIETY OF LONDON.

A MEETING of this Society was held on Feb. 4th, Dr. W. B. Cheadle, President, F.R.C.P., in the chair.

Senile Tuberculosis. — Mr. HOWARD MARSH read a paper on Senile Tuberculosis, a title which, in view of recent advances of pathology, he had ventured to substitute for that of Senile Scrofula, originally used by Sir James Paget. He thought all cases occurring in patients over fifty should be regarded as senile. This limit as to age was an arbitrary one, but it was clinically sound. The case was related of a man of sixty-three, who had tubercular disease of his knee, going on to suppuration, and who had somewhat advanced phthisis of both lungs. Amputation was performed, and rapid healing of the wound was followed by marked improvement of the general health. A tubercular knee-joint was also shown from a lady of sixty-seven, in whom Mr. Thomas Smith had performed amputation, and who made a very favourable recovery. Particulars of four cases of senile tuberculosis of the hip-joint were given, in two of which the patients had phthisis; while a third, a patient under the care of Mr. Langton, died of general tuberculosis attended with symptoms of tubercular meningitis. The author described four cases of caries of the spine in the old—one of them having been under Mr. Butlin,—two cases of tuberculosis of the wrist, and two of the testis. In the great majority of the cases related suppuration had occurred. Mr. Marsh discussed the diagnosis (which was often very obscure in the early stage) between senile tuberculosis and osteo-arthritis, and between the former and malignant disease in cases in which the lymphatic glands were the parts affected. Senile tuberculosis showed, he remarked, a strong tendency to suppuration, and was often inveterate. In some cases, however, sound repair had occurred. Treatment must, as in younger subjects, aim at improvement of the general health; local rest must be secured, and matter must be evacuated, aseptically, as soon as it was detected. In many instances, amputation became necessary, and in the majority of cases this was well borne; the wound healed favourably, and often very quickly.—The PRESIDENT remarked upon the similarity between tuberculosis of the young and of the aged.—Mr. D'ARCY POWER thought that in the aged the tendency was to necrosis rather than caries.—Dr. WILLIAM HILL referred to cases of senile tuberculosis of the larynx.—Dr. Drew, Mr. Cripps Lawrence, Dr. Winslow Hall, and Dr. Sutherland also spoke.—Mr. HOWARD MARSH briefly replied.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

WEDNESDAY, JAN. 20TH.

Mr. ANDERSON, F.R.C.S., President, in the chair.

Chorea.—Dr. HANDFORD showed a case of general chorea in a woman aged sixty-three, following left hemiplegia, but presenting the characteristics of senile chorea rather than of post hemiplegic chorea, inasmuch as the movements affected equally the face and both upper extremities, and to a much slighter extent both lower extremities. The prognosis as to cure was not very favourable. Dr. Handford also showed a man aged fifty in whom progressive muscular atrophy, with marked symptoms of bulbar paralysis, had followed an attack of left hemiplegia three months previously. The hemiplegic paralysis had been almost completely recovered from, but the bulbar disease had caused complete aphasia, with difficulty of swallowing and attacks of dyspnœa.

Nasal Cavities and their Diseases.—Dr. STEWART read a paper on this subject. He discussed the diagnosis in cases of suppuration of one or other of the accessory cavities in relation with the nose, and commented on the rarity of disease in the frontal and sphenoidal cells. The most important function of the nose was considered to be that of allowing free passage of air in respiration; hence the importance of removing spurs on the septum, polypi, hypertrophies, and post-nasal adenoma. Where suppuration existed along with polypi the last should be first removed. In chronic pharyngitis and laryngitis it was important to examine the nose, as a cause of the disease might often be found there.

Nasal Hydrorrhœa.—The PRESIDENT related the case of a young woman aged nineteen who had for some time been troubled with a perfectly clear, watery discharge from the left nostril. The discharge was almost continuous, but could be increased by inclination of the head to the opposite side, and after a quantity had flowed forth in this way it would for a time cease. There was no symptom or sign of disease in either the ethmoidal, frontal, or sphenoidal

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sinuses, and no tumefaction of the cheek or other sign of distension of the antrum. Nothing could be discovered in the anterior or posterior nares. From the symptoms it appeared evident that the antrum furnished the discharge. The molar teeth on the affected side were carious, and the cavity was opened by extracting the second and perforating the bone, when a quantity of clear fluid similar to that discharged from the nose was evacuated. The cavity was drained into the mouth, and douched daily with an astringent wash. This did not effect a cure, so the opening in the bone was enlarged to a sufficient extent to admit the end of the little finger, when a number of minute polypi were found projecting from the mucous lining of the antrum. The interior was scraped with a director and swabbed out with a solution of chloride of zinc, which effected a cure in about six weeks. When last seen, some months after, the patient was quite well, and had no recurrence of the symptoms. Allusion was made to a case very similar to the above in many respects which had been reported by Sir James Paget to the Clinical Society in 1879.

Specimens.—Dr. HANDFORD showed Transverse and Longitudinal Sections of Hardened Brains affected by Tumours, also photographs illustrating Ocular Paralysis and Cerebral Tumours. Mr. CLEMONS, for Dr. Handford: Microscopic Section of Sarcoma of Brain.

Reviews and Notices of Books.

Text book of the Eruptive and Continued Fevers. By JOHN WILLIAM MOORE, B.A., M.D., M.Ch. Univ. Dub., Fellow and Registrar of the Royal College of Physicians of Ireland; Physician to the Meath Hospital, Dublin; Joint Professor of the Practice of Medicine in the Schools of Surgery of the Royal College of Surgeons in Ireland; Consulting Physician to the Cork Fever Hospital, Dublin, &c. Dublin: Fannin and Co. 1892.

THE author of this text-book in his preface briefly alludes to the circumstances under which it has been published. He modestly disclaims all intention of competing, as it were, with such a work as Murchison's monograph on the Continued Fevers, the last edition of which was edited with so much ability by Dr. William Cayley. As regards the eruptive fevers, however, he points out that we possess no work at all analogous to, or comparable with, that of Murchison on the Continued Fevers, notwithstanding that a full and accurate description of these diseases is to be found in the third edition of Hilton Fagge's and Pye-Smith's Text-book of the Principles and Practice of Medicine, and in other standard works. It has been the author's endeavour, he tells us, to gather into a focus the most recent views on the etiology, bacteriology, symptoms, pathology, and treatment of this eruptive fever group of diseases. Dr. Moore alludes to the honourable position which the Irish universities, licensing bodies, and schools have occupied in recognising the great practical importance of a knowledge of this subject, and in insisting upon evidence being furnished by medical candidates of a personal clinical study of fever.

In opening a new medical text-book we naturally ask ourselves not only whether its author has anything to say and knows how to say it, but whether he possesses the requisite knowledge and experience to qualify him for the work. As regards Dr. Moore's qualifications in the latter respect, we may remark that he adverts to the advantages he gained from the teaching of Stokes and Hudson, and to the fact that for thirteen years he was one of the physicians in the Cork-street Fever Hospital, Dublin.

Part I. forms the introduction, in which such subjects are considered as the intimate nature of fever, the intimate nature of contagion, micro-parasitic diseases, and the general principles of treatment of the eruptive and continued fevers under the heads of "Preventive Treatment or Prophylaxis" and "Curative Treatment." These subjects occupy five chapters. Part II. deals with the exanthemata or eruptive fevers in eighteen chapters; and Part III. with the continued fevers, to which twenty-six chapters are devoted. In the chapters forming the introductory part of the book the reader is first of all furnished with a carefully written *précis* of the latest theories of animal heat, of investigations into the nature and causes of pyrexia, the pathology of the infective or specific fevers, and an explanation is given of the essential phenomena of fever. In regard to the thirst of fever, we are glad to notice that Dr. Moore dwells strongly upon a practical point, which, however obvious, is occasionally neglected—viz., the great importance and value of cold water as a beverage. The first chapter closes with some sensible remarks on how water may be supplied to the fever patient, the importance of cold water as a beverage in washing out the retained products of tissue change, and the absence of risk to the patient of frequent ablutions necessary for the maintenance of personal cleanliness. Chapters 2 and 3 deal with the intimate nature of contagion and the germ theory of disease and micro-parasitic diseases. The author summarises the latest views of various authorities on these subjects, including Metchnikoff's theory of phagocytosis and its results, gives a classification of micro-parasitic febrile diseases, exclusive of septicæmia, with observations on the behaviour of the temperature and the cyclical course of specific fevers, and adds a useful table embodying information as to the periods of incubation, invasion, eruption, mode of defervescence, duration of fever, form of desquamation, time of quarantine and isolation for the group of eruptive fevers and continued fevers respectively. In Chapter 4, under the head of "Preventive Treatment," we have some general remarks on disinfection and disinfectants, the general plan of disinfection laid down by Dr. Emerson Reynolds, F.R.S., Professor of Chemistry in the University of Dublin, with that observer's latest investigations on a new and powerful disinfectant named thiocamf. Then follows a brief account of the official regulations for disinfection adopted in Berlin, and reference to a paper read in the Section of Bacteriology at the late International Congress of Hygiene and Demography in London by Stabsarzt Dr. Behring of Berlin, together with information relating to hygiene, recent legislative sanitary enactments, and public health provisions generally. Under the head of "Curative Treatment" the author has a practical chapter in which he deals with the general principles of treatment of fevers, and passes in review the various agents that have been used or recommended for the purpose.

After a brief preliminary chapter of general nature, Dr. Moore next proceeds to a consideration of the various exanthemata, and begins with small-pox. Diagrams, copied from the annual summary of births and deaths of the Registrar-General for England, are inserted throughout the volume in regard to this and other fevers, to show the weekly departure from the average weekly number of deaths. The bacteriology of small-pox is still incomplete. A long experience in the wards of the Cork street Fever Hospital, Dublin, has led him to the conclusion that a purpuric or hæmorrhagic tendency early in small-pox postpones—it may be indefinitely—the appearance of the true variolous eruption. It is sometimes difficult to differentiate between a case of this grave variety of the disease and one of purpuric fever or epidemic cerebro-spinal meningitis.

We may here say that the text-book is well illustrated with charts of the temperature ranges of small-pox and of the other fevers, eruptive and continued, and that, with three exceptions, they have been reproduced from charts taken

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from the author's hospital practice. The influence of vaccination is carefully considered and set forth in tabular form. The use of the warm-bath treatment in bad small-pox is dwelt upon and illustrated by the graphic description of a case. Chicken-pox, measles, scarlatina, rötheln, and erysipelas follow the chapters on small-pox. In the description of these diseases, and, indeed, throughout his book, the author has of course drawn largely from different well-known authorities. It could not be otherwise in the case of a text-book which is necessarily in great part a compilation; but Dr. Moore expresses his own opinion, relies on the results of his own experience, and introduces comments and criticisms derived from his own observations and reasoning wherever necessary. The latest and soundest information is afforded in regard to the etiology, pathology, clinical history, and treatment of this group of diseases.

Part III. is the concluding portion of the work, and deals with the continued fevers. The order in which these are taken is simple fever, typhus fever, relapsing fever, and typhoid or enteric fever. Our knowledge of the exact nature, causes, and varieties of simple continued fever has not advanced much, and there is, speaking generally, a lack of precision in regard to it. The chapters on typhus fever embody a large amount of information drawn from the best available sources. We cannot yet be said to have acquired any definite knowledge of the bacteriology of typhus fever. Dr. Cayley expresses a general conviction when he says that, judging from analogy with relapsing fever and other contagious diseases, it seems probable that typhus fever is due to a specific microbe which requires conditions of overcrowding and imperfect ventilation to develop its virulent and contagious properties. We have no doubt ascertained a number of interesting and important facts respecting the typhus poison. It is, as everyone knows, an eminently infectious disease, and the contagium may remain latent for long periods. Alluding to Haller's observation that the contagium of typhus fever is lighter than atmospheric air, and that the disease has spread to the upper storeys of a hospital when it was treated on the ground floor, whereas the patients in the lower storeys enjoyed perfect immunity when the typhus fever patients were treated above, the author cites the practice adopted at the Meath Hospital a quarter of a century ago in evidence of the correctness of this observation. Relapsing, famine, or spirillum fever is next considered, and the historical sketch, bacteriology, clinical description, pathology, and treatment of the disease are briefly but well set forth. Dr. Moore states that he has never seen a case of the disease in his hospital or private practice, and he consequently disputes the accuracy of Hirsch's unqualified statement, to the effect that the disease is endemic in Ireland. The concluding part of the volume, with the exception of a short final chapter on infection and immunity, is taken up with a comprehensive consideration of enteric or typhoid fever. The bacteriology is fully considered, the investigations of Gaffky, Eberth, Koch, Klein, and a number of other authorities being referred to. Dr. Moore says that his opinions have necessarily been modified by the discovery of Eberth's bacillus typhosus. He now holds the doctrine that enteric fever arises only when the specific microbe enters the body, and especially the intestinal canal, of a susceptible individual. He traces out the probable way in which enteric fever arises in connexion with the discharge of these micro-organisms, as resting spores, into faulty drains or into the ground, there to await suitable temperature and nourishment until they gain entrance into a susceptible body, develop into bacilli, and begin anew their cycle of existence as pathogenic microbes. The various paths of infection are then traced out. He has some interesting remarks on the close correlation that exists between enteric fever and that variety of pneumonic fever to which the term pythogenic pneumonia has been applied. The results of our own experience are corroborative of this. We think that the period of incubation of enteric fever is often prolonged beyond two weeks. The author mentions that of late years the insidious onset of enteric fever has given place to a more abrupt and vehement advance and rapid rise of temperature—at least that has been his experience in Dublin. Attention is directed, in connexion with the nervous system, to Dr. Angel Money's paper on reflex actions, knee-jerks, and muscular irritability in typhoid fever, phthisis, and other continuous fevers, which appeared in THE LANCET of Nov. 7th, 1885. Relapse in enteric fever is fully considered, and illustrative instances are given. A relapse may occur, by the way, after longer intervals than commonly laid down. The author agrees with Dr. Hilton Fagge that there are rare instances of typhoid fever in which the intestinal glands are not affected, and alludes to cases recorded by Dr. Sidney Phillips, himself, and others. The question of laparotomy is fully considered in connexion with perforation in enteric fever. We think that Dr. Cayley, in his article on Typhoid Fever in Dr. Kingston Fowler's Dictionary of Practical Medicine, has put this subject shortly and well.

In a book containing so much and such a variety of information it is embarrassing to know what to select for notice, and we need scarcely add that there are a number of subjects which we should gladly have touched upon, but our space is already exhausted. This text-book of the eruptive and continued fevers is, in our opinion, a learned and able work. A reference to the index of names will show the large number of authorities which its author has consulted and quoted, and be sufficient evidence of the laborious nature of his undertaking. The work is clearly written, and has merits which will commend it to the profession.

OUR LIBRARY TABLE.

The Royal London Ophthalmic Hospital Reports. Edited by R. MARCUS GUNN, F.R.C.S. Vol. XIII., Part II., December, 1891. London: J. & A. Churchill.—This part bristles with statistics. Messrs. Lawford and Treacher Collins supply notes of 103 cases of sarcoma of the uveal tract. These notes include a large number of published cases, but much trouble has been taken in obtaining information in regard to the subsequent history of the patients, a point often neglected in the original account. Such collections of cases are very useful, and many general conclusions can be drawn from them. Sarcoma of the uveal tract appears to occur with about equal frequency in the two sexes and in the two eyes, males being rather more commonly affected than females, and the left eye more than the right. Of the total number of cases, the after history of seventy-nine has been traced. In twenty cases three or more years have elapsed since the removal of the primary growth, and the patients are still alive. The removal of the growth at as early a period as possible is clearly imperative, as the disease is a progressive one. Mr. T. Holmes Spicer gives an analysis of 158 cases of acute purulent ophthalmia, excluding as a rule those of ophthalmia neonatorum. The great majority of the cases resulted from gonorrhœal infection. The two sexes were equally affected. The results were always worst in patients over thirty years of age. The treatment applied was very various. The importance of Buller's shield and early treatment is strongly dwelt upon. Mr. Nettleship gives some interesting cases of temporary blindness during lactation, and Mr. Treacher Collins supplies two papers—one on the Operative Treatment of Glaucoma, and the other on a case of Tumour in each Orbit.

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The former is highly instructive, giving an account of the appearances presented at the point where the incision for the iridectomy or sclerotomy had been performed. The paper is illustrated by many coloured cuts, which are reproductions of photo-micrographs, a very creditable piece of work.

The Frog: an Introduction to Anatomy, Histology, and Embryology. By A. MILNES MARSHALL, D.Sc., Professor in the Victoria University. Fourth Edition. Pp. 163. London: Smith, Elder, and Co. Manchester: Cornish. 1891.—This work is divided into nine chapters, each dealing either with one of the systems of the animal, as the nervous, circulatory, muscular, and osseous, or with its histology or development. An introductory section deals with the Processes and Methods in Common Use in Biological Inquiry. There are many illustrations. The dissections are accurate, and the descriptions are given in short paragraphs that are both intelligible and easy to be followed by the student. The careful dissection of one such animal as the frog should be done by every medical student, and would form an excellent introduction to the study of human anatomy.

On the Ambulance Organisation and Medical Arrangements of an English Army Corps in the Field. Together with a Description and Plan of "Bearer Company" Practice as carried out at Netley. By Surgeon-Captain C. J. ADDISON, Army Medical Staff. Netley: J. T. Lemon.—This little book is well described by its title. It is just what it pretends to be, and is written clearly and to the point. Its author is the instructor at Netley in matters of drill to the surgeons on probation, and his method of dealing with the subject is based upon experience. A good deal of information of a precise and useful kind is compressed into a small compass, and the method pursued is plainly and concisely put, and likely to be a great aid to members of the Militia and Volunteer Medical Staff Corps in their various ambulance drills. A short sketch is afforded of the objects, origin, and development of the organisation; and the conditions under which the severely wounded soldier is found after having been struck down in the fighting line are enumerated and practically considered. The plan of "bearer company" practice and of the formation of dressing and collecting stations as carried out at Netley, with the detailed description, make the system quite plain.

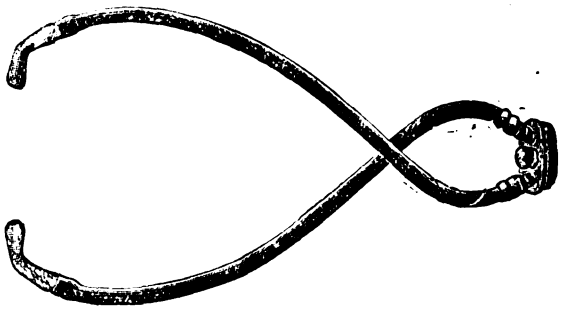
The Strange History of a Dynamo. By T. E. GATEHOUSE. London: H. Alabaster, Gatehouse, and Co.—The objects the author of this *brochure* had in view were: first, to attempt to give in plain language a popular exposition of the dynamo-electric machine, which could be readily understood by the non-technical reader; and secondly, to bring more prominently into publicity the most noteworthy achievements of a devotee of science. The story is told by a dynamo, which is supposed to relate the history of its evolution. Those who wish to know all about the dynamo from its birth and "up to date" will do well to read this interesting and well-written account.

Wilson's Legal Handy Books: the Law of Bankruptcy. By C. E. STEWART, M.A., Barrister-at-Law. London: Effingham Wilson and Co.—This series of little books on legal subjects is well-known, and has no doubt proved to be of great utility to a large circle of readers. The present deals with a large subject, and will fully sustain the reputation of the series. Bristling with technicalities, the topic is not susceptible of simple, barely indeed of intelligible, treatment, and we will not pretend, therefore, that Mr. Stewart has succeeded in producing an attractive book. But technical handbooks are seldom attractive, and on the more appropriate ground of usefulness this latest addition to Mr. Wilson's library of publications need occasion him no misgivings.

New Inventions.

A NEW STETHOSCOPE.

IT was not until I was conversing upon the varieties of stethoscopes with Dr. B. W. Richardson the other day that I realised the value and convenience of one made for me by Messrs. Maw, Son, and Thompson some years since, and which I always use. It is composed of two pieces of india-rubber tubing each two feet two inches long, with vulcanite ear-pieces at the upper ends, and tubes for insertion in the oval chest-piece at the lower extremity, also made of

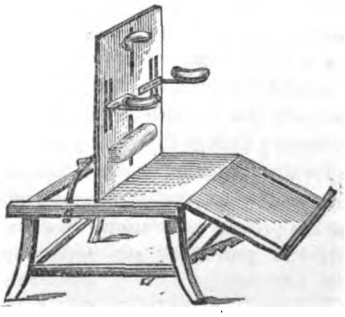


vulcanite. The chest-piece is seven-eighths of an inch in length and five-eighths of an inch in width, and cupped inside. The instrument can be carried in the waistcoat pocket or most conveniently in a pistol pocket made in the trousers. It is the most sensitive stethoscope of its kind. The tubes are inserted separately into the chest-piece, not terminating together, as in Dr. B. W. Richardson's original pattern. It differs from Stearne's stethoscope by the chest-piece being much smaller, and oval instead of round, allowing it to be applied to the intercostal spaces, frequently detecting mischief not recognisable by means of the ordinary instrument. There is no occasion to lean over the patient under examination or to inhale the patient's breath. The instrument is manufactured by Messrs. John Richardson and Co., Leicester.

JOHN R. PHILPOTS, L.R.C.P. & S. Edin., J.P.
Parkstone, Dorsetshire.

CHAIR FOR SPINAL CURVATURE.

MR. ALFRED CARTER, 47, Holborn Viaduct, has invented a chair for the prevention and treatment of spinal curvature. It is so constructed as to afford support to the spinal column while the patient is in the sitting posture, thus dispensing with the progressive weakness arising from maintaining the prone position for a prolonged length of time.



The illustration given shows the manner of adjusting the crutches to the axillæ and of fixing the pillows in the position required by the patient. The legs can also be supported at any angle, and the whole apparatus can be brought to a horizontal plane and used as a reclining board.

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THE LANCET.

LONDON: SATURDAY, FEBRUARY 27, 1892.

UNDER the title "The New University for London," Prof. KARL PEARSON, M.A., of University College, has published a small volume dealing with the history and the defects of the scheme. The history is past, and therefore the larger part of the volume is only of interest to those who have followed the various phases of the movement for the foundation of a "Teaching University" in London from its commencement to its present standpoint. The historical part of the work is simply a reproduction of the letters of Professor KARL PEARSON and other controversialists to the *Academy* and other papers. Some twenty pages deal with the present aspect of the question. Professor KARL PEARSON has come to the conclusion that all that is reasonable in the opposition to the Charter is, that Parliament ought to be induced not to express unqualified disapproval of the Charter, but to petition against its being granted until it is modified by provisions: "(1) For the removal of the religious test; (2) for the ultimate appointment of all teachers by the University itself; (3) for the granting of M.D. degrees only to such persons as shall have gone through the full medical curriculum of the University itself after its establishment; (4) for wider powers of extra-collegiate lecturing." This is the most important assault from the academic side on the proposal to grant the Charter of the new University. There is only one chapter written since the union of the Gresham College with the promoters of the new University has been officially announced, and this chapter is but historical in relation to the past history and suggestive as to the future development of the Gresham College. The various phases of the question from a medical point of view have since 1884 been regularly brought before our readers. It is therefore unnecessary for us to again discuss those points; we will simply deal with the objections which seem to Professor PEARSON sufficient to suggest the emendation of the Charter, but which are not enough in his view to warrant an appeal to Parliament to express unqualified disapproval of it. It is doubtful if Parliament can express a modified disapproval of the scheme. So far as we understand, the Charter must be passed or rejected *en bloc*, and we ask the dissentient professors in Arts and Science at University College to seriously consider whether, if the scheme for the formation of the Gresham University fails, any other and what possible alternative is likely to be carried in the present generation. We will now deal *seriatim* with the provisions set forth by Professor PEARSON.

1. The writer of the article in the *Quarterly Review* for January, 1892, who is by no means friendly to a new University, disposes of the question of the religious test in King's College, as a part of the new University, in the following words: "There is, in fact, no incongruity between a sectarian college and an unsectarian university, or any good reason why the one should not comprise the other as one of its component parts."

2. This means the absorption of the governing bodies of the two Teaching Colleges and the ten medical schools into the Senate of the University. To whom, then, shall be given the power to appoint professors? If the two Teaching Colleges alone were to form a new University this suggestion might be possible, although we do not believe it would ever be carried out; but the inclusion of the medical schools (and a University in London which does not include them is impossible) will obviously render Professor PEARSON'S provision impracticable. The working arrangement favoured by the author in regard to the medical difficulty is that suggested by Professor LANKESTER—viz., the complete divorce of the clinical teaching at the Colleges from the science teaching, the science teaching at the various medical schools to be entrusted to University readers, "who might continue to be, as they now largely are, peripatetic." It is on such impossible lines that an ideal University—that is to say, on the Scotch or German system—should, according to Professor PEARSON, be founded. Anyone familiar with medical education in London will at once see that such an ideal could never be realised. Existing institutions must be federated, and then doubtless a considerable concentration of teaching power will follow. New University lecturers may be appointed under the Gresham Charter, and these will necessarily deal with advanced and special subjects, so as not to clash with the ordinary teaching. Theoretically, undoubtedly, the appointment of professors should be in the hands of the Council, but practically, in the existing circumstances of London, this cannot be done. As the Bishop of London says in his letter published in *The Times* of Wednesday, "A paper constitution is easy to make, and it may be made to fit any theory that you like; it may satisfy ideal conditions; it may be deduced from high philosophical principles; but it almost invariably fails."

3. With regard to medical degrees, we would call Professor PEARSON'S attention to Sir GEORGE YOUNG'S letter in our last issue, in which he disclaims having ever suggested a lowering of the education in Arts and Science, and also to the statement of the delegates of the medical schools of London (p. 495), in which such an intention is expressly repudiated. Even the diplomates of the London medical schools, whilst anxious to have their past curriculum taken into consideration, deprecate in their petition "any modification of the nature or extent of the examinations for the new degree in their especial favour," and it was only to this body that Mr. ERICHSEN'S oft-quoted letter referred, in which he expressly states that his opinion of a clinical examination only was quite unofficial.

4. Extra-collegiate work is specially mentioned in the Charter; but the claim that attendance on "extension" lectures is to entitle a student to graduate is surely extravagant. The aim of collegiate training is to secure a continuous course of study, and this is absolutely impossible under the system of the University Extension Lectures. No certificate of continuous study has yet been gained by any student attending them. They are intended for the masses, and must be more or less popular, and such as

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require no special preliminary training in those who attend them. We will not reproduce Professor PEARSON'S severe strictures on the graduates of the University of London who are petitioning against the Charter for a Teaching University, but will conclude by saying that his ideal is impracticable in London, and that we fear he is only doing mischief by so strenuously pursuing it and refusing to improve the means at his disposal. His attitude towards the medical aspect of the problem is obviously due to his imperfect appreciation of the magnitude of the problem to be solved and to his ignoring of the possibility of its solution which the Charter of the Gresham University affords. His idea of a medical man's duties and qualifications may be gathered from the following quotation: "Personally regarding ÆSCULAPIUS as a man whose chief function is to cheer us up by bright conversation when in a depressed state of mind, we should prefer to call in an M.D. Cantab., that he might talk 'auld lang syne.'"

THE need for regulating the height of rooms intended for human habitation has long been recognised, and a large number of sanitary authorities have made by-laws on the subject for many years past. But after the issue by the Local Government Board of their Model By-laws in 1877, sanitary authorities desirous of amending their existing codes as to new buildings were refused a by-law on this special question. It was strongly contended by some of them that sanction to such a provision was justified on the ground that it had to do with the ventilation of rooms, and as such was authorised by that portion of Section 157 of the Public Health Act, 1875, which gave to urban sanitary authorities the power to make by-laws "with respect to the ventilation of buildings." The sanitary value of such a regulation was fully admitted, and with the intention of disposing of the doubts entertained as to its legality the opinion of the law officers of the Crown was sought on the point. That opinion, which was signed by Sir HENRY JAMES and Sir FARRER (now Lord) HERSCHELL, was to the effect "that an urban sanitary authority has no general power, under the 157th section of the Public Health Act, 1875, to make by-laws regulating the height of rooms for the purpose of thereby securing improved ventilation. There may, however, be cases where reasonable regulations made with reference to the mode of ventilation would necessitate the rooms being of a certain height." The indirect method of attaining the end in view which the law officers suggested was evidently not found to be a practicable way out of the difficulty, for the result was that no power to regulate the height of habitable rooms has ever been granted under the general statute law.

The defect was fortunately remedied in the Public Health Amendment Act, 1890, Section 23 of which gives the power to make by-laws with respect, amongst other matters, to "the height of rooms intended to be used for human habitation." And the Local Government Board, having apparently found reason to educate sanitary authorities as to what should be regarded as constituting a reasonable height for the purposes of health, have issued a Memorandum on the subject, which has been drawn up by their medical officer, Dr. BUCHANAN, and their architect, Mr. P. GORDON SMITH.

After explaining that, for obvious reasons, the minimum permissible height alone needs regulation, the Memorandum points out that under customary conditions low-pitched rooms are comparatively more difficult to keep fresh—that is, to ventilate—than rooms of a greater height, and that it is essentially in sleeping rooms that the determination of an adequate height is most important, more especially because the occupants are not able during sleep to vary the conditions of air movement through the room. The height of a sleeping room obviously needs to bear some relation to its floor space—that is to say, it should be determined with some reference to the number of beds that can conveniently be placed within it. Whether the number of persons occupying the beds shall have enough breathing space to keep them in health or not is the real question, and this must depend in an important degree upon the height of the room. In numberless cases the builders and the occupants too have regard only to floor area, and when this is excessive in relation to height, the natural tendency is to pack too many people in the breathing space available, and, whilst inconvenience on the floor level itself is avoided, overcrowding really results. But overcrowding of this sort is difficult to deal with as a statutory nuisance, and hence it needs to be prevented by having a reasonable standard minimum height of rooms. Having in view these and other considerations, including a proper regard to economy, the Local Government Board advise sanitary authorities to require a minimum height of nine feet for all rooms to be used for human habitation in which the ceiling is throughout parallel with the floor. And, having given this advice, they make it clear that if this standard is locally deemed to be excessive any reduction that will receive their sanction will not extend to any smaller height than eight feet over the total area of the room.

Such a minimum standard can hardly be regarded as excessive in the case of ordinary rooms. Indeed, such difficulty as arises in this matter is generally limited to rooms which are constructed either partly or wholly within the roof, and which are commonly called "attic rooms." When this class of room is considered it will at once strike an intelligent person that a standard which is deemed requisite in order to secure adequate breathing space on a first or second floor must be equally wanted on a third floor, even if the third floor room be an attic. As a matter of fact it is often more requisite in the attic floor than elsewhere, for servants and others, whose health requirements in this respect are as a rule less thought of than those of any other inmates of the house, are the persons generally relegated to the attic. The minimum of eight feet must therefore be upheld in principle; but, according to the Memorandum, the Local Government Board have evidently been advised to make a reasonable concession to local opinion and to custom by announcing that, as regards attic rooms, they will be prepared to give their sanction to a by-law which shall give a *mean height* of not less than eight feet for the entire room. But to those who are acquainted with sanitary inspection and its results it is well known that one of the greatest evils which has

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to be contended with in the worst class of houses in some districts is the tendency to crowd the floor area in attics by placing either low beds or mattresses in the angle formed by the floor and the sloping roof. This mischievous practice will have to be met in any by-law on this subject, and it is announced in advance that the central authority will require a minimum height of five feet in attics in addition to the mean height of eight feet. This minimum of five feet also operates usefully in the direction of limiting the amount of floor area that can be occupied by beds, and it indirectly facilitates the attainment of the mean of eight feet.

One very helpful part of this useful Memorandum consists in a series of diagrams showing, in the case of houses having roofs of various constructions, how the minimum of five feet and the mean of eight feet can conveniently be obtained. In one of the attics a horizontal ceiling nine feet in height has to be provided over one-half of the floor area; in a second the horizontal part of the ceiling is shown to be eight feet nine inches high over three-fifths of the floor area; and in a third instance the ceiling is eight feet four inches high over five-sixths of the floor area. Other methods of attaining the same end will doubtless present themselves to the minds of architects and others concerned in the construction of dwelling-houses; but it is to be hoped that, in the interests of public health, no attempts will be made to diminish the minimum standards laid down in the Memorandum, but that, on the contrary, the advice of the officers of the Local Government Board will be taken in adopting as a general rule a minimum height of nine feet as regards all ordinary rooms intended to be used for human habitation.

IN the January number of the *Archives de Physiologie* of Dr. BROWN-SÉQUARD, M. E. GLEY gives an account of experiments made by him to determine the effects of the ablation of the thyroid gland in the dog. Hitherto all who have performed this operation on the dog, cat, and ape have found that the result was almost invariably fatal, and in the few cases where it is reported that life has been preserved M. GLEY considers that the successful issue has been due to the presence of accessory thyroid glands which have acted vicariously, and that when the animals have survived for a considerable time death has been really due to the operation, although the connexion with it has been overlooked. In M. GLEY'S operations, which were all performed under strict antiseptic precautions, primary union of the wound was of general occurrence, though occasionally death supervened too rapidly for union to be effected. The first series of symptoms to which he draws attention, and to which he thinks sufficient attention has not been directed, are those indicating disturbance of the functions of the medulla oblongata, or, as he terms them, "bulbar accidents." These may be observed at a very early period, and consist of vomiting and dysphagia. The efforts to vomit, accompanied by salivation, often precede an attack of convulsions, and last till the animal dies, the matters vomited being bile and mucus. Prof. SCHIFF long ago noticed anorexia as an occasional effect of the operation, having observed it three times in sixty cases. M. GLEY finds that it is less rare than Prof. SCHIFF states, for he finds that nearly all the dogs were indisposed to take food, and that when the refusal was absolute it was a sure sign of a rapidly fatal result. But even when the animal preserves its appetite it experiences great difficulty in taking sufficient nourishment, owing to the incessant spasmodic contractions of the masseter and fibrillar contractions of the muscles of the tongue. Moreover, the dysphagia usually present renders it as difficult for it to swallow liquids as solids; and if perchance some food does gain entrance into the stomach, it is immediately rejected, with an increase of the convulsive movements, the animals ceasing to make any attempt to take food. Vomiting occurs even when food is carefully introduced into the stomach by means of the œsophageal tube. In some instances the animal continues to eat, but the food accumulates in the stomach, the abdomen becomes swollen, and the large intestine fails to discharge its contents. The fæcal evacuations occasionally contain blood. In some instances trophic disturbances appear in the form of excoriations, especially affecting the region of the articulations in the fore and hind limbs. These ulcers sometimes suppurate, and never present the slightest disposition to heal. M. GLEY, like most of the previous observers, has seen muscular paresis and partial paralyses occur usually amongst the earlier symptoms, the extensors in particular being affected; the staggering gait, which is so remarkable in the animals affected, is thus caused. On the other hand, spasms are also of frequent occurrence, which in the first instance affect the masseter and temporal muscles, but soon spread to the muscles of the body generally, and seem to be the result of discharges taking place at tolerably regular intervals. This state lasts for two or three days, when a violent general convulsion may occur, with a tendency to tetanus. At this period the acts of respiration are greatly accelerated, in some cases numbering as many as 220 in the minute, and death often supervenes in one of these convulsions. M. GLEY gives some novel and interesting tracings both of the fibrillar tremblings and of the more violent spasms. Coincidentally with the increased frequency of the respiration the temperature rises, 42°, 43°, and even 43·6° C. (110·4° F.) having been noted within three hours of the operation. In the intervals of the convulsive attacks the temperature has been observed by Dr. UGHETTI to fall as low as 4° C. below the normal, and M. GLEY'S observations generally coincide with those of Dr. UGHETTI, though he has not noticed any case in which the fall was quite so great as this. He thinks these effects are attributable to some direct action exerted on the nervous system. Both in the dog and in the rabbit the urine frequently becomes albuminous. Amongst the pathological phenomena that he has observed may be mentioned various local congestions, especially of the cortical substance of the brain and of the cerebellum, of the liver, kidney, and spleen, whilst the mucous membrane of the stomach often presents hæmorrhagic spots. Death may occur any time between the second and the eleventh day. In one case the animal lived for six months after the operation without apparent ailment, and in another the animal is still alive, but has distaste for food and staggering gait. Although these experiments do not afford any clue to the function of

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the thyroid gland, it must be admitted that they demonstrate the remarkable influence that the removal of the organ exercises on the nervo-muscular apparatus.

THE annual report of the Medical Defence Union, read at the meeting on Wednesday, shows that the Society continues to enjoy the confidence of the profession. It is a matter of great satisfaction that it should be so. The report shows that those who follow the medical calling are peculiarly liable to need the aid and advice of such a Union. It is, perhaps, remarkable, and altogether creditable, that medical men should not oftener be questioned as to the high tone and character of their work, when we consider the peculiar nature and disadvantages of it. The medical man is called to see human nature at its worst, when it is in a morbid state of peevishness, or excitability, or sensitiveness, sometimes of actual depravity and passion. It is not always possible for him to see his patient in perfect conditions and in the company of intelligent and sensible witnesses. Apart from the cases of morbid feeling or avarice in which claims against medical men often arise there is the large number of charges of malpraxis which it is so easy for ungrateful or unprincipled patients to make, and difficult for practitioners to refute, and the mere repetition of which involves a publicity and a worry that are great evils. The report shows clearly the "difficulties and pitfalls of medical practice" by the fact that with a membership of 1828, and after excluding trivial cases, the Union received 102 applications for assistance, in which the complaint was of material importance and required deliberate handling. A careful perusal of this interesting report convinces us that the membership of the Society should include all the practitioners of the country, seeing that it is the only Society which takes under its protection the good name of its members when that is assailed by malice or by thoughtlessness. Union is strength, especially for defence. Men will hesitate before they bring aspersions against a man when they know that he is backed by his fellows and by a well-ordered and responsible society. The report refers to several instances to show that the breath of slander quickly dies out on the appearance of the Union. In one such case a demand for apology and withdrawal of slander by the honorary secretaries obtained by return of post the following: "I humbly beg to apologise, and I willingly withdraw. Trusting you will forgive me."

There are two or three reasons brought out in the report which justify us in commending this Society to the hearty support of the profession. First, the steady growth of the Union and of its funds. The growth in the number of its members in the last four years is eloquently represented in the following figures—1888, 442; 1889, 834; 1890, 1446; 1891, 1828. Secondly, the Guarantee Fund—which, by the way, has not hitherto had to be drawn on—is increasing, as the following figures show. It was in 1888, £538; 1889, £1249; 1890, £2173; 1891, £2826. It is safe to assume that when a society grows so steadily and withal so largely it is giving its members a decided sense of security.

There are other reasons which lead us to recommend our readers to become members of this Union. One of them is because the whole management shows a great deal of judgment and discretion. Not the least indication of these indispensable qualities lies in the fact that the Union keeps itself strictly, and with determination, to its own business. Its primary business is the personal defence and vindication of its own members when they are unjustly assailed in their professional character or capacity. A few members seem to have expected the Union to defend them in other actions, or actions for common debts; but this would be clearly outside the province and purpose of that body. The Council of the Union, too, set their faces against making them a party in professional and Parliamentary agitations. The modest subscription, while sufficient for their purposes, will not bear any such extension, and all men who value the Union for accepting a function hitherto unprovided for will regard its Council with more respect and confidence for firmly keeping it to its proper work. When we are told that the honorary secretaries, Drs. PHILLIPS and BATEMAN (excluding divisional secretaries' work), have written in 1891 no less than 7231 letters, we can easily see that their energies are already strained to the utmost. All this good work and success might be sacrificed in a few weeks by ill-advised measures. It is gratifying, therefore, to learn that changes in the articles of the constitution have been made which secure a continuity of policy by securing a certain perpetuity of office to a proportion of the Council. It is easy to make ducks and drakes of other men's work achieved by great labour and trouble. This disaster we trust will be averted by the unanimous support of the members to an alteration of the articles, which will secure the continuance in office of those whose experience in such special work has brought the Union to its present satisfactory position.

Annotations.

"Ne quid nimis."

THE REGIUS PROFESSORSHIP OF PHYSIC, CAMBRIDGE.

THE announcement that Dr. Clifford Allbutt had been appointed to succeed the lamented Sir George Paget in the Regius Professorship of Cambridge must have come on many with some surprise. Even the "calm and serene air" of Cambridge may have been slightly ruffled by the news, where more than one physician may have had hopes in connexion with the vacancy. All will admit, however, that the actual appointment made is one that is likely to redound to the credit of the University and to import into the region of Medicine there a certain element of freshness and originality which cannot be too highly rated. Dr. Allbutt is M.A. of Cambridge. He graduated there M.B. in 1860 and M.D. in 1868. He was elected Fellow of the Royal College of Physicians in 1882. Before his acceptance of a Commissionership in Lunacy—which we presume he will now resign—he had acquired a high reputation in Leeds and the neighbouring counties as a physician, and his writings on medical subjects were always received with great interest by the profession. The duties of the professorship are not, we believe, onerous. But they are highly honourable. The Regius Professor is, by virtue of his office, at the head of the medical school. He gives lectures, though not on the Scotch scale. He

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takes part in the examinations, which are now pretty heavy, and presides at the exercises for M.B. and M.D. The office is thus described in a late Cambridge Calendar: "Founded by Henry the Eighth, 1540. Stipend £40 a year, reduced to £34 18*s.* 0*d.* The appointment by the Queen. A house and premises were left to the professorship by Mr. Crane in 1654. The site being required for the building of the Senate house in 1724, they were exchanged for property in Market-street. The present professor also receives £300 per annum from the University chest in lieu of fees for M.B. and M.D. Acts." There have been seventeen professors since 1554, when the first, J. Blyth, M.D., of King's, was appointed. We congratulate Dr. Allbutt on his appointment, and wish him all pleasure and success in the exercise of the functions of the honourable post.

FOOT-AND-MOUTH DISEASE.

THIS disorder continues to spread, notwithstanding the restrictive measures adopted, and there is much reason to apprehend a greater extension. Since we last commented on it outbreaks have been reported in Sussex, at Hayward's Heath—where a herd of fifty-one cows and forty-two sheep were found to be infected,—so that Kent and Sussex are now invaded; and in the south of London—at Peckham—120 fresh cases have been discovered, which, if the animals are slaughtered, will, it is stated, entail an immediate loss of £2000. The Metropolitan Cattle Market at Islington has been closed, in order to have it thoroughly cleansed and disinfected; and every portable article which might carry infection has been destroyed on the spot. The origin of the disease in this country is still a profound mystery. An official report has been published at Copenhagen by Professor Bang, the Government veterinary surgeon appointed to investigate the health of cattle in the district from which those said to have introduced the plague into this country were drawn. The main conclusions arrived at in this report are that there is no possibility of the contagion having been contracted either at Thisted, whence the cattle came, or on the railway from that place to Esbjerg, where they were embarked; and that the disease was not contracted on board the ship which conveyed the animals to London; but that there is great probability of their having become infected in the Islington Market. In support of the last of these conclusions, Dr. Bang points out that one of the four cattle from Thisted was not attacked by the disease, and that no Danish beast which was sold and removed from the market on Feb. 1st, three days before the outbreak was discovered, was found to have been afterwards affected. This gives support to the doubt we expressed last week as to these cattle being the culprits. At any rate, it is now only too evident that the country has again been invaded by a serious disease, notwithstanding the severe lessons which it had already taught us, and which should have preserved us from another visitation. An opening has been left for its admission, and this fact shows that there has been something wanting in our knowledge of it. Whether this want has been due to negligence, ignorance of its prevalence on the Continent, or of the flimsy nature of the boundary that separates Denmark from Holstein, in which the malady is tolerably general, we do not presume to say. We are now more concerned with the public and private interests that are at stake in the United Kingdom, and the dangers that threaten the health of the people through the prevalance of a virulent and embarrassing disease of this kind. The money loss already incurred must be very heavy; what it may be, if the infection is not quickly stamped out, we have the sad experience of former outbreaks to inform us. It is stated that the Agricultural Department has at the present moment forty inspectors constantly engaged in visiting the 2000 dairies in London, in order to discover promptly any cases of foot-and-mouth disease that may appear. These are, probably, irrespective of the staff belonging to the veterinary section of the Department, who are permanently engaged in the suppression of contagious pleuro-pneumonia in cattle. Two orders have been issued by the Department. One revokes a previous order closing the Islington market when the disease was discovered in it. This order came into effect on the 20th inst. The other order prohibits the movement of cattle, sheep, goats, and swine out of the district comprising the eastern and western divisions of Sussex, and also comprising the boroughs of Brighton, Eastbourne, Hastings, Lewes, and Worthing, and the police district of Hove. It will be seen what a small spark is needed to cause a big conflagration in the matter of contagious diseases, and how a little neglect may breed great mischief.

THE SHOP HOURS' BILL.

THE House of Commons on Wednesday evening was engaged debating Mr. Provand's Shop Hours' Bill, and much of what was said confirms the special report on "Sanitation in the Shop," which we publish in another column (p. 490). The matter will be referred to a Select Committee, so that it is necessary to draw the greatest possible attention to the subject and prevent its being shelved. The division in the House of Commons was, however, significant. In spite of Mr. Matthews' opposition and Mr. Balfour's request that the Bill should be withdrawn, Mr. Provand carried the second reading by 175 votes against 152. This shows a strong disposition on the part of the House to effect some improvement in the hard and unhealthy conditions prevailing among shop assistants. We shall be pleased if our reports on the subject add a fresh impulse to this very necessary reform movement.

URBAN SANITARY AUTHORITIES AND THE FACTORY ACT.

THE Bristol urban sanitary authority have hit upon the very practical expedient of publishing a simple digest of the Factory and Workshop Acts of 1878-91 and allied Acts. This sort of synopsis, when folded, can be easily carried in the pocket for reference, and will save much loss of time involved in the tedious process of reading through the Acts. It is drawn up by the medical officer of health and the borough engineer. It is explained that a workshop differs from a factory, inasmuch as in the former no machinery with motive power, steam, water, &c., is used. Then a domestic workshop differs from an ordinary workshop, because the former is a dwelling-house, in which none but members of the same family work together. It is next shown how in urban sanitary districts out of London powers are transferred to the sanitary authority to inspect both factories and workshops, and prosecute summarily the owners or occupiers of any and all such places where insanitary conditions endanger public health. The sanitary authority is, upon a certificate of the medical officer of health or inspector of nuisances, to serve a written notice on the owner or occupier of the factory or workshop, and if the limewashing, cleansing, and purifying is not carried out as ordered, a fine not exceeding ten shillings per day can be inflicted, and the authority may do the work itself and recover expenses summarily. Each sanitary authority must organise a systematic inspection, and not wait till complaints are received. Should the sanitary authority fail to accomplish these duties—and they extend to the inspection of laundries as well as to all factories and workshops, including those where only adult males are employed—the Secretary of State may send a

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special inspector down, who will supersede the local sanitary authority, take action, and recover expenses from local rates. The sanitary authority has power to inspect any "house" for nuisances from 9 A.M. to 6 P.M. A "house" means a factory and other building in which persons are employed in any manufacture, trade, or business. Where, in such places, persons of both sexes are employed, separate sanitary accommodation must be provided, and in all workshops a proper supply of water must be secured. Domestic workshops do not come under the sanitary provisions of the Factory Act, but remain under the control of the sanitary authority according to the Public Health Act, 1875. In respect to bakehouses, there is practically no change in the law. The very considerable increase of work and responsibility now thrown on the sanitary authorities is set forth by the figures given in respect to the Bristol urban sanitary authority. This authority finds that no less than 1700 workshops where women and young persons are employed are transferred to its control; but adding to these the "adult male" workshops, there will be an increase of some 2000 to 3000 more. The initial work of ascertaining the areas and cubic spaces in each case will necessitate prolonged and systematic inspection. It has already been decided to appoint one extra inspector, and it is probable that this addition will not suffice. Then there are some 600 to 700 new workshops and factories, one-half of which will come under the provision of the Factory Act with regard to stipulations for the construction of proper means of escape in case of fire. This is to be enforced where more than forty persons are employed, and the construction of the factory was commenced after Jan. 1st, 1892. In those cases the sanitary authority must issue a certificate, and a factory cannot be opened until it has obtained this certificate. All this additional work has not been imposed before it was needed, and the Bristol urban authorities are to be congratulated on their apparent desire to carry out the new law with energy and promptitude.

STRYCHNIA IN SNAKE-BITE.

DR. WOLFGANG HUNT of the Toowoomba Hospital, Queensland, gives an interesting account in the *Australasia Medical Gazette* of a case which had come under his care. The patient was a child aged sixteen months. An elder sister, while playing with her a little way from home, heard her scream, and saw a snake clinging to her hand. Running to the house she quickly fetched her mother and an uncle, who found the child crying and holding the third finger of the left hand, on which was a small punctured wound. The snake was killed as it was making off, and found to be a "death adder." The child was taken to the house, and the end of the finger removed, the stump being sucked and drenched with ammonia and ligatures applied to the arm. She was then brought to Toowoomba for the nearest medical aid, ammonia being applied to the hand meantime. An attempt was made to give stimulants by the mouth, but vomiting immediately followed their administration. On admission to the hospital, three hours after the accident, the child was almost comatose, the body and the extremities cold, pupils dilated and insensitive to light, the pulse rapid and irregular. The child was at once wrapped in hot flannels and heat applied to the limbs, while four minims of liquor strychniæ were administered hypodermically, and a strong faradaic current applied to the nape of the neck and along the spine. Fifteen minutes later another four minims of liquor strychniæ were injected, and almost at once a change began to manifest itself in all the symptoms, and in a short time the child recognised and played with its parents. With the exception of a few slight muscular twitchings recovery was uninterrupted; and the child was discharged the next day in apparently perfect health and none the worse, except for the loss of her finger. The case is very important, especially with reference to the means used for procuring recovery—viz., the hypodermic injection of strychnia, and Dr. Hunt is to be congratulated on his success in this case, as well as in that of another patient whom he mentions as having been admitted in a similar condition after being bitten by a brown snake, and in whom also recovery followed the hypodermic injection of strychnia.

WELLINGTON COLLEGE.

WE are authentically informed that on the 12th inst. three cases of diphtheria occurred among the boys of Wellington College at the Imperial Hotel, Malvern. The boys were at once sent to a house which had been retained as a sanatorium. The cases are stated to be of a mild type, and seem to have been imported from Dulwich, from which place two of the three boys attacked had come a week previously. The other boy attacked slept in the same room. The outbreak may be accounted for in several ways. There is the possibility of some of the bedding used at Wellington College having been overlooked in the destruction and disinfection which took place at the time of the last outbreak, or it may be, as is suggested above, an outbreak from a fresh importation of infection. There is also the possibility of a very long period of incubation—a theory which gains some importance from the fact that another case has occurred in a Wellington boy, who has not yet returned to Malvern after a period of ten weeks, and who has not apparently been subjected to any fresh infection. We are glad to state on good authority that the sufferers are now fairly convalescent, and that no fresh cases have occurred.

BLINDNESS INSURANCE.

A PROSPECTUS has been issued conveying what is apparently at present no more than a bare suggestion of a scheme of insurance against the risk of blindness. There are few mishaps which are intrinsically more fitted to be the subject of a provision in this way, for the comparative infrequency of its occurrence should make the premiums very manageably small; while, on the other hand, the extent of the disaster when blindness does befall an individual is so serious as reasonably to claim the attention of those whose future is in this respect seemingly the best assured. The only objection that occurs to us is that insurance in this piecemeal fashion is both costly and bewildering. It is costly because every several branch demands a separate organisation, with all the attendant expenses; and bewildering because the contingencies against which insurance provision may be made are so multitudinous that no man can be expected to deal separately with them all. The branch now proposed might certainly be with advantage added to some of the subsisting insurance schemes, though we doubt its adequacy to form the exclusive material of a new adventure.

VENTILATION OF THE HOLDS OF SHIPS.

A VERY important question concerning the ventilation of holds in ships has been raised by a letter addressed to the secretary of Lloyd's. This letter is written by Mr. J. Stanley Metcalfe, consulting secretary to the North of England Protecting and Indemnity Association. Formerly the hatches were the only means of ventilation for the holds of ships, and these were only lifted off when the weather was fine and dry. Porous cargo had therefore no opportunity of absorbing moisture from foggy or damp weather. But now there are large cowl ventilators, utilised in all weathers, and which let down on to the cargo any amount of damp air. This is readily absorbed, notably by such substances as jute. On the other hand, the ventilation

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is not sufficient to dry the cargoes. An experiment to illustrate this fact is suggested. If we place dry tobacco in a jar with a small hole in the lid and expose the jar to humid air the tobacco will become quite damp, and then, even if removed into a dry, warm room, it will remain moist for a long time. Though the small hole, like a cowl on a ship, suffices to let the dampness in, it does not suffice to dry the tobacco. But if we remove the lid of the tobacco jar, or, in the other case, the hatchway of the ship, when the temperature is warm and dry, then the tobacco or the cargo will be in a position to be dried by the evaporation of the moisture. We need hardly point out how injurious to the cargoes and to the health of the persons on board such dampness must be. Where there is a vegetable cargo, such as potatoes, onions, &c., the probabilities are that the damp will cause fermentation, and occasion not merely the destruction of the cargo, but a foulness of atmosphere dangerous to health. This is so much the case that captains sometimes close all the cowl ventilators as soon as they are at sea and away from the control of the port sanitary authorities. Evidently the regulations as to the ventilation of the holds where cargo alone is packed require, in the face of these facts, careful revision.

SIMULTANEOUS LIGATURE OF CAROTID AND SUBCLAVIAN ARTERIES.

ON the 22nd inst. Mr. Mackellar ligatured simultaneously the carotid and subclavian arteries in a case of probable innominate aneurysm at St. Thomas's Hospital. The patient, a man aged thirty-four, a constable of the Metropolitan Police, who had been in earlier years a professional runner and afterwards served in the cavalry, felt the aneurysm a month before he came under treatment in the hospital. A special point in the case is that he has undergone ligature of the superficial femoral artery on each side for popliteal aneurysms. The first operation was performed more than four years ago, the second about two and a half years since, and he carried on his duty as a constable until the appearance of the aneurysm for which he is now under care. Since the ligature of the femorals (also by Mr. Mackellar) he has done work in the mounted branch of the service. It is possible that a fall when on duty in November, when his horse fell with him and injured his chest, has had something to do with the causation of the aneurysm for which the recent operation has been rendered necessary. Up to the present, progress has been most satisfactory, the aneurysmal swelling is diminished in size, and the pulsation is considerably less.

EXPORTATION OF THE RUSSIAN FAMINE FEVER.

IN dealing with the Russian famine, we pointed out the danger which other nations incurred. The famine, we urged, would in all probability engender plague and pestilence in Russia, and it was a question whether these evils may not travel further, and Russia become a centre of contagion that will spread to other parts of Europe or Asia. We did not think this evil prophecy would so soon be realised; yet this very week one of the Cunard steamers, the *Umbria*, has been refused free pratique at the port of New York. There were on board passengers from Russia suffering from the typhus fever that has been raging in so many parts of that country since the more general spread of the famine. The *Umbria* was put into quarantine, much to the inconvenience of all on board, and even the saloon passengers were not allowed to proceed to their destinations. The most severe measures of disinfection have been imposed. As the *Umbria* started from Liverpool the passengers suffering from what seems like the Russian plague-fever must have travelled in England while the contagion was going through the period of incubation, and before any precautions were or could be taken. When we consider that the Russians have no particular knowledge of the dangers of infection, that their education, such as it is, and their laws, do not tend to engender in their minds any sense of the duty they owe to the public in such cases, we may feel wellnigh certain that persons suffering from this highly contagious fever will be smuggled into or through England. While famine, religious and political persecution, drive so many Russians to seek refuge abroad, we must naturally expect that a certain proportion of these refugees will bring disease and the germs of disease with them. Therefore we come back to our original contention that the famine in Russia is not merely a local disaster and a local question. We are all more or less concerned and interested in it, and this not merely from motives of humanity, but because our own security is also at stake.

THE HOSPITAL SATURDAY FUND.

THE meeting of the Hospital Saturday Fund at the Mansion House, under the kind auspices of the Lord Mayor, was a distinct success. The fact that the workshop contributions were less than in the year before by £1300, Mr. Acland, the chairman of the fund, attributed to strikes. The fund having now reached nearly £20,000, it begins to excite the respect of the public, and should stimulate the liberality of working men. It is to the organisation in workshops and to the naturally generous and sympathetic nature of the British workmen that we must look for a sum still more worthy of their class in this great metropolis.

MALE NURSES' MUTUAL BENEFIT ASSOCIATION.

A NURSING agency, formed under the above title, has just commenced operations for the purpose of providing trained and certificated male nurses upon terms which shall secure to the nurses themselves the full benefit of their earnings. The principle of such organisations is one which we cannot but approve, since the existing agencies are unquestionably in many instances conducted in such a way as to leave much to be desired from the point of view of the nurse, the proportion of the nurses' earnings which is absorbed by the mere machinery of the agency being so excessive as to merit the reproach of extravagance. When these deductions go to make a private fortune there is no reason why any tenderness should be manifested towards the system which injures, in the interest of the private adventurer, both the public and the nurse. Where the agency is conducted by a hospital or nursing school the case is in a measure different, for it is undoubtedly convenient to the nurses that they should have the opportunity of defraying in this way the cost of their education, and the public gets the benefit of a guarantee of efficiency endorsed by the Training Institution. Yet even in this connexion the fitting limit of the trainer's lien upon the nurse's earnings is not always observed, and cases of hardship undoubtedly arise even where the desire of those who preside over the administration to deal fairly is open to no doubt whatever. These voluntary associations of nurses for the purpose of minimising agency expenses may therefore be very fitly encouraged in the interest both of the public and of the nurse. If they succeed in maintaining a high standard of efficiency, they will benefit both parties. The benefit to the nurse is obvious. The benefit to the public is no less real, since the cost of the nurse's services is necessarily aggravated by the addition of agency charges which, whether great or small, must, like all other costs of the same kind, be paid by the customer. The public then has a substantial pecuniary interest in arrangements which

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minimise these additional charges, and place at its disposal the nurse's services at but an inconsiderable cost beyond the nurse's pay. So much—and it is a very substantial advantage—the Nurses' Associations have in their favour; whether they will eventually succeed or not must mainly depend upon their ability to maintain a standard of personal and professional qualification throughout their ranks which will command public confidence and support.

THE REPORT OF LORD WANTAGE'S COMMITTEE.

THE report of Lord Wantage's Committee on the condition of the army has been issued on the eve of our going to press, consequently we can only briefly refer to it at present. The Committee have gone into the whole subject in an exhaustive way, and the report appears to be an able and statesmanlike document. Of course, it is not likely that those who hold extreme views, and who either regard our present military organisation as the best or the worst of all possible systems, will be satisfied. Any way, the committee consider it the only one practicable at the present time. On the subject of "short" or "long" service, they hold that short service is a necessity, and that the matter is not open to argument. The present difficulties are not attributable to the short service *system*, but to the fact that successive Governments since 1872 have never carried out the principles on which it was based when adopted. And they go on to demonstrate how the strain caused by filling up the army in India and abroad has necessarily brought about the present state of things. The Committee recommend various changes of an important character for increasing the Home establishments liable to furnish drafts, and for the improvement of the soldiers' position and comfort. Among other things we are glad to notice that attention is directed to the reduction of the guard duties in London, especially at night, so far as is compatible with the proper performance of functions of State and the military training of the men of the Guards. As we said years ago, we have never been advocates for a "coddling" system for our soldiers; but night duties, especially in our climate in winter, entail a constitutional strain on young men, and are a cause of sickness and inefficiency. The number of sentries in London has always seemed to us unnecessarily large.

"PROPHYLAXIS OF HEREDITARY TUBERCLE."

UNDER the above title an interesting paper is contributed to the *Journal de Médecine de Bordeaux* of Dec. 13th, 1891, by Dr. E. Solles. He describes in detail the various observations he has made on animals. He inoculated guinea-pigs and rabbits with matters obtained from scrofulous children, and the conclusions at which he arrives are as follows:—1. When tubercle is hereditary local tubercular lesions develop a longer or shorter period after birth. As a rule these lesions increase in intensity and extent with the age of the patient, and they become more firmly established as time goes on. They obtain their maximum of frequency in young adult life. In the first few years of life there seems to exist a period, of variable duration, in which the spores of the bacilli, although capable of being stirred into activity, are yet capable of being thrown off, and if this takes place the individual may escape. Dr. Solles elaborately describes it as "la période d'inertie silencieuse de l'ensemencement tuberculeux congénital." 2. This period, during which the spores are inactive, lasts a variable length of time, the period apparently depending upon the number of spores which have accumulated within the fœtus and the ease or the reverse with which they are eliminated from the system. 3. The tubercular material may be got rid of in several ways. The fæces and urine of children, tubercular by heredity, have been proved to be capable of producing tubercle in guinea-pigs. The blood, sweat, saliva, and tears, although there is no reason why they should not be infective, have as yet given negative results. 4. Hereditary tubercle is essentially a "parasitic retention." Those affected may escape from local lesions or not, the number of such local lesions depending, as before said, on the number of spores, the rate at which they develop, and the deficiency of resistance on the part of the host. 5. We cannot yet say with certainty whether tuberculosis kills by the actual damage which the organs undergo and the results of those injuries, or by the toxic action of the ptomaines which are evolved, or by toxic agents not yet determined. 6. The preventive treatment of hereditary tubercle must follow on the lines of nature; it consists in aiding and hastening as far as possible the expulsion of the tubercular germs from the organism—in short, to cause the elimination of the spores before they commenced to develop, and if possible before they have become encapsuled by fibrous tissue. The treatment is based on two lines, eliminative and restorative. 7. In the first years of life the physician is obliged to proceed with caution, and to employ only those means which will not be too great a tax on the little patient, and the treatment should be interrupted occasionally, the intervening periods being regulated by the circumstances of the case. This is particularly to be observed with the expulsive treatment up to the age of puberty. The first measures are to ensure that all the secretory organs are acting freely; repeated purgatives, chosen with regard to the age of the patient, should be administered, and the action of the skin assured by active muscular exercise. Dr. Solles thinks that the portal system contains the largest number of spores, and consequently the functions of the liver should be stimulated. Iodide of potassium seems to have a powerful eliminative action. The skin should be further stimulated by hot baths, and also by sulphur baths, and the natural medicinal waters.

EXTENSION OF THE NOTIFICATION SYSTEM.

A VERY suggestive report has been issued by Dr. Henry Armstrong to the city of Newcastle-upon-Tyne, on the question of extending the system of compulsory notification to measles and to whooping-cough. In opening the subject Dr. Armstrong refers to three diseases as typical maladies which are spread by communication between the sick and the healthy—namely, small-pox, scarlet fever, and typhus fever; and, as regards these, he says that they have all been very remarkably reduced both in number of cases and deaths since their notification came into force. And, then, dealing with the contention that, in view of the magnitude of the existing epidemics of measles and of whooping-cough, the expense of notifying these diseases would be an extravagant one, he states significantly that precisely the same argument could have been advanced in respect of scarlet fever, small-pox, and typhus fever in 1882, and that had this view then influenced the Council the reduction in disease and death which notification has brought about would not have taken place. He also refers to the suggestion which has at times been made, to the effect that since measles must be regarded as effective in the pre-eruptive stage, therefore it is useless to notify its occurrence, by reminding the Council that, even if there be inability to check measles during the first few days of its occurrence, that cannot be accepted as a reason for failing to take every precaution possible by way of preventing its spread during the subsequent three or four weeks, when it must also be regarded as infective from person to person. This question of measles notification is naturally attracting much attention by reason of the exceptionally heavy mortality which it occasions, and,

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owing to the belief that a substantial amount of the spread is due to the aggregation of children in elementary schools, a means of extension that could doubtless be materially controlled by early notification of its existence in households, especially in the case of a district so admirably circumstanced in the matter of hospital provision as Newcastle is. Indeed, we learn that a pavilion containing thirty-three beds is available for such a purpose. Perhaps the most formidable point to be dealt with as regards measles lies in the age of the sufferers. In the year 1889 measles caused 14,732 deaths in England and Wales. Of these, 3129 took place under one year of age, and 9731 more between the ages of one year and three years of age; that is to say, there were 12,860 out of the total 14,732 who can hardly be regarded as coming within any material control that could be exercised in connexion with school operations, and of whom many might not be easily removed to hospital unless the mothers were also admitted. But the mere fact of there being difficulties in connexion with the subject affords no justification for sitting down with folded hands whilst one of our principal causes of mortality goes on unchecked; and Dr. Armstrong is not likely to propose a definite line of action except on the belief that it is a right one to adopt. We should hail any efforts made by sanitary authorities in this direction.

THE INSPECTORSHIP OF EXAMINATIONS AND THE GENERAL MEDICAL COUNCIL.

THE Executive Committee of the General Medical Council on Monday last appointed Dr. Duffey as Inspector of Examinations under the Act of 1886. There were, we understand, about a dozen candidates. Dr. Duffey is M.D. Dub., L.M. Rotunda Hospital, and F.R.C.P.I., ex-Medical Scholar, and Senior Medical Exhibitioner, Trinity College, Dublin; Physician and Lecturer on Clinical Medicine, City of Dublin Hospital, &c. He is also Examiner in Materia Medica and Pharmacy in the Conjoint Board for Ireland and Professor of Materia Medica and Pharmacy in the Royal College of Surgeons, Ireland. Dr. Duffey's fitness for the post will be generally recognised, though we confess to thinking that it would have been but satisfactory that on this occasion the appointment should have been given to a typically English representative. On the last occasion none of the three inspectors answered to this description. Still they did their work very well. Doubtless it will be so in Dr. Duffey's case, but there is something in the difference of point of view. The appointment is only for one year.

THE CREMATION SOCIETY'S TRANSACTIONS.

THIS year's issue of the Transactions of the Cremation Society contains a variety of details which will repay the attention of its readers. Besides a full statement of the purposes, methods, and constitution of the Society, and a careful *résumé* of the history of cremation in this country, we find in the record of the past year a narrative of comparative success with which cremationists have no great reason to be discontented. It is true that only the small number of ninety-nine bodies have been actually burnt in the Society's furnace at Woking, but this total was in the year preceding represented by fifty-four, and in 1885 by only three. The principle of cremation, moreover, has gained the nearly unanimous approval expressed by a regular vote of the International Congress on Hygiene which met in London last August, while crematoria are either in contemplation or in course of erection in London (Ilford), Manchester, Liverpool, and Darlington. We may mention as of special interest the publication in this treatise of the latest contributions by Sir Henry Thompson and Mr. Seymour Haden to the literature of the subject. The opposite views of these gentlemen are well known, but they are here expressed in specially clear and practical terms. The former, in the course of an able argument, advocates cremation, especially in cases of death from zymotic disease, as being the only method preventive of post-mortem infection, which is at once easy and fully effective. His suggestion that a special official be appointed in each parish for the certification of deaths will be recognised as one of much utility. Finally, there is something to be said for his economic sense which grudges the use of cultivable land for the purpose of burial. Mr. Haden, on the other hand, is no less true to himself in asserting the full efficiency of the earth for the chemical and innocuous conversion of all dead animal matter freely committed to its action. This Sir H. Thompson himself does not deny, provided there be no adjacent and contaminable water-supply. A demand for legislative action to enforce the methods of sanitary burial forms a natural part of the earth-to-earth system, and on this point we are entirely in accord with its well-known promoter. Until such action is assured we cannot, indeed, be said to have really tested the efficiency of our burial system; nor would we feel disposed, while it is in abeyance, to prefer, though we may agree to sanction, the much more rapid, though perhaps not otherwise more perfect, process of cremation. The value of the Transactions to students of the new method is enhanced by sectional illustrations of the improved Gorini's furnace used at the Woking crematorium, and by a list of works on cremation available for reference.

THE SPREAD OF SMALL-POX.

THE *Echo* quotes the Consular Report for 1890 on the trade of Philadelphia for the following fact. An immigrant landed in 1872 with incipient small-pox. The city was previously absolutely free of the disease. He escaped medical examination, and moved about from district to district. His trail was followed by the march of the disease. Eventually all trace of him was lost, but no fewer than 2585 deaths from small-pox resulted from his visit to Philadelphia. It is not pleasant to think what similar experiences may be in store in England. The disease is in abeyance, though there are signs of reviving activity. It can be kept in check by sanitary police. But what if one or two cases elude such precautions?

SOCIAL REFORM IN INDIA.

THIS question has been discussed in so many forms and from so many different standpoints that it is hardly surprising to see issued still another contribution to the literature of Indian social reform. Perhaps the glaring need for reform is the explanation. Mr. F. Pincott, well known in connexion with Indian subjects, while approving of the principle, writes in strong disapproval of the age limit of Indian marriage, the severity of the punishment decreed, and of the hasty manner in which the Indian Age of Consent Act was passed. He bases his argument on the inherent difference of customs in England and in India, insists that the passing of the Age of Consent Act fixes the English arithmetical idea of morality on the people of India, and alleges that Indian institutions contain safeguards to obviate the evils which might be apprehended to arise from them. In his view much harm has been done by recent legislation, although to our mind the assertion has still to be supported by proofs. He candidly states that hitherto he has stood alone among Englishmen in his views on this question, and we are inclined to think that the present pamphlet will not materially increase the numbers who sympathise with his view. The author admits that social customs are matters of convenience. It plainly follows that if these customs, social or otherwise, are inherently wrong, a remedy must be found. Custom or

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habit occurring in individuals or in nations cannot be accepted as a justifiable excuse for disgraceful acts. The South Sea Islander might plead custom in support of his cannibalism. The pretext of obnoxious customs being safeguarded is as thin as the paper bag which encloses a dangerous quantity of gunpowder. On physiological grounds wrong clearly exists. The Hindoo, in this respect at least, does not very greatly differ from the European; and while physiological fact remains a constant factor of the problem it is idle to plead custom, even though safeguarded to an extent far beyond that which is alleged. Mr. Pincott somewhat ingeniously suggests the adoption of a kind of age sliding scale, by which, as he thinks, nature will adapt herself with unerring flexibility to each individual person. A scale of that kind could only result in obviating any beneficial legislation which is likely to be promoted on this subject.

A CASE OF THORACIC ANEURYSM.

IT is matter of common experience that an aneurysm of the thoracic aorta, if it does not implicate any important organs, may attain to considerable size before its presence is revealed either to the patient or to his medical attendant. In not a few cases—especially of aneurysm of the descending aorta—the fatal event has happened without any diagnosis having been arrived at, or even without any notable discomfort having been experienced by the patient. At the meeting of the Berlin Medical Society held on the 3rd inst. (*Deutsche Med. Woch.*, No. 6), Dr. Litten showed a patient forty years of age, who, up to within three weeks of that date, had been working as usual at a factory without any difficulty, although for a twelvemonth he had been complaining of "rheumatism" in the left shoulder. Yet there was obvious bulging in the front of the left side of the chest, most marked in the third intercostal space, where and in the interspace above there was definite pulsation and plain conduction of the cardiac sounds. The heart's apex beat was in the usual place, and, although there was evidence of aortic regurgitation, there was no indication of hypertrophy of the left ventricle. The aneurysmal tumour was distinctly expansile and fluctuating; it probably sprang from the aorta below the origin of the left subclavian artery, and had eroded part of the ribs. There was no difference between the two radial pulses and no delay in the femoral pulses. The left pupil was notably smaller than the right. The patient several years before had a chancre, but it was not succeeded by any secondary signs of syphilis. Dr. Litten commented on the case as showing how large a size an aneurysm in this situation may attain without any distinctive signs being manifest, and he pointed out its further peculiarities in the absence of cardiac hypertrophy in spite of the aortic insufficiency, and also the absence of any delay in the pulse in the lower limbs in spite of the obviously very great dilatation of the descending aorta.

CONTAGIOUS DISEASES ACTS IN TALY.

BY special enactment on March 29th, 1888, the surveillance of prostitution throughout the Italian peninsula was relaxed, and as a consequence venereal disease in its worst forms, particularly at seaports and in garrison towns, so increased that the Government have had to rescind the enactment referred to and return to the regulations previously in force. Professor Angelo Scarenzio, who holds the chair of dermo-syphilography in the University of Pavia, has just read a painfully instructive report on the matter before the Lombard Institute, based on statistics compiled from the various centres of Italian population during the last three years. The aggravation of the diseases in question, not only as to number, but as to virulence, has reached, he says, the point of a *pubblica calamità*. The patients, almost all males, in the institution under his own eye—the "Dispensario Celtico" of Pavia—rose from 166 in the first year of relaxed surveillance to 203 in the second and to 303 in the third; and what impressed him even more painfully was the fact that the augmentation revealed itself especially in the *forme infettanti* (infective forms), which impregnate the system as a whole, and transmit the virus through the medium of generation. In comparison with the other venereal forms, the mean percentage of the infective cases was, he says, in the first year 9·2, in the second year it rose to 17·7, and in the third to 18. Again, in the Foundling Hospital the cases of congenital syphilis, fluctuating between 4·09 and 3·82 in 1888–89, mounted rapidly to 5·22 in 1890 and to 5·46 in the first half year of 1891. The lamentable diffusion of the virus, Dr. Scarenzio adds, is not limited to the classes that have recourse to the "Dispensario Celtico," but it extends to the well-to-do (*ai benestanti*), including special bodies, such as the army and navy. The Government, unable to ignore the facts, have had, by a new regulation issued on Oct. 27th last, to re-establish the obligatory inspection of prostitutes, whether in houses or dwelling apart; to submit the choice of the inspecting physicians to the approval of the Provincial Sanitary Council; to make subjection to treatment compulsory on the patients where there is no guarantee that they can be properly attended to in their homes; and to multiply as well as to maintain the "Dispensarii Celtici." In conclusion, Dr. Scarenzio desiderates "a more vigilant and more extended surveillance, so as to include clandestine prostitution, and bring not only unfortunate women but all venereal patients of the other sex under hospital care." He sees "no reason why the destructive contagion of syphilis should, in comparison with other contagions, be vouchsafed a milder, not to say a favoured, treatment at the hands of the law." This, of course, is but an academic, a pious aspiration, possible of effective fulfilment only in despotically governed States. At the same time one can hardly wonder at its being entertained in view of the horrible statistics that reach us from garrison towns like Ravenna, where the disease is verily a "public calamity," or from seaports like Naples, where Dr. Achille Titomanlio, of the local "Brefotrofio," presents us with such a gloomy picture of the increase of congenital syphilis.

LIFE ASSURANCE CERTIFICATES OF DEATH.

IT is a hard case when a medical practitioner finds himself under the necessity of tilting at the profession to which he belongs, and particularly so when he finds himself called upon to confide his grievances to the lay press; and we are glad therefore to observe that a "Doctor of Medicine," who has recently been writing to *The Times* in a sense which reflects most seriously upon the good faith of his professional brethren, appears to be the victim of a life assurance craze. It is quite obvious, even to the meanest understanding, that the practice of insuring the lives of one's neighbours opens a door to crime. So far the relation thus established does not differ from other human relations, for even those that are most intimate and most benignant are constantly abused by ill-disposed and criminal persons. But from time to time the note of alarm is heard—now from the jury-box, now from the Bench, and again in the correspondence columns of the newspapers—that unsuspecting men, women, and children are being done to death for the sake of the proceeds of insurances upon their lives. It fortunately happens that this particular form of crime cannot become rampant without victimising the insurance offices, an interest that is too active and too vigilant to be easily plundered on any considerable scale. Thus it has happened that, although

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atrocious crimes have from time to time been brought to light and outraged the public mind, they have invariably proved upon inquiry to be isolated facts, giving evidence, not of a vicious system or a corrupt community, but of the presence of individuals of deep and exceptional criminality. If there be any substance in the charges, which a "Doctor of Medicine" has sown broadcast, of false certificates of death, we are convinced that it comprises only some exceptional facts which have chanced to come under his observation; but so long as such serious allegations rest on the judgment and sound sense of an anonymous correspondent, the profession of medicine may rest content to regard them as a work of imagination somewhat wanting in the power of affording amusement.

WARMING RAILWAY CARRIAGES.

THE Midland Railway Company have long been forward in attention to the comfort and convenience of their passengers. Their initiative has had much to do with modern improvements in third-class accommodation. It was they who first familiarised the public of this country with the railway carriage lavatory. Quite recently their characteristic zeal for any change that tends to increase the amenities of travel has introduced what promises to prove a useful and economical method of carriage warming. In so doing the company have utilised the suggestion of Herr Pfuetzner, mentioned in THE LANCET of May 2nd, 1891. Since the new year trains have been running between St. Pancras and Bradford in which a system of heating by means of pipes in direct communication with the engine has been carried out, so far with complete success. According to this arrangement the pipes can be filled either with steam or with hot water. A moderate average temperature can thus be maintained without trouble. When we contrast this apparently easy and obviously convenient process with the elementary and laborious method until now in common use, and remember that it has been employed in domestic heating for many years past, we can only feel the more surprised that it has not sooner been applied to the purpose above mentioned. It is to be hoped that we shall, as time goes on, have such confirmation of its successful use as will ensure its general adoption by railway authorities. The advantage obviously resulting to the health as well as the comfort of travellers from the assured maintenance of an equable temperature in each carriage need not be insisted on.

DANGERS OF SULPHONAL.

THAT this now much-used drug is not entirely without danger even in medicinal doses has been several times already pointed out, and Dr. John Grant, of the United States Army, has in a recent contribution to the *Boston Medical and Surgical Journal* given two instances of inconvenient and somewhat alarming symptoms arising in patients to whom only twenty grains had been administered. The first patient was a married lady suffering from an attack of influenza, with symptoms predominating in the thoracic viscera and in the nervous system, but who, after a week's illness, considered herself convalescent. As she was still sleepless, twenty grains of sulphonal were given in hot water. In a few minutes profuse perspiration followed, and the patient sank into what appeared to be a sound sleep. Next morning, however, she awoke unrefreshed and in a state of complete prostration, so as to be unable to turn in bed without help. She also had a feeling of severe constriction of the head. On account of muscular weakness the patient was unable for some days to leave her room, but ultimately recovered. The second patient was also convalescent from influenza, but suffered from slight excitement and sleeplessness. Twenty grains of sulphonal were administered at bedtime, with the same almost immediate effect. Next morning he was in a condition of similar prostration, almost unable to move a limb, and suffering severely from a feeling of constriction in the head, and with a weak, compressible pulse. These two cases would seem to show that sulphonal is not without the risk of some inconvenience if administered in cases attended with considerable physical prostration.

DIPHTHERIA AT MONMOUTH.

DIPHTHERIA has broken out in two schools at Monmouth under circumstances which cause a good deal of local anxiety. Perusal of an account of the measures which are being taken lead to the idea that every effort will be made to ascertain whether the disease has been associated with any sanitary defects in the two establishments in question, and if so, to remedy the points needing amendment. This is as it should be. But we have come to learn within recent years that, quite apart from sanitary defects, so-called, there are special conditions attaching to what has been aptly termed "school influence," both in the development and in the spread of this disease, and it is to be hoped these will not be lost sight of. In the meantime, it must be admitted that Monmouth town is, both topographically and sanitarily, a locality by no means favourable to immediate prevention of diphtheria extension. It is, indeed, precisely the sort of town where the disease may be expected to cause difficulty, and to be maintained by a series of sore-throats which at this time of the year often have a tendency for a time to lose the special features which commonly attach to recognised diphtheria.

THE TOXTETH INFIRMARY.

THE Toxteth board of guardians have now decided to provide infirmary accommodation on a reduced scale. Instead of arranging for 420 beds, as originally intended, the scheme adopted relates to the provision of 244 beds, and it is reckoned that the cost will be £32,700. This will, it is estimated, involve a rate equal to one penny in the pound for thirty years. We are glad that the matter is no longer to be postponed.

PANIC AND ACCIDENT.

REGRETTABLE as it is in every way, the recent serious accident at a children's entertainment in the rooms of the South St. Pancras Unionist Club was, in its origin, so simple—we might almost say so natural—that it is difficult to lay down any rule which could be relied upon to prevent its recurrence. A boy jumps up, as restless urchins will, and overturns the lamp of a magic lantern. Some oil escapes and burns upon the floor; no one is burnt, there is little or no danger; but soon there comes the almost inevitable explosion among the nervous elements present in the audience. Some one cries "Fire!" a rush of children follows, and several are dangerously injured. Experience may register more than one lesson in connexion with this incident. Thus we recognise an error, slight, perhaps, in everything but its mischievous influence, in allowing a child to sit anywhere near the lantern; yet who would have thought that this so greatly mattered? Then we have to note and to take account of that unstable nervous temperament, the ground in which all panics grow and which was here so unhappily manifest. Time will be old and education also, we fear, before its cure or disappearance may be looked for; but this is no reason why we should not begin early to teach, as the first principle of safety in the presence of danger, the duty of keeping quiet. First a moment of cool reflection, then action. The lesson must be learned in daily tasks and duties if it is to guide us in a crisis. In a word, it is the common sense of in-

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dividuals rather than set rules that we must rely upon to prevent such accidents as that above mentioned. Managers of entertainments, it is to be hoped, will also be careful in future, by means of suitable barriers, to keep their audience, adult or juvenile, well away from all apparatus. We need hardly mention the necessity of selecting such managers from among persons of adequate nerve and intelligence. In the case already quoted it is, at least, a matter for satisfaction that they seem to have justified the wisdom of their selection by their cool and rational behaviour.

GRANT COLLEGE MEDICAL SOCIETY.

IN the form of a retrospective address, we have received a clear and interesting account of good work done for medical science and practice by the Grant College Medical Society of Bombay. It is satisfactory to note that the author, Dr. Rustomjee Naservanjee Khory, who is president for the present session, can well appreciate the social and professional advantages of which he is in his official position the visible representative. There is in Bombay (and doubtless elsewhere in India), he reminds us, an undesirable hiatus between the private practitioner commonly of Indian extraction and his hospital *confrère*, who is usually a European. This gulf the influence of the common Society tends to obliterate, and the brief reports of its proceedings given in this address exhibit in rational harmony the fruitful effects of labour done by both classes of workers in the wide field of medical practice. The Society, notwithstanding its efforts and its excellent purpose, does not entirely escape the tribulations which more or less beset all other like associations. We are told that there is room for improvement in its financial condition, and the attendance is not always what it might be. Nevertheless the membership shows a very substantial increase, and much of the material contributed towards its discussions is of high quality. We may therefore fairly expect for it a useful and an enduring future. The presidential address, however, is not occupied solely with a consideration of the Society's affairs. It contains also a short discussion of the pathology of leprosy in relation to its contagious property; and in the same connexion it exposes and explodes an anti-vaccination fallacy of recent growth, which, with hardly a pretence of proof, and in the face of contradictory evidence, maintains that the operation has assisted the spread of that disease. The author strongly advocates the extension of compulsory vaccination, now for more than twelve years in successful operation in the town of Bombay, to other parts of India. His careful paper closes with an appreciative reference to the Hyderabad Chloroform Commission.

INSANITARY DWELLINGS AT PLYMOUTH.

THE powers given to magistrates under the recent Public Health Act are beginning to be felt in districts beyond as well as in the metropolis. The Act gives the magistrates the power to order the closing of the dwellings proved to be unfit for habitation, and to recover from the owner of the property the expenses of removing the tenants. Two tenements, the owner of which was indicted before the borough magistrates of Plymouth on the 11th inst. under this Act, were described as quite undrained, all the closets wall-locked, the floors rotten and saturated, the walls damp and daubed, the roof gaping, and the place utterly unfit for human beings to live in. To add to the deplorable nature of the dwellings, a pony was kept in a cellar on the premises, the floor of its stable being covered with liquid manure. There were twelve rooms in the house, which, however, were not all tenanted, but the building was occupied by six families, mostly in one room each. The excuse urged for this state of affairs was the old one: that the health officer's statements were exaggerated; that there had not been any outbreak of disease; and that therefore there was no proof that the property was insanitary. The magistrates took the wise step of visiting the property and seeing for themselves, and from their own observations they stated that "they could hardly conceive that such a state of things existed in inhabited dwellings. After visiting the houses they could only say that the description given by the witnesses did not adequately represent the actual state of the place." One of the magistrates remarked that it was most painful to him to find people dwelling in such dens in a town surrounded by such natural beauties. By such enlightened action as that of the Plymouth Borough magistrates, who in this case ordered the "dens" to be closed and imposed a penalty of £10 and costs for each of the two tenements, it is certain that in the future, whether near or remote, better sanitary surroundings will be secured, leading to the general improvement of the people.

FOREIGN UNIVERSITY INTELLIGENCE.

Bordeaux.—Professor Pitres has been appointed Dean.

Santiago. — Dr. A. Limonena y Zamalegui has been appointed Professor of Clinical Medicine.

Valladolid.—Dr. A. A. Cortes, Professor of General Pathology, has been appointed to the chair of Medical Pathology. Dr. Luis Roa y Vilchof, Professor of Therapeutics in Grenada, has been appointed to the chair of Hygiene.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Heinrich Rosenthal, editor of the *Allgemeine Medicinische Central-Zeitung*, after only two days' illness.—Dr. Isidor Ganz, the Nestor of Carlsbad physicians, at the age of eighty-seven.—Dr. R. Ritter von Schmerling, body physician to the Grand Duke Albrecht, at the age of eighty-two.—Dr. Hermann Aubert, Professor of Physiology at Rostock.—Dr. R. Brossard, formerly Professor of Internal Pathology at Poitiers.—Dr. Joh. Wagner, Professor of Anatomy at Kharkoff.—Dr. D. Ayers, Emeritus Professor of Surgical Pathology at Long Island College Hospital, Brooklyn.

THE *London Gazette* announces that the Queen has been pleased to direct Letters Patent to be passed under the Great Seal of the United Kingdom of Great Britain and Ireland, granting the dignity of a Baron of the said United Kingdom unto Sir William Thomson, Knt., President of the Royal Society, and the heirs male of his body lawfully begotten, by the name, style, and title of Baron Kelvin of Largs, in the county of Ayr.

WE regret to hear of the death of Mr. George Pearce, who had held the post of divisional surgeon of the B Division of the Metropolitan Police for the last forty-six years. The death of his wife the day before appears to have produced the attack of angina pectoris from which he died on Monday last.

SMALL-POX is said to be raging violently at Saratoff, in Russia, in which country vaccination is not compulsory. In one large village alone 400 children are reported to have died within the last ten days.

THE next International Congress on the subject of the abuse of alcoholic liquors will be held at the Hague in September next.

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THE Senatus of the University of St. Andrews has resolved to confer the honorary degree of Doctor of Laws upon Professor Michael Foster, M.D., of Cambridge, and Professor George M'Leod, M.D., of Glasgow.

THE Duke of Edinburgh has appointed Mr. William Hickman, M.B., F.R.C.S., to be Surgeon in Ordinary to his Royal Highness, in the room of the late Sir Oscar Clayton.

DR. F. J. PAYNE has been appointed Joint Lecturer on Medicine at St. Thomas's Hospital.

REPORT OF

The Lancet Sanitary Commission

ON

SANITATION IN THE SHOP.

PART I.

IN these days of labour agitations and of legislation for the protection of labour it is surprising that so little has been done for a large class of workers with whom the public come in daily contact. The victims, for instance, of the East-end sweater, though out of sight and ignored by the public at large, have been discovered and their grievances disclosed; but the shop assistant, who is before us at every turn and in every street, remains unthought of and uncared for. Perhaps it is because he is fairly well dressed and puts on a smile to greet his customers that the public conclude he must be pretty well situated and comfortable. There never was a greater mistake. Even the docker, over whom so much sympathy was expended, is in some respects better off than the shop assistant. Quite a chorus of shop assistants exclaimed in our presence that they wished they could get "the docker's tanner." The Blue-book report on the Shop Hours' Regulation Bill establishes that shop assistants are generally worked eighty-five hours a week, and this at 6*d.* an hour would equal £2 2*s.* 6*d.* a week, but they rarely receive anything like so large a salary. The mechanic as a rule works from forty-eight to fifty-four hours a week, earns 8*d.* and upwards an hour, and need not keep up appearances. The shop assistant works from seventy to ninety hours a week, and competent men earn from 2*d.* to 6*d.* an hour, while there are young persons who do not make more than one halfpenny an hour, yet with this inferior pay they must dress well. What, then, remains in time and in money to procure wholesome relaxation, a healthy home, and sufficient food? The workman is protected by the Factory Act and the Sanitary Act; the shop assistant does not profit by either the one or the other. The Sanitary Act should be of service, but how many sanitary inspectors are there who ever think of examining the premises of retail dealers? For the workmen there are model artisans' dwellings, where the death-rate is below the average death-rate of the metropolis; for the labourer, for the beggar in the streets, there are model common lodging-houses. The homes of the poor are reached by a great variety of agencies. There are missionaries of all creeds, there are official and amateur sanitary inspectors, and any number of philanthropists, who from one motive or another visit slums and the homes of the working classes; but who ever thinks of trying to penetrate behind the scenes of a retail shop, and inspect the rooms where the assistants sleep or have their meals?

The difference between shop assistants and artisans may be noted with great facility in the boot trade. In this trade it often happens that workmen and shop assistants are employed on the same premises by the same master. For instance, we have the branch establishment of a well-known and popular bootmaker. The shop assistants are in attendance thirteen hours and a half for five days a week, and fifteen hours and a half on Saturday. Behind the retail shop there is a workshop, and here the workmen, who are engaged by the week, work ten and a half hours a day, and those who work by the piece nine hours. The assistants in the retail shop profit by the fact that, as the workshop is open to inspection, proper sanitary accommodation has been provided. But the workshop is closed at 6.30 P.M. Then there is no urinal or closet for the shop assistants. What is necessary for the workmen is supplied, but no such care is displayed on behalf of the shop assistants. There are, we are assured, thousands of small shops in London where no sanitary accommodation whatever is provided for the assistants. That, in the absence of sanitary inspection, such should be the case will be readily understood. Many small shopkeepers live on the premises, the closet is upstairs, and is kept locked for the use of the family. A man engaged in a clothier's establishment in the south of London complained that, though there were six assistants in this shop, there was no closet, nor was it possible to obtain a glass of water. There was the bare shop; all that belonged to the house as a dwelling was locked up and reserved for the shopkeeper and his family. As a result, the shop assistants have to run out to the nearest public-house, where they can find a closet and urinal, but where they are compelled to spend a portion of their slender wages in beer. If they are thirsty they have no means of drinking water, and must again resort to beer. Another shop assistant, also working for a clothier, whose shop is situated in the east-end complained that the only cistern available had not been cleaned for several years; the water, therefore, was too dirty to drink. A third shop assistant explained to us that the water in his shop was absolutely foul. It will be readily understood that, what with the flare of gas, the dust, the constant talking to customers, considerable thirst must be experienced, especially in summer weather; and if there is not an abundant supply of pure water on the premises the shop assistants are driven by the force of circumstances to the public-house, and soon find themselves on the high road leading to intemperance. The advocates of temperance would do well to look to this cause of inebriety. There is a philanthropic society which constructs troughs and supplies drinking water to dogs and horses in the street. If the temperance organisations could form a special service to see that a suitable supply of pure drinking water was provided to the human beings who spend the better part of their lives in shops, one of the causes of drunkenness would be removed.

Of course it is only the very small shops that are so badly provided in respect to closets and to drinking water; but, even in large establishments, the accommodation for meals is often altogether disgraceful. At one large grocery shop the assistants complained to us that they were made to take their meals in a dark basement below the level of the street. Here was situated an unventilated closet, with no light and no window. The odour of drains pervaded the whole place. While some grocers allow their assistants to eat their meals near unventilated drains, others do not hesitate to store their provisions round and about closets. This is particularly dangerous when such substances as butter are exposed to the escape of sewer air. At one large provision store, which has branch establishments in different parts of the town, the assistants were loud in their complaints. At one of the branch establishments there was no closet at all for three months. The assistants were obliged to go round to a neighbouring coffee shop. At last they refused to work any longer under such conditions, and then a closet was built for them. At another branch, in the far east of London, the drains were the cause of such an intolerable nuisance, that a plumber was called in and an estimate made for repairs. When, however, the drains were dug up it was found that the extent of the mischief was so great that it was impossible to put them in order for the sum proposed to be expended. The drains were consequently merely covered over again and things allowed to go on much as they were before. It is in the midst of such insanitary surroundings, somewhere in the basement or at the back, that shop assistants are often compelled to take their meals. In the smaller shops they do not have even this much accommodation granted them. We know a high-class dispensing chemist in the West-end where there is neither dining-room nor dispensing-room for the assistants. The dispensing is done behind a screen at the end of the shop, and here, on the dispensing table in the midst of drugs and half finished pills, the assistants have to take their meals.

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Another shop assistant, who was evidently in a very bad state of health, complained to us that, though his employer spent his Sundays preaching the gospel, he made his assistants work from 7.30 A.M. till 10 P.M. the first five days of the week and till midnight on Saturdays. When this assistant's mother was dying his employer would not grant him a few hours' leave of absence. This unfortunate man, who is kept at work eighty-nine hours a week, is not even allowed to leave the shop for his meals, nor has he a regular hour for meals, but must snatch his food how and best he can in a dirty corner behind the counter.

In some establishments the food is good, ample, well served, and clean; in others it is far from sufficient, and can scarcely be qualified as wholesome. In provision shops the assistants often come off badly, inasmuch as they are made to eat that which cannot be sold. An assistant working for a large store of this description informed us that in the morning he was given what he defined as "an apology for coffee" and two, or at most three, slices of bread-and-margarine. For the midday meal there was one helping of meat, but this too frequently proved to be Ostend rabbit, for the simple reason that these rabbits will not keep long, and sometimes cannot be sold. In the afternoon there were tea and a round and a half of bread-and-butter. Finally, at 11 o'clock, on going to bed, the assistants were given, in their bedrooms, a small piece of bread, a small piece of cheese, and a glass of water. It would be easy to contract for this style and amount of food at 7*s.* 6*d.* per week per head. Those assistants who were so far privileged as to be permitted to take their meals out of doors had 12*s.* extra wages allowed, and with this they obtained much better board. Another shopman complained of his employer, who had made a bad speculation in pickled pork, and consequently fed his assistants on his superfluous stock for three months. On Saturday nights assistants are always very eager to sell off the stale remnants, so that they may not have to eat them themselves the next day. Several grocers' and cheesemongers' assistants frankly declared that if their appetites were satisfied, it was only because they helped themselves to such things as eggs, cheese, rashers of bacon, cocoa, &c., which could be abstracted from the general stock without attracting notice. They argued they had undertaken to work for food and wages, and conceived that, if they had not enough food, they had a right to help themselves to more. The impression seemed to prevail that assistants in small drapers' shops were the worst fed, and a sensational story was told us of a draper in a West-end suburb. This draper was stated to have usually gone to a butcher's between eleven and twelve o'clock on Saturday nights, just when the shop was about to close. He would then offer to purchase all the remnants, or "block ornaments," at 2*d.* a pound. As these fragments at so late an hour could not be sold, the butcher generally accepted the offer, and the draper, having arranged a method for keeping this meat in ice, fed his assistants with it during the ensuing week.

Though we may hope and believe that such bad and insufficient meals are altogether exceptional, there is one grievance which is not at all exceptional, but is, on the contrary, very general in almost every branch of trade. We allude to the shortness of the time allowed for meals. Very frequently only a quarter of an hour is given for tea and breakfast and half an hour for dinner. This is altogether insufficient in itself; but in very large establishments it sometimes takes nearly five minutes to go from the counter to the dining-room, so that the food has to be consumed in great haste. In small shops assistants are often called away in the middle of their meals to serve customers. All this naturally tends to interfere with the process of digestion, and dyspepsia is very prevalent among this class of workers.

Over-worked, under-paid, and under-fed during the day, the shop assistant is scarcely more fortunate at night. The sleeping accommodation, when this is provided, also escapes all sanitary control. The Common Lodging Houses Act protects vagrants and vagabonds generally when they resort to the poorest lodging-houses, but there is no measure that establishes any sort of supervision over the sleeping accommodation given to the shop assistant. There are consequently many gross abuses. An assistant described to us that where he worked he slept with seven others in a very small room. At half-past seven in the morning they had to be up to open the shop. In their room there was absolutely no furniture—nothing but beds,—and to wash they had to descend three flights of stairs, where there was a lavatory provided for all the shop assistants, numbering in all thirty-six persons, some of whom sleep outside. At ten o'clock the shop is closed, but it takes about twenty minutes to put various things in order, so that the assistants cannot get out for exercise and recreation before 10.20 at night, and they must be back in their bedrooms by eleven o'clock. There is no time for reading or self-culture; it means practically life from bed to the counter and from the counter back to bed. On Sunday mornings only can they indulge in a more lengthy rest; but even on Sundays they are all obliged to turn out of the bedrooms by 10.30 A.M., and those who have no friends or family to visit spend a wretched holy day. They are not allowed to go to their room, and if they were there is no fire or furniture; they cannot sit, read, or otherwise rest and amuse themselves. They must go out whether the weather be fair or foul. This is no solitary case. Shop assistants have no residence, no home, but merely a room at the top of the house—sometimes a mere attic,—where as many beds as possible are crammed in together. Here the shop assistant may throw himself wearily down and snatch a few hours' sleep; but this bare, fireless, overcrowded room is no home to him. Thus, on the Sunday, when the shop is closed he must go out somewhere, and if he has no friends to visit must wander listlessly about the streets or parks. These homeless wanderers may be noticed on Sunday in great numbers, especially in Regent's Park. On week days also, between ten and eleven at night, the shop assistant is frequently driven out into the streets. The shopkeeper lives on the premises with his family, and does not care for his assistant or assistants to come into the private part of the house before it is actually bedtime. Yet what sort of walk, exercise, or recreation can a shop assistant take between ten and eleven at night? It too often results, especially when the weather is not fine, in his seeking rest and refuge at the public-house bar. Nor are female shop assistants better accommodated so far as their sleeping rooms are concerned. It is not to be expected that petty tradesmen should possess any special knowledge of the laws of health. Ignorance, indifference, or motives of economy lead them to set such considerations at defiance. One case was mentioned to us of a draper who was alleged to have screwed down the window of the room where his female assistants sleep. Presumably he feared that his assistants might communicate from the window with persons outside; but the result is that the room is never aired, and in the event of a fire the girls could not escape. Another case was brought to our notice of a girl, an apprentice, who was discharged from a draper's shop because her health had broken down. She is only eighteen years old, and maintains that, if her health has failed her, it is in consequence of the insufficient food and bad treatment she received. The sheets of her bed, she declared, were only changed once in three months, and the charwoman who works on the premises corroborated this information. Even worse than all this, shop assistants sometimes have no bedrooms at all, but are expected to sleep in the shop under the counter. This is especially the case in pawnbrokers' shops. One assistant assured us that he had slept for seven years under the counter of a pawnbroker's shop. He had served, to use his own expression, "as a cheap shop dog." But though apparently a strongly built man, his health had finally given way. The crowd of people, the flare of gas, the impossibility of thoroughly renewing the air in the pawnshop, had at last told on his constitution, and, acting under medical advice, he was ultimately induced to leave this pawnbroker's shop and seek employment where it would be possible to sleep in more wholesome quarters.

Such are some of the grievances which the shop assistants have borne with much patience for too long, and our list is far from exhausted. As yet we have only described what shop assistants with whom we have personally come in contact have endured. Even though these may be qualified as altogether exceptional cases, they have remained for years undetected and undisturbed. Exceptional such abuses may be, but what is there to prevent them becoming more general? In taking up, however, evidence other than that which we ourselves have gathered, we find that many of the abuses to which we have alluded are far from exceptional. It remains for us therefore to deal with the question in a more general sense, and then to examine what little has been done to improve the condition of shop assistants, notably the providing of seats and the

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movement for early closing. Finally, we may be tempted to consider what further remedial measures naturally suggest themselves.

(To be continued.)

THE FINANCES OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND AND THEIR RELATION TO THE REFORM OF THE COLLEGE.

IN the struggles and debates at the Royal College of Surgeons of England neither the Fellows nor the Members have made sufficient use of the materials for argument which may be derived from the tables of income and expenditure published annually in the Calendar of the College. Beyond casual references to the large sums expended in bricks and mortar, the handsome emoluments of examiners elected out of the body which distributes the revenue of the institution, the injustice of excluding altogether from power or influence the very persons to whom the College is indebted for its existence and prosperity, and a stray resolution to the effect that the Fellows and Members ought to be consulted in regard to any extraordinary expenditure, we cannot recall anything approaching to effective criticism. And yet we believe that a close examination into the present condition of the income and expenditure of the College—which it is the business and duty of the Fellows and Members to watch, and, if possible, to control—will furnish one of the most effectual weapons ever placed in the hands of the friends of reform and of a liberal constitution, and, if properly utilised, will effectually prevent the continuance and augmentation of the power at present wielded by the Council of the College. As we cannot pretend to deal exhaustively with this subject within the limits of a single article, we shall direct attention to the salient features of the financial position and show how they support the principles of constitutional reform which have again and again been urged upon the attention of the Council of the College.

1. It must impress itself strongly on all who inspect the balance-sheets how large a revenue is annually administered by the Council, large both absolutely in itself and relatively to that at the command of similar institutions where a far more liberal constitution prevails. In 1890–91 the total income of the College amounted to no less a sum than £27,174. We have not the material before us for making any close comparison between the College of Surgeons of England and the other professional Colleges, as the balance sheets of the latter are not readily accessible; but, judging by returns furnished a few years ago, it may be concluded, we believe with a fair approach to accuracy, that the income of the Royal College of Surgeons of England varies from about nine times to two and a half times as much as that of the other Colleges.

2. On comparing the income of the College for 1890–91 with that of preceding years, a considerable increase will be observed. Ten years previously—viz., in 1881–82—the income was £18,578, or £8596 less than in 1890–91. Part of the increase is due to the larger receipts from the Membership examinations, for in 1881–82 the receipts from this source were £13,191, and in 1890–91 £17,122. In the intervening years the receipts fluctuated considerably, owing chiefly to the introduction and working of the Conjoint Examining Scheme. The most fruitful year of the decade was 1886–87, when the receipts from the Members' examinations rose as high as £20,977. The whole of this large sum was derived from the strictly professional examinations, for the Preliminary examination conducted by the College, which used to yield about £700 per annum, was discontinued in 1881–82. The rest of the increase of income has been due to the Erasmus Wilson bequest. The stock dividends from this source accrued in 1887–88, and in 1890–91 amounted to £5438.

3. It is a very striking fact, and one of the utmost importance for the reformer to note, that not far short of £20 000 out of the £27,174 of the income of the College in 1890–91 were derived from the professional examinations. The exact sum was £19,393 17*s.* 6*d.*, comprised of £17,122 17*s.* 6*d.* from the Members' examinations, £1830 from the Fellows' examinations, and £441 from the Dental examinations. Thus the receipts from the Members' examinations were more than nine times as great as those from the Fellows' examinations. For a strict and fair comparison, however, between the receipts from the Members and the receipts from the Fellows, it would be necessary to deduct from the £17 000 received from the Members' examinations the sums paid by those who subsequently obtain the Fellowship, and to add this to the receipts from the Fellows' examinations. This adjustment would lessen the disproportion between the two sources of income, but would scarcely make the receipts from the Fellows amount to more than one fifth or one-sixth of the receipts from the Members of the College.

4. It may not be generally known that nearly all the fees derived from the candidates for the Fellowship examination are absorbed in expenses. On the first Fellowship examination there is a surplus, but the final Fellowship examination entails no inconsiderable loss to the College, the balance being barely redressed when the surplus from the first examination is set off against the deficit on the final. The result is that the receipts from the Fellowship examinations contribute little towards the maintenance of the College establishment. How much the Members contribute was most forcibly shown a few years ago by Mr. Erichsen in a well-remembered speech at the College, afterwards published as a pamphlet, composed, curiously enough, to prove that the Members ought to be excluded from a share in the government of the College. Mr. Erichsen said that "the fees paid by the Members sufficed, not only to pay the Board and Court of Examiners, to buy the diploma stamps, to defray at least two thirds of the working expenses of the College, mainly due to the requirements of the examinations, and nearly the whole of the cost of maintaining the museum and library, but to leave a balance of £6000, out of which pensions and various other collegiate expenses were paid. Out of each diploma fee of 20 guineas 6 or 7 guineas went into the coffers of the College."

The foregoing remarks concern the income of the College. We turn now to the expenditure. The most noteworthy points in regard to the expenditure are these:—

5. The whole of the income is absorbed by the expenditure There is no margin. Neither last year, 1890–91, nor for several years, has there been any fresh investment out of the income of the College. The expenditure, ordinary and extraordinary, has both diminished capital, and has more than swallowed up the interest on the Erasmus Wilson stocks.

6. The Examiners of the College received about one-third of the income for 1890–91. They divided between them as nearly as possible £9000. The percentage proportion of examiners' fees to receipts works out to about 42 in the case of the Members' examinations, and to about 82 in the case of the Fellows' examinations. For the benefit of the examiners there is a capitation fee on each candidate examined, whether accepted or rejected, so that a rejected candidate may involve a loss to the College, but not to the examiners.

7. The working expenses of the examinations exclusive of examiners may be reckoned as not less than 20 per cent. Hence there would be a balance of between 30 and 40 per cent. on Members' fees available for the general expenses of the College, but on the Fellows' fees little if any.

8. During the last few years three new sources of expense have been opened—the Examination Hall and the laboratories on the Embankment, and the enlargement of the College by the addition of new museums &c. In ten years more than £62 000 have been expended on bricks and mortar and buildings generally. In 1890–91 the proportion of expenses paid by the College for the Examination Hall was £4274 12*s.* 4*d.*, and the laboratories cost £1434; but as £761 were expended on furniture and fittings, the annual cost for the future may be reckoned as less than £1000. We have no means of estimating accurately the additional expenditure caused by the new buildings at the College itself, but the whole cost of maintaining the three new establishments may be put down in round numbers at £6000 annually.

9. If the receipts from examinations and trust funds are set aside, and regard paid only to the fixed income and necessary expenditure, there is a considerable annual deficit. The fixed income of the College from rents and stock amounted in 1890–91 to £6807 7*s.* 3*d.*, and the necessary expenditure—i.e., the expenditure for maintenance of the establishment—was about £9500. In other words, there was

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a deficit under the present administration of the College of nearly £2700. The deficit is likely to be greater this year, for there is a debt of £11,000 under existing contracts, and this must be met by a fresh sale of stock, which will still further diminish the fixed income. The receipts from house property have been recently reduced by more than one half—viz., from £1500 to £700—in consequence of the demolition of houses to admit of the enlargement of the College; but it is only fair to state that No. 44, Lincoln's-inn-fields had been purchased five years previously, and this brought £500 a year into the College coffers. It has now gone, however, with a great deal more of the capital, and at the present rate of expenditure the whole of the capital will disappear in a few years.

10. Of the £9000 devoted to the payment of examiners, about £5500 are distributed among the ten fortunate members of the Court of Examiners, and of this £5500 seven-tenths, or £3850, replenish the pockets of seven members.

The conclusions which we draw from the foregoing facts are these:—

1. £27,000 a year and upwards is a very large sum for a corporation to receive and expend, and for a Council of twenty-four persons only out of 16,000 to claim and exercise the right of expending it, as well as of disposing of the capital belonging to the corporation, without submitting their stewardship to the Fellows and Members who constitute the corporation for unfettered and open criticism is an anachronism at the end of the nineteenth century.

2. The enormous preponderance of the contributions of the Members of the College over those of the Fellows, and the fact that from Members' fees alone is derived money for defraying the working expenses of the institution, show the absolute injustice of excluding the Members from any share in the government and in the election of the Council. Let it be noted that the cost of maintenance of the Examination Hall and laboratories—new sources of expenditure—equals the new source of income, the dividends from the Erasmus Wilson stocks, so that without the Members' fees the College itself could not be maintained.

3. To have expended £73,000 on buildings in a few years without the sanction of the Fellows and Members is morally at least an abuse of power, whether the money has been rightly and judiciously expended or not. It is true that there is nothing in the Charters to prevent this, and the Council have acted strictly within the letter of the law. The Charters, however, on which the present constitution is based are from nearly a hundred to fifty years old, and from recent experience it appears that the Privy Council will not act in opposition to the governing body of a corporation in amending Charters, whatever may be the weight of evidence and argument adduced in favour of the desired amendments. And yet if a Charter had now to be granted for the first time, it would scarcely be framed in so illiberal a spirit. All the circumstances have changed. The College has grown into a rich corporation, and has attained an importance which it did not possess a hundred or even fifty years ago. If all the facts could be laid before Parliament and thoroughly investigated and mastered by the members, there can be little doubt that large concessions would be made to the Fellows and Members, and some check be imposed upon the autocracy of the Council.

4. The present expenditure at the College ought to be reduced so as to ensure a margin sufficient to admit of a substantial annual investment, for the purpose of bringing up the fixed income to a level with necessary expenditure. Instead of being paid out of capitation fees, fixed salaries should be given to the examiners, and these should be calculated after due allowance had been made for meeting the necessary expenditure and providing a surplus for investment. Whilst cordially endorsing the view that examiners should be well paid for their services, we think that the work could be well done for £300 a year, and there would be no lack of thoroughly competent candidates for the appointments.

SCOTTISH UNIVERSITIES' COMMISSION.

A FEW days ago Ordinance No. 16 (Edinburgh, No. 1 Regulations for Degrees in Medicine) was issued. Its permanent form is more satisfactory than its draft form was. Four degrees in medicine and surgery are to be conferred by the University—viz., Bachelor of Medicine (M.B.), Bachelor of Surgery (Ch.B.), Doctor of Medicine (M.D.), and Master of Surgery (Ch.M.). After dealing with the preliminary examination, the general lines of which are much the same as those at present in operation, it proceeds to regulate professional education. Of the five years devoted to professional study, during at least three of them hospital practice is compulsory, and during the fifth year candidates must be engaged in clinical study for nine months. Not less than nine months' attendance on clinical surgery and clinical medicine are made compulsory, as against six months, which is the present arrangement. Practical pharmacy, to which such prominence was given in the draft ordinance, and regarding which there was almost unanimous disapproval expressed, save by those specially interested in the teaching of the subject, has been reduced to its proper place, twenty-five meetings of a practical pharmacy class or three months' dispensing in a hospital or dispensary, or in an establishment recognised by the Pharmaceutical Society, being now all that is required. Candidates must have acted as clerk in the medical house and dresser in the surgical wards, and they must have availed themselves, to such an extent as may be required by the Senatus, with the approval of the University Court, of opportunities of studying at a hospital or dispensary, post-mortem examinations, fevers, diseases of children, ophthalmology, or such other special departments as may from time to time be determined. A course of instruction in mental diseases has also been made compulsory. An important modification of the present system has been made possible by its being made the duty of the professors and lecturers to submit to the Senatus annually a scheme specifying what proportion of the courses should be devoted to lectures, practical demonstrations, examinations, and tutorial work respectively, and the Senatus shall transmit such scheme, with such observations as it may think fit to make thereon, to the University Court for its approval. At present the statutory regulation is that 100 lectures must be delivered to constitute a winter course.

The professional examinations are to be four in number—viz (1) botany, zoology, physics, and chemistry; (2) anatomy, physiology, and materia medica and therapeutics; (3) pathology, and medical jurisprudence and public health; (4) surgery and clinical surgery, practice of medicine and clinical medicine, and midwifery. For the first group candidates may present themselves at the first examination held after they have attended a complete course. The second examination comes off at the end of the third winter session, the third at the end of the fourth winter session, and the final at the end of the fifth year of study. The result of the arrangement will probably be that students will devote too much of their energy during the fourth year to these subjects. For the degrees of Doctor of Medicine and Master in Surgery a special examination has been instituted in addition to the presentation of a thesis.

Ordinance No. 12 (General, No. 7, Regulations for Degrees in Science) was issued at the same time. As regards degrees in pure science, it is ordained that there shall be a first science examination in (1) mathematics or biology (i.e., zoology and botany); (2) natural philosophy; (3) chemistry; and a second examination in any three or more of the following:—Mathematics, natural philosophy, astronomy, chemistry, human anatomy (including anthropology), physiology, geology (including mineralogy), zoology (including comparative anatomy), botany (including vegetable physiology). Provision is also made for the establishment of degrees in applied science by the University Court in each University.

UNIVERSITY RIOTS IN ITALY.

A MORAL cyclone has agitated the groves of the Italian Academa. Beginning at the University of Naples, where a law professor inflicted personal chastisement on a contumacious student, the disturbance has involved the whole academic life of Italy, till not a single seat of learning from Turin to Palermo, from Padua to Cagliari, has escaped. So wide has the chasm between professors and students become that in the majority of the schools all work has been suspended, and the time that should have been devoted to tuition on the one hand and to classes on the other has been filled by indignation meetings of the insubordinate youths

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and deliberative councils of the offended professoriate. For two months this state of things has prevailed, and there seemed little prospect of its calming down. The students, on their side, complain of the severity of the regulations they have to observe, the unyielding spirit of the University authorities in the matter of attendance and of examination, the summary way in which they are "remitted to their studies," and the consequent loss of time they incur before graduation and the commencement of professional practice. The professors, with more justice, insist on obedience to the traditional University system; on the fatal results of relaxed discipline and the lowering of professional qualification; and, above all, on the necessity of initiating such reforms as may be called for in a rational and regular way. There can be no doubt that the professors are in the right, though some of them may have lost temper and furnished the students with a too welcome excuse for continued agitation. The Minister of Public Instruction (Signor Villari) has, under great provocation, acted with judgment, if not at first with much energy—deterred, no doubt, from taking severer measures by the well-known sympathy the students can always count upon from the Extreme Left of the Italian Chamber. And here lies the explanation of a good deal of the difficulty under which academic life in Italy labours. All Italian students are more or less politicians. The generation which contributed to the unity and independence of the kingdom still gives the tone to young Italy. Commemorations of patriotic deeds and of patriotic heroes recur at intervals so frequent that the country is never for more than a few weeks at a time allowed to forget the revolution under which it rose to freedom and power, and those periodical *feste* appeal with peculiar effect to the academic youth. Studies are suspended on such occasions for mental stimulus of a far less wholesome kind, and the desire to shine as a "patriotic orator" overrides the soberer ambition to excel in academic work. Brought into the closest contact with the "party of action" and its leaders, the students regard these as their special friends, whose applause they are more eager to win than that of their teachers and professors. It is significant in this connexion to read that the disturbances of the last few months have been started and kept up by a few ringleaders in each University—ringleaders whose demagogic abilities and achievements have won them the sympathy of politicians of the Extreme Left. These youths are confident of the support they will have in the Chamber of Deputies should their conduct come up for consideration before that body; hence the spirit of impunity they manifest, and hence the reluctance of the Minister to court a collision in Parliament. That reluctance, however, Signor Villari seems now to have overcome; while the summary example made of three of the students in the Roman University, though for the moment it has been followed by fresh acts of insubordination and violence, cannot but have a salutary effect. The better class of the academic youth are now venturing to assert themselves, and in some cases are coöperating with their professors in restoring order for the resumption of study. Attempts to "boycott" them (for such tactics have found their way into University life) are being successfully resisted, and ere long we hope to hear of a vigorous combination of the healthier and manlier constituents of the schools for the vindication of what are, after all, their higher interests. The weakness of Signor Villari's predecessors themselves, tainted with the demagogic spirit, is blamed for the growth of the insubordination now so unhappily prevalent—their too great indulgence of political extravagance among the students having borne its inevitable fruits. But, to judge from the Italian press of all party shades, except that of the Extreme Left, public opinion is seconding the enlightened Minister in supporting the University authorities; while the Government, now that it is appealed to, have but to show an unyielding front to put an end to disturbances which must throw back the higher education of Italy for years, unless vigorously and relentlessly put down.

SYDNEY HOSPITAL.—A radical mode of dealing with doubtful hospital buildings has been undertaken by the authorities of the Sydney Hospital. The wooden buildings at present in use are to be destroyed by fire, and the sum of £25,000 is to be devoted to improving and extending the hospital premises.

FOOT-AND-MOUTH DISEASE.

SODIUM DITHIOSALICYLATE (NOS. 1 AND 2 DITHION) AS A REMEDY.

THE increase in the epidemic of foot-and-mouth disease, and the enormous loss it entails either upon the farmer or upon the local rates, give very great interest to the observations of Dr. Renner, district veterinary surgeon, Dieburg, which have been published in a recent number of the *Berliner Thierarztlichen Wochenschrift*. He states that, during an extensive outbreak of foot-and-mouth disease in 1890 and 1891, he employed the two dithion preparations with great success. At first they were used externally only, those parts of the animals where pustules had formed and inflammatory processes set in—the mouths, udders, feet, and hoofs—being painted every three hours with a 2½ to 5 per cent. solution, washed and bandaged. He found that the pustules disappeared so rapidly that in two or three days a perfect cure was obtained. Cracking of the nipples or sealing of the udders was rare, the solution acting as an aseptic varnish to all wounded places. Malignant suppuration or loss of the hoofs—sequelæ which often necessitate slaughtering the animals—did not occur in animals treated in this way.

Professor Rosenbach of Breslau having reported favourably upon the internal employment of dithions, Dr. Renner repeated his experiments and found that ruminants were thus mostly protected against the disease, while those attacked rapidly recovered without serious injury. In these experiments from 1 to 2 oz. daily were given internally in the food, and 2½ to 5 per cent. solutions were applied externally. Details are given of the many occasions upon which this plan of treatment was followed, and Dr. Renner points out that, although the chief objection to this treatment is the cost of the remedies, this is really insignificant when compared with the enormous loss which is thus saved. A dithion compound has been now prepared at nearly one-fourth of the original price, and this has been used by Dr. Renner in two places with similar satisfactory results. To make certain of its efficacy numerous healthy animals were intentionally inoculated, and under this treatment they passed through the disease and recovered in about twelve days. Dr. Renner considers that he has proved that dithion, if used early, protects from the foot-and-mouth disease, that it diminishes its intensity when it has already broken out, and that it reduces the losses and restricts the attack to the affected herd. These conclusions have subsequently been supported by a farmer, who spoke enthusiastically of the benefits obtained from dissolving the preparation in the form of a powder in water, and using part of the solution to wash the mouths, hoofs, and udders of the sick animals, while the greater portion was mixed with the drink and was readily taken.

The present is an opportune moment for the publication of these observations, since, if they are confirmed, they will entail a great saving of animal life, and will thus largely rob the epidemic of its terrors.

THE MEDICAL DEFENCE UNION.

THE annual meeting of the Association was held on Wednesday, at 20, Hanover-square. There was a large attendance of members. The chair was occupied by the President, Mr. Lawson Tait. In submitting the report, Mr. Tait pointed out that no record of work done could be more satisfactory. Every conceivable kind of difficulty that could arise in the life of individual medical practitioners had been met, and a satisfactory issue arrived at. The society, existing as it did for purely fighting purposes, had never lost a case it had taken in hand. The report proved the absolute need of such an institution. Many men had been hardly used by reason of their inability to help themselves, and the report recorded a large number of successful cases which showed that the evils incidental to medical men had not been misrepresented either in degree or in kind. The cases which had occurred in Sunderland would illustrate that statement. The machinery existed whereby designing people could now be brought to justice, and other

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malicious persons put on their guard lest they should meet a similar fate. In many instances charges of a ruinous character had been settled by as many postage stamps as the charge itself involved. The items of the report showed that the expenditure had been extremely small, and the balance in hand was large enough to enable the society to fight a reasonably large suit without calling upon their guarantee fund. Any serious expenditure of money would be involved only when cases of fresh difficulty occurred. The moral weight of a large body of members of the profession united together with an honest, legitimate, and determined purpose would have more effect than any amount of litigation. The report and the treasurer's accounts were adopted unanimously. Under the new Articles of Association an executive council of twelve members was nominated and appointed. The President considered that the more narrowly the work was confined to the protection of the individual practitioner the more successful the Union would be. There already existed power enough for political agitation, and it would be impossible for those who had taken any energetic part in the work of the Association to agree to anything by which its success would be weakened. The actual state of the law made it necessary to act on the lines of a limited company. Any departure from these lines might, in any given case, render the Society liable to be surcharged with costs of both sides. They had to move with the greatest care, and it was for these reasons that the reconstruction of the machinery had become necessary, and had been accomplished. The twelve elected members were to constitute a nucleus. Continuity of action would be secured by electing three members yearly. The members did not want any cataclysmic upsetting of the Union, and if they were at any time dissatisfied with the conduct of the Council a vote of censure would, according to the usual method, secure the immediate resignation of all its members.

Dr. Bridgewater nominated Dr. Masters, Dr. Campbell Pope. Dr. Felce, Dr. Danford Thomas, Dr. Bantock, Dr. Bateman, Mr. Lawson Tait, Mr. Justin McCarthy, Dr. Barling, Mr. Messiter, Dr. Hallwright, and Dr. Leslie Phillips. This Council was unanimously appointed.

THE LATE SIR PROVO WALLIS, G.C.B.

THE great age (100 years and ten months) attained by this distinguished naval officer, together with his world-wide reputation as the hero of the *Shannon-Chesapeake* sea-fight, may give some interest to the following notes of his health from December, 1890, to the time of his death, with which we have been supplied through the kindness of Mr. L. E. W. Stephens, his medical attendant.

On Dec. 6th, 1890, in the afternoon, I was called for the first time to Sir Provo Wallis. I found him in bed clothed in an ordinary longcloth nightshirt, a linen nightcap, linen sheets to the bed, and no fire in the room. He complained chiefly of discomfort with waterbrash after meals, for which lactopeptine powders were prescribed with great benefit. He was unable to lie straight in bed, but was lying on his right side with his knees semi-flexed, elbows flexed, and forearms folded across the chest. Movement of the legs fairly good, movement of arms limited, so that he could only just raise himself on his elbows. There was no paralysis, only wasting of muscles from disuse. Over each great trochanter was an oval bedsore 2½ by 2 in., in process of healing. Micturition was frequent, painful, and uncertain. Hands and feet cold. Pulse 70, with occasional intermission, the left pulse being much weaker than the right. Temperature 97°. Mental condition and memory very good. No teeth; tongue clear; eyesight good; slightly deaf. Heart and lungs normal. Urine occasionally ammoniacal, with deposit of muco-pus. Bowels costive, so that about every fourth day great effort was required in defecation. Much troubled with pruritus. To relieve these troubles a fire was ordered in the bedroom to raise the temperature gradually from 38° or 40° to between 50° and 60°. The patient was placed on a water-bed filled with warm water, and by degrees was clothed in flannel and placed between blankets, all of which met with sturdy opposition from the patient. Catheterisation, when suggested, was firmly declined. By careful dressing the bedsores soon healed, and the skin remained sound for months. With copious draughts of lithia water the cystitis cleared up. During February and March, 1891, visits were made on alternate days. In April, May, and June a weekly visit sufficed.

In November the same helpless condition existed, and a distaste for food gradually came on, with secretion of very tenacious mucus from the pharynx during deglutition. The efforts required to expel this mucus caused great distress and exhaustion. In December occurred a blocking of the rectum with hard, smooth, round scybala difficult of removal. The bowel was cleared out every fourth day. Towards the end of December the patient would frequently take no food from 7.30 one morning until the following day at the same hour. This meal consisted of a pint of cocoa and milk, with rusks soaked in it. The cicatrices of the bedsores broke down into a number of small round wounds. Lastly, gangrene set in on Feb. 9th, terminating painlessly and fatally on Feb. 13th.

THE BRITISH INSTITUTE OF PUBLIC HEALTH.

THIS is an Association of medical men possessing registrable qualifications in State medicine, public health, or sanitary science, medical officers of health, and others. The Council of the Public Health Medical Society have been successful in obtaining incorporation by special licence of the Board of Trade under the above title, with the object of aiding theoretical and practical investigations and study of all branches of public health medicine. They will also hold meetings, congresses, institute lectures, and demonstrations; they propose to issue publications of the Transactions of the Association, to found a library, and to publish a journal. Among other objects which the Association has in view is the examination of candidates, either alone or in conjunction with one or more kindred bodies, and the granting of certificates of proficiency as sanitary inspectors. The members of the Institute consist of fellows, ordinary members, and associates, and it is provided that the first fellows of the Institute shall consist of the present members of the Public Health Medical Society, or such of them as elect to become such; all subsequent fellowships being conferred by the Council upon such persons as possess a registrable qualification in sanitary science, public health, or State medicine, in accordance with the Medical Act, 1886, Section 21. The Council are taking immediate steps to found branches in each division of the kingdom.

The articles and memorandum of association were signed by Dr. Littlejohn (Edinburgh), Dr. Grimshaw (Registrar-General for Ireland), Dr. Meymott Tidy, Dr. Mumby (Portsmouth), Sir Charles Cameron, Sir Douglas Maclagan, Dr. W. R. Smith, and Dr. Francis Allan.

CONCERNING THE PROPOSED GRESHAM UNIVERSITY.

THE following statement has been forwarded to every member of Parliament:—

SIR,—The Medical Schools of London, which include some 300 teachers and 2000 students, have united with University College, London, and King's College, London, in efforts to obtain the Charter for the Gresham University, now on the table of the House. They venture to ask for your support in Parliament because they believe that this University will be of the greatest advantage to students and teachers in London, in that it will tend to develop in every way the exceptional means of instruction afforded by the metropolis. This remark applies especially to Medicine, in which the opportunities of study must, from obvious causes, be greater than in any other city.

It is the desire of the supporters of the Charter, including all the medical schools, to have in London a local university which shall give its students all those academical advantages in learning and graduation which already exist in the Universities of Oxford, Cambridge, Edinburgh, Aberdeen, and Glasgow.

It has been objected in a statement circulated by the Victoria University that Gresham degrees may be given too easily, especially in respect of the standard of scientific attainment. On the part of the London Medical Schools—and we know it to be equally true of the other faculties—we can assert that nothing of the kind is contemplated. We are not less aware than the authorities of other medical schools of the importance in medical education of a good groundwork in arts and science. The education given by us is, we believe, as thorough as any

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in Europe, and the degree will represent that education, together with examinations, which will not seek to attract students by their inferiority. The whole body of the medical teachers of London, containing as it does a large proportion of the most distinguished physicians, surgeons, and teachers of science in the United Kingdom, may surely be accorded the trust given to the teachers in universities elsewhere.

Some of the details of the statement of the Victoria University are inaccurate, and on other points as to the intentions of the proposed University—mere assumptions are put forward.

It is not true that Medicine is paramount upon the Governing Body of the University, or that it has a larger representation than is required by the numerical strength of the Faculty and the variety of circumstances in the Teaching Institutions. The Council will consist of at least forty members, of whom not more than fourteen will certainly be, and not more than sixteen are likely to be, representatives of Medicine. Of the interests of science the constitution of the University supplies a special guarantee in the organisation of the teachers by Faculties, not by Institutions, as in the Victoria University.

The statement circulated by the Schools of Medicine in Birmingham, Bristol, and Sheffield repeats the arguments, and closely follows the lines of that put forward by the Victoria University. Any attempt on the part of these schools to obtain for themselves the advantage of association in a Teaching University will have our sympathy, but it would be a great injustice that in the meantime London should be refused this privilege.

The Charter of the Gresham University grants what we have for many years endeavoured to obtain, and, in the interests of medical education in London, we earnestly hope that the University may be established on this basis.

We are, Sir, your faithful servants,

STANLEY BOYD,*
For the Charing-cross Hospital Medical School, a College (designate) in the University.

FREDERICK TAYLOR,
For the Guy's Hospital Medical School, a College (designate) in the University.

JOHN CURNOW,
For the Faculty of Medicine of King's College, London, a College (designate) in the University.

JEREMIAH McCARTHY,
For the London Hospital Medical School, a College (designate) in the University.

SIDNEY COUPLAND,
For the Middlesex Hospital Medical School, a College (designate, in the University.

NORMAN MOORE,
For the St. Bartholomew's Hospital and College Medical School, a College (designate) in the University.

THOMAS WHIPHAM,
For the St. George's Hospital Medical School, a College (designate) in the University.

HERBERT PAGE,
For the St. Mary's Hospital Medical School, a College (designate) in the University.

E. NETTLESHIP,
For the St. Thomas's Hospital Medical School, a College (designate) in the University.

MARCUS BECK,
For the Faculty of Medicine of University College, London, a College (designate) in the University.

E. GARRETT ANDERSON,
For the London School of Medicine for Women, a College (designate) in the University.

* Hon. Sec. to the Committee of the Delegates of the Metropolitan Medical Schools.

Feb. 17th, 1892.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 5137 births and 4125 deaths were registered during the week ending Feb. 20th. The annual rate of mortality in these towns, which had declined in the preceding four weeks from 35·4 to 23·1 per 1000, further fell last week to 21·1. In London the rate was 20·7 per 1000, while it averaged 21·4 in the thirty-two provincial towns. The lowest rates in these towns last week were 13·0 in Derby, 15·5 in Bradford, 15·7 in Sunderland, and 16·9 in Wolverhampton; the highest rates were 26·4 in Oldham, 26·5 in Burnley, 27·7 in Blackburn, and 28·2 in Preston. The 4125 deaths included 383, which were referred to the principal zymotic diseases, against numbers declining from 604 to 386 in the preceding five weeks; of these, 177 resulted from whooping-cough, 86 from measles, 48 from diarrhœa, 29 from diphtheria, 23 from scarlet fever, 18 from "fever" (principally enteric), and two from small-pox. No fatal case of any of these diseases was registered either in Plymouth or in Hull; in the other towns the lowest zymotic death-rates were recorded in Brighton, Croydon, and Derby, and the highest in Liverpool, Burnley, Cardiff, and Blackburn. The greatest mortality from measles occurred in Liverpool, Swansea, Norwich, and Sunderland; from scarlet fever in Cardiff; from whooping-cough in London, West Ham, Manchester, Barnley, Sheffield, and Bristol; from "fever" in Blackburn; and from diarrhœa in Nottingham, Preston, and Blackburn. The 29 deaths from diphtheria included 15 in London, 3 in West Ham, 2 in Manchester, and 2 in Sheffield. One fatal case of small-pox was recorded in Liverpool and one in Oldham, but not one in any other of the 33 large towns; 7 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and 1 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of last week was 1116, against numbers declining from 1397 to 1244 at the end of the preceding four weeks; 82 new cases were admitted during the week, against 100 and 117 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 1465 to 560 in the preceding four weeks, further fell last week to 459, and were 46 below the corrected average. The causes of 96, or 2·3 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Portsmouth, Oldham, Sunderland, and in four other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Bolton, Salford, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the preceding four weeks from 27·2 to 20·8 per 1000, further fell to 20·1 during the week ending Feb. 20th, and was 1·1 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 16·8 in Paisley and 17·1 in Edinburgh to 21·5 in Glasgow and 23·1 in Greenock. The 559 deaths in these towns included 15 which were referred to whooping-cough, 13 to diarrhœa, 10 to "fever," 9 to measles, 8 to diphtheria, 7 to scarlet fever, and not one to small-pox. In all, 62 deaths resulted from these principal zymotic diseases, against 55 and 46 in the preceding two weeks. These 62 deaths were equal to an annual rate of 2·2 per 1000, which was slightly above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had increased from 16 to 22 in the preceding three weeks, declined last week to 15, of which 10 occurred in Glasgow and 2 in Paisley. The 13 deaths from diarrhœa showed a further increase upon recent weekly numbers, and included 6 in Glasgow. The fatal cases of "fever," which had been 8 and 3 in the previous two weeks, rose again last week to 10, of which 6 occurred in Glasgow. Of the 9 deaths referred to measles, 5 were recorded in Glasgow and 4 in Edinburgh; and of the 8 fatal cases of diphtheria, 3 occurred in Glasgow and 2 in Aberdeen. The 7 deaths from scarlet fever showed a further increase upon recent weekly numbers, and included 5 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had declined in the preceding four weeks from 230 to 146, rose again last week to 154, and exceeded by 14 the number in the corresponding week of last year. The causes of 56, or 10 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the four preceding weeks from 54·1 to 31·8 per 1000, rose again to 37·4 during the week ending Feb. 20th. During the first seven weeks of the current quarter the death-rate in the city averaged 39·6 per 1000, against 33·7 in London and 20·3 in Edinburgh. The 251 deaths in Dublin during the week under notice showed an increase of 38 upon the number in the preceding week, and included 4 which were referred to diarrhœa, 3 to measles, 3 to whooping-cough, 2 to scarlet fever, 1 to enteric fever, and not one either to small-pox or diphtheria. In all, 13 deaths resulted from these principal zymotic diseases, equal to an annual rate of 1·9 per 1000, the zymotic rate for the same period being 2·4 in London and 2·2 in Edinburgh. The fatal cases of whooping-cough, which had been 2 and 3 in the preceding two weeks, were again 3 last week. The 3 deaths referred to measles exceeded the number in any recent week, and the 2 fatal cases of scarlet fever were the first recorded within the city since October last. The 251 deaths in Dublin last week included 39 of infants under one year of age, and 78 of persons aged

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upwards of sixty years; the deaths both of infants and of elderly persons showed an increase upon the numbers recorded in recent weeks. Three inquest cases and 4 deaths from violence were registered; and 102, or 40 per cent., of the deaths occurred in public institutions. The causes of 30, or 12 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

HER MAJESTY'S ARMY AND INDIAN MEDICAL SERVICES.

THE following are the questions set to candidates for the Military Medical Services at the recent examinations:—

Natural Sciences.—Zoology: 1. Refer to its sub-kingdom and class an animal with the following characters, and give examples:—Body with transverse segmentation; a ganglionated ventral chord; head, thorax, and abdomen distinctly separated; respiration by trachea. 2. What are the essential characters by which the *coelenterata* are distinguished as a separate group of the animal kingdom? Give one or more examples of a coelenterate animal. 3. Give (qualitatively) the composition of cellulose, and adduce from the animal kingdom some instance to show that cellulose is not as formerly supposed, exclusively confined to plants.—Botany: 4. Mention any instance known to you in the life-history of a plant which illustrates the law of Alternation of Generations. 5. What are the principal substances which may be deposited in the walls of the vegetable cell so as to give it rigidity and increase its power of resisting organic decomposition? Cite some instances of plants in which cells so constituted occur. 6. Refer to its natural order a plant with the following characters, and give one or more examples:—Leaves alternate without stipules; calyx formed of two sepals which are caducous; corolla with four petals; stamens numerous, inserted on the receptacle; fruit a single-celled capsule with parietal placentæ; seeds numerous, with oily albumen.—Physics: 7. Explain the formation of dew. 8. State the evidence on which we affirm the former existence of glaciers in places where they are no longer to be found. 9. What is meant by the "Torricellian vacuum?" On what physical properties does the existence of this vacuum depend?

Anatomy and Physiology.—1. Describe the inferior maxillary bone, giving an account of the muscles, ligaments, and other parts of importance connected with it. 2. Describe the origin, course, distribution, and functions of the musculo-spiral nerve. 3. Describe the structure, anatomical relations, and functions of the large intestine. 4. Describe the origin, distribution, and communications of the portal vein; give an account also of the character and composition of the blood contained in it, and the office it performs in the animal economy. 5. Describe the structure, anatomical relations, and connexions of the peritoneum.

Medicine.—1. A case submitted for analysis and commentary. 2. Write what you know regarding the composition, mode of origin, the effects, the symptoms, and treatment of gall-stones and bile concretions. 3. Name the common intestinal worms found in man. State what you know as to how each of the parasites you name gets access to the body of man; the symptoms of the presence of each; and the treatment, curative and prophylactic, of each of them. 4. Write what you know regarding the differential diagnosis of facial-nerve paralysis. (Bell's Paralysis.) 5. Name the official preparations in the British Pharmacopœia which contain arsenious acid. State the amount of arsenic in each; and the doses of each. Describe the action of arsenic; and the symptoms which follow its use in extreme doses.

Chemistry.—1. Organic food substances may be divided into two classes—the nitrogenous and the non-nitrogenous. Give some examples of each of these classes. 2. What is the result of heating ammonium chloride with quicklime? Write down the equation which expresses the reactions in this process. 3. Write down in their order the formulæ of the series forming the marsh gas series, beginning with that of marsh gas and carrying it as far as five terms. Give in a formula the quantity by which each term of the series differs from its predecessor.

Surgery.—1. Describe the relative symptoms by which dislocation of the head of the femur, on the dorsum of the ilium, may be diagnosed from dislocation into the sciatic notch. Also describe the measures requisite to reduce each dislocation. 2. By what symptoms may an impacted fracture of the neck of the femur be diagnosed from either of the above-named dislocations? What treatment is best in such an injury? 3. What are the most common causes of inflammation of veins? Describe the effects of such inflammation when implicating one of the lower limbs; and the treatment to be pursued under its various stages. 4. Given a case of stone in the bladder. State under what conditions and circumstances would the operation of crushing—the lateral operation—or the supra pubic operation be preferable. 5. A man has a hard chancre of three or four weeks' duration. What treatment should be adopted in such a case? What are the probable results as regards secondary or tertiary, complications? And, provided the patient is unmarried, what advice should be given as regards matrimony? 6. Describe the preliminary symptoms and subsequent progress of a case of senile gangrene. To what arterial changes is this form of gangrene generally due? And what is the best treatment to be adopted in the progress of such a case?

Brigade-Surgeon-Lieutenant-Colonel F. Howard has been appointed Principal Medical Officer, Belfast District.

ARMY MEDICAL STAFF.—Surgeon-Lieutenant-Colonel R. Drury has assumed charge of the Curragh Station Hospital; Surgeon-Captain W. E Hardy has been posted to the Station Hospital, Colchester; Surgeon-Captain M. O'Halloran has been transferred from Dover to Shorncliffe; Surgeon-Captain H. M. Sloggett has been posted to the Station Hospital, Gosport; Brigade-Surgeon-Lieutenant-Colonel C. A. Atkins has temporarily assumed the duties of Principal Medical Officer of the Western District, vice Surgeon-Colonel J. B. Hamilton, on leave; Brigade Surgeon-Lieutenant-Colonel Robert Collins, M B, is placed on retired pay (dated Feb. 14th, 1892)

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Staff Surgeons: Edward Ferguson to the *Iron Duke*, and James O'B Williams, M.D., to the *Assistance*, temporarily (both dated Feb. 25th, 1892). Surgeons: Matthew J. O'Regan, M B., to the *Leander*, and Vidal G. Thorpe to the *Peacock* (both dated Feb. 25th, 1892); Edmund Corcoran to Bermuda Hospital, and James M. Rogers to Portsmouth Yard (both dated Feb. 22nd. 1892); Henry B. Beatty to the *Impregnable* (dated March 13th, 1892). Surgeon and Agent: Joseph E. Finegan, at Carlingford, Omeath, Greenore, and Giles Quay (dated Feb. 20th, 1892).

VOLUNTEER CORPS.—*Artillery:* 2nd East Riding of Yorkshire (Western Division, Royal Artillery): Albert Wilson, Gent., to be Surgeon-Lieutenant (dated Feb. 20th, 1892) —*Rifle:* Galloway: Norman James McKie, M.B., to be Surgeon-Lieutenant (dated Feb. 20th, 1892).—1st Volunteer Battalion, the East Lancashire Regiment: Surgeon-Major W. G. Court to be Surgeon-Lieutenant-Colonel (dated Feb 20th, 1892).—3rd Volunteer Battalion, the East Surrey Regiment: Surgeon-Captain W. A. F. Bateman to be Surgeon-Major (dated Feb. 20th, 1892).—1st Nottinghamshire (Robin Hood): Surgeon-Lieutenant L. W. Marshall, M.D., resigns his commission (dated Feb. 20th, 1892).

Correspondence.

"Audi alteram partem."

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS: STEELE *v.* SAVORY.

To the Editors of THE LANCET.

SIRS,—It will be in the recollection of the readers of THE LANCET that in February, 1889, the Association of Members of the Royal College of Surgeons, acting under legal advice and through their committee, issued notices convening a meeting to be held at the College of Surgeons for the purpose of considering the situation of the Members of the College, and approving a draft Bill to be submitted to Parliament, providing for the reform of the constitution of the College. Upon the appearance of these notices the College authorities at once informed the secretaries of the Association that this meeting would not be permitted, and threatened them with the infliction of the penalties under By-law xvii. of the College. The Council furthermore intimated its intention to enforce penalties against each one of the body of Members who might attend such meeting. Nevertheless, the Members assembled, and, finding the doors of the College barred against them, at once adjourned to the Holborn Restaurant, and, acting under the advice of counsel, instructed their secretaries to take Chancery proceedings (Steele *v.* Savory) against the President and Council for the purpose of preventing an immediate enforcement of this oppressive by-law, and testing the validity of the same as to its legality or otherwise, and also for the purpose of asserting the ancient rights of the Members. The action was a "representative" one—that is to say, the secretaries and two other gentlemen who afterwards joined with them became plaintiffs on behalf of the Members of the College generally. The committee being advised by counsel that the action had every prospect of success, and acting at all times on the advice of their solicitor and counsel, the case proceeded. The result of the action is now widely known.[1] By the judgment of Mr. Justice Romer, By-law xvii., and indeed all other by-laws, were declared to be legal so long as they were made in accordance with the terms of the various charters under which the Council of the College claim authority to act. The suit therefore failed, and was dismissed with costs against the plaintiffs. Therefore a special committee has since been formed for the purpose of considering the position of the Association of Members and obtaining the means of meeting the liabilities incurred by the secretaries and members of the committee who were made parties to the suit.

The question of an appeal against the judgment of Mr. Justice Romer was proposed and carefully considered, and

1 See THE LANCET, Jan. 30th, 1892.

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after weighing counsel's opinion the committee determined that no further legal action should be taken. The eminent counsel consulted pointed out that "the valicity of the power of expulsion does not prevent the by-law complained of being questioned in so far as it purports to impose restrictions upon meetings and discussions, and that the voluminous evidence collected by the plaintiffs shows the existence, in early times at all events, of the rights of the commonalty to be summoned to meet from time to time, and, when so met, of freely discussing all matters concerning the common craft." Counsel further expressed the opinion "that the evidence, however, tends to grow less distinct as time goes on, and that it is questionable whether these rights, though never in terms taken away, had not suffered largely from general encroachments by the governing body and fallen by lapse of time into disuse."

It is now the duty of the special committee to point out that the expenses of the action at law must be promptly met, so that the four nominal plaintiffs—Messrs. Warwick C. Steele, Wm. Ashton Ellis, Jabez Hogg, and W. G. Dickinson—may be speedily relieved from the responsible position in which the adverse judgment of Mr. Justice Romer places them. The committee, on behalf of the whole body of Members, fully realise and share the plaintiffs' responsibility, and, moreover, consider also that they have a strong moral claim upon the Members of the College generally, and they look with perfect confidence for a willing and substantial response to this appeal.

The exact amount of the costs has not yet been ascertained, but if the President and Council of the College press for their costs, then the committee have reason to believe that the whole will not be less than £2000. Be this as it may, the Members of the College will, we feel assured, not allow the plaintiffs to suffer, but by generous assistance testify to their courage and self-abnegation displayed in the important contest in which they have been engaged on their behalf.—Signed, on behalf of the Special Committee, GEO. DANFORD THOMAS,

Feb. 22nd, 1892. Chairman and Treasurer.

Subscriptions may either be sent direct to Dr. G. Danford Thomas, Park Lodge, Paddington, W., or to the National Bank, Bayswater Branch, W. (Steele *v.* Savory Fund).

DR. ROOSA'S TREATISE ON DISEASES OF THE EAR.

To the Editors of THE LANCET.

SIRS,—I crave permission to make a few remarks on your able review in THE LANCET of Feb. 20th on Dr. St. John Roosa's equally excellent book on "Diseases of the Ear." Your reviewer, no less than the author, has done good service in calling attention to "conclusions which are fearlessly stated," and which, when I read them, appeared to me almost as an echo of opinions which you permitted me to express in THE LANCET of July 6th, 1889, and April 11th, 1891. If the echoes of your reviewer are re-echoed by your journal from time to time until they reverberate sufficiently to reach the ears of the medical profession, and through their influence the ears of the public, you will, as you have been on former occasions, be the means of exposing and checking abuses that are harmful alike to the profession and the public. On the subject of electricity (*vide* review) the author in this edition omits certain paragraphs upon the value of electricity as a diagnostic agent, "which he now frankly confesses have not sufficient basis to be of practical utility." Now (*vide* THE LANCET, April 11th, 1891), "perhaps because tinnitus, due to degeneration and some other causes, is of a constant character, the kind of electricity which finds favour amongst its advocates is the constant current; but whether this or the interrupted is employed, it is generally the personally conducted and continuous as long as possible." Whether for diagnostic or curative purposes, the results are practically the same; so there is no advantage on dwelling upon the different reasons which prompt its employment.

Again (*vide* review): "He also gives us a plain opinion on the value of operations upon the tympanic membrane and ossicles in non-suppurative affections of the middle ear, and plainly hints at their experimental nature and generally disappointing results." Now, on incision of the tympanic membrane, with division of the tensor tympani (*vide* THE LANCET, July 6th, 1889): "Its history includes a flight of the imagination, a brief notoriety, and a burial in oblivion so rapid as falls to the lot of few achievements in surgery." Again (*vide* review): "Dr. Roosa speaks in condemnation of operations upon the nose in cases of deafness, and he shares in the opinion of some others that those who now enthusiastically adopt and advise these operations will in time relinquish them." Now (*vide* THE LANCET, April 11th, 1891), on removal of the middle turbinated bone: "As a surgical procedure this operation is outside the pale of serious discussion, and I mention it only as an example of a bubble remedy, that the very mention of it may possibly hasten its inevitable bursting."

I have not as yet had the opportunity of seeing this edition of Dr. Roosa's book, though I am familiar with previous editions, but I hope that he may have echoed what I have said on the subjects of so-called artificial ear-drums and the injections of pilocarpine. On the former (*vide* THE LANCET, April 11th, 1891): "Now practically any form of artificial membrane that is advocated presupposes that all perforations which require protection and pressure can have them usefully applied by one form, the fact being that each perforation requires management, to be acquired only by experience, after careful examination, and when any support of the kind is wanted it must be regulated by the patient, his sensations being the guide in regard to pressure." On the subject of injections of pilocarpine, which were some time ago revived in this country, I say nothing. Professor Politzer, who made the original experiments in 1879, disposed effectually of them in THE LANCET of Jan. 3rd, when he spoke of "practitioners who subject their patients to a long and wearisome course of treatment with pilocarpine," and added: "I feel it my duty to say that they are not too conscientious in the discharge of their calling" You will, Sirs, I feel sure, forgive me for occupying so much space in repeating, and so accentuating, these various points, when you reflect, as I hope you will be able to do ere long, that your journal has been mainly instrumental in putting limits at least, if not a full stop, to the employment of some useless remedies.

I am, Sirs, your obedient servant,

Savile-row, W., Feb. 22nd, 1892. W. B. DALBY.

LARYNGEAL AFFECTIONS AFTER INFLUENZA.

To the Editors of THE LANCET.

SIRS,—During an attack of influenza all the effects of catarrhal inflammation may be observed. Most of these effects are so frequently seen as to be familiar to all. There are, however, complications and sequelæ which are less common. Some patients have been attacked with œdema, coming on in some cases suddenly, in others insidiously. Hæmorrhages from the larynx have been more common and generally very slight. During convalescence ecchymoses and purpuric spots have been observed. Venous congestion, a rare affection in this locality, has been noticed. But the most interesting consequences are neuroses. The paralyses which may be seen in catarrhal laryngitis of course form the larger proportion of these neuroses; but this note is intended to draw attention to the sequelæ rather than the complications of influenza. Paralysis commencing in the throat after convalescence and extending to other regions has so precisely simulated that which follows diphtheria as to suggest a doubt as to the nature of the original attack. But other paralyses, more localised, have also come on after the patients had returned to their avocations. The most commonly affected muscles have been the crico-thyroidei laterales, the thyro-arytænoidei externi et interni, and the arytænoideus. Thus we get more or less paralysis of adduction, either single or double, with corresponding loss of voice. Almost as frequently the action of the thyro-arytænoidei interni and the crico-arytænoidei and crico-thyroidei is impaired or abolished; and as the last named is affected by the superior laryngeal nerve, neuroses of sensation as well as motility result. Anæsthesia and hyperæsthesia of the larynx have also been observed, but the extensive range of normal sensibility in different persons renders it difficult to demonstrate minor degrees of such deviations. Neuralgia is rare, and I have only met with one case following an attack of the present epidemic. I may mention among sequelæ setting in very late choreic movements and spasmodic affections, as well as the stammering of the vocal cords described by me in THE LANCET of Nov. 15th, 1879. These cases are rare. It would appear that these cases of late sequelæ are indications that the effects of influenza remain for a considerable period, and the proportion of

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neuroses shows how profoundly the disease affects the nervous system.—I am, Sirs, yours truly,

PROSSER JAMES, M.D.

Deanery-street, Park-lane, Feb. 22nd, 1892.

FEES FOR NOTIFICATION.

To the Editors of THE LANCET.

SIRS,—Having had lately several inquiries as to the result of the appeal in the case of Chisholm *v.* Radcliffe Local board, in which I successfully contended that medical men are by law bound to receive the fee of two shillings and sixpence intact for each notification under the Infectious Diseases Notification Act, 1890, and as others besides my correspondents may desire the same information, I am glad to be able to inform all whom it may concern that the fees, with costs, were paid in full and no appeal attempted. Consequently, according to Judge Jones's decision, unless the local authorities arrange otherwise, and thus save double postage, medical men can send the notices in unstamped envelopes, and the medical officer is bound to receive them. Should the local authority attempt to deduct the postage from the bill, as they are ill advised by the Local Government Board to do, they can be sued at court for the full fee; but, if the notices be foolishly prepaid, the stamps cannot be sued for, unless, as I have just said, the authority agreed beforehand to pay. Should the medical officer of health, or such officer as the notice be addressed to, refuse to receive the letter, as was done in my case, it is returned to the sender, who should receive it and pay whatever postage is charged, as it will be evidence, should the case come to trial, that he has done the work for which he claims his fee, and in this instance the out-of-pocket stamp value for the returned notice. I am advised that, should any person be so inclined, any local authority refusing to accept delivery of a notice under the Infectious Diseases Notification Act, 1890, whether prepaid or not, is liable to an action at law for ignoring the notice, and thus endangering the health and lives of the community. It is evident, therefore, that for the present, and until the Act is altered, they are on the horns of a dilemma, and medical men are idiotic who put their hands into their own pockets for stamps, to save the rates, when by law they are exempted.—I am, Sirs, yours truly,

KENNETH MACKENZIE CHISHOLM, M.D.

Radcliffe, near Manchester, Feb. 22nd, 1892.

THE DOVER SANITARY AUTHORITY AND INFLUENZA.

To the Editors of THE LANCET.

SIRS,—In your review of a pamphlet issued by Dr. Sisley I see you refer to the action of the Dover Town Council in a way calculated to convey an erroneous impression as to the notice issued by the above-named authority. Allow me to say that this notice was not an empty threat, but was framed and circulated as an educational instrument with two specific objects in view—viz., first, to declare the fact, now pretty clearly established, that influenza is a dangerous infectious disease; and, secondly, to remind people that the Public Health Act of 1875 provides a method for dealing with persons who, whilst suffering from a dangerous infectious disease, wilfully expose themselves in public places &c. If no proceedings have hitherto followed the notice in question it is not because the Dover Sanitary Authority has been indulging in a farce, but because no clear case has arisen in which a prosecution could be instituted. Suffice it to add that we believe the notice has not only been of great service, but has answered the purpose for which it was issued, and, further, that the course taken has been so far appreciated that it has been followed by many other sanitary authorities.—I am, Sirs, yours faithfully,

M. K. ROBINSON, M.D.,

Dover, Feb. 22nd, 1892. Medical Officer of Health for East Kent.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The General Hospital.

A SPECIAL MEETING of the governors of this institution was held on the 22nd inst., for the purpose of considering certain alterations in the laws affecting the honorary medical and surgical staff. Hitherto the terms governing these appointments have heretofore precluded the holding of any office at other hospitals, except those on the consulting staff. It is proposed to do away with this restriction, so that the holders of appointments at the General Hospital may be eligible for other hospitals, and also that any officer on the staff of other hospitals may be attached to the General Hospital when a vacancy occurs. The removal of this barrier is in keeping with modern ideas, and also places the hospitals of the city on the same level with regard to professional appointments being held simultaneously. The alteration is rendered the more desirable since the staff of the workhouse infirmary can be selected from a wider field, and choice made of candidates engaged in duties of a similar kind at the largest hospitals. The other important alteration is that of the honorary medical and surgical staff each member shall be elected for fifteen years, and shall only once be eligible for re-election for a further term of ten years, but he shall not be eligible for re-election if, being a medical officer, he is sixty-five years of age, or a surgical officer, he is sixty years of age, and he shall vacate office on attaining that age. None of the officers, honorary or assistant, shall hold any other office which interferes with the efficient discharge of his duties at the hospital. These, with some minor details, commend themselves on the ground of progress and justice, and no doubt will be ratified at the subsequent meeting to be held shortly.

The Llandudno Convalescent Home.

This home is to be opened on May 7th, so the Hospital Saturday delegates were informed at a social meeting held on the 23rd inst. It was stated also that a magazine was about to be started in support of the Hospital Saturday movement. The premises at Tyn-y-Coed were about to be furnished, some stock had been taken over, and the prospects were bright for the future working of the estate. The promoters of this valuable movement may be congratulated upon the near approach of success to their efforts.

The General Dispensary.

Alderman Clayton presided at the annual meeting held on the 24th inst. The report stated that the income for the year had been £7839 17*s*, while a balance of £356 11*s*. 5*d*. had been carried forward. The total number of patients admitted during the year by tickets had been 29,534, an increase of 3504 over the previous year. The average cost of patients was 3*s*. 6¾*d*., as against 3*s*. 11¾d. Teeth and accident cases had also been 3935. The amount of £1151 2*s*. 2*d*. was acknowledged from the Hospital Saturday Fund. There had been an overdraft of £71 9*s*. 8*d*. on the relief fund, which was a matter of regret, as it crippled the medical officer's work. After some discussion about the tickets, the usual votes of thanks were passed.

Feb. 25th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Influenza and the Death-rate.

CASES of influenza have become less frequent of late, and the death-rate has fallen to a ratio nearer the normal one. Still one hears of professional and lay friends being down with the disease, which has been prevalent here as elsewhere, and the fatalities of the winter from it, its accompaniments, and from other causes incidental to severe weather, have been grievously numerous. The gaps which have been made in the ranks of old citizens exceed those made by any previous winter.

Presentation to a Local Coroner.

Allusion was made in a previous letter to the fact that Mr. Henry Churton, the medical coroner for the Chester district of the county of Cheshire, and for the borough of Birkenhead, had completed his fiftieth year of office as coroner. Mr. Churton was appointed in 1841, when Birkenhead, Crewe, and other important centres with large populations were villages. He was then twenty-eight; hence he has now attained his seventy-eighth year, and still possesses excellent health. He had lately the misfortune to suffer a severe bereavement in the death of his wife. Advantage was recently taken by some residents at Birkenhead to present him with a silver bowl as a token of the esteem in which he was held in that town. In return-

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ing thanks, Mr. Churton said that, though he had been urged by some friends to retire, he hoped to be able to perform his duties for some time to come.

The Hospitals and their Friends

The annual meetings of all the hospitals have been held now. Special appeals on behalf of the Stanley and of the Royal Southern Hospitals had recently to be made, and the response was very generous. It can hardly be said that four general hospitals are too many for such a city as Liverpool, nor that they are out of proportion to those in other cities and towns, taking the aggregate number of beds. The difficulty here has always been that in so modern a city as this the oldest charities have not the liberal endowments of more ancient cities, and are almost entirely dependent upon annual subscribers, the Hospital Sunday and Saturday Funds, donations and legacies, which latter have to be expended, instead of being invested as could be wished. Citizens who have subscribed for many years are removed by death, and their places are not filled by new subscribers in equal proportion. Meanwhile the work done by the hospitals continues to be as heavy as, even more so than, previously.

Feb. 24th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Fleming Memorial Children's Hospital.

THE annual meeting of the Newcastle Children's Hospital has been held. This fine and very commodious building was erected by the late Mr. Fleming, solicitor, of this city, as a memorial of his wife. The number of in-patients treated has been 431, being an increase of 200 over the previous year; while the number of operations performed has risen from 53 to 137. As regards the financial position of the hospital, it was not so satisfactory. The increased work had caused a loss on the year's working of about £600. It was explained that, unless more public support was given to the institution, some of the beds would have to be closed; but, from the signs of fresh efforts and donations promised, I think this is unlikely to occur. If the working men of the north were roused, they could keep up this (and any other medical charity here), which has been established principally for their benefit.

Newcastle Health Society.

The second lecture of the course promoted by the Newcastle Health Society has been delivered on the Eye by Mr. G. E. Williamson, F.R.C.S., honorary surgeon to, and surgeon of, the eye department, Newcastle Royal Infirmary. The lecture was well received and fully illustrated, as also the lecture which followed by Dr. Drummond, physician to the Royal Infirmary, on the Brain. All these lectures have been very well attended.

Our Handwriting and "Ourselves as others see us."

A writer in one of our daily papers, on the question of handwriting, says that "doctors are very clever men, but they are subject to fads, and they are very fond of writing about things they do not understand." He asks: "Now, what do doctors know about handwriting? Can any living being except a chemist decipher their scrawls?" He further says that sloped writing is natural, as may be seen if anyone will sit down and try to make straight strokes they will slope to the right, and if made with the left hand they will be found to slope in the contrary direction, which he thinks proves that sloped writing is natural.

Alnwick: High Death-rate.

At the last meeting of the Alnwick Board of Health the medical officer, Dr. Easton, presented his report, which showed that during the month of January the number of deaths rose to 33, and that this was principally caused by diseases of the respiratory organs. This excessive death-rate was equal to an annual mortality of 50·18 per 1000 of the population. At ordinary times the death-rate of the town is not at all high.

Darlington Hospital.

The annual report of the Darlington Hospital, presented at the meeting last week, shows that 109 patients had been admitted last year. There were twelve deaths, a percentage of 6·41. The operations numbered sixty-one. The work of the out-patients' department showed a considerable increase, in great part attributable to influenza; 4047 out-patients' tickets were brought to the dispensary, and 1120 patients were attended at their own homes. The number of visits paid was 9118. The financial statement was satisfactory, leaving a balance of £211 with the treasurer.

Weardale and Teesdale.

The Weardale Lead Company write to the sanitary authority stating that they have put up in their mine shops the authority's notice with respect to the overcrowding of mine shops, remote places where workmen miles from home sleep during the week. The company also intimate that they have asked their men to avoid further complaint. The authority, however, take the position that responsibility for continuance of the cause of complaint will still rest with the company. The Teesdale medical officer, in his annual report to the sanitary authority, says that the great falling off in the dale population is entirely owing to the low wages and want of employment, obliging young men to seek employment in other places.

Carlisle.

The annual meeting of the Cumberland Infirmary at Carlisle has been held, the report showing that 750 in-patients had been received during the year. The death-rate for the year has been very high, standing at 7·3 per cent. The financial statement was satisfactory, showing a small increase of subscriptions received over those of the previous year. £386 had been collected by the Ladies' Association, and £624 from Hospital Sunday Fund and collections in churches, being a little over the ten years' average. There had been a small reduction in the cost of maintenance of patients. The committee recommend that the sum of £1000 received under the will of Miss Thomason Nelson of Moor-row should be applied to the current account, subject to the sanction of the governors. The annual meeting of the subscribers of the Carlisle Dispensary has also been held. The medical report showed that 3477 cases had been treated at the dispensary during the year; of that number, 1972 were home patients and 1505 out-patients. The mortality showed that of these 96, or 2·7 per cent., died of the complaints treated. Bronchitis stood highest, with an array of 550 cases. During the year an epidemic of measles broke out; 224 cases were entered, and 6 proved fatal. Influenza, after a year's absence, reappeared in May, but was of a mild type; in December it again appeared, 96 cases being registered in that month. It was remarked that 3477 was the largest number remembered as being on the books of the institution in a year.

Stockton: Opening of New Baths.

At Stockton the new baths erected by the corporation were opened by the Mayor last week. The establishment is most complete, comprising slipper, swimming, and Russian vapour baths. The swimming bath is said to be one of the finest in the kingdom, and is provided with forty dressing boxes. This bath is seventy-six feet long by twenty-seven feet wide. The whole cost of the baths has been over £7000. The corporation is to be congratulated on its public spirit and advanced position in sanitation.

Newcastle-on-Tyne, Feb. 24th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh University Court.

AT a meeting of the University Court last week Dr. John Wyllie, Edinburgh, was appointed Additional Examiner in Clinical Medicine for one year from Jan. 1st last. Recognition was also granted to the Public Health Laboratory of the University of Aberdeen as one in which practical instruction is given in the methods of investigating subjects pertaining to public health, which should qualify for graduation in science in the Department of Public Health in the University of Edinburgh; and to Professor Matthew Hay, M.D., Aberdeen, as teacher of public laboratory work in the laboratory.

The Question of Unsound Meat in Edinburgh.

There have from time to time been expressions of dissatisfaction from the butchers as to reports on the seizure of unsound meat in Edinburgh, and the recent case of anthrax appears to have made them still more

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anxious to have steps taken to put the trade above suspicion. A deputation from the Master Butchers' Association has had an interview with a subcommittee of the Public Health Committee of the Town Council, after which the matter was discussed at length by the whole committee. The proposal involved the establishment of a clearing-house, into which all dead meat should be sent in order to be inspected and certified before being exposed for sale. This suggestion, if carried into effect, and the work of inspection committed to skilled persons, would be as satisfactory a guarantee as could be provided, and would do much to lessen the feeling of uncertainty and insecurity which lingers in the public mind.

The Health of Edinburgh.

The mortality last week was 81, making the death-rate 16 per 1000. Diseases of the chest accounted for at least 40 deaths, and zymotic diseases for 9, of which 4 were due to measles. The intimations for the week comprised: typhus fever 1, typhoid fever 1, diphtheria 9, scarlatina 12, and measles 78.

Scottish Microscopical Society.

At the meeting of this society last week, Mr. Gustav Mann made an interesting and elaborate communication on the Phenomena of Fertilisation in the Embryo Sac of Flowering Plants, which he illustrated by means of diagrams and numerous microscopical sections. Dr. Joseph Coats of Glasgow read a paper on the Pathology of Sudamina, which he illustrated by means of a microscopical demonstration. After reviewing the present position of our knowledge on the subject and the various views held, he contended that the sudamina were the result of blocking of the sweat glands, and the condition was accompanied with leucocyte migration, and was an irritative or inflammatory one. Mr. George Brook, lecturer on embryology in the University, made a communication on some recent researches on "direct" or Amitotic Nuclear Division, which, however, he was unable to finish owing to the time occupied by the other papers.

The Edinburgh Association for the Reform of Medical Education.

This Association has prepared and presented a second statement to the Universities Commissioners on Draft Ordinance No. 10 (General) The statement refers to the duties and emoluments of professors, lecturers, and assistants.

Feb. 23rd.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Royal University of Ireland.

AT a meeting of the Senate last week several Fellows were appointed, some reappointed, and examiners selected for the ensuing year. Drs. Ambrose Birmingham and W. Thornley Stoker were appointed Medical Fellows.

British Medical Association: Dublin Branch.

The fifteenth annual meeting was held last week in the Royal College of Physicians, presided over by Dr. Walter G. Smith. The members dined in the College in the evening. The President for next year will be Dr. Arthur Foot, senior physician to the Meath Hospital.

Poor-law Officers.

A deputation from the various Irish associations interested in the matter waited on the Vice-President of the Local Government Board with reference to the question of superannuation, and urged the necessity of having the Union Officers' Superannuation Bill of 1884 passed into law. Mr. Morris promised that their views should be laid before the Government, and that he would do all in his power to redress the grievances of Irish Poor-law officers.

Proposed Hospital for Consumption.

A meeting was held last week at the Royal College of Physicians for the purpose of establishing a hospital for phthisical patients in the neighbourhood of Dublin. Dr. Finny, President of the College, occupied the chair, and stated that his Excellency the Lord-Lieutenant had promised to contribute £500 provided that the sum of £10,000—which the committee considered necessary before starting the institution—was subscribed within six months, while the Countess of Zetland had collected a sum of £1500. The object of the committee, he said, was that the hospital should be non-sectarian, that it should be a place where the poor might find for themselves a home where they would have pure air. The Registrar-General believed that the institution was necessary, because the disease was infective and could not be treated in ordinary hospitals. Considered as a single disease, it was the most potent cause of death in Ireland, more than one-tenth of the deaths registered in Ireland between 1871 and 1880 being due to it. The building would cost probably £2000, and about £5000 a year for maintenance.

Dublin Main Drainage.

Mr. Cotton, chief engineering inspector of the Local Government Board, held an inquiry last week, in the City Hall, in reference to the application made by the Corporation of Dublin to obtain the sanction of the Board for obtaining loans amounting to £278,000 for the purpose of carrying out the proposed main drainage scheme for the city. The Lord Mayor, who was examined, stated that the scheme, which had been unanimously adopted by the Corporation, consisted of an intercepting sewer from Kingsbridge on the north side to Marlborough-street, and to a place on Burgh Quay. There was also a sewer provided for Kilmainham, and another for Island Bridge, joining the sewer at Kingsbridge; while a syphon under the Liffey joins the north and south systems. Ultimately the sewage is discharged into the outfall, running along parallel to the Pembroke and Rathmines main outfall sewer, round the Pigeon House Fort to the White Bank, where the precipitation tanks are. At the White Bank the sewage would be stored in tanks, and chemically treated. The solid sludge would fall to the bottom, leaving the clarified effluent, which would be precipitated into the river in a harmless condition. The solid matter would be pumped into a steam barge, and then carried out to sea. The sewers will be constructed of Portland cement concrete, with an internal ring of four inches and a half of brickwork laid in Dublin cement. Mr. Chatterton of London is the sanitary engineer, and there is no reason to doubt that the proposed scheme will be sanctioned by the Local Government Board. The cost of repayment will be about 8*d.* in the pound on the valuation.

The late Mr. N. C. Whyte, M.R.C.S.

The late coroner for Dublin, Mr. Whyte, died without leaving any means for his widow and daughter, and a fund has been started for the support of the widow, her daughter having died within the last few days. Although Mr. Whyte drew a salary of £500 yearly, yet he was a man of great benevolence, and subscribed largely to various charitable objects, and, his health being delicate, he was unable to insure his life.

Coroner for South Kilkenny.

There were four candidates for the vacant coronership, three of whom were medical practitioners. The voting was as follows:—Dr. Walsh, 877; Dr. Stephenson, 830; Mr. J. J. Shee, 508; and Dr. F. E. Cane, 314.

Cork Union: Election of a Medical Officer.

By the death of Dr. Crowley a vacancy for a dispensary medical officer had arisen, and this week a meeting of the dispensary committee took place to elect a successor. There were six candidates, three of whom withdrew, and finally Dr. O'Mahony was elected by a majority of votes.

The Lord-Lieutenant has appointed Patrick W. Maxwell, M.D., to be Surgeon Aurist in Ordinary to his household.

Surgeon-General Samuel B. Roe, C.B., of Ballyconnel House, has been appointed sheriff for the county of Cavan.

Feb. 23rd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Novel Treatment of Neurasthenia.

HYPODERMIC THERAPEUTICS continue to grow in favour. This applies not only to the chemical substances of the Pharmacopœia, the hypodermic administration of which has in recent years so much extended and is now firmly established, but bids fair to take a new departure on the lines advocated by Brown-Séquard. In this latter connexion M. Constantin Paul, at a recent meeting of the Academy of Medicine, related his observations of a certain number of cases which he had treated by injections of a preparation of nervous substances into the subcutaneous cellular tissues.

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The patients over whom his observations of this novel therapeutic method extended numbered eleven, which he classified as three of chlorotic neurasthenia, three of classic neurasthenia, one case of permanently slow pulse, and four ataxics. The liquid used was a solution of 1 in 10 of cerebral grey matter taken from the sheep, sterilised by carbonic acid in Arsonval's apparatus. This solution was injected in the gluteal region, the dose being 5 cc. It was well borne, producing no reaction, either local or general. Occasionally a slight lymphatic engorgement was noticed, which disappeared in four or five days; but in the two hundred injections to which the eleven patients were subjected in no case was there abscess or other local inflammation. The first sensation experienced by the patients was one of comfort and returning strength, the previous muscular weakness diminishing sensibly. The vertebral pains and spinal hyperæsthesia, and, in the case of the tabetics, the lightning pains, disappeared gradually. Appetite for food also came back, and those of the patients who were previously dyspeptic now assimilated their food so well that they began to increase in weight. In the ataxics sexual power returned with the general amelioration. M. Paul concludes from these considerations that in injections of grey cerebral matter we have a nervine tonic of no mean order. He compares a neurasthenic with an accumulator which it is impossible to charge; while the condition lasts he is unable to transform his food into force. After the least effort his muscular and intellectual forces are exhausted. But the injection of nervous matter in the manner indicated promotes the utilisation of food and its due assimilation; so that the nervous system now becomes a condenser, which, if charged, the subject acquires force which he can dispose of at will. It is to be noted that it is the nervous force which first returns in all these cases. Following this, and as a consequence, the power to do intellectual and muscular labour comes back; the improvement in the condition of the blood follows later on. In conclusion, M. Paul expresses his conviction that this new therapeutic departure will be found to ameliorate the neurasthenic condition much more rapidly than the methods of our ordinary materia medica—an opinion which strikes one as being rather sanguine.

Rickets a Parasitic Disease.

To the list of ills to which our humanity is the inevitable but unwilling heir owning a microbic origin must, according to Mercoli, now be added rickets. This observer has already, he submits, in a series of anterior researches, traced sciatica, chorea, and hydrocephalus to their microbic sources. Continuing his investigations in the cases of children dead of hydrocephalus and rickets, he confirmed his previous conclusions, and has, moreover, he affirms, succeeded, after examining and submitting to bacteriological methods the costal nodes peculiar to rickets, in obtaining pure cultures of a specific microbe. In adults, according to this observer, the micro-organism of rickets produces merely local symptoms; but, in the case of young children unaccustomed to the presence of these microbes, the affection is at first general, finally localising itself where functional and formative activity is most intense—viz., in the osseous and nervous systems.

The Function of the Supra-renal Bodies.

According to MM. Langlois and Abelons, who, at a recent meeting of the Biological Society, brought forward the results of their further researches on the function of these physiologically little known organs, the destruction of one supra-renal body does not entail death, while the removal of both invariably does, accompanied by all the phenomena described by Brown-Séquard, paralysis of the respiratory muscles, &c. This paralysis they found to affect the terminal nerve plates in the muscles. At the moment of death, and a little before, the sciatic and phrenic are absolutely inexcitable, although the muscles supplied by these nerves in part respond to stimulation. The blood of guinea-pigs on which the observations were made caused, when injected under the skin of the frog, phenomena analogous to curarisation, and MM. Langlois and Abelons incline to the belief that a chief function of the supra-renal capsules is to destroy or neutralise some such poisonous substance engendered by the organism.

French Congress of Surgery.

The Surgical Congress of 1892 will be opened in Paris at the Faculty of Medicine on Monday, April 18th, under the presidency of Professor Demons of Bordeaux. The first sitting will be held at 9 A.M., and is to be devoted to the discussion of general questions, but the formal inauguration of the Congress will take place at 2 P.M. The following questions have been placed on the agenda for discussion: (1) The pathology and treatment of surgical gangrene; (2) the pathology of infectious complications in the surgery of the urinary organs; and (3) surgical operations on the biliary passages, with their immediate and remote results. The morning session will be devoted to general discussion or visits to the surgical wards of the hospitals. Those desirous of taking part in the Congress are requested to forward the title and conclusions of their intended communications to M. Félix Alcan, publisher to the Congress, 108, Boulevard St. Germain, of whom also any inquiries may be made.

Paris, Feb. 24th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Professor Koch.

AT Professor Koch's invitation several representatives of the Government, Surgeon-General von Coler (head of the medical department in the Prussian War Office), many other well-known medical men, and a large number of members of the Prussian House of Deputies, visited the new Institute for Infectious Diseases yesterday. They met in the lecture-hall of the Institute, where Professor Koch delivered an interesting lecture on the aims and labours of the establishment. He alluded especially to the recent researches carried on in the Institute with regard to protective inoculation and the cure of the most dangerous infectious diseases. The lecture was followed by a demonstration of the most important bacteria by means of the large electric projection microscope. Dr. Koch then led his guests through the hospital and the laboratories of the scientific department. The *Post* states that Dr. Koch intended to leave Berlin yesterday evening for Sicily, to spend four weeks there.

A Bacteriological Discovery.

The well-known Japanese bacteriologist, Kitasato, who works in the scientific department of Koch's Institute for Infectious Diseases, has made an important discovery, which he records in the *Zeitschrift für Hygiene*. He has discovered by attempts at cultures from sputa that the great majority of the tubercle bacilli found in sputum are dead, a fact which cannot be proved microscopically, because dead bacilli stain just as rapidly and as intensely as living ones, from which also they do not differ in form. The same is true of preparations made from the contents of vomicæ. This discovery is of considerable importance from its bearing on the diagnostic value of preparations from sputum, and on the question of the transmissibility of pulmonary tuberculosis from one person to another.

Personal Items.

Professor Adolf Kussmaul, one of the most distinguished clinical teachers in Germany, celebrated his seventieth birthday yesterday. He resigned his Strasburg professorship in 1889, and retired to Heidelberg.

The Halle Academy of German Naturalists has conferred the Cothenius Medal on the Anatomist Professor Retzius of Stockholm. This medal was founded in memory of Christian Andreas Cothenius, physician-in-ordinary to Frederick the Great, and Prussian Surgeon-General during the Seven Years' War, who died in 1789.

Dr. Kopp, Professor of Chemistry in the University of Heidelberg, died on the 20th inst.

Dr. Moritz Altmann, a district medical officer, whose name became honourably known more than forty years ago, owing to his zealous activity when famine fever was raging in Upper Silesia in 1848, died the other day.

Influenza.

The number of deaths in Berlin from influenza from the beginning of this winter's epidemic down to the 6th inst. was 544.

It is reported from various parts of Saxony that many dogs have been attacked of late by influenza. The symptoms are complete loss of appetite, aversion to water, inclination to bite, and water in the eyes. The disease is epidemic, and death is not infrequent.

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London Vigilance Society.

The secretary of the London Vigilance Society was here the other day to deliver to the Emperor William the address, the sending of which was resolved upon at a meeting held under the presidency of the Lord Mayor. The Foreign Secretary, Baron Marschall, who received the address in His Majesty's name, expressed the sympathy with which the latter regards the humane efforts of the Society, and alluded in grateful terms to its action on behalf of German girls living in London.

Berlin, Feb. 23rd.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Trial of a Medical Student for Alleged Poisoning.

PROFESSIONAL circles of this city have been much interested in the trial of a medical student for the alleged poisoning of his wife. He had clandestinely married, and at the time of his wife's death he was a medical student in one of the colleges of this city, and she was a pupil in one of the most fashionable schools for women. Her sickness was due to an operation which he performed to procure abortion, but her death was attributed to morphine administered by him. He prescribed four grains of quinine and one-sixth of a grain of morphine in capsules, and the theory of the prosecution was that in one capsule he placed a fatal dose of morphine. Suspicion of crime was not excited until several weeks after death, when the body, fifty-three days after burial, was exhumed and an examination made. Morphine was traced, but no evidence of quinine. Experts of the highest rank appeared on both sides. The theory of the defence was that the dead woman either did not die of morphine poisoning, or, if she did, that she was unusually susceptible to its effects owing to diseased kidneys, and one-sixth of a grain proved fatal. The points of scientific interest were: (1) As to the possibility of determining the condition of the kidneys fifty-three days after death; and (2) as to the reliability of the tests for quinine. The first was decided in the negative by an experienced pathologist. As to the second, the prosecution had relied upon the following tests for quinine by Professor Wittans—viz., absence of fluorescence, the bromine experiment, and the absence of bitter taste. Professor Wormley, for the defence, contended that fluorescence is no certain test when it is applied to the chloride of the substance; the failure to obtain a green colour with bromine is not conclusive; and finally, experiments by Koerne show that quinine may be modified in form when it passes through the body, and its bitter taste be lost. The verdict was "Murder in the first degree." The expert testimony was so conflicting as to be entirely ignored.

Increase of Slum Population in Cities.

The United States Commission of the Labour Bureau publishes some interesting facts relating to the increase of population in the congested wards of several cities. In New York the increase in the overcrowded districts was in twenty years 9·38 per cent., while the increase for the whole city was 60·81 per cent. In Philadelphia there has been a loss in the compact wards in twenty years of 6·56 per cent., while other portions of the city show an increase of 68·91 per cent., and the total gain for the whole city was 55·33 per cent. In Boston for ten years the slum population increased 1·04 per cent., while the other parts of the city increased 31·96 per cent. The report shows that the crowded population of our cities is on the whole slowly declining.

Sanitary Inspections at Havana, Cuba.

For several years the United States has maintained a sanitary inspector in the consular office at Havana. During the past year he examined 636 vessels bound to the United States; of these, the sanitary condition of 343 was reported as good, 193 fair, 100 fair only, suspicious, or bad. All the vessels which had yellow fever on board in the harbour lay at the wharves and mostly on the Havana side, thus demonstrating, the inspector says, that the infection is about the wharves and not in the waters of the harbour. The inspector grants health certificates to applicants in accordance with the rules of our quarantines. The certificate sets forth that the recipient is acclimatised to yellow fever either by a previous attack of the disease or by a continuous residence for ten years or more in towns and cities habitually subject to it in an epidemic form, or where it prevails endemically, and by having passed through at least one severe epidemic; the certificate also states that the person is protected from small-pox, and is free from leprosy. To 4569 persons these certificates were granted and to 455 they were refused. The value of these certificates is shown by the fact that not less than 20,000 such certificates have been issued by the inspector, and in no instance has the recipient been subsequently afflicted by either disease. The effect of these sanitary inspections and examinations of vessels, crews, passengers, and baggage, in keeping out contagious fevers, leprosy, and other diseases from the United States, is very great. The influence of the examinations in furthering maritime sanitation and in preventing contagious diseases from invading a vessel is quietly felt all through the harbour of Havana. Captains and owners of vessels bound to the United States keep and put their vessels in better sanitary condition, keep bilges sweeter and cleaner, make efforts to prevent contagious diseases from invading the vessel, and, if once aboard, to get rid of the influence. It is interesting to notice that the inspector has frequent occasion to refuse certificates to persons suffering from leprosy. He states that there are not far from 200 cases in Havana, and it requires constant vigilance on his part to prevent them from emigrating to the States.

New York, Feb. 5th.

Obituary.

THOMAS SYMPSON, F.R.C.S.,

OF LINCOLN.

BY the unexpected death of Mr. Thomas Sympson the city of Lincoln loses one of its best known and most highly esteemed practitioners. His father, Mr. Thomas C. Sympson, also a medical man, was for many years in practice in the same city. Mr. Thomas Sympson, who was born in the year 1825, was an apprentice to his father, and afterwards entered as a student at St. Bartholomew's Hospital, where he gained several prizes. In 1847 he became a member of the Royal College of Surgeons, and was appointed house surgeon to the Lincoln County Hospital, which post he resigned in 1852, and commenced practice in the city of Lincoln. In 1854 he was elected surgeon to the Lincoln County Hospital, and at the time of his death was senior surgeon. He also held the appointments of honorary surgeon to the Lincoln General Dispensary and the Lincoln Asylum, and was at one time surgeon to the city gaol. He became a Fellow of the Royal College of Surgeons in 1872, after examination. Mr. Sympson represented the Midland Branch of the British Medical Association for many years on the Council of the Association, and had held the office of President of the branch. He was also a Vice-President of the Ophthalmological Society. He took great interest in the Lincolnshire Medical Benevolent Society, and was one of the trustees. His knowledge of medical literature was very extensive, and he was well acquainted with the collateral sciences. Known throughout the county as a skilful surgeon and as a successful practitioner, his loss will be severely felt by his brother practitioners, with whom he was ever on good terms; they highly esteemed him as a straightforward, honourable man, and frequently availed themselves of his advice. His loss will also be much regretted by a large circle of friends to whom he was endeared by his many amiable qualities. A day or two before his death he exhibited symptoms of angina pectoris, which proved fatal on the 10th inst. By those who remember the genial presence of Mr. Sympson, the kindness of heart which ruled his conduct towards all, and his devotion to surgery, as exhibited more especially in his untiring work at the Lincoln County Hospital, his memory will never be forgotten, nor will the high standard set by him prove without its value as an encouragement in the struggle of life.

MR. COOKE'S SCHOOL OF ANATOMY, PHYSIOLOGY, &C.—The London University has recently recognised Mr. Thomas Cooke's School of Anatomy and Physiology as a teaching institution. This will enable students who have attended the courses there to enter for the degrees given by that body up to the Intermediate M.B. Examination.

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Medical News.

BRITISH MEDICAL SERVICE.—The following candidates for commissions in the Medical Staff of Her Majesty's Army were successful at the recent examination in London:—

		Marks.
Eq.	Hinge, H. A.	3160
	McDermott, T.	3160
	Bray, H. A.	3140
	Hodgens, C. O'C.	3095
	Slayter, E. W.	3070
	Erskine, W. D.	3020
	Tyrrell, A. F.	2945
Eq.	McNaught, J. G.	2940
	Smyth, W. J.	2940
	Chambers, J. G.	2910
Eq.	Austin, R. F. E.	2900
	Moore, G. A.	2900
	Condon, E. H.	2870
	Jones, T. P.	2830
Eq.	Marder, N.	2810
	Thurston, H. S.	2810
	Lewis, R. C.	2795
	More, L. P.	2790
	Faichnie, F.	2760
	Walker, G. S.	2730
	O'Reilly, W. H.	2710
	Mansfield, G. S.	2705
	Ryall, W. P.	2695
	Thompson, A. G.	2670
	Read, H. W. K.	2665

INDIAN MEDICAL SERVICE.—The following is a list of candidates for this service who were successful at the recent competitive examination:—

	Marks.
Haig, P. B.	3425
Robson-Scott, C. G.	3395
Melville, H. G.	3370
Maddox, R. H.	3310
Earle, H. M.	3290
Fullerton, T. W. A.	3260
Hugo, E. V.	3250
Hubbard, A. O.	3245
Smith, H. A.	3235
Swinton, F. E.	3230
Green, D. R.	3195
Smith, G. Mac I. C.	3155
Eq. Burnett, S. H.	3145
Eq. Jackson, T.	3145
Hulbert, J. G.	3140
Macrae, J. L.	3065
Gabbett, P. C.	3060

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the respective subjects:—

Surgery.—R. Freer, St. Mary's Hospital; A. W. Fyffe, Middlesex Hospital and Belfast; W. C. Hinde, Middlesex Hospital; J. H. Hobling, St. Mary's Hospital; H. F. Ransome, Owens College, Manchester; F. K. Rider, Yorkshire College, Leeds; J. W. Smith, London and Manchester; P. M. Toms, Middlesex Hospital.

Medicine, Forensic Medicine, and Midwifery.—G. H. Baird, St. Mary's Hospital and Dublin; W. T. B. Donelly, Guy's Hospital; W. Overend, St. Bartholomew's Hospital; D. L. Thomas, London Hospital.

Medicine and Midwifery.—G. M. Arkle, Liverpool Royal Infirmary; V. J. R. Robin, King's College; G. P. Smith, Guy's Hospital; A. S. Ware, St. Thomas's Hospital.

Forensic Medicine.—P. J. Naden, Queen's College, Birmingham.

Midwifery.—G. R. S. Breeze, Royal Free Hospital; J. R. Daly, King's College.

To Messrs. Arkle, Baird, Daly, Hinde, Overend, and Miss Breeze was granted the diploma of the Society, entitling them to practise Medicine, Surgery, and Midwifery.

MELBOURNE ROYAL COMMISSION. — The Royal Commission now sitting at Melbourne to inquire into the condition of, and the means of improving, the charitable institutions of that city, have had the benefit of listening to the evidence of Dr. Gresswell, who has detailed the advantages to the community of a system of isolation in infectious diseases. He recommends the building of fever hospitals in the Bay. The chief difficulty in Melbourne, as elsewhere, lies in the constitution of the administrative bodies upon whom the efficacy of any sanitary measures largely depends. Dr. Gresswell advises the appointment of a hospital board composed of delegates from the various municipalities interested in the work of the institution.

CANCER HOSPITAL (FREE), BROMPTON, S.W.—The forty-first annual meeting of the governors of this charity was held in the board room of the hospital on the 24th inst., Sir George S. Measom, J.P., chairman. This hospital was founded in 1851 for providing free admission to poor persons suffering from cancer on their own application, and it is satisfactory to notice that the relief afforded increases year by year. The report of the committee showed that during the past year 1788 new patients were received, 682 being in- and 1106 out-patients, whilst the total number of attendances of out-patients was 7498, these figures being in excess of any previous year since the hospital was founded. An earnest appeal is made by the committee for increased support, to enable them to carry on the important work of alleviating, and, as far as possible, arresting, the growth of this terrible disease. The Samaritan Fund for assisting discharged patients had proved very useful, some being sent to convalescent homes, and others receiving pecuniary aid. The medical staff give a course of lectures during the first three months of the year, which are open to all medical practitioners and students. The report and balance sheet were adopted, and the usual votes of thanks accorded.

SOUTH DEVON AND EAST CORNWALL HOSPITAL.—His Royal Highness the Duke of Edinburgh presided at the annual meeting held at the institution on the 18th inst. The attendance was unusually large. The report stated that during the year 1891, 1256 patients, including readmissions, had been received into the wards. In the out-patients' department 2076 persons were treated. The long-required additional sleeping accommodation for the nurses had been accomplished, and ten more rooms provided. The total outlay of the additions and other improvements amounted to £869.

THE EXTENSION OF CARDIFF INFIRMARY.—The committee identified with the movement for collecting funds for the extension of the infirmary held a meeting last week at the Hôtel Métropole, Cardiff. Mr. Coleman (secretary to the infirmary) explained the urgent need of additional accommodation. The infirmary was scarcely half large enough to meet the requirements of the town. If £6000 could be collected it would cover the cost of the proposed extension. It was resolved that the time had arrived to extend the accommodation of the infirmary; that a public meeting be held early at the town hall, and that a provisional committee be formed for promoting the object in view.

CHARING-CROSS HOSPITAL.—The annual general Court of Governors was held last week. The report for the past year referred to the offer of Mr. J. Passmore Edwards, who had asked to be allowed to build and furnish, solely at his own expense, a convalescent home, with accommodation for fifty beds. Mr. Edwards had already sent a cheque for £5000, and would provide the remainder of the estimated cost of the home when the foundation stone was laid. The Council, continued the report, were most grateful to Mr. Edwards for his munificent gift, and for expressing the hope that his donation would in no way prevent the flow of the subscriptions. The sum now reached was £6600, being the £5000 from Mr. Edwards and £1600 from other sources. The number of in-patients treated during the year exceeded that of any previous twelve months, and the out-patients numbered 23,539.

FRENCH HOSPITAL AND DISPENSARY.—The twenty-fourth annual dinner on behalf of this institution took place at the Hôtel Métropole, Whitehall Rooms, on Saturday evening last, M. Waddington, the French Ambassador, in the chair, supported by the Lord Mayor and members of the diplomatic body in London. According to the report, which was read by the honorary secretary (M. Ruffer), 731 in-patients and 19,274 out-patients received medical relief during the past year, a number largely in excess of previous years. The consequence of this has necessarily been a corresponding increase in the expenses of maintenance, and a deficit remains, represented by the difference between £3213 and £4039. His Excellency made an urgent appeal to the supporters of the institution to come forward and, by a further measure of assistance, to enable the authorities of the hospital to maintain it in its present condition of efficiency. The usual toasts were proposed and responded to after a touching allusion by his Excellency to the painful circumstances attending the death of the Duke of Clarence, and subscriptions were announced amounting to upwards of £2500.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—According to the statements made recently at the annual general meeting of the Royal South London Ophthalmic Hospital, to be called in future the Royal Eye Hospital, South London will, in the course of the next few months, be in possession of a hospital which, both as regards construction and sanitary arrangements, will vie with the best. The hospital is situated in St. George's Circus, and has been carrying on its work for many years at two shops. A fine building has, however, been erected at a cost of £26,000, and presents some noteworthy features. Among these may be mentioned that the entrance to the hospital is under a covered footway, which obviates the necessity of patients waiting in the rain; another is that a blind patient goes from entrance to consulting room and back again without meeting a single edge or projection of any kind; whilst other noticeable features are, a fine asphalted promenade on the roof, and fire arrangements remarkable alike for safety and completeness. These latter consist of a lift which, extending from roof to basement and having no shaft, cannot be affected by fire or smoke. It is reached by a projecting platform outside each floor.

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GIFT OF AN ISOLATION HOSPITAL.—The long-felt want of an isolation hospital for the township of Birstall, which adjoins that of Batley, has been provided by the spontaneous offer of Mr. William Robinson, of the Raikes Tower Brewery, and a member of the local board, to give the Volunteer Inn, in Upper Batley Lane, Howden Clough, to be adapted for an infectious hospital. It is in close proximity to the present Batley isolation hospital. The board appreciated and accepted Mr. Robinson's offer.

CITY OF LONDON LYING-IN HOSPITAL.—This excellent charity publishes a special appeal—the only one for twenty years. It shows that 1974 poor women were attended in 1891. The expenditure of the hospital has exceeded its income by over £500. It is alleged that 118 in- and 522 out-patients belonged to the poor of Islington, that they were attended at a cost of over £600, while only £31 was received from that parish in subscriptions and donations. This is an illustration of the fact that most medical charity comes from other districts.

THE SMALL-POX AT BATLEY.—On the occasion of the annual dinner of the Heavy Woollen District Fire Brigade Association, on the 20th inst., the mayor (Alderman Brooke) is stated to have announced that since the outbreak commenced there had been a total of 300 cases, while the deaths numbered 25. He was happy to say that while there had been over 80 houses infected, at the same time there were only now 50 houses so affected—a reduction of 30. There were hopes that the disease would before long be stamped out.

ROYAL NORTHERN SEA-BATHING INFIRMARY.—The past year's report states that the infirmary was open from May 1st until Dec. 12th. In that period 587 patients were admitted. The total income for the year, including £230 brought forward on Jan. 1st last, was £1892 19*s.* 9*d.*, and the disbursements amounted to £1681 4*s.* 10*d.*, an excess of £67 7*s.* 8*d.* over the previous year, accounted for by the extra cost of refurnishing and other necessary outlay. Some additions are to be made at the north end of the infirmary, which will give the accommodation required for the staffs and provide another ward of eight beds for patients.

FUNERAL REFORM.—At a meeting of the Funeral Reform Association, held in the Council Chamber, Halifax, upon the motion of the Archdeacon of Halifax, seconded by the medical officer of health, it was resolved to petition Parliament for improved burial legislation. The Bishop of Marlborough will preside at the third monthly meeting of the Association in the Church House, Westminster, on Thursday, March 3rd, at 4 P.M., when the subjects for consideration will include the means of providing suitable burial-places near populous towns, to be used as quasi-crematoria for the dispersion of the dead by the action of the earth and air, instead of their preservation.

METROPOLITAN HOSPITAL.—The annual meeting was held at the institution, Kingsland-road, last week, Mr. Joseph Fry presiding. The work of the charity had considerably increased during the past year in both the in- and out-patients treated; the total out-patient attendance was 69,196. The receipts show a decrease of £550, and the expenditure an addition of nearly £400, the former being due to the small amount received from legacies, and the latter to the large number of patients treated. Lord Sandhurst, chairman of the Royal Commission on Hospitals, had promised to preside at the festival dinner on behalf of the hospital on June 30th.

TESTIMONIAL TO MR. COLLINS OF DUBLIN.—Visitors to and members of the General Medical Council who are familiar with the kindly, free, and sound judgment of Mr. Collins, the representative of the Apothecaries' Society of Dublin on the General Medical Council, will be gratified by a little incident recorded as a public notice in the *Irish Times*. "Mr. Collins, for the long period of thirty-three years, has filled the office of one of the honorary secretaries of the Old Men's Asylum, Northbrook-road, Dublin. His colleagues desire to testify their sense of the high value of his services and those of Miss Collins, and attribute largely to them the prosperous state of the institution and its finances." We congratulate Mr. and Miss Collins on this work, so pleasant in retrospect, and so well appreciated by those best able to judge.

BRADFORD EYE AND EAR HOSPITAL.—The thirty-fifth annual meeting of the subscribers was held on Feb. 20th. The number of new patients (no transfers or renewals) was 4113, of whom 1183 were under fourteen years of age, and 1908 were from places beyond the town. The number of in-patients was 517. The average time of stay in the hospital was 16·2 days. Of the 489 major operations, 62 were extractions of cataract in old persons. These make a total of 340 consecutive extractions, without a single case of suppuration following the operation. The income for the year was £2179 16*s.* 10*d.* The expenditure was £1955 1*s.* 8*d.* The investment fund amounts to £11,250.

GREENOCK INFIRMARY.—The annual meeting of the subscribers was held on the 17th inst. The admissions during the past year to the fever house were 145 more than in 1890, and there was an addition during the same period of 66 cases admitted to the medical and surgical wards. The ordinary income exibits an increase of £1597 6*s.* 1*d.* over the previous year, arising chiefly from the larger amount received from public boards for the treatment of fever patients, and from workmen's contributions. It may be stated, however, that the amount paid by public boards includes £900 for cases treated in the previous twelve months, but not paid till last year.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on February 23rd, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	189	55	..	18	..	262	442
North-Western Hospital	199	40	..	10	..	249	411
Western ,,	100	21	..	7	1	129	224
South-Western ,,	181	45	..	14	1	241	350
South-Eastern ,,	208	12	1	37	2	260	424
Northern ,,	301	13	..	18	..	332	480
Totals	1178	186	1	104	4	1473	2331

SMALL-POX.—*Atlas* hospital ship, 8.

MEDICAL NOTES IN PARLIAMENT.

Foot-and-Mouth Disease.

IN the House of Lords, on Monday last, the Earl of Cadogan, in answer to Lord De La Warr, said no further facts had been elicited, and from stringent inquiries which had been made it appeared that there was no reason to believe the report that the disease had been introduced by raw hides which had been imported.—Mr. Chaplin also referred to the same thing in the House of Commons.

Sanitation in relation to Gipsy Life.

The Bill promoted by Mr. George Smith for bringing gipsy and van children under educational and sanitary influences will be introduced to Parliament next week. Mr. Burt will have charge of it.

Bill to Amend the Coroners Act, 1887.

On Friday, Sir Walter Foster laid on the table of the House a Bill to Amend the Coroners Act, 1887. It dispenses with the formality of "viewing the body," unless the coroner considers it needful or the jury after having heard the evidence express a desire to do so. The coroner, if the measure became law, would be the only person required to view the body after the present fashion. Amongst the backers of the Bill are Mr. H. S. Wright, Mr. Addison, and Mr. J. R. Kelly.

Taxes on Food.

On Friday, Feb. 19th, Mr. Picton gave notice that he would move, "That taxes on tea, coffee, and dried fruits are objectionable as taxes on food, unjust in their incidence, and ought to be abolished."

The Shop Hours Bill.

In the House of Commons on Wednesday last Mr. Provand moved the second reading of the Shop Hours Bill, which proposes to re-enact certain regulations of the Act of 1886, which expires at the end of this year. These provisions prevent young persons of either sex under the age of eighteen being employed in shops, warehouses, or public-houses for more than seventy-four hours a week, including meal times. The Bill, whilst re-enacting these clauses, applies them to adult women, and provides for the appointment of an inspector to enforce the law. Mr. Gedge moved an amendment declining to interfere with the hours of female labour until women had obtained the Parliamentary franchise. This amendment was afterwards withdrawn. After many members had

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taken part in the debate.—Mr. Matthews said that the Government would not intervene as a Government, but wished the House of Commons to take the matter into its own hands. As an individual member of the Government he had to say that the result of his inquiries was not favourable to the Bill. It dealt with adult women in a manner which had not been done in the Factory Acts. The only ground that he had heard for legislation was the medical ground, but he had found no evidence to support the statement that the health of adult women was injured by their labour in shops, although long and in some sense excessive. If anybody asserted that mortality among shopwomen was excessive, he should like to know on what basis such an assumption was made. He would vote against the Bill, but if the House of Commons thought it was a subject for inquiry by a Select Committee, that could be done whether the second reading was accepted or rejected. On a division being taken, 175 voted for the second reading and 152 against. The Bill was then read a second time amid loud Opposition cheers, and on the motion of Mr. Provand was referred to a Select Committee.

Food and Drugs Act.

Mr. Parker Smith has given notice of his intention to introduce a Bill to amend the Sale of Food and Drugs Act, 1875.

Gresham University.

The Charter of the proposed new Teaching University for London was laid before Parliament on Monday last.

And in the House of Commons on Thursday Mr. Chamberlain presented a petition from provincial schools of medicine in England—Birmingham, Bristol, Leeds, Liverpool, Manchester, and Sheffield—praying that the Draft Charter for the proposed New University be not sanctioned by Her Majesty. The petitioners expressed the opinion that the provisions of the Draft Charter, if sanctioned, would admit of a degree in medicine being granted to graduates who had not been examined by the Universities authorities, except in one, and that the final examination; that any such narrowing of the scope of medical education in metropolitan Universities must inevitably tend to lower the standard of attainment which had hitherto been demanded of candidates who desired any degree in medicine; that special advantages for obtaining medical degrees on easy terms would be offered to students who studied in metropolitan hospital schools which would be denied to those studying in provincial schools; and that thereby provincial schools of medicine, together with the hospitals connected with them, would be placed at serious disadvantage and their efficiency impaired.—In reply to Mr. Bartley on Thursday evening Mr. Balfour said he would do his best to endeavour to meet the views of those interested in the matter by stopping public business at 11 o'clock, but the exact date would depend on the course of public business.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ATKEY, P. J., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

BANKS, A., L.R.C.P., M.R.C.S., has been appointed Senior Obstetric House Physician to St. Thomas's Hospital.

BEVAN, RICHARD, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health, Ashford, Kent.

BOGAN, J. H., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer for the Fethard, No. 2, Dispensary District, Medical Attendant to the Constabulary, Irish Light, and the Admiralty, Duncannon Fort, co. Wexford.

BOX, C. R., B.Sc. Lond., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

BURDEN, H., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

CLAYTON, J. H., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Casualty Surgeon to the Queen's Hospital Birmingham, vice Clay, resigned.

CROSSFIELD, A. K., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer for the Dittisham Sanitary District of the Totnes Union.

DALZELL, A., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Special Department for Diseases of the Throat to St. Thomas's Hospital.

DICKINSON, J. C. H., M.B. Camb., L.S.A., has been appointed Medical Officer of the Workhouse, Stepney Union.

DOLAMORE, WILLIAM H., L.R.C.P. Lond., M.R.C.S., L.D.S., has been appointed Medical Tutor to the London School of Dental Surgery, vice H. Baldwin, resigned.

EASBY, W., M.D., has been reappointed Medical Officer and Public Vaccinator of the Castor District of the Peterborough Union.

FAIRBANK, F. R., M.D Heidelb., L.R.C.P. Lond., M.R.C.S., M.R.C.P. Edin., has been appointed Honorary Consulting Surgeon to the Doncaster Infirmary.

FISHER, J. H., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Special Department for Diseases of the Ear to St. Thomas's Hospital.

FORDE, T. A. M., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

HAYDON, T. H., B.A., M.B., B.C. (Cantab.), L.R.C.P., M.R.C.S., has been appointed Junior Obstetric House Physician to St. Thomas's Hospital.

HUMPHRY, F. A., F.R.C.S., has been appointed Honorary Consulting Surgeon to the Sussex County Hospital.

KELLOCK, T. H., M.A., M.B., B.C. (Cantab.), F.R.C.S., L.R.C.P., has been appointed House Surgeon to St. Thomas's Hospital.

LAKEMAN, THOMAS, L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for the Ugborough Sanitary District of the Totnes Union.

LATTER, C., B.A., M.B., B.C. Cantab., has been reappointed Resident House Physician to St. Thomas's Hospital.

LOVELL, C. P., M.A., M.B., B.Ch. Oxon., L.R.C.P., M.R.C.P., L.S.A., has been appointed Clinical Assistant in the Special Department for Diseases of the Skin to St. Thomas's Hospital.

MARSH, J. H., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Third A Sanitary District of the Hailsham Union.

MCCREERY, J. O., L.R.C.S. Irel., has been appointed Medical Officer for the South Brent Sanitary District of the Totnes Union.

MILTON, W. F. E., L.R.C.P., M.R.C.S., has been appointed House Surgeon to St. Thomas's Hospital.

MORRIS, EDGAR, M.R.C.S., has been appointed Honorary Surgeon to the Hereford General Infirmary, vice Vevers, resigned.

OBASA, PRINCE ORISADINE, L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Special Department for Diseases of the Throat to St. Thomas's Hospital.

PERKINS, J. J., B.A., M.B., B.C. (Cantab.), L.R.C.P., M.R.C.S., has been appointed Non-resident House Physician to St. Thomas's Hospital.

PHILLIPS, P. C., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Special Department for Diseases of the Skin to St. Thomas's Hospital.

PICKEN, JAMES, M.B., C.M. Glasg., has been reappointed Medical Officer of Health for the Urban Sanitary District of the Rawmarsh Union.

PURVIS, W. P., B.Sc. Lond., L.R.C.P., M.R.C.S., has been reappointed Non-resident House Physician to St. Thomas's Hospital.

REYNOLDS, E. S., M.D. Lond., M.R.C.P., M.R.C.S., has been appointed Medical Officer of the Crumpsall Workhouse, Township of Manchester.

ROCHE, ANTONY, M.R.C.P.I., L.R.C.S.I., L.M., has been appointed Examiner in Sanitary Science in the Royal University, Ireland.

SIMPSON, E., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Calverton Sanitary District of the Basford Union.

SMITH, K. R., M.D. Lond., B.S., M.R.C.S., has been reappointed Medical Officer for the Harberton and Halwell Sanitary Districts of the Totnes Union.

STOKES, A. W., F.C.S., has been appointed Public Analyst for Hampstead, vice Heisch.

THOMAS, E., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Aberdaron Sanitary District of the Pwllheli Union.

TURRELL, W. J., M.A., M.B., B.Ch. Oxon, has been appointed Medical Officer to the Cutler Boulter Provident Dispensary, Oxford.

URSDELL, HENRY, M.R.C.S., has been reappointed Medical Officer for the Staverton and Rattery Sanitary Districts of the Totnes Union.

VINCENT, HERBERT E., M.D., B.S. Lond., M.R.C.S., L.R.C.P., has been appointed to the Staff of the Croydon General Hospital, vice Dr. P. T. Duncan, resigned.

WALLACE, C. T., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant in the Special Department for Diseases of the Ear to St. Thomas's Hospital.

WATSON, F. S., M.R.C.S., has been appointed Medical Officer for the Linton Sanitary District and the Workhouse of the Linton Union.

WILLIAMSON, J. HENRY, M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Surgeon to the Ancoats Hospital.

WYMAN, C., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Resident House Physician to St. Thomas's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BIRMINGHAM AND MIDLAND EYE HOSPITAL, Birmingham.—Assistant House Surgeon. Salary £50 per annum, with apartments and board.

BRIDGEWATER INFIRMARY.—House Surgeon. Salary £80 per annum, with board and residence.

BURTON MEDICAL ASSOCIATION.—Dispenser. (Apply to Mr. A. Blant, Ebenezer, Shobnell-road, Burton-on-Trent.)

CAMBERWELL HOUSE ASYLUM, Camberwell, S.E.—Junior Medical Officer. Salary to begin at £100 a year, with board, lodging, washing &c.

CANCER HOSPITAL (FREE), Fulham-road, S.W.—Two Surgeons.

CENTRAL LONDON OPHTHALMIC HOSPITAL, 238A, Gray's inn-road, W.C.—House Surgeon.

COUNTY ASYLUM, Rainhill, near Liverpool.—Assistant Medical Officer. Salary (which will be a progressive one) commences at £100 a year, with furnished apartments, board, washing, and attendance.

DENBIGHSHIRE INFIRMARY, Denbigh.—House Surgeon. Salary to commence at £85 per annum, with board, residence, and washing in the house. (At end of year a gratuity of £15 is usually given by the committee.)

DISTRICT INFIRMARY, Ashton-under-Lyne.—Assistant House Surgeon and Dispenser. Salary £50 per annum, with board and lodging.

EAST SUFFOLK AND IPSWICH HOSPITAL.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

GUARDIANS OF THE POOR OF PADDINGTON.—Assistant to the Medical Superintendent of the Infirmary, and Assistant Medical Officer of the Workhouse. (Apply to the Medical Superintendent at the Infirmary, 285, Harrow-road, W.)

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary £85 per annum.

LINCOLN COUNTY HOSPITAL, Lincoln.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

LONDON LOCK HOSPITAL AND ASYLUM, Harrow-road, W., and 91, Dean-street, Soho, W.—Registrar.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Physician to in-patients.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Assistant Physician.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—House Surgeon for six months. Salary at the rate of 50 guineas per annum, with residence in the hospital, board, and washing.

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LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W. — Junior House Surgeon for six months. Residence in the hospital, board, and washing are provided, and an honorarium of 5 guineas at the expiration of term of appointment.

MANCHESTER ROYAL INFIRMARY (MONSALL FEVER HOSPITAL).—Assistant Medical Officer at Monsall Fever Hospital for twelve months. Salary £100 per annum, with board and residence.

METROPOLITAN HOSPITAL, Kingsland-road, N.E. — Two Assistant Surgeons.

MIDDLESEX HOSPITAL, W.—Anæsthetist for twelve months. Salary £100.

MONTROSE ROYAL LUNATIC ASYLUM. — Junior Assistant Medical Officer. Salary £80, with board &c.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, (Albany Memorial), Queen-square, Bloomsbury.—Senior House Physician. Salary £100.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, N.E.—Junior House Surgeon for nine months. Salary at the rate of £60 per annum.

PARISH OF BERMONDSEY.—Analyst. (Applications in writing to be sent to Mr. Harrison, Clerk, Town Hall, Spa-road.)

SALFORD ROYAL HOSPITAL.—House Surgeon. Salary £100 per annum, with board and residence.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY, DISPENSARY, AND CONVALESCENT HOME.—House Surgeon (to act as Secretary). Salary £40, with board and lodging.

THE RETREAT, York.—Junior Assistant Medical Officer. Salary £80 per annum, with board, lodging, and washing.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician for six months. Board and lodging provided.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Surgeon for six months. Board and lodging provided.

WESTON-SUPER-MARE HOSPITAL.—House Surgeon. Salary £50 per annum, with board and residence in the hospital.

Births, Marriages, and Deaths.

BIRTHS.

CARDEW.—On Feb. 18th, at Dennington-park-road, West Hampstead, the wife of H. W. D. Cardew, M.R.C.S., of Harley-street, of a son.

FULLER.—On Feb. 20th, at Bughrooke, near Weedon, the wife of Andrew Fuller, Surgeon, of a daughter.

GARNHAM.—On Feb. 19th, at the residence of her father (Rowden-hill, Chippenham), the widow of Dr. G. J. W. Garnham, of Smalley, Derby, of a son.

HILL.—On Feb. 18th, at Middlesex County Asylum, Upper Tooting, the wife of H. Gardiner Hill, Medical Superintendent, of a son.

HILL.—On Feb. 19th, at St. Margaret's Mansions, S.W., the wife of W. J. Hill, Esq., M.B., D.P.H., of a daughter.

MACKAY.—On Feb. 19th, at Northumberland-place, North Shields, the wife of W. Murray Mackay, F.R.C.P. & S., L.P.S.G., &c., of a daughter.

STALKER.—On Feb. 18th, at 140, Nethergate, Dundee, the wife of Alexander M. Stalker, M.D., of a son.

STEVENS.—On Feb. 20th, at Springfield, Tulse-hill, S.W., the wife of A. B. Stevens, M.B. Oxon, of a daughter.

MARRIAGES.

APPLEFORD—SEARGEANT.—On Feb. 23rd, at St. Mary's, Kemsing, Kent, S. Herbert Appleford, M.D., youngest son of the late William Appleford, of Coggeshall, Essex, to Mary Annie Seargeant, daughter of the late John Seargeant, of Grange-hill, Upper Norwood.

CROUCHER—CHAPLIN.—On Feb. 18th, at St. Mary Magdalen Church, St. Leonards-on-Sea, Alexander Henry Croucher, M.D., of Eastbourne, second son of Dr. Croucher, J.P., to Mary Rebecca, elder daughter of A. Chaplin, Esq., Chapel-park-road, St. Leonards-on-Sea.

CROUDACE—ROWE.—On Feb. 20th, at St. Andrew's Church, Stoke Newington, James Henry Croudace, Surgeon, of Stafford, to Elsie Emma, second daughter of T. B. Rowe, Esq., of Glan Llyn, Stoke Newington.

REYNOLDS—SANSOM.—On Feb. 23rd, at St. Marylebone Church. Ernest J. Reynolds, L.R.C.P., M.R.C.S., to Rose Ernestine Maria, eldest daughter of A. Ernest Sansom, M.D., F.R.C.P., of Harley-street, W.

DEATHS.

GARDINER.—On Feb. 14th, at his residence, Redcliff-hill, Bristol, George Gardiner, M.R.C.S., aged 72.

PEARSE.—On Feb. 22nd, at St. George's square, S.W., suddenly, George Pearse, M.D., aged 80.

TAYLOR.—On Feb. 15th, at Scarborough, suddenly, John William Taylor, M.D., D.Sc., Medical Officer of Health, Scarborough, and of North Riding of Yorkshire, aged 54.

WILLETT.—On Feb. 21st, at Gunnersbury House, Isleworth, Edmund Sparshall Willett, M.D., J.P., aged 61.

YOUNGER.—On Feb. 19th, at 19, Mecklenburgh-square, W.C., Edward Henry Nelson, the dearly loved son of Edward and Frances Younger, aged 8 months.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births Marriages, and Deaths.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.

Practitioner's Handbook of Diseases of the Ear and Naso-pharynx. By H. M. Jones, M.D., M.Ch., and W. R. H. Stewart, F.R.C.S. Edin. Fourth Edition. 1892. pp. 892.

BLACKIE & SON, Old Bailey, London, E.C.

A Concise Dictionary of the English Language. By C. Annandale, M.A., LL.D. New and Enlarged Edition. 1892. pp. 818.

CHURCHILL, J. & A., New Burlington-street, London, W.

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Hospitals and Asylums of the World. By H. C. Burdett. In Four Volumes and Portfolio. Vols. I. and II. 1891. pp. 701 and 348.

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Consumption: How to Prevent it, and How to Live with it. By N. S. Davis, jun., A.M., M.D. 1891. pp. 143. Price 4s.

Syphilis in Ancient and Pre-historic Times. By Dr. F. Buret. Translated by A. H. Ohmann-Dumesnil, M.D. Vol. I. 1891. pp. 226. Price 6s. 6d.

DOIN, OCTAVE, Paris, and BAILLIÈRE, TINDALL, & COX, London.

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KEGAN PAUL, TRENCH, & CO., London.

Marriage and Disease. By S. A. K. Strahan, M.D. 1892. pp. 326.

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LONGMANS, GREEN, & CO., London.

Outlines of Theoretical Chemistry. By Lothar Meyer. Translated by P. P. Bedson, D.Sc. Lond., and W. C. Williams, B.Sc., F.C.S. 1892. pp. 220. Price 9s.

A Study of Influenza and the Laws of England concerning Infectious Diseases. By R. Sisley, M.D. Lond., M.R.C.P. 1892. pp. 119. Price 3s. 6d.

PENTLAND, YOUNG J., Edinburgh and London.

Pentland's Student's Manuals: Outlines of Zoology. By J. A. Thomson, M.A., F.R.S.E. Illustrated. 1892. pp. 641.

PUTNAM'S SONS, New York and London.

Diseases of the Nasal Organs and Naso-Pharynx. By W. Ward, A.M., M.D. 1891. pp. 165. Price 5s.

SIMPKIN, MARSHALL, & CO., London, and WRIGHT & CO., Bristol.

Epitome of Mental Diseases. By James Shaw, M.D. Irel. 1892. pp. 345.

SMITH, ELDER, & CO., Waterloo-place, London.

Saint Bartholomew's Hospital Reports. Edited by W. S. Church, M.D., and W. J. Walsham, F.R.C.S. Vol. XXVII. 1891. With Index. pp. 343.

STOTT, DAVID, Oxford-street, London.

Religio Medici, and other Essays. By Sir Thos. Browne. Edited by D. L. Roberts, M.D., F.R.C.P. 1892. pp. 428.

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Transactions of the Association of American Physicians. Sixth Session. September, 1891. Vol. VI. pp. 319.

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The New University for London. A Guide to its History, and Criticism of its Defects. By Karl Pearson, M.A. 1892. pp. 152.

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Deafness and Discharge from the Ear. By S. Sexton, M.D. assisted by Alexr. Duane, M.D. 1891. pp. 89.

WRIGHT & CO., Bristol, and KEGAN PAUL, TRENCH, & CO., London.

Pye's Surgical Handicraft. Edited by T. H. R. Crowle, F.R.C.S. With Illustrations. Third Edition. 1891. pp. 570.

Un Cas de Maladie de Morvan; par le Professor Grasset; recueillies par H. Guibert (C. Coulet, Montpellier, et G. Masson, Paris, 1892).—Acute Double Pneumonia successfully treated by Bleeding and Inhalation of Oxygen; by George Foy, F.R.C.S. Irel. (Fannin & Co., Dublin, 1892); price 1s.—Der Comfort des Kranken; von Dr. M. Mendelsohn (August Hirschwald, Berlin, 1892).—A Report of an Investigation into the Causes of the Disease known in Assam as Kála-Azár and Beri-Beri; by G. M. Giles, M.B., F.R.C.S. (Assam Secretariat Press, Shillong, 1890); price one rupee.—The Dog Owners' Annual for 1892; illustrated (Dean & Son, Fleet-street, London); price 1s.—Das Langenbeck-Haus; von E. v. Bergmann (G. Thieme, Leipzig, 1892).—Catechism Series: Public Health, Medicine, Food, Burial, Waterclosets, Disinfectants, Warming, Hospitals (E. & S. Livingstone, Edinburgh, 1892); price 1s. net.—A Drug is its own Antidote; by William Sharp, M.D., F.R.S.; Essay LX. (G. Bell & Sons, York-street, Covent garden, London, 1892).—Dr. Kállay's Ärztlicher Almanach, 1891 (W. Braumüller & Sohn, Wien, 1891).—Le Bacillus Coli Communis; par le Dr. Gabriel Vallet (G. Masson, Paris, 1892).—Proceedings of the Society for Psychical Research, February, 1892 (Kegan Paul, Trench, & Co., London); price 2s. 6d.—Ueber die strafrechtliche Verantwortlichkeit des Arztes bei Anwendung des Chloroforms und anderer Inhalations-Anästhetica; von Jean Borntraeger (A. Hirschwald, Berlin, 1892).—Magazines for March: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society).

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Medical Diary for the ensuing Week.

Monday, February 29.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. Wm. Lang: Diseases of the Iris.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Cardio-vascular System.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. F. Wethered: The Diagnostic and Prognostic Value of Tubercle Bacilli in the Sputum.—Mr. Spencer Watson: The Effects of Intra-nasal Obstruction on the General Health.

Tuesday, March 1.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor V. Horsley: The Brain.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Seborrhœa and Allied Affections.—Bethlem Hospital: 2 P.M., Dr. Percy Smith: Insanity and Organic Brain Disease.—Charing-cross Medical School: 8 P.M., Dr. Boxall: The Rational Employment of Antiseptics in Midwifery.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—5 P.M. Annual General Meeting.
PATHOLOGICAL SOCIETY OF LONDON.—Adjourned Discussion on Phagocytosis and Immunity by Dr. J. S. Bristowe, Dr. Sidney Martin, Dr. M. A. Ruffer, Mr. C. A. Ballance, Dr. W. Hunter, Mr. E. H. Hankin, Dr. E. A. Wright, Dr. J. C. Adami, Mr. Cartwright Wood, Mr. T. J. Bokenham, and others. Card Specimen by Dr. C. Slater: Cultures and Preparations of Leprosy Bacilli.

Wednesday, March 2.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. C. Theodore Williams: Asthma.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Stanford Morton: Ocular Paralysis.—Parkes Museum (Margaret-street, W.): 1 P.M., Dr. Louis C. Parkes: Communicable Diseases.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Handfield Jones and Dr. Horrocks. Three papers on Cæsarean Section will be read by Drs. Leith Napier, John Shaw, and Cullingworth.

Thursday, March 3.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
ROYAL INSTITUTION.—3 P.M. Professor W. P. Ker: The Progress of Romance in the Middle Ages.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. Arkle: Pathological Demonstration—Tuberculosis.—National Hospital for the Paralysed and Epileptic: 2 P.M., Mr. B. Brudenell Carter: Ocular Symptoms in Diseases of the Nervous System.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Dr. Woakes: Necrosing Ethmoiditis.
SOCIETY OF ARTS.—4.30 P.M. Surgeon-General Sir William James Moore: Indian Sanitation and the International Congress of Hygiene.
HARVEIAN SOCIETY (Stafford Rooms).—8.30 P.M. Mr. Lockwood and Mr. Cosens: Traumatic Infection (illustrated with Micro-photographs). Dr. Lewers: A case of Face Presentation illustrating the Value of Axis Traction Forceps.

Friday, March 4.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. C. Theodore Williams: The Compressed Air Bath and its Uses.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: Erysipelas and Suppuration (Streptococci).—Charing-cross Medical School: 8 P.M., Dr. Boxall: Obstetric Operations (a practical demonstration with mannikin and stillborn fœtus).
WEST KENT MEDICO-CHIRURGICAL SOCIETY (Greenwich-road).—8 P.M. Mr. Bruce Clarke: The Radical Cure of Prostatic Enlargement by the Galvano-cautery.—Dr. Lewis Jones will undertake the management of the Electrical Apparatus.
ROYAL INSTITUTION.—9 P.M. Professor L. C. Miall: The Surface-Film of Water and its Relation to the Life of Plants and Animals.

Saturday, March 5.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Insanity and Syphilis.
ROYAL INSTITUTION.—3 P.M., Right Hon. Lord Rayleigh: Matter, at Rest and in Motion.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Feb. 25th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Feb. 19	29·34	E.	30	..	40	36	25	..	Overcast
,, 20	29·32	E.	33	32	45	43	30	·06	Overcast
,, 21	29·45	S.W.	43	43	54	47	32	·26	Cloudy
,, 22	29·52	S.W.	45	43	78	52	42	·02	Overcast
,, 23	29·66	N.E.	39	38	77	50	37	..	Bright
,, 24	29·79	N.E.	42	40	61	49	39	·10	Raining
,, 25	29·91	S.E.	40	40	53	45	40	·17	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

MORE DRINKING.

WE record with shame and regret the fact that last year the United Kingdom drank more than the year before to the amount of one million and three-quarters. The consumption of spirits amounted to 30,744,209 gallons, or 1,833,778 gallons more than were consumed in 1890. This is an appalling fact, even though the rate of augmentation of beer consumed is said to be rather below the average. It is our profession that sees the results of this increased traffic in alcohol in the degradation of personal and family life. We cannot pretend to say how it is to be stopped. If the evil could be taken out of the category of questions over which parties fight and make capital, something would be achieved. It is a disgrace to all parties alike.

R. M. C.—1. It is necessary if an unassailable right is desired. The prefix is often accorded by courtesy to Bachelors of Medicine. 2. It is not incorrect. It is a matter of taste. Too much assertion of one's titles, however good they are, is in bad taste.

Victoria.—The Brussels would appear to be the only available degree under the circumstances stated by our correspondent.

Tyro.—We think not, but application had better be made to the secretary of the College.

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CLUB DOCTORS AND THEIR PATIENTS AT CHUDLEIGH.

LOCAL affairs must be rather dull at Chudleigh just now. The *Western Daily Mercury* devotes an article to club doctors and their patients, a large part of which is occupied by the abuse of the local club doctors for alleged disrespect to club patients, and to high praise of the clubs for discarding all the local profession, and, through advertisement in our columns, inviting candidates, who came from all quarters—at least, from Ireland, from France, and from Eastbourne. We must say we are very sceptical as to the truth of the charges brought against the medical men of "insulting" their club patients. This is so entirely contrary to probability and experience that we shall require to have definite facts before we believe it, and we regret that any contemporary should bring such railing accusations against resident medical men in such vague terms. The article ends with a eulogy on the stranger introduced which must be as distasteful to him as the abuse of his brethren with which it is associated, and on which it is based. He has our sympathy.

Mr. A. Codd.—Some have held that water containing salts of lime in abundance may cause digestive disturbance or promote constipation, or may intensify any tendency that exists to calculous disorders; while others have contended that the mineral substances may usefully supply some of the salts required for the construction and repair of tissues, and that the existence of lime-salts in such water is not altogether disadvantageous, especially in the case of young growing subjects. We would refer our correspondent to "A Handbook of Hygiene," by G. Wilson, M.A., M.D. (London: J. and A. Churchill), for further particulars on this point. An official report, containing analyses of the London water-supplies, including that of the Kent Company, is issued monthly. Ordinary washing soda, added in proper proportion, will remove both temporary (carbonate) and permanent hardness (sulphate).

Sanitarian.—The matter was treated pretty fully in THE LANCET of the 16th ult. An instructive sequel will be found in our present issue.

L.S.A.—The possessor of the licence does not confer the privilege of using the title "Dr."

TREATMENT OF DISEASE BY ELECTRICITY.

To the Editors of THE LANCET.

SIRS,—Has not the study and use of electricity been somewhat neglected by the profession? Having seen good results from its use in some cases lately I may mention two as examples. 1. A lady unable to get her food into her stomach save by mechanical means, arising from atony of the muscles concerned in the function of deglutition. She lost health and spirits, became emaciated, after consulting medical men in the town where she was residing, and afterwards in the metropolis, taking a variety of medicines prescribed, but without the least benefit; in despair she went to an electrician, and after a course of his treatment was soon able to take her food as before, and has recovered her health and spirits. 2. A patient of the same operator, still under treatment, informed me that, from troubles and anxiety of mind connected therewith, he by degrees became so dyspeptic that at last his stomach had lost all power, and his mind became weakened as well as his body. He consulted medical men, went through all sorts of tonics, including pepsine, but without the least benefit. Under the electrical treatment his stomach has by degrees regained power; he can enjoy a light breakfast of cocoa and toast &c., and a dinner generally of fish, followed by a milk pudding. He has regained his weight, looks happy, and seems able to reason very well, only he has lost all respect for doctors, and swears by his electrical friend. Not being now in practice, I have never made use of this remedy, but a good many years ago in India when often having to treat cholera cases I used to wish that I might have been able to do so.

The present epidemic in its diffusion, variety, and intensity of symptoms, also in its weakening effects, has some resemblance to cholera, also in treatment, which seems to be nursing and treating symptoms as they occur. One of your correspondents looks upon influenza as a neurotic disease—probably it is—and the brain and eighth pair of nerves (which by-the-by are ganglionic) have to do with it.

In a recent number of THE LANCET Dr. Goodhart, in his interesting lecture on some forms of dyspepsia, one from a "dulled and flabby nervous spleen," states "there is a time to give drugs, and a time when to give drugs is quackery!" The remedy is to give advice. In such cases one might advise change of air to the seaside or some Highland place where the air is pure and dry, as at Balmoral, or to Cairo in the winter; but how many can follow such advice? It is much easier to cross the street and go to an electrician, which would be my advice in such cases as described by Dr. Goodhart, and I should expect thanks from my patient when his cure was completed.

I am, Sirs, yours faithfully,

Feb. 16th, 1892. SENEX.

F.R.C.S.E. &c.—The charges seem to be reasonable and ought to be paid willingly. The nature of the professional service, not to say of the practice, seems to have been somewhat unusual. In such cases it would be well at the outset to have an understanding as to fees.

Dentist.—Our correspondent would no doubt be acting advisably in taking the step indicated.

COMPARATIVE MEDICAL LITERATURE.

THE *North Carolina Medical Journal* institutes a comparison between THE LANCET and some American journals. It refers to the library of the Surgeon-General's office as a veritable cemetery of medical periodicals. At or about the time of its *début* thirteen American medical journals were in existence, all of which were worthy representatives of medical science, but with no other foundation than the reputation of the editors as teachers and leaders in thought. In the case of THE LANCET, its present life may be due to the impress and influence of its founder transmitted through successors in the same family—circumstances that are very exceptional. It has, says our contemporary, maintained a distinct standing in its presentation of the literature of medical science that has made it the most popular of the medical journals in the world. The writer asks, "How could the English-speaking doctors of the world supply the loss of such a welcome weekly visitor to their offices?" The article goes on to state that "for the first week of the year 1892 the issue contained 120 double-column pages of reading matter and 80 pages of advertisements, which would be, in the type usually employed in medical text-books octavo size, the equivalent of from 400 to 500 pages." *The North Carolina Medical Journal* advises its readers, if this information should be new to them, "to try a year of teaching from THE LANCET and see if they will not find great profit."

Mr. Ernest W. Greenwood.—Our correspondent seems to be unaware that the name "Albert" has been changed to "Gresham."

INJUSTICE UNDER THE NOTIFICATION ACT.

To the Editors of THE LANCET.

SIRS,—Referring to the letter of "J. W." in this day's LANCET, I should be obliged if you would state whether an urban sanitary authority, or its medical officer, has power to question the accuracy of a certificate given under this Act. A case has come under my notice where Dr. —— gives a certificate that a patient is suffering from a certain fever; a few days after Dr. ——, who takes up the case, certifies that the person is suffering from a lung trouble, and not from any infectious disease. This coming to the knowledge of the authority, they decline to allow the notification fee. Can they refuse it, even though the diagnosis be wrong? Do you know if a legal decision has been given in a similar case? I am under the impression that it has, but cannot come across it. I am, Sirs, yours truly,

Feb. 20th, 1892. B. M.

*** We are not aware that any legal decision of the sort has been come to, and we trust that it will be long before it is asked for. It is quite clear that cases must arise where diagnosis is doubtful, and on which medical men might differ. A medical man whose diagnosis in a case of notification is challenged would do well not to press his claim *unless he is very confident of being right*. But our correspondent puts his question as if the notifier in this particular case were wrong. Possibly in strict law, even so, if he acted *bonâ fide* he might be able to compel the payment of his fee by the sanitary authority. But we should not envy him his success. Let such an incident be viewed from the patient's standpoint. The wrongful notification of his disease as infectious within the meaning of the Act might involve his contracting a deadly disease. He is entitled, in case of any doubt, to a second opinion. If it refutes the first one, it clearly should not be persisted in: it should be withdrawn, and with it the demand for a fee.—ED. L.

W. R.—It is not easy, on the information before us, to give an opinion on all the points raised. Thus, in many such districts as the one in question, the culverts with which house-drains were originally connected were not "sewers" properly so-called, but highway drains, and the new culverts are in reality the first sewers provided. As regards the term "new building," its application to existing buildings which undergo modification is limited by Section 159 of the Public Health Act, 1875, where it is enacted that for the purposes of that Act "the re-erecting of any building pulled down to or below the ground floor, or of any frame building of which only the framework is left down to the ground floor, or the conversion into a dwelling-house of any building not originally constructed for human habitation, or the conversion into more than one dwelling-house of a building originally constructed as one dwelling-house only, shall be considered the erection of a new building." Nothing whatever is said to imply that the laying of a new drain constitutes a "new building."

CARPENTER AND DUKES DEFENCE FUND.

To the Editors of THE LANCET.

SIRS,—Kindly insert these additional subscriptions to the above fund, and oblige, Yours faithfully,

50, George-street, Croydon, Feb. 23rd, 1892. WM. F. COLES.

Dr. T. Jackson	£1	1	0	Dr. Parsons Smith	£2	2	0
Mr. Reynolds Ray	1	1	0	Dr. Henry Thompson ..	1	1	0
Dr. Beard	1	1	0	Dr. Perkins Case	1	1	0
Dr. W. H. Smith	1	1	0	Dr. Vincent	1	1	0
Dr. Neligan	1	1	0				

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COMMUNICATIONS not noticed in our present issue will receive attention in our next.

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Lecture
ON
NEUROLOGICAL FRAGMENTS.

Delivered before the Hunterian Society,

BY J. HUGHLINGS JACKSON, M.D., F.R.S., &c.

MR. PRESIDENT AND GENTLEMEN,—I am exceedingly obliged by the request to undertake the honourable task of giving the Hunterian Society's Lecture this year. It is for me a most pleasant thing to deliver it at the request of my greatly valued friend Dr. Stephen Mackenzie, our late President.

I have often thought that the scientific investigation of insanities may be best begun in general hospitals, and especially by taking for study cases of delirium in such non-nervous maladies as pneumonia and emphysema with bronchitis. These are not cases of insanity at all in the conventional sense of that word; but in a scientific regard, being departures from normal mental states, they are. After the late Dr. Monro, I have urged that the mental condition in all insanities short of dementia is double—one of two opposite mental elements. In the hospital cases adverted to the insanity is named after the positive element—delirium; but with this there coexists a negative element, if for convenience I may speak of a negative state existing. On this basis we may sometimes trace an increasing double departure from normal mentation. In cases of emphysema with bronchitis we can observe a gradual losing touch with present surroundings (negative element), and a gradually increasing quasi-relation to organised experiences of former surroundings (positive element); or using popular, but not accurate, language, the patient gradually ceases to live in the real world, and comes to live more and more in a world of his own. A sack dealer was delirious during erysipelas. The house-surgeon opened a small abscess in one eyelid while the patient was in a strait jacket. The patient's account of these circumstances was that he had been to a public-house, that the landlord fastened him down with two sacks, and then poked out one eye.

It is easy in this case to trace the substitution of unrealities, as we call them, for realities. I wish to urge that we have not only to take into account the patient's "pseudo-knowings"—that he had been to a public-house &c., his delirium sampling a positive element,—but also his "not-knowings"—that he was in hospital &c., sampling a coexisting negative mental element. We say that the patient's account was of a delusion ("pseudo-knowings"); there was a delusion for us, but in him a belief. To say that he believed in his delusion is the tautology of saying that he believed in his belief. The late Dr. Milner Fothergill gave an account of his delirium when ill with scarlet fever. It seemed to him most unreasonable that people should keep him in bed when he, a doctor, wished to go out to visit his patients. For Fothergill, when reduced to a lower mental state, it was, to use his words, "an interference with the liberty of the subject." By these remarks I wish to suggest that what we call the "disorderly" mental condition of an insane man—that sampled by his positive mental symptoms—is a mentation having the same laws as the mentation of the patient's former sane, or, as we may say, entire, self.

Let us now look at the physical condition concomitant with insanities—the two abnormal cerebral states corresponding to the two abnormal mental elements. The negative mental state—the sack-dealer's "not-knowings"—signified loss of function of the highest range of his highest cerebral centres. (If anyone objects to the term "highest centres," he can substitute "certain cerebral centres.") The mentation remaining possible to him—his "pseudo-knowings"—signified increased activities of the intact lower ranges of those highest centres. We have here loss of function coexisting with over-function, and an illustration of a principle long ago put forward by Anstie and Thompson-Dickson. We have to bear in mind both the reduction (dissolution) and the range reduced to (the level of evolution remaining). The positive element of an insane man's mental condition signifies evolution going on in lower intact ranges of his highest centres.

In hospital we can study degrees of insanity. Thus in some severe cases of emphysema and bronchitis there is delirium followed by coma, the coma or dementia being a greater degree not of the delirium, but of the negative mental state coexisting with that positive or superpositive state. Referring to a former remark, the patient, who gradually ceases to live in the real world, and comes to live in a world of his own, at length, when comatose, lives in no world at all (mentally, I mean). I attribute the "two degrees" of insanity in cases of emphysema partly to great supervenosity, to different degrees of it. The neurologist is much interested in the effects of supervenous blood. Here I make some general remarks on the action of such blood. It is well known that it stimulates certain medulla centres, whether by excess of carbonic acid or by deficiency of oxygen does not for the present concern us. Most likely a slight degree of supervenosity is beneficial in cases of emphysema by stimulating the respiratory centre, thus producing some degree of compensation. Traube and Cohnheim attributed the hypertrophy of the left side of the heart in some cases of emphysema to arterial constriction caused by stimulation of the medulla vaso-constrictor centre by supervenous blood. Such blood stimulates certain musculatures; here, perhaps, we see the reason why there are evacuations in some cases of nitrous oxide anæsthesia.

Now for delirium with, and, as I think, partly if not mainly from, highly supervenous blood, in cases of emphysema and bronchitis, for example. Since it is certain that such blood over-stimulates some lower (for example, medulla) centres, the obvious explanation of the delirium in cases of emphysema with bronchitis would be that it corresponds to over-stimulation of cerebral centres. But (Hitzig, Franck, Pitres) asphyxia renders the motor cortex inexcitable. Dr. Risien Russell has recently made for me a new research in this matter. He finds that the motor cortex of a dog is inexcitable in the third stage of asphyxia. It does not necessarily follow that because asphyxia annuls the function of the motor area that it renders the remainder of the cortex functionless. I, however, submit as a hypothesis that supervenous blood, according to its degree of venosity, diminishes or annuls the function of all parts of the cortex. If this be so, it cannot be the cause of delirium, which evidently implies function going on. In a popular use of the word "cause," as when it is said that opening floodgates causes water to flow, supervenosity may be called the cause of delirium. But speaking carefully, we can only say that it is constructively accountable for that positive mental element; it produces the negative functional state answering to the negative mental element coexisting with the delirium. I explain the relation of the two states on the same general principle as I did the condition in the sack-dealer's case. The highest, the least organised, range of the highest centres is rendered functionless when the lower and more strongly organised ranges of those centres remain functionable; the lower ranges being now uncontrollable rise in activity, and during their activity delirium occurs (Anstie's principle). (The more complex and special nervous arrangements are the less organised, and thus they "give out" sooner to injurious influences.) When the supervenosity becomes very great the lower ranges of the highest centres also succumb, and then no sort of mentation, not even the "disorderly" mentation we call delirium, is possible I have been speaking as if supervenosity were the sole agent; but since from highly supervenous blood there will be very great stimulation, and perhaps at length exhaustion of lower (medulla) centres, the condition is probably more complex.

The study of degrees of insanity in relation to one another is very important. This can best be done by noting degrees of reduction (dissolution) of brain by alcohol. I, it may be supposed artificially, make three degrees of reduction (with subdegrees) In considering these degrees of insanity we have to take note of the coexisting negative and positive states—of the reduction of the highest centres (dissolution) and of the range reduced to (evolution remaining)—until the third degree coma, acute temporary dementia, when the mental condition is seemingly entirely negative, and the reduction of the highest centres apparently total.[1]

[1] The neurologist will find in Brain, January, 1881, a most valuable paper, by Dr. Charles Mercier, on Degrees of Dissolution by Alcohol.

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For purposes of practice we have to study alcoholic intoxication carefully. It is well known that men fatally ill from cerebral lesions are sometimes locked up in police cells for drunkenness. It needs insisting on that there may be from grave intra-cranial lesions, soon causing death, not only insensibility, but manner and conduct like that of a person partly intoxicated by alcohol. Dr. Stephen Mackenzie and I have recorded[2] a fatal case of meningeal hæmorrhage producing a condition which, without the history of onset, would—certainly by the non-medical—have been taken for drunkenness. The patient was violent, swore, and, what is more striking, there was a purposive action; the patient got the chamber utensil from under his bed and used it. At the London Hospital we occasionally have under care men who, after sucking raw spirits out of a cask, are seemingly as deeply comatose as other men are after large and fatal cerebral hæmorrhage. Without the history of the circumstances and of the mode of onset, the diagnosis of apoplexy produced by alcohol from that produced by cerebral hæmorrhage is very difficult, and may be impossible. For an hour or two after injuries to the head there may be a condition very like that of a man slightly drunk. This is an important matter. I was once consulted by letter on the case of a clergyman who was accused of drunkenness—a serious thing for a clergyman. I was able to say that the condition described might have resulted from an injury to the head the patient had had. It is to be borne in mind that after an injury to the head a patient may act elaborately, if foolishly, whilst "unconscious"; that is, on his recovery he *remembers* nothing of his strange doings—a thing evidently of medico-legal importance.

I have suggested[3] that great supervenosity may cause loss of the knee-jerks, as when there is great cyanosis in severe cases of emphysema with bronchitis, and that possibly the absence of this tendon reaction in some cases of apoplexy is thus caused. Dr. Risien Russell was so good as to observe for me the state of the knee-jerks in an artificially asphyxiated dog; he found that they were increased during the earlier stages of asphyxia, and lost in the third stage. I suggested[4] that the preliminary increase of the knee-jerks Dr. Russell observed was owing to lack of inhibition of lumbar centres by the motor cortex, and that the loss of the jerks in the third stage was owing to the more strongly organised lumbar centres succumbing later than the cortical motor centres. Dr. Russell[5] brought forward interesting facts showing that my inference was at any rate hasty. Dr. Stephen Mackenzie, who has had a large experience of cases of anæmia, including many cases of "pernicious anæmia," tells me that he has never found loss of the knee-jerks in any case. I mention this as supervenous blood may tell by deficiency in oxygen. Rapidly induced loss of oxygen is, however, a very different thing from slow loss of oxygen (loss of many oxygen carriers in anæmia).

There is another complication. I have recorded[6] a case of epileptiform seizure affecting mainly the left leg, in which, after the fit, the left knee-jerk was exaggerated; there was also foot clonus. Westphal, Gowers, and Beevor have noted temporary loss of the knee-jerks after epileptic fits. I suggested that the exaggerated knee-jerk in my patient was owing to exhaustion of fibres of the lateral column, whereby cerebral control was taken off the anterior horns concerned with the jerk.[7] Dr. Gowers suggests that in the case of temporary loss of the knee-jerks after epileptic fits there is temporary exhaustion of the lumbar nuclei. As in the animal Dr. Russell experimented on there had been convulsion, we have to bear in mind that the loss of the knee-jerks may have been due, or partly due, to exhaustion of lumbar centres after their discharge. Dr. Beevor remarked on this point at the meeting above mentioned. His researches on the condition of reflexes after epileptic fits[8] have to be carefully considered with regard to the question here raised.

I had the honour of reading a paper before this Society on Laryngismus Stridulus,[9] when I submitted that the paroxysms are asphyxia fits analogous to those producible artificially in rabbits and dogs. I tried to show that the relation of rickets to these seizures (Elsässer, Jenner, Gee) is that the abnormally soft ribs render the action of the diaphragm inefficient (the infant's breathing being almost solely abdominal), and thus that, especially during sleep, when the attack commonly starts, there is over-stimulation of the respiratory centre by supervenous blood, an excess of a "natural stimulant," and therefrom convulsions. Dr. Gay[10] has very ably argued against the views I put forward. I do not here reply to his criticisms, but will mention some things bearing on my speculations. When I wrote (1886), Horsley and Semon had discovered "representation" of the abductors, but not of the adductors, of the vocal cords in the medulla, and thus it *seemed* that there was no medulla mechanism by which (on my supposition of discharge beginning in the respiratory centre) the glottis could be closed in attacks of laryngismus. Semon and Horsley have since found that the adductors as well as the abductors of the vocal cords are represented in the medulla. Asphyxia fits are easily producible in some lower vertebrates of the mammalian class by mechanical arrest of breathing. These seizures, the physiologist tells us, are owing to discharge beginning in the (medulla) respiratory centre, a discharge started by highly supervenous blood; the discharge there beginning no doubt spreads to other centres, or possibly they are discharged by the same stimulation. 1. Convulsions are produced by clamping the trachea. 2. Curara in a certain dose paralyses the motor nerve endings to the respiratory muscles, and not those of the muscles of the limbs; asphyxia is produced, and there is convulsion of the limbs. The discharge of the respiratory centre in these circumstances is unable to effect anything upon the thoracic musculature. 3. Rabbits breathe almost exclusively by the diaphragm. Marckwald says that young rabbits "up to four months old, and even over that age, do not survive division of the phrenic nerves on both sides, but die, according to age, in a few minutes after the operation, showing strong convulsions and cyanosis, or in two or three days they die from asphyxia."[11] Probably the respiratory centres are stimulated by supervenous blood because it is deficient in oxygen.[12] 4. For (Kussmaul and Tenner) fits like those produced by clamping the trachea are produced in rabbits by rapidly bleeding them to death. 5. Such fits come on when the medulla is deprived of arterial blood by tying the great arteries of the head. 6. Artificial respiration will not prevent asphyxial convulsions by a drug if that drug stops the action of the heart, and thus arrests the circulation.[13] "Stoppage of the heart, either by a ligature directly applied to it, or by action of drugs upon it, causes asphyxia and convulsions."[14]

Of course, it does not follow from anything I have just said that laryngismus stridulus in man (the infant human being) is an asphyxia fit, as I think it is. But it would be worth while to study in minute detail the onset and march of convulsions in laryngismus stridulus, especially when they become widespread or universal, in comparison and contrast with the onset and march of convulsions in artificially asphyxiated animals. The difficulties of this comparative study are obvious, but sometimes a medical man witnesses a fit of laryngismus. Since, according to my hypothesis, in laryngismus stridulus the blood, when it has become rapidly supervenous, discharges the respiratory centre, and thus secondarily causes still more supervenosity by fixation of the thoracic cage or some part of it, it may seem that the fit on that hypothesis would necessarily be fatal. Thus Dr. Gay says[15] of my

[2] Med. Times and Gazette, April 1st, 1871.
[3] British Medical Journal, Feb. 13th, 1892.
[4] Op. cit. [5] Physiological Society, Feb. 18th.
[6] Medical Times and Gazette, Feb. 12th, 1881.
[7] I have since learned from Dr. Waller that nerve fibres are practically inexhaustible; possibly the endings of fibres of the lateral column are alone exhausted in cases of post-epileptiform paralysis
[8] Brain, April, 1882. [9] Ibid., April, 1886.

[10] Ibid., January, 1890.
[11] The Movements of Respiration, translation by Mr. Thomas A. Haig.
[12] Although, as is the custom, one uses the word "stimulation," the supposition is that, from lack of oxygen, there is such an anabolism of material of the respiratory centres that it becomes more "explosive," and thus katabolises on slight provocation, suddenly and excessively. There are convulsions in some cases of nitrous oxide anæsthesia. Thus Dr. Frederic Hewitt writes (Med.-Chir. Trans., vol. lxxiv.): "The clonic contractions of the respiratory and extrinsic laryngeal muscles occur at or about the same time that clonic muscular phenomena in the extremities manifest themselves, and there can be little doubt that they are, like the latter, *due to an absence of free oxygen*. I have lately administered at the Dental Hospital of London, for Dr. George Johnson, *pure nitrogen*, as well as nitrogen with small percentages of oxygen, and the respiratory phenomena which have manifested themselves, as well as the general muscular movements, have so closely resembled those of nitrous oxide as to be indistinguishable from them." (No italics in original.)
[13] Lauder Brunton, Pharmacology, third edition, p. 189.
[14] Brunton, op. cit., p. 239. [15] Op. cit.

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hypothesis; "Supervenosis initiates the paroxysm, which increases the supervenosity, and laryngismus would consist of a single and necessarily fatal gigantic respiratory spasm." My friend Dr. Risien Russell has been so good as to make experiments for me bearing on this matter; he clamped the trachea of three rabbits. He reports: "If the clamp was removed in the third stage from thirty to fifty seconds after all convulsions (second stage) had ceased the animal recovered without artificial respiration being performed, but if the clamp was not removed until a minute or more elapsed the animal did not recover. The heart went on beating after all the respiratory movements had ceased. An artificially asphyxiated dog recovered without artificial respiration two minutes after all convulsions (second stage) had ceased." A child, when seemingly dead after an attack of laryngismus may recover. Sir William Jenner[16] reports a very striking illustration of this. Not only is the opinion I hold of the pathology of laryngismus disputed, but the suggested localisation of the discharge on which the attack depends is also objected to. It is supposed by Horsley and Semon that fits of laryngismus are owing, not as I think to discharge beginning in a medulla (respiratory) centre, but to discharge beginning in a part of the cortex-laryngeal centre. They have certainly good reasons for this supposition. Krause, Horsley, and Semon have discovered representation of the adductors of the vocal cords in the cortex, but have not discovered representation of the abductors in the cortex, except in the case of the cat. (The cat, Semon tells me, vocalises during inspiration.) Discharge of the laryngeal centre of but one cerebral hemisphere will close the glottis (Semon and Horsley). This closure would, if kept up, cause asphyxia: but, as I learn from one of their experiments, the blood when it has, on this enforced closure of the glottis, become supervenous, so acts on the medulla as to bring the (medulla) abductor centre into activity. Horsley and Semon write:[17] "Unilateral irritation [of the laryngeal area of the cortex] produces bilateral effect. Thus, clinically, in any irritative unilateral affections of this area, spasm of the glottis, that is, bilateral adduction of the vocal cords, may occur, for example, in laryngismus stridulus. That this view is not theoretical is shown by the association, in severe cases of the last-named illness, of the glottis spasm with the so-called carpo-pedal contractions. This association is most easily explained on the assumption that we have any overflow of energy from the laryngeal to the neighbouring cortical areas for the limbs."

In some laryngeal crises (laryngismus of a different clinical kind from that already considered) there is asphyxia; there may be loss of consciousness and some degree of convulsion. I have now under my care a tabid patient who has had twenty or thirty crises in the day with loss of consciousness, and four severer seizures in bed (one after urgent vomiting and three in sleep) also with loss of consciousness. The four attacks in bed, judging from the accounts given by the patient's wife, are not unlike epileptic fits. This patient has paralysis of the abductors of the vocal cords (Semon), no doubt from a lesion of their medulla centres. This ordinarily does not seem to embarrass the patient's breathing, he being quiescent. Semon tells me that he thinks that in laryngeal crises, with or without paralysis of the abductors, there is an "irritative" state of the (medulla) adductor centres. If so, it is to occasional overaction of these centres, greatly narrowing or completely closing the glottis, that laryngeal crises are owing. I have never witnessed such severe laryngeal crises as, by description, my patient has had. If I was present at one of his seizures I should, if I could not abort the paroxysm by chloroform, very carefully note the state of his thorax, observe minutely any convulsions (eyes, hands, and face) there might be, note whether or not there was increased sweating, and inquire if there were evacuations of urine or fæces, and, if it were possible, test his knees.

Neurologists are much concerned with Regulation, and, in many maladies, with Unregulation. There is (1) nervous regulation, which needs no illustration here; (2) mechanical regulation (elasticity of arteries, &c.); and (3) what for lack of a fit name I will call "chemical regulation," stimulation of the respiratory centre by venous blood, for one example. Properly speaking there are three factors in regulation. In the case of the respiratory system (1) the (medulla) respiratory centre with its afferent and efferent nerves; (2) elasticity of the lungs and of the thoracic walls (recoil during expiration); (3) stimulation of the respiratory centre by venous blood. I shall speak almost solely of the third factor, the other two being taken for granted. What is waste in one manufactory may be material for another. What is waste for one part of the body may be material for another (Treviranus and Paget). Thus I suppose that one factor in keeping up arterial tonus in health is stimulation of the vaso-constrictor centre by effete nitrogenous products—a "natural stimulant" of that centre. An excess of a natural stimulant is a poison. High tension in some cases of Bright's disease is probably owing to an excess of the natural stimuli mentioned, and perhaps also to the presence of unnatural stimuli of similar derivation. I have suggested that attacks of laryngismus are owing to a sudden excess of a "natural stimulant" of the respiratory centre. In some cases of simple jaundice the pulse becomes infrequent. This is ascribed to stimulation of cardio-inhibitory nervous elements by bile salts. It would be venturesome to speak of this as due to the action of an excess of a *natural stimulant*, since there is, I believe, no proof that bile salts exist in the blood of the healthy. There is one thing worth mentioning in this connexion. Henoch says that he has never observed an infrequent pulse in the jaundice (catarrhal) of children under seven years of age. He supposes that the excitability of the child's nervous system compensates for the retarding action of the bile acids. But may it not be that there is less for the bile salts to poison in persons so young? The cardio-inhibitory, and probably other inhibitory nervous arrangements (Soltmann), are presumably developed later than what may be distinguished as the directive (motor) nervous arrangements. (Perhaps this is only another way of saying that the child's nervous system is excitable.) As bearing on the hypothesis I have submitted, it may be mentioned that both rabbits and young children tolerate large doses of belladonna; it is well known that in the rabbit section of the vagus nerves alters the rate of its heart but little.

We have a very complex problem in regulation—or, rather, in unregulation—in cases of fracture dislocation of the spine, crushing the cervical cord across below the emergence of the phrenic nerves. The nervous mechanisms of the digestive, circulatory, respiratory, and animal heat systems—the "four systems"—are mutilated; there is constipation with "distension" of the abdomen; the pulse is infrequent; respiration is diaphragmatic only; temperature is often very high. For the methodical analysis of this compound confusion of regulation we have to take into account not only centres of the Lowest Level, which are Ulterior (peripheral wards) of the lesion, but also those of this level which are Citerior (brainwards) of the lesion. It is, I think, not going too far to say that the whole symptomatology is, in late stages, traversed by supervenosity. There is in the spinal fracture case as certainly an anatomico-physiological problem as there is in the case of subphrenic section of the cervical cord in a dog or a rabbit. Surgeons and physicians would gain much from the coöperation of a well-trained physiologist in the investigation of the effects of such a very local spinal cord lesion in man compared and contrasted with those in the dog, and especially with those in the very different vertebrate, the rabbit, similarly mutilated. In some cases in man there is delirium: an example of a healthy brain failing consequent on a very local spinal cord lesion—consequent on that lesion in a roundabout way—directly owing to the results of imperfect working of the "four systems" mentioned. Hence, in the spinal fracture case, in which the central nervous system is cut in two at a critical place, we have to take note of all centres of the nervous system. Further, as it is said that supervenous blood excites certain musculatures apart from nervous agency, we have to take also into account many, perhaps all, parts of the body.

Taking, quite artificially, but one symptom, great rise of temperature in some cases of fracture dislocation (subphrenic cervical cord), we find it very difficult of interpretation. The greater rate of emission of heat may not signify greater thermogenesis. Very many of the muscles—the main heat-producing organs—are "paralysed"; and thus it may be supposed that there is less thermogenesis. We cannot make calorimetrical researches on our patients. Paralysis is an indefinite word. In the case of a dog poisoned by curara, all the skeletal muscles are cut off from the motor influence of the whole central nervous system; an animal thus poisoned becomes "cold blooded." But in the fracture dislocation case

[16] THE LANCET, Jan. 2nd, 1875.
[17] Brit. Med. Jour., Dec. 21st, 1889.

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muscles are "paralysed" in a very different way; they remain connected with their anterior horns, and it is fair to speculate that they may not only continue to produce heat, but that, being cut off from higher inhibitory heat centres, they may produce more than normal. I have been speaking of "paralysis below the lesion"; there is no doubt, from destruction of grey matter of the part of the cord crushed, some "paralysis at the lesion"; but the amount of muscle thus cut off from the influence of the central nervous system is a negligible quantity. If the "muscles below the lesion" cease to produce heat, then, as Hutchinson has said, they become refrigerators—have to share in the heat produced by "muscles above the lesion." A patient of the late Mr. Hilton lived fourteen years after a fracture dislocation crushing the cervical cord across below the emergence of the phrenic nerves. Did not the "muscles below the lesion" in this man produce heat when they were "paralysed"? If they did not, they would have had to share the heat produced by the "muscles above the lesion" (and of course by other parts of the body), and would thus be refrigerators.

A question in neurology—one of great physiological interest and clinical importance—is raised by certain researches of Charlton Bastian.[18] He showed that in some cases of an absolutely complete transverse lesion of the cord above the lumbar enlargement the knee-jerks were absent and the legs flaccid up to the time of death three or four months later. This is quite contrary to current doctrine. So far as I have observed in cases of fracture dislocation crushing the cervical cord completely across, the knee-jerks are lost—to take that one symptom for illustration. I am greatly interested in this matter, since Bastian's conclusions harmonise with a hypothesis I have put forward as to cerebral and cerebellar influxes. It may be said that did the patients referred to live long enough their knee jerks would return. In some dorsal cases under my care the knee jerks have returned—in one case after being absent for thirty-eight days, and in another for two years; there is in neither case any return of sensation or motion in the legs. But granting for the sake of argument, and for the sake of argument only, that there has been no re-establishment of lines of connexion in these cases, we have still to explain the absence of the jerks for weeks and months, in conditions where shock was out of the question. If Bastian has only shown that the knee-jerks are absent for weeks or months he has made a valuable contribution to clinical medicine; I should still think that the doctrine of cerebellar influx is countenanced. The situation is not so simple as it has been supposed to be. In many such cases (Bowlby) the superficial reflexes are present, or, if absent at first, may return. It has been said that when in chronic cases the knee-jerks are absent there are set up secondary morbid changes in centres below the lesion, and perhaps in peripheral nerves; we have, however, to explain not only the loss of the tendon reaction, but also the presence of the superficial reflexes. There is priapism in cases of fracture dislocation of the cervical spine; it may be (Hutchinson) present in "shock." Does not this show over-action of some elements of Stilling's nucleus? Moreover, those who suppose that secondary morbid changes set up in centres below the lesion cause loss of the knee jerks for months have to account for the return of these tendon reactions in some cases. Are those morbid changes reversed or in part reversed? We have, with regard to the doctrine of cerebellar influx, to bear in mind that in many cases of tumour of the middle lobe of the cerebellum the knee-jerks are absent. I may mention a case (necropsy) of hæmorrhage into the left lobe of the cerebellum (observed by Dr. Penberthy, my late house physician) in which the right knee-jerk only was lost; I say nothing as to the bearing of this case.

I have applied the doctrine of non-antagonised cerebellar influx in the explanation of athetosis and paralysis agitans, supposing that in both, upon loss of cerebral influence, there is preponderance of cerebellar influence. It is right that I should state facts counter to this application of the hypothesis. Victor Horsley, by removing the "arm area" of one of his patients, put a stop to athetosis. There is on record[19] a case of cerebral hæmorrhage occurring in a patient the subject of paralysis agitans; the tremor ceased on the side of the body paralysed, continuing on the other.

[18] Med Chir. Trans., 1890, vol. lxxiii.
[19] Raymond: Hemichorea.

The symptoms of disorder (unregulation) of the organic systems—very strikingly of the respiratory—are most important. When death occurs in apoplexy from cerebral hæmorrhage it is with failure of the respiratory system, and presumably of the other organic systems. These failures may be put down to lack of so much brain, but not rarely *do* we see patients who live for years with much more extensive destruction of brain than that by a hæmorrhage which may kill in a few hours. They may be ascribed to the wider abnormal state of the brain which answers to loss of consciousness, or perhaps to pressure indirectly transmitted to the medulla oblongata. I have to suggest a different interpretation.

In some cases of cerebral hæmorrhage, where there has *not* been loss of consciousness at first, and in which respiration, circulation, and temperature have been apparently normal for some time, disorder of these systems ensues later on. There is, what many years ago I used, after Trousseau, to call "cerebral fever." In such cases it seems to me that the "fever" depends, not on the immediate effects of the effusion, but on secondary effects the clot produces in medulla centres. To consider methodically the question here raised we should study cases of other "foreign bodies"—tumours, abscesses, and other masses in the brain. In these cases it is notorious that there is one distant effect. Optic neuritis is nearly always set up, and I submit that, adopting the principle of a hypothesis put forward by Buzzard,[20] there are other "distant effects," that morbid changes akin to those of optic neuritis are set up in medulla centres. We certainly have, in very many cases of optic neuritis from cerebral tumour, to explain the urgent "purposeless" vomiting. Moreover, in such cases there may be a chronic illness with occasional vomiting, infrequent pulse, constipation, and emaciation. In a few cases of cerebral tumour there is an acute illness very like tubercular meningitis. Further, it is notorious that some patients who have cerebral tumour die suddenly. *It* is not at all likely that death occurs from the destruction the tumour causes directly, or by the softening induced round about; it is not likely that it occurs from mere lack of so much cerebral hemisphere. Again, as the late Hilton Fagge first pointed out, death occurs rapidly in some cases of intracranial tumour by respiratory failure. It may be asked, "Why does respiration in such cases fail rapidly?" I can only suggest an analogy. It is well known that sight may be good in optic neuritis for a long time, and then rapidly fail. So I imagine that in the cases mentioned morbid changes are slowly produced in the respiratory medulla centre, and that that centre fails rapidly, perhaps having worked inefficiently some little time before. After irruption of blood in the brain that blood becomes a clot, acts as a "foreign body," produces a local encephalitis, and by intermediation of this there are set up secondary morbid changes, changes in centres (respiratory among them) of the medulla. This is of course hypothetical. At any rate, in a case of large cerebral hæmorrhage, it is at least convenient to distinguish several modes of action of the escaped blood: (1) It destroys, and thus produces such symptoms as hemiplegia; (2) according to the rate of its escape it causes "shock"; (3) according to its bulk it squeezes, and thus, in addition (2), it produces loss of consciousness; (4) in its character as a "foreign body" it may produce encephalitis, and thereby, hypothetically, "cerebral fever" by changes induced in medulla (regulating) centres. But this is not all; (5) in some cases of cerebral hæmorrhage, in which consciousness, if defective, has not been lost at the onset, delirium may occur. I submit that this is mainly a "return effect" on the brain, a consequence of imperfect working of the respiratory and other organic systems, a state of things analogous to that in the dilirium of some cases of emphysema with bronchitis, and in some cases of cervical fracture dislocation of the spine.

[20] Trans. Ophth. Soc., vol. i. 1881, p. 98.

KIDDERMINSTER INFIRMARY AND CHILDREN'S HOSPITAL.—The report for the year 1891 shows that 15 per cent. more patients had been dealt with than in any previous year, the largest number during any twelve months since the infirmary was opened. The income showed a small deficit, the disbursements necessarily being more, owing to the additional number of patients relieved.

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Lecture
ON
TISSUE- OR CELL-FIBRINOGEN IN ITS RELATION TO THE PATHOLOGY OF BLOOD.

Delivered at the Theatre of the Laboratories of the Conjoint Colleges of Surgeons and Physicians, on Feb. 4th, 1892,

BY A. E. WRIGHT, M.D. DUB.,
LATE GROCERS' RESEARCH SCHOLAR.

(Concluded from page 459.)

KEEPING therefore in view those phenomena which are observed after an injection of tissue-fibrinogen, we have to bring them in connexion with the phenomena observed after injections of leucocytes. These phenomona have been studied by Groth, Wooldridge, and Krüger. I have already indicated in connexion with Wooldridge's work that the method of experimentation he adopted appears to exclude from the injection all the rapidly disintegrated a-leucocytes, and such products of their disintegration as would naturally pass into solution in the lymph plasma. On the other hand, in the methods of Groth and Krüger there is either no provision (in the case of Groth's experiments) or ineffectual provision (Krüger's experiments) is made for the elimination from the injection of such elements of the lymph plasma as have not been derived from leucocytes. Having said thus much in criticism of the methods, we may pass on to the results obtained by these observers from their injections. Krüger and Groth both succeeded in obtaining intra-vascular coagulation with their injections. They, further, noticed that when the injections of leucocytes were not sufficiently large to entail such intra-vascular coagulation, the blood, when collected after the lapse of a few minutes, showed a very marked diminution of coagulability. The results Wooldridge obtained were in all cases a diminished coagulability of the blood after injections of washed leucocytes. It will be immediately evident that in the case of Groth's and Krüger's experiments we have to deal with the same sequence of positive and negative variation which we are now familiar with in connexion with tissue-fibrinogen injections. In Wooldridge's experiments we have only a negative phase of coagulation put on record. In connexion with this I would make the suggestion that a very transient positive variation may very easily have occurred here and have escaped notice. Groth has emphasised the fact that such a positive variation is sometimes so transient that it is necessary to draw off a sample of blood during the actual progress of the injection in order to satisfy oneself of the actual occurrence of such an increase of coagulability, and we have seen confirmation of this in the case of the protocol which has been quoted (*supra*, p. 459). It is therefore probable that Wooldridge's failure to obtain evidence of the occurrence of a positive variation of coagulability after his leucocyte injections was attributable to his not withdrawing a sample of blood immediately after his injection was completed. I believe, therefore, that Wooldridge's experiments do not in the least contradict those of Groth and Krüger. And it may be accepted that the phenomena of a positive phase, succeeded by a negative phase, are to be observed in exactly the same way after a leucocyte injection as after a tissue-fibrinogen injection. The identity of an injection of leucocytes with an injection of tissue-fibrinogen is also brought out by the results of Groth's leucocyte enumerations of the white corpuscles in the blood. These enumerations yielded the result that not only are the leucocytes of the circulating blood not increased by the large injections of leucocytes, but they are, on the contrary, positively diminished even in cases where no intra-vascular coagulation can be detected. This will become evident on the consideration of the following figures which I have extracted from Groth's paper:—

	Before injection.	After injection.
	Number of white corpuscles in the blood.	
Experiment 5	10,483	6115
" 6	29,265	5678
" 7	17,908	2512

It is thus evident that the increase of coagulability after leucocyte injection is associated with a breaking down not only of the injected but also of some at least of the aboriginal leucocytes of the blood, and this breaking down of leucocytes must evidently go hand in hand with a setting free of tissue-fibrinogen in the blood.

Up to the present we have been dealing exclusively with injections of leucocytes derived from the lymphatic glands, and we have to amplify the data thus obtained by a study of the effects of leucocytes derived from other sources. Here, again, we are indebted to Schmidt's pupil, Dr. Groth. Groth determined that the addition of pus cells to the circulating blood was followed by very similar results to those which resulted from the intra-vascular injection of lymphocytes. The phenomena of the positive phase—i.e., those of intra-vascular coagulation—were, however, much less prominent, and the negative phase was, on the other hand, perhaps rrelatively more marked than with lymphocytes. These observations have an important bearing upon the causation of the negative phase, inasmuch as the prominence of the phenomena of the negative phase after pus injections probably stands in close relation to the very considerable quantity of "peptone" or albumoses which Hoffmeister's researches have shown to be present in pus either as actually pre-formed or in such loose combination that the addition of moderate quantities of alkalies is sufficient to set them free.

I have now laid before you merely the broad facts which seem to me to point to the identity of the phenomena which are observed when, on the one hand, leucocytes, or, on the other hand, tissue-fibrinogen is injected into the blood, and if that connexion has been sufficiently established, it will necessarily follow that wherever we get a disintegration of leucocytes in the blood we have to deal with a setting free of tissue-fibrinogen. This liberation of tissue-fibrinogen in the blood will result in an immediate increase of the coagulability of the blood, which, if it does not culminate in immediate intra-vascular coagulation, will last only until such time as the organism shall have been able to accomplish the breaking down of the tissue-fibrinogen into albumoses. Further, we have to remember that when this reactive process is accomplished we are introduced to a negative phase of decreased coagulability which in its turn gradually passes off by the excretion of the albumoses in the urine. According to this view, therefore, the disintegation of leucocytes, the liberation of tissue-fibrinogen in the blood and the excretion of albumoses constitute a closely inter-related sequence of symptoms which must be constantly manifesting itself in the course of all such pathological processes as go hand in hand with an increase of leucocytes in the blood. I believe that the clinical facts do in effect bear out this view. The pathology of croupous pneumonia, for instance, supplies us with, I think, a very well marked instance of the inter-relation between the three members of our symptom-sequence. We have first an enormous increase of the numbers of the leucocytes, which, though they are for the most part to be found outside the vessels, are yet in immediate relation to them. We have then, especially when the stage of absorption is reached, the well-marked increase of coagulability in the blood, which I take it is due to the absorption of tissue-fibrinogen.[1] We have, further, the well-known occurrence of peptonuria, or rather, as Lea Dickinson and Fyffe have shown, of albumosuria; and in connexion with the presence of albumose in the blood we have, as Dr. Dickinson has pointed out, the frequent occurrence of diarrhœa, which, I may remark in passing, is also very frequently seen in connexion with injections of tissue-fibrinogen. The other cases of what we may call peptonuria—for the distinction between peptone and albumose is, after all, a very much over-rated one—are associated with pyæmic conditions and with the defervescence period of certain fevers, such as measles or scarlatina. Here, again, we are probably dealing with leucocyte disintegrations. Further, we have the peptonuria of osteo malacia, which, however, is apparently not an invariable accompaniment of that condition, but rather an accompaniment of any

[1] Since the date of this lecture I believe that I have definitely established this by preparing large quantities of tissue-fibrinogen from consolidated pneumonic lungs, which were very kindly obtained for me by my friends, Dr. H. S. Rolleston and Dr. E. H. Starling. A few cubic centimetres of the solution of this tissue-fibrinogen, when injected intra-vascularly, gave the typical universal thrombosis in a rabbit and the typical portal thrombosis in a dog.

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proliferation of the cells of the bone marrow, whether arising from that cause or from the presence of tumours. Lastly, we have the peptonuria of phosphorus poisoning, which is also probably due to the increase of leucocytes in the blood which is described in connexion with that condition. All these cases of what we may for convenience call peptonuria may be grouped together under the term of "hæmatogenous peptonurias."[1] I believe they are probably all due to a disintegration of tissue-fibrinogen in the blood. In contradistinction to these we have the class of what have been called "pyogenous peptonurias," because they occur wherever we have a mass of disintegrating pus in the body, provided the conditions are favourable to the absorption of the products of such decomposition. It is evident from the researches of Hoffmeister, which I have referred to above, that the further disintegration of the leucocyte, or of the tissue-fibrinogen which is liberated from it, into albumose may occur in the abscess itself, instead of in the blood. In that case we would, of course, not have any positive phase of coagulability from the absorption of tissue-fibrinogen.

We have thus seen that peptonuria is probably in all cases associated with an increase in the number of leucocytes in the system, and that an increase of coagulability in the blood is only to be expected where the primary product of their disintegration—i.e., the tissue-fibrinogen—obtains access to the blood. Generally speaking, this will occur when the leucocytes disintegrate in the blood stream itself. Further, the greater or less coagulability of the blood will generally depend upon the number of leucocytes present. We have an apparent exception to this last rule in the case of leucocythæmia, where, as is well known, the coagulability of the blood is decreased rather than increased. The explanation of this exception, however, here lies readily to hand, for the increased coagulability we have spoken of all along is a relation which obtains only as between leucocytes and normal plasma, and in leucocythæmia, as Jacob v. Samson-Himmelstjerna (another of Schmidt's pupils) has shown, the power which the leucocythæmic plasma has of breaking down the cellular elements of the blood for the purpose of fibrin formation is diminished, while the power possessed by the cellular elements of contributing a fibrin factor to the coagulation of healthy plasma is still retained.

The clinical evidence is thus apparently conclusive that the sequence of symptoms, increased production of leucocytes, increased disintegration of leucocytes in the blood, increased coagulability, subsequent peptonuria, is one which does not infrequently manifest itself; but as the importance of the subject seems to render it desirable to obtain even further experimental evidence upon this subject, I have endeavoured to make some further observations in connexion with this complex of symptoms. Two methods of experimentation suggested themselves. It was evidently possible, if a method of increasing the leucocytes in the circulating blood could be discovered, (*a*) to employ that means of increased production with a view to attaining a subsequent increased disintegration of the leucocytes in the blood by the natural destructive processes of the body, and, further, (*b*) it was possible to bring about the artificial disintegration of such leucocytes as exist at a particular moment in the circulating blood by the administration of some drug such as quinine (Binz) or atropine (Horbaczewski), which possesses this property of disintegrating the leucocytes present in the blood. I have as yet made a few preliminary experiments in each of these directions. My experiments in the first direction have been of a more or less incidental character, and were obtained in the course of experiments upon the question of immunity from anthrax, as obtained by means of injections of Wooldridge's tissue-fibrinogen. I noticed in connexion with these that some of my rabbits which were being put through a course of preparation for anthrax inoculation, consisting of daily injections of tissue-fibrinogen solution, died before the period for that inoculation arrived; and the post-mortem examinations revealed the existence of discoloured branching coagula in the heart and great vessels, which must evidently have been formed during the lifetime of the animals. Here we had, therefore, a late coagulation as a consequence of tissue-fibrinogen injection, a phenomenon for which I was totally unprepared. Some time afterwards, in reading over Groth's work on the injection of leucocytes, his figures, which pointed to an enormous increase of leucocytes in the blood two or three days after the injection of leucocytes, arrested my attention. I have verified these observations in some twenty rabbits in the case of injections of sterilised tissue-fibrinogen solutions, and have seen the leucocytes invariably considerably increased—sometimes increased to as many as six times their normal number. The subject is one which I am following up in connexion with its evident bearing on the causation of immunity by tissue-fibrinogen injections. What interests us, however, here is only the fact that an increase of leucocytes in the blood stands in evident relation to an increase of coagulability. With regard to the second method of experimentation—viz., the administration of quinine for the purpose of artificial disintegration of the leucocytes in the blood—I am not prepared yet to make a positive statement; but in several experiments which I made upon the subject I obtained at first an enormous increase of coagulability; and though I have in no case succeeded in discovering any intra-vascular coagulations under these circumstances, still it is at any rate suggestive that it has frequently been suggested that the blindness which sometimes comes on after the administration of poisonous doses of quinine may be due to retinal thrombosis, and I find that De Schweinitz[2] of Philadelphia has recorded at least one case in which quinine blindness in a dog was associated with thrombosis of the ophthalmic and retinal veins. That thrombosis is not of frequent occurrence after quinine is probably due to the fact that the system would be thoroughly well able to cope with an amount of fibrinogen comparable to that which would be derived from the disintegration of a normal quantity of the leucocytes present in the blood.

With this I have completed the survey of facts which I had prepared to lay before you on the afternoon originally fixed for this lecture. Since that time I have, however, come across a communication which has just been published by the very eminent Austrian observer, Horbaczewski, and which completes for us a whole missing chapter of our subject. I am only too conscious that I have already almost exceeded the limits of time appointed to me, so I will only ask to be allowed to put his results before you in a tabular form in their connexion with the work that has been done upon tissue-fibrinogen. Before throwing this tabular synopsis upon the screen I would like to point out where the missing chapter which Horbaczewski has supplied comes into our subject. Tissue-fibrinogen, as I have previously been able to point out, is chemically a nucleo-albumen—that is to say, it is a substance which is at first sight deceptively like an ordinary protein or albuminous substance. When, however, we subject it to a peptic digestion we find that instead of passing entirely into solution it deposits a voluminous precipitate of a phosphorus-containing substance known as nuclein. Hence we conclude that tissue-fibrinogen is twi-natured, that it is by its one-half an albuminous or protein substance, and that it is by its other half a nuclein, and that these two moieties are separable from each other by the process of digestion. These properties determine its classification as a nucleo-albumen. Now we have discussed the physiological importance of the whole substance, its relation to coagulation, and the increase of leucocytes which follows its administration, and we have followed the fortunes of the protein moiety into which it disintegrates. We know that that protein moiety is excreted as an albumose. We have, however, not inquired as to what became of the nuclein moiety in the system. That is the chapter which Horbaczewski has worked out for us. Horbaczewski, I may remark, prepared his nuclein by digestion from the leucocytes of the spleen without any previous isolation of the tissue-fibrinogen.

I would now, without any further preliminaries, draw your attention to the following table.

WOOLDRIDGE'S TISSUE- OR CELL-FIBRINOGEN.

Source of tissue-fibrinogen.—The protoplasm of leucocytes, also the protoplasm of the cells of the testicle, and probably also of yeast cells.

Chemical composition of tissue-fibrinogen.—This substance is chemically a nucleo-albumen or nucleo-protein, and

[1] This term has been employed by v. Jaksch for peptonurias which are, upon his assumption, produced by the liberation in the blood of peptone "carried" by the leucocytes.

[2] Ophthalmological Review, 1891. Reported in THE LANCET, Dec. 5th, 1891.

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contains a protein (or albuminous) and a non-protein (or nuclein) moiety.

Leucocyte.

Tissue-fibrinogen.	Paraglobulin and other cell proteins.

Protein moiety (is split off as albumose).	Non-protein (nuclein) moiety (xanthin bases and uric acid (Horbaczewski) obtained from this nuclein by simple chemical changes).

PHYSIOLOGICAL EFFECTS OF THE ADDITION OF TISSUE-FIBRINOGEN TO THE BLOOD.

1. *Immediate increase of coagulability* (Wooldridge's "positive phase of coagulability"). (*a*) Observed by Groth and Krüger after injections of leucocytes (intra-vascular coagulations produced). (*b*) Observed by Wooldridge after injection of solutions of tissue-fibrinogen (intra-vascular coagulations in portal area in the dog). (*c*) Observed by the author after injection of tissue-fibrinogen (intra-vascular coagulation in any vascular district where blood has been rendered adequately venous). (*d*) Probably comes under observation clinically in the increase of coagulability in the venous system in the resorption stage of pneumonia.

2. *Subsequent diminished coagulability* (Wooldridge's "negative phase of coagulability")—(*a*) Observed by Groth and Krüger after the injection of leucocytes; (*b*) observed by Wooldridge after tissue-fibrinogen injections, especially in the blood of the extra-portal vascular areas; (*c*) shown by author probably to depend upon the setting free of albumose or peptone by the disintegration of the tissue-fibrinogen in the blood; (*d*) no clinical record of occurrence.

3. *Excretion of albumoses or peptone in the urine* (referable to the protein constituent).—(*a*) Observed by the author after injection of tissue-fibrinogen solutions both in the dog and in the rabbit. (*b*) Observed clinically in connexion with the disintegration of leucocytes in pneumonia, pus-absorption, pyæmia, and proliferating tumours of bone marrow, &c.

4. *Increased excretion of uric acid* (referable to the nuclein constituent)—(*a*) Observed by Horbaczewski (in man and animals) after administration of nuclein prepared from the leucocytes of the spleen. (*b*) Shown by Horbaczewski to go hand in hand with every increase of leucocytes in the blood. (*c*) Comes under observation clinically in connexion with the increase of leucocytes in pneumonia (croupous) and leucocythæmia, burns, and scalds.

5. *Later occurring increased leucocytosis* (referable to the nuclein constituent)—(*a*) Observed by Groth two or three days after the injection of leucocytes; (*b*) observed by author after injections of tissue-fibrinogen; (*c*) observed by Horbaczewski after the administration of nuclein prepared from the leucocytes of the spleen; (*d*) possible connexion with immunity from anthrax obtained by tissue-fibrinogen; experiments with nuclein in progress.

I have not time here to go into the important issues which Horbaczewski's work opens up. I would merely point out that to the triad of symptoms which has been referred to in the body of this lecture we are now able to add two additional symptoms—namely, those that are enumerated on the table under headings 4 and 5. I would also point out that we find all the symptoms, 1, 2, 3, and 4, making their appearance in every ordinary case of croupous pneumonia, so that we may regard this disease as affording an almost classical instance of the effects of tissue-fibrinogen on the blood. The association of an increased uric acid excretion with peptonuria and with a more coagulable condition of the blood is not, however, limited to croupous pneumonia. It occurs also in connexion with, for instance, certain "rheumatic" or "gouty" conditions, and in connexion with burns and scalds. In the case of these last, we find thromboses in the portal area (leading to gastric and duodenal ulcers) associated with peptonuria and an increased uric acid excretion.

And now, in conclusion, I would desire to be allowed to express my very sincere thanks to the Councils of the Royal Colleges of Surgeons and Physicians, and more especially to the Laboratories Committee of the Conjoint Colleges, not only for their kindness in permitting me to work in their laboratories, but also for the very liberal manner in which I have been supplied with every appliance which was necessary for my work. Lastly, I feel that I have a debt of very special gratitude to discharge to Dr. Sims Woodhead for much unselfishly afforded assistance, and, above all, for his continual gift of sympathetic interest in the work upon which I have been engaged. I believe that I am only expressing what is felt equally by every other worker in these laboratories when I say for myself that the help and sympathetic interest of such a director of studies as Dr. Woodhead have come to me as an especial and superadded stimulus to endeavour that the researches which emanate from these Laboratories may be such as to justify the labour and care and expense which have been involved in their establishment and maintenance.

THE

THERAPEUTICS OF CERTAIN AILMENTS.

BY M. CHARTERIS, M.D.,

PROFESSOR OF THERAPEUTICS AND MATERIA MEDICA, UNIVERSITY OF GLASGOW.

CHLOROSIS.

THE leading symptoms of this affection, so often seen in young females at the age of puberty and from that period up to the eighteenth year, betoken an enfeebled circulation, which is dependent upon a marked deficiency of hæmoglobin, and to rectify this all authorities recommend the use of iron in large doses. But, as a rule, text-books do not descend to details as to the mode of administration. This is the important point, and to illustrate this I now give my experience of eighty cases, which during the last five years have come under my observation. I explain to the patient the object of the treatment by saying that her blood is thin, and that iron will alone do good, and that she must take it in a systematic manner. Her assent is gained by stating that if she acts as directed in less than a week there will be visible improvement of her health. This prognosis proves effectual, and she is told to take of pil. ferri or Blaud's pill three daily, and to go on increasing by one each day until fifteen at least are taken daily, and then to diminish the number by one daily. The time of taking them does not matter much, but it is better to swallow them at 9 A.M., 2 P.M., and 7 P.M. The tasteless character of the pills is mentioned, their non-aperient character explained, and in no case except one have I heard about any difficulty in swallowing them. Health is always restored in four weeks. The menses, if deficient or irregular, come on at the normal periods; but the patient should be told that the poverty of blood may return in the course of four or six months, and that it will be necessary, if this be so, to resume the treatment, beginning with the gradual increase mentioned, and going up to nine daily, and decrease by one daily. This number proves sufficient in the majority of cases, and, as a rule, there is no further relapse.

SEA-SICKNESS.

Some persons, unfortunately few in number, stand the sea well, and to them a voyage is from beginning to end a source of unmixed pleasure. Others stand it so badly that the prospect of a voyage is entertained with feelings of actual dread, or as a thing that must be endured. They expect to be sick, and this expectation is generally fulfilled. If we take a professional view of *mal de mer* we may say, more especially in relation to the treatment to be adopted, that there are two stages: first, pallor, nausea, vomiting, which is succeeded by a second stage, of exhaustion, retching, depression, and in many cases sleeplessness, or sleep not refreshing in its nature and attended by dreams of a painful character. The approach and duration of the first stage varies, but when begun it continues until the stomach is empty, and is succeeded by the second stage, which may be prolonged for a more or less indefinite period, in many cases extending even over the whole voyage. Various remedies have been advocated to avert the first stage—such as cocaine, antipyrin, nitrite of amyl, morphine, bismuth,—but at the present time it is generally conceded that no drug, or combination of drugs, cuts short an attack begun, or prevents its occurrence in those who are predisposed to it. Indeed, many believe that vomiting should be encouraged, by drinking warm water, so that the stomach may be sooner freed from its contents. In the second stage the remedies most relied upon are preparations of opium or morphine, hydrate of chloral, and bromide of potassium. Opium or

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morphine, if retained, will cause sleep, but at the expense of awakening with severe headache and a lack of appetite. Hydrate of chloral is dangerous if it be given in a hypnotic dose of thirty grains, for in such a dose it markedly weakens the action of the heart and leads to great depression. Bromide of potassium is safe, and its utility is recognised. Dr. Lauder Brunton says that "in sea-sickness it is perhaps more useful than any other remedy." The great objection, however, to its use is its saline pungent taste, which renders it very objectionable when the stomach is irritated and weak, and leads to its almost immediate rejection. Besides, unless it be given in large doses, it exercises little influence on the system as a hypnotic. Yet undoubtedly the bromide contains properties which cannot be minimised, and the question is how can these properties be rendered more valuable? The answer will now be given: By bringing to its aid another drug—chloralamide—which within the last three years has become a favourite remedy in treating cases of insomnia, because it is a safe and reliable hypnotic. It is prepared by combining chloral with foramide, and is a colourless crystalline body, soluble in nine parts of water and one and a half parts of alcohol. It differs from hydrate of chloral in its less solubility and its non-toxic action. Chloral depresses the action of the heart; chloralamide does not, for in a dose of thirty grains it will cause sleep without any change in the circulatory or respiratory system. In a word, it possesses all the advantages and none of the disadvantages of chloral. It is prepared by E. Schering of Berlin, which firm has a world-wide reputation as the makers of pure and reliable chemical compounds. The combination, therefore, of these drugs—chloralamide and bromide of potassium—was much to be desired. It is, however, no easy matter to do this, at least in a palatable and presentable form, and requires the services of a skilled pharmacist. At my suggestion and after many trials, Messrs. Burgoyne, Burbidges, and Co., London, have succeeded in making a solution palatable and stable. It will suit the most fastidious taste, and the therapeutic influence of the two chief constituents is markedly aided by the addition of other adjuvants. Their preparation is known as "chlorobrom," an ounce of which contains thirty grains of chloralamide and thirty grains of bromide of potassium. In this dose, when given in cases of insomnia dependent upon nervous excitement or mental strain, sleep ensues in the course of half an hour, and lasts from six to eight hours. This sleep is most refreshing, and the awakening from it is attended by no headache, no thirst, and no depression. The patient rises as if from natural sleep, perfectly fitted to undertake the duties of daily life, and, so far as I have seen, the habit of taking it is not engendered. There is no desire for its further use except when the same condition of sleeplessness occurs. The physiological action of chlorobrom being thus potent and beneficial when administered to persons on land, it occurred to me that I would try it in cases of sea-sickness when opportunity offered. This I did in my autumn holiday, first to Norway, and then to the United States. I knew it would do good if it was retained by the stomach, and the question of giving it was narrowed down to this crucial point. It was with great satisfaction that I noted, in ten cases where I gave it after the first stage of active vomiting had ceased, that in each it was not rejected. To make assurance doubly sure, I gave samples of the solution to ship surgeons for trial, and requested them to give me their unbiased opinion as to its action. Their verdict is altogether confirmatory, as the reports which follow show. Given at the time mentioned, for this is the *sine quâ non* of its administration, it has been invariably successful. It has always been retained, and it has always done good. A lady to whom I gave it writes a graphic and telling description of her sensations when sick, and the manifest improvement which followed upon its use. "I was very restless and sleepless, indeed was unconscious of having slept any for two nights. After taking a tablespoonful I quickly fell asleep, slept the whole night, and awoke as refreshed as when sleep is natural. I took it a second time with the same result. My good health and appetite for the remainder of the voyage I attributed to those two nights' sound sleep. I had no return of *mal de mer*, nor even any of its sensations. During the homeward voyage I longed very much for a dose; had I got it after the first sickness had passed off I am quite sure I would have got all right. After sea-sickness one feels so worn out and restless; now the hypnotic, besides producing sleep, soothed one so much that these feelings quite passed away. I certainly would not care to go another voyage without having it with me." I carefully watched its action in the case of a gentleman who, in a voyage from America in the autumn, shared a state cabin with me. On the morning of the first day after leaving port he became very sick, and continued so all day. In the evening he was very restless, and the retching was extreme. I gave him an ounce of the solution. He fell sound asleep in fifteen minutes, his breathing being easy and his pulse-rate normal. He awoke refreshed after eight hours' sleep, and continued well during the remainder of the voyage. Four ship surgeons, who have tried it, report as follows. Full reports of each case treated by these surgeons are in my possession, but their publication here would occupy too much space. Dr. Nevin, s.s. *Furnessia*, Atlantic Ocean, Sept. 13th, 1891, after giving it in three cases, says: "Its effect is instantaneous." Dr. Belcher, s.s. *Circassia*, after giving it in four cases, writes: "I have grave doubts if this solution would in any way check *mal de mer* in its first stage, but I feel confident it would assist and relieve, if not cut short, subsequent suffering if wisely used, more especially in those who have either debility or other troubles to battle with." Dr. Arthur Scott, Tilbury Docks, London, Dec. 18th, 1891, surgeon to s.s. *Clan Mackintosh*, on his return voyage from Calcutta, after giving it in ten cases, writes: "It appears to me to possess the inestimable advantage of being retained by the stomach, of ensuring sleep, and of leaving the patient free from headache." Dr. Andrew Wylie, s.s. *Hispania*, Port Said, Dec. 31st, 1891, after giving it in two cases reports: "Before the solution was taken everything was vomited, but the solution was not vomited, and small quantities of food taken afterwards were retained. It secured a sleep of eight hours, and the patients on awakening had good appetites, and declared they had never felt better in their lives." From my own observations, and from the conclusions of ship surgeons which have been given, I feel justified in saying that chlorobrom has the crowning advantage of being absolutely safe. It succeeds when other remedies fail; it secures by sleep the gastric and mental repose which nature craves for; it takes away all distress, all depression, and all the indescribable but terrible sensations of *mal de mer* in its second stage.

Dose.—In the case of females the dose is one tablespoonful; in males, one tablespoonful and a half. This solution has as yet only been tested in the second stage of sickness which is observed in a sea voyage lasting longer than twenty hours, but from its action I feel inclined to suggest its adoption as a prophylactic in short voyages—as across the Channel from Harwich to Rotterdam, or from Holyhead to Ireland. If so, these two rules should be followed out: 1. The passenger should prepare for the voyage by taking for two successive nights an antibilious pill which contains mercury and podophyllin. This stimulates the biliary secretion and its evacuation by the alimentary canal. 2. When on board, and if the passage be made by the night service, the passenger should avoid taking any food, but retire to the cabin, undress, lie down, and take an ounce dose of the solution. In all probability there would be a sleep so sound as to prevent any nausea or sickness, and on awakening land would be in sight.

INFLUENZA.

In my experience of this epidemic I have most faith in prescribing salicylate of sodium (pure) in twenty-grain doses every four hours for twenty-four hours. Copious perspiration follows, and the distressing features of the affection disappear, if there be no complications; but if these be present the salicylate should be abandoned, and therapeutic measures adopted according to the extent and gravity of the case. In ordinary cases, after discontinuing the salicylate, I prescribe for a week four grains of quinine in half a glass of sherry at 11 A.M., and the same quantity of quinine in a whole glass of sherry at 4 P.M. The patient should not go out of his bedroom until the expiration of at least ten days. In cases where the nervous depression is marked even after recovery, it is advisable to order the patient to go for a change to a bracing health resort or to take a short sea voyage.

PHTHISIS.

Repeated testimony has been borne by almost every observer to the undoubted efficacy of cod-liver oil and the hypophosphite of lime in the early stage of phthisis. The

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former gives nourishment to the body, and the latter exercises an alterative influence upon the process of tubercular change. Yet cod-liver oil should not be given by routine, but with definite rules as to its administration. To secure proper assimilation it should be prescribed in a teaspoonful dose at bedtime for three successive nights, then a dessert-spoonful at the same time. On the sixth and seventh days it should be taken in a dessert-spoonful dose after dinner and at bedtime, and afterwards in a table-spoonful dose after each meal. If so prescribed it does not cause eructation or nausea, and the doses may be increased in accordance with the wishes of the patient until the end of the fifth week, when it should be stopped for a week, and resumed. With each dose of the oil five grains of hypophosphite of lime dissolved in a little hot water should be taken. Thus administered, these medicines notably increase the strength of the patient, and returning health is evidenced by increased weight. If circumstances permit, and if the patient be young, a sea voyage is of inestimable advantage in maintaining the progress made to recovery, and if the voyage be to New Zealand and back in many cases the patient's health is established. I firmly believe that the hypophosphite of lime is the only form of hypophosphite of any value in tubercular disease. This opinion was expressed by me in communications to THE LANCET in 1876, when this salt was first introduced to the profession as an efficient therapeutic agent. All my subsequent experience confirms this view, and I do not consider its influence is increased by its combination with the sodium and iron salts.

CHRONIC CONSTIPATION.

Most purgative medicines, if used for any length of time, require their doses to be increased, and the habit of employing them is engendered. Cascara sagrada, on the other hand, can be prescribed with advantage in diminishing doses, and in time can be omitted altogether. Thus, a teaspoonful of the liquid extract, if given at bedtime, will cause action of the bowels after breakfast, which is accompanied by no griping and no intestinal uneasiness. The next night the dose should be fifty minims, the next forty, the next thirty, the next twenty, and afterwards a ten-minim dose should be taken for eight successive nights. As a rule it may then be discontinued, as the action of the bowels comes on in a natural manner at the same hour of the day.

ANGINA PECTORIS.

In this affection there is little doubt of the benefit of the inhalation of the nitrite of amyl or of the taking of nitro-glycerine—the latter being preferable for continued treatment. As illustrating this I shall give a short account of a case which came under my observation three years ago. I was called to see a man aged forty-five, whose condition was very pitiable. He was lying propped-up in bed, and complained of difficulty of breathing and intense cardiac pain. I prescribed a hydragogue cathartic, consisting of three grains of calomel and a quarter of a grain of podophyllin, and told him after the medicine had acted to take a tablet of nitro-glycerine twice daily. In the course of two days I saw him again, and found him much better. He has continued under my observation more or less since I saw him first, and can attend to his daily duties as a time-keeper in a large public work. The difficulty he experienced in walking with any ease has diminished by adopting a certain procedure in taking the tablets. His own words are: "There is a remarkable improvement in my health with regard to walking, and all through the tablets. By putting one in my mouth previously to starting to my work in the morning, I am able to walk at my ease to the gate-house without halting. Previously to doing this I had to halt, until the pain ceased, from three to five times, and such has been the case for over two years; I can now walk the distance in less than five minutes, and I have known it to take me twenty. I can now walk from my house to the tram-car without a halt, when it usually took me from five to seven stops."

Glasgow.

MUNIFICENT GIFT.—Mr. E. A. Pearn of Compton Leigh, near Plymouth, has given a mansion and twenty-four acres of land for the benefit of the Royal Albert Hospital, Devonport, and the South Devon and East Cornwall Hospital, Plymouth. On the land he purposes to erect a convalescent home, and will endow it for the joint use of the two institutions named. The gift has been gratefully accepted.

DISEASE OF THE TEMPORAL BONE.[1]

BY A. J. PEPPER, F.R.C.S. ENG.,
SURGEON TO ST. MARY'S HOSPITAL.

IF I were asked to mention the surgical diseases in which preventable deaths are most common I should cite strangulated hernia, perforation of the vermiform appendix, and suppuration in the mastoid cells. No doubt the majority of cases of inflammation of the middle ear and the surrounding bone tend to spontaneous cure, or at least to such amelioration as to place the sufferers apparently out of danger. I say apparently, because so long as a perforation of the tympanic membrane remains with discharge, however slight, whether continuous or intermittent, there is an abiding cause of a possible fatal issue. How often do we meet with instances of ear disease in which, perhaps, years have intervened between the initial attack and the subsequent accession of acute symptome—a renewal of the storm with its attendant threatenings. But there is another reason for the delay or neglect, as the case may be, in resorting to early operative interference. I refer to the regional anatomy of the parts affected. The close juxtaposition of the brain, the lateral sinus, and the carotid artery to the area of primary mischief has undoubtedly led the practitioner too often to defer or abandon the only treatment likely to be of the least avail. I cannot too strongly insist that such a reason implied or expressed is wholly untenable, that, in short, patients ought not to be left to a chance recovery when they can almost to a certainty be placed in security so far as life is concerned. The beneficial results offered by operation are not confined to cases where the disease is limited to the middle ear and mastoid cells, for on several occasions consecutive abscess in the brain has been successfully treated.

As regards the causes of inflammation of the petro-mastoid bone, it may be said that with few exceptions the affection is secondary to disease of the middle ear. Primary tubercular caries is comparatively rare, whilst syphilitic caries is much more so. Otitis media is usually the result of (1) some exanthematous fever, notably, scarlatina and measles; (2) disease of the naso-pharynx, such as ulceration and adenoid gowths (here the morbid change is due either to the inflammation spreading in the continuity of the mucous membrane of the Eustachian tube, or to obstruction to the escape of secretion from the tympanum); (3) exposure to cold. I will not weary the reader with detailing the sequence of events, which ends in the petro-mastoid bone being involved, but at once proceed to discuss the latter condition, its features, phases, consequences, and appropriate treatment. According to Gruber the various parts of the temporal bone are attacked in the following order of frequency:—1. The mastoid cells. 2. The roof of the tympanic cavity. Here the principal danger to be feared is extension of the disease to the middle fossa of the skull, with meningitis and abscess of the temporo-sphenoidal lobe of the brain as natural consequences. 3. The posterior wall of the meatus. In this case an abscess may form between the bone and the external ear simulating true mastoid abscess. 4. The plate of bone separating the mastoid cells from the lateral sinus, in which thrombosis of the sinus and cerebellar abscess are events to be feared. 5. The floor of the tympanum and posterior wall of the carotid canal. Congulation in the vein and hæmorrhage from the artery are possible sequelæ. 6. The petrous portion proper involving destruction of the labyrinth.

The above division is rather of pathological interest than clinical significance, for the disease is but seldom limited to the area first involved. I think it may be fairly said that few patients the subjects of chronic mastoid suppuration would lose their lives if the treatment were carried out on rational surgical lines, for even in the worst cases—providing of course that intra-cranial mischief and pyæmia have not commenced—a wide opening and free excavation of the bone by relieving tension and affording a ready escape for discharge are rapidly and surely followed by marked relief from symptoms which disquiet the surgeon and distress the patient. As regards acute cases, where dangerous and too often fatal symptoms supervene closely on abscess formation in the middle ear, there is less time in which to act, for

[1] A paper read at the Harveian Society, Feb. 18th, 1892.

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blood poisoning and cerebral mischief are apt to ensue early and develop with great rapidity. Sir W. Dalby says that in this division must generally be placed the unavoidable deaths. Whilst agreeing in the main with his opinion, my own experience leads me to believe that here, too, the mortality is far higher than it should be. Let us take, for example, a case of suppurative inflammation of the middle ear accompanying, or following closely in the wake of, scarlet fever. The tympanic membrane bursts and affords an exit for the pent-up pus. There is a temporary lull in the symptoms, the pain lessens, and the temperature falls. But soon the danger signals are full set again. What can the surgeon do more than use antiseptic injections, apply leeches, and carry out minor details which together make up the orthodox routine of treatment? If the mastoid cells are invaded, as they usually are, there is a resource left which ought at once to be employed—viz., to remove the outer plate of bone and break up the septal walls of the cells. I have practised this on several occasions, and always with complete success. There is no time to wait for fluctuation, œdema, or redness to manifest themselves externally, and there is no occasion for it. Deep-seated aching in the bone is always present; and, moreover, gentle percussion, and even pressure with the finger, suffices to increase the pain even when the superficial soft structures appear, and are in reality unaffected. I cannot lay too great stress on this fact. In cases like the above one has to meet the liability to suppuration in the skull, thrombosis of the lateral sinus, and pyæmia. The disintegration of septic clot in the sinus is a common cause of embolism and metastatic abscess. Thrombosis of the lateral sinus is indicated amongst other signs by œdema and swelling of the side of the neck. Besides, the coagulation is apt to extend along the internal jugular vein, which can sometimes be felt as a solid cord. In such a state of affairs treatment offers little chance of success, but still it should not be abandoned in despair. Given a certain diagnosis of a septic thrombus in the sinus, I would not hesitate to lay it open. The liability to hæmorrhage, immediate and secondary, must be kept in mind. Even should such a disaster happen, it would not be difficult to arrest the bleeding. I have seen the patent sinus entered by a trephine and the patient recover. Touching intra-cranial suppuration, I may here note that abscess in the brain from middle-ear disease is found either in the cerebellum or the temporo-sphenoidal lobe of the cerebrum. It is more common in the former situation, except in very early life, when the reverse obtains. The reasons why cerebral abscess is the rule in young children may be supplied, perhaps, by the following facts:—1. The petro mastoid and squamosal bones only undergo ossific union during the first year of life. Prior to this, suppuration may extend with readiness from the middle ear to the cranial cavity, the pus making its way through the thin intervening plate of cartilage. 2. The mastoid process is not formed until the second year, and the mastoid cells are not developed before the age of puberty. Although the mastoid bone contains in the first years of life a soft, jelly-like tissue which forms a favourable nidus for suppuration, the pus is not locked up, as it were, under pressure in bony cells. The least resistance is through the petro-squamosal suture and along the passage which transmits the large petrosal nerve. Relatively, too, I believe in very early life the plate of bone bounding the posterior fossa of the skull is thicker than that forming the roof of the tympanum.

I now proceed to discuss the principal complications of chronic disease of the petro-mastoid bone, and, first, I will treat of *facial paralysis*. From the long course the facial nerves take through the temporal bone extending from the internal auditory meatus to the stylo-mastoid foramen, and from the fact that there is sometimes a natural breach in the wall of the Fallopian aqueduct on its tympanic aspect, it is somewhat curious that it so often escapes being implicated. Facial paralysis from ear disease is relatively a rare event. It must always be considered a significant one, since we see how readily the inflammatory process may extend along the nerve to the cranial cavity. Symmetrical paralysis from double ear disease I have not seen. Now and then the nerve on the side opposite the bone lesion is affected. This may result from basic meningitis, but far more frequently it is part of a hemiplegia from abscess of the brain. Whether arising directly from the bone disease, or at a later stage from meningitis, the paralysis is as a rule general in its distribution, and not seldom total in quantity. On the other hand, when it participates in one-sided palsy of the body, the muscles of the upper part of the face may be expected to retain their power, wholly or partially. The following case, whilst illustrating this point, may be looked upon as an epitome of neglected ear disease, consequent on naso-pharyngeal adenoid growths.

W. F——, aged nine, was admitted under my care into St. Mary's Hospital on April 14th, 1890. This is his history. From July, 1888, to 1889 he breathed with his mouth open. There was no deafness and no paralysis, and his sight was good. In October, 1889, he began to lose his sight, and shortly after a discharge was noticed from his *left* ear. In December, 1889, a lump formed behind his left ear, which burst in January, 1890. About this time paralysis of the lower part of the *right* facial nerve and of the right arm manifested itself. Three months later the right leg was noticed to be weaker than the left. There had been no convulsions. In March, 1890, he was under the care of Dr. Bond, at the Golden-square Hospital. At that time there was offensive discharge from the left ear, and a sinus over the mastoid bone. He was almost absolutely blind. The pupils were large and equal; they acted but little to light. The ophthalmoscope revealed double optic atrophy. The right arm and leg were extensively paralysed. On April 2nd, 1890, Dr. Bond opened up the mastoid cells, and removed some post-nasal growths. On admission to St. Mary's, Mr. Juler reported double optic atrophy, with a small amount of central vision in the left eye. There was marked deafness in the left ear. The right upper limb was paralysed, mostly in the hand and forearm. The right leg was similarly affected. Both limbs were wasted and colder than on the left side. The urine contained no albumen and no sugar. On May 30th, 1890, with Dr. Broadbent's sanction, I trephined over the left temporo-sphenoidal lobe, and also over the cerebellum, but no abscess was found. Hernia cerebri formed at the former site. It was removed on Sept. 23rd, 1890, after which it re formed to a less extent. The patient left the hospital unrelieved on Jan. 11th, 1891. A few months later he died, but unfortunately no necropsy was made. This case demonstrates *inter alia* how insidiously disease of the middle ear and temporal bone may progress. Commencing blindness was noticed about the same time as the aural mischief, the special symptoms of which were submerged, as it were, by the graver phenomena. There can, I think, be no doubt that had the mastoid bone been trephined early the lad might have escaped his subsequent troubles.

Deep suppuration in the neck may owe its origin to disease of the middle ear or mastoid bone. An abscess forming external to the mastoid process may of course burrow widely and deeply, but I wish now to direct attention especially to a class of cases in which it commences at a greater depth. The local inflammation may extend either through the Glasserian fissure, in which event the temporo-maxillary articulation is very liable to suffer; or it may lead to perforation of the mastoid bone through the digastric fossa. Here the pus, meeting with the juxtaposed occipital artery, is conducted by it to the carotid sheath, along which it spreads. It is prevented from coming to the surface by the superjacent muscles and dense fascia.

J. K——, aged twenty-one, was admitted into St. Mary's Hospital on Sept. 22nd, 1890. He had had purulent discharge from the right ear as long as he could remember, but had suffered no inconvenience until a month before he came under my care. During that time he endured intense pain in the head. On admission his temperature was 105·8° F., accompanied with rigors. There was a tense swelling beneath the right sterno-mastoid muscle. No tenderness over the mastoid bone or temporo-maxillary joint. An incision an inch and a half long was made over the middle of the sterno-mastoid, and a large quantity of fetid pus evacuated. The abscess cavity reached from the base of the skull to the clavicle. His temperature next day was 97·5° F. Two days later a subgluteal abscess formed, probably pyæmic in nature; this was opened and drained. The patient left the hospital well on Nov. 3rd.

Recurrent external mastoid abscesses, in consequence of insufficient opening and drainage, may form at long intervals, the patient meanwhile remaining exposed to more serious complications.

E. M——, aged fifteen, was admitted to St. Mary's Hospital on July 16th, 1891. Seven years previously an abscess

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formed over the left mastoid process; a second developed in the same situation twelve months since. Both healed completely, and, except for deafness and discharge from the ear, her health was good. Five weeks before admission suppuration again occurred. On the latter date pus was escaping from the meatus and also from a sinus over the bone. She was very deaf in the left ear. The posterior wall of the meatus was necrosed. I scooped out the mastoid, perforated the necrotic wall of the meatus, and passed a drainage-tube from the meatus to the opening made externally. She was discharged cured on Aug. 8th.

Necrosis of the posterior wall of the meatus has a special significance, inasmuch as the fungating granulations—sometimes described as polypi—forming around the dead piece of bone block up the passage and hinder the escape of pus from the tympanum and mastoid antrum. So long as the sequestrum remains, although the granulations may be completely removed, fresh ones spring up very rapidly, the patient thus obtaining only a brief respite from pain. Through the kindness of my colleague, Mr. Field, I assisted recently in removing a piece of loose bone from the ear of a lady, which had caused intense agony from the condition just referred to.

Implication of the temporo-maxillary joint is by no means infrequent in disease of the middle ear. It is usually associated with widespread affection of the mastoid. The inflammation extends through the Glasserian fissure or between the bone and the cartilage of the pinna. There is stiffness of the jaw, inability to open the mouth properly, and swelling over the head of the bone. Owing to the looseness of the articular capsule a quantity of fluid can be accommodated in the joint, and hence fluctuation is often obtained quite readily. It is of the greatest importance not to mistake an abscess working up by the side of the joint for synovitis of the latter. The former is diagnosed by the extreme throbbing pain and tenderness, and by the amount of swelling, which is more diffused than that from a distended capsule. Of course, inflammation of the joint may be purulent, in which case more or less permanent fixity is to be feared. If the synovitis has not passed beyond the stage of serous exudation, it mostly subsides very quickly after an adjacent abscess has been laid open. The following case, for which I am also indebted to Mr. Field, shows the force of the foregoing remarks.

Mr. B—— caught cold five months before he came under my notice, resulting in tympanic abscess, which perforated the drum. About four months later an abscess formed over the mastoid bone. This was opened, but the symptoms generally did not abate. At this time there were difficulty in moving the jaw and a painful swelling over the head of the bone. On laying open the sinus over the mastoid an orifice, just admitting a small probe, was discovered in the bone, from which pus was slowly escaping. I trephined and let out a quantity of matter which filled the antrum and smaller cells. During this procedure the mastoid vein was wounded—an accident of no great moment,—but the bleeding was readily stopped by plugging. Although considerable relief was at first experienced, the pain and swelling about the jaw in a short time became worse. I detected deep fluctuation just in front of the joint, made an incision, and let out pus. A large portion of the zygoma was quite bared of periosteum; nevertheless, the patient made a rapid recovery, and the movement of the jaw became once more painless and free.

Sclerosing ostitis of the mastoid bone from chronic ear disease may prevent nature effecting an opening externally, and so increase the danger of suppuration spreading to the cranial cavity.

F. B——, aged about nineteen, deaf from childhood owing to disease of both middle ears. Latterly the pain in the left ear had been greatly aggravated. When seen in consultation with Mr. Field the pain over the mastoid was noticed to be much increased by pressure over the bone, although the soft parts were quite healthy. The pupil on the same side was dilated and fixed. The thick outer plate of the mastoid was removed with the trephine and a drop or two of pus set free. The new bone, which had largely encroached on the antrum, was like ivory. A drain was inserted. A fortnight later, as the pain was not alleviated, further operation was resorted to. With a Marshall's osteotrite the cavity in the bone was enlarged, and deep in the interior another abscess, holding only a drop of pus, was encountered. The pain soon afterwards ceased. The left pupil returned to its normal size. Noteworthy facts in this case are: 1. The temperature was raised but little above the normal. 2. That whereas in general the mastoid cells had been in great part obliterated by the new-bone formation, a tract of rarefying ostitis had absorbed the layer next the lateral sinus, the wall of which could be felt and the pulsation of the brain seen to be communicated to fluid injected into the cavity made by the operation. It is next to certain that had the patient been left to nature either thrombosis of the lateral sinus or cerebellar abscess would have ensued. M'Bride mentions sluggish pupils as a sign of intra-cranial irritation in chronic ear disease. In the case now narrated the pupil only on the affected side was dilated.

Wimpole-street, W.

SOME REMARKS ON DR. RUFFER'S LAST PUBLICATION ON THE DESTRUCTION OF MICRO-ORGANISMS BY AMŒBOID CELLS.

BY E. KLEIN, M.D., F.R.S.

IN THE LANCET of December 28th, 1891, there appears an abstract of a lecture delivered in the theatre of the Laboratories by my friend Dr. Ruffer, in which he criticises some remarks that I made in my lecture at the Royal Institution in February of last year concerning the insufficiency of Metchnikoff's theory of phagocytosis to explain immunity. It is chiefly these criticisms of Dr. Ruffer about which I wish to make here a few remarks.

On page 1433 Dr. Ruffer refers to a remark of mine as to the presence of phagocytes in the dorsal lymph sac of the frog, being insufficient to explain the immunity of that animal against anthrax after the injection into the lymph sac of the anthrax virus. What I said is this: "It must seem very extraordinary that this—viz., the presence of phagocytes—should be really a true explanation of the refractory state of the frog towards anthrax, considering that the bacilli, like other minute particles, when injected into the lymph sac would be absorbed and brought into the circulation in a few minutes, nay, seconds—at any rate some hours before the phagocytes have got into the lymph sac in *sufficient* numbers to do battle with the bacilli." I have italicised the word "sufficient," because, as will be seen presently, this is the essence of my remark, and it seems to have entirely escaped Dr. Ruffer's attention. Everyone who has worked with anthrax in the frog knows that if into the dorsal lymph sac of this animal, while in the normal condition, a large dose of anthrax material, containing hundreds of thousands of anthrax spores or anthrax bacilli, be injected, no anthrax disease follows, and everybody who has read Ranvier's "Traité Technique d'Histologie" knows that the lymph of the dorsal lymph sac of the frog, like all lymph, contains amœboid leucocytes. The question of importance for the theory of phagocytosis is obviously one of numbers of leucocytes present. Ranvier, who made this lymph the subject of special study, says (*loc. cit.*, p. 149): "La quantité de lymphe que ce sac en contient est très-variable suivant les circonstances; ainsi elle est en général presque nulle, si la grenouille a séjourné longtemps dans un endroit sec." Frogs kept in the laboratory never contain more than a few drops of lymph in the lymph sac, and the number of lymph cells, though great in the microscopic specimen, is insignificant if compared with the enormous numbers of spores and bacilli that can be, and have been, injected into the lymph sac of such frog without producing anthrax. It is therefore quite unnecessary for Dr. Ruffer to tell us that "he has found numerous phagocytes present in the normal lymph sac of the frogs he had examined." The point is not whether there are numerous leucocytes present in the lymph sac—which nobody disputes,—nor whether some of these leucocytes contain the bacilli—which also nobody disputes,—but the question is whether they are present in *sufficient* numbers to eat up and destroy the innumerable host of spores and bacilli injected, and whether the limited number of cells containing the bacilli is at all in proportion to the work. Surely Dr. Ruffer does not really maintain that spores and bacilli are not directly absorbed and carried into the circulation. He cannot mean to suggest that the number of cells containing the bacilli is at any time great, nor that the surplus of the spores and bacilli remain quietly lodged in

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the lymph sac till, many hours later, a sufficient number of leucocytes have been attracted to the seat of battle. Similarly, when Dr. Ruffer states "that the absorption of solid particles introduced into the lymph sac of the frog took place by the agency of leucocytes," he does not mean that if he injects a quarter or half a Pravaz's syringe of salt solution containing in fine suspension vermilion granules, all the vermilion granules remain in the lymph sac and are swallowed up by the leucocytes, and that vermilion granules are not carried by the lymph stream directly into the blood. If he does mean all these things, then all I can say is that his statements are contrary to the facts

In connexion with Dr. Ruffer's view that the anthrax spores and anthrax bacilli introduced into the dorsal lymph sac are destroyed by the leucocytes, and by these only, I should like to know what he has got to say to the extended observations of Sanarelli[1] as to the germicidal action on anthrax bacilli of the cell-free lymph of the dorsal lymph sac, inside and outside the lymph sac of the frog.

A second criticism of Dr. Ruffer is this:—"In another part of his lecture Dr. Klein states the cells seem to possess a particular chemical attraction for the bacteria, such as is possessed by certain chemical substances. ..... Now, every experimenter, without exception, has spoken of the bacteria attracting the cells, and not the cells the bacteria." Here also Dr. Ruffer quotes my words in a wrong sense, or rather in a wrong connexion. That he misunderstood them is shown by the statement which he immediately afterwards makes—viz.: "Clearly it is difficult to explain why, if the cells attract the bacteria, thousands of cells should migrate to the spot where micro-organisms are present, whereas if the bacteria attract the cells, the emigration of leucocytes can be readily explained." Dr. Ruffer obviously refers to the phenomenon of leucocytosis produced at the seat of inoculation, whereas I referred to an entirely different matter, as will appear from the following.

Pfeiffer first proved by systematic experiments that certain chemical substances attract bacteria, others repel them, and Baumgarten[2] says that these facts observed by Pfeiffer have probably an important bearing on the movement of both the cells and microbes within the infected human and animal body. Surely it is quite permissible to say that just as certain chemical substances of the bacteria attract or repel leucocytes (see Buchner's recent observations), so also certain chemical substances present in the cells and tissues attract or repel the bacteria. Is it not a well-established fact that the spleen is an organ which pre-eminently seems to attract microbes introduced into the subcutaneous tissue, the lungs, or into the blood? In the case of malaria, relapsing fever, typhoid fever, in anthrax and tuberculosis, is it not the spleen which is the organ, *par excellence*, which seems to attract and to offer the most suitable nidus for the microbes? In the acute exanthemata it is the skin, in hydrophobia it is the central nervous system, and in certain forms of cancer it is the epithelial and endothelial structures. Surely it is permissible to assume that there are present certain chemical substances in these different tissues which act in a "positive chemiotactic" sense on these different microbes, and hence make these tissues the selected nidus for their existence and growth. In the numerous instances of psorospermosis under discussion at the present time, it is chiefly the epithelial cells which are mentioned as the tissues attracting especially these micro-organisms. In artificially induced tuberculosis the tubercle bacilli are not present in the blood, but find in the cells of the spleen of the lymph glands and of the bone marrow the most attractive localities. And it seems to me also justifiable to assume—say, for instance, for the lymph cells of the tonsils—of the Peyer's glands, and similar superficially situated lymphatic structures, that the tissue fluids, being inimical to the existence of bacteria that pass into the tissue from the surface, they (the bacteria) find in the cells some attraction, some chemical substance which suits them, and hence these cells, far from being the enemies of the bacteria, are, on the contrary, their places of refuge, for a time at any rate. This view seems to me just as feasible as Dr. Ruffer's view, that because these cells contain bacteria, therefore they are the chief and only bacteria destroyers. It is well established that in some acute and chronic infectious diseases the specific bacteria are lodged chiefly in the leucocytes or similar cells, in which they grow and which they ultimately destroy. In Koch's mouse septicæmia, fatal in one to three days, the leucocytes of the blood are crowded with the specific bacteria, and by these the leucocytes become destroyed; in bovine tuberculosis, in tuberculosis artificially induced in rabbits and guinea-pigs leucocytes and similar cells are the principal substances in which the bacilli settle, and in which they grow; in the tubercular form of leprosy the nodules are entirely made up of round cells in which the lepra-bacilli grow, and which cells become gradually destroyed by the bacilli; in Koch's Egyptian ophthalmia the pus cells principally contain the bacilli, and by the growth and multiplication of the latter the cells become gradually destroyed; in gonorrhœa the gonococci are principally contained within the leucocytes, and by their multiplication gradually produce disintegration of the cells; in swine erysipelas in the pigeon the liver capillaries contain numbers of leucocytes in which the specific bacilli are very numerously present, and which thereby swell up and gradually disintegrate. Do not all these facts prove that in these diseases it is the cells which attract the bacteria? It is these cells in which the bacteria grow and multiply, and it is these cells which ultimately succumb to the bacteria.

A third criticism which Dr. Ruffer makes, and which I am quite at a loss to understand, is this: "Dr. Klein states that it has been proved beyond question that when the blood of an animal immune against a certain disease was injected into a non-immune animal suffering from the same disease the development of the disease is stopped." I did not exactly say this, but that "it has been shown that if an animal susceptible to a particular disease be first infected with the bacilli causing the disease, and then into such an infected animal the cell-free serum or plasma of the blood of an animal refractory to that disease be injected, the development of the disease in the former animal is stopped or prevented." In saying this I referred in a general way to the well-known results of the numerous and carefully conducted experiments on anthrax published by Ogata and Tasuhara,[3] to those of Behring and Kitasato on diphtheria and tetanus,[4] and I ought now to add the important researches of Tizzoni and Cattani[4] with regard to tetanus.[5] These last-named observers show that the serum of the blood of dogs made immune against tetanus possesses a powerful antitoxic action against tetanus; moreover, quite recently they have actually succeeded in *curing tetanus* in the human subject by the injection of that tetanus—antitoxin. How in the face of all these observations Dr. Ruffer can say "there is not the slightest particle of evidence to show that the serum of an immune animal, when injected into another animal, acts in the way described by Dr. Klein" I must leave Dr. Ruffer to explain.

In conclusion, I should like to draw the attention of the readers of THE LANCET to the recent work by Buchner and his pupils, as summarised by Buchner in the *Centralbl. f. Bact. und Parasit.*, vol. x., Nos. 22 and 23. From this account it is evident that even that last part of the theory of Metchnikoff, to which this latter still clings to—viz., that the destruction of bacteria by the leucocytes *forms part* of the general process of destruction of bacteria in the tissues of a refractory animal—has lost its last foundation. The phenomena on which Dr. Ruffer in his lecture lays so much stress—viz., that in Rauschbrand in the rabbit the local leucocytes and the taking up of the bacilli by the leucocytes is an expression of the bacilli becoming destroyed by the cells, and that these recent observations of his have confirmed him in his "former opinion that the destruction of micro-organisms in living tissues is accomplished by the cells of the body, and by the cells only," receive in Buchner's experiments an altogether different, and it seems to me a more feasible, explanation; it is to the effect that the first and decisive inimical influence on the infective microbes in a refractory animal and in living tissues is due to *the chemical action of the tissue juices*, that this *precedes* the taking up of the microbes by the leucocytes, that this latter phenomenon is entirely dependent on the former, and without the former primary process phagocytosis is impossible.

Earl's Court-square, S.W.

[1] Centralblatt f. Bact. und Parasit., ix., 14, 15, 16.
[2] Jahresbericht, iv. 2, p. 368.

[3] Deutsche Med. Wochenschrift, 1890, No. 49.
[4] Centralblatt fur Bact. und Parasit., ix., No. 21; and x., Nos. 2 and 3.
[5] An error occurred in the printed account of my lecture, which error Dr. Ruffer is quite correct in pointing out—viz., that rabbits are not immune against tetanus; it ought to have been stated that the blood, not of immune rabbits, but of rabbits made immune against tetanus, was used for protective inoculation.

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THE RESULTS OF MAJOR AMPUTATIONS TREATED ANTISEPTICALLY

IN THE ROYAL INFIRMARY, NEWCASTLE-ON-TYNE, DURING THE YEAR 1891, AND FOR A PERIOD OF THIRTEEN YEARS AND NINE MONTHS—VIZ., FROM APRIL 1ST, 1878, TO DEC. 31ST, 1891.

BY FREDERICK PAGE,

SURGEON TO THE ROYAL INFIRMARY, NEWCASTLE-ON-TYNE; CONSULTING SURGEON TO THE FLEMING MEMORIAL HOSPITAL FOR SICK CHILDREN; LATE EXAMINER IN CLINICAL SURGERY IN THE UNIVERSITY OF EDINBURGH.

DURING the year 1891, as will be seen from Table 1, eighty-three major amputations were performed upon eighty-one patients, two males, an adult and a boy, losing two limbs, in each case a thigh and a leg. This is the largest number of amputations performed in a year in the infirmary during the period I have recorded results—viz., from April 1st, 1878, to Dec. 31st, 1891, thirteen years and nine months; and I believe it to be the largest number that has ever been performed in the institution since its foundation in 1751, one

TABLE I.

Table of Major Amputations treated Antiseptically in the Royal Infirmary, Newcastle-on-Tyne, during the year 1891.

Operation.	Injury.			Disease.			Total.
	No.	Rec.	Died.	No.	Rec.	Died.	
Double amputations..	2	1	1	0	0	0	2
Hip-joint	2	1	1	2	2	0	4
Thigh	5	4	1	14	13	1	19
Knee-joint	1	1	0	0	0	0	1
Leg	10	7	3	6	6	0	16
Ankle-joint	2	2	0	17	17	0	19
Shoulder-joint	3	3	0	2	2	0	5
Arm	6	5	1	0	0	0	6
Forearm	4	4	0	5	5	0	9
Wrist	0	0	0	0	0	0	0
Totals	35	28	7	46	45	1	81

hundred and forty years ago. The mortality has been unusually high; for of the eighty-one patients operated upon eight died—9·8 per cent. The high mortality is accounted for by the nature of some of the accidents. Thirty-five of the patients, all males, were operated upon for injuries, and seven of them died, four within thirty hours of the operation from shock, two from blood poisoning, and one from delirium tremens. This is a mortality of 20 per cent. During a period of five years—viz., from 1883 to 1887—one hundred major amputations were performed for injury in the infirmary, and only four patients died. The amputations for disease have been very successful during the past year; forty-six patients were operated upon, and only one died—2·1 per cent. During the four years from 1888 to 1891, 138 major amputations were performed for disease, and five patients died—a mortality of only 3·6 per cent. It will always be exceedingly difficult in a hospital situated like ours to avoid for any lengthened period a comparatively high mortality from primary amputation, so very much depending upon the nature of the accident for which the amputation is performed. How much the mortality from traumatic cases depends upon the nature of the accident is realised by a perusal of the precise cause of the seven deaths which have occurred after amputation for injury during the year 1891.

PRECISE CAUSE OF DEATH.

Case 1.—Male aged twenty-nine; died thirty hours after primary amputation through the middle of the right thigh, and of the left leg at the seat of election, from shock. Railway smash.

Case 2.—Male aged thirty-two; died twenty-nine hours after primary amputation at the hip-joint, from shock.

Case 3.—Male aged fourteen; died twenty-two hours after primary amputation of the thigh, from shock.

Case 4.—Male aged thirty-one; died eighteen hours after amputation of the arm, performed fourteen days after a bullet wound of the forearm, from blood poisoning. Patient had septicæmia at the time of the amputation.

Case 5.—Male aged nine; died five hours after primary amputation of the leg, from shock. The boy had also a fracture of the pelvis and of the ribs and other internal injuries.

Case 6.—Male aged twenty eight; died eight days after primary amputation of the leg at the seat of election, from delirium tremens.

Case 7.—Male aged fifty; died seven days after primary amputation of the leg at the seat of election, from blood poisoning. Had been a heavy drinker.

Case 8.—Female aged twelve; died eight days after amputation of the thigh for tubercular disease of the knee-joint, from tubercular meningitis.

Table 2 gives the results of major amputations from Jan. 1st, 1883, to Dec. 31st, 1891, during which period I have recorded the precise cause of each death. Of the 527 patients operated upon 38 died—7·2 per cent.; 207 of the patients were operated upon for injury, and 23 died—11·1 per cent.; 320 of the amputations were for disease, and 15 died—4·6 per cent.

TABLE II.

Table of Major Amputations treated antiseptically in the Royal Infirmary, Newcastle-on-Tyne, from Jan. 1st, 1883, to Dec. 31st, 1891, a period of nine years.

Operation.	Injury.			Disease.			Total.
	No.	Rec.	Died.	No.	Rec.	Died.	
Double amputations..	7	4	3	0	0	0	7
Hip-joint	6	3	3	14	10	4	20
Thigh	30	26	4	112	106	6	142
Knee-joint	7	7	0	2	2	0	9
Leg	54	47	7	49	47	2	103
Ankle-joint	21	20	1	93	91	2	114
Shoulder-joint	11	10	1	9	9	0	20
Arm	33	30	3	14	13	1	47
Forearm	31	30	1	27	27	0	58
Wrist	7	7	0	0	0	0	7
Totals	207	184	23	320	305	15	527

Table 3 gives the results of major amputations from April 1st, 1878, to Dec. 31st, 1891, a period of thirteen years and nine months.

TABLE III.

Table of Major Amputations treated antiseptically in the Royal Infirmary, Newcastle-on-Tyne, from April 1st, 1878, to Dec. 31st, 1891, a period of thirteen years and nine months.

Operation.	Injury.			Disease.			Total.
	No.	Rec.	Died.	No.	Rec.	Died.	
Double amputations..	7	4	3	0	0	0	7
Hip-joint	6	3	3	16	10	6	22
Thigh	46	37	9	149	140	9	195
Knee-joint	10	9	1	6	6	0	16
Leg	74	63	11	73	71	2	147
Ankle-joint	25	24	1	109	107	2	134
Shoulder-joint	14	13	1	11	11	0	25
Arm	44	39	5	20	19	1	64
Forearm	39	38	1	31	31	0	70
Wrist	7	7	0	0	0	0	7
Totals	272	237	35	415	395	20	687

The total number is 687, with 55 deaths, a mortality of 8 per cent; 272 of the operations were for injury, with 35 deaths—12·9 per cent.; 415 were for disease, and 20 patients died—4·8 per cent.

Newcastle-on-Tyne.

ONE-HOUR CRISIS IN PNEUMONIA.

BY SAMUEL WEST, M.D.,

ASSISTANT PHYSICIAN TO ST. BARTHOLOMEW'S HOSPITAL; SENIOR PHYSICIAN TO THE ROYAL FREE HOSPITAL.

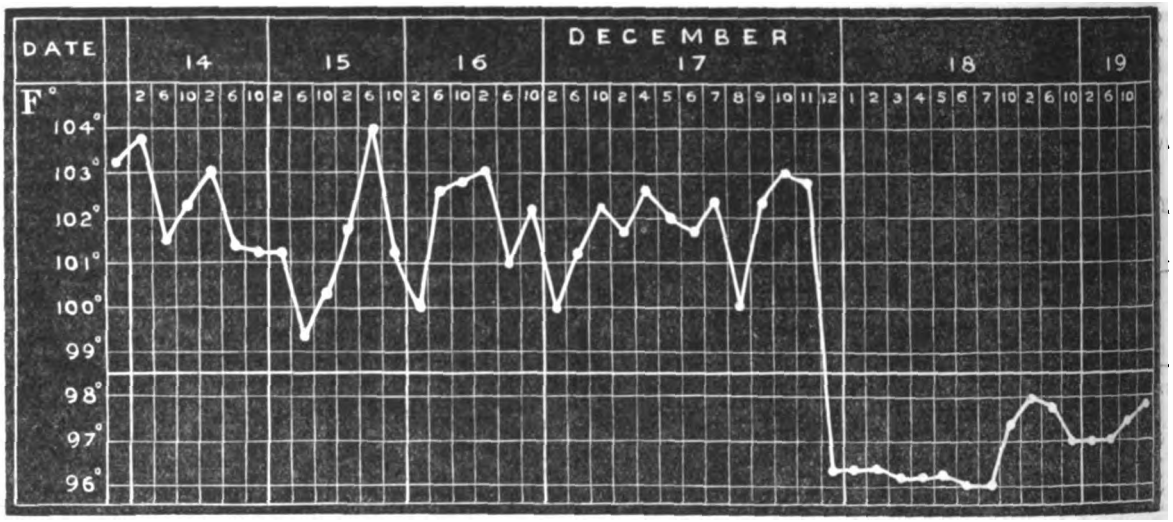
ABRUPT as the crisis is in pneumonia, it proves on analysis to be hardly so sudden as it seems. In most cases the temperature does not reach the normal until after some hours. The average of one hundred cases, which I examined with especial reference to this point, proved to be twelve hours.

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A crisis complete in eight hours was not frequent. The shortest in this series was of six hours' duration, and the shortest on record, so far as I know, lasted four hours. The present case is, I believe, unique, for in it the temperature fell from 103° to 96° in the space of one hour. I had been for some time interested in the fall of temperature during the crisis of pneumonia, and had given instructions that the temperature should in some of my cases be taken every hour, and it is to this that the observation is due. The patient was a lad of nine years of age, who had been in good health, except that he had once or twice in his life had a fit. On Dec. 13th, having been previously as well as usual, he was suddenly seized with a fit, and became very ill. Remaining unconscious and growing feverish, he was brought to the hospital, and was admitted. He was found with a temperature of 103°, pulse 110, and respiration 52, and proved to have left apex pneumonia. During the next twenty-four hours he had two more fits and remained deeply unconscious and delirious. For the next two days the patient continued in much the same state of delirium and fever, and the signs at the apex developed further. (See chart.) On the 17th—i.e., the fifth day of the disease—I gave orders that the temperature should be taken every hour. At eleven o'clock that evening the temperature was 103°, and at twelve o'clock 96·3, having thus fallen nearly seven degrees within the hour. The nurse stated that at eleven o'clock the patient woke up suddenly in what she thought to be a fright, and seemed to be extremely ill. At one o'clock when the house physician saw him, and confirmed the temperature taken by the nurse, the lad was sweating profusely, was less delirious, and seemed to be much better. The next day he was convalescent. Bronchial breathing continued until the 24th, after which the physical signs rapidly cleared up and he was soon quite well. If the pulse- and respiration-rate be followed, it will be seen that the crisis was preceded, as it so often is, by a drop in the pulse-rate, accompanied in this case by a drop in the respiration-rate also —16th: Pulse 120, respiration 60.—17th (morning): Pulse 96, respiration 56; evening, pulse 80, respiration 36 —18th: Pulse 68, respiration 32 —28th: Pulse 80, respiration 24. On leaving the hospital the pulse was 70 and the respiration 20.

A fall in temperature so sudden as this must be very rare; still, if the temperature can rise as suddenly as we know it does, there is no *a priori* reason why it should not fall as quickly. I have seen the temperature rise from normal to 108° in the course of twenty minutes. This occurred in a man of about thirty-five, upon whom a catheter had been just passed. Except for the stricture he was not supposed to be unhealthy. He died three days later, and proved to have granular kidneys. The physical difficulties of raising ten stone weight of living tissue ten degrees in twenty minutes are very considerable, and seem to require something almost of the nature of an explosive chemical decomposition, nor are the difficulties much less of cooling a weight of six stone of living tissue seven degrees in an hour. If the sudden rise seems to require some chemical decomposition, the sudden fall would seem to require the re-forming of some complex substance which had been previously split up. Rare as are the instances of such rapid rise and fall of temperature as those referred to, still account must be taken of them in any theory of fever which is to satisfy all the facts of the case.

Wimpole-street, W.



Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF PERITYPHLITIS.

BY WM. TIPLADY, L.R.C.P., L.R.C.S.ED., L.F.P.S.G., &C.

ON Oct, 1st, 1891, I was called to see a child aged six years. On arrival I found the child very ill. Temperature 103°; pulse 120. Tongue dry, the knees drawn up, and vomiting incessantly, with pain in the umbilical region. Three days previously the patient had been riding on the back of an older girl, who had slipped and fallen backwards; hence our little patient had suffered from the fall and the weight of her companion as well. The fall had caused severe injury; for there were faintness, vomiting, and pain, which had never ceased till I was called in. On examination I could not make out any invagination of the bowel. There were no bloody evacuations, and no tumour could be detected; but there were intense pain, localised in the umbilical region, and tenderness so great that even the bedclothes were not permitted to touch the painful part. The effort to extend the legs from their flexed position caused great increase of the pain, and there was uncontrollable vomiting and constipation. Perityphlitis was diagnosed, caused by the fall.

The treatment consisted in enemata of warm water, which were successful in relieving the constipation, liquid nourishment, fomentations with turpentine, absolute rest, and opium in large doses. For a few days the patient remained more or less in the same condition, and the treatment was continued; but on Oct. 8th the patient was certainly worse in every respect. There was now diarrhœa, with a peculiarly fetid odour, and severe pain. Temperature 104°, pulse 130, tongue dry, and teeth covered with sordes. The abdomen was very tympanitic, respiration 50 and greatly embarrassed, and signs of collapse and approaching death. As a last resource, and the only hope in this desperate condition, I decided to open the abdomen in the median line, although the prospect of success was small. Hence a median incision was made, and upwards of a pint of pus with a peculiarly fetid odour was found. Evidently perforation of the bowel had taken place, for after pus fæcal matter came away freely, and continued to do so for some days. The whole cavity was well washed several

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times daily with pure warm water. No drain was employed, but the wound left open, which was dressed with carbolised lint made into thick pads, and kept in position by a broad binder. The temperature fell, pulse improved, the pain disappeared, and, though the patient continued in a serious condition for a few days, improvement followed, and an uninterrupted and complete recovery took place.

Coupar Angus, Perthshire.

THE EFFECTS OF INFLUENZA UPON THE MIDDLE EAR.

By J. WALKER DOWNIE, M.B.,

FELLOW AND EXAMINER IN AURAL SURGERY FOR THE FELLOWSHIP OF THE FACULTY OF PHYSICIANS AND SURGEONS, AND SURGEON TO THE THROAT AND NOSE DEPARTMENT OF THE WESTERN INFIRMARY, GLASGOW, ETC.

SIR WM. DALBY, in his "Note on the Effects of Influenza upon the Middle Ear' in THE LANCET of Feb. 20th, ends by saying that "a person with healthy ears has little to dread from influenza so far as this mucous surface [lining membrane of middle ear] is concerned; but it may become a serious trouble to one whose ears have formerly been the seat of inflammation." I fully agree with the latter portion of this opinion, founded by Sir William Dalby on his experience. Several cases similar to some of those described by him have been under my care, where an ear at one time the seat of inflammation, and bearing evidences of the inflammatory process—impairment of hearing, perforation of membrana tympani, &c.,—and which for many years had remained quiescent, again became acutely inflamed, and in some cases with markedly purulent discharge, as the result of influenza. The first part of the summary is not, however, according to my experience. We might suppose that those who have had scarlet fever and measles without suffering from tympanal inflammation might hope to escape such a complication when affected by epidemic influenza. But such is not according to my observation. I have lately had several cases in dispensary practice and in private of adults who previously had been free from any affection of the ears, but who during or immediately subsequent to an attack of influenza had acute middle ear suppuration. In all cases one ear alone was affected; in only one had I the opportunity of perforating the membrane, as in the others the membrane had been ruptured by the pent-up muco-pus very early. In the majority the ear became involved as the fever was abating. From reports I do not think that in Glasgow and neighbourhood influenza has been so general or so severe in character as experienced in London and other localities, yet I have seen a considerable number of cases of middle-ear inflammation following influenza in those who formerly had no "ear weakness," and thus I would take exception to Sir William Dalby's first conclusion, "that those with healthy ears have little to dread." Apart from implication of the middle ear, there have been several cases where symptoms closely resembling those associated with Ménière's disease have followed an attack of influenza. Those which came under my notice were associated with other symptoms pointing to the involvement of other nerve centres, but in one where deafness, giddiness, and ringing in the ears were the most marked signs, these disappeared as convalescence progressed.

Glasgow.

CHRONIC ARSENICAL POISONING.

By W. HARDING, M.B,

COUNTY ASYLUM, BERRY WOOD.

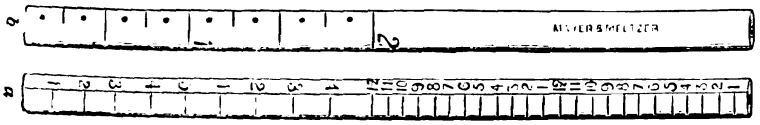
A GOOD example of chronic arsenical poisoning on a large scale occurred in this asylum, and a short account of it may be both interesting and instructive. In the endeavour to make the wards of an asylum bright and cheerful, and to do this at as little expense as possible, it is not improbable that the nature of the colouring materials used may be overlooked, and that some of the gastric and intestinal disorders which disturb the peace of mind of medical superintendents may be cases of arsenical poisoning. For a long period the nurses here were in poor health. First one and then another was laid down until, within a few months, nearly every nurse on the staff had been, or was, under medical treatment. Headache, neuralgias, gastric derangements, loss of appetite, constipation or diarrhœa, irritation of eyelids, anæmia—these were the chief symptoms complained of. Drugs did not appear of much avail, but a holiday had a marked effect for good. At last one nurse had the eye symptoms in a more pronounced form, and suspicion was aroused. In each nurse's room was a green baize curtain, used as a covering for dresses &c. A portion was taken and examined. It was found to be impregnated with arsenic to an astonishing extent. These curtains were removed; the rooms freely ventilated; medical treatment was stopped: the symptoms disappeared, and, though some months have elapsed, have not returned. The baize was similar to that used for covering doors &c., and was obtained from two manufacturers.

Berry Wood, near Northampton.

RULE AND SCALE FOR USE IN TREPHINING THE SKULL IN CASES OF AURAL DISEASE.

By H. MACNAUGHTON JONES, M.D., F.R.C.S. I. & ED.

IN operating recently in some cases of mastoid disease it struck me that a four-inch circular rule, marked in fractions of an inch, which the surgeon might carry in his pocket-case, would be of use in opening the skull, whether the mastoid antrum, the lateral sinus over the cerebellum, or the temporo-sphenoidal lobe. Also, that if he had with this a scale which would afford him an immediate guide to the exact spot on which to place the pin of the trephine, it would be of great value in assisting his memory in cases of emergency. Accordingly I had this rule and thin scale made of ivory by Messrs. Mayer and Meltzer as shown in the engraving.



The rule is one-fifth of an inch in its largest diameter, and four inches in length, and is marked in fractions of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{3}$, and $\frac{1}{16}$ of an inch. The thin flat scale contains on one side the guides to trephining the skull, as laid down from the careful and exhaustive investigations of Dr. Ambrose Birmingham.[1] On the reverse side are the explanations of the marking. Such a rule and scale can be used not alone to ascertain the relative distances from the meatus, but also to guide the surgeon as to the depth to which the trephine is carried—an important point, as shown by Dr. Birmingham, in opening the antrum, not alone with regard to the lateral sinus, but also from the proximity of the external semicircular[2] canal, "which is in some cases not more than seventeen millimetres from the surface."

Harley-street, W.

GUIDES TO TREPHINING THE SKULL (*Birmingham*).

L.S. = 1½ in. behind M. × level with upper border.
T.S.L. = 1½ in. behind M. × 2 in. above it.
M.A. = ½ in. above level of and behind m.; depth ⅜ in. to ¾ in.
C. = 2 in. behind M. × 1 in. below R.B.L.

EXPLANATION OF MARKING.

L.S. Lateral Sinus.	M. Centre of Bony Meatus.
T.S.L. Temp. Sphen. Lobe.	M.A. Mastoid Antrum.
C. Cerebellum.	R.B.L. Reid's Base Line.
m. Superior Margin of Bony Meatus.	

[1] Paper read before the Academy of Medicine
[2] Dublin Journal of Medical Science, Feb 1891.

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A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

SEAMEN'S HOSPITAL, GREENWICH.

TWO CASES OF COMPOUND SEPARATION OF THE SUPERIOR EPIPHYSIS OF THE HUMERUS.

(Under the care of Mr. W. JOHNSON SMITH.)

THESE two cases of compound separation of the upper epiphysis of the shaft of the humerus exhibit examples of a rare surgical injury. The upper epiphysis, including the two tuberosities, is not united to the shaft until the age of twenty, and it is not very uncommon to meet with simple divulsion of this epiphysis in the accident wards of our large hospitals below that age. The treatment of this injury is admittedly a difficult one, probably the most difficult of those affecting the upper end of the humerus. In a case reported by Dr. F. W. Murray he found it necessary to excise three-quarters of an inch of the shaft, and Lange has made known a similar case. Mr. Johnson Smith's cases show the amount of violence necessary to produce compound separation of the epiphysis and the good results which may be obtained by treatment. The ultimate result in the first case is especially noteworthy; for although it appears that nearly two inches and a half of the shaft were excised, sufficient new bone was formed from the periosteum which remained, and from the separated ends, to compensate for about one inch and a half of this, and form a bone apparently perfect.

Compound fracture of the right humerus at the junction of the shaft and the upper epiphysis.—John F——, an Irish boy aged fourteen, was admitted on August 18th, 1891, with an injury to the right shoulder, complicated by protrusion of bone through a wound in the axilla. All that could be learnt as to the cause of this injury, which had occurred about half an hour before admission, was that the right sleeve of the patient's coat had been caught in some machinery, and that the arm had been violently wrenched. The boy when first seen in the ward was pale and collapsed. The injured arm was abducted and rotated outwards. There was much swelling over the outer side of the shoulder. In the outer boundary of the lower third of the axilla there was a transverse wound about two inches and a half in length, through which protruded the upper end of the shaft of the humerus detached from the head. This protruded portion of bone, which was two inches in length, was completely denuded of periosteum. The upper surface, which was also quite bare, was even over its anterior third, then rose into a small rounded elevation, and shelved off obliquely to the posterior surface of the bone. The anterior half of the surface was smooth, and presented a continuous layer of compact bone tissue, whilst in the posterior half the spongy tissue was exposed, as if a small portion of the upper end of the shaft had been broken away. There was no bleeding from the wound at the time of admission, and the patient's clothes were but slightly stained by blood. On examination of the seat of injury, whilst the patient was under the influence of ether, it was found that the protruded end of the humerus had passed between the median and ulnar nerves, and that one surface of the bone rested upon and firmly compressed the main artery. The denuded portion of the shaft of the humerus was thrust through the wound in the axilla and sawn off. The detached portion from which the periosteum had been stripped away measured two inches and a half in length. The shortened end of the shaft then fell back into the axillary space, and rested very near to the head of the bone. The capsule seemed to be intact, and no orifice could be found leading into the joint. As there was much swelling in front of the shoulder, it was found impossible to make out whether or not the long tendon of the biceps had been ruptured. A drainage-tube having been thrust to the bottom of the wound, this was closed by sutures, and the seat of injury covered by a large wood-wool pad. A firm pad was placed in the axilla, and the upper limb bandaged to the side of the chest.

The patient progressed favourably after the operation. During the first three weeks the recorded temperature was usually normal and never higher than 99·5°. The wound healed slowly, but without any discharge of pus. The movements of the arm were much restricted for some weeks, but when the boy was discharged on Oct. 13th were quite free. He could then lift the limb a little above the level of the shoulder and move it to the full extent in the forward and backward directions. The movements of rotation were much restricted.

On Jan. 12th, 1892, the patient was again seen at the hospital. The movements of the right arm were then quite free in every direction, and this limb, the boy asserted, was as strong and useful as the left one. There were no signs of muscular atrophy, and no appreciable difference could be observed in the thickness of the two limbs. Repeated measurements were made of both arms from the tip of the acromion to the external condyle, but shortening of not more than one inch could be made out on the right side. The right shoulder was rounded, and did not differ in external appearance from that on the opposite side. There was clearly firm union between the head and the shaft of the bone. The boy had since the middle of November earned eight shillings a week by manual labour, consisting mainly in his moving heavily laden wheelbarrows.

Distortion and uselessness of arm after compound fracture through the upper epiphysial line; operation.—W. L——, aged eighteen, a Danish seaman, was admitted into the Seamen's Hospital on Jan. 28th, 1891. On Nov. 16th, 1890, the patient fell from the topsail yard on the deck, injuring his head and left shoulder. He stated that there was a large wound in front of the joint, through which protruded a long piece of bone. This in the course of the voyage, which lasted till Jan. 26th, gradually fell back into the wound, and was covered over by scar. There was no medical man on board the ship, and the patient was treated simply by rest and the application of ointments to the wound. At the time of the patient's admission the left upper limb as compared with the right was wasted and cold. He could move the limb freely at the elbow and wrist, but the movements of the shoulder were much retarded. He could move the elbow away from the side of the chest to the extent only of about an inch and a half. The length of the left arm, measured from the acromion to the external condyle, was eleven inches and a half; that of the right arm twelve inches and three-quarters. In front of the shoulder, beginning about two inches below it, was a broad, irregularly shaped cicatrix, measuring three inches in the vertical direction. Immediately beneath this was a prominent hard projection, formed by the upper end of the shaft of the humerus displaced inwards and forwards. The upper end of this portion of the bone, which had evidently been detached from the head, was smooth and slightly rounded. The head of the humerus seemed to be in its normal position. After attempts had been made without success to restore the free action of the shoulder-joint by passive movements, ether was administered on Feb. 17th, and the prominent portion of bone exposed by a vertical incision about four inches in length. The anterior two-thirds of the upper end of the shaft presented a free surface, which was quite flat and smooth. The posterior third, on the other hand, was united to the anterior and inner portions of the upper segment of the humerus, and the posterior and outer surfaces of the shaft near its upper end had contracted firm osseous union with a long piece of bone continuous with the head or the anatomical neck. The union between the two segments of the humerus having been severed by bone forceps, and a portion of the posterior spine of bone removed, the upper end of the shaft was applied to the under surface of the head and fixed in position by a loop of thick wire, and also by an ivory peg driven through the anterior surface of the shaft into the cancellous tissue of the upper segment. The wound, having been drained and closed by superficial sutures, was covered by cyanide gauze and a large pad of wood-wool. The patient did well after the operation, and was discharged on May 17th, quite free from any deformity in front of the shoulder, which joint the patient could move very freely, and, according to his own report, as well as that on the right side. In a letter written in August last he stated that he had been at work for some time as a seaman, earning £6 a month.

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YORK COUNTY HOSPITAL.

CEREBRAL ABSCESS SECONDARY TO EAR DISEASE; TREPHINING; DEATH.

(Under the care of Mr. JALLAND.)

THE symptoms pointing to the presence of pus in the temporo-sphenoidal lobe were very few in this case, some of the more important being absent. During the first few days after admission the restless, excited condition of the patient prevented any examination of the discs, and when examined shortly before operation nothing abnormal was noted. The case illustrates well a sequence of events commonly found—chronic disease of the middle ear, with discharge of purulent nature, the formation of a polypus obstructing the meatus, caries of the temporal bone, and cerebral abscess. The marvellous way in which respiration returned after having ceased for some time, as the pus was evacuated, was the cause of surprise to those who were present at the operation. As permission was only obtained to examine the head, it is not possible to say exactly to what extent the fatal result must be attributed to cerebral abscess or may have been due to other disease. For the notes of this case we are indebted to Mr. J. B. Lendrum, house surgeon.

R. C——, aged nineteen, was admitted into the York County Hospital on Jan. 16th, 1892. The patient first came to the hospital on Dec. 17th, 1889, with otorrhœa and a history of deafness and otorrhœa for ten years. He was treated with injections of boric lotion. Then his hearing was: right ear, 1½ in.; left, 1½ ft. He remained under treatment for five weeks. He came again on Jan. 12th, 1892 (Tuesday), with a fresh attack. Two days later he complained to his parents of great pain over the right side of the head, which increased, and on Saturday about noon he became delirious, and seemed to have convulsions of some nature, not confined to any special part of the body. He was admitted at 7 o'clock P.M. the same day (Jan. 16th). His temperature was 99·4°, pulse quick and full. Patient sensible, but he lay in a condition of "cerebral irritation," on the left side, with the knees drawn up. He complained greatly of pain over the left side of the head and across the brows. Tenderness on percussion over the left side of the head; otorrhœa; pupils slow to reaction of light, but not markedly abnormal. The attitude of general flexion found to be the patient's usual attitude in bed. Temperature at 10 P.M. 102°.

Jan. 20th.—For the past three days patient has been much in the same irritable condition; temperature at an average of 99°; pulse varied from 82 to 72; respiration 24 to 16. Blister ordered to be applied over mastoid process. Provisional diagnosis of meningitis. In the afternoon the temperature rose to 101°, but fell at 10 P.M. to 99·4°.

21st.—Temperature varied between 99·4° and 100·8°; pulse 64; respiration 18.

22nd.—Patient felt much better, was quite rational, had slept well, and the pain was not marked; appetite good; wished to get up. Pulse fell to 54; temperature between 98·8° and 99·2°.

23rd.—Temperature between 98·8° and 97°. At night patient complained greatly of pain along the back of the neck, sitting up in bed and crying out loudly at intervals. The pulse dropped to 48; temperature 97°. Had a quarter of a grain of morphia given early in the evening; at 12.30 P.M. another sixth of a grain. Slept lightly afterwards from 4 A.M. (Jan. 24th) to 7 A.M.

24th.—About 7 A.M. the patient began to get restless, and developed a divergent squint in the right eye for a short time, but at 9 A.M. had passed into a semi-comatose condition. Pupils of normal size, insensible to light. Slight reflex in orbicularis palpebrarum on pinching the cheek. Breathing rather stertorous; patient lying on his back. At 10.30 he was seen by Mr. Jalland, who recommended trephining. Temperature 96·4°; pulse 70.

At 12.30 the operation was performed under chloroform, as reflexes to pain were not abolished. Crucial incision, half-inch trephine applied one inch and a half above and half an inch behind the meatus auditorius externus. While this was being used the patient suddenly stopped breathing and became very cyanosed. The pupils became widely dilated. The chloroform was stopped and artificial respiration done. Ether injected subcutaneously, and an amyl nitrite capsule used. There was a great quantity of mucus at the back of the pharynx. The heart, which was beating vigorously at the early stage of the cyanosis, gradually became weaker. Respiration not being resumed, it was decided to continue the operation, which was done while artificial respiration was carried on. A fine exploring needle was passed through the dura mater rather backwards into the brain, and between one and two ounces of very fetid pus came out. Gradually natural respiration returned, so the artificial respiration was stopped after twenty minutes. The pupils became much more contracted, the right being still the larger. A small drainage-tube was passed into the abscess cavity in rather a posterior direction, and the skin stitched up. Dry dressings were used and 10 minims of ether given hypodermically. At 3 P.M. the patient was sleeping; both pupils were equal, and contracted; corneæ sensitive. He had expectorated about half an ounce of mucus. Pulse rather jerky, but strong—102 to the minute. Temperature 97·4°. 9 P.M.: Wound dressed. No purulent discharge; no fetid odour; wound looked well. Temperature 100·2°. 12 P.M.: Temperature risen to 100·8°. Pulse very rapid, 140 to 160. Respiration quick, 44. Mucus had again accumulated at the back of the throat. Patient sleeping with eyes half open. Corneal reflexes and sense of pain present. Unable to swallow; suppositories and enemata given.

25th (12 noon).—Temperature dropped from 102° to 100·8°. Pulse still 140-160. Right pupil again larger than left. Eyes wide open, and seem to be attracted by an object held in front of them. Patient mumbled something inarticulate on being spoken to. A polypus was removed from the right auditory canal and the canal syringed. 6.30: Stitches removed. A trocar was put straight in at right angles to the surface, and some fetid pus drawn off. Slight immediate improvement in condition of breathing. 7 P.M.: Patient quite comatose. Pulse hardly perceptible; heart still feebly beating; respiration very slow, shallow, laboured, and irregular—not Cheyne-Stokes type; temperature 105°. 7.30: Death from asphyxia.

Necropsy.—Venous congestion of pia mater over whole of brain (asphyxial?), no meningitis, no local adhesions of pia to dura mater. Perforation below right temporo-sphenoidal lobe, size of sixpenny-piece, in communication with, but not adherent to, a much smaller perforation in the dura mater on the anterior surface of the petrous bone. Orifice at side of temporo-sphenoidal lobe due to drainage-tube healthy. An abscess in temporo-sphenoidal lobe, size of small hen's egg.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Phagocytosis.

THE adjourned discussion on Phagocytosis was continued on Tuesday, March 1st, Sir George Murray Humphry, F.R.S., President, in the chair.

The discussion on Phagocytosis and Immunity, which was adjourned from the last meeting, was resumed by Dr. J. SYER BRISTOWE, who approached the subject from a clinical point of view. He showed that the resistance of the body to the invasion of infective diseases was provided for in various ways—(*a*) mechanical, as the opposition of the skin and mucous membranes; (*b*) by inflammation, with subsequent encapsulation or suppuration; (*c*) by active warfare or phagocytosis; (*d*) by unfitness of soil &c. With regard to *c*, he agreed with Dr. Burdon Sanderson's position as stated at the last meeting. Should the infective principle succeed in getting past these first barriers they would enter the system along the bloodvessels or more commonly along the lymphatics as far as the first group of glands. He thought that cure occurred by the infective principle getting beaten at the mucous membranes or at the lymphatic glands, but these modes of spontaneous cure would not include the cure of the exanthemata after their generalisation, and it was in these cases especially that immunity most frequently arose. He then contrasted various types of infective diseases, taking tubercle, diphtheria, typhoid fever, and small-pox as types of the different varieties. Local skin tubercle or lupus, instead of producing general tuberculosis, seemed to prevent it. In diphtheria and typhoid fever the chief symptoms were associated with the local lesions rather than with the generalised poison, which as a rule produced its effects after the subsidence of the local lesions. With small-pox and the other exanthemata the conditions were

wholly different. Taking inoculated small-pox as an example, the poison appeared to be developed for nine days with formation of the pustule and enlargement of neighbouring glands, then the generalised condition set in with eruption on the third day. Immunity seemed to be acquired in the earlier stages of the disease, as it was remarkable that whilst the pocks were developing the poison from them was not absorbed by the body, probably the pocks were really cut off from communication with the rest of the body by phagocytosis, and the inflammation which surrounded them. By vaccination the generalised disease that was produced and which gave immunity was comparable to the invasion period of small-pox, but he could not say how the immunity was caused. He suggested that it might be possible to avoid the local ill effects of vaccination by injecting the lymph deeply into the tissues or into the glands.

Dr. WILLIAM HUNTER opened his remarks by pointing out the essential difference between phagocytosis and the "humoral theory," the one attributing the defensive power of the body against micro-organisms to cells, the other to the serum of the blood and other fluids. To establish the second theory it was insufficient to employ destructive criticisms against the first, as had been attempted. The arguments adduced arranged themselves in two groups: (1) those affecting the inherent probability of either theory, and (2) those affecting the accuracy of data. The chief principle involved was that one form of protoplasm should be able to take up another weaker form and destroy it. It was a matter of common inference that one immune individual had some new power enabling him to overcome micro-organisms gaining access to his blood, and it had been the practice of late to express this condition in terms of cells instead of in terms of individuals. He urged that no new property of cells was insisted on, and that in his opinion it was more logical to attribute these powers to cells than to the fluids of the body. Apparently the most offending claim of the new doctrine was in elevating special cells to this important function. This, however, commended the theory to his acceptance. Acquired immunity consisted, he thought, in an alteration in the constitution and action of the cells of the body. And he quoted experiments which tended to show that certain substances which appeared to exert much influence on the blood plasma did so really only through the medium of the spleen cells, and it was a remarkable fact that an animal could tolerate double the dose of an ordinarily fatal bacterial poison after removal of this organ; and he argued that if the spleen had such an important influence, it was highly probable that cells in the blood had the same. He thought that the arguments adduced in favour of phagocytosis added much to our knowledge with regard to immunity, and afforded the best working hypothesis, whereas the humoral theory added practically nothing, and was based on a great deal of assumption. Photo-micrographic slides were exhibited which were demonstrated to illustrate the effect of chemiotaxis, as shown by the varying quantity of leucocytes entrapped in shavings of sponge, soaked in certain toxic agents, and inserted under the skin.

Dr. MARTIN then spoke of natural and experimental immunity, indicating that the latter alone in which conditions were regulated and controlled would bear accurate investigation. He thought that anthrax which had been most completely worked out afforded the best indications. With this it was well known that, after vaccination with an attenuated virus, a sheep subsequently inoculated did not die. Was the reply to this the statement that the leucocytes so altered killed the bacilli introduced? He had shown that the chemical products of the attenuated bacilli were identical with those of the virulent ones, both as regards albumoses and albuminoids. On the other hand, he had found that whereas the virulent bacilli flourished in a suitable medium, the attenuated ones dwindled and died, and also that the products of the latter were less in quantity than of the former, the difference being one of *degree* rather than of *kind*. Both depended for their action on their chemical products, and the paradox was presented that the attenuated organism prevented the action of the virulent one, though giving rise to the same products. The explanation of this was that injection of the attenuated virus accustomed the animal to the chemical poison in a manner similar to that known in connexion with poisonous drugs. In pursuance of this idea Dr. Martin quoted experiments showing that the injection of ten milligrammes of the albumose products of anthrax growth preceding the insertion of one cubic millimetre of "splenic mash" enabled the animals to live four days, and a half, the "controls" not surviving twenty-four hours. In another series, in which the bacterial products and "splenic mash" were mixed together and injected, the animals lived twenty days, and did not then show signs of disease except in the spleen, the effects being regarded as an imperfect imitation of those attending an attenuated virus. It seemed that the chemical products of these micro-organisms remained a long while in the body; for, though the fever attending a single dose of anthrax albumose lasted only five days, the animal went on wasting for from ten to twenty-four days. As to why the micro-organisms did not develop in immune animals, it could hardly be supposed that the products of previous vaccination remained in sufficient quantity to hinder the growth of the fresh bacilli. And it was far more reasonable to suppose that these products exerted a profound influence on the blood, which supplied the pabulum on which the organisms subsisted. In this connexion, he drew attention to the remarkable sensitiveness of bacilli to the culture medium, the micro-organisms requiring a proteid capable of digestion—salts, including phosphates of sodium, calcium, and magnesium, and sodium chloride,—and being unable to thrive either in the presence of an excess of phosphates or deficient sodium chloride. In the body it was the blood which supplied this medium, the solid tissues not being adapted for their development, possibly because of the non-suitability of their constitution in these respects. It could hardly be stated yet what actual changes the toxic substances produced, but it seemed pretty evident that they resulted in immunity. With regard to the contest between leucocytes and bacteria, it was one between nucleated protoplasm and protoplasm capable of producing a chemical poison. The experiments which had been performed were, he thought, inconclusive, and those whose effects had been exhibited by Dr. Hunter would bear quite a different explanation. There was injury to tissues, and the albumoses themselves were capable of exciting inflammation without attributing to them special "chemiotaxic" powers.

Dr. WRIGHT referred to Wooldridge's work in connexion with "chemical protection" afforded by the injection into the blood of crushed thymus or testis, and which he attributed to the action of tissue fibrinogen. Experiments had been made which showed that anthrax subsequently introduced had a very modified effect, so that such animals frequently survived. Want of uniformity in these results had been due to defective methods of sterilisation. The idea of chemical protection and the employment of tissue fibrinogen had been taken up by Hankin, who attributed to it bactericidal power. He also obtained a body—the so-called alexine—from the spleen of the white rat, believed to be immune against anthrax, which he injected into guinea-pigs previous to inoculation with anthrax, with the result that four survived and in two life was prolonged as compared with "controls" out of six. The experiments had been repeated with similar results. This "alexine" was apparently the same as Wooldridge's tissue fibrinogen, in which anthrax was capable of developing. An examination of blood after injecting tissue-fibrinogen showed that the number of white corpuscles was at first diminished, and then increased. The preparation "nuclein," an apparently similar body, was known to increase white corpuscles 40 to 50 per cent. in an hour. The idea of producing artificial leucocytosis was applied, and found to prolong life in cases infected with anthrax. These bodies should be regarded as *cell stimulants*, and though at first employed for their direct effect on the bacteria on the humoral theory, really supported that of phagocytosis.

Mr. J. G. ADAMI said that for considerations of brevity perhaps the best method of attacking this subject of immunity was to start with the best and most complete series of observations in the case of one disease, observations that were both recent and reliable, and then accepting the facts so gained, to observe how they opposed or confirmed the various theories which had been brought forward. For this purpose he would select the very full and pregnant research of Klemperer and Klemperer upon pneumonia. The results of these observers might briefly be stated as follows:—1. Immunity against pneumonia can be bestowed upon susceptible animals by introducing into the tissues the sterilised products of growth of the pneumococcus. This immunity is in general but of a

temporary nature. 2. Such immunity, induced by injections of bacterial products, does not immediately manifest itself; indeed, fourteen days must elapse before the simple products bring about their effects. But if the sterilised products be heated either to 106° F. or 107·5° for from three to four days, or to 140° for two hours, then injections induce immunity within four days. 3 The warmed "vaccine" leads to a reaction of but short duration; the unwarmed brings about a long-continued febrile state, at the end of which the animal becomes immune. 4 Thus the fever, with its elevation of temperature, and the antecedent heating of the vaccinal material, induce the same result; one or other process would seem to be necessary in order that sterilised bacterial products develop immunity. 5 But, further, the blood serum of a "protected" animal injected into the veins of a susceptible animal confers immediate immunity. There is no delay. Evidently, therefore, some substance is present in the blood serum of an animal made immune, a substance not present in the sterilised culture fluids of the pneumococcus; the bacterial products, therefore, do not *per se* bring about immunity, but through the febrile reaction some other body having immunity-conferring properties is gradually developed. 6. What is more, this same substance has curative properties acting not so much on the pneumococci themselves (for in its presence these continue to proliferate), but upon the poisons or toxines manufactured by them. 7. Hence Klemperer and Klemperer distinguish two proteids—the pneumotoxine, which can be isolated from cultures of the pneumococcus, and the anti-pneumotoxine, to be obtained from the serum of immunised animals It was unnecessary to dilate upon the way in which this work of the two Klemperers fulfilled and elucidated the previous observations of Salmon and Smith, Christmas, Roux, and Chamberland, Hankin, Bouchard and his school, Brieger and Fraenkel and others upon bacterial products; of Wooldridge, Christmas, Hankin, Buchner, Hankin and Martin, Tizzoni and Cattani, and Fraenkel upon proteid bodies capable of inducing immunity, and, in the case of some of these observers, upon the anti-toxic properties, as opposed to the bactericidal properties of such proteids. Nor was it necessary to do more than point out the light that these observations threw upon the meaning of the febrile state. Evidently, as shown by a large number of recent studies, the phenomena of infection and immunity are at base chemical; certain substances are produced by the bacteria on the one hand, by the organism on the other, whose action is of a chemical or chemical-physical nature. But now came the question: How was this action exerted within the body? Were bactericidal and anti-toxic substances normally free in the blood, were they developed within special cells, or were they generally distributed throughout the tissues of the body? In the first place, it could not be too strongly insisted that their presence in blood serum was no certain indication of their presence in blood plasma. Blood serum and blood plasma exhibited marked differences in their characters, and nothing was more marked than this difference in the bactericidal powers of the two fluids. An animal which was most susceptible to a given disease had time after time been shown to yield a serum capable of destroying large numbers of the micro-organisms causing that disease; and, at the risk of repeating what was well known to many, he would again call attention to Lubarsch's classical observation that whereas 10,000 to 12,000 anthrax bacilli are all that can be injected into the circulation of a rabbit without causing a fatal disease, one cubic centimetre (fifteen minims) of a blood serum of such a rabbit will in a few minutes destroy the same or a much greater number of the bacilli. While he was far from convinced that under no conditions the plasma can become bactericidal or anti-toxic, he still thought that sufficient satisfactory evidence had not yet been brought forward in support of the humoral theory. The cases mentioned by Professor Klein were not without flaw; the rapid diminution of the number of bacteria present in arterial or venous blood is not conclusive evidence that these bacteria have undergone destruction in the blood plasma (phagocytosis being as yet undeveloped). Professor Klein and the humoralists have to bring forward surer proof than has yet been adduced that the bacteria as foreign bodies have not been arrested in the capillaries of various organs, and that the diminution of their number in the circulating blood is not caused by such a filtration process. Again, while he was prepared to admit freely that bactericidal and anti-toxic substances may appear or be developed in the cells forming many of the tissues of the body, he held that it has yet to be proved that this can obtain to any great extent. We were still without proof that, save in the case of organs formed largely of leucocytes and potential phagocytes, the tissue can have powers at all comparable to those possessed by the serum and body fluids. We were therefore driven to the third possibility—namely, that the difference between serum and plasma depended upon an alteration in the condition of the white corpuscles, and that the leucocytes were a most essential factor in the production of immunity. There was not time here to bring forward all the arguments in favour of this view, but this he might say: what other interpretation was to be placed upon, not simply the engorgement, but the enlargement of lymphatic glands, the enormous increase in the number of white corpuscles in the blood in zymotic disease (under conditions to be referred to later), the determination of leucocytes towards regions of bacterial invasion, unless it be that the leucocyte plays a most important *rôle* in protecting the organism? It is true there were conditions in which it was wanting. In pneumonia, for example, Tchistovitch had shown where the virus was not very powerful, there an increase occurred; where the virus was very strong, there a diminution was to be made out in the leucocytes of the blood. The same occurred in regard to the amount of diapedesis resulting after local invasion, this depending upon the virulence of the invading organism. Taking into consideration general rather than local injections, we learn that the leucocytosis is dependent upon the reaction of the organism to the soluble products of the virus. That the leucocytes can possess bacteria-killing powers was supported by Hankin's observations upon the lymphatic glands and spleens of refractory animals, in which he showed that from those organs, composed as they were largely of mature and immature leucocytes and the parent cells of the same, could be obtained a bactericidal substance acting specifically upon the microbes to which the animal was refractory. It was impossible for him to criticise Dr. Woodhead's objection to this—namely, that Dr. Wright has grown micro-organisms freely upon leucocytes, until the conditions of these experiments had been fully described. To come now to the assumption of bactericidal powers by blood serum, he remarked that, as Rauschenbach had shown, and as a matter of common experience, coagulation of the blood and production of serum was accompanied by a great disintegration of certain of the white corpuscles,[1] and he suggested that to this disintegration was due the presence of bactericidal substances in the serum. Just as from fresh blood and intact white corpuscles no fibrin ferment was obtainable, so it might be that the intact leucocytes did not *normally* contain bactericidal substances, but precursors thereof. Possibly this was fitted to explain Dr. Woodhead's contention with reference to quinine. He was unwilling that this working hypothesis, whereby he had attempted to reconcile for the time being the divergent results of a host of capable workers, should be dubbed a theory; still more did he regret that it should have been accredited to him. For while he had worked it out along his own lines, its origin was to be found in Mr. Hankin's work, and to all intents and purposes this was the hypothesis brought forward by Hankin at the International Congress last year. If for no other reason, he was glad to join in this evening's discussion in order that honour might be given where honour was due. Lastly, as to the way in which the leucocytes acted upon the bacteria, he could not help being impressed by the fact that the more perfect the methods employed, the greater was the phagocytosis observable in the course of resolution of disease; and he concluded that, even though leucocytes had other methods of acting upon bacteria and their products, phagocytosis was a most important—probably the most important—factor in the production of immunity. Professor Burdon-Sanderson's main objection, that leucocytes were to all intents and purposes independent organisms, and that therefore they could not reasonably be expected to act in accordance with the needs of the organism, was, it seemed to him, based on the idea that leucocytes were generation after generation propagated in the blood, free from the fixed cells of the body. But this was scarcely the accepted view. Very little mitosis of the leucocytes occurred in the blood, whereas the characteristic mitotic areas in the lymph glands offered an almost certain indication that the proliferation

[1] Upon these points see the fuller details given by Dr. Wright in last week's LANCET.

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of leucocytes occurred in regions where the parent cells might be regarded as fixed and capable of being influenced by nervous and other stimuli. It is to these parent cells rather than to the free, motile leucocytes, with their short span of life, that we must look to explain continued powers of resistance to bacterial products on the part of leucocytes, the development of increased resistance, the development of immunity.

Mr. T. J. BOKENHAM gave the results of some investigations on erysipelas which would have to be explained before the question of the causation of immunity could be settled. (*a*) Different effects of injecting cultures of true streptococcus erysipelatis into rabbits and guinea-pigs. Inoculation of a virulent culture into a rabbit's ear produced a typical spreading erysipelas without pus formation, though the lymph, whilst the process was advancing, was very rich in leucocytes. If some of this lymph be injected into a guinea-pig and another rabbit, the latter will contract a disease in every respect similar to that in the first rabbit, but nothing will happen to the guinea-pig. (*b*) Alteration of virulence of streptococcus erysipelatis under varied conditions. If a culture of streptococcus erysipelatis too attenuated to produce the disease in a normal rabbit be injected into one into which a simultaneous intra-peritoneal injection of a sterilised culture of bacillus prodigiosus had been made, typical erysipelas would appear at the point of inoculation. In this case, a rabbit which was immune to an erysipelas of a low virulence was made susceptible, and inoculation from it to a normal one would produce the typical disease in the second, and by continuing the process through successive rabbits a very virulent form of erysipelas could be produced, in which a highly infective disease occurred with generalised symptoms, though no reaction occurred at the point of inoculation. Here, undoubtedly, the local cellular infiltration seemed to have played some part in the localisation of the disease. If a rabbit vaccinated against the bacillus pyocyaneus be inoculated with streptococcus erysipelatis, a general fatal infection occurred without local reaction at the seat of inoculation, but blood from this rabbit could only produce the local disease in a normal rabbit in association with attenuated erysipelas, while a common mould increased the virulence of the streptococcus both generally and locally.

The following card specimens were exhibited.—Dr. CHAS. SLATER: Cultures and Preparations of Leprosy Bacilli.

MEDICAL SOCIETY OF LONDON.

Diagnostic and Prognostic Value of Tubercle Bacilli in the Sputum.—The Influence of Intra-nasal Obstruction on the General Health.

AN ordinary meeting of this Society was held on Feb. 29th, the Vice-president, Dr. Stephen Mackenzie, in the chair.

Dr. F. J. WETHERED read a paper on the Diagnostic and Prognostic Value of Tubercle Bacilli in the Sputum. Since the discovery of the tubercle bacillus in 1882 by Koch much had been written in regard to the value of a search for this organism. He wished to make a few additions to what had already been published on the aid to diagnosis furnished by the tubercle bacillus from his own experience, and also to comment on its prognostic signification. As to the method of staining, after trial of several methods he had always reverted to the Neelsen-Ziehl process of staining in a carbolic acid solution of fuchsine and decolourising in a 25 per cent. solution of sulphuric acid. The chief points to which attention should be directed to procure successful results were: to select the early morning sputum; to pick out the small opaque particles; to stain for two minutes in the heated stain; to thoroughly take out the red stain with the acid, a quarter of an hour not being too long, although a minute was usually sufficient; finally, to counter-stain in methylene blue. There were still some medical men who viewed with a considerable amount of scepticism the value which was to be attached to the presence of tubercle bacilli in the sputum; but the various papers which had been published had conclusively proved their true value. Roughly speaking, a positive result—that is to say, their presence—was absolutely diagnostic of a tubercular process going on somewhere in the respiratory tract; but a negative result, their absence, was practically of no value. It was in those cases in which the history and physical signs were not clear enough to warrant a diagnosis of tubercle that a bacteriological examination was of value, especially when phthisis was masked by bronchitis or emphysema. In obscure laryngeal cases it was also of value, as a differential diagnosis from syphilis might thus be established. A negative result did not by any means absolutely exclude phthisis, even though several examinations of the sputa might have been made. As regards prognosis, he had come to the conclusion that little could be learnt from the numbers and distribution of the organisms. The mere fact of their presence naturally increased the gravity of the case, but beyond this he did not think it was safe to go, the general aspect of the case being a surer guide. He had found bacilli to be very few when the disease was progressing rapidly, and to be numerous when the patient was recovering. Examination of unstained specimens would often lend aid, and especially ought the leashes of elastic tissue to be carefully sought for.—Dr. HADLEY urged the importance of using absolutely clean slides, having found bacilli perfectly stained in slides washed for some days in spirit and potash. The organisms were discoverable in preparations which had been steeped for twenty-four hours in 25 per cent. sulphuric acid. He thought that when bacilli were found, specimens of elastic tissue could always be obtained. By the new methods of staining, however, the bacilli were the more easy of discovery. He agreed as to the difficulty of finding bacilli in miliary tubercle, even when squeezing out the actual miliary granules.—Dr. CHAPMAN recommended spreading the sputum on the slide instead of on the cover-glass, and insisted on the inefficiency of anything below one-twelfth or one-sixteenth objective.—The VICE-PRESIDENT asked the author of the paper as to his experience in finding tubercle bacilli in fibroid phthisis.—Dr. WETHERED, in reply, said his experience in fibroid phthisis was not large, but the cases he had examined did not furnish them. Apart from a caseous nodule or calcareous particle, it was difficult to distinguish between fibroid phthisis and fibroid pneumonia.

Mr. SPENCER WATSON read a paper on the Influence of Intra-nasal Obstruction on the General Health. Starting with the text that in many forms of disease, not obviously of nasal origin, patients have been cured or relieved by treatment directed against nasal stenosis, Mr. Watson gave a brief epitome of the functions of the nose as part of the respiratory tract, and drew attention to the varieties of stenosis as (1) Partial, (2) Complete, (3) Temporary, (4) Permanent. In some cases headache, migraine, and perhaps some other symptoms are due to the obstruction of the apertures of the sinuses opening into the nasal cavities, and other nerve symptoms result from sleeplessness as an indirect result of stenosis. Asthma is sometimes associated with stenosis, and is cured by local treatment. Operations of a complete character at one sitting are more likely to relieve asthma than a succession of small repeated operations. Hay asthma is not to be regarded as a simply intra-nasal disease, though often aggravated by nasal complications. The most common forms of stenosis—viz., snuffles in infants, adenoid vegetations, and chronic hypertrophic rhinitis, with or without polypi—were then described, and the treatment by the author's ring knife and by the wire snare recommended as applicable to many cases of the last-named diseases. Cases were related, and drawings of specimens shown. The conclusions were as follows: (1) That by suitable treatment directed against stenosis we may in young children prevent convulsions, deformity of the chest with its concomitant evils, and in some cases even prevent death from marasmus; (2) that in youth and early life by relief of stenosis we may prevent permanent deformity of the chest, deafness, impairment of speech, and even of the mental faculties; (3) that in adult life we may prevent, and in some cases cure, by the relief of nasal stenosis, asthma, spasmodic cough, bronchitis with its complications, and various mental disturbances.—Dr. DE HAVILLAND HALL differed from the author in preferring to operate under an anæsthetic, more particularly cocaine. In reference to hay asthma, he thought that if deep scarring were effected in the mucous membrane by means of the galvano-cautery there was no need for more severe measures. This method served also in cases of paroxysmal sneezing; this, however, in combination with general treatment. He alluded to the occurrence of enuresis, which was said by German authorities to be cured by removal of the obstruction, and to the frequency of hernia. These points, however, were not in accord with his own experience.—Mr. SCANES SPICER mentioned, in connexion with nasal obstruction, the occurrence of anæmia and a possible predisposition to phthisis.—Mr. SPENCER WATSON replied briefly, pointing out the cases which required a general anæsthetic.

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CLINICAL SOCIETY OF LONDON.

Separation of Epiphysis of Head of Femur.—Myxœdema.—Microcephalus.—Sarcoma of Face and Neck.—Hæmoglobinuria and Gangrene.—Cholelithiasis.—Pachymeningitis Hæmorrhagica treated by Trephining.—Rhachiotomy.

A "CLINICAL" MEETING of this Society was held on Feb. 26th, Sir Dyce Duckworth, President, in the chair.

Mr. DAVIES-COLLEY exhibited a case of Separation of the Epiphysis of the Head of the Femur in a lad aged fourteen, who presented, however, a considerable range of movement.

Dr. ARTHUR DAVIES showed the fourth case of Myxœdema he had met with in the course of five years. The disease was of seven years' duration, in a woman of forty. She had all the usual signs, with fatty cushions above the clavicles, albuminuria, and a diminution of urea to 1·5 per cent.

Dr. HADDEN exhibited a case of Microcephalus in an infant affected with rigidity of the limbs and retraction of the head. The parents were healthy, but there had been exposure of the mother to three distinct frights during the early months of gestation. The fontanelles were apparently closed at birth.—Dr. WALLACE ORD and Dr. LEES showed similar cases, and the question of craniectomy was raised.—Dr. JONES of Earlswood, referring to adults, said the prognosis was pre-eminently gloomy. Under these circumstances he thought an operation was permissible. He discarded the idea of maternal impressions, and said that such cases formed nearly nine-tenths of those in Earlswood Asylum. Vaulting of the palate was absent, the children were usually bad tempered, and progress was slow. He referred to a post-mortem examination he had made on an adult case, in which the occipital lobes were defective and there was flattening of the angular gyrus. Many cases became epileptic. An operation had been performed in four cases, but he was not aware with what result.

Mr. DUNN showed a lad on whose face and neck large masses of new growth (? Sarcoma) had formed. There was also ulceration of the palate. Portions had been removed and exhibited the structure of sarcoma. He was losing weight.

Mr. W. SPENCER exhibited a case of Hæmoglobinuria and Dry Gangrene in a boy who had slept for three nights out in the cold. There was a history of his being liable to pass bloody urine on exposure to cold, but none of cold extremities. The lesion he submitted was of the nature of frost-bite.

Mr. BLAND SUTTON communicated the details of a case in which a woman aged fifty-eight, suffering from gall-stones impacted in the common duct, was submitted to operation. After opening the peritoneal cavity the liver was found obscured by dense omental adhesions. The gall-bladder was shrunken, and contained three polygonal calculi, but no bile. No communication existed between the gall-bladder and the common duct. After carefully separating adhesions from the under surface of the liver, the common duct was detected blocked with four calculi. Two were firmly fixed at the duodenal orifice of the duct. The remaining two slipped into the hepatic duct, but could not be passed into the gall-bladder as the cystic duct was obliterated. Various attempts to move the calculi impacted at the duodenal orifice failing, the duct was incised close to the wall of the duodenum and the stones extracted; one of the stones pushed into the hepatic duct was not recovered. A glass drainage-tube was inserted, and the wound in the skin sutured in the usual way. On the evening of the tenth day following the operation the remaining calculus probably passed into the duodenum. The jaundice rapidly disappeared, the track of the drainage-tube closed, and the patient left convalescent after a sojourn of twenty-five days in the hospital.—Mr. ERNEST LANE mentioned a case of five weeks' duration, giving a history of a blow on the abdomen followed by abdominal distension. On cutting down, an enormous flow of bile took place from the peritoneal cavity. He had since had a letter from an Italian surgeon, who had satisfied himself that the idea that bile was poisonous to the peritoneum was erroneous.—Mr. STANLEY BOYD referred to Knowsley Thornton's method of breaking calculi up by means of a needle passed through the duct wall.—Mr. HULKE related a case in which the symptoms were typical, but where, on cutting down, he found a tangled mass of omentum in which was the gall-bladder contracted on a group of calculi. Though he felt convinced there must be some in the common duct, he was obliged to relinquish the attempt to liberate them. The patient died ten days later, and there was an opportunity of confirming the diagnosis.

Mr. STANLEY BOYD read an account of a case (under the care of Mr. Johnstone Harris) of Injury to the Left Side of the Head and Concussion, in which almost all symptoms, except occasional headache and lack of energy, disappeared in two to three weeks, and the patient, believing himself well, returned to work as an innkeeper. After seven weeks of apparent health he developed in about ten days right hemiplegia, commencing in the arm and spreading to the leg; at the same time he became more and more drowsy, and finally almost comatose, whilst his temperature rose to 102°. He was trephined with the view of evacuating an abscess, which was supposed to occupy the right arm-centre; but in place of an abscess a cystic clot containing about four ounces of clear, dark-red fluid was found, emptied and drained. Consciousness was not regained for several hours—perhaps because the walls of the cystic clot were somewhat rigid, and prevented expansion of the brain. Both the right limbs began to move on the day after the operation. The patient passed through an attack of delirium (*e potu?*) lasting several days, but finally made a perfect recovery. The opinion was expressed that the clot found was not an immediate result of the injury, but that, more probably, it was due to cortical hæmorrhage beginning about the time of the onset of the late symptoms. It was, however, pointed out that this view did not fully explain the final *rapid* increase of the insensibility.—Mr. OPENSHAW alluded to a patient admitted three weeks ago into the London Hospital. He had left-sided convulsions, beginning in the left hand. There was a history of a fall on the head a week previously, evidenced by a laceration of the scalp. It was decided to trephine. Four or five ounces of blood-stained serum and clot came away on cutting through the dura mater. The patient made a rapid recovery. In two cases of the same kind the pupil on the same side was dilated.—Mr. BLAND SUTTON thought the fissure alluded to by Mr. Boyd must be an ordinary fissure fracture. He came to this conclusion because there was no bevelling, no sutures, and no Wormian bones.—Mr. JOHNSTONE HARRIS said the diagnosis was easy, but he had expected to find evidence of an inflammatory lesion. He thought that there was probably a second extravasation to account for the deepening of the coma so long after the accident. He did not think the case threw much light on the pathology of subdural extravasation.

Mr. N. DAVIES-COLLEY showed a female patient aged twenty-three, a laundrywoman, unmarried, who was admitted into Guy's Hospital in July, 1891, with paraplegia and, what was then thought to be, angular curvature of the dorsal spine. The disease began seven years previously, after a fall. She had been comparatively free from pain &c. for some time, and had resumed her occupation. Two months before admission she had pain in the chest and back, followed by weakness and loss of sensation in her legs, with some incontinence of urine and fæces. On admission the patient, who was fairly well nourished, had a large rounded projection over the spines of the fourth, fifth, and sixth dorsal vertebræ. After three weeks' rest in bed, as her condition was gradually getting worse, Mr. Davies-Colley cut down and found that the tumour was due to a spindle-celled sarcoma growing from the lamina on the right side of the spine. It was removed with some difficulty, together with the spines and laminæ of the fifth and sixth dorsal vertebræ. The spinal cord was soft, but the dura mater appeared to be healthy. Complete recovery followed in respect of both sensation and motion within six weeks. Mr. Davies-Colley insisted upon the difficulty of distinguishing such a case from one of ordinary spinal curvature, and advocated the use of the term "rhachiotomy" instead of laminectomy.

EPIDEMIOLOGICAL SOCIETY.

JOSEPH EWART, M.D., President, in the chair.

WEDNESDAY, FEB. 17th.

Is Influenza etiologically distinct in Man and Animals?

DR. ROBERT SISLEY read a paper under the above title, and began by remarking that, apart from and between the epidemics of imported influenza, there were from time to time local outbreaks of a disease very similar, if not identical, in its phenomena. One such had been described by Sir Peter Eade as having occurred in Norfolk in 1879 [illegible]

there were numerous notices of the kind in French and German medical literature Tessier, after a careful inquiry, had come to the conclusion that influenza was endemic in Russia, or at least never absent for many months from one part of the country or another. Horses, it was well known, were very liable to a disease or diseases known as influenza, but there was no doubt that the term was often applied to purely catarrhal affections. Indeed, the ambiguity of the expression was considered by the Academy of Medicine of Paris so great that they declined to investigate the question of the identity of the human and equine disease until the veterinary surgeons had come to some agreement as to what they meant by the name. In England, on the contrary, Dr. Sisley considered that the veterinarians were in advance of the medical profession—at any rate, in having long since recognised the specific and communicable character of influenza. Drs. Clemow, Copeland, and Creighton, and Professor Fleming, had recently done good work in this field, and he had collected from their writings the materials for two tables showing in chronological order the years in which epidemics or epizootics of influenza had been recorded. The former list was carried back to a much earlier date, but during the three or four centuries covered by both it would be seen that they sometimes corresponded, though frequently epizootics appeared alone, as more rarely did epidemics, from which some would conclude that there was no real connexion between them. But the carefully collected evidence brought together in this country by Sir J. Caird and Drs. Hartley, Parsons, and Bruce Lowe, and by Tessier and Ollivier in France, was almost irresistible as to the fact that, though rarely, it was so transmitted. In Caird's case there was no influenza among the human population of the district, but a number of horses in a most insanitary stable were suffering when a dancing class of forty children from the villages and homesteads scattered over several square miles met in the loft above and communicating with the stable. Thirty-three of the children were simultaneously attacked, as well as the men in charge of the horses.

The PRESIDENT remarked that at Brighton the horses, especially those in large establishments, had suffered severely some weeks before the epidemic had reached its height; indeed, the omnibus and cab service was completely disorganised. But a brewer who had no fewer than forty horses, by simply giving strict orders against their being allowed to drink at the public troughs, had succeeded in keeping his stables entirely free.

Dr. CLEMOW had not formed any opinion on the question of influenza in the lower animals; though sceptical as to the identity of the disease, and feeling the want of scientific discrimination among veterinary surgeons, he admitted the force of the evidence adduced by Dr. Sisley and the need for fuller future investigation.

Dr. WILLOUGHBY said that, though he had given considerable attention to the etiology of human influenza, he had no experience of the disease among the lower animals, and at present maintained the same attitude of scientific scepticism as Dr. Clemow. He would like to know if the enlargement of the spleen, which was as constant in human influenza as in enteric fever, and belonged to it as a specific disease, had been noticed post mortem in horses or cats, as it would be almost conclusive evidence of identity. If not, he hoped that Dr. Sisley would not fail to look to it.

Dr. SISLEY, in reply, promised to do so, as he was not aware of any such observations having been made. He agreed with Dr. Willoughby as to the immunity, if any, conferred by one attack being very feeble.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Medical Section was held on Feb. 5th, Dr. J. M. Finny in the chair.

The Dietetic Treatment of Enteric Fever.—Dr. WALLACE BEATTY read a paper on the dietetic treatment of enteric fever. He laid great stress upon the importance of care not only as to the nature, but also as to the quantity of food. He considered from two to three pints of milk in the twenty-four hours ample nourishment for enteric fever adult patients during the entire illness. He believed that patients who were fed on such a restricted diet suffered much less from diarrhœa, tympanites, and sleeplessness than patients more liberally fed. He called attention to the fact that when from some cause, such as threatened hæmorrhage, the diet of patients had to be much restricted, a general improvement in all the symptoms followed. He advised extreme care in the manner of changing the diet at the approach of convalescence; a sudden change from liquid to solid food was, he believed, likely to provoke a fresh outburst of fever and bring on a relapse.

A Case of Recurrent Enteric Fever followed by True Relapse.—Dr. J. W. MOORE submitted a "clinical record" of a case in which not only did enteric fever recur in the same patient, but the recurrent attack was succeeded by a true relapse after an apyrexial period of eleven or twelve days. In April, 1877, the author attended, with the late Dr. Alfred Hudson and Sir George Owens, a lad of fifteen years, who passed through a typical attack of enteric fever lasting twenty-three days, in which, however, constipation, and not diarrhœa, was the rule. In October, 1891, the same patient, at the age of twenty-nine, sickened of a fever which proved to be undoubted enteric fever. After running an acute course of twenty-four days, followed by a subfebrile period extending over another week, this attack was succeeded by convalescence, which seemed to be in all respects normal. On the eleventh or twelfth day, however, from the establishment of apyrexia, acute febrile symptoms again showed themselves, and for the third time in his life the patient passed through an attack of enteric fever. The adjourned discussion on Dr. M. A. Boyd's paper on "Some Recent Modifications in our Views of Enteric Fever and its Treatment," which was read at the last meeting of the Section, was then opened in connexion with a discussion on the papers which had just been read.—The PRESIDENT criticised one or two points in the clinical history of the case described by Dr. Moore which occurred to him to need explanation. First, with reference to the significance of the diazo-benzole reaction. In his own experience—and he had applied the test almost daily to a large number of cases in Sir Patrick Dun's Hospital—he did not rely upon it as by any means a safe clinical test, either as to diagnosis or prognosis in fever, and he did not agree with Dr. Moore that the failure of the test was due in any way to the fact that his patient had had fever fifteen years before.—Dr. H. T. BEWLEY did not think the question as to relapses in typhoid fever could be solved until the whole question of immunity, natural and acquired, was more certainly known than it is at present—we do not know accurately why cases of infective fevers got well at all; possibly the greater tendency to relapse in typhoid fever as compared with such other fevers as typhus, scarlatina, and measles, was connected in some way with the long and irregular course and prolonged termination of the fever. With regard to giving solid food, in some cases of typhoid the fever will not decrease, and the patient grows weaker until solid food is given. It was difficult to say exactly when the time had come to give this solid food, and he would look anxiously for further information on this subject.—Dr. WALTER SMITH said that Dr. W. Beatty's paper was essentially a qualification or limitation of Graves' celebrated maxim.—Dr. LITTLE considered there could be no doubt of the value of a restricted diet in enteric fever; there could be no doubt of the value of milk when diarrhœa is present; but some patients are unable to digest milk, and especially if then danger arises from cardiac failure, he considered properly made animal broths more suitable than quantities of milk.—Dr. DOYLE also joined in the discussion.—Dr. BOYD in his reply to the criticisms on his paper on the antiseptic method of treating enteric fever, considered that so far no more rational method of dealing with the disease from its pathology presented itself, and notwithstanding Dr. Smith's doubts as to any disinfectant reaching the intestine in sufficient strength so be of use after passing through both stomach and duodenum, he thought if any form of antiseptic could survive unaltered, the gaseous one should—especially in a solution which slowly parts with it. Chlorine evolved from an alkaline solution—such as the liq soda chlorinate of B. Ph.—in his hands was followed by better results than when formed in an acid mixture. As regards the relapses in enteric fever, they seemed to him to be due in most instances to a fresh set of glands and Peyer's patches becoming the seat of fresh infection by typhoid bacilli. He lately showed an instance in a pathological specimen exhibited at the last meeting of a portion of the ileum, the seat of active ulceration in a patient who was ten days apyretic, when he died from acute perforation, the result of over-eating. This specimen showed how long a condition of ulceration may exist after typhoid fever, even when the

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temperature has fallen permanently for as long as a week — In answer to Dr. Little, Dr. MOORE said that he sometimes gave small doses of quinine in enteric fever, not to reduce temperature, for fulfilling which object large doses alone would avail, but as a tonic from his experience of the remedy in other acute and prostrating maladies. Once the specific origin of enteric fever was admitted, Dr. Moore believed that no mere error in diet would bring about a true relapse, although it may be a contributory cause of such an accident.

Reviews and Notices of Books.

A History of Medical Education from the most Remote to the most Recent Times. By Dr. THEODOR PUSCHMANN, Public Professor in Ordinary at the University of Vienna. Translated and Edited by EVAN H. HARE, M A Oxon., F.R.C S.Eng., and L.S.A.Lond. London: H. K. Lewis. 1891.

THERE are two ways of writing the history of Medicine. One is to follow, in chronological order, the vicissitudes of the healing art, from its rude beginnings to its reduction to rational system by Hippocrates; from its abuse of the systematising spirit, with all its fatal excursions along "the high *priori* road," to its adoption of the inductive method, and its final settling down to the one true path on which alone it can advance—that of scientific research checked by clinical observation and experience. In this way, the history of Medicine has been well treated, mainly by continental scholars; and, in the classic works of Häser, Puccinotti, and Daremberg, the student may read in German, Italian, or French a comprehensive and trustworthy record of the rise and progress of the profession.

But there has long been room for another and more philosophic treatment of the subject. To consider medicine, like theology or law, in relation to the intellectual and moral movement of humanity from age to age; as reflecting no more and no less than the spirit, scientific and social, of the time; as advancing, pausing, or retrograding in sympathy with the civilisation of successive epochs: such is the way in which the history of medicine ought to be dealt with at the close of the nineteenth century. True, such a mode of treatment demands far wider knowledge and far more philosophic grasp than have yet been shown by either French, Italian, or even German scholars; but the possession of such qualifications is becoming an ever greater possibility, according as research throws up richer material to the surface, and as juster views of the march and meaning of history can be taken from a higher vantage ground commanding a wider horizon. Dr. Puschmann's work is a first attempt at this mode of handling the subject, and its success is such as might have been anticipated from a physician who is also a man of letters and a thinker of acknowledged accomplishment and power. Though scarcely three years old, it is already a classic; and, if not without defects, the lines on which it is laid are such as will readily admit of modification or supplement without sacrifice of its distinctive features.

Dr. Puschmann's method is indicated by his title, "The History of Medical Education"—that is, of all the intellectual and moral influences under which the medical mind is evoked, developed, and formed. Not only medicine itself, but the sciences in relation to which it stands, directly or remotely, come within his survey, and accordingly we never lose sight, all along the journey on which he leads us, of mathematics, physics, natural history, philosophy, and even government, civil and religious. This latter is shown to have had a powerful and too often a baneful influence on the academic teaching of medicine, putting its veto on anatomico-physiological research (dissection of the human subject, for example), and relegating to "empirici" the office of the surgeon by its long-continued discouragement of inquiry into structure and function.

In the domain of pre-Hippocratic medicine the most satisfactory section of the work is that on the Egyptian, thanks to the additions to our knowledge made by Ebers and other recent investigators. The healing art in China is left out, though even before the appearance of the work under notice missionary research had added a good deal to the meagre details disclosed to us. Nothing can be better, however, than his treatment of Hippocrates, to whose marvellous judgment and insight the author does full justice. The section on the Alexandrian school is masterly, showing a power of "reading between the lines" of Celsus such as has been given to few scholars. Indeed, the author's whole account of the Roman period is most interesting. Severus Alexander (not Alexander Severus), he reminds us, established public teachers of medicine, salaried by Government—a notable advance on the previous state of things, when the young aspirant had to attach himself to some popular practitioner and act as his assistant. In this connexion Dr. Puschmann refers to Martial's epigram describing the sufferings of the patient when doing duty as "object lesson" to a fashionable consultant, with an audience of a hundred students round his bed. But perhaps the most fascinating section is that in which he shows the influence, for evil and for good, of early Christianity on the healing art. The new religion encouraged the tendency, handed down from remoter times, to make book-study a substitute for post-mortem examination and experiment on the living subject; but it redeemed this error by its creation and diffusion of hospitals, in which its distinctive "caritas" went hand in hand with its multiplication of the means of clinical observation, whereby an experience was open to the young practitioner such as pagan antiquity could not furnish. The hospital system spread to the Arabs, who turned it to good account; but the collapse that befell the world in the early middle ages affected the healing art as it did every other intellectual interest, and not till we enter a new period, with the foundation of the Salernitan school, is medicine found to revive.

Salerno, at which lady professors—Trotula, Calenda, Abella—lectured side by side with those of the rougher sex, was followed in France by Montpellier, and in Italy by the addition of medical faculties to numerous universities. From this point Dr. Puschmann enters on a most instructive exposition of university expansion, showing how, in opposition to Church prejudice, anatomy, step by step, achieved recognition and a place in the curriculum; how pharmacy engaged the attention of students in compounding and dispensing; and how the beginnings of the modern clinique were laid. With the dawn of the fourteenth century the examination of medical candidates began to assume regular forms, though surgery and obstetrics were still regarded by the academic aristocracy as outside their cognisance, to be practised by privileged amateurs in whose families the *métier* descended from father to son. Then came the mighty Reformation era, which, following on the discoveries of Columbus and Copernicus, and grandly represented by Luther, made its renovating influence felt throughout Christendom in every intellectual and moral interest, that of medicine especially. Medical education quickly responded in sympathy with "the ampler ether, the diviner air," blowing fresh and free over all the parterres of Academe, till juster conceptions of the circulation of the blood were hazarded by Servetus, Colombo and Cesalpino (whom Dr. Puschmann strangely overlooks in this connexion), afterwards to fructify in the immortal demonstration of Harvey. Ambrose Paré superseded the barbarous operations of non-qualified surgeons by a really scientific and artistic use of the knife, and at the chief seats of learning the curriculum of the medical student gained rapidly in comprehensiveness and thoroughness. The medicine of scholasticism was now in full retreat, and all down the seventeenth

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and eighteenth centuries we follow Dr. Puschmann in his excursions through the more civilised countries as these became rapidly endowed with new institutes and museums under able superintendents, where the mere rote-learning and rote-repetition of the "old masters" yielded place to living contact with the realities of life in health and disease, and where the physician and surgeon was being steadily trained into what he has become *par excellence—naturæ minister et interpres*. Intelligibly enough, Dr. Puschmann lingers at most length over the University of Vienna and the great medico-military school of the Kaiser Joseph II., and we cannot grudge the attention he bestows on that distinguished centre of professional education and practice. In the concluding section he deals with "medical teaching in modern times," and tells us much as to the methods and the means by which the nineteenth century keeps itself supplied with ever-fresh relays of duly qualified practitioners in every branch of the healing art. An excellent index completes the book, giving in alphabetical order a noble array of the men of "light and leading" to whom medicine first and humanity afterwards owe so much.

Dr. Puschmann's work is well worthy of translation into all the languages of Europe—into English especially, which, since the able work of Freind early in the last century, has (strangely enough) no historian of medicine to show parallel with the German Haser, the Italian Puccinotti, and the French Daremberg. Mr. Hare has performed his task with diligence and judgment, and, though we never miss the impression that we are reading a translation, we may congratulate him on the freedom and even elegance he combines with fidelity to the original. Here and there we detect him giving an imperfect or even erroneous English equivalent for the German. At p. 4, for example, "gründlichen" is not represented by "extensive"; and, p. 5, "Berechtigung" means something more than "significance." At p. 6, "bestätigen" is inadequately rendered "give form"; and surely, on the same page, "Ausbildung" might have had a less clumsy interpretation than "structure in the education." At page 24, in a quotation from the Iphigenia in Tauris, he avoids a blunder in Dr. Puschmann's Greek only to add one of his own. But these are small matters, which will receive attention in a new edition. More important are the omissions in Dr. Puschmann's original, which Mr. Hare, who "edits" as well as "translates" his author, might have supplied. We have referred to the silence in which Chinese medicine is passed over, and also to the exclusion of Cesalpino's name from the precursors of Harvey. A place should certainly have been found for Dr. Gilbert of Colchester, of whom Bacon was ignobly jealous; while Galileo pronounces on him an enthusiastic eulogy for his "concetto tanto stupendo" (of the magnetic polarity of the globe). A yet graver omission is that of Nobili and Matteucci, whom a countryman of Dr. Puschmann credits with the most valuable contributions to electro-therapeutics. In a second edition, we repeat, we expect to see these and similar defects repaired. Meanwhile we have nothing but praise for the work as a whole. It ought to find many readers, and to help, in some measure, to remove the reproach from the profession that it pays too little attention to history, that of its own rise and progress included.

Strophanthus Hispidus; its Natural History, Chemistry, and Pharmacology. By THOMAS R. FRASER, M.D., F.R.S., Professor of Materia Medica in the University of Edinburgh. Edinburgh: Neill and Co.

UNDER the above title Professor Fraser has reissued, in separate form, two communications which have previously appeared in the Transactions of the Royal Society of Edinburgh. After a brief historical introduction the author deals in the first part with the natural history and chemistry of strophanthus, and his descriptions of the various parts of the plant are illustrated by numerous well-executed plates. The fascinating accounts of its use in Africa as an arrow-poison will bear re-perusal, although they are now matters of rather ancient history. The botanical description is very full, and applies not only to the parts which have now been rendered official, but also to the root, stem and branches, leaves and flowers. While all parts are carefully described, the greatest attention is naturally lavished upon the follicles and seeds. Professor Fraser's work in determining the chemical composition of the seeds is familiar, and it leaves nothing to be desired in the full description of the various stages by which the separation and identification of strophanthin, strophanthidin, and kombic acid have been effected, together with the no less interesting account of the unsuccessful search for an alkaloid.

The second part is devoted to a study of the pharmacological action, details of experiments upon over 150 animals being given to determine not only the general effects in frogs and rabbits, but also the special actions upon the cerebro-spinal nervous system, the skeletal muscles, the heart, bloodvessels and general circulation, the lymph-heart, and the respiration. Professor Fraser is not content with printing the general results of his work, he takes the reader into his full confidence, and shows him the various tracings from which these results have been so largely drawn. The clinical history of strophanthus is the only element which is wanting to complete the picture, and it is unfortunate that from the uncertainty inseparable from all therapeutic investigations we can never hope for this to be given with the force and precision which characterise Professor Fraser's most valuable study.

The Year book of Treatment for 1892: a Critical Review for Practitioners of Medicine and Surgery. London: Cassell and Co.

THE "Year-book of Treatment" now has such a well-established position that it does not require detailed criticism. Its methods are well known, and most of the contributors have now settled down to a style of work which from experience they have found to be most satisfactory to those who wish for a concise review of the progress of the year in the various departments of medicine and surgery. There are only two new names amongst the contributors—viz., Dr. M. Handfield Jones, who is responsible for the section on midwifery, and Mr. J. Ernest Lane, F.R.C.S., who deals with the subject of venereal diseases, in the place of Mr. Alfred Cooper, F.R.C.S., who now takes charge of a new section devoted to diseases of the rectum. Dr. Berry Hart is no longer amongst the contributors; and Dr. Herman, who last year compiled the review of Midwifery, now treats of the diseases of women. In the present volume is to be found for the first time a "selected list" of new books, new editions, and translations, in which considerable space is allowed for French, German, and Italian works. Having thus mentioned the chief new features of the book, there is little more to be said, beyond remarking that the range from which material has been selected is, as usual, wide, and indicates considerable industry and the determination to make the Year-book as complete as possible. It is a little curious to note that of the twenty-one contributors, although fourteen are drawn from London medical schools, seven of these are from one school, and the remaining seven from three other schools, thus leaving a very large majority of the London hospitals totally unrepresented.

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THE LANCET.

LONDON: SATURDAY, MARCH 5, 1892.

OUR readers will have observed that at a meeting of the Council of the Royal College of Surgeons of England held on February 11th the Council, in pursuance of a resolution passed on March 4th, 1889, proceeded to the consideration of the infraction of By-law xvii. by certain Fellows and Members in February, 1889, by issuing notices convening a general meeting at the College without the sanction of the Council. After considerable discussion, the Council resolved to defer the consideration of the matter to its next meeting on March 10th, and meanwhile to inform the Fellows and Members concerned of this intention. It may, we think, fairly be presumed that in this postponement the Council was influenced, at least in part, by a desire to leave the door open for a conciliatory adjustment of differences by affording to those who had been led by mistaken advice on technical points into a breach of discipline an opportunity of retracing their steps, making the *amende honorable*, and acknowledging the legitimacy of the authority bestowed upon the Council in the Charters and by-laws. Should this course be pursued, there can be very little doubt that all sources of irritation will soon be removed, and that harmony will be completely restored. That this will be the outcome of the struggle we are encouraged to hope by the letter from Dr. GEORGE DANFORD THOMAS, chairman and treasurer of the Association of Members, which appeared in our columns last week. Dr. THOMAS states that a special committee of the Association has been formed for the purpose of considering the position of affairs and obtaining the means of meeting the liabilities incurred by the secretaries and members of the committee who were made parties to the suit "STEELE *v.* SAVORY." "The question of an appeal against the judgment of Mr. Justice ROMER was proposed and carefully considered, and, after weighing counsel's opinion, the committee determined that no further legal action should be taken." This determination of the special committee not to appeal against Mr. Justice ROMER'S decision will meet with general approval; for, notwithstanding the voluminous evidence collected by the plaintiffs and the substantial justice of their pleas for liberty of meeting and discussion, the prospect of upsetting Mr. Justice ROMER'S interpretation of the law, summary as it was, must be regarded as extremely remote. Much as we regret the issue of the struggle, and fully as we recognise the inherent greatness of that attribute of Englishmen of not knowing when they are beaten, we must frankly acknowledge that no good end could be served by keeping up the strained relations between the Council of the College and the Members whose sympathies generally have followed the action of the Association. To remove all traces of conflict without for one moment abandoning the principles whose too zealous assertion led to the present situation of affairs is the proper course for the Association to pursue. The adverse decision on the special points raised in the pleadings does not in the least affect the soundness of the principles on which the demand for reform of the Royal College of Surgeons is founded, or diminish the claims of the Members of the College to a voice in its management and in the election of its Council. If it has any effect at all it intensifies those claims because it imposes upon the great constituency of the College the necessity of being governed by charters and by-laws which are from fifty to a hundred years old, and are therefore in direct antagonism with the spirit of the age. It also requires from the Members of the College generally a fresh and united effort for the purpose of freeing themselves from the fetters which deprive them of the liberty to which they are justly entitled. The recent action was at least a courageous effort to serve the whole body of the Members, and it has involved the promoters in expenses which ought not to be left to be defrayed by the few who happen to be legally responsible. First efforts in the cause of freedom are often unsuccessful, but they pave the way for future success; and such future success may be ensured if the Members of the College will bestir themselves and unite heartily to further the common cause. A large accession of members to the Association of Members ought to be the immediate result of a reparable reverse, an accession which would at once be a demonstration of the earnestness of the Members in their desires for reform and a welcome replenishment of the treasury of the Association. If each Member of the College would contribute a small sum, and support the committee of the Association in any steps which may be deemed desirable for the purpose of obtaining a due recognition of the Members' claims, the whole complexion of the contest would be changed. It will always be assumed by the Council of the College, as it has been hitherto, that the Association of Members represents but a few of the Members of the College, unless positive proof to the contrary can be produced, and this idea strengthens greatly the opposition to the most moderate concessions to the Members of the College. The strongest arguments have and will have no effect while they as a body display apathy and indifference. The very extent of the constituency renders it the more difficult to influence and to arouse, and it may be that an organisation of the Association is required which will make provision for provincial representation and the formation of branches in different parts of the kingdom. Whatever may be the proper measures to quicken the interest and engage the active coöperation of the Members of the College, we trust that the committee of the Association will take the subject into serious and early consideration. All who are interested in the reform of the College must sympathise both with the cause itself and with those who have fought the battle and find themselves burdened with costs amounting to £2000. We therefore trust that the Members for whom the struggle was commenced will respond to the appeal of Dr. DANFORD THOMAS, and, to use his words, will "by their generous assistance testify to the courage and self-abnegation displayed in the important contest" in which the plaintiffs were engaged on behalf of the Members generally.

A PARTICULARLY interesting article on the influences which affect the power of voluntary muscular contractions appears in the first number of the *Journal of Physiology*,

written by Dr. WARREN P. LOMBARD, Professor of Physiology in the Clark University, Massachusetts. The influence of surrounding conditions, or, as HERBERT SPENCER terms it, of our environment, is more or less distinctly recognised by all. To one man, light, fresh air, and freedom of movement, whether in the form of hunting, or fishing, or mountaineering, are essential to the enjoyment of life. To him the confinement and restricted activity of the literary student are insupportable. To another a free supply of food is an absolute necessity, whilst yet another will be happy on the grey peas and water diet of Friar TUCK. Some feel wine, or some substitute for it, and tobacco to be indispensable; others can cheerfully dispense with either or both. CHARLES DICKENS required the bustle and activity of a great city to stimulate him to his best efforts. WORDSWORTH preferred to commune with nature alone. But in every instance the influences of the great forces that surround us, as well as of the minor agents, may be traced in the vigour and energy with which the ordinary avocations of life are performed. There are fluctuations both of muscular and nervous power which are manifested in the quantity and quality of the work done, whether this be the production of a "Messiah" or of an "Alexander's Feast," or in some violent and protracted muscular effort. Dr. LOMBARD'S essay is an endeavour to ascertain what are the influences which determine the activity and fatigue of the central nervous mechanisms exciting the voluntary muscles to action. With this object in view, he made a series of experiments on the flexor muscles of the second finger of the left hand. The arm rested on a firm support, the first and third fingers were enclosed in closely fitting brass tubes, and a firm cushion was placed behind the knuckles; a leather collar was fastened round the second phalanx of the second finger, to which was attached a cord passing over a pulley, and supporting a weight of two or more kilogrammes. The movements of the finger and of the weight were recorded by an ingenious but simple apparatus on a revolving drum. Amongst the more interesting of the results obtained by Dr. LOMBARD were that, in the first place, the central nervous mechanisms become more quickly fatigued than the motor nerves and the muscles, for when voluntary contraction is no longer possible the muscles are still capable of contracting and of raising the weight when either the muscles themselves or the motor nerves supplying them are stimulated by an electrical current. Yet the experiments showed that the will power in general is unabated, for when the subject was unable to bring the exhausted muscles of the second finger into play he could make as strong contractions as ever with the extensor muscles of the thumb or of those of the same finger of the opposite hand. Hence Dr. LOMBARD concludes that the fatigue is located in some of the lower centres, perhaps of the spinal cord. It is remarkable, however, that, even when fatigue is complete, on continuing the efforts to raise the weight periodic returns of power were observed, which were probably of central origin. Speaking broadly, muscular power is greater in the morning than at night, though this is liable to vary under the influence of meteorological conditions, and the fall of the curve of power through the day is checked at regular intervals by the meals. The effect of exercise was very noticeable in increasing the power. Thus it appeared that whilst, when the first observation was taken, it was only possible to raise the two-kilogramme weight thirty times with a total amount of work of 2·92 kilogrammetres, on the twenty-third day no less than 778 contractions were made before exhaustion occurred, with a total amount of work of 36·86 kilogrammetres, the actual strength being thus increased nearly thirteen times, which is very encouraging to those flaccid inhabitants of large towns who endeavour to renovate their debilitated bodily powers by moderate exercise in the open air for a month or so in summer or in autumn. The effect of alterations of atmospheric pressure were carefully examined, with the result that, though no constant relation between the work and the absolute atmospheric pressure was found, it was noticed that the power often increased when the barometer was rising and decreased when it was falling; and, as the research advanced, Dr. LOMBARD became more and more convinced that he was influenced by the changes in the height of the barometer rather than by the absolute atmospheric pressure; so that modifications in the power of his muscles were very observable coinciding with the diurnal alterations in the barometric pressure, and quite independent of the general height of the mercury. There appeared to be two well-marked maxima in the twenty-four hours, the maxima occurring at 10—11 A.M. and P.M. and the minima at 3—4 A.M. and P.M. The influence of tobacco and of alcohol was finally investigated, and with results that are certainly remarkable. These drugs seem to have an antagonistic effect. Tobacco acts rapidly as a depressing agent, and its influence quickly passes away. Alcohol, on the contrary, acts as a stimulating agent, and it increases the endurance of the muscles. In one experiment with tobacco the total work in kilogrammetres at 8.30 A.M. was 10·25, but eighteen minutes after smoking a cigar of medium strength the total work fell to 6 kilogrammetres, and an hour after to little more than 2 kilogrammetres. But at 11.30 A.M it had risen again to 10·25. This is a result well worthy of the attention of all smokers about to engage in any physical contest. The effect of alcohol is not less marked in the opposite direction. The whole of this communication is very suggestive, and is deserving of the careful attention of physiologists and of physicians.

THE profession in the colonies of Great Britain is, on the whole, sound in its determination to be faithful to the great traditions of professional method and conduct. It is, perhaps, not remarkable that in countries so young, with society in a democratic form, and a large admixture of men of an independent and unconventional type, some liberties should be taken with old-established professional modesty and reserve. Some time ago we made allusion to this state of matters in Victoria with regret, but with a sense of duty. A correspondent in Australia forwards us illustrations of the fact that in New South Wales matters are even worse than in Victoria. Not only is the number of avowed quacks much greater, but the practice of advertising by qualified practitioners is deplorably common. He sends us several specimens. "Dr. M. PERRY, M.R.C.S., L.S.A.," advertises himself as a specialist for nervous complaints. His work on nervous diseases is free, and he has medi-

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cated electrical baths specially adapted for the treatment of nervous complaints. The following are two other advertisements:—"Dr. THOMAS. Examinations passed: M.R.C.S. and L.M. Eng., L.R.C.P. Eng. Dr. THOMAS offers safe and skilful treatment for the cure of nervous, skin, and contagious diseases. Consulting rooms: 244, Castlereagh-street, opposite the Royal Standard Theatre. Hours from 9 A.M. till 8 P.M." "Dr. ALEXANDER PATERSON, A.M., M.D., Specialist Chronic and Nervous Diseases &c." Dr. ALEXANDER M. JOHNSON, however, modestly contents himself with the announcement that he is a legally qualified practitioner. Such advertisements in the chief daily papers of the great cities show a decided laxity in professional ethics. Our correspondent adds further illustrations from his own personal knowledge. He has known a graduate share a case with a quack. In a consultation he has heard the consultant offer further attendance, and in another case attend without offering, until refused admission. He complains that the medical laws and General Council of the colony permit such "flagrant breaches of moral and professional etiquette." We firmly believe that such conduct has the strong reprobation of the bulk of the profession. But the profession must bestir itself to denounce and disown all who practise it. For such persons grow bold by their own defiance of established ethics and construct theories for their own justification. A remarkable instance is forwarded to us in the batch of papers from which the above unseemly and discreditable advertisements are taken. It is in the form of a letter signed by ALEXANDER PATERSON, A.M., M.D., F.R.C.S.—presumably the same graduate who advertises himself as a specialist in chronic and nervous diseases. The occasion of Dr. PATERSON'S letter is the fact of a Bill being before Parliament at present, which has for its object, as our Medical Act has, to enable the public to distinguish between qualified and unqualified practitioners, and which very properly contains a clause giving to the Medical Council of New South Wales power to strike off the Medical Register the name of any practitioner whose name has been erased from any recognised body from which he obtained his qualification. Dr. PATERSON points out that the qualifying body may remove the name of a person for conduct derogatory to the honour and dignity of the profession—"that is, for a matter of etiquette or sentiment, not misconduct." He uses strange words to denounce such action and powers on the part of the qualifying bodies, and asks: "What have the public to do with maintaining the honour and dignity of the profession?" We answer unhesitatingly that the public has everything to do with the honour and dignity of the profession, and that its representatives are highly wise in enacting laws that tend to the maintenance of them. Dr. PATERSON makes two points: First, that so long as a man is "qualified," in the sense of being competent, he has a right to be on the Register. The second is that if a medical man errs in conduct he should be judged by the ordinary courts, and not by a professional tribunal. He should have the same justice as a common culprit. The argument may sound plausible; but it is hollow, and it is discreditable. Every other profession regulates itself and lays down its own standard of honour. The Law and the Church have each its own domestic and internal authority and discipline. It has ever been so in the medical profession. And we see no reason for departing from it. Dr. PATERSON must know that it is the satisfaction of a man to be judged by his peers, and that only professional men can be judges of professional conduct. The public has the greatest possible interest in the maintenance of a high code of professional conduct which represses pretension and vaunting after the manner of quacks. It is only professional men that can be judges of the public evil done by such a system and by other acts and methods of men who hold themselves out as being something superior. The very development of specialism makes the maintenance of the strictest professional methods in practice essential. Otherwise the public will be hopelessly injured. Men like these advertising practitioners want incongruous and inconsistent advantages. They want to be in a profession and have all the honour and respectability that attach to its code of morals and its traditions, and they wish to have all the freedom of quack doctors and nostrum vendors. They may have one or the other of these, but they cannot have both. If they think so little of the judgment of a professional council and value it so lightly they should show more dignity in bearing the natural consequences of such judgment. We are asked in effect, What is mere etiquette or honour compared with qualification? The answer is that from HIPPOCRATES downwards the moral character and the dignified behaviour of medical men have been regarded as an essential part of their "qualification" for the great duties entrusted to them. In the judgment of the public the duties of medical men are so important, and withal so delicate and refined, that it has made the profession the judge of its own members alike in the public and the professional interest. This is found to be for the good of the mother country. It is not likely to be less beneficial in her colonies. Medical authorities have no pleasure in erasing the names of their diplomates, and the public may be assured that when they do so it is for good public and professional reasons.

Annotations.

"Ne quid nimis."

NOTIFICATION OF MEASLES.

THE District Committee of the First or Upper District of the County of Renfrew has determined to add measles to the list of diseases to be notified under the Notification Act. The following is the resolution of the committee: "The District Committee of the First or Upper District of the County of Renfrew, as local authority under the Public Health (Scotland) Act, 1867, within the bounds of the said First or Upper District of the County of Renfrew, hereby order that the Infectious Disease (Notification) Act, 1889, shall apply, in their district, to the following infectious disease—viz., measles; and further order that this resolution shall come into force eight days after this order has been approved of by the Board of Supervision and publication of the advertisement thereof, in terms of the Act of Parliament—that is to say, on the eighth day of February, 1892." Dr. Munro, in forwarding this circular to the medical men of the district, properly invites notifica-

tion at the earliest possible moment. But he adds a sentence which seems to one of our correspondents a little *ultra vires:* "Further, we do not desire to have notification of cases of measles occurring in households within three weeks of the notification of the first case." Our correspondent asks: "Has the medical officer power to say that certain cases of measles shall, and others shall not, be notified?" The question is finely legal. But Dr. Munro is not likely, either for himself or his "authority," to act illegally. The extension of the Act to measles is in the power of the local authority, to which we may accord the right of defining the extension. There is no limitation of cases of measles in the resolution of the authority.

LAST YEAR'S CHOLERA IN ASIATIC TURKEY.

THE real extent of the late prevalence of cholera in Asiatic Turkey may never be known, but certain official returns dealing with the subject have recently been compiled in Constantinople. The outbreak is referred to as having been first noted at Herim, near Aleppo, on June 9th last, and before its cessation in mid-November 1659 persons are stated to have died of the disease in the villayet of Aleppo. In Damascus, between Oct. 18th, 1891, and the beginning of the second week of January last, 801 fatal cases are stated to have occurred. In the Hedjaz, including Mecca, Medina, and sundry other holy places, 3178 persons are reported to have died of cholera in July and August; and following on this, 818 fatal cases occurred in the villayet of Yemen, in the south of Arabia, during the months of October and December. Thus, some 6500 cholera deaths are known to have occurred in the places named. But there still remain the returns for Beyrout, which had not at the time of the report come in; and also those for the country parts of the province of Damascus, as to which it is implied that they may never be forthcoming. Adding the probable deaths in these localities to the list already received, it is estimated that some 10,000 people died of cholera in Asiatic Turkey during the latter half of last year, notwithstanding the fact that the distribution of the population is very sparse, except at certain spots during the pilgrimage period in Arabia.

THE OPIUM CONTROVERSY.

IT is with opium as with alcohol. We are continually hearing from opposite standpoints "the truth" about it. As yet, however, the unpractised hearer, however candid, finds himself so beset with contrary arguments that he has little chance of arriving at an exact opinion on the subject of its use or its abuse. We had occasion recently to notice the significant fact that a memorial condemnatory of the growth and sale of the drug, as now permitted by the Indian Government, had received the signatures of some five thousand British medical practitioners, a considerable number of these having had, we may state, personal observation of the opium habit as practised in China or India. On the other hand, we have a mass of official Indian testimony, largely drawn, moreover, from non-medical sources, which is opposed to the view that the use of opium has gravely prejudiced the health of our fellow-subjects in that country, that it is decidedly increasing, or that its manufacture there has any marked influence on the maintenance of opium-eating and smoking in China. According to this evidence, not only is the drug, if used in moderation, not injurious, but it is in some cases—notably those of persons exposed, as in Assam and Eastern Bengal, to damp and malaria—positively beneficial; it is conservative of physical endurance, it enables the consumer to live healthily on less food than he would otherwise require; it does not, as asserted, cloud his mental faculties, and, even if hurtful, it is so by reason either of adulteration with Indian hemp or of excessive indulgence. They assure us also that the Chinese objection to its importation is only pretence, and intended to protect the privileges of native producers. We observe, however, that even these advocates of its utility do not deny the capacity for mischief possessed by opium if indiscreetly taken. Neither do they dispute its essentially and strongly poisonous character. They show, moreover, no direct or indirect advantage worth naming as arising from its consumption, unless in the presence of illness or as a preventive of malarial infection. These facts, in our opinion, are quite sufficient to justify its restriction to purely therapeutic uses, the more so that it is, if we may trust the teaching of modern observation, by no means the best safeguard against malaria. As regards the attitude of the Chinese Government, we may note a statement by the Viceroy Li Hung Chang in 1881, in which he resents on moral grounds the encouragement given by this country to the opium habit in his own, and declares that the opium war must be taken as China's ineffectual protest against our action. Our ambassadors to China, Sir Rutherford Alcock and Sir Thomas Wade, unlike some critics less favoured as to means of observation, were convinced of the sincerity of these protestations. In Burmah, it is said, matters are coming to a condition no more hopeful than that of her greater neighbours, foreigners and the natives alike indulging freely, and with obvious injury to health and morals, in the same seductive habit. In the face of such facts as these we confess that we can see but one way of escape from the difficulties which surround this question—that is, the legal restriction of opium to its use for purely medical purposes.

EASY CENSURE OF MEDICAL OFFICERS OF WORKHOUSES.

THE *Weekly News and Clerkenwell Chronicle* and other local papers have lately very naturally given some prominence to a motion of the Holborn Guardians censuring the esteemed medical officer of the City-road Workhouse, Dr. Yarrow. We have never known the censure of a medical officer, to say nothing of a medical officer of twenty-one years' faithful and excellent service, to have such an infirm basis. The censure had reference to a man named Reeves, forty-three years old, who had been suffering for months from chronic bronchitis. He was admitted on Dec. 23rd, having walked to the workhouse, and within five minutes of his admission was seen by Dr. Yarrow and ordered to Highgate Infirmary. The workhouse, according to Dr. Yarrow's version and the statement of one of the guardians, is not equipped for the treatment of other than cases of old age and its infirmities, and very inadequately for these. There is only one trained nurse for day duty to about 300 aged sick, and for night work only two untrained nurses. About 1 o'clock P.M. Dr. Yarrow saw the man again, after a dinner of beef-tea and bread. At 3.25 a message was sent to the medical officer that Reeves *had been taken very ill*, and desiring his attendance. Dr. Yarrow came in at 4, and was at the workhouse at 4.15, and prescribed for the patient. He saw him again at 8.20. Reeves was still breathing with difficulty, and on the next day he died, having been seen four or five times by Dr. Yarrow. The two points in the censure were that Dr. Yarrow had not given active treatment to Reeves after ordering him to the infirmary; and that there was an error of judgment in sending him to the infirmary on a foggy day. The short answer to these charges is that a man who had walked to the workhouse was presumably fit to be removed in an ambulance to a more fit and comfortable place, and that it was reasonable under the circumstances to defer active treatment, though a dose of mixture kept in the dispensary had been given. The very language of the master's message shows that a change for

the worse took place after Dr. Yarrow's visit at 1 o'clock. What conceivable justice is there in blaming Dr. Yarrow for this? The least knowledge of such cases in winter months is enough to show that such rapid changes do constantly happen. What are we to think of guardians who on such a basis can found charges against such a man as Dr. Yarrow, who has filled his office for twenty-one years without a charge of neglect? Equally groundless is the attempt, as the *Weekly News and Clerkenwell Chronicle* points out in a very just article, of attempting to found a complaint against Dr. Yarrow for occasional short visits to the workhouse, as on Sundays. Judging from the record of this incident, Dr. Yarrow would seem almost to live in the hospital. Many guardians seem to have a notion that there should be a resident medical officer. There is no evidence that anyone has suffered for want of one, though, according to Dr. Yarrow, there is much need of improvement in the nursing staff. If the guardians really wish to make different medical arrangements, let them discuss them impersonally and do full justice to one who has served them so well. The interests of the poor must not be made a cover for unreasonable treatment of a medical officer. We rejoice that the Local Government Board has been asked to give judgment on these facts. Dr. Yarrow should, and no doubt will, court the fullest investigation. If the interests of the sick poor in workhouses are to be promoted it will not be by disproportionate charges against medical officers, especially in the case of one with a history like that of Dr. Yarrow.

ROYAL MEDICAL BENEVOLENT COLLEGE.

THE biennial festival of this College will be held on Tuesday, April 5th, at the Hôtel Métropole, at 6.30 P.M., when the Right Hon. David Evans, the Lord Mayor, will preside. The sheriffs of London will take part in the proceedings. The council of this important medical charity is desirous of raising funds to meet more fully the annual outlay on the benevolent side of the work, which is very considerable. They have at heart also the raising of a special fund of about £26,000, which would enable them to augment the incomes of the pensioners at present residing at Epsom, and thereby enable them to live amongst their relatives and friends. This proposal appeals directly to the active support of all medical men on the several grounds of sentiment, policy, and economy. By its realisation it will benefit the pensioners as well as the pupils, and in the long run must add to the usefulness of the College. It will afford us great pleasure to be called upon to redeem our promise of £1000, and we sincerely hope that all medical men will make a great effort to help the Council to carry out this beneficent scheme. If this could be done, the Asylum buildings could be set free for an important part of the extensions, which have been rendered necessary by the growth of the school.

FUMES FROM HIGH EXPLOSIVES IN MINES.

THE federated Institution of Mining Engineers have done good service by publishing the results of some important investigations on the effect on the air of coal mines produced by the use of the new explosives, roburite and tonite, in place of gunpowder. The new agents are very powerful, and as explosives they do not appear to be especially dangerous in use. But it was open to grave doubt whether the products yielded by their explosion might not exercise an injurious influence on the health of the workmen. Roburite is a mixture of ammonium nitrate with chloro-dinitro-benzene, the latter compound being expressed by the formula $C_6H_3Cl(NO_2)_2$. The compounds obtained by its explosion are said to be carbonic acid gas, hydrochloric acid, nitrogen, and water, so that complete conversion into gas takes place; but it seemed quite possible that nitrous fumes—and it was almost certain that carbonic oxide—would be formed. Tonite is a mixture of equal weights of gun-cotton and barium nitrate, and its decomposition on explosion results mainly in the formation of barium carbonate, carbonic acid gas, water, nitrogen, and oxygen; but here again there seemed a risk that poisonous vapours might be emitted. An experimental investigation was therefore undertaken by the Durham Coal-owners' Association and the Durham Miners' Association, the chemical portion of the examination being allotted to Professor Bedson of Durham, the medical study to Dr. Drummond and Dr. Hume, and the engineering management to Mr. Walter Brown. The results are now published in the form of a pamphlet. Blasting operations were carried on at intervals from 1889 to 1891, and by skilfully devised apparatus Professor Bedson succeeded in collecting and analysing samples of the gases almost immediately after the shots were fired, not only at some little distance from the spot, but also from the immediate neighbourhood. Comparative experiments with gunpowder were made, and the general conclusion reached was that the fumes emitted from the new explosives were less rather than more dangerous than those from gunpowder. Carbonic oxide was found in every case, but only in minute quantity. Hydrochloric acid does not appear to have been detected at all, which is curious, as it is certainly formed during the combustion of roburite. We infer that the whole of the barium is retained in the solid state as carbonate, for no allusion is made to its presence in the fumes. Of course barium carbonate is a very fixed substance; but, considering the enormous temperature caused by the explosion, it might have been feared that some traces of this very poisonous metal would linger in the vapours for a short time, possibly in suspension.

AMŒBIC DYSENTERY.

FOR some time past Drs. Councilman and Lafleur have been investigating a large number of cases of dysentery, caused, as they believe, by the amœba coli, or, as they prefer to call it, the "amœba dysenteriæ" A summary of their work is given in the *Boston Medical and Surgical Journal* of Dec. 24th, 1891. They maintain that amœbic dysentery is a distinct disease caused by amœbæ which enter the body and produce characteristic lesions of the intestine. They may also produce abscesses of the liver with or without lesions of the lung. Such abscesses differ in their characteristics from those occurring in other forms of dysentery. Dr. Lafleur is responsible for the clinical part of the work. He found the onset of this disease to be variable, its course irregular, with frequent exacerbations and intermissions, but tending towards chronicity. Tenesmus was infrequent; the stools contained mucus mixed with blood, but differed in general characters from those seen in other kinds of dysentery. In chronic cases, with a fairly good appetite and digestion, a grave anæmia might exist, without the escape of blood from the rectum. The prognosis is always uncertain; death may take place at any period in the course of the disease, and recovery, when it takes place, is gradual. The essential feature in the diagnosis is the detection of actively moving amœbæ in the stools, sputum, or aspirated contents of a hepatic abscess. Dr. Councilman concludes that the amœbæ in food or drink reach the large intestine, where they find favourable conditions for their development. They multiply rapidly, and cause a superficial necrosis and an increased flow of mucus. They penetrate the mucous membrane passing between the glands and invade the submucous

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tissue, where they give rise to an œdematous swelling. The overlying tissue, being thus deprived of its blood-supply, dies, and ulceration is the result. The ulcers increase by a progressive, undermining process, though their typical course and appearance may be modified by the action of associated bacteria. In some cases the amœbæ pass into the muscular coat, producing changes similar to those seen in the submucous layer. These lesions thus correspond with those generally described under the term "follicular dysentery" rather than with those included under the catarrhal and diphtheritic varieties. Dr. Councilman thinks the amœbæ usually invade the liver by crossing the peritoneal cavity, although they may be found in lymphatics and bloodvessels. He bases this view upon the absence of amœbæ in the lymph glands and the usual limitation of the abscess to the upper or lower surface of the right lobe of the liver, whereas abscesses from portal embolism should be found in either lobe, deep-seated as well as superficial. The abscess in the lung is usually found in one particular place—namely, the lower lobe of the right lung, where it is in contact with the diaphragm. It frequently arises from the direct extension of the hepatic abscess through the diaphragm, although this muscle may sometimes be intact. The typical effect of the amœbæ is best seen in the liver, where they appear to produce a necrosis of the tissue, and a solution of the inter-cellular substance. The so-called abscess is thus made up of detritus, and not of pus corpuscles.

DEVELOPMENT OF HEALTH RESORTS IN SIBERIA.

SIBERIA is not a place where, according to the conceptions of its climate and topography prevalent in this country, health resorts of an agreeable character are to be looked for. The inhabitants, however, seem determined to establish "baths" on the type of those met with on the Continent; and an energetic merchant, M. Kukhterin, has already supplied the means for the scientific examination of Lake Ingol in the Yeniseiski government, some 200 miles to the east of Tomsk. This examination was entrusted to Dr. Stanilaus Zaleski, Professor of Chemistry in the University of Tomsk. His report, which is embodied in an illustrated pamphlet, shows that, though the waters of the lake are of the chemically indifferent variety, they, as well as the mud, are suitable for the treatment of a good many classes of chronic affections. It is proposed to build a regular hydropathic establishment on the shore. The surrounding country is very sparsely populated, but the waters have been used, in an empirical manner of course, with, it is said, considerable success. The Russian Government appears to be anxious to develop the hydro-therapeutical resources of Siberia, for Professor Zaleski has received instructions to continue his investigations. The next locality upon which he is to report is Lake Shiro, in the Yeniseiski government. It would seem that the Tomsk University, though only established about four years, has already proved itself an important centre of scientific investigation. It is as yet, however, very poor and insufficiently equipped. Still, with a staff of enthusiastic young professors, such as it evidently has, it seems not unlikely to accomplish much for the enlightenment of a somewhat dark region of the world.

HEALTH AND GODLINESS

IN an age wherein the duties of a brother's keeper are probably more fully admitted than in any preceding epoch it will be allowed that the purposes of the society known as the White Cross League are wholly worthy of support and imitation. They may be briefly summarised as tending to promote among all classes the growth of a spirit and practice of purity. This is to be attained by the operation of two agencies, which, however, are clearly and rightly recognised by the members of the League as double rather than separate, so closely are they and the circumstances with which they deal associated. We have in the first place that which is moral and personal, and which inculcates directly the necessity of individual temperance and chastity, and we have also that which, by amending unsuitable conditions due to neglect, aims at producing a soil and environment which will encourage the growth of virtue. It is in this latter project that we are especially interested. The Rev. J. W. Horsley, in a paper lately published by the League, directs attention to the close connexion already known to exist between personal immorality and insanitary home surroundings. His experience of parish work, he tells us, has abundantly proved not only this fact, but no less clearly the power of reclamation which has been committed as a public trust of legislation to any and all householders willing to apply it. He expresses in a style as luminous as it is concise the practical drift of those Acts which make for the promotion of domestic cleanliness and decent living, from the old Nuisance Removal Act of 1855 to the Public Health Act for London which came into force last January. Into the provisions of these it is not needful that we should now enter, but we would again state our appreciation of the practical wisdom, at once worldly and other-worldly, which has guided the League and the author of this paper in striking thus deeply at some of the main roots of national illness and ill-doing. The White Cross League is a Church organisation. We have said enough to show that its work is universal and humane—the common sphere therefore of every ethical, moral, and religious force.

DEATH OF DR. JAMES ROSS.

WE regret to have to announce the death of Professor James Ross, lecturer on Medicine in Owens College, Manchester. He was a graduate of Aberdeen, and came to Manchester as pathologist to the Royal Infirmary of that city, directing himself particularly to researches on nerves. An outcome of his investigations on that subject was his "Treatise on the Diseases of the Nervous System," published in 1833. He also published a "Handbook of Diseases of the Nervous System." He wrote many papers, among the more noteworthy of which were "The Segmental Distribution of Sensory Disorders," a paper on "Evolution," and one on "Memory." He was an acute and philosophic observer of disease. As a psychologist and a scientific physician he occupied the first rank. A fuller notice is reserved for publication in our next issue.

THE CHEEKS IN GLASS-BLOWERS.

IN the last number of the *Progrès Médical* Dr. Regnault describes the condition of dilatation of the cheeks which occurs in glass-blowers, and which, so far as he has discovered, has not received much attention as regards the condition actually present and the cause of it. The work of glass-blowing is one requiring considerable skill and delicacy, and the apprenticeship necessary is a long one. Consequently boys commence the work, as a rule, at some time between the ages of twelve and fifteen, when the cheeks are not yet formed. The change is a gradual one, and for the most part takes place imperceptibly. When it is commencing there may be slight and unimportant pain. The pain disappears when the dilatation is achieved. It varies in degree, and frequently is only perceived when the cheeks are inflated. The limits of the swelling are inferiorly a line joining the chin and the ear, following the inferior oblique line of the lower maxilla; superiorly, another line starting from the ala of the nose, running up to the malar bone to strike the anterior limit of the masseter, which forms the posterior

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boundary of the swelling. The dilated wall is thus formed of the aponeurosis of the cheek, and of muscles such as the levator alæ nasi, the zygomatics, the orbicularis oris, and especially the buccinator. It is rare for this condition to be so marked as to be noticeable during repose. An interesting accompaniment is the dilatation of Stenson's duct. After the patient has ceased to blow and the cheeks have subsided there remains still some air in the canal, and gaseous crepitation can be perceived on pressing over it. Examination of the mucous membrane also shows the orifice of the canal considerably dilated, and a plug three millimetres in diameter can be inserted into it. Fortunately, the inconveniences to which the condition gives rise are for the most part slight, consisting of occasionally some slight difficulty in keeping the food from getting between the teeth and the cheek, and a tendency to white furring of the inside of the cheek, necessitating the occasional use of an antiseptic mouth-wash. Dr. Regnault gives the particulars of three cases which he has observed clinically, and calls attention to the interesting fact that sculptors, in representing Tritons blowing into shells, have reproduced exactly the deformity described.

FILARIASIS.

AMONG twenty-six officers and colonial officials admitted to the Val-de-Grâce Hospital between May 1st, 1890, and Feb. 1st, 1891, Professor Moty observed four cases of the above disease, and two other cases in the parents or friends of the patients. Four, however, of those admitted to the hospital had been abroad for so short a time that they may be left out of the calculation, leaving six cases among twenty-two persons who had spent a considerable time in the colonies. In spite of its frequency, this disease does not appear to be generally recognised abroad, as in none of the above cases had it been diagnosed. It was only upon undertaking an operation for the radical cure of a supposed hernia that the tumour was found to consist of dilated lymphatics. Professor Moty came to the following conclusions: That filariasis is an aseptic parasitic disease due to the presence of the filaria sanguinis hominis; that it is of frequent occurrence in the French colonies, and has been recently met with in New Caledonia. It most often appears as an enlargement of the glands and lymphatics of the groin and spermatic cord, due to the irritation of the filaria and its embryos. It can be recognised by such symptoms as chyluria, hæmaturia, &c.; but the diagnosis in each case should be confirmed by the detection of the embryos in the blood. Neither internal nor palliative treatment is of the slightest use. Excision or amputation is necessary in severe cases, and is attended with the happiest results, the removal of the hypertrophied tissue causing the adult filaria to disappear.

LIFE ASSURANCE AND THE MEDICAL PROFESSION.

WE find that THE LANCET is credited in quarters that should be better informed with having advocated a form of life assurance for medical men in which the premiums increase as the policy grows older. This is an entire misapprehension. What we have recommended is a form of long-term temporary assurance under which the premium would be considerably less than for a whole-term policy, but uniform while the policy continued in existence. There has been a great outgrowth within the past few months of life assurance schemes, under which the premiums vary from year to year, being calculated to do no more than meet in every year the current risk. To a policy in this form we have no root-and-branch objection if both parties to it clearly understand what the position is. But to the mode of advertisement which is adopted by votaries of the new system we see the strongest possible objection. Prospectuses have been brought recently to our notice in which tables constructed on this plan are given, and shown in comparison with other tables stated to represent the term of the ordinary assurance companies, in which are entered the premiums chargeable not only to cover the current risk, but also to purchase a right of *renewal at the same rate* during the whole continuance of the assurance. As *this right of renewal* forms no part of the contract which the issuers of the prospectuses in question offer to their customers, the comparison of which we speak is certainly very misleading, and indeed entirely without point except upon the wholly false assumption that what is offered by the one company is an equivalent of what is offered by the other. We trust that our contemporaries, when they do us the honour to quote our opinions, will be at the pains to quote them correctly, and, in particular, will not use general terms, which may seem, even though remotely, to connect us with schemes which, if we felt compelled to refer to them at all, we should notice only in terms of condemnation.

RESEARCHES ON THE BLOOD IN DISEASE.

THANKS to the more exact methods of estimating the number of corpuscles in the blood and their richness in hæmoglobin, we are becoming possessed of a large amount of information respecting the variations presented by these elements in physiological and pathological conditions. The most recent contribution to the subject is by Dr. Carl Sadler, whose researches were pursued in the clinic of Prof. von Jaksch at Prague, and the details of which form a supplement to the *Fortschritte der Medicin* (vol. x., No. 4). The monograph contains the results of very numerous observations (made with the Thoma-Zeiss hæmacytometer and the hæmometer of von Fleischl) in cases of diseases of the blood, pneumonia, pleurisy, pericarditis, peritonitis, acute rheumatism, meningitis, scarlet fever, malaria, typhoid fever, peri-typhlitis, Weil's disease, puerperal "sepsis," tuberculosis, bronchitis, nephritis, morbus cordis, gastric catarrh and dilatation, carcinoma (of stomach mainly), sarcoma, lymphadenitis, syphilis, cerebral tumour, cirrhosis of liver, and cholera nostras—a lengthy list, covering a wide range of disease. The results are drawn up on a methodical plan, and are well worthy of study in each individual instance; but it must suffice here to cite the chief facts contained in the summary that closes the monograph. In acute diseases Dr. Sadler finds that there is constantly a decrease of red blood-corpuscles, but mostly not very marked. In chronic diseases the diminution is greater, especially in such as exhibit cachexia, and there is a proportionate diminution in the amount of hæmoglobin. An exception to this is met with in tuberculosis so long as nutrition is fairly well preserved. Nor does valvular disease of the heart, particularly mitral disease, affect the number of corpuscles. In chlorosis the corpuscles may long remain at the normal standard, whilst the hæmoglobin markedly falls, a confirmation of a well-established fact. In other cases of anæmia, the essential form and those due to losses of blood, atrophy of stomach, and other causes, the decline in corpuscular richness takes place *pari passu* with that of the hæmoglobin. Acute and profuse diarrhœa produces a notable increase in the proportion of corpuscles and hæmoglobin, attributable to inspissation of the blood, and this may account for the apparent maintenance of a fairly normal standard in some cases of typhoid fever. Dr. Sadler found a diminution in the number of white blood-corpuscles in malaria, apart from the administration of quinine. Leucocytosis is proved to occur during digestion, and also during the puerperal period and the first days of lactation. Pathological leucocytosis is found in all diseases

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accompanied by exudation, such as pneumonia and serous inflammation, including acute rheumatism, but not invariably. An explanation of the variation may perhaps be found in the different kinds of exudation that occur; whilst the leucocytosis itself has been explained by the absorption of "nuclein" set free from the disintegration of the exudate. Leucocytosis does not occur in uncomplicated typhoid fever, or in tuberculosis (except during the reaction produced by injections of tuberculin). It was present in only one-half of the cases of carcinoma examined, and had relation rather to the supervention of ulceration than to infection of lymphatic glands. Singularly, in contrast to carcinoma, leucocytosis is invariably present in cases of sarcoma, the reason for which is not at present obvious. Dr. Sadler did not find any increase of white corpuscles in cases of tubercular lymphadenitis which had not proceeded to suppuration.

THE FEEBLE-MINDED.

THERE is a widespread class of people from whom personal sympathy is seldom withheld, but to whom, from restrictions in one way or another, the tangible charity of boards of guardians and other authorities cannot be extended. This is the class of persons who, in the technical sense of the term, are "feeble-minded." Investigations made on children in Board schools, the results of which are to form the subject of the Milroy lectures to be delivered in the course of this month at the Royal College of Physicians, and abstracts of which will appear in the columns of THE LANCET, have shown that the number of children comprised in this group is much larger than was formerly supposed. But no powers exist whereby boards of guardians can place them in suitable institutions. A deputation introduced by Dr. Farquharson waited upon Mr. Ritchie on Feb. 29th to point this out to him, and to ask his assistance on behalf of these poor creatures, who are from natural defects unable to maintain themselves by honest labour. Mr. Ritchie is always sympathetic in such cases, and the deputation was assured that their requisition was one of "no complication," but simply implied a small extension of the powers already existing with regard to the deaf, dumb, and blind. Personally, Mr. Ritchie has a strong leaning in the direction of rendering whatever assistance he legitimately can to the object which the deputation had in view, and their proposals will no doubt be very carefully considered. Of course there are questions which require thought; for instance, whether it is the best thing for the feeble-minded to be grouped together without association with others of strong minds, and, if not, the proposal of some alternative plan. No doubt these and similar points will be judiciously considered by Mr. Ritchie and his advisers, and we feel assured that in any event the objects of the deputation will be to a large extent realised.

PTOMAINES IN THE URINE OF A PATIENT SUFFERING FROM EXOPHTHALMIC GOITRE.

DRS. E. BOINET AND SILBERT have obtained from the urine of a woman suffering from exophthalmic goitre, complicated with paralysis of the right arm and irregular action of the heart, several ptomaines which have produced in animals symptoms similar to those from which the patient suffered. The residue of the urine after evaporation injected in minute quantities into the vein of a rabbit's ear caused convulsions and death. In the frog it caused gradual slowing of the heart's action, followed by arrest in diastole accompanied by convulsions. By a modification of Gautier's method they have obtained from the urine, concentrated by boiling, two series of ptomaines—viz., ptomaines *A* by treatment with caustic soda, ptomaines *B* by treatment with oxalic acid. Each of the ptomaines, called after the agent by which it has been isolated, as amylic alcohol, benzine, or ether, is possessed of different properties, as shown by experiments upon rabbits, guinea-pigs, and frogs. The ptomaine *A* obtained by alcohol causes convulsions with slowing and feebleness of the heart's action, ending in arrest in diastole. The ptomaine *A* obtained by benzine causes more powerful convulsive movements, but its action on the heart is less marked. The ptomaine *A* obtained by ether caused at first increased muscular excitability, and, unlike the others in the *A* series, arrest of the heart in systole. The ptomaine *B* obtained by alcohol causes motor paralysis with a fall of temperature, a slight transitory increase in the force of the heart's contractions, followed by feebleness, loss of rhythm, and arrest in diastole. The ptomaine *B* obtained by ether causes slight convulsive movements and arrest of the heart in systole.

SMALL-POX WARNINGS.

SMALL-POX is making insidious advances in a number of places, and at this season of the year the occurrence is one about which it behoves all sanitary authorities to be watchful. The disease has gained access to our shores in several of our port districts; and, whether from this cause or owing to infection from which we are rarely ourselves entirely free, the disease has manifested itself in some important centres of inland population. One of the latest warnings comes from St. Pancras, where, according to Dr. Sykes, seven cases of small-pox have occurred amongst waiters in hotels who have recently arrived from Switzerland, a country where the disease has for some time past been prevalent. Amongst the towns that have been the seats of small-pox on varying scales during recent months are Batley, Dewsbury, Leeds, Liverpool, Southampton and its vicinity, Great Yarmouth, Oldham, Nottingham, Huddersfield, and Cardiff, isolated cases alone having occurred in the two latter. At Dewsbury and Liverpool the disease continues without abatement.

SO-CALLED "SPONTANEOUS COMBUSTION."

UNDER this title Dr. Hartwell records a curious experience which he had recently. He was one day hastily summoned into the woods while visiting a case in the outskirts of the town in Massachusetts, where he lives, the messenger announcing that her mother was burned alive. On reaching the place indicated a human body was found in an actual state of conflagration. The body was face downwards and resting on the forearms, the upper part of chest, and the left knee. The rest of it was raised and held from the ground by the rigidity of the muscles of the parts. It was burning at the shoulder, on both sides of the abdomen, and on both legs. As Dr. Hartwell reached the spot the bones of the right leg broke with an audible snap, allowing the foot to hang by the muscles and tendons. The right shoulder-joint was exposed, and the intestines protruded through the burnt abdomen. The unburned clothing consisted of parts of a calico dress, a cotton vest, woollen skirt, and thick red woollen under-garment. Apparently the woman—for it was a woman forty-nine years of age, active in her habits and strictly temperate—had been burning stumps, and her clothing had become ignited. Dr. Hartwell's view is that the flesh—in a condition of unusual combustibility—had then caught fire, and had been able of itself to support combustion, and this is all that he means by so-called spontaneous combustion—viz., an undue liability of the flesh to actually burn. His view as to this condition is that it depends upon the fact that human bodies occasionally do possess this increased combustibility by reason of an unusual deposition of fat, and that age and spirit-drinking are factors in that they aid in the accumulation of

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fat. The interest of the case which he records he claims to lie in the fact that it occurred in a person of middle life, by no means obese, and not addicted to alcoholic indulgence.

PARALYSIS FOLLOWING MEASLES.

DR. JAMES STRATTON CARPENTER records in the *Medical News* of Philadelphia this rather unusual condition. The patient was a female child of three who had a mild attack of measles. On the third day of the illness the mother noticed that she was breathing heavily, and could not be roused. When seen by Dr. Carpenter she was found to be feverish, breathing stertorously, and only able to be roused with difficulty from the stupor, into which she immediately relapsed. She was placed in a lukewarm bran bath, and the rest of the treatment consisted in the administration of what are described as "appropriate remedies." In a few days she was convalescent, but the first attempts at walking revealed weakness and dragging of the right leg. The right arm was also affected, but this had escaped notice, as the child was left-handed. There was no disturbance of what speech is present at that early age, and this was to be expected. During convalescence strychnia was administered in gradually increasing doses, and recovery was complete.

THE SENSE OF EQUILIBRIUM.

OUR Vienna correspondent writes as follows:—At a recent meeting of the Vienna Society of Physicians, Dr. Kreidl, Professor Exner's assistant, reported on the experiments he had made on deaf-mutes concerning the physiology of the labyrinth. Touching the experiments made on this subject by Flourens, Goltz, Mach, and Breuer, he pointed out that the membranous canals of the internal ear should be regarded as the peripheral part of the mechanism of the sense of equilibrium, the sensations of the disturbance of which he takes to be produced by the flow of the fluid in the ampulla and in the membranous canals. If the views of physiologists on the function of the otoliths and the membranous canals be true, it would have been expected that anomalies of the sense of equilibrium should be found in deaf-mutes. Purkinje had previously observed that if a person is made to rotate on his own axis the eyeballs were moved to the side as in nystagmus. This in Dr. Kreidl's experiments was not observed in deaf-mutes to any very large extent. Dr. Kreidl from other experiments is led to regard the otolithic organs as a statical sense.

THE LARYNGOSCOPE IN ENGLAND.

THE recent removal by death of one of the foremost laryngoscopists has revived memories of the early history of the laryngoscope and of its introduction into this country. The rival claims to priority in the actual invention of the instrument, which arose out of the endeavour to apply Garcia's discovery to clinical use, as between Türck of Vienna and Czermak of Pesth, need not be reopened. They were decided in the latter's favour by the perfection to which he brought the instrument, the use of which he himself demonstrated in London in 1859. This was the year in which Mackenzie visited Pesth, and became impressed with the value of the new invention as related in our notice of his life (p. 394). At the same time the credit of demonstrating the use of the laryngoscope in London, and of being early in the field in its published description, rests largely with the late Duncan Gibb and Prosser James; for in 1860 the first-named published his treatise on Diseases of the Throat, in which he recommended a steel mirror to inspect the epiglottis; and he subsequently translated some of Czermak's papers for the new Sydenham Society. Dr. Prosser James, also in 1860, gave laryngoscopical demonstrations at the City and Metropolitan Dispensaries, and published the first edition of his work on "Sore-throat," in which he embodied an account of the use of the laryngoscope, and its value in diagnosis and treatment. Although, then, it may be strictly correct to say that Morell Mackenzie first introduced it into this country, yet his published writings on the subject were some years subsequent to those of the two physicians, who, like him, ought to be remembered for their recognition of the importance of Czermak's invention and its utilisation in practice.

VACCINATION.

AN inquest was held last week on the body of an infant who had died shortly after vaccination. The child had been vaccinated in the workhouse of the Wandsworth and Clapham Union twelve days after its birth. Three days after the operation the mother and child left the workhouse, and later the child's arm, it was said, was "highly inflamed." The medical superintendent of the workhouse was consulted and he recommended poultices, but the child died about a week afterwards. Dr. E. T. Smith, who had made a post-mortem examination, gave evidence to the effect that the child had died from congestion of the lungs and exhaustion, due to erysipelas following vaccination. The child had been taken from the workhouse when it was snowing, with only a thin shawl over it. It was stated that the erysipelas was set up by a chill, and that the vaccination had been properly performed. The so-called vaccination censuses have been taken under the auspices of the Society for the Abolition of Compulsory Vaccination in the parish of St. Paul's, Bristol, and at Gainsborough. In the former place the figures published are: total votes recorded 1380; in favour of vaccination, 352; against vaccination, 978; in favour of compulsion, 186; against compulsion, 1193. In Gainsborough the figures given are 2002 votes against compulsory vaccination, and 181 for it. We are not prepared to attach any value to these figures, but if they should really betoken any desire to abolish vaccination in these communities, we can only lament the troubles which will eventually result. English people are, however, credited with being possessed of considerable common sense, and it may be expected that eventually they will understand the necessity of vaccination for the prevention of small-pox, and that opposition to vaccination will to a large extent die out, but perhaps only after disaster has attended its neglect.

THE DEBATE ON PHAGOCYTOSIS.

THE discussion at the Pathological Society upon the doctrine of phagocytosis in relation to immunity seems to gain in interest and definiteness as it proceeds. The issues are becoming more clearly defined as the arguments for and against the doctrine are evolved. Dr. Bristowe, who spoke first at the meeting last Tuesday, did good service in recalling to the minds of his hearers the accepted facts of clinical observation respecting the infective diseases and the question of protection. He showed how difficult it was to explain the latter on any hypothesis yet advanced. Dr. W. Hunter did his best to reconcile the opposing views of the "phagocytists" and the "humoralists," thus adopting a term which reminds one of the controversies of a bygone pathology, and suggesting that after all the root problems of disease remain much the same now as then. Dr. Hunter maintained that the physiological relationship between the cells and the plasma was such as to support the phagocyte position, which had the further merit (not possessed by "humoralism") of novelty. His illustrations of experiments bearing on chemiotaxis, positive and negative, were criticised by Dr. Martin, who showed that they were inconclusive, owing to the inflammation set up by the sponge in-

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troduced beneath the skin. Moreover, Dr. Martin, who was the chief speaker against phagocytosis that evening, adduced weighty reasons for believing that the changes to which immunity is owing take place in the blood and not in the solid tissues. On the other hand, Dr. Wright, whose lucid speech was an admirable contribution to the debate, candidly admitted that he had recently come round to the opinion that the bactericidal power of tissue-fibrinogen (with which he allied Hankin's "alexine") may best be explained by its acting as a cell stimulant. Mr. Adami and Mr. Bokenham also adduced facts tending rather to support the doctrine of immunity by phagocytosis; and altogether it may be said that many of the arguments advanced at the previous meeting were met by the "phagocytists," whose chief exponent, Dr. Ruffer, will open the adjourned discussion at the next meeting of the Society.

EXECUTION BY ELECTRICITY.

WE are specially pleased to see that the State authorities in New York are about to reconsider the question of capital punishment by electricity, with a view to the abolition of that form of legalised taking of life. It was, indeed, high time for reconsideration. Since we last wrote on this subject another "electrocution" scene has occurred, with results even more revolting than any we have previously recorded. Our contemporary, the New York *Medical Record*, has joined its voice with our own in condemning this so called scientific executioner's work, and has cried "a halt in the revolting experimentation enacted at every execution." All the victims have been killed, it is true, adds our contemporary, "but how?" "In every case repeated strokes were necessary, with torturing intervals for discussion and disputation among the scientific experts; the grim tussle with death timed by stop-watches, while the victim was writhing between scorching electrodes. The details of this dreadful business transcend in cool brutality anything that can be imagined, and yet we are assured that this is the new and approved way of doing a victim to death." These are strong terms, but under the circumstances not one word too strong or too condemnatory. They surely will prevent any further medical participation in these unwholesome deeds. In this country, if medical art were degraded to such participation, the act would not only cause universal indignation against the offenders, but would force the profession at large to raise its powerful and humane voice in repudiation of any and every man in its ranks who dared to take a part in so grave an offence against the national conscience and professional honour.

DEBT RECOVERY AND WATER-SUPPPLY.

A CASE was decided last Saturday at the Westminster Police-court which clearly shows the great inconvenience and injury which threaten the ratepayer who may from any mischance be unable to discharge his account with a London water company. The defendant, who seems to have been overcharged, refused to pay for water which he had not used. The company, not seeing the matter in this light, proceeded to enforce payment by cutting off his household supply, and for seven days—that is, until the hearing of the case in court—persisted in this course. Their attitude in the matter, though entirely legal, was severely criticised by the presiding magistrate, who regretted that none of the various Acts as at present constituted allowed consumers any guarantee against such a high-handed mode of procedure. He was strongly of opinion that the water-supply to any house should under no circumstances be terminable at the will of a company. Debt recovery should rather be arranged, as in the case of parish rates, by taking proceedings in a court of summary jurisdiction. In this opinion we concur. Whatever may be said of the commercial principle involved, it is indeed astonishing that no legal check should be placed upon the application of a process which prohibits the use of an absolute necessity of life and health. Water certainly can under no circumstances be dispensed with, and it is no mitigation to say that the sufferer by an adverse verdict may borrow sufficient for his temporary needs. It is not clear to our mind how he can even do this. Yet his necessities, his health and cleanliness, are intimately connected with the well being of his neighbours, and the case is one in which, if he suffer, others suffer by and with him. Some amendment of the existing law such as that above suggested is therefore evidently needful as a mere matter of sanitary requirement.

THE EXAMINATION OF THE EYES OF SCHOOL CHILDREN.

DR. SYDNEY STEPHENSON has just completed and forwarded to the managers of the Edmonton School Board a report on the state of the eyes in the children of the Croyland-road school, Brettenham road school, and Garfield-road school, the last-named being at New Southgate, a short distance from London. The total number of children examined was 2873, of whom Dr. Stephenson informs us 1214 were boys, 885 girls, and 774 infants. Dr. Stephenson found that forty-seven children were suffering discharge from the eyes, the largest percentage, 2·95, being in the children attending the school at New Southgate, and he very properly points out to the governors that the presence of such discharge is a possible, or he might have said a highly probable, source of danger to other scholars, being capable, if passed from child to child, of giving rise to serious attacks of ophthalmia. He recommends accordingly that the board of management should give the teachers power to refuse admission into the schools of any child who was seen to have discharge from the eyes. Dr. Stephenson examined the defects in the refraction of the eyes in the children, the far larger proportion of which occurred in the Croyland-road school. He dwells strongly on the importance of good eyesight as the chief means of education, "many a case of so-called stupidity meaning nothing more than defective sight." He recommends that the name of any scholar who is observed by the teacher to see imperfectly should be reported, and proper measures taken to procure appropriate spectacles for him, whilst periodic testing of the acuteness of vision should be undertaken. Out of the total number of children there were seventeen who had strabismus.

NEURITIS IN DIABETES.

IN the last number of the *Neurologisches Centralblatt* there is an abstract of a contribution by Eichhorst to the subject of the loss of the patellar reflex in diabetes mellitus. It is based upon the observation of two cases during life, and an examination of the nervous system after death. The first patient was a female, forty-five years of age, who had loss of knee-jerks, slight girdle feeling, no Romberg's symptom, and no ataxy. The urine contained a considerable quantity of sugar. The necropsy revealed atrophy of the pancreas and an unusually large size of the nuclei of the liver cells, but the central nervous system showed no change. In the crural nerves, however, and in the vagi there was a condition of well-marked parenchymatous neuritis. The sciatic nerves were more slightly affected, while the median nerves were normal. Similarly, in the second case, there was a widespread parenchymatous neuritis affecting the crural nerves and also the sciatics, while the median nerves were normal, and the central nervous system showed no change. The absence of the knee-jerk in diabetes, it is further said, is to be ascribed in some cases to a functional disturbance; in

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others, as the above, to a change in the anterior crural nerve; and the curious statement is made that if the knee-jerk disappears and returns in the course of the illness, the cause is to be regarded as a functional disturbance. No one will deny that in such a case, granted the reliability of the observation, there is a disturbance of the function of the anterior crural nerve present. But so there is in the cases in which there is inflammation of the nerve, and it seems to us unwarrantable to assume that, because the normal condition becomes re-established, there may not have been a structural change in the nerve underlying the evidences which it presented of disordered function.

SCARLET FEVER AT CARDIFF.

A GREAT deal of difficulty is being experienced at Cardiff owing to the failure of the sanitary authority to isolate cases of scarlet fever occurring under circumstances which demand isolation in the interests of the public health. In one instance a prosecution is threatened in connexion with this state of unpreparedness. One thing, however, is evident, and that is that such a town as Cardiff has no right to remain unprepared in such a matter. Some inhabitants advocate the immediate erection of a temporary hospital. It is so rarely that a temporary hospital is found to answer the immediate purposes for which it was erected, that we cannot but urge caution in this respect. What is wanted is a good permanent establishment, capable, if need be, of temporary extension to meet emergencies.

INFLAMMABLE BUTTONS.

INSTANCES are not wanting, unhappily, of the perils arising from the use of easily inflammable material on articles of clothing; but the danger to which Professor C. Vernon Boys has recently called attention is certainly a new as well as an alarming one. It appears that a lady who was standing near a bright but not blazing fire suddenly found herself enveloped in smoke, and a gentleman who came to her rescue succeeded in crushing the ignited portion of her dress, not, however, without severely burning his hand. On investigation the fire was found to have originated from a spot where a large fancy button had been but had disappeared. Similar buttons were subsequently examined, and the results plainly went to show the danger of this style of ornament. The buttons appear to be composed of gun-cotton and camphor, a combination which is not only inflammable, but on the least provocation spontaneously so. It just happens that this unpleasant incident was not followed by any serious results, but that the consequences might have been of a disastrous character is patent to everyone. Experiments of a rough though practical kind made by Professor Boys proved to demonstration that buttons composed of such material were very susceptible to the heat of an ordinary fire, even outside the fender, and at a distance at which the skirts of a dress might any day be found. It is well known that "celluloid" has of recent years been largely substituted for the true material in the manufacture of ivory, tortoiseshell combs, hair-pins, and amber mouthpieces. Some little time ago we heard of a light being accidentally applied to what was presumably the amber mouthpiece of a tobacco pipe. The spurious amber rapidly and instantly ignited, and gave off abundant fumes smelling overpoweringly of camphor. One kind of celluloid is made, we believe, by dissolving 50 parts of gun-cotton in a mixture of 100 parts of ether and 25 of camphor, and evaporating the solvent from the resulting transparent jelly-like mass until it is plastic. It is then exposed in thin plates to the air until it is hard and capable of taking a polish. Billiard balls &c. are prepared by rolling several plates together and rasping the newly formed plate into a coarse powder. Pared potatoes, it is said, also yield a celluloid when similarly treated. The public are advised by Professor Boys to guard themselves from what is likely enough to be a grave source of harm, even to the extent of fatal issues, by taking the precaution of submitting to a very simple test not only buttons that resemble tortoiseshell, but hair pins, combs, and other ornaments, and even toys. On briskly rubbing the button on cloth, a strong smell of camphor is evolved. If this ready test fails, a small portion may be ignited; it will burn energetically with a flaring noise, and the fumes of camphor given off cannot be mistaken. If the article is composed of other material, the smell will probably bring to remembrance that produced on burning feathers. It seems to us that manufacturers have not the least justification for putting such dangerous articles on the market, particularly as we have reason for believing that by incorporating with the celluloid or similar substance made from nitro-cellulose (the product of treating cotton wool with strong nitric acid) a quantity of a metallic salt, such as chloride of tin dissolved in alcohol, ether, or other convenient solvent, the celluloid may be made non-inflammable and perfectly safe.

THE SECRETION OF BILE IN URÆMIA.

IN order to elucidate the character of the secretion of bile in artificially induced uræmia, Dr. Lokianoff of Warsaw tied the ureters close to the bladder in twelve guinea-pigs, collecting the bile of six of these during the first day and of the remaining six during the second day of uræmia. He found, amongst other results, that uræmia tends to reduce the body temperature; as a rule, the liver increases in weight to a slight extent, the blood and the kidneys become richer and the liver and brain poorer in watery constituents, and the secretion of bile is rather less than normal. The production of hepatic tissue is diminished, especially as the uræmia progresses. The bile secreted is poorer in water and richer in solid matters than in the normal condition or in the first stage of starvation.

THE COUNTY COUNCIL AND STREET NOISES.

THE occasion of another election of Metropolitan County Councillors has been fittingly chosen to bring before the public mind the noises, whether called musical or not, which keep the air of London in daily continuous and powerful vibration. Organ-grinders, Salvationists, newspaper criers, costermongers, and a host of evening traders take up in turn or in concert the glee notes of this clamorous medley. Householders, indeed, have long grumbled against the din, but so far the muffled thunder of complaint has been almost lost amid the shriller discords of their tormentors. Now at last objection finds a voice, and it is heard invoking against the nuisance the reforming energies of the coming municipal administration. It is not surprising that street organists have been specially selected as the objects of disciplinary training. Our readers will remember that last year Mr. Jacoby endeavoured to induce Parliament to restrain this nuisance. From some cause, however, whether on account of more pressing business or from a feeling that the law had already spoken to the point with sufficient clearness, the motion was not carried. We are among those who hold that this result was not entirely satisfactory. We feel that under present conditions the monotonous grinder, breadwinner of a sort though he be, certainly enjoys too much liberty. "Moved on" by the householder, he may return again and again to annoy the victim of his mechanical melodies. Disturbance of the sick, a point of much importance, or of occupation, will at all times justify his removal, but it is enough that he exhibits a technical conformity. This done, he and his opponent may repeat the performance with circus-like precision as often as desired.

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Some remedy is clearly called for in the circumstances. What we ask for is not, indeed, the total repression of even the organ-grinder's calling, however acceptable to many this might be, but some power of compelling his retreat to a sufficient distance and of forbidding his return during the same day. A like right of restraint might well be exercised in the case of all other classes of street musicians, Salvationists and others, and of newsboys. Their position is by no means the same as that of ordinary tradesmen and costermongers, and such a power of controlling their enterprise as we have indicated may therefore very suitably and fairly be found for a long-suffering public by members of the County Council.

SCARIFICATION OF THE OS UTERI IN CHLOROSIS.

DR. J. CHERON recommends scarification of the os uteri in chlorosis, and points out that this treatment has been highly spoken of by Schubert and others. The amount of blood to be drawn is about one gramme to every kilogramme of body weight. According to the above observers these slight bleedings greatly increase the number of red corpuscles and the amount of hæmoglobin in the blood. Dr. Cheron, in making use of scarification of the os in the treatment of old-standing disease in chlorotic patients, found that the general health as well as the local conditions improved. In many cases an analysis of the blood during and after treatment showed continuous improvement after each scarification. In chlorotic patients congestion of the womb is habitual, and it is easy to obtain forty to sixty grammes of blood at one operation. This local treatment seems likely to be of great benefit to chlorotic women, and it is easy to understand that it would be performed much more readily than venesection. The scarification, if done with antiseptic precautions, is not accompanied by risk.

DIPHTHERIA AT MONMOUTH.

As the result of the investigation into the cause of diphtheria in the girls' high school, it is stated that only very trivial faults of sanitation could be discovered. This negative evidence as to matters of drainage is by no means unusual. It is now stated that the whole system of sewerage and drainage of the town is to be examined and reported on by an expert engineer. Whatever may be the relation, if any, between the present system of drainage and the diphtheria, it is to be hoped that the occasion will be utilised to put this and other matters relating to health on a more satisfactory footing than heretofore.

ETIOLOGY AND PATHOGENESIS OF PERICARDITIS.

DR. ALFREDO RUBINO, editor of the *Riforma Medica*, has presented to the University of Naples, as a thesis for recognition as Lecturer on Special Medical Pathology, an interesting work on the etiology and pathogenesis of pericarditis, based on a large number of experimental observations which he has recently carried out in the laboratory attached to Professor Cantani's clinic. The general object aimed at was to ascertain whether simple injections of a suitable virus into the circulation are capable of producing pericarditis with or without some predisposing cause, such as an injury to the pericardium. Also whether such injections into the pericardial cavity, or the application of cold or other irritants alone, are capable of setting up pericarditis. First, a number of rabbits were subjected to injections into the venous circulation of pure non-diluted cultures of staphylococcus aureus and staphylococcus albus; but in no case was there any sign of pericarditis even as a secondary effect of violent inflammation in other organs; no multiple abscesses of the heart muscle, as described by Fraenkel as being produced under similar circumstances, were met with. When, however, the culture of pyogenic cocci was injected directly into the pericardium there was invariably pericarditis set up. Experiments were next made on animals which had been subjected to injury of the pericardium inflicted by the actual cautery applied over a small area of the external surface laid bare for the purpose, or by puncture with a carefully sterilised needle, these injuries not being of themselves sufficient to produce pericarditis. Here the injection of pyogenic cultures into the venous circulation resulted frequently in pericarditis. Similar results were obtained when the cardiac region had been reduced to a low temperature by the prolonged application of a bag containing ice and salt. Finally, blows on the thorax were shown to be capable of acting as predisposing causes, permitting the entry of pyogenic bacilli circulating in the blood into the pericardium.

THOMSEN'S DISEASE.

Dr. C. L. DANA showed at a recent meeting of the New York Neurological Society a man thirty-three years of age presenting the typical phenomena of this disease. The family and personal history of the patient were good. At the age of seventeen weakness of the muscles was first noticed, and three years later the patient found that after clenching the fists he was unable to open them. The affection had gradually become greater and more extensive, until the only muscles not involved were those of the thighs and upper arms. The myotonia was most marked in the forearm and leg muscles, the tendon reflexes were only obtained with difficulty, and there was no sensory disturbance. The reaction to galvanism was slightly increased, that to faradaism normal. Dr. Dana expressed the opinion that the phenomena were confined to the muscles, and that the disease was a purely muscular one.

FOREIGN UNIVERSITY INTELLIGENCE.

Algeria.—Dr. Texier, Professor of Medical Pathology, has been appointed Director.

Breslau.—Dr. A. Kast of Hamburg has been appointed to the Professorship of Medicine, with charge of the medical clinic.

Giessen.—Professor Konrad Eckhard, senior of the Medical Faculty in Giessen University, celebrates his seventieth birthday to-day.

Halle.—Dr. Graefe, Professor of Ophthalmology, though he had intended to retire at the close of the current winter session, has, in consequence of repeated requests on the part of both the Medical Faculty and the Minister of Instruction, consented to remain.

Havana.—Considerable excitement has been caused amongst the members of the Medical Faculty by a proposal of the Spanish Minister of Foreign Affairs to take away the power of the University to grant the degree of Doctor of Medicine, thus reducing it to the position occupied by Barcelona, Zaragossa, and other Provincial Faculties in the Peninsular which can only grant a licence, the Central or Madrid University being alone empowered to grant the doctorate. A petition has been got up in Cuba, and telegrams despatched to a number of influential persons in Spain begging them to endeavour to persuade the Government to reconsider their proposal.

Madrid.—Dr. Santiago Ramón y Cajal, Professor in the Faculty of Medicine of Barcelona, has been recommended by the jury, after competitive exercises, for the post of Professor of Histology.

Stuttgart.—Dr. Scheurlin has been recognised as *privat-docent* in Hygiene and Bacteriology.

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Vienna.—In consequence of the illness of Professor Kahler, his assistant, Dr. Kraus, is delivering his lectures.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Kopp, Professor of Chemistry in Heidelberg.—Dr. Moritz Altmann of Berlin, at the age of seventy-seven.—Dr. Vailhé, formerly *professeur agrégé* in Montpelier.—Dr. Francisco de P. Campá, Professor of Midwifery and Gynæcology in Barcelona.—Dr. Johann Wagner, Professor of Anatomy in the University of Kharkoff.—Dr. Barthez de Marmoriéres, a French authority on children's diseases, in his ninetieth year.—Dr. Hermann Aubert, Professor of Physiology in the University of Rostock. His investigations covered a wide range, and included much zoological work, physiological optics, the action of the heart, &c. He also wrote a pamphlet on "Shakespeare as a Doctor." He had been on the Rostock staff since 1865, having migrated thence from Breslau.

A MEETING of the Special Committee appointed at the request of the National Leprosy Fund to consider the report of the Leprosy Commissioners who have recently returned from India was held at the India Office on March 1st. As our readers will remember, the College of Physicians deputed Sir Dyce Duckworth and Dr. Heron, and the College of Surgeons Mr. Hutchinson and Mr. Macnamara, as their representatives, the Hon. G. N. Curzon, M.P., and Mr. E. Clifford being the members nominated by the Fund.

WE are informed that Frederick Needham, M.D. St. Andrews and Medical Superintendent of Barnwood Hospital for Insane, Gloucester, has been offered, and has accepted, the post of Commissioner in Lunacy, rendered vacant by the appointment of Dr. Thomas Clifford Allbutt as Regius Professor of Medicine to the University of Cambridge.

THE German Emperor has received the report of Professor von Bergmann on the building on the Langenbeck House, and has presented a bust of the late Empress Augusta, who was much interested in the enterprise and in medical affairs generally, as its first ornament.

MR. WYNDHAM R. DUNSTAN, M.A., F.I.C., F.C.S., University Lecturer on Chemistry, Oxford, and Professor of Chemistry to the Pharmaceutical Society, has been appointed Lecturer on Chemistry at St. Thomas's Hospital, in the place of the late Dr. Albert Bernays.

Pharmacology and Therapeutics.

DIURETIN.

GHILLANY calls attention to the property possessed by diuretin of absorbing carbonic acid from the air and so becoming insoluble. He recommends that for dispensing purposes a solution of the drug in distilled water should be kept in well-stoppered bottles.

SOLUBILITY OF SALICYLIC ACID.

To increase the solubility of salicylic acid in water the addition of 1 part of acid to 100 parts of glycerine and 150 parts of water gives, it appears, the best results. This mixture is clear and miscible with water without any alteration.

DERMATOL.

Glaeser, in his second communication to the *Centralbl. f. Gyn.*, 1891, on the action of dermatol, gives it as his opinion that it cannot take the place of iodoform. The latter gives especially good results in the treatment of suppurating wounds, with sloughing, whilst dermatol is recommended in the treatment of recent wounds caused by sharp instruments, and in healthy cavities after suppuration. Dermatol is also useful in laparotomy, in operations for prolapsus uteri, and fistula, and is of great service in the treatment of ruptured perineum immediately after confinement, and in plugging the uterus.

METHYLENE BLUE.

A case of retinitis, due to acute Bright's disease, has been treated successfully with this drug in France by Dr. Gillet de Grandmont. He gave it to a patient whose urine contained a considerable quantity of albumen, in doses of two centigrammes three times a day. It caused a marked improvement, the renal symptoms abated, and the retinitis disappeared so rapidly that the sight was normal in four days. Was this a coincidence, or was the improvement due to the milk diet, which, in all the reported cases, has been strictly adhered to? Methylene blue is excreted by the kidney, and has the curious characteristic of turning the urine a deep green. Dr. G. Paul proposes to take advantage of this property to produce a moral effect upon hypochondriacs and malingerers. A dose of from five to ten centigrammes gives rise to decided colouration of the urine without causing any other symptom.

EXALGIN IN CHOREA.

Dr. Löwenthal, in a recent number of the *Berliner Klin. Wochenschrift*, publishes the results of the treatment of chorea by this drug. Thirty-five cases were treated, and the results on the whole were good. In the majority of instances it was found that the sooner treatment was commenced after the onset of the illness the more efficacious was the drug and the more rapid was recovery, but in a few bad cases, in spite of a regular use of the drug, the patient became worse for the first two weeks, but improved subsequently. No severe toxic symptoms were produced, but in a few cases headache, malaise, and vomiting followed, and in three there was distinct jaundice. The dose given was usually from one and a half to three grains, and in most cases improvement followed after from sixty to ninety grains in all had been administered. The conclusion drawn is that exalgin, like many other drugs, is efficacious in chorea, but that it has no specific action in this disease.

SALOPHENE.

Salophene, prepared by F. Bayer and Co., is a derivative of salol. It is obtained by treating para-nitrophenol with salicylic acid, reducing the nitrophenol by means of zinc and hydrochloric acid into an amide, and acting upon this with acetic acid. Salophene contains about 50 per cent. of salicylic acid, and exists in the form of thin scales, tasteless, inodorous, and with a neutral reaction. It is almost insoluble in cold water, and only slightly so when warmed. Upon the addition, however, of an alkali it readily dissolves. It is very soluble in alcohol and ether. It burns with a smoky flame, leaving no residue. In the stomach salophene breaks up into salicylic acid and acetyl-para-amido-phenol. These substances are excreted by the kidney, and can be found in the urine. Salophene, owing to the presence of amido-phenol, is less poisonous than salol. According to Guttmann, it is a valuable remedy in articular rheumatism, given in doses of from four to six grammes a day in pill or in the form of compressed tablets.

HÆMOL AND HÆMOGALLOL.

Hæmol and hæmogallol of Merck, prepared according to the directions of Kobert, are obtained from blood. Hæmol is a brownish-black powder, and hæmogallol a reddish-brown. The introduction of these substances into therapeutics rests on the fact that the derivatives of the colouring matter of blood, obtained by the action of reducing agents, have a hæmatopoietic action both in health and disease. They are given in capsules in doses of from 0·1 to 0·5 gramme during the day. Healthy persons are able to take as much as 1 to 5 grammes of hæmogallol. Hæmol contains traces of zinc left by design. The zinc is beneficial in slight lesions of the stomach, which might result in ulcer. Given in the form of hæmol the zinc loses its caustic action, and does not cause nausea.

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THE LANCET
Analytical Sanitary Commission.

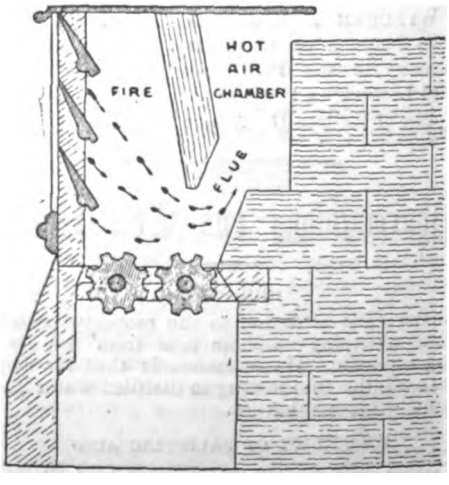
SECOND REPORT ON
PERFECT COMBUSTION AND SMOKE PREVENTION.

THE greatest and most important city in the world is offering at the present moment three problems of colossal magnitude for her people to solve. First, there is the better treatment of sewage with a view to its utilisation; second, the desirability of a more efficient and pure supply of water; and, third, the prevention of smoke and fog. The question of the disposal, though not the utilisation, of sewage was the subject of legislation some years ago, and the water-carriage system at present in use is the outcome of it. Successful as this system has been in effecting the mere removal of sewage from our dwelling-houses, on the principle of "out of sight out of mind," yet we are bound to admit now that, owing to excessive fouling and pollution, the river Thames, into which the sewage is discharged, and upon which we depend so largely for a supply of water, is fast threatening to become a deadly source of evil to the metropolis. All attempts to utilise what must one day prove to be the valuable agricultural constituents of human sewage have practically failed. An increased and purer supply of water for London is a subject which has lately been occupying the serious and earnest attention of the County Council. While, therefore, these two problems, from their pressing importance, have urged themselves upon the notice of our ruling bodies, the solution of the third—namely, that of dealing with the fog and smoke nuisance—has to a great extent been left to and taken up by enterprising individuals who are tempted by the promise of large returns to investigate this subject. The reply given by the Marquis of Salisbury to Viscount Middleton in the House of Lords three weeks ago contained but faint hope of the question being seriously taken up by the Government, although the noble lord expressed the opinion that only legislation of a drastic kind could be expected to deal adequately with the evil. There is promise now, however, of a select committee being soon appointed, and the chances are that such a body will arrive at the results of their inquiry with quicker despatch than if it were submitted to a Royal Commission.

The possibility of lessening to a very great extent the discomfort, not to say injury to health, occasioned by the frequent visitation of fog has long been a matter under discussion. London from climatic causes will always be subject to mist or fog, but it is surely unreasonable to suppose that it is impossible to devise a means whereby the quantity of soot with which our fires constantly load the heavy winter mists may not be to a great extent reduced. It must not be forgotten that unless our system of domestic heating becomes entirely changed we have for the nonce to deal solely with one kind of fuel—namely, common coal. Our supply of coal is practically as abundant as ever it was, and there is no reason to fear that our resources are likely to fail for years yet to come. This being so, it is to the improved consumption of coal as fuel that we must turn our attention, and to consider how far practically the evil of fog and smoke may be remedied by adopting grates of a certain construction as a means whereby perfect combustion and the production of smokeless and innocuous products may be ensured. One difficulty, however, would seem at once to present itself. If a grate were shown and demonstrated to be one which effectually consumes its smoke, only particularly drastic legislation, as the Premier expressed it, could enforce its general adoption. This would amount to a severe impost upon the people; but on the other hand, due regard must be paid to the fact that where perfect combustion takes place, and where, therefore, smoke and soot are not produced, there a distinct economy is also effected in the consumption of fuel. Soot, for example, represents, weight for weight, the fuel value of coal itself, seeing that, according to the analysis shown below, it contains no less than 70 per cent. of carbon. The economy, therefore, in fuel thus effected would contribute in no small degree to lighten the burden involved by the necessary outlay. It seems pretty well established, then, that as long as coal is to be our source of heat, and as long as the present system of utilising it as a source of heat is adhered to, we must look for a solution of the smoke and fog difficulty in the universal adoption of a grate that will burn the coal perfectly and economically, and yet be so constructed as to meet perhaps one of the most formidable of obstacles—namely, that of sentiment. It is hardly to be anticipated that a closed stove or a stove heated with gas or even electricity, however perfect its working may be, will ever replace the homely fire of glowing coals, which in the English mind will always lend a charm to the cold and dreary days and nights of winter.

With these views strongly impressed on our mind, it has always been of interest to us to scan from time to time that horizon upon which so many improved designs of the kind referred to appear, that we might study them, and submit them, if need be, to practical tests, and afterwards to give prominence to any device which we may find on experiment to give promise of grappling with the difficulty. Thus we may reasonably hope to render signal service to the great cause of public health. Last year (*vide* THE LANCET, March 21st, 1891, p. 682) we placed on record the results of our experimental trials with a stove invented by M. de Clausen, a Russian civil engineer. According to our experience this invention was the nearest approach to the great desideratum required in combustion; there was no escape of unburnt gases or of unconsumed carbon, the consumption of fuel was remarkably small, while the practical yield of heat was not far short of that demanded by theory. The principle, as it was then shown, could be applied to locomotives, marine boilers, and to furnaces for factory engines. The stove, being of the closed type, would probably be more favourably accepted as applicable to industrial and manufacturing purposes than for the purpose of domestic cooking or for heating drawing-rooms. In the early part of this year a newly designed kitchen range, said to consume its own smoke and to effect an important economy in the consumption of fuel, came under our notice. From an inspection of the plans which had been submitted to us we felt that the system was, at any rate, worthy of investigation, and it was decided to send one of our Special Commissioners to Bradford, where the range could be seen in actual operation, and where a series of experimental observations could be conveniently made. All this has been recently done, and the results gained form the subject of the present report.

The inventors and elaborators of this new system of firing, Messrs. H. Leggott and E. Marsh of Bradford, could hardly have hit, we imagine, upon a simpler arrangement than that shown in the annexed sectional plan, by



which perfect combustion and smoke consumption are said to be effected. It barely needs explanation. Let it be sufficient to point out the main differences existing between this and the ordinary range. Instead of rigid iron bars in the front of the fire there are to be found three iron "louvres," as they are termed, which

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may be opened and closed exactly like a venetian blind by means of a lever outside. The bottom of the fire-box consists of two grooved or cogged rollers, which, turning inwards by a simple arrangement, serve to stir the fuel and remove ash. The space occupied by the arrows indicates the fire place proper, while they also show the direction taken by the incoming air. The fire chamber is divided into two parts by a fireproof septum of brick suspended from and fastened to a fixed iron plate at the top. The fireplace consists, in fact, of a V-shaped tube into which air is admitted *downwards* through what we may call, for the sake of explanation, "the venetian blind," or properly the louvres. The fuel is put in at the top, as in an ordinary range. The present experiments were conducted with a kitchen range



similar to that shown in the second illustration, but the system can be applied to almost any kind of furnace, such, for example, as those for heating large boilers, big ovens, hot-water apparatus, &c., and we believe that the inventors have recently constructed a stove and grate suited to the wants of a dining-room, drawing-room, or office.

The way the fire is lighted is instructive, and not without an element of interest, as it is done in a way exactly the reverse of the usual method. It was odd to see the paper, with the wood, placed on the top instead of underneath the coal. On lighting the paper the flames were almost immediately sucked powerfully downwards upon the wood, which in its turn ignited, and subsequently the underlying coal. In a very short space of time the fire was well alight, and the roar of the flame was surprising. The rate of combustion is under complete control by the joint use of the louvres and the dampers. As this was considered a moment favourable to the production of smoke—that is, soon after lighting—we proceeded to inspect the chimney. A thin, almost invisible, smoke in nearly imperceptible quantity was seen to issue. It ceased entirely after a few minutes, and, in fact, ceased for the day. Even this small production of smoke, consequent on first lighting, could be avoided by regulating the stove to slow combustion the last thing at night and charging it with a small quantity of fuel. The next trial was severe enough; indeed, to call it the *experimentum crucis* would be no misnomer. While the fire was burning brightly small coal along with dust was thrown upon the red-hot mass. Everyone is acquainted with the result of this procedure in an ordinary range; dense volumes of opaque smoke are produced, resulting from the partial distillation of the coal and the cooling down of the products as they are evolved into the air. As soon as the small coal was thrown on the fire the chimney was again watched, but scarcely a semblance of smoke was visible. This experiment illustrates excellently the theory advanced, amongst others, by M. de Clausen, that failure of combustion is due not to want of air but to the absence of a sufficiently elevated temperature, under which condition the combination of carbon with oxygen can only produce the complete product, carbonic acid (CO_2). No doubt the moment smoke is formed in this range it is dragged down with air through a red hot mass, where complete combination or combustion is effected. In both these experiments samples of the gases issuing from the fire up the flue were analysed. The results appear below. It is well to state at once that coal in small pieces, or "nuts," or even dust, is the kind of fuel best suited to the range. Lumps of coal such as we throw on our ordinary fires produce smoke because the existing temperature is for a time greatly depressed, being absorbed in part by the cold fuel and by the dispersion of its hygroscopic matter. In addition to the reduction of the heat temporarily, the thick bed of fuel impedes the draught, and sufficient air cannot enter to effect a consumption of coals adequate to the generation of the amount of heat required. The portion of air which traverses the fire is deoxidised by the ignited fuel on the bars, and no oxygen for a considerable period can come into contact with the mass lying upon that which is burning; but although in this way it does not contribute to the pyrometrical effect, the temperature of the ignited mass and the heated gases permeating it from below cause a distillatory change by which the whole of the available hydrogen, together with a large percentage of the carbon, is expelled as hydro-carbon gases, which escape combustion. When, on the other hand, the fuel is in relatively small particles, the oxygen of the air has a better chance of coming into intimate contact with every particle of fuel during ignition, and this being assisted by the ventilating action of the louvres, complete combustion is at the outset established.

The kind of coal used in the experiments made, and which is recommended in practice as best, is called in Yorkshire "smudge"—an inferior class of dust coal—and ordinary "nuts," or slack. The former is delivered in Bradford at 4*s.* 6*d.* per ton, and the latter at 12*s.* 6*d.* per ton. The samples were duly submitted to analysis, and the following results give some idea of their composition and quality:—

	"Smudge."		Nuts.	
Moisture	4·40 per cent.		4·62 per cent.	
Carbon	70·10 "	In dry coal.	74·80 "	In dry coal.
Hydrogen	5·20 "		4·94 "	
Nitrogen	1·41 "		1·65 "	
Sulphur	1·40 "		1·25 "	
Oxygen	13·75 "		9.99 "	
Mineral matter	8·14 "		7·37 "	

Neither sample possesses qualities of special value; they contain a large proportion of mineral matter, although the quantity of sulphur is not excessive. The "smudge" is, as might be expected, less rich in carbon, contains a higher amount of useless oxygen and more mineral matter. The difference in quality between these coals and good house coal is apparent in the following analysis made on the occasion of a previous investigation.

Moisture	4·12 per cent.	
Carbon	79·95	Per cent. in dry coal.
Hydrogen	5·45	
Nitrogen	1·80	
Sulphur	2·00	
Oxygen	7·73	
Mineral matter	3·07	

Ordinary house coal is evidently richer in valuable carbon, contains a much smaller amount of mineral matter, and less useless or dead oxygen. The range is thus shown to be capable of burning the inferior kinds of coal, costing, when delivered in Bradford, 4*s.* 6*d.* per ton, which in normal times means about 12*s.* per ton at the London depots.

Turning next to the gases passing out of the flue, several samples were analysed on the spot directly they were entrapped. The gases were collected by means of an approved aspiratory arrangement, and in order to determine whether they contained any carbonaceous particles, a plug of cotton-wool was placed in the tube through which the gases were passing to the aspirator. At the conclusion of the experiments the wool was examined, and was found to have acquired a greyish-brown tinge, whilst no particles of carbon could be observed. If this experiment were repeated with an ordinary range, it is almost needless to add a plentiful deposit of sooty particles would be obtained. On analysing the gases the following results were gained:—

	No. 1. Soon after lighting; gases taken from right hand damper.	No. 2. From same place; louvres closed; coal well alight.	No 3. Gases taken from flue above mantel-shelf.
CO_2	1·00 per cent.	2·00 per cent.	1·00 per cent.
O	18·60 "	17·40 "	18·00 "
N	80·40 "	80·60 "	81·00 "
SO_2	Traces	Traces	Traces
CO	None	None	None

The low proportion of carbonic acid gas (CO_2) in these samples was, it must be admitted, disappointing. If complete combustion of coal is taking place one would expect to find a far higher proportion of this gas. In no instance, however, it should be remarked, was the presence of carb n

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monoxide (CO), or sulphuretted hydrogen detected. The explanation of the small quantity of CO_2 was not far to seek. On account of the draught produced it was found, in spite of many precautions, that air was being admitted into the gases before they were collected, through the crevices incidental to the construction of a kitchen range and situated below the point where the samples were being taken. So the samples of gases analysed were evidently admixed with a large proportion of air. That this was the true explanation was confirmed by the fact that the flame of a lighted taper applied to the crevices was immediately sucked in by the in-rushing air. It was accordingly decided to collect the gases lower down, immediately over the fire, although the same difficulty of obtaining a fair sample, but to a less extent, presented itself. The following figures express the results:—

	No. 4. Gas taken from immediately over fire; louvres well open.	No. 5. Gas from same place as last; louvres partly closed; fire recently repaired.
CO_2	9·00 per cent.	7·00 per cent.
O	11·30 ,,	13·00 ,,
N	79·61 ,,	80·00 ,,
SO_2	·09 ,,	Not determined.
CO	None.	None.

At once the proportion of carbonic acid CO_2 rises, and no doubt would rise still higher if the arrangement for sampling the gases could be made still more perfect. It is a significant fact, however, that in no single instance were incomplete products of combustion like carbon monoxide (CO) or sulphuretted hydrogen (H_2S) obtained. In addition to the above analyses samples of gases were brought to THE LANCET laboratory and analysed there, with the following results. They were all taken from just above the fire:—

	No. 1.	No. 2.	No. 3.
CO_2	9·17 per cent.	9·30 per cent.	10·02 per cent.
O	10·30 ,,	10·08 ,,	9·28 ,,
N	80·53 ,,	80·62 ,,	80·70 ,,
CO	None.	None.	None.

Next a sample of the deposit from the flues after the stove had been working several days was collected. The following analysis (No. 1) gives an idea of its composition; and that they may be compared an analysis (No. 2) of flue deposit or soot produced in an ordinary range is appended:—

No. 1.		
Moisture	0·70 per cent.	
Carbon	7·20 ,,	Per cent. in dry deposit.
Hydrogen	0·23 ,,	
Mineral matter	89·15 ,,	
Nitrogen (partly as ammonia) and oxygen	3·42 ,,	

No. 2.		
Moisture	6·68 per cent.	
Carbon	76·76 ,,	Per cent. in dry soot.
Hydrogen	— ,,	
Mineral matter	16·68 ,,	
Nitrogen (ammonia)	6·56 ,,	

Now, as coal contains the same amount of carbon (from 70 to 80 per cent.) as the soot produced in the flues of an ordinary range, according to the results of the above analysis it follows that soot represents its own weight of coal or fuel lost and wasted. But the flue deposit produced in Mr. Leggott's range contains only 7·2 per cent. of carbon, so that it may fairly be assumed that the saving and utilisation of fuel from this cause are at least, and probably more, than 60 per cent. The deposit is greyish brown in colour, and appears to consist mainly of mineral matter derived from the ash of coal. This is an eminently satisfactory result, and demonstrates clearly not only the fuel economising effect of the system, but also that the production of soot is practically *nil*.

By reverting again to the illustration of the sectional plan the principle of the system may be examined, and an explanation be sought to account for this so far satisfactory action. The fire-box is V-shaped, and the air is admitted *downwards* through a mass of *small* glowing coal. Thus a sufficiency of the oxygen of the air is brought into intimate contact with the combustible constituents of the coal. This would effect at the outset complete combustion. But it is well known that CO_2 passing over more red-hot coal is reduced to CO, which, coming again in contact with oxygen at a *sufficiently elevated temperature*, burns into and reproduces CO_2. But whether or not carbon monoxide is first formed in this range, there can be no doubt that it is ultimately burnt completely into the dioxide, for in no single instance was carbon monoxide or other incomplete product of combustion detected in the effluent gases. The V shaped arrangement would seem in some measure to play the part of a gas retort. The coal is distilled by the heat of its own combustion in the front limb, and the gases or distillation products are compelled by the draught set up to go downwards admixed with air, through an incandescent mass, out of which they emerge into the limb at the back, and now elevated to the required temperature, they are burnt, and complete combustion takes place. It is well known that perfect combustion can only happen when the in-rushing air is raised to a sufficiently elevated temperature. The combination of the right quantity of oxygen with carbon in a sufficiently elevated temperature can then only produce CO_2. A sufficiency of air and a proper elevation of temperature are conditions which Mr. Leggott seems to have secured by the adoption of the device which characterises his invention. The angle of the V acts as a smoke trap, and, being always incandescent, raises the mixture of air and hydrocarbons to that temperature at which only their perfect combustion can be effected.

It is stated that where these fires have been in use the saving in cost of fuel has been from 50 to 200 per cent. Our Commissioner made it his business while in Bradford to inspect a range fire that had been at work for some time in the kitchen of a coffee tavern where a large amount of cooking is done. This range is lighted at 4 30 A.M. every morning, and is kept going till eleven o'clock at night, and, in spite of constant work, it is declared to cost not more than 2*s.* 6*d.* per week—that is, with fuel costing, say, 5*s.* a ton. At the time of our Commissioner's visit all manner of cooking was going on, the fire was working perfectly, and no smoke could be seen issuing from the chimney, even when the severe experiment of charging with fresh small coal was tried. In the same establishment a steam boiler for heating purposes is worked on this principle and with similarly satisfactory results, both fires, it is declared, costing only 7*s.* 6*d.* per week for fuel, whereas before the boiler alone cost 15*s.* The range may be worked under perfect control, at a maximum or minimum heat, with equally good results as regards combustion. The maximum heat produced by suitably arranging the dampers and louvres is very great, the roar of the flames is remarkable, and probably the full pyrometrical effect of the fuel is obtained. Some heat is of course carried away up the chimney by convection, but it cannot be said to be wasted, for it is just this heat that is necessary to maintain an essential draught through the system. The coals can be seen glowing, and the roasting of meat in front of the fire, it is said, may be easily effected. A thermometer placed within six inches of the louvres showed a temperature of 320° F. (160° C.) Yet the rate of combustion can be so regulated that on putting a shovelful of coal on the last thing at night, the louvres and dampers being adjusted for slow combustion, a bright fire may be obtained in the morning in a few minutes by simply readjusting them. The trouble of lighting a fire is thus avoided, and the risk of a preliminary, though small and insignificant, escape of smoke reduced to a minimum.

LUNATIC ASYLUM REPORTS FOR 1891.

Glasgow Royal Asylum, Gartnavel. — Dr. Yellowlees reports that the admissions of the year were entirely of the private class. "The admission of parish patients," he says, "has finally ceased, and the institution is now fulfilling its true function in affording the needful care and treatment to private patients from all grades of society, and in affording them to those of the least affluent classes at rates which would be impossible if profits had to be made and dividends paid." The recoveries numbered fully 38 per cent. of the admissions; and this is considered to be a satisfactory result, regard being had to the hopeless character of many of the new cases. The death-rate was 8·5 per cent. of the average number resident. Three died within a week of admission, and ten out of the forty-two deaths were referable to influenza and its complications. The following remarkable case recorded by Dr. Yellowlees is well worth special notice:—"A lady aged forty-four was admitted in January, 1876, labouring under melancholia, with delusions of dread and

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suspicion, especially that her food was poisoned. In September of the same year her refusal of food became so obstinate and her resistance so determined that it was necessary to resort to the stomach-tube. Every attempt to feed her otherwise failed. She could not be made to swallow even a teaspoonful of water, but allowed it to pass into the air passages rather than yield; and she was fed with the tube three times daily till May, 1885, a period of *eight years and eight months*. During all this time she was very miserable, and kept continually repeating the doleful refrain, 'You're going to kill me; you're going to kill me. I know you're going to kill me.' The spell was broken almost by accident. Entering the ward when she was just about to be fed, I made another attempt with the spoon. In the struggle her chair was tilted backwards. In terror of falling she forgot for a moment to resist, and suddenly swallowed the spoonful of beef-tea I had put in her mouth. She seemed surprised and shocked, but the advantage, once gained, was followed up. By very slow degrees she was made to swallow all the beef-tea which had been prepared for the tube, and was then told that, having taken it once, she must take it always. Many a tedious struggle it cost the nurses, but at length they triumphantly reported that she had used the spoon with her own hand. From this point recovery, though slow and gradual, was uninterrupted. She refused to leave the infirmary ward and the nurses to whom she owed so much, became useful, cheerful, intelligent, and full of interest in others, and was discharged recovered in February, 1891, after a residence of over fifteen years. She is still quite well, and the recovery seems not only complete, but permanent."

Aberdeen Royal Lunatic Asylum.—Dr. Reid, the superintendent, reports that the average number resident was 630—202 private, and 428 panper lunatics. The total number of cases under treatment was 840. The admissions numbered 226, being an increase of 1 on the number for the previous year. The discharges were 149, a percentage of 38·9 on admissions. The number of deaths was 45, or 7·1 per cent. on the average number resident. The following interesting case is given as illustrating the peculiar propensities of some patients. A female, aged forty, was admitted on June 23rd in a weak and emaciated physical condition, labouring under active melancholia, and with a fractured arm caused by her having thrown herself from the second flat of a tenement house. Great vigilance had to be exercised owing to her suicidal tendencies. Everything went on as satisfactorily as could have been expected until July 27th, when she was seized with great vomiting and pain in the epigastric region. Without entering on full medical details it may be briefly stated that, from the aforesaid date till the second week of October, the patient passed no fewer than 125 pins and sewing needles, with, in addition, many darning needles and hairpins; also a pair of spectacles in pieces and a crochet needle. Although she had lost much flesh, at the end of October recuperative power set in and she was slowly and gradually recovering both in body and mind, when an attack of pneumonia supervened, and she died on Dec. 13th. Dr. Reid points out numerous defects in the main structure of the asylum, and he says the directors of the asylum have been actively engaged for a considerable time past in investigating them. The Commissioners, while speaking highly of the ability and success with which the management is carried on under the many difficulties, hope that the new hospital block will be commenced without delay.

THE EDINBURGH ASSOCIATION FOR THE PROMOTION OF REFORM OF MEDICAL EDUCATION.

THIS Association has presented a second statement to the Scottish Universities' Commission dealing with Draft Ordinance General, No. 10, and referring to the duties and emoluments of professors, lecturers, assistants, or other persons engaged in medical teaching in the University of Edinburgh. The statement points out that in 1831, after the institution of the present chairs of surgery and pathology, the number of professors in the University was thirteen, and that the number had remained at that until the present time. In 1831 there were 810 medical students, the number falling in 1845-46 to 330, but in 1889-90 it had risen to 2003. During the same period the range of subjects requiring the attention of students had risen from fifteen courses of lectures and four practical classes in 1859-60 to seventeen courses of lectures and thirteen practical classes in 1891-92. Owing to the number of students the practical classes have sometimes to be repeated eight times in the year. The increase in the range of study now necessary has arisen from the enormous development and differentiation of the medical sciences. Subjects which in 1831 were perhaps well within the grasp of a single teacher have now become a group of subjects, the due exposition of each of which requires the undivided energy of one person. Under the circumstances, it might have been expected that provision would have been made to give effect to the differentiation which has taken place within each subject, and to meet the need of instruction in the additional subjects referred to; but nothing of the sort has, in any thoroughgoing sense, been effected. Instead of differentiation, what has been done is the addition to the systematic lectures of practical and tutorial classes under the conduct of the single professors in each department, the result being that differentiation in teaching remains largely unprovided for, and that to a greater extent even than is carried out by the extra-mural school or by the smaller foreign universities.

The Association then points out that original research has fallen behind, and that the functions of a University are not merely to communicate the results of scientific progress made elsewhere, but to contribute to that progress by its own efforts. The increase in the demands made upon the professoriate has been met in other institutions by an addition to the professorial staff, but this has not been done in the Edinburgh University. In forty foreign schools specified by the Association there is on an average 25·6 professors in each school, against 12 professors in Edinburgh. Attention is further drawn to the fact that in Edinburgh (with 2003 students) there are twelve professors, while in Leipsic (with 944 students) there are 35 professors, and in Strasburg (with 353 students) there are 28 professors. These last, given in detail in the statement, are submitted as moderate examples of specialisation.

Between 1831 and 1892 four lecturers have been added—viz., Diseases of Children, Insanity, Ophthalmology, and Embryology. During the same time about thirty assistants have been appointed, towards the payment of whom the University Court has contributed £1150, while the professors subscribed £2812. These gentlemen have been appointed by the professor, and their dismissal has been in the hands of the professor of each department; they have no special University privileges and no voice in any University governing body. It thus follows that the University has worked its medical school by means of twelve professors (seven of whom are in private practice), five lecturers (of whom four are in private practice), and about thirty assistants, who do the main part of the practical work.

In respect of original research the facilities obtainable at the University are in most cases so defective that investigators are obliged to go elsewhere for working facilities which ought naturally to be found within the University.

The statement then proceeds to consider the financial conditions. The income of the medical side of the University is derived from (1) graduation and matriculation fees and (2) class fees. The former amount to about £8000 a year, and go to the General University Fund, the greater part, however, being returned for the expenses of the medical department. The class fees are paid to the professors directly, and in 1889-90 £23,259 8*s.* 4*d.* were thus received. The emoluments of professors consist of these fees, together with £1620 15*s.* 2*d.* from Endowment and the General University Funds, making a total of nearly £25,000, or a little over an average of £2000 a year. Out of this sum the professors paid in 1889-90 £4537 7*s.* 8*d.* for departmental expenses. The average net incomes of medical professors in the year 1886-87 were in Edinburgh £1620, in Glasgow £907, and in Aberdeen £645, while in the English Colleges and Universities the average is about £800 per annum, without retiring allowances. By the present system the professor in each department is the sole judge of how much money is to be applied out of his total fees for the payment of assistants &c., and how much is to be retained by him as his own income. The opinion of the Association is that this system should cease, and that the fees should accrue to the University and not be personal. The evils of

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the present system are that some professors have enjoyed net incomes which bear no necessary relation to the work of their chairs, to the standard of corresponding emoluments in other Universities, or even to the incomes of their colleagues in other Faculties; it tends further to discourage the development of those higher branches of teaching which are not in themselves remunerative.

Professors' retiring allowances are next dealt with. The present arrangement is that a professor may, after ten years' service, retire on a pension of one-third of his income, calculated on the average of the five preceding years, and one-sixtieth more for each year up to thirty years, when he may retire on two-thirds of his previous income. The Association expresses the opinion that the mode of adjustment of retiring allowances is now felt to have been an unfortunate one.

Then follow the suggestions by the Association:—

1. That if any equitable means of adjusting the emoluments of the medical chairs can be devised so as to liberate a proportion of the fees for the general purposes of the school, those means should be adopted.
2. That if it prove to be necessary to ask for a special Parliamentary grant, in order to bring about this change without crippling the general finances of the University, every effort be made to secure such grant.
3. That the University Court should be empowered to make, upon the appointment of any professor, extra professor, lecturer, assistant, or other officer of the University, any regulation determining the amount and mode of his remuneration.
4. That the Commission recommend to the University Court that, in determining the amount and mode of the remuneration of any professor, extra professor, or lecturer, the Court follow the principle of allowing a fixed stipend and a proportion of fees, taking into consideration that the duties of some of the chairs are discharged in conjunction with private practice, which is rendered more lucrative by reason of the University appointment. Such remuneration should be subject to revision and readjustment at stated intervals.
5. That all fees paid by students for classes should be paid to an officer of the University Court, and should form a Medical Faculty Fee Fund, to be applied at the discretion of the Court, for the purposes of the Medical School.
6. That the University Court should, in their discretion, allocate the Fee Fund from year to year to payment of professors, of new professors, of lecturers, of assistants, of laboratory and research expenses; to the purchase of appliances for practical classes, and to the expenses of the same; to the payment of any contribution or quota by the Medical School towards the general expenses of administration; to the establishment of a Medical Faculty Reserve and Contingency Fund; to the establishment of a fund for the endowment of new chairs in the Medical Faculty; or to any other purpose incident to the due carrying on and expansion of the Medical School as a part of the University, which the University Court may find to be necessary or expedient.
7. That the University Court be empowered to appoint extra professors of medical subjects. The Association recommends that immediate attention be given to the establishment of extra professorships in the following subjects—namely, an additional Professorship of Anatomy, and also Professorships of Bacteriology, Histology, Chemical Physiology, and Public Health; and that the existing lectureships be raised to professorships.
8. That University lecturers appointed in the medical faculty by the University Court should be appointed for periods of five years, with independent University status, the use of University rooms, apparatus, and museums, and remuneration to be determined by the University Court. That no assistant to a professor should at the same time be a University lecturer. The Association recommends that provision be made for the teaching of surgical pathology, medical physics, pharmacology, and diseases of the tropics, if necessary, by the institution of separate lectureships, and that clinical lectureships be established in gynæcology, fevers, dermatology, and throat and ear diseases, the remuneration being determined according as the lecturer appointed is or is not at the same time engaged in private practice.
9. That the whole teaching staff be paid directly by the University Court.
10. That all teaching appliances and collections in the museum and laboratories should be the property of the University, and be maintained at the expense of the University.
11. That careful consideration be given to the question of avoiding undue increase in the aggregate cost of medical education, and that if the suggestions of the Association be adopted a readjustment of fees should be made.
12. That the accommodation in the New University buildings be readjusted and more fully utilised with the view of providing room for the new teachers proposed.

THE LONDON HOSPITAL.

AT a meeting of the Court of Governors held at the London Hospital on Wednesday, March 2nd, it was announced that the house committee had unanimously decided, on the suggestion of the matron, to increase the holidays of the staff nurses to three weeks in the year instead of two as formerly, as it was now for the first time possible to do so without at all impairing the efficiency of nursing in the wards of the hospital. The chairman (Mr. Buxton, treasurer of the hospital), in moving the adoption of the annual report, referred to the attacks which had been made upon the committee in reference to the question of the nurses. He thought it unfair that a few governors should, against the judgment of a strong managing committee, insist upon some small changes being made. He detailed the statements which had been made by the critics of the action of the house committee in reference to the training of nurses. The training which the probationers received rendered them thoroughly well skilled at the end of their first year, but the certificate of competency was withheld from them until the end of the second year, so that the hospital might have for one year the advantage of their training. In the month of January applications were received from 395 persons for private nurses, of which only forty-two could be accommodated. Only in three instances had complaints been received, and these of a very trivial kind. The management of the London Hospital should be left to the house committee, who had very much more knowledge than the outsiders. No institution could be properly managed if every question of detail was submitted to hostile criticism. It was for the governors to stop it by supporting the committee which they had elected to manage the affairs of the hospital.—Mr. Hunter denied that any attacks whatever had been made on the London Hospital, but he complained that the nurses were overworked, and maintained that many changes were necessary to enable them to carry on the very important work which they had undertaken with justice to themselves and in a proper and efficient way with regard to their patients.—The chairman of the hospital, Mr. E. Murray Ind, said that the criticisms had been doing a great deal of harm to the poor people in the East-end of London by stirring up in the public mind a want of confidence in the management of the hospital. If that went on much longer it must divert from the hospital the funds which were absolutely necessary to carry on the work. Receipts last year fell short to the extent of £25,000. Taking the ordinary receipts and expenditure, there was a decrease of £10,000 as compared with the ordinary income of last year; a large portion of that sum was out of donations. The donations fell £4000 short of the sum of the previous year. This involved a responsibility which the committee did not consider they should be called upon to bear any longer. If the Court of Governors elected a house committee it must be on the clear understanding that the committee manage the hospital and nobody else.—Mr. F. C Costello said it had been suggested that those who criticised the reports of the house committee should be prevented from attending the Court of Governors. The only process by which it would be possible to prevent any governor from raising any reasonable criticism on the reports would be by excluding him from the meeting.—Mr. Ind pointed out that the injurious criticism might be stopped either by the governors passing a vote of censure on the critics, or by passing a vote of confidence in the house committee.—The Rev. Dr. J. F. Kitto suggested that it was also a question of what was seemly or becoming. He moved, as a rider to the report: "That this Court of Governors of the London Hospital, in adopting the quarterly report of the house committee now read, desires to express its unabated confidence in the administration of the hospital, its warm appreciation of the services of the house committee, its cordial and hearty thanks to the officers of the hospital and to the whole nursing staff for their zealous and loyal coöperation with the house committee in carrying out so important a work."—The report and Dr. Kitto's rider were carried unanimously.—The Court then confirmed the appointment of Mr. Dean, F.R.C.S., as assistant surgeon to the hospital in place of Mr. Reeves, who had resigned.

GENERAL PRACTITIONERS' ALLIANCE.

A MEETING of the council of the above Association was held at the offices, Adam-street, Strand, W.C., on the 26th ult., Mr. George Brown presiding.

The following registered medical practitioners were proposed and duly elected members of the Alliance:—Messrs. H. J. Butler, J. Gason (Rome), F. E Flynn, John Murray (Folkestone), H. Pelham Webb, M.B., A. Wilson, M.D., and Edward Blake, M.D. The hon. treasurer (Dr. Hugh Woods) stated that, although no public appeal had been made for subscriptions, the sum of £23 2s. had been received

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from members of the Alliance and friends towards the expenses connected with the candidature of Dr. Alderson and Mr. Brown in the recent election to seats on the General Medical Council. The hon. treasurer was instructed to convey the best thanks of the Committee to those gentlemen who had kindly contributed towards the election expenses. The President then stated that, this being the first meeting of the Council held subsequently to the complimentary dinner to Dr. Alderson and himself, he could not allow the occasion to pass without expressing his deep obligations to the Election Committee, and especially to Dr. J. W. J Oswald (chairman), Dr. Boyd (hon. sec.), and Dr. Hugh Woods (hon. treasurer), for the great services they had rendered to Dr. Alderson and himself, in promoting their candidature, and which had been successful beyond anticipation. Dr. Alderson expressed himself in similar terms. The President read correspondence with a practitioner in the north of England whose unregistered assistant was reported to be in the habit of signing certificates and appending to his name initials implying that he was duly qualified. The practitioner referred to explained that his assistant held qualifications from a Colonial university, and that he would see that he did not give similar certificates in future.

A letter was read from a provincial member expressing the hope that the Alliance would take some steps in regard to medical aid associations, which, he alleged, were doing serious injury to the practices of medical men in provincial towns. The President stated that he hoped to get information respecting the working of these associations to lay before the Council at a future meeting.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Bromsgrove Urban District.—Monthly statistical returns, as regards any but large populations, are, as a rule, very imperfect indications of the true vital statistics of a community; but it may be noted that in Bromsgrove town, where influenza was very prevalent during January, the death-rate for that month reached 83·18 per 1000 living, that rate being only reduced to 71 per 1000 after correction for non-residents. The disease has, according to Dr. Cameron Kidd, shown distinct signs of abatement during the current month.

Hove Urban District.—On the population as taken at the last census, the death-rate for Hove during 1891 was 12·6 per 1000, the zymotic rate being 0·5 per 1000. Notification led to the discovery of 119 cases of infectious disease, of which 52 were removed to the useful hospital at Hangleton, where a new pavilion is in course of erection. As regards sanitary circumstances, we learn but little, except from a return of the inspectors of nuisances, Mr. E. S. Medcalf's own report dealing almost exclusively with vital and disease statistics.

Ulverston Urban District.—The high rate of death during 1891—namely, 22 per 1000—was not due to ordinary zymotic diseases, for Dr. Thompson gives the zymotic rate as 0·7 per 1000 only. The water-supply is unsatisfactory, but is receiving attention; whereas the sewers, scavenging, inspection of slaughter-houses, lodging-houses, &c., are well looked after. With regard to influenza, Dr. Thompson gives his personal experience. He says it nearly cost him his life in 1857; he suffered again severely in 1890, and he has had three attacks during the past year.

Kettering Urban District.—The population of Kettering is now estimated at 20,000, having increased by 8360 during the last decade, and, happily, the death-rate remains as low as 14·6 per 1000; whilst the zymotic rate was only 0·3 per 1000 last year. Scarlet fever cases were reported every month, but by the constant and wise use of the isolation hospital it never made headway, and not a single death occurred from that cause. Typhoid fever has at times been somewhat prevalent in Kettering, and twenty-one cases were reported last year. Here, again, hospital isolation was successfully utilised, and the impure wells with which the disease was associated were closed. As to this, we would hope that increasing efforts will be made to get rid of these sources of danger before, instead of after, they have caused disease. Mr. Dryland has always pressed this point, and he does so again. We trust he will receive every support with regard to a sanitary operation so necessary to the health and well-being of this growing town.

Carlisle Urban District.—According to Mr. William Brown the death-rate for Carlisle during 1891 was 19·0 per 1000 living, the zymotic rate being 1·6, measles and scarlet fever being the main contributors to the latter. Scarlet fever seems to have been extensively prevalent for some time since. From March to December, 1890, 578 cases of this disease were reported, and last year the number was 564. Although the disease is stated to have prevailed chiefly among the working classes, yet only thirty out of the 564 patients were dealt with at the isolation hospital, and this was not because the hospital was otherwise in use, for the total admissions during the year only added eight more to the admissions from all causes. It is difficult to understand this, for it is stated that, as regards patients certified as proper for isolation, the expense of maintenance is—as it should be—borne by the authority. Mr. Brown, in dealing with other questions of interest, refers to the not unfrequent connexion between enteric fever and cattle manure, and he notes that forty-five cases of that disease came under his notice in the period 1882–87 as occurring in association with slaughter-houses, cow-houses, or tripe manufactories. It is difficult to appreciate the significance of this without information as to the general incidence of the disease during the same years on parts of the city not immediately bordering on such places; but the point is one to which attention has been elsewhere directed.

Waltham Holy Cross Urban District.—Mr. J. D. Priest has occasion to refer to some serious defects in the sewerage system, whereby sinking of sewers, retention of deposit, and other evils have been brought about. At the same time he reports that a good deal of sanitary work was done during the year. He strongly urges the provision of some means of isolating first attacks of infectious diseases, and of a disinfecting apparatus. On a population of 6060, the death-rate for 1891 was 16 per 1000 living.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6449 births and 4571 deaths were registered during the week ending Feb. 27th. The annual rate of mortality in these towns, which had declined in the preceding five weeks from 35·4 to 21·1 per 1000, rose again last week to 23·4. In London the rate was 22·4 per 1000, while it averaged 24·1 in the thirty-two provincial towns. The lowest rates in these towns last week were 14·2 in Croydon, 16·6 in West Ham, 17·8 in Huddersfield, and 17·9 in Brighton; the highest rates were 29·9 in Derby, 30·5 in Bristol, 32·9 in Halifax, and 34·0 in Burnley. The 4571 deaths included 426 which were referred to the principal zymotic diseases, against numbers declining from 607 to 383 in the preceding six weeks; of these, 155 resulted from whooping-cough, 123 from measles, 49 from diphtheria, 39 from diarrhœa, 31 from scarlet fever, 28 from "fever" (principally enteric), and one from small-pox. The lowest zymotic death-rates were recorded in Croydon, Norwich, Plymouth, Swansea, and Leicester; the highest rates in Bristol, Cardiff, Liverpool, and Wolverhampton. The greatest mortality from measles occurred in Sheffield, Sunderland, Liverpool, and Wolverhampton; from scarlet fever in Cardiff; from whooping-cough in Newcastle-upon-Tyne, Derby, Blackburn, Wolverhampton, and Bristol; and from diarrhœa in Preston. The mortality from "fever" showed no marked excess in any of the thirty-three large towns. The 49 deaths from diphtheria included 30 in London, 3 in Bristol, 3 in Sheffield, and 2 each in Manchester, Leeds, and Newcastle-upon-Tyne. One fatal case of small-pox was recorded in Liverpool, but not one in London or in any other of the large towns; 10 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, but not one in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of last week was 1198, against numbers declining from 1397 to 1216 at

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the end of the preceding five weeks; 86 new cases were admitted during the week, against 117 and 82 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 1465 to 450 in the preceding five weeks, rose again last week to 460, but were 39 below the average. The causes of 105, or 2·3 per cent., of the deaths in the thirty-three towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Birkenhead, Oldham, and in four other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Liverpool, Preston, Huddersfield, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the preceding five weeks from 27·2 to 20·1 per 1000, rose again to 22·8 during the week ending Feb. 27th, but was 0·6 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 12·6 in Leith and 18·6 in Edinburgh to 25·3 in Paisley and 25·6 in Greenock. The 635 deaths in these towns included 24 which were referred to whooping-cough, 16 to measles, 12 to diarrhœa, 9 to diphtheria, 5 to "fever," 2 to scarlet fever, and not one to small-pox. In all, 68 deaths resulted from these principal zymotic diseases, against 46 and 62 in the preceding two weeks. These 68 deaths were equal to an annual rate of 2·1 per 1000, which was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 22 and 15 in the preceding two weeks, rose again last week to 24, of which 14 occurred in Glasgow, 5 in Aberdeen, and 3 in Greenock. The 16 deaths from measles showed a further increase upon recent weekly numbers, and included 14 in Glasgow. The fatal cases of diphtheria, which had been 1 and 8 in the preceding two weeks, further rose last week to 9, of which 4 occurred in Glasgow and 2 in Edinburgh. The 5 deaths referred to different forms of "fever" showed a decline of 5 from the number in the previous week, and included 2 in Glasgow and 2 in Paisley. The deaths referred to diseases of the respiratory organs in these towns, which had been 146 and 154 in the preceding two weeks, further rose last week to 165, and exceeded by 19 the number in the corresponding week of last year. The causes of 66, or more than 10 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 31·8 and 37·4 per 1000 in the preceding two weeks, further rose to 39·5 during the week ending Feb. 27th. During the first eight weeks of the current quarter the death-rate in the city averaged 39·6 per 1000, against 32·3 in London and 20·1 in Edinburgh. The 265 deaths in Dublin during the week under notice showed an increase of 14 upon the number in the preceding week, and included 8 which were referred to whooping-cough, 7 to "fever," 3 to measles, 2 to scarlet fever, 2 to diarrhœa, and not one either to small-pox or diphtheria. In all, 22 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3·3 per 1000, the zymotic rate for the same period being 2·5 in London and 1·2 in Edinburgh. The fatal cases of whooping-cough, which had been 3 in each of the preceding two weeks, rose to 8 last week. The deaths referred to different forms of "fever," which had been 1 in each of the previous three weeks, rose to 7 last week, and exceeded the number in any week during the current year. The 3 fatal cases of measles and the 2 deaths from scarlet fever corresponded with the numbers recorded in the preceding week. The 265 deaths in Dublin last week included 42 of infants under one year of age, and 84 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a further increase upon the numbers recorded in recent weeks. Three inquest cases and 6 deaths from violence were registered; and 73, or more than a fourth, of the deaths occurred in public institutions. The causes of 32, or 12 per cent., of the deaths in the city last week were not certified.

CALCUTTA AND ITS AMALGAMATED AREA OF SUBURBS.

We gather from the health officer's report that the total number of births registered in Calcutta in October last was 731, giving an annual ratio of 18·8 per 1000, which is rather lower than the average. The total number of deaths during the same month was 1204, against 1041 in the preceding month, showing an annual ratio of 30·9 against 26·7 per 1000 of population. The monthly total exceeds all the corresponding figures of the past decade, and surpasses the decennial mean by 189. There were 185 deaths from cholera, against 82 in the previous month. This number is greater than the corresponding figures of the last ten years. There were no deaths from small-pox during the month under record. The deaths from fevers and bowel complaints were somewhat in excess of the average. There were 49 deaths from tetanus, against 80 in the previous month. Of these, 46 were under one year of age. As regards the local distribution of diseases, the sections of Hastings, Bamun Bustee, and Jorrabagan show the highest death-rates. The mortality of infants under one year of age reckoned on estimated births was 281·6, against 342·9 in the preceeding month, per 1000 per annum. In the amalgamated area of suburbs there were 350 births registered during the month, or in the annual ratio of 19·5 per 1000. The total number of deaths in October was 667, against 603 in the previous month, or in the annual ratio of 37·1, against 33·6 per 1000 of population. Of these deaths there were 61 from cholera, 264 from fevers, 120 from bowel complaints, and 34 from tetanus. There were no deaths from small-pox in the suburbs during the month.

THE SERVICES.

THE ARMY ESTIMATES.

THE Secretary of State for War has followed his accustomed practice in publishing a memorandum relating to the Army Estimates for 1892-93. The memorandum is only intended to summarise and explain a few details of the estimates, and we select from it a few points of interest. The amount asked for in the estimates shows a net increase of £85,900 as compared with last year. The proposed expenditure for 1892-93 is £17,631,300, of which £14,564,100 is for effective and £3,067,200 for non-effective service. The number of men in the Establishment shows no great variation. The Army Reserve is expected to reach during the year the large total of £78,000 men. The report of the Inspector-General of Recruiting shows the physique of the recruits to be satisfactory. The Volunteers show a marked increase in numbers, but the dearth of officers still continues. There is an increase this year upon the Works Vote amounting to £85,400, attributable to the urgent necessity for providing new ranges, and for the further carrying out of sanitary improvements throughout the barrack system of the country.

Surgeon-Colonel A. F. Bradshaw, C.B., has been appointed Principal Medical Officer to Her Majesty's forces in India, vice Surgeon-Major-General Thomson, about to retire.

Surgeon-Colonel A. C. Gaye has been appointed to the officiating medical charge of the Sirhind District, vice Surgeon-Colonel T. N. Hoysted, transferred to the Madras Presidency.

Surgeon-Colonel F. W. Wade has been appointed to the administrative charge of the Allahabad District, Bengal command, vice Surgeon-Colonel T. Walsh, transferred to the Oude and Rohilund District.

Surgeon-Colonel A. Allan has handed over his charge as Principal Medical Officer, North British District, and embarked for Bengal.

ARMY MEDICAL STAFF. — Surgeon-Captain Richard Edward Ricketts Morse, from the Seconded List, to be Surgeon-Captain (dated March 1st, 1892); Surgeon-Captain Norman Macbeth Reid retires from the Service, receiving a gratuity (dated March 2nd, 1892).—The surname of Surgeon-Captain P. J. R. Nunnerley is as now, and not as stated in the *Gazette* of Sept. 1st, 1885.

NAVAL MEDICAL SERVICE. — The following appointment has been made at the Admiralty:—Surgeon Herbert Canton to the *Victory*, additional, for study at the metropolitan hospitals and for Haslar Hospital (dated March 1st, 1892).

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Correspondence.

"Audi alteram partem."

THE GRESHAM UNIVERSITY.

To the Editors of THE LANCET.

SIRS,—Permit me to make a slight correction in your excellent leading article on "The New University for London" in THE LANCET of this day. You say that in my "oft-quoted" letter I express the opinion that in the case of the "London diplomates" a clinical examination only would suffice. The words I used were "practical and clinical"—I mean "practical" in its widest sense—in the laboratory rather than in the class-room; in the laboratories of physiology, pathology, forensic medicine, and hygiene; in the dissecting and post-mortem rooms. The "oft-quoted" letter to which you refer, though expressly stated to be unofficial—as much so as this,—has received, most undeservedly, an amount of attention that is rarely bestowed upon official documents, and has been used with more ingenuity than ingenuousness in support of the contention that I advocated a lowering of the degree of M.D. in the new University. It has been attacked by the authorities of the Victoria University, it has been published in the appendix to a petition that has been presented to Parliament, and it has been so unfortunate as to meet with the disapproval of philosophers and scientists who, with little or no experience of medical education and its requirements, are quite prepared to legislate for it by what you truly term "impracticable schemes." And lastly, it has been used by writers in the daily press to make "political capital" against the Charter.

Those self-constituted champions of a "high standard," the authorities of the Victoria University and my friends the philosophers, persist in accusing me of seeking to lower the standard of education in respect to the medical degree of the new University. I most emphatically deny ever having had or having expressed such an intention. The charge is absolutely untrue. The "oft-quoted" letter on which it is founded had no reference whatever to the curriculum of the student qualifying for a degree in the University. It referred solely to the question of the admissibility of the "London diplomates" to examination for the M.D. degree, that examination being a final one from which all "preliminary science" must necessarily be excluded. What I did say was that a good qualification might be taken in the case of these diplomates as equivalent to the M.B, and that such a qualification was the M.R.C.S. and L.R.C.P., and I contend that this combined qualification is equivalent to the M.B. of any university in the kingdom, with the single exception of that of London, and possibly that of the Victoria University, of the relative value of which I regret to have to confess my ignorance; and that the London diplomates suffer under a real and substantial grievance in its not being so recognised.

It is absurd to speak of a "standard" in scientific or medical examinations qualifying for degrees. There is no such thing. Every university and medical college has its own "standard," determined by its own governing body, as will be the case in the Gresham University should its Charter—happily for medical education—be granted. Can it be pretended that the "standard" is the same in the University of London and that of St. Andrews, that of Cambridge and that of Glasgow?—in the Royal College of Surgeons of England and in that of Edinburgh, in the Royal College of Physicians of London and the College of Physicians and Surgeons of Glasgow? There is not only no uniformity in this respect amongst the different degree-giving and licensing bodies in the kingdom, but the standard will vary in the same institution at different times, according to the views of its Senate or Council for the time being. This is a question of statute or by-law, and not of charter. Which, then, of these "standards" am I accused of wishing to lower? That of London or that of St. Andrews?—that of Cambridge or that of Glasgow? But perhaps the true standard of excellence is to be found at Manchester, and there only.

I am, Sirs, yours very obediently,

Eastbourne, Feb. 27th, 1892. JOHN ERIC ERICHSEN.

To the Editors of THE LANCET.

SIRS,—In your notice of my little volume in your leading article in last issue you speak of me as advocating the "absorption of the governing bodies of the two teaching colleges and the ten medical schools into the Senate of the University." If you will re-examine p. 116 of my book you will find that what I say is: "That after the first constitution of the faculties no further appointment to College posts shall, *ipso facto*, make the holder a member of the faculties of the new university *in arts, science, or law*, but that the university shall itself nominate to its own faculties." This expressly excludes the Faculty of Medicine, which I am quite aware needs peculiar dealing with. I think this clears off the objections you raise as to the absorption of the medical schools. I am quite certain that no high standard will be maintained on the science and arts side of the proposed university unless the appointments are made by the governing body of the University itself. The powers of extra-collegiate lecturing must be extended if the University is not to present the absurd spectacle of being called "Gresham," but excluding all teaching done at Gresham College from its graduation courses. The Charter, as it stands, needs amending in the direction of wider powers of extra-collegiate teaching just as much for the sake of the highest as for the lower forms of work. It is the former which Sir Thomas Gresham originally intended to assist by his foundation.

My modifications (3) and (4) are especially intended to cut the ground from under the feet of far more serious opponents of the Charter than myself. You possibly, Sirs, have no idea of the parliamentary strength of the "Extension" and "External Medical Schools" oppositions. But unless these opponents are met by modifications in the House, and those I have suggested are the least feasible, I do not think the Charter has any chance of surviving. I believe that the only way for those who wish to see a Teaching University in London is to work for the modification of the Charter in such a manner as will really strengthen it, while disabling opposition. I have good ground for thinking that in pressing the Charter as it stands, you are destroying all hope of carrying it. So far as medicine is concerned, my modification (3) is the only one that touches it, and on your own showing this is practically accepted by the London members of the profession. If you do not want Manchester, Leeds, Liverpool, Bristol, and Birmingham to vote solidly against the Charter, you must be prepared to accept some modification of the kind I have suggested.

It is, Sirs, perfectly open to Parliament to petition that the Charter be *suspended* until modified, and I believe the only alternative to absolute rejection is suspension. If this be so, surely an influential journal like THE LANCET should work for the latter alternative.

I am, Sirs, your obedient servant,

University College, March 3rd, 1892. KARL PEARSON.

*** We did not say that Professor Pearson advocated "the absorption of the governing bodies of the two teaching Colleges and the ten medical schools into the Senate of the University," but that his second provision could only mean this. No one conversant with the composition of the governing bodies of the medical schools could have suggested such an obviously impracticable proposal. His method, which again, is an impossible one, of dealing with the medical problem is stated in his appendix (p. 133). Professor Pearson has hitherto urged, without sufficient foundation, that the medical faculty intended to lower medical degrees. There are not, so far as we can see, any stronger grounds for his assertion that the professors in the two Colleges will not "maintain a high standard in arts and science." This seems to us most unjust to his colleagues in those faculties. We still believe that the Charter must be accepted or rejected as it stands.—ED. L.

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POST-MORTEM APPEARANCES OF THE BRAIN OF INFLUENZA PATIENTS.

To the Editors of THE LANCET.

SIRS,—Dr. Goodall's account of the post-mortem appearances which he has found in fatal cases of influenza at the West Riding Asylum forms indeed a singular contrast to the results which I had mentioned in a previous letter as obtained by Helweg of Aarhus. I think it will be interesting to your readers, in connexion with this, to be informed of the results of twelve necropsies of gripped patients made by Maillart[1] in the Cantonal Hospital of Geneva. In the first case there was great hyperæmia in the right hemisphere of the cerebellum, with hæmorrhagic spots, and complete softening of the medullary matter. In the second case there was found copious hæmorrhage at the base of the brain, proceeding from an aneurysm of the basilar artery, there being liquid blood in the right lateral ventricle, and granular ependymitis. In the third case the dura mater was completely adherent to the skull, and the pia mater thickened and strongly congested. In the fourth case there was acute non-suppurating lepto-meningitis; the pia mater showed strong œdematous infiltration at the convexity as well as at the base, the vessels being very turgescent. In the next three cases, where the patients, being previously consumptive, had died of rapid progress of the tuberculosis subsequent to the attack of grip, the condition of the brain is not mentioned. In the eighth case there was hæmorrhagic pachymeningitis, chiefly in the middle *fossæ*. In the ninth case there was general subarachnoid œdema. In the tenth case, which was that of a tubercular and alcoholised person, there was strong subarachnoid œdema. The left Sylvian artery was surrounded by a loose non-transparent tissue, and showed numerous miliary tubercles in its tract. On the right side the same lesions were found, although not so pronounced. There were a few miliary tubercles on the bloodvessels of the anterior surface of the pons and internal hydrocephalus. In the eleventh case slight subarachnoid œdema and lepto-meningitis with hyperæmia were discovered. Finally, in the twelfth case, the pia mater was found covered with a thick layer of greenish, thick, and ropy pus on its whole surface, at the base as well as at the convexity, and the membrane was strongly œdematous. The lateral ventricles were likewise found to be filled with the same kind of pus. Everyone must admit that such a series of records is very significant, and cannot be simply due to coincidence, more especially when it is remembered that the cases were not of inmates of an asylum, but of persons indiscriminately admitted for severe forms of grip into a general hospital.

I am, Sirs, yours faithfully,

Harley-street, Feb. 29th, 1892. JULIUS ALTHAUS, M.D.

[1] Étude Clinique sur la Grippe pandémique d'après les Observations recueillies à l'Hôpital Cantonal de Genève pendant l'Epidémie de 1889-90. Genève, 1891.

RETRO-PHARYNGEAL ABSCESS.

To the Editors of THE LANCET.

SIRS,—I have read Mr. Pollard's paper in THE LANCET of Feb. 6th on Retro-pharyngeal Abscess with great interest. About ten weeks ago an infant aged four months was brought to me suffering from one. The history given was the following: The child had always been ailing, and from birth had difficulty in breathing, especially when asleep. On examination the fauces were congested, the tongue was furred, and the child presented all the symptoms of croup, for which I at first treated it. As the dyspnœa continued to increase I examined the pharynx, and found an elastic swelling behind the right tonsil, and extending laterally beyond the middle line and below, reaching to the upper part of the larynx. I opened the swelling through the posterior wall of the pharynx, inverted the child, and washed out the mouth. There was instantaneous relief. Three days after this I was hurriedly summoned to the child, as it was said to be dying. I found that the abscess cavity had refilled, and the dyspnœa was intense. A free opening was made into the swelling, and about a tablespoonful of fetid pus was expelled. The mouth was washed out twice daily, the child being inverted. There has been no return of the abscess, and the child is now in good health. I am of opinion that retro-pharyngeal abscess in infants is sometimes of syphilitic origin, and is not such a rare affection as Mr. Pollard imagines. Probably cases occur which are mistaken for croup, and treated as such, the error never being rectified.—I am, Sirs, yours faithfully,

Stamford-hill, N., Feb. 21st, 1892. DANIEL MOWAT.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Hospital for Diseases of the Chest.

THE annual meeting of the Northern Counties Hospital for Consumption and Diseases of the Chest at Newcastle has been held. The Mayor presided. The total number of patients treated has been 1084. The financial statement was satisfactory, showing a balance in the hands of the treasurer. Reference is made in the report to Koch's treatment for consumption, which was carried out last year at the hospital. It says that a special nurse was engaged, and careful notes were made of the course of the disease in those patients who were subjected to this treatment, who had been selected with a view of giving it the best possible chance of success. In this the medical staff had the coöperation of Dr. George Murray, through whom the supply of tuberculin had been received, and who brought it directly from Koch at Berlin, so that there could be no doubt as to its genuineness. The result of these and other experiments is that the opinion formed by the medical staff is unfavourable to its use in its present form, and that, while not denying that it may be of some service in a few cases, they consider that it was not of much practical value in the cases which came under treatment at the hospital.

Gateshead Dispensary and Children's Hospital.

The report of the Gateshead Dispensary, presented at the meeting held last week under the presidency of the Mayor, is a record of an enormous amount of work, as will be seen from the following figures: Patients treated by letter, 3537; casuals, including 249 accidents and 425 dental cases, 11,281. Thanks were accorded to the Hospital Sunday Fund and the Gateshead Dispensary ball committee, and the honorary medical staff and other officers were congratulated on the successful working of the charity. The Children's Hospital at Gateshead has also held its annual meeting. There had been a slight increase of patients, 82 in-patients as against 74 in the previous year; whilst 765 out-patients had been attended to. The financial statement was very satisfactory, the year closing with £153 in the hands of the treasurer on current account. Mr. William Rowland had given £300, and the late Dr. Benjamin Barkus, formerly of Gateshead, late of Newcastle, had bequeathed £300 to the hospital.

Ambulance Work in the North.

At Seaham Harbour Surgeon-Major Gibbon has commenced a course of ambulance lectures, with lantern illustrations by his son, Surgeon Fred. W. Gibbon, of the Tyne Dock Volunteer Engineers. There was a large attendance at this lecture, including most of the police force of the district. At Wooley also a public meeting, in connexion with the ambulance class has been held, and Surgeon-Major Hutton delivered a lecture. At this meeting a presentation was made to Dr. Dey (who had successfully instructed the class during the winter) of a handsome marble timepiece, with appropriate inscription, from the class. Mr. G. P. Hughes, High Sheriff of Northumberland, made the presentation.

Epidemic of Diphtheria in the Houghton-le-Spring District.

There has been a serious epidemic of diphtheria at Newbottle, in the Houghton-le-Spring rural sanitary district, and it has been under consideration to destroy all the books at the schools, which have been closed. Such destruction of books would mean a loss of about £100. Another suggestion is to disinfect them, and a new machine has come down from London which, although it weighs about one ton and a half, can be moved about from school to school to disinfect the books.

North-Eastern Convalescent Home.

The second meeting of the North-Eastern Convalescent Home has been held. This institution is for the benefit of the working classes of the friendly societies of the north-

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eastern counties, and is supported and managed by themselves. It was shown that eighty-one patients had been received during the year, the majority being from Sunderland and other parts of the county of Durham It was stated that the new home at Grange over-Sands would be opened on March 3rd.

"Coals to Newcastle."

"Carrying coals to Newcastle" used to be a saying expressing the very superfluity of useless labour. It appears now that from some cause coals can be bought cheaper at Alexandria than they can just above their native mines. It is not so, however, as to gas, the net price of which is now under 1*s.* 8*d.* per 1000 ft. Our gas, however, as a light, is capable of considerable improvement, and our fellow-citizen, Mr. S. Macaulay, did good service at a meeting the other day by pointing out how our gas could be improved as an illuminant by a mixture with hydro-oxygen gas. It was manufactured from crude oils, which were refined during the process of manufacture by this gas. Mr. Macaulay said the fifteen-candle coal gas could be increased to twenty-candle at a cost of 3*d*, while the additional cost of coal gas to give the same power would be 8*d.*

Newcastle-upon-Tyne, March 2nd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Edinburgh University Court and the Universities' Commission.

AT the request of the Commissioners, the University Court has submitted a "Memorandum on the Financial Requirements of the University of Edinburgh." The document embodies reports from the several faculties and from the Science Degree Committee received through the Senators. The following are some of the memoranda which bear upon medicine, and are sufficient indication of the views of the Court. No new chair is asked for by the Faculty of Medicine, but the Faculty of Law suggest that if a claim of Public Health be formed, an adequate endowment should be provided for the chair of Medical Jurisprudence. Additional claims are made by the Faculty of Medicine on behalf of lectureships, as follows—viz., £50 for each of the following: Clinical Medicine, Fevers, Laryngology, Rhinology and Otology, Ophthalmology, Mental Diseases, and Diseases of Children; claims by the Science Degrees Committee include £150 each for Plant Pathology, Plant Physiology, Bacteriology and Embryology, and of £200 for Veterinary Hygiene. The several faculties as well as the Science Degree Committee suggest the institution of a number of new lectureships as the mode in which the teaching staff should be increased, and the Court agree generally with this. The Faculty of Medicine think that adjunct lectureships would be instituted within several of the professorial departments by conjoining lectureships with the duties of some of the assistants. Further additional claims are made for assistantships in the Faculty of Medicine, the present sum received being £1150, and the new claim amounting to £3410. As explaining this claim it is submitted that the professors have from time to time appointed such additional assistants as the increase in the number of students rendered necessary, and either paid altogether or supplemented the stipends out of their class fees. The same Faculty advance claims for laboratory and class expenses; at present they are allowed £381, and they claim £1909 The Faculty further suggest that, owing to the great educational value of research work, and its importance as a means of maintaining and increasing the success and reputation of the University, the Commissioners should establish a Research Fund, out of which grants might be made to the different departments in which original work is being pursued for the purpose of defraying the expenses incurred. It is also considered important to state that many of the professors have provided, from their private resources, apparatus and other appliances for improving and illustrating their teaching. The Faculty consider, if the method of payment of the professors be materially altered, that this outlay should be returned, and the articles secured for the University. From the foregoing it will be seen how much and how little have come from the Senatus and the University Court in the way of suggestion either as to improvement or advance in teaching and other matters in the University. It was the conviction of this which was forced upon those who are not of the thirteen professors that it was necessary to show what was required for the advanced and advancing scientific teaching and investigation in the medical sciences, and it was from them that the Reform Association sprang

Professor Ferrier in Edinburgh.

Professor Ferrier, as Cameron Prizeman of the Edinburgh University, delivered a lecture in the Oddfellows' Hall on "Cerebral Localisation in relation to Therapeutics." Professor Fraser, in the absence of the principal, occupied the chair. The hall was crowded by students, and the lecturer was listened to attentively and frequently applauded. Later he was the guest of the evening at the annual dinner of the Royal Medical Society.

The Edinburgh New Town Dispensary.

The annual meeting of this valuable charity was held last week. During the year 9054 cases had been attended, of which 1925 had been visited at their own homes. The financial condition was satisfactory.

Health of Edinburgh.

The mortality last week was 85, and the death-rate 17 per 1000. Diseases of the chest accounted for 40 deaths, and zymotic diseases for 7, of which 2 were due to diphtheria and 2 to measles. The intimations for the week were: Typhoid fever, 2; diphtheria, 3; scarlatina, 16; and measles, 79.

Royal Society of Edinburgh.

At a special meeting of this Society, held on Monday, Professor Cossar Ewart made a communication on "The Cranial Nerves of Man and Salachians."

Association for the Reform of Medical Education.

Owing to Dr. Berry Haycraft having resigned the co-secretaryship of this Association, Mr. Charles W. Cathcart has been appointed Dr. Berry Hart's co-secretary.

The Physiological Department and Dr. Haycraft.

Dr. Haycraft's connexion with this department ends with the winter session. Dr. Haycraft has not resigned, and, as he gave up a professorship elsewhere to come to the rescue of the University at a well-known crisis, much sympathy is felt for him.

Special subscriptions to the amount of £7000 have been raised for the purpose of increasing the Paisley Infirmary buildings.

It is stated that Lady Jane Dundas has announced her intention of giving £10,000 to the Edinburgh Hospital for Sick Children as a memorial of her sister, Lady Margaret Charteris, who died a few weeks ago.

Mr. John Phillips, M.A., M.D. Cantab., M.R.C.P., has been appointed Examiner in Midwifery to the Glasgow University.

March 2nd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Banquet at the Royal College of Surgeons.

MR. H. GRAY CROLY, President, has sent out cards for a banquet to be held in the College on Monday evening, the 14th inst., in celebration of the first biennial presidency. His Excellency the Lord-Lieutenant and a distinguished company will be present.

Green street Court house, Dublin.

An eminent sanitary engineer has certified that this court house is unfit for human occupation, and the legal business has been transferred to the Four Courts until a new courthouse has been erected.

Proposed Hospital for Consumption, Dublin.

About £5700 has already been subscribed towards the building fund, which is over one-half of the sum required for successfully starting the hospital. The executive committee are taking steps to establish local committees throughout the country, and it is confidently expected that sufficient money will be subscribed to enable the building operations to be commenced early in the spring. I do not think there will be much difficulty in collecting the required amount for building the hospital—say, about £15,000,—but

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it is possible the annual cost of maintenance—some £5000—may not be so easily obtained.

Zymotic Diseases in Dublin.

An impression has become rather prevalent of late that the mortality from zymotic diseases in Dublin is unprecedentedly high, but Sir C. Cameron has shown by statistics that the death-rate from contagious diseases is very much less than in the twenty-eight largest towns of England. For example, the zymotic death-rate of Dublin in 1887 was 4·5 per 1000, in 1888 it fell to 2·8, in 1889 to 2·3, in 1890 to 2, and last year, notwithstanding the prevalence of typhoid fever, to 1·6, or about one-half the rate in London.

Census for the Province of Leinster.

It appears from a recent return of the Census Commissioners that the number of inhabitants in this province by the last census was 1,187,760, or 7·1 per cent. less than in 1881. While in 1881 20·3 per cent. of the population were illiterate, in 1891 the percentage had fallen to 15·4. The births registered during the ten years ending March 31st, 1891, were 291,151, and the deaths 254,834, showing a natural increase of 36,317 in the population. The decrease in the population as shown by the census returns was 91,229, as compared with the previous return, a disparity in the results to be accounted for to some extent by the fact that no record of immigrants or of migration from one part of Ireland to another is obtainable.

The Royal Hospital, Belfast.

At the quarterly meeting of the supporters of the Royal Hospital, held on Feb. 22nd, a very satisfactory report of the financial condition of the institution was submitted. At the end of the last quarter the hospital was in debt £3015 15*s.* 4*d.* This is now paid, and a balance is in the hands of the treasurer. The Centenary Bazaar realised £3573 14*s.* 6*d.* Since the beginning of the last financial year (September) £1842 19*s.* has been received, this being an increase over the corresponding period of last year. During the past quarter there were 719 intern and 4516 extern patients.

Queen's College, Belfast.

Some time since a lectureship on pathology was established at Queen's College, and out of several candidates the Council, with the sanction of the Lord Lieutenant, have unanimously appointed Dr. W. H. Barrett, who in 1886 succeeded Dr. Sims Woodhead as senior assistant to Professor Greenfield of Edinburgh. Dr. Barrett has also been pathologist in the Edinburgh Royal Infirmary. Dr. Barrett will enter on his new duties on May 1st, and will conduct two classes—one of systematic and one of practical pathology, for which, as for laboratory and research work, rooms are in process of preparation in the medical buildings of the College.

The New Consumption Hospital, Belfast.

At an "at home" given by Mrs. Purdon (widow of the late Dr. J. H. Purdon) the plans were shown of this new institution, which is to be erected at Ballynafeigh. At the outset it has been arranged to have accommodation for twenty-four intern cases, and already a sum of about £6000 has been subscribed towards its erection. Considering the immense death-rate from chest diseases, and especially from phthisis, in Belfast, this new hospital will meet a great want.

Health of Belfast.

The first annual report of Dr. Whitaker, medical officer of health for Belfast, has been presented, and from it I learn that the Registrar-General in Belfast estimated the population of the urban districts too low, and hence during the last decade the death-rate was considerably over-estimated. In 1890 the death-rate was 29·5 per 1000 as returned by the Registrar-General, while the proper return was 26·7. During the fifty-two weeks ending Jan. 2nd, 1892, there were reported 340 cases of zymotic diseases, while in 1890 there where 614. The births for the year 1891 were 8650, the deaths 6537, the difference being a natural increase of population of 2113. Dr. Whitaker calculates the death-rate of Belfast for 1891 as 25·5, and the birth-rate as 33·7 per 1000, which is much in excess of the average of other large towns. Of the 6537 deaths registered during the past year 1017 were attributable to phthisis, whilst 1734 were due to disease of the respiratory organs. Dr. Whitaker refers to the following as some of the causes of the high death-rate of Belfast: 1. The dampness of the soil and air. 2 Flooding of the houses in some low-lying districts. 3. The existing system of privy and ashpit. Some 40 per cent. of the houses in the city have this vicious system. 4. The stagnation of the sewers and absence of flushing or ventilation. A great amount of low form of disease, Dr. Whitaker thinks, is caused in this manner. A ventilating shaft is now being tried as an experiment on one of the main sewers. 5. Unhealthy occupations principally affecting the respiratory organs. The dust of the flax, the staple trade, is a serious cause of bronchitis and phthisis. The dampness of the soil on which Belfast is built, combined with the very frequently moist atmosphere and the unhealthy occupation of many of the factory workers, predispose to chest diseases. 6. Foundations of too many of the houses are built on ground filled not only with mud, but sometimes with most objectionable material. During the past year many improvements have been made in the sanitary arrangements of the city of Belfast; but there is still room for improvement in many other matters, which Dr. Whitaker promises to bring from time to time before the Public Health Committee. A step in the right direction has been taken in the decision to clear out periodically (free of charge) all the ashpits in the city.

Mr. McGrath has been appointed joint secretary to the Royal University of Ireland in the vacancy created by the decease of Mr. Dunne.

In addition to the ordinary degrees conferred by the University of Dublin for Hilary Term on Tuesday, the 2nd inst., the honorary degree of Doctor of Laws was conferred on the Bishop of Derry and on the Lord Mayor of Dublin.

March 1st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Polyuria in Sciatica.

IN October last MM. Debove and Rémond called attention to the frequency of polyuria in cases of sciatica, and these observers believed this phenomenon to be attributable to an increase of arterial tension, consecutive to morbid excitation of the sciatic nerve. M. Huchard has since studied the subject, and he now announces[1] that, of ten such patients kept under observation, in the majority the quantity of urine excreted was rather diminished than increased. In three instances the polyuria noted was proved to be due to generalised arterio-sclerosis or to commencing renal sclerosis. M. Huchard agrees, then, with M. Lépine in considering polyuria rare in sciatics, and, going still further, deems the opposite condition—viz., oliguria—to be more frequently met with in very painful sciatica. Whenever polyuria is present he ascribes it, in the majority of cases, to a concomitant or intercurrent malady. M. Huchard appears to agree with the conclusions formulated some time ago by M. Hugonnard, a pupil of M. Lépine—viz., that moderate or strong stimuli brought to bear on the sciatic nerve diminish or even totally arrest the secretion of urine, while slight stimuli have the opposite effect of increasing such secretion.

Mammary Abscess in the Newborn.

The mammary engorgement observed in the majority of the newborn during the first few days of extra-uterine existence is now known to be a physiological phenomenon, accompanied by a milky secretion, which, after having lasted two or three weeks, generally subsides spontaneously. Recent analyses have proved that the liquid secreted is analogous to, if not absolutely identical with, woman's milk. In certain rare instances the swelling of the gland may proceed to suppuration, which, in the case of a female child, cannot but be regarded as an unfortunate incident. M. Comby[2] warns against the usual practice of artificially emptying the lacteal ducts in such cases, pointing out the double danger of destroying the gland altogether, or of inducing what it is meant to prevent—suppuration—by introducing through the medium of unclean fingers germs into the inflamed tissue. M. Comby recommends the covering of the tumefied part with emplâtre de Vigo (mercurial plaster), or, if that preparation prove too irritating, with the emplâtre rouge (emplastrum roborans).

[1] Soc. Méd. des Hôpitaux, Feb. 19th, 1892. [2] Ibid.

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Wanted, a Doctor!

It is not only in England that the lamentable wave of immigration flows so steadily towards the towns, to the great detriment of the rural districts and of the country in general. This economic phenomenon is also a feature in French life, and in no class of society is it more marked than amongst doctors. The towns tend to be overstocked with them, whilst the country is insufficiently supplied with properly qualified men. The institution of the inferior diploma of *officier de santé*—a diploma now condemned by the new Medical Bill soon to become law—was designed to meet this difficulty; but the remedy has, by universal consent, proved inefficacious. The very moderate fees paid in country districts are probably responsible in the main for the sparseness of the medical population in such places. The following pathetic appeal for a medical man, which I extract from a Paris medical journal, is characteristic, and is confirmatory of the truth of the preceding remarks: "Vacances médicales.—Toute une population, d'environ 6000 habitants, répartis dans un rayon de 4 kilom. autour de la résidence, demande ardemment un médecin pour remplacer celui qui exerçait autrefois dans la localité. Il s'agit d'un pays admirablement situé, à 6 lieues de Rouen, dans lequel les visites aux indigents sont payées 2 fr. par le Bureau de Bienfaisance. Cette position conviendrait merveilleusement à un jeune médecin instruit et de parfaite honorabilité." Can we wonder that the French peasant falls so easy a prey to the enterprsing charlatan?

Paris, March 2nd.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Electrical Executions made Public.

THE law changing the method of execution of criminals in the State of New York from hanging to electricity required that the execution should be in the State prisons, and that only a few officials should be present. These officials were forbidden making any public statement of the details of the execution, and thus the newspapers were deprived of the opportunity of filling their columns with the over-wrought accounts of the sickening scenes which so interest the mass of readers. The reporters hovered around the prisons at each execution, but they learned so little that it was impossible for them to make an exciting story of the event. Not to be baffled in their efforts to utilise the exciting and entertaining scenes of an execution by electricity, the newspaper men have succeeded in having the law so amended that reporters are now admitted to the prison and allowed to describe with pen and photograph all of the revolting details. An execution has just occurred, and as a result of the new law the papers are filled with the most sensational statements and pictures which could be devised. The victim is fastened in the chair, the priest stands with prayer book in hand on one side, the chief executioner, a physician, on the other; the reporters, with pencils or watches in hand, stand near. The chief executioner explains: "We purpose to-day to vary the method employed here by making the contact through the hands instead of from the top of the head to the leg, as has been the custom heretofore. The hands will be placed in a salt solution in the two cells, and the current will pass directly through the chest. While we have many assurances that this method will be successful, we have retained the electrodes at the head and leg, so that if it fails to be satisfactory, a simple turning of the switch will turn the current from the head downwards as before." He added that this was an experiment. Everything being in readiness, the report states that the victim's voice, which had been low and hardly audible, rang out loud, and, with a wailing, struggling sound, dying away with the last choking utterance of a man in dreadful fright. "Let her go!" These were his last words; the current was turned on; the murderer bounded up with a powerful convulsive movement as if he would burst the bands; his chest arched out, and the strap which held it creaked with the strain; the face contracted on one side, as if expressing ineffable pain; the legs tugged at the straps, and one foot was drawn up sideways; the lips slowly opened and disclosed the teeth tightly clenched. At the end of fifty seconds the current was turned off, when the victim's chest slowly collapsed, with a wheezing, coughing, gasping sound from his lips, and saliva was blown from his mouth and ran down the chin. "Turn it on the other way," said the physician, when the body straightened up again with a jerk, the legs struggled in the straps, the chest was thrown out more powerfully than before; steam began to arise from the electrodes. In thirty-eight seconds the current was turned off, and the man pronounced dead. "I think every physician here," said the executioner, "will agree with me that the subject was dead, so far as his conscious being is concerned, the instant the first shock reached him. It is now apparent that he is dead muscularly also—that is, he is dead as an animal. If there is any physician who does not agree with this statement I wish he would say so." One of the physicians present said, "I agree that the man became unconscious at the first shock, but I do not agree with the test of it." Thus closed another act in the drama of "electrocution," and the public has been made familiar with the revolting details. The new method has not gained in popularity by this exposure.

Russian Hebrew Immigrants Spreading Typhus Fever.

New York is threatened with an epidemic of typhus fever through Russian Hebrew immigrants. Seventy-six cases have been found during the last two or three days in the lodging-houses provided for these immigrants by the United Hebrew Charities Association. These immigrants landed on Jan. 10th form a vessel from Naples and Marseilles. It appears that these typhus fever patients were only a small part of a shipload of Russians and Italians who had sailed from Marseilles about six weeks ago. They are part of a group of 1556 Russian and Polish Hebrews who sailed from Odessa to Constantinople four months since. They were suffering from the hardships of famine. The managers of the Baron Hirsch fund were going to send them to Palestine, but their condition was so distressing that the Sultan would not allow them to enter. Those who were too sick and exhausted to travel were left at Constantinople; others were sent to Argentine, and some to Marseilles to be shipped to the United States. Many were sent ashore at Napoli suffering from typhus fever, and 267 embarked for this country with 450 Italians. The health authorities are searching the city for these immigrants, and all the sick are immediately removed to the hospitals for infectious diseases on North Brothers' Island. The infected clothing is destroyed, rooms are cleansed and disinfected, and a constant watch is established upon all exposed persons.

The Public Health of Chicago.

Attention has lately been drawn to the continued high death-rate of the city of Chicago from typhoid fever. More importance is attached to this fact in view of the approaching World's Fair to be held in that city. A recent writer states that the statistics show that typhoid fever has materially increased in Chicago since 1880, and that within the last two years it has risen to an extraordinary height. During the year just ended there were 1977 deaths from typhoid fever, giving the prodigious death-rate for this disease of 16·64 per 10,000 of population, and a percentage of all deaths of 7·19. The cause of this remarkable prevalence of typhoid fever is not considered, but the paper quotes a significant statement of a former health officer of that city, "that the stream of filth coming through the city is a constant menace to the health of the citizens." At a late meeting of the Illinois State Board of Health a resolution was passed appointing Dr. John H. Rauch as a Special Commissioner to investigate the charge that Chicago is suffering from an epidemic of typhoid fever due to a polluted water-supply; and, in view of the widespread publicity of the said charges, and their probably damaging influence upon the World's Columbian Exposition, that the utmost expedition, consistent with thorough investigation, be urged.

Feb. 13th.

Obituary.

EDMUND SPARSHALL WILLETT, M.D., M.R.C.P.

WE regret to record the death, at the age of sixty-four, of Dr. Willett, part proprietor of Wyke House, the well-known private asylum near Brentford. Dr. Willett studied at Guy's Hospital and the Medical School at Bristol, became qualified in 1850, and a year later took the M.D. degree at

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St. Andrews. At the outbreak of the Crimean War Dr. Willett joined the Medical Staff of the army, and was for some time attached to the 55th Regiment. At the end of the year 1855 he embarked with his regiment for the Crimea, but, falling ill at Malta with fever, he was invalided home, and thus his military career was cut short. After leaving the army Dr. Willett devoted himself to the subject of lunacy, and in 1856 he became the resident proprietor of Wyke House, his connexion with which was only severed by death, which took place on Feb. 20th at Gunnersbury House, whither he removed a few months since, leaving the management of the asylum to his partner, Dr. Murchison.

Dr. Willett was well known and very widely respected in his neighbourhood. He was a gentleman of the best English type, kind, generous, and hospitable. He had been a magistrate for the county of Middlesex for some years, and when the Local Government Act came into force the County Council of Middlesex elected him one of its aldermen. No private asylum stood higher in public estimation than that over which Dr. Willett presided for so many years, and it was well known that his patients were treated with all that generous consideration which hospitable Englishmen are accustomed to show towards their private guests. Dr. Willett was an ardent sportsman, and no one was more popular than he in the hunting field and at the covert side. As a magistrate he knew well how to temper justice with mercy, and his poorer neighbours all found in him a generous friend, ever ready to help them with money and good counsel. Dr. Willett's loss will be very seriously felt throughout his division of the county, for few men were more public spirited, and none more honest or outspoken in the discharge of duty.

ROYAL COLLEGE OF PHYSICIANS.

A COMITIA of the College was held on the 3rd inst., the President, Sir A. Clark, Bart., in the chair.

A communication was read from Sir Dighton Probyn, conveying the thanks of the Prince and Princess of Wales for the sympathy expressed by the College in their recent bereavement.

A communication was read from the College Solicitors together with a statement of claim in the case of the Royal College of Physicians *v.* the General Medical Council.

A report of the delegates appointed by the Royal Colleges to consider a letter from the Secretary for War, in reference to the examinations for admission to the Medical Department of the Army, was read and adopted. It recommends the constitution of a joint committee which should appoint examiners from time to time.

A report from the committee of management respecting the financial arrangements for the five years' curriculum was adopted, and likewise one containing synopses of the examinations in Chemistry, Practical Chemistry, and Elementary Biology.

THE PROPOSED GRESHAM UNIVERSITY.

A DEPUTATION consisting of representatives of various educational bodies, provincial and metropolitan, waited upon Lord Salisbury at the Foreign Office on Thursday, at three o'clock, to lay before him the reasons why, in their opinion, the Charter of the new University, now before Parliament, should be remitted to the Royal Commission for reconsideration.

Lord SPENCER, the Chancellor of the Victoria University, introduced the deputation, stating in a few words the grounds upon which he objected to the Charter, as at present framed, being granted. Principal Rendall, the Vice-Chancellor of the University, however, would place the details before his lordship.

Principal RENDALL said their objections rested substantially upon the ground that in their opinion the power of conferring degrees should be entrusted only to a University with faculties in arts and science as well as in medicine. The specific grounds of objection were the excessive prominence and undue ascendancy given to the medical faculty in the constitution of the proposed University. The principle of the Charter had really been to conciliate and consolidate the whole of the medical opinion in London, and to confederate all the medical schools in the metropolis, great and small, and whether perfectly or imperfectly equipped for the teaching of science, in order to secure the granting of this Charter. Special provisions had been introduced to give representation to the Royal Colleges and the Apothecaries' Society. A University so constituted was without parallel among the Universities of Great Britain. The degree-giving power had never been entrusted to any purely, or even to any mainly, medical body. Owing to the conditions of the profession, to its restrictions, and to the high pecuniary value attached to University degrees, that power had hitherto been very carefully safeguarded. The Victoria University was a good instance of that. Ten out of the twelve colleges possessed no means of teaching science beyond what was correlated to the science of medicine, and, of these ten, one was destitute of even the means of providing the slender modicum of science required for the University degree in Medicine. On these and other grounds he hoped that Her Majesty would withhold approval from the Draft Charter until it had been reconsidered in accordance with the recommendations of the Royal Commission.

Mr. JOSEPH CHAMBERLAIN, M.P., said he had been asked to appear on behalf of Mason's and Queen's Colleges of Birmingham, of the medical schools of Bristol, Leeds, Liverpool, Sheffield, and the medical department of Owens College, Manchester, and the representation was supported by the Members of Parliament of the respective districts. These bodies, he said, approved of the policy of creating a teaching university in London, but they objected very strongly to the Charter as it at present stood, as it would lead to the degradation of the medical degree in Great Britain, and seriously injure the prosperity of provincial colleges. He alluded especially to a recent speech of Sir George Young and a letter written and subsequently published by Professor Erichsen, suggesting that the Council of the new University would allow persons who possessed an ordinary qualification in medicine to obtain the degree on passing the final examination of the proposed University. It would undoubtedly take away many students from the provincial colleges, which stood higher than some of the colleges which were proposed to be made constituent colleges of the new University. It would be a strange anomaly if students could actually get a higher degree by attending institutions where they would get a lower education. These were the grounds on which the provincial colleges hoped that Her Majesty's Government would see fit to withdraw the Charter and give its provisions further consideration.

Lord DERBY appeared as Chancellor of the London University, though not in any official capacity, and pointed out some of the objections urged by that body against the Charter

Mr. E. H. BUSK went in detail over much the same ground.

Other speakers, among whom was Mr. Bartley, M.P., representing various metropolitan bodies, laid their views before his lordship.

Lord RIPON, who represented the London Society for the Extension of University Teaching, gave an account of the foundation of this movement sixteen years ago by Mr. Goschen and himself. Now over 13,000 persons attended courses in the metropolitan districts, the most of whom were very anxious to obtain the highest education in the country, but had no means of study except that afforded by evening classes, and it was highly desirable to afford them opportunity of gratifying their laudable ambition. There was a certain number of these students who would be fully able to pass the examination for a degree. All that they asked in regard to this Charter was that power should be given to the new University to recognise the University extension system in its fullest sense, and that they should be able, if they thought fit, to give degrees to such students as proved themselves worthy of them.

Lord SALISBURY thanked the deputation for the important matter which had been placed before him with regard to the Charter. He would not venture to express either assent to or dissent from what he had heard, nor would he discuss it, because he was not in a position to criticise the statements of those who had more knowledge in this matter

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than himself, and because the time left at his disposal was now very short. While thanking them for what they had laid before him, he promised to give it most careful consideration, so far as consideration was required by the Government. He wished to impress upon the deputation one point of great importance—that, so far as they were concerned, this proceeding was somewhat late. He imagined it should have been taken while the matter was still before the Privy Council. Several times in the course of the proceedings it had been mentioned that they should withdraw or revoke the Charter. He spoke with submission, but he very much doubted whether they had the power to do so. The Charter was now before Parliament, and it lay exclusively with the two Houses to say whether the Charter shall be valid or cease to be valid. If it became valid, he supposed it would be modified by the processes by which such charters were usually modified. No other authority but Parliament could interfere. Therefore, though he had been sitting there in a position of seeming authority, he had not, nor had his friend beside him (Lord Cranbrook), any more authority or power beyond that of any member of the House of Commons or of the House of Lords. No doubt members would bear in mind what had been said. But whatever was done, he hoped that the action would not be of such a character as to put a stop to educational development and growth of this kind, and that the door would be left open for the introduction of such improvements and extensions as would bring together all the educational power and enthusiasm in this metropolis in the common search after one end.

Lord SPENCER proposed a vote of thanks to the Premier, which was accorded, and the deputation withdrew.

Medical News.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 25th ult. the following gentlemen received the degrees of Bachelors of Medicine and Bachelors of Surgery:—

Sydney Kent, John Dixon Stubbs, Trinity; George Armstrong Mason, St. John's; Mark Robert Phipps Dorman, Clare; William Goodenough Hawkins Bradford, Gonville and Caius; William Henry Cantrell Shaw, Jesus; Francis Gore Wallace, non-collegiate.

UNIVERSITY OF DUBLIN.—The following degrees have been recently conferred:—

Bachelor in Medicine, Surgery, and Obstetrics.—Abel Onge Eastwood. James Langton Falkner, Rudolph William Johnston, John Henry Head, Alfred H. Holmes, James Elliott Jameson, Mark Thomas Kelly, Edward Vincent Legge, Mark McDonald, Thomas Haughton Murphy, George John Peacocke, Robert Hill Shaw, Alfred Ernest Taylor, Edwin Hotham Townsend.
Bachelor in Surgery.—Abraham William Bate.
Doctor in Medicine.—Cecil Orpin, Rudolph William Johnston.

THE SANITARY INSTITUTE.—A sessional meeting of the institute will be held at the Parkes Museum on March 9th, at 8 P.M., when a paper will be read on "The Air and Water of London: are they deteriorating?" by Louis Parkes, M.D., D.P.H., medical officer of health, Chelsea. The paper will be followed by a discussion.

HOSPITAL FOR CONSUMPTION, BROMPTON.—A quarterly court of governors of this useful charity was held at the hospital on the 25th ult., Mr. T. P. Beckwith in the chair. The Committee of Management, in their report, regretted that the whole of the 321 beds in the two buildings had not been continuously occupied, the return of the influenza epidemic having rendered it necessary to reserve seven large wards, into which any patients attacked were at once transferred and isolated from the others. This for some weeks prevented many admissions, but, owing to the subsidence of the epidemic, the beds kept vacant were now being rapidly filled up. A donation of 100 guineas had been received to name a memorial bed, as also a gratuity of £545 9s. from the Hospital Saturday Fund. Dr. Kingston Fowler (senior assistant physician) had been appointed physician, in place of Dr. Fred. Roberts, whose resignation, from pressure of other engagements, had been received with sincere regret, and who in recognition of his long and valuable services was appointed consulting physician. Several bequests were announced. The number of patients admitted since Nov. 26th was 386; discharged, many greatly benefited, 316; died, 94; new out-patient cases, 3325. The report was adopted.

UNSTAMPED MEDICINES.—At West Bromwich a druggist was this week summoned by the Inland Revenue authorities for selling on five different occasions patent medicines which were unstamped. He was fined £40.

PRESENTATION.—Dr. Wm. Main of The Park, New Ferry, Birkenhead, who is about to leave the district, has been presented by his friends and the inhabitants with an illuminated address and a purse containing £180.

SWINE FEVER AT SYDENHAM. — The Board of Agriculture have had notification of a severe outbreak of swine fever in Sydenham. Out of a herd of twenty-two animals, six have been attacked and one has succumbed to the disease. The whole herd will have to be destroyed.

SMALL-POX AT DEWSBURY.—About fifty patients are reported to be suffering from small-pox in the infectious hospital at Dewsbury. The General Purposes Committee of the Dewsbury Town Council have adopted a recommendation of the Sanitary Committee that the use of part of the mansion at Crow Nest Park should be granted during the prevailing epidemic as a temporary home for convalescent patients.

NEWSVENDORS' BENEVOLENT AND PROVIDENT INSTITUTION.—At the annual general meeting, held at the Memorial Hall, E.C., Feb. 2nd, it was unanimously resolved:—"That the best thanks of this meeting are due to the proprietors, editors, and reporters of the daily and weekly press for the generous support and publicity afforded to the affairs of this society." Sir Algernon Borthwick, Bart., M.P., who was recently elected president of this institution, has consented to preside at the annual festival, to be held at the Hôtel Métropole, on Saturday, May 21st, supported by a distinguished company.

GREAT NORTHERN CENTRAL HOSPITAL. — The annual meeting of the governors was held at the hospital, Holloway-road, last week. Mr. C. T. Murdoch, M.P., presided. The report for the past year showed an increase in the number of in-patients and a very large addition to the out-patients over the previous year, the largest aggregate of patients ever treated in one year. The expenditure exceeded the year's income by £1104 12*s.* 4*d.*. There was now in hand, for the completion of the buildings, £3000, and a legacy of the same amount would be shortly paid. The estimated cost of the work was £20,000. The report was adopted.

ROYAL FREE HOSPITAL.—The work of this charity during the past year has been carried on with great success, and, with one exception, its financial position, the annual report is highly satisfactory. The in-patients numbered during the year 1886, while 12,847 out-patients and 7878 casualty cases received the benefits of the hospital. The cash statement showed an adverse balance, amounting to £3280. To meet the current expenses, a portion of the invested funds had been utilised. The appeal up to the present for £20,000, to enable the front of the hospital to be entirely rebuilt, had produced about half that sum. The reconstruction of the drainage and provision against fire were now completed. The committee are applying for a charter of incorporation, and a draft charter had been approved.

THE EAST LONDON HOSPITAL FOR CHILDREN.—The thirteenth anniversary dinner of this deserving charity was held in the Whitehall Room of the Hôtel Métropole on Feb. 24th, at 7 P.M. The Right Hon. Lord Carrington, G.C.M.G., presided, and a large number of ladies and gentlemen were present. After the usual loyal toasts had been given, the chairman proposed "Success to the Hospital," and referred in some detail to the wasting of the institution and the way in which the funds were applied. Mr. Charles Cheston, who has made a most efficient chairman of the Board of Management for more than five years, replied in an able speech. Mr. Spencer Charrington, M.P., proposed the board of management, and Mr. H. W. Trender replied. Mr. Stanley Dent read an account of the financial condition of the hospital. Mr. W. H. Battle replied on behalf of the medical staff, a toast proposed by Mr. E. S. Norris, M.P. Mr. Cowell, a consulting surgeon, proposed the Chairman. During the evening Mr. S. Whitford, the secretary, stated that £334 had been subscribed towards a convalescent home, £121 towards the building fund, and £1500 towards the maintenance fund of the hospital.

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COOKERY.—The sixth exhibition of the Universal Cookery and Food Association will be held at Portman Rooms, Baker-street, from May 3rd to 7th.

THE BURTON-ON-TRENT NURSING INSTITUTION.—The report for 1891 states that it had been a year of unusual sickness. The number of cases attended was 575, and the visits numbered 15,730—an increase of 61 cases and 5320 visits. The committee had distributed £18 in bonuses among the various district nurses.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—At the next quarterly meeting of this Association, to be held in the Hall of the Faculty of Physicians and Surgeons, St. Vincent-street, Glasgow, on March 10th, at 2.30 P.M., Dr. Carswell will read a paper on "The Practical Difficulties of granting Certificates of Insanity and how they may be best overcome"; and Dr. Oswald will read a note on "Certain German Asylums."

IRISH GRADUATES' ASSOCIATION.—The annual general meeting of the Association will be held at 11, Chandos-street, Cavendish-square, W., on St. Patrick's Day, March 17th, 1892, at 5 P.M. The annual report will be presented, and the council will report its action in the matter of the Irish dispensary doctors' grievances, and the disabilities of Irish diplomates. On the same evening the Association will dine at the Holborn Restaurant at 7.30 P.M., Dr. James N. Dick, C.B., Medical Director General, in the chair.

SUSSEX COUNTY HOSPITAL.—The annual report for 1891 shows in comparison with the previous year a small increase in the number of in-patients and a large addition to the out-patients. During the year the finances had considerably improved by legacies received, which had enabled the committee to make substantial investments, and to add a sum of £2680 to the inalienable fund, whilst they had transferred £1037 to the available fund. The convalescent home continues to be a valuable auxiliary to the hospital, and the nursing institute is steadily growing in popularity and usefulness. The net profits show an increase of £142 2*s.* 4*d.* on the previous year. In the out-patients' department the refreshment bar had proved a great success.

LITERARY INTELLIGENCE.—Messrs. Churchill announce the early issue, in two vols. 8vo, of a Dictionary of Psychological Medicine, giving the definition, etymology, and synonyms of the terms used in medical psychology, with the symptoms, pathology, and treatment of the recognised forms of mental disorder, together with the law of lunacy in Great Britain and Ireland. The work will be edited by D. Hack Tuke, M.D., LL.D.—The second volume of the important work on the *Pathology of the Brain*, with clinical and anatomical studies, by Prof. Henschen, of the University of Upsala, will shortly be published by Kochler, Leipsic. The first volume appeared about two years ago, and was very well received. The workis abundantly illustrated.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on March 1st, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	186	61	—	20	..	267	442
North-Western Hospital	189	49	..	11	..	249	411
Western ,,	92	24	..	6	1	123	224
South-Western ,,	186	42	..	14	1	243	350
South-Eastern ,,	203	13	1	36	2	255	424
Northern ,,	306	15	—	18	...	339	480
Totals	1162	204	1	105	4	1476	2331

SMALL-POX.—South-Eastern Hospital, 1; *Atlas* hospital ship, 10

MEDICAL NOTES IN PARLIAMENT.

The Commission on Tuberculosis.

IN the House of Commons, on Thursday, Feb. 25th, Mr. Chaplin informed Mr. Furness that the Royal Commission on Tuberculosis were still carrying on their investigations. Minutes of evidence had been printed for the use of the Commissioners, but had not yet been made public. He could not say when the investigations were likely to be concluded.

Pollution of the Mersey and Irwell.

This Bill, promoted by the Joint Committee of the County Councils of Lancashire and Cheshire for securing the purification of those rivers, was read a second time.

Yellow Fever at Santos.

On Tuesday, March 1st, in the House of Commons, Mr. Lawrence asked the President of the Board of Trade whether he was aware that the yellow fever at Santos had reached such a height that there was no one left to carry on business; that in consequence merchandise had accumulated to such an extent as to block the streets; that the epidemic had been aggravated by the authorities continuing to dredge the port.—Sir M. Hicks-Beach replied that the facts as stated in the question were substantially accurate. On Feb. 8th he had caused a notice to be sent to all daily papers, to the press agencies, and to Lloyd's, suggesting that, owing to the insanitary condition of Santos, no ships should be chartered for that port. He did not see that he could usefully take any further steps.

Recreation Grounds.

On the motion of Mr. Llewellyn leave was given to bring in a Bill to facilitate the provision of recreation grounds in rural parishes.

The Gresham University.

Mr. Bartley has undertaken to move that the Draft Charter of the proposed new University be not confirmed. It is understood that he will be supported by Mr. Mundella, Mr. Chamberlain, and other members of the House of Commons. In the course of the week a number of additional petitions praying Her Majesty to withold her assent from the Charter for the proposed Gresham University have been presented in the House of Commons. One petition came from Croydon, another from the Birkbeck Institution, and a third from the London Society for Extension of University Teaching.

Mines (Eight Hours) Bill.

When the second reading stage of this Bill is reached, Mr. Elliott Lees, one of the members for Oldham, will move "that this House declines to interfere with the freedom of grown-up men in regard to the disposal of their labour."

Police and Public Health (Scotland) Bill.

In the House of Commons, on Thursday, the Lord Advocate said it was the intention of the Government to introduce this Bill again. They hoped to do so in the course of a few days. The second reading must, however, depend on the condition of public business.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

BEADLES, CECIL F., has been appointed Assistant Medical Officer to Colney Hatch Asylum, vice H. G. Shaw, resigned.

CAMPBELL, M. J., L.R.C.P., L.R.C.S. Edin., has been appointed Police Surgeon to the Essex-street and Brunswick Dock Bridewells, Liverpool, vice Arnold, deceased.

CLEGG, J. G., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Manchester Royal Infirmary.

COCKS, C. C., M.D. St. And., M.R.C.S., has been appointed Government Medical Officer and Vaccinator for the District of Hillston, New South Wales.

CONNOR, SAMUEL, M.D. Irel., has been appointed Public Vaccinator for Coleraine, Victoria, Australia.

COSSHAM, W. R., M.D., C.M. Aberd., M.R.C.S., has been reappointed Medical Officer to the Cirencester Cottage Hospital.

CRIPPS, E. C., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer to the Cirencester Cottage Hospital.

FOSTER-FOSTER, F. F., L.R.C.P., M.R.C.S., has been appointed Medical Officer to the Lady Strangford Hospital, Port Said, Egypt.

FOWLER, O. H., M.R.C.S., has been reappointed Senior Surgeon to the Cirencester Cottage Hospital.

GODFREY, C. G., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Junior Medical Officer at the Ararat Lunatic Asylum, Victoria, Australia.

HALAHAN, SAMUEL H., M.B., B.Ch. Dub., has been appointed Health Officer for the Shire of Lowan, Victoria, Australia.

HICKS, J. S., M.D. Lond., L.S.A., has been appointed Government Medical Officer at Roebourne and Public Vaccinator for the North-west of Western Australia.

HOOKER, C. P., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer to the Cirencester Cottage Hospital.

HORROCKS, HERBERT, M.B., B.Sc. Lond., M.B., Ch.B. Vict., M.R.C.S., L.R.C.P., has been appointed House Physician to the Hospital for Consumption and Diseases of the Chest, Brompton.

KELLY, CHAS., M.D. Lond., F.R.C.P., M.R.C.S., has been appointed Medical Officer of Health for the Horsham Urban Sanitary District of the Horsham Union, vice Kennier, resigned.

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MACKINNON, C., M.B., C.M. Glasg., has been reappointed Medical Officer to the Cirencester Cottage Hospital.

MCKAY, W. J., M.B., M.Ch., B.Sc. Sydney, has been appointed Resident Medical Officer to the Soho Hospital for Women.

MILLER, H. L., L.R.C.P., L.R.C.S. Edin., has been appointed Surgeon-Major to the Victorian Volunteer Force, Australia.

MORRISON, R. H., M.B., C.M. Edin., has been appointed Public Vaccinator for Oakleigh, Victoria, Australia.

MORLAND, C. H. D., M.B. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Cardiff Infirmary, vice Thomas, resigned.

PARRY, A. A., M.B. Melb., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Physician to the Melbourne Benevolent Asylum, Australia.

PLATT, J. F., M.D. Lond., L.R.C.P., M.R.C.S., has been reappointed Resident Medical Officer to the Barnes Convalescent Hospital, at Cheadle, Manchester.

PRITCHARD, W. B., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Manchester Royal Infirmary.

RENNET, D., M.B., C.M., D.P.H. Aberd., has been appointed Medical Officer to the St. Nicholas Parochial Board, Aberdeen.

ROBINSON, R. B., L.R.C.P., L.R.C.S., has been appointed an additional Public Vaccinator for the District of Christchurch, New Zealand.

SCOTT, C. C., M.B., C.M. Edin., has been reappointed Medical Officer for the Sixth Sanitary District of the Brentford Union.

SHAW, HUGH GROSVENOR, L.R.C.P., M.R.C.S., late Assistant Medical Officer, Colney Hatch Asylum, has been appointed Medical Officer to the Buntingford Union, vice H. S. Challenor, resigned.

SPENCER, W., L.R.C.P., L.M., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Borough of East Retford.

VARDON, A. D., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Northern Division of the Parish of Glenelg.

WITHERS, J. S., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Sale Urban Sanitary District of the Altrincham Union.

WOOLDRIDGE, A. T., L.R.C.P. Lond., M.R.C.S., L.S.A., has been appointed Medical Officer for the Harberton District of the Totnes Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BEDFORD GENERAL INFIRMARY.—Resident Surgeon. Salary £100 per annum, with apartments, board, and washing.

BIRMINGHAM AND MIDLAND EYE HOSPITAL, Birmingham.—Assistant House Surgeon. Salary £50 per annum, with apartments and board.

BRIDGEWATER INFIRMARY.—House Surgeon. Salary £80 per annum, with board and residence.

CAMBERWELL HOUSE ASYLUM, Camberwell, S.E.—Junior Medical Officer. Salary to begin at £100 a year, with board, lodging, washing, &c.

CAMBERWELL PROVIDENT DISPENSARY, S.E.—Medical Officer.

CENTRAL LONDON OPHTHALMIC HOSPITAL, 238A, Gray's-inn-road, W.C.—House Surgeon.

CITY OF LIVERPOOL INFECTIOUS DISEASES HOSPITALS, Netherfield road and Grafton-street.—Resident Medical Officer at the City Hospital North, Netherfield-road, and at the City Hospital South, Grafton-street, at a salary of £100 per annum each, increasing £10 per annum to £120 as a maximum (subject to a contribution of £5 per cent. to the Superannuation Fund), together with board, washing, and lodging at the hospital in each case. (Apply to the Town Clerk, Town Clerk's Offices, Liverpool.)

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria Park, E.—House Physician for six months. Board and residence and allowances for washing provided.

COUNTY ASYLUM, Whittingham, Preston.—Assistant Medical Officer. Salary £150 a year, with board, lodging, washing, and attendance.

DENBIGHSHIRE INFIRMARY, Denbigh.—House Surgeon. Salary to commence at £85 per annum, with board, residence, and washing in the house. (At the end of year a gratuity of £15 is usually given by the committee.)

EAST SUFFOLK AND IPSWICH HOSPITAL.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

EXETER CITY ASYLUM, Digbys, near Exeter.—Assistant Medical Officer. Salary £100 per annum, increasing by £10 annually to £150, with board, lodging, and washing.

HOSPITAL FOR WOMEN (LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistants in the out-patient department.

LEEDS PUBLIC DISPENSARY.—Junior Resident Medical Officer. Salary £85 per annum.

LIVERPOOL INFIRMARY FOR CHILDREN, Myrtle-street.—House Surgeon. Salary £85 per annum, with board and lodging.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Physician to in-patients.

LONDON TEMPERANCE HOSPITAL, Hampstead-road, N.W.—Assistant Physician.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon.

NATIONAL DENTAL HOSPITAL, 149, Great Portland-street, W.—Anæsthetist.

NATIONAL ORTHOPÆDIC HOSPITAL, 234, Great Portland-street, W.—Surgical Registrar. Honorarium £20 per annum.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney-road, N.E.—Junior House Surgeon for nine months. Salary at the rate of £60 per annum.

PARISH OF BERMONDSEY.—Analyst. (Applications to be addressed, "Application for Analyst," Town Hall, Spa-road.)

ROYAL BERKS HOSPITAL, Reading.—Assistant House Surgeon. Salary £40 per annum, with board and lodging.

ROYAL COLLEGE OF PHYSICIANS, Pall-mall East, London.—Milroy Lecturer.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Physician.

ST. MARK'S HOSPITAL FOR FISTULA &c., City-road, London, E.C.—House Surgeon for twelve months. Salary £50, with board and residence in the hospital.

SALFORD ROYAL HOSPITAL.—House Surgeon. Salary £100 per annum, with board and residence.

SHEFFIELD UNION.—Resident Assistant Medical Officer for the Workhouse at Fir Vale, Pitsmoor. Salary £100 per annum, with apartments, rations, and the other usual allowances.

THE RETREAT, York.—Junior Assistant Medical Officer. Salary £80 per annum, with board, lodging, and washing.

TONBRIDGE UNION.—Medical Officer for the Third District of the Union. Salary £50 a year, with such extra fees sanctioned by the Local Government Board. (Apply to Mr. F. W. Stone, Clerk, Tunbridge Wells.)

WEST-END HOSPITAL FOR DISEASES OF THE NERVOUS SYSTEM, PARALYSIS AND EPILEPSY, 73, Welbeck-street, London, W.—Three Physicians. One Surgeon. One Surgeon for Throat and Ear. One Ophthalmic Surgeon. One Dental Surgeon.

WESTON-SUPER-MARE HOSPITAL.—House Surgeon. Salary £50 per annum, with board and residence in the hospital.

Births, Marriages, and Deaths.

BIRTHS.

GODFREY.—On Feb. 23rd, at Ventnor, I.W., the wife of H. W. Godfrey, M.D., M.R.C.S., of a son.

HEATHERLEY.—On March 1st, at New Ferry, Cheshire, the wife of Francis Heatherley, M.B., B.S., F.R.C.S., of a daughter.

LUSCOMBE.—On Feb. 22nd, at Cromer House, Teddington, the wife of Thomas Benjamin Luscombe, L.R.C.P.E., of a son.

NEWBOULD.—On Feb. 28th, at Abbots Bromley, Staff., the wife of Newton J. Newbould, L.R.C.S., L.R.C.P.E., of a daughter.

PINCOTT.—On March 1st, at Calverley-parade, Tunbridge Wells, the wife of James C. Pincott, M.R.C.S., of a daughter.

RIGDEN.—On Feb. 27th, at Burgate, Canterbury, the wife of Brian Rigden, M.R.C.S., of a son.

MARRIAGES.

GREEN—CROWDY.—On Feb. 25th, at St. Giles's Church, Reading, Edward S. Green, M.D., of Woodside, Croydon, to Elizabeth Selina, second daughter of the late Hon. Charles Crowdy, M.L.C., of St. John's, Newfoundland.

JOHNSON—MAXWELL.—On Tuesday, Feb. 2nd, at Holy Trinity Church, by the Bishop of Sierra Leone, assisted by Archdeacon Robbin, O. Johnson, B.A., M.D. Edin., M.R.C.S. & L.S.A. Lond. (Associate of King's College, London), to Mabel Emily, daughter of the Rev. Th. Maxwell, Retired Chaplain, late of the Gold Coast.

MOORE—MCILWRAITH.—On March 1st, at St. Peter's Church, Cranley-gardens, Stephen Henry Moore, M.R.C.S., of Sydney-street, S.W. (Medical Superintendent, Chelsea Infirmary), to Effie, daughter of John McIlwraith, of Melbourne.

ROBSON—BROWN.—On Thursday, Feb. 25th, at Ingleby-Arncliffe, Robert Barker Robson, M.B. Durh., M.R.C.S. Eng., Alnwick, to Constance Beatrice, youngest daughter of Douglas Brown, Esq., Q.C., Arncliffe Hall, Northallerton.

SANDERS—DARNELL.—On March 1st, at St. Paul's, York-place, Edinburgh, by the Rev. D. Darnell, Vicar of Welton, Northamptonshire, grandfather of the bride, assisted by the Rev. Rowland Ellis, Rector of St. Paul's, Gordon Sanders, M.B., elder son of the late W. R. Sanders, Professor of Pathology in the University of Edinburgh, to Georgina Frances, eldest daughter of the Rev. Charles Darnell, of Cargilfield, Trinity, Edinburgh.

TOWNSEND—STEAVENSON.—On Feb. 25th, at Holy Trinity Church, Darlington, Francis Edward Townsend, M.D., of Normanby, Cleveland, eldest son of Edward Richard Townsend, M.D., Professor of Medicine, Queen's College, Cork, to Annette Theresa, eldest daughter of Francis Thos. Steavenson, of Raventhorpe, Darlington.

WILDING—SCRIVENOR.—On Feb. 25th, at St. Thomas's, Seaforth, by the Rev. R. F. Smithwick, M.A., Walter F. W. Wilding, M.R.C.S. Eng., L.R.C.P. Lond., L.M., Coombe, M.O.H., Hindley, Lancashire, eldest son of Captain James Wilding, Liverpool, to Lucretia Mary Scrivenor, youngest daughter of the late G. H. Scrivenor, Esq., Inspector-General H.M. Customs, Hopeton House, Seaforth, Liverpool.

DEATHS.

BAMFIELD.—On Feb. 28th, at Northumberland-street, Edinburgh, Samuel Bamfield, M.R.C.S., Deputy Inspector-General R.N., Retired, aged 54.

CAIRNES.—On Feb. 21st, at Greenock, David Cairnes, M.D., C.M. Glasg., aged 40.

HUMPHREYS.—On March 1st, at Lansdowne-road, Notting-hill, W., Thomas Bennett Humphreys, F.R.C.S., late of Tower-hill, City, aged 80.

LEAVER.—On Feb. 23rd, at Madeira House, Bournemouth, Charles Basil Leaver, M.R.C.S., L.R.C.P., second son of the late Rev. Henry Cosens Leaver, of Penselwood, Somerset, aged 33.

MICHAEL.—On Feb. 15th, suddenly, at Schloss Labers, Meran, Tyrol, William Henry Michael, Q.C., M.R.C.S., L.S.A., eldest son of the late Lewin Michael, of Swansea, aged 70.

ROSS.—On Feb. 25th, at his residence, Stanley-grove, Oxford-road, Manchester, James Ross, LL.D., M.D., F.R.C.P., Prof. of Medicine, Victoria University, aged 55.

STOCKER.—On Feb. 27th, Richard Charles Southby Stocker, M.R.C.S., M.A.C., of Belvoir, Littlehampton, and Chertsey, aged 65.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 3rd, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Feb. 23	30·03	E.	39	39	47	43	39	--	Foggy
,, 27	30·13	N.E.	38	37	52	43	37	..	Overcast
,, 28	30·03	N.E.	38	37	57	43	37	..	Cloudy
,, 29	29·85	N.E.	39	38	63	43	38	·01	Overcast
Mar. 1	29·89	N.E.	38	37	51	41	36	·07	Raining
,, 2	30·16	N.E.	32	..	37	33	30	·09	Snowing
,, 3	30·25	N.E.	30	..	42	32	29	..	Snowing

Medical Diary for the ensuing Week.

Monday, March 7.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. A. Stanford Morton: Ocular Injuries.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Malignant Growths.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Mr. J. Hutchinson, jun.: Syphilitic Affections of the Bones, Joints, and Lymphatic System.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq., W.C.).—8 P.M. Discussion on Irregularities associated with Anterior Protrusion of the Upper Teeth. Mr. F. Newland Pedley: Dry Specimen of Sequestrum from the Buccal Surface of the Alveolar Process.—Dr. Roughton: Case of Sarcoma of the Hard Palate.

MEDICAL SOCIETY OF LONDON.—General Meeting, 8 P.M. Ordinary Meeting, 8.30 P.M. Dr. Lauder Brunton: Pathology and Treatment of Piles.—Mr. Boyce Barrow: Prostatectomy by the Clamp and Cautery.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

Tuesday, March 8.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor V. Horsley: The Brain.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Local Treatment of Cutaneous Inflammation.—Bethlem Hospital: 2 P.M., Dr. Hyslop: Moral Insanity.—Charing-cross Medical School: 8 P.M., Dr. Dakin: Convulsive Affections of Pregnancy and Labour.

ROYAL COLLEGE OF PHYSICIANS (Examination Hall, Victoria Embankment).—5 P.M. Dr. Francis Warner: Enquiry as to the Physical and Mental Condition of School Children. (First Milroy Lecture.)

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Mr. J. Greig Smith: Enterostomy in Intestinal Obstruction.—Mr. Richard Barwell: The Operative Treatment of Congenital Dislocation of the Hip.

Wednesday, March 9.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Percy Kidd: Examination of the Sputum for the Tubercle Bacillus.—Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Toxic Amblyopia.—Parkes Museum (Margaret-st., W.): 1 P.M., Dr. Louis C. Parkes: School Hygiene and Hygiene of Special Trades and Occupations.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Mr. J. Hutchinson, jun.: Syphilitic Affections of the Bones, Joints, and Lymphatic System.

HUNTERIAN SOCIETY.—8.30 P.M. Pathological Evening. Mr. T. H. Openshaw: Subdural Hæmorrhage.—Dr. F. C. Turner: Malignant Stricture of Sigmoid Flexure, Secondary Growths in Colon.—Dr. Chaplin: (1) Gangrene of Lung from Pressure of Aneurysm of Aorta; (2) Enlarged Bronchial Glands producing Asphyxia.—Mr. John Poland: Epithelioma of Cicatrix from a Man aged thirty-five.

Thursday, March 10.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. Arkle: Pathological Demonstration—Tuberculosis.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Semon: Paralytic Affections of the Larynx.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Dr. Whistler: Syphilis of the Throat.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Dr. W. J. Smyly: Extirpation of the Uterus for Myoma.—Mr. Lawson Tait and Dr. C. Martin: Tubal Abortion in Ectopic Gestation.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (Great Northern Central Hospital).—8.30 P.M. Dr. Patterson will show a series of Lantern Slides illustrating Surgical Diseases. Dr. O'Reilly will show a Thyroid Tumour removed by Operation, and the Patient. Dr. O'Reilly will also read a paper on an Unusual Case of Twins.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Patients and Card Specimens at 8 P.M. Dr. Rockliffe: Case of Proptosis.—Mr. Hartridge: Double Lachrymal Fistula, probably Congenital.—Mr. Work Dodd: Scleroderma of Lid and Cheek.—Mr. Hulke: Arterio-venous Aneurysm of Orbit.—Dr. Wood: (1) Disease of Retina and Choroid, with Detachment of Retina; (2) Double Coloboma in Fundus; (3) Bleaching of Eyelashes and Eyebrows in Sympathetic Irido-cyclitis.—Mr. Lawford: Reversible Spectacle Frame. Mr. Treacher Collins: On the Minute Anatomy of Pyramidal Cataract (Lantern Slide Demonstration).—Mr. Tweedy: The Physical Factor of Conical Cornea.—Mr. Kingdon: Rare Fatal Disease of Infancy, with Symmetrical Changes at Macula Lutea.

ROYAL COLLEGE OF PHYSICIANS (Examination Hall, Victoria Embankment).—5 P.M. Dr. Francis Warner: Enquiry as to the Physical and Mental Condition of School Children. (Second Milroy Lecture.)

Friday, March 11.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL (Fulham-road, S.W.).—4 P.M. Mr. F. Bowreman Jessett: Colotomy.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Percy Kidd: Some Forms of Myocardial Disease.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: Typhoid Fever, Diphtheria (Sections).—Charing-cross Medical School: 8 P.M., Dr. J. Watt Black: Metrorrhagia.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Mr. J. Hutchinson jun.: Syphilitic Affections of the Bones, Joints, and Lymphatic System.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Damer Harrison: A case of Nerve Grafting.—Mr. Page: Peritonitis from Hæmorrhage; Abdominal Section in a case of Ruptured Spleen, and in two cases of Ruptured Liver.—Dr. Percy Kidd: A case of Mediastinal and Pulmonary Carcinoma associated with Retraction of the Chest Wall.—Mr. Arbuthnot Lane: Cases illustrating the Modes in which a Strangulated Loop of Bowel reacts to the Constricting Medium

Saturday, March 12.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Hyslop: Legal Aspects of Insanity.

ROYAL INSTITUTION.—3 P.M., Right Hon. Lord Rayleigh: Matter, at Rest and in Motion.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

THE AMENITIES OF THE PROFESSION.

Perisnelt complains that, in a case of Colles' fracture which he put up temporarily till he could get a proper splint, his professional neighbour took the case out of his hands without any expression of regret or intimation. The patient was probably largely to blame, but medical men, by being neighbourly in such circumstances, can do much to teach patients to respect the profession.

Mr. Clarence Beesley.—We published in THE LANCET of Nov. 14th last a full statement by our Paris correspondent of the examinations required to be passed by foreign candidates.

Mr. J. A. Smith (Wakefield).—We confess our views are not quite in accord with those of our correspondent on the point he mentions.

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DUTIES OF MEDICAL OFFICERS OF HEALTH.

To the Editors of THE LANCET.

SIRS,—I have been medical officer of health for Fulwood for about sixteen years, during which period the township has increased greatly in population and importance. It is one of the suburbs of Preston, and usually has a remarkably low death-rate, and enjoys a great immunity from contagious diseases; in fact, it may be put down as an exceedingly healthy suburban district. About a year and a half ago the County Council appointed a medical officer of health to the county of Lancaster, who immediately began to exercise a supervision over me, and requested me to furnish him with a copy of my annual report, mortality statistics, a special annual report on a form of his own, and, lastly, sent me a book of forms to fill up monthly. This happened although I never had any intimation whatever from any person in authority as to the new relationship that had to exist between me and the County Council or its medical officer of health; nor was any mention whatever made as to any increased remuneration in consequence of the evidently intended increase of work. This being so, last year I made an application for an increase of salary to the Fulwood Local Board of Health. This application was totally ignored, so when I this year sent in my usual annual report I sent therewith a letter which you will see in the copy of the *Preston Guardian* I forward to you, and which you will observe has elicited some strong comments from the chairman. My contention is:—1. I was appointed by the Fulwood Local Board of Health, subject to the approval of the Local Government Board, for three years. 2. I have received absolutely no official communication whatever indicating any new relationship between me and the County Council, or defining my duties. 3. As a matter of fact, except generally, I am not supposed to know that a County Council exists. 4. A considerable body of new work is sought to be placed on me without any indication whatever of my being remunerated for it. 5. On making application for a reasonable recompense for the extra work my application was ignored, but I was verbally (unofficially) informed that my appointment was for three years, and no application for increase of salary could be considered till the lapse of that time. 6. My appointment has never been cancelled. Under these circumstances, and as the question concerns many other medical officers besides myself, I venture to ask your advice on the above questions, and particularly on the stand I am taking in my refusal to recognise the County Council as being in any way entitled to receive any information or reports or particulars whatever from me.

Should you feel disposed to print this letter or any part of it, along with a notice of the proceedings of the Fulwood Local Board, it might elicit some expressions of opinion from other medical officers of health similarly situated as myself.—Yours truly,

JAMES A. RIGBY, M.D. Lond.,
Preston, Feb. 20th, 1892. Medical Officer of Health for Fulwood.

*** The only duty imposed upon medical officers of health, in addition to the duties which they had to perform before the passing of the Local Government Act of 1888, relates to the necessity of sending to the County Council copies of annual and certain other reports. Under Section 19 of the Act in question it is required as follows:—"Every medical officer of health for a district in any county shall send to the County Council a copy of every periodical report, of which a copy is for the time being required by the regulations of the Local Government Board to be sent to the Board; and if a medical officer fails to send such copy, the County Council may refuse to pay any contribution, which otherwise the Council would in pursuance of this Act pay, towards the salary of such medical officer." This requirement has been statutory since January, 1889, and it cannot be evaded. But it is strictly limited to copies of the actual reports in question; the County Council have no power to require any such reports to be drawn up in a special manner or according to special forms, and any compliance with such requirements as are referred to is entirely voluntary on the part of medical officers of health. Indeed, some of the suggested forms clash inconveniently with the requirements of the Local Government Board, which must be complied with.—ED. L.

Mr. J. Reiner.—(1) The second volume of the last edition of Quain and Sharpey; (2) Hartridge on the Refraction of the Eye; (3) Swanzy's Diseases of the Eye. No qualification to practise as an ophthalmic surgeon can be obtained without passing through the ordinary curriculum of medicaleducation. No one can or ought to take up a special subject of this kind without a thorough knowledge of medicine and surgery.

Mr. J. Oldfield.—The subject is doubtless of importance; but we fear its discussion in the way proposed would make too great a demand on our space.

Dr. L. G. Guthrie.—Very soon.

THE IRISH COUNTY COUNCILS BILL.

To the Editors of THE LANCET.

SIRS,—Allow me to call your attention to the retrograde provisions of the above in regard to sanitation. Fixity of tenure is not secured to the health officers. Their compulsory appointment, qualification, and remuneration are doubtful. I do not see that the Treasury is to contribute half the salaries, as is the case with the Scotch and English Acts. Free criticism on the part of the press is clearly needed.

I am, Sirs, yours faithfully,
Cashel, Feb. 26th, 1892. THOMAS LAFFAN.

"TOUTING," WITH HIGH SANCTIONS, AT CAMBRIDGE.

Cantab. complains that a handbill had been left at one of his patient's houses advertising medicine and attendance on easy terms at "The Cambridge Provident Dispensary." The list of officers is imposing, beginning with Professor Humphry as President, and including the names of Mr. Bond, chairman of the Board of Guardians, and Dr. Sidgwick, chairman of the Executive Committee of the C. O. S The names of the medical staff are given. The gentlemen mentioned above doubtless share the opinion of many that it is better that people whose wages do not exceed 25*s.* a week should have their medicine on Provident terms than on pauper or gratuitous terms. But they will agree with us that such overtures should not be made to patients of other medical men who are honourably employing them on private terms.

Dr. A. L. Griffith.—The Philosophical Transactions for 1861 published a table of weights of the human body at several ages. The table was compiled and abridged from Dr. Boyd's researches in upwards of 2000 post-mortem examinations, and was included in a communication by Dr. Sharpey to the Royal Society in the year mentioned.

Perplexed.—1. We think it does. 2. This is a question we cannot answer without seeing both agreements. Our correspondent should consult a solicitor.

DYSMENORRHŒA.

To the Editors of THE LANCET.

SIRS,—Can any of your readers suggest treatment for the following case, which has quite baffled me?

A young girl, rather anæmic, otherwise healthy, but development very backward, inclined to be hysterical at the period, has suffered for the past year at each period from agonising pain which precedes the flow, which is scanty, and lasts from four to five hours. Everything, including morphia, fails to give relief except hot fomentations, which give slight relief. The catamenia are often delayed until the fifth or sixth week. I have prescribed in turn arsenic, aloes and iron, ergotine, bromides, valerian, caulophyllin, pulsatilla, and aletris cordial, without any effect. There is considerable ovarian excitement. I am therefore persevering with bromide, but I would be glad to know of any of your readers' experience of apiol, or any hints as to treatment.

I am, Sirs, yours truly,
March, 1892. BAFFLED.

Mr. Stocker.—1. The duties of the relieving officer are numerous, and are described in Glen's Poor Law Orders.—2. The relieving officer is supposed to be at home during certain hours to give orders, but no official mention is made of his power to delegate this function to his wife or daughter, though, as a matter of fact, in the unavoidable absence of the relieving officer, orders are often signed by them.

L.R.C.P.E.—The clause is of a very extraordinary nature, and as such a clause has probably never been the subject of judicial decision, it is impossible to say what interpretation a court might put upon it; but as the assistant was presumably of full age and competent understanding, we see no legal reason why the penalty should not be enforcible.

TREATMENT OF PHOTOPHOBIA.

To the Editors of THE LANCET.

SIRS,—It might be interesting to record a novel way of treating photophobia.

A patient came to me with acute conjunctivitis, œdema of the lids, &c. He stated that having had pain in the eyes recently, he had, "to get the inflammation out," poulticed them with mustard. The inflammation has come out.

I am, Sirs, yours faithfully,
Westminster, March 2nd, 1892. FRANK HAYDON, L.R.C.P.Lond.

*** It may be necessary to remark, in reference to the above, that if a surgeon orders such an application he should give explicit directions as to how it should be used.—ED. L.

INJUSTICE UNDER THE NOTIFICATION ACT.

To the Editors of THE LANCET.

SIRS,—Referring to "B. M.'s" letter and your answer, it bears no relation to mine. Perhaps I did not make my case clear enough. I was attending a patient for cancer of the stomach, and he was attacked by erysipelas. The question was not one of diagnosis. The medical officer never saw the man, but the sanitary inspector saw him some days afterwards, and the man, who had never been informed of the nature of his recent trouble, told the inspector that he had not had it. His wife has certified by a certificate signed by her that he has had it, and that I attended him. You will see that it is no question of diagnosis, as the medical officer never saw the case. The case, I understand, is unique, and the injustice and absurdity very great.

I am, Sirs, yours faithfully,
Colchester, March 2nd, 1892. JOHN WELLER.

*** Our correspondent is clearly entitled to his notification fee, and should enforce its payment.—ED. L.

Dr. Gilbert (Baden-Baden).—It would be hardly fair to extol the merits of one preparation when there are others of the same kind in the market of equal excellence.

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COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Althaus, London; Messrs. Armstrong and Paton, Manchester; Messrs. Austin and Son, Bristol; Mr. Birmingham, Queensland; Messrs. Blondeau et Cie., London; Mr. Branch, Bath; Mr. L. Browne; Messrs. Bush and Co., London; Messrs. Boulton and Paul, Norwich; Mr. Stanmore Bishop, Manchester; Mr. Birchall, Liverpool; Dr. Briggs, Liverpool; Mr. Beesley, Waltham; Mr. A. Codd; Messrs. Crossley, Moir, and Co., London; Mr. Cornish, Manchester; Mr. Clegg, Liverpool; Mr. S. Cowell, London; Mr. M. A. Chambers, Sheffield; Dr. Campbell, Garlands; Mr. Clayton, Accrington; Mr. Campbell, London; Mr. Dobbs, Folkestone; Mr. Davies, Bristol; Dr. Dale, Isle of Wight; Dr. E. Davies, Wrexham; Messrs. Dodd, Stamford-hill; Messrs. Dawson and Sons, London; Dr. Dreschfeld, Manchester; Mr. Everett, London; Mr. Erichsen, London; Messrs. Francke and Co.; Messrs. Fannin and Co., Dublin; Mr. Foy, Dublin; Mr. Fawcett, Broughton-in-Furness; Dr. Gourley, Hartlepool; Mr. H. Green, London; Dr. Gilbert, Baden Baden; Mr. Gurner, London; Mr. Gloster, Walsall; Mr. L. G. Guthrie, London; Mr. Herring, London; Mr. Harcourt, London; Messrs. S. Harris and Son, London; Dr. Herschell, Finsbury; Mrs. Hopkins, Plymouth; Mr. Herschell, London; Mr. Honeyman, Glasgow; Mr. F. Haydon, London; Mr. Jackson, Plymouth; Dr. J. Kerr, Bradford; Dr. Knott, Middlesbrough; Mr. Kaye, Huddersfield; Messrs. E. and S. Livingstone, Edinburgh; Messrs. Lumley, London; Mr. Langton, London; Dr. Love, Glasgow; Mr. Laffan, Cashel; Dr. E. M. Little, London; Mr. Moullin; Mr. McMillan, Hampstead; Messrs. Main and Son, London; Mrs. Morgan, Stoke Newington; Messrs. Mather and Crowther, London; Mr. J. Miller, Colchester; M. Merck, Darmstadt; Dr. Money, London; Mrs. Meredith, London; Mr. Niven, Oldham; Mr. Osburne, Hythe; Messrs. Oppenheimer, Son, and Co., London; Mr. Page, Newcastle-on-Tyne; Messrs. Philip and Son, London; Mr. G. Q. Roberts, London; Mr. Rajausingham, Aberdeen; Dr. Rigby, Preston; Mr. Simonds, Washington; Mr. Stapleton; Messrs. Shelley and Co., London; Mr. H. W. Scriven, London; Dr. Seaton, Clapham Common; Mr. Sell, London; Mr. Slater, Sheffield; Messrs. G. Street and Co., London; Signor Salvetti, Pavia; Dr. G. C. Smith, London; Mr. M. Sheild, London; Dr. Sainsbury, London; Mr. W. M. Thompson, London; Mr. Tresidder, London; Mr. Thistleton, London; Mr. F. Treves, London; Mr. Trimble, Enniskillen; Messrs. Tayler and Son, London; Mr. Wood, Leicester; Mr. Wilding, Hindley; Dr. Norman Walker, Edinburgh; Mr. Webb, Teddington; Messrs. J. Wright and Co., Bristol; Mr. Wilkinson, Westminster; Messrs. Wright, Dain, and Co., Birmingham; Mr. Roger Williams, London; Messrs. White and Son, London; Dr. Wallis, Preston; Senex; Secretary, Exeter City Asylum; C. P. M. S.; Rouseabout; Pensnett; Secretary, Northern Hospital, Manchester; Baffled; Cantab.; Maltine Manufacturing Co., Bloomsbury; M.A.Cantab.; J. H.; N., Blackpool; Early Closing Association, London; M.D., F.R.C.P., London; Secretary, Clerical and Medical Life Assurance Co., London; Synopsis, London; R. F. A.; A Guardian; Secretary, General Infirmary, Bedford; Partner; Doctor of Medicine; Crux, Cardiff; Hermes, Edinburgh; Secretary, National Dental Hospital; M. F., London.

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NEWSPAPERS.—*Birkenhead News, Royal Cornwall Gazette, Tunbridge Free Press, Hereford Mercury, Bombay Gazette, Vegetarian, Dewsbury Chronicle, Salisbury Chronicle, Ripon Chronicle, Peterborough Advertiser, Bedfordshire Standard, Bath Gazette, Staffordshire Advertiser, Sussex Coast Mercury, Salford Chronicle, Scotsman, Bradford Observer, South Wales Daily News, Western Mail, Newspaper Review, Insurance Record, Scottish Leader, Reading Mercury, Mining Journal, Law Journal, Weekly Free Press and Aberdeen Herald, Hertfordshire Mercury, Windsor and Eton Gazette, Yorkshire Post, Bristol Mercury, Birmingham Post, Cheltenham Examiner, Builder, Cape Times, Preston Guardian, Merthyr Express, Leicester Post, Architect, Local Government Chronicle, Surrey Advertiser, West Middlesex Advertiser, Le Temps (Paris), La Presse Médicale, Belge, Rochdale Star, Rugby Advertiser, Kendal Mercury, Lynn Advertiser, Southampton Times, Cambridge Express, Newark Advertiser, Liverpool Mercury, Halifax Courier, Manchester Guardian, Northampton Herald, Windsor and Eton Express, Temperance Record, The Child's Guardian, Phrenological Magazine, &c.*, have been received.

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A CHAT ON MALT EXTRACTS,

AND

The reason why KEPLER EXTRACT is preferred by the Profession.

"MALT as a food has a great future before it." Thus, in 1885, wrote the late Dr. MILNER FOTHERGILL, and events have abundantly proved the truth of this prophecy. But although the use of Extracts of Malt has since become very general, the results of its employment have too often been disappointing. The cause of this failure may in some instances have been a faulty method of administering the article, but in the great majority of cases it is more probably to be accounted for by the use of a faulty Malt Extract. Dr. MURRELL, in THE LANCET, has written: "Extract of Malt is of such inestimable value in the treatment of all wasting diseases, both of children and adults, that any method which will help to secure the employment of good and reliable specimens must of necessity be of interest. I examined in all eleven specimens of Extract of Malt. Of the eleven, there were only two which under the conditions I have indicated would transform completely all the starch in thirty minutes, and of these one was more than three times as active as the other. Many of the specimens were of very poor quality, and possessed little or no diastasic power. Again, the late Dr. FOTHERGILL, in the MEDICAL PRESS for 1881, wrote: "Some Malt Extracts are raised to the boiling point in their preparation, and such are rendered useless as artificial digestive agents, because their diastase has been killed by so doing. In order to secure the action of vegetable diastase it is necessary to use a preparation of Malt Extract which has not been heated to more than 140° F. in its manufacture."



These facts indicate the cause of failure attending the use of many malt extracts, as they account also for the great success and deserved popularity of Kepler Malt Extract. For Kepler Malt Extract is prepared on the scientific lines above laid down, by evaporation *in vacuo* at a low temperature, and thus the activity of the diastase remains entirely unimpaired, and its utility as a digestive agent is preserved. Kepler Malt Extract is manufactured from the finest barley, and barley only, and besides being rich in active diastase, contains, in addition to a considerable proportion of the albuminates of the barley, a large amount of predigested starch (dextrine and maltose) and phosphates. Kepler Malt Extract, it will thus be seen, provides a most valuable and nutritious food and a powerful agent for the digestion of farinaceous materials.

In the case of infants, while the salivary and pancreatic glands are still undeveloped, Kepler Malt Extract, added to the food, aids the digestion and assimilation of farinaceous bodies which the child would otherwise be unable to digest. Cases of rickets and scrofula are greatly benefited by its use; while in phthisis and all other wasting diseases it cannot be too highly praised. In phthisis, Kepler Malt Extract, given with some light farinaceous food at bedtime, often gives marked relief from those troublesome complications, insomnia and night sweats.

Kepler Malt Extract is of about the same consistence as honey; it is, further, very palatable and entirely free from the sickly, nauseating flavour of ordinary Malt Extracts,—so much so that many patients take it with pleasure, while they turn from the others with feelings of repugnance. Yet another point—and a very important recommendation to persons of delicate digestion—is that the sugar contained in the Kepler Extract in the form of maltose does not readily lend itself to acetous fermentation; and on this account the weakest stomach may receive this Extract without the production of acidity and dyspepsia. Indeed, in cases of gastric ulcer NIEMEYER has employed the Extract as a food with a success which was highly gratifying.

After acute disease, the administration of Kepler Malt Extract aids digestion, promotes tissue repair, and hastens convalescence; while in chronic maladies it maintains the strength, enables the patient to better withstand the disease, and prolongs life. Used as an aid to digestion, Kepler Extract should be taken with the starchy food; or, better still, may be mixed with the farinaceous food and kept at a moderate heat for a short time before the meal is taken. Mixed with water, aërated or plain, or with milk, Kepler Extract affords a very pleasing and highly nourishing beverage.

KEPLER EXTRACT OF MALT supplied to the Medical Profession in ¾-lb. and 1½ lb. bottles at 1/8 & 3/- each.

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SAVORY & MOORE'S
BEST FOOD FOR INFANTS.

The attention of the Medical Profession is especially requested to the following characteristics of this old-established **SELF-DIGESTING** *Food, which has so thoroughly maintained its reputation for superiority during an experience of 30 years:—*

Ratio of Albuminoids to carbohydrates. The ratio of the albuminoids to the carbohydrates is the same as in human milk—viz., 1 to 6·4; the ratio in cow's milk being only 1 to 3·8.

Albuminoids easy of digestion, not predigested. The albuminoids are not predigested as in pancreatised foods, but are rendered easy of digestion, leaving (as in human milk) just sufficient work to strengthen and develop the immature digestive powers, instead of weakening and abrogating them by keeping them inactive. Sir WILLIAM ROBERTS's experiments in feeding kittens show that distinct failure of nutrition occurs when the milk is predigested (peptonised), and the same thing has been observed in feeding infants, probably owing, as THE LANCET points out, to atrophy of unemployed glands.

Healthy nature of evacuations. As a consequence of the foregoing the proper peristaltic action of the bowels is maintained, and the healthy nature of the evacuations of infants fed on this food is a satisfactory feature much and favourably commented on by Mothers and Nurses.

The curdling of Cow's milk prevented. When mixed with cow's milk it prevents the troublesome curdling in the stomach which takes place when cow's milk is given alone, and assimilates its composition to that of human milk.

Complete conversion of the starch. The active Malt Diastase present provides for the rapid and complete conversion of the starch at the time of mixing into the soluble assimilable products of maltose and dextrine. The point of the gelatinisation (thickening) of the Food—viz., 140°F.—is just that at which Malt Diastase is most active, and the conversion of the starch is consequently the work of a very few minutes only.

Retention of the Phosphates and Fat. The retention of the fat and of the phosphates of the wheat and malt, which are so essential to bone formation. These exist chiefly in the outer portions of the grain, the very parts which some manufacturers pride themselves upon so successfully rejecting.

Absence of fermentable sugar. The absence of the fermentable sugar, which in the various malt extracts and milk foods so often gives rise to Diarrhœa and Flatulence.

Verdict of Jury as to inferiority of imitations. It is the *only* Infants' Malted Food which obtained a Gold Medal at the International Health Exhibition, the Jury being comprised of such authorities as Dr. ATTFIELD, F.R.S.; G. W. WIGNER, F.I.C., the then President of the Society of Public Analysts; Dr. JAMES BELL, F.R.S., the Head of the Government Laboratories; and other distinguished Medical and English and Foreign Experts. This affords significant indication of the value to be attached to the numerous imitations, which, whilst pirating the descriptive notices of the Food, utterly fail to approach its standard of excellence.

SAVORY & MOORE,
143, NEW BOND STREET, LONDON, W.

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ABSTRACT OF THE

Milroy Lectures

ON AN

INQUIRY AS TO THE PHYSICAL AND MENTAL CONDITION OF SCHOOL CHILDREN.

Delivered at the Royal College of Physicians, London, on March 8th, 10th, 15th, and 17th,

By FRANCIS WARNER, M.D., F.R.C.P. Lond.,
PHYSICIAN TO THE LONDON HOSPITAL.

LECTURE I.

Referring to the commencement of his studies of the mental status of children, the lecturer gave his experience as to the unsatisfactory character of the signs in physiognomy, craniology, &c., when unsupported by signs of the more direct physiological action of the nerve system. As all expression of nerve states and of mental action is by movements and results of movement, it is by logical analysis of the nerve signs corresponding to such visible expression that we may hope to demonstrate the kinds of nerve action which correspond to mental states. While studying visible movement, it became obvious that certain typical postures often correspond with definite and definable physiological and pathological conditions, and might therefore be used in recording such states: this led to the enumeration of many new clinical signs. The signs of nerve action as seen in an infant were then described. In a healthy newborn infant we find movements in all its parts while it is awake—i.e., while its brain is in full functional activity. These movements may be seen in the limbs, especially in the digits, which may move separately; they are slower than most of the movements in adults, they are almost constant, and are but little under control of impressions through the senses. Such spontaneous movement Dr. Warner described under the term "microkinesis" in 1888.[1]

"When the infant is about three months old we may observe some control of its movements through the senses; the microkinesis remains as the marked character, but the combinations of nerve centres acting are to some extent coördinated by sight and sound. At the age of four or five months further evidence of control of the centres through the senses is seen; the sight of an object may temporarily inhibit the movements, and this may be followed by turning of the head, eyes, and hands towards the object seen—i.e., the coördinated movement occurs sequent to a period of inhibition of spontaneous action following stimulation. It is inferred from such observations that at birth the nerve centres act slowly and independently of one another, and the time and order of their action are not determined through the senses. At the age of five months their action may be temporarily suspended by external stimuli; and during the time when no efferent currents are passing from them to produce visible movements they undergo a change, subsequantly indicated by new and special coördinated movements. This appears to be a new and great advance in the infant's cerebral evolution. When a year old action well adapted by impressions received becomes very marked, and the child makes certain characteristic sounds on sight of certain objects, its spontaneous brain action becomes gradually more and more capable of coördination. It appears that, whereas at birth the most marked character of the nerve centres is the spontaneous action of individual loci of nerve tissue, in advancing evolution this spontaneity is not lost, but remains as the foundation of so-called voluntary and intellectual action, becoming more controllable by circumstances. Aptitude for mental action appears to depend upon the capacity of nerve cells for control through the senses, such impressions temporarily inhibiting their spontaneity, and arranging them functionally for coördinated action. The imbecile infant does not show this microkinesis in the normal degree; its nerve centres are wanting in spontaneity, and later in capacity for coördination. It may be shown that well coördinated visible movements usually accompany well-controlled mental action, while a spreading area of movement not controlled often accompanies mental confusion.

"This spontaneous movement, slightly under control, is the character of healthy brain action of children in the infant school, so that postures are less available as signs among these very young children, and spontaneous movement of their fingers is the normal. The parts of the infant are then full of spontaneous movement; an exception is in the eye movements, which are not frequent in many cases; one of the endeavours of infant training should be to encourage eye movements, then to control them. The postures or attitudes of the body imply balances, or ratios of action, in the nerve centres corresponding; the clenched fist or convulsive hand is common in fits and in tetany. These postures indicate relations in quantity of action among nerve centres. If we take the 2285 cases presenting deviations from the normal balance of the hand when held out we find that 1029 of them presented visible defects in development also—that is to say, in nearly half of these cases with unusual or defective ratios of nerve action the proportioning of parts of the body was visibly abnormal. This suggests the hypothesis that the forces or antecedent conditions which caused ill proportioning of the body may also have caused a tendency to ill balancing of nerve centres. The converse of the proposition may be true; we have not as yet sufficient evidence, but the suggestion may guide inquiry; it may be found that as overaction of the frontal muscles is very common with defects of the cranium, and overaction of the frontals is largely the outcome of want of mental stimuli, further culture of the mental faculties will improve the average cranial development and lessen overaction of the frontals at the same time.

"If we take the 5487 cases with abnormal nerve signs, we find among these 3071, or 55 per cent., who also present defects in development; conversely among the 5851 cases of defects in development, we find 3071 cases with abnormal nerve signs—i.e., 52·4 per cent. If we take cases with two defects in development, such as are given in Lecture IV., we see that they are correlated with nerve signs in percentage varying from 44·5 up to 71·8. The general statement that mal-proportioning in visible parts of the body and abnormal nerve signs are often coincident may be further illustrated, and such inquiry may lend some support to the hypothesis that both kinds of defects may be due to the action of physical forces controlling quantities or ratios of vital action. In rickets there is a marked tendency to mal-proportioning in the skeleton; this is seen in epiphysial overgrowth, in unequal bilateral growth of the shafts of bones producing curvatures, and in the skull producing bosses and deformities. This tendency to mal-development may affect the features and soft parts. Among 196 rachitic children fifteen were small in growth, and forty presented defects of ear, epicanthus, features, palpebral fissures, mouth, &c. This also is a condition that falls much more commonly upon the boy than the girl. About one-third of these mal-proportioned rachitic children presented abnormal nerve signs and mental dulness.

"In observing conditions of development and physiognomy as indications of probable conditions of mental status—as in older physiognomical studies,—the assumption is made that visible conditions of defect in form more or less necessarily coincide with defective brains. Such correspondence does doubtless often occur, but the generalisation is too empirical to be applied with safety to the individual child. Here the observation of a number of abnormal nerve signs helps to supply the missing link, and observations quoted show that among children with defects in development and abnormal nerve signs one-third are reported by the teachers as dull at school lessons. In the report prepared on 50,000 children and in quotations from it, the term "defect in development" is frequently used; this signifies deviation from the average or normal. It is not intended to assert that these signs are degenerations—the evidence derived from antique works of art shows that many are of ancient date,—it appears that in some classes they may be irregularities which further evolution, if wisely guided, may remove with their attendant evils. Among the 2961 Jew children, an ancient race, uniformity of development was

[1] Proceedings of the Royal Society, vol. xliv. Journal of Mental Science, April, 1888.

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very marked with 7·5 per cent. of deviations from the normal, and all points in nutrition, nerve action, and mental status appeared more regular among them than with our English children. When it is pointed out that of English children 10·8 per cent., and of the Jew children 7·5 per cent. present deviations from the average development, it is obvious the proposition may be put thus: the English children to a percentage of 89·2 and the Jew children to a percentage of 92·5 have evolved an average type.

"It is very usual to see disordered conditions of the nerve system in children with defective construction of body; this was the case in 3071 children. We may also see these nerve disturbances in children of normal construction of body. This was noted in the report in 2416 children; here such signs would appear to result from the disorder produced by special circumstances rather than from defects in original construction. In illustration, children fatigued and in the condition of chorea may be described. Among the signs of fatigue are the slight amount of force expended in movement often with asymmetry of balance in the body; the fatigued centres may be unequally exhausted, spontaneous finger twitches like those of younger children may be seen, and slight movements may be excited by noises. The head is often held on one side; the arms when extended are not held horizontal; usually the left is lower; the hand balances in the weak type of posture often again more markedly on the left side. Facial expression is lessened, and the orbicular muscles of the eyelids are relaxed, leading to fulness under the eyes, while the eyes themselves fix badly.

"'Nutrition' is a somewhat vague word; as applied to children in this inquiry 'low nutrition' implies that the child as seen was thin, pale, or delicate-looking. It is not sufficient evidence as to good nutrition to look at the face only; this part may be well nourished, and yet the limbs may be thin. I usually felt the child's arms or legs. The most important fact noted with regard to these cases, which amounted to 2003, is that 1459, or 73 per cent., were cases presenting visible signs of deviations from the normal in development of the head, the features, and other parts.

"It seems, then, that there is a large group of children, amounting to nearly 3 per cent. of the children seen, who are so far defective in make as to be usually of low nutrition when seen in school. This fact is more marked in the 36,000 children in day schools; among them 23 per cent. of the boys and 38 per cent. of the girls who presented defects in development were noted as of low nutrition. It appears that these children are of lower general constitutional power, and tend to an ill-nourished condition under the stress of life and the many causes of mental excitement, which, while they render them sharper mentally, militate against nutrition of the body and its tissues. That the amount of mental stimulus received by children does lower their general nutrition seems to be further indicated as follows. If we divide the 36,000 day scholars into two groups, of 10,200 seen in day schools of the upper social class, presumably well-fed children, we find 5·2 per cent. of low nutrition, and among the 25,800 children in poorer day schools 3·9 per cent. The only explanation to be offered is that the upper-class children have more stress upon them than those of poorer social position. This subject will be pursued later on.

"*Methods of observation and research.*—The methods of examining the physical condition of children seen in schools must necessarily be more limited than those used in the consulting room. Arrangements already exist in the reports of Her Majesty's inspectors for determining the intellectual acquirements of school children; their family history and evidence as to their home life could not be obtained, and school managers naturally object to questions being asked of the children concerning their health, which, if put, would not be likely to elicit any trustworthy information; it is also impracticable to handle the children for the purposes of physical examination. The observer must then depend mainly upon inspection, and having determined beforehand what points to look for, he must record accurately what he sees. The importance of deciding on a number of physical signs for observation and record was appreciated before the work was commenced on a large scale. For the purpose of observing those finer balances and reactions of the nerve system which indicate neuro-mental potentialities, it is better to deal with the children in a uniform manner and not to handle them. The terms used in giving descriptions of children should each connote a fact seen and capable of verification and comparison, the essence of scientific description.'

A Clinical Lecture
ON
A SUCCESSFUL CASE OF CHOLECYSTOCOLOTOMY.

Delivered at the General Hospital, Birmingham,

BY THOMAS F. CHAVASSE,
SURGEON TO, AND LECTURER ON CLINICAL SURGERY AT, THE HOSPITAL.

GENTLEMEN,—This patient, a painter by trade, aged forty-seven, was first brought under your notice on Oct. 23rd, 1891. The clinical history then detailed to you showed that in May last he was transferred to the surgical wards by my colleague, Dr. Simon, in order to undergo the operation of cholecystotomy, as his symptoms and intense jaundice were attributed to gall-bladder concretions. On May 25th, 1891, the abdomen was opened, and the gall-bladder was found to be deeply situated under an enlarged right lobe of the liver. On incision, eighty gall-stones of various sizes, weighing, when dried, ninety grains, were removed. One of these, the largest, was very firmly impacted low down in the common bile-duct, and was only with difficulty removed after chipping off small portions at its edges. The wound healed well, leaving a small sinus at the lower extremity of the incision, and the patient left the hospital on June 28th. From time to time he was seen in the out-patient department, but as the small fistula remained patent, several pints of bile were daily discharged through it, causing an eczematous condition of the surrounding skin, great physical discomfort, and inability to earn a livelihood. By his own request he again entered the hospital, in order to undergo further operative treatment. When exhibited he told you that so long as the fistula was open and the escape of bile was free he experienced no pain, but when the external opening scabbed over he had violent pain, high fever, and on several occasions rapidly supervening jaundice, only relieved by measures that re-established the external biliary flow; that his stools were regular, but always clay-coloured, unformed, and offensive; and that the average quantity of urine passed in twenty-four hours was under thirty ounces. Your attention was also directed to the fact that, although the bile had been escaping externally for several months, the patient was apparently in good health, well nourished, not to say stout, and had an excellent appetite, which he satisfied in a manner most agreeable to himself, without any serious consequences, provided the escape of bile externally was encouraged. On inspection, at the termination of the lower end of the cicatrix of the former incision, a fistula was found, its very minute orifice admitting with pressure the smallest sized Bowman's probe. From this small opening bile was constantly oozing; the exact quantity it was difficult to estimate; but an absorbent dressing, consisting of cotton and wood-wool pads, which, on being first applied in the morning, weighed 11 oz., in the course of twenty-four hours increased to 35 oz.

On Oct. 24th an effort was made to close the fistula by means of the following operation:—The cicatrix in the abdominal wall was cut through, the incision being prolonged downwards one inch below the orifice of the fistula, into which a fine probe had been inserted. The gall-bladder was separated as freely as possible from its adhesions, a step which caused free oozing of blood. The anterior wall of the organ, presenting the appearance of fibrous tissue, was opened up from the fistula, so as to admit the points of two fingers. A very small gall-stone, the size of a split pea, black and friable, was found at the internal opening of the sinus, and removed. The inside of the viscus presented no remains of anything that could be called a mucous coat. The common bile duct could be felt like a thickened cord, but no stone could be detected as far as the finger could be passed along its under surface, and a probe introduced from the external wound could not be made to travel as far as the finger could reach, and it was not deemed desirable, for obvious reasons, to exercise force. The ascending colon was therefore sought for and readily exposed. Trusting merely to the sponge packing of the abdominal cavity, no clamps of any description being used, the anterior wall of the bowel was incised near its flexure at a point where it could be most readily approximated to the under surface of

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the gall-bladder. A Senn's bone-plate was then inserted into the bowel, and an incision made into the under surface of the gall-bladder. Another of Senn's plates, pared down to suit the capacity of the viscus, was then introduced into the gall-bladder through the opening in the anterior wall, and the mucous coat of the colon was stitched, with two interrupted catgut sutures, to the edges of the incision on the under surface of the gall-bladder. The two bone-plates were then approximated in the usual manner and a pair of dressing forceps inserted into the colon from the gall-bladder, in order to prove that a free communication had been established between the viscera. The edges of the old fistula were then refreshed and the anterior wall of the gall-bladder sewn up by a continuous catgut suture and two interrupted ones of the same material. A large glass drainage-tube was introduced into the right kidney pouch at the lower extremity of the external wound and the peritoneal and abdominal wounds closed in the ordinary way, a dressing of cyanide gauze and corrosive sublimate wool being applied.

After the operation the patient was restless, and in the first seven hours three ounces of fluid, almost pure blood, were drawn off from the drainage-tube. A drachm of hot water was administered by the mouth every hour, and there was no vomiting. For the next two days the patient is reported as being comfortable, the wound sweet and healing, and two ounces of blood-stained fluid drawn off through the drainage-tube every twenty-four hours. On Oct. 27th the note is as follows: "Wound looks healthy, but there is a slight fæcal odour about it; stitches removed from upper portion and strapping applied; from the tube an ounce of fluid escaped, of a yellowish-green colour and faint fæcal odour." The following day there was a distinct fæcal smell about the wound, and also in the fluid withdrawn from the tube. The temperature taken every four hours never rose to 100°F. On Oct. 30th, at 8 P.M., the dressings were found soaked with bile, the nurse's attention being drawn to the same by the patient telling her that he had just felt something give way and a rush of fluid take place externally, as before the operation. On removing the dressings bile was seen issuing from a small orifice just above the drainage-tube, together with a small quantity of clay-coloured fæcal matter. A simple enema resulted in a copious dirty-brown-coloured stool, not offensive. From this date till Nov. 2nd, on which day the drainage-tube was withdrawn, the discharge was profuse, and owing to the dressings being soaked they had to be changed three times in twenty-four hours. On the evening of Nov. 5th an aloes pill (five grains) was given by the mouth, and on the following morning the bowels were twice freely moved through the fistulous opening in the abdominal wall without any pain, nothing passing per rectum. After this a simple enema was given daily, the lower portion of the wound slowly granulated, the bile and fæcal matter passed by the fistula gradually lessening in quantity, and ceasing entirely on Nov. 20th. By the 29th the wound had healed, and the patient was allowed to get up. His fæces now are of a soft brownish colour, but not offensive, and are evacuated daily without artificial aid. Since Nov. 18th the average quantity of urine passed in twenty-four hours has been fifty-eight ounces; the appetite, digestion, and sleeping powers are all that could be desired.

From the persistence of the fistula it was evident that the lumen of the common bile duct was practically obliterated, the result, probably, of inflammatory changes, as a thorough exploration at the second operation failed to detect any impacted gall-stones. That this duct may be so strictured is proved by a case operated on by Dr. H. C. Dalton of St. Louis,[1] for empyema of the gall-bladder, in which the post-mortem examination revealed a circular cartilaginous ring one inch and a half distant from the duodenum, which completely closed the tube. This condition was attributed to an ascending enteritis. In the case just recorded the irritation caused by the existence of impacted gall-stones, and the manipulation necessary for their removal, are, I think, quite sufficient to account for the obliteration of the lumen of the canal.

Given the presence of this stricture, the following methods of treatment are suggested:—

Dilatation, as recommended by the late Professor Parkes,[2] by forcing a steel sound through the stricture, a finger in the peritoneal cavity guiding the point of the instrument. This is an unsatisfactory proceeding, for, even if successful, it is probable, as in the strictures of other mucous canals, that it would need repetition to preserve patency, and this could not readily be undertaken. Another objection is that the duct itself might be perforated by the force required, and then some other proceeding to divert the bile would have to be undertaken. It is better, therefore, to proceed at once to establish an artificial channel between some portion of the bowel and the gall-bladder, and the choice lies between the small and large intestine. By the method described the operation was carried out in its entirety at one sitting, but in the earlier cases some of the operators have deemed it advisable to subdivide it into two or three steps, not establishing the communication between the gall-bladder and the bowel until adhesion had taken place, and then resorting to a plastic operation to close the external wound in the abdominal wall. In 1880 Professor v. Winiwarter[3] had under his care a workman, thirty-four years old, in whom he brought up and secured the ascending colon to the gall-bladder, and four days later established a fistula between the two by means of a trocar. But the external wound not closing later on, in November of the same year he reopened the abdomen, and fixed a coil of the small intestine to the gall-bladder and established a second fistula. Both fistulæ remained patent and bile and fæces were discharged on to the abdominal wall. A year later (Nov. 1881) an effort was made to close externally both fistulæ by means of a plastic operation. This was successful as regards the small intestine, but that connected with the colon only granulated slowly after many cauterisations. But in a year and a half the patient was quite sound.

In 1887 Kappeler[4] had a male patient aged fifty-five in whom the common bile-duct was closed by the pressure of a tumour connected with the pancreas. The operation of cholecystotomy was performed and 350 grammes of bile evacuated. An effort was made to reach the duodenum; but, owing to the enlargement of the liver and the depth at which this portion of the gut was found to be situated, it was deemed prudent not to attempt to connect it with the gall-bladder, but a presenting coil of jejunum was readily drawn up, incised, and its serous and mucous coats stitched to corresponding surfaces of the gall-bladder. The wound healed in a month. Professor Socin has similarly operated upon a woman aged fifty-one with complete obliteration of the common bile-duct and dilatation of the gall-bladder. Professors Tillaux and Terrier have also had successful cases. In this country, Mr. Mayo Robson[5] has published a case in which he successfully closed a biliary fistula that had existed for fifteen months in a woman aged forty-three, upon whom it was necessary to perform cholecystotomy for empyema. In this case the hepatic flexure of the colon was emptied of its contents, and clamped between two elastic ligatures, to prevent extravasation during the necessary manipulations. The gut and gall-bladder were then opened, and their mucous and serous coats separately secured. As in my case, bile and fæces subsequently escaped externally, but in two months the wound had quite healed. Mr. Alfred Willett,[6] in some remarks upon a case of his in which a biliary fistula remained after the gall-bladder had been incised for empyema, thinks it would be advisable to make use of the colon rather than the small intestine, as it is nearer the gall-bladder, easier to reach, and gives more space for the necessary manipulations. He likewise points out that a fistula established in connexion with the duodenum might result in the regurgitation of bile into the stomach. The practical experience of a single case leads me to believe that a coil of the jejunum or the hepatic flexure of the colon are the two most accessible for utilisation. Physiologically, the former should be preferred. But as my patient had passed some months of his life without any bile entering his small intestine, had eaten and drunk whatever he pleased, and in spite of the annoyance of an active biliary fistula had maintained his general health, I resolved to open whatever portion of the intestine should appear most advantageous at the time of the operation. On examination the ascending colon was found almost touching the gall-bladder, immediately beneath it, and although the jejunum could have been drawn up to the viscus a loop would have been formed, somewhat stretched and out of position, lying over the great

[1] Annals of Surgery, vol. ix., 1889.
[2] American Journal of the Medical Sciences July, 1885.
[3] Prag. Med. Wochensch., 1882, Nos. 21 and 22.
[4] Korrespondenzblatt für Schweiz Aerzte, Jahrg. 17, 1887; also quoted by Klingel, Beiträge zur Klin. Chirurgie (Bruns), Band v., 1889.
[5] Med. Chir. Trans., vol. lxxiii.
[6] Brit. Med. Jour., vol. ii. 1886.

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gut, possibly of no consequence, but perhaps liable to pressure if the colon became much distended. This decided me to open the large intestine. No elastic ligatures were used, as in Mr. Robson's case, as it was thought that a thorough sponge packing of the abdomen would prove effectual in keeping the peritoneum from being soiled, and also that the insertion of a Senn's plate directly the gut was incised would offer a firm point for sponge pressure whilst the gall-bladder was being prepared. This expectation was fully realised, and the ultimate result proved satisfactory to both patient and surgeon.[7] These biliary fistulæ are rare; for, as a rule, after the operation of cholecystotomy, unconnected with malignant disease, the wound heals quickly and well provided that the common bile-duct is patent. For this reason I would impress upon you the desirability of counselling patients, when sufficient evidence has accumulated to make the diagnosis of retained gall-stones possible, to submit to the operation for their removal. For, as in other chronic diseases of the internal organs in which time, rest, and climate fail to relieve, surgery must be resorted to for palliation or cure. The irritation caused by the retention of one or more gall-stones may possibly be a factor inducing malignant disease of the liver, and a calculus firmly impacted in the common bile-duct, in its efforts to reach the duodenum, is a serious complication in cholecystotomy necessitating crushing, as advocated by Mr. Tait, or incision and suturing of the duct as successfully carried out by Mr. Knowsley Thornton, or a series of manipulations, such as boring or chipping off pieces of the stone to permit of its extraction, all of which may directly and indirectly result in a stenosed condition of the duct, and subsequently rendering such an operation as we have been considering imperative. To describe the method here carried out I have used the term "cholecystocolotomy" in preference to that of cholecystenterostomy, employed by other writers, as pointing out definitely that the fistula was established in connexion with the colon.

In conclusion I have to express to my house surgeon, Mr. James Lea, B.A., M.B. Cantab., the indebtedness of the patient and myself for the time, the skill, and unremitting attention he so willingly devoted to the case.

[7] The total loss of weight from May to the end of December was just under two stones.

ON AMPUTATION AT THE HIP-JOINT; WITH RECORD OF TEN CASES.

By RICHARD DAVY, F.R.C.S. Eng., F.R.S.E.,
SURGEON TO THE WESTMINSTER HOSPITAL.

FOR fifteen years I have been most interested clinically in cases of hip-joint disease that demand surgical severity. I trust that a summary of my experience may have a practical value, and may render somewhat less the anxiety and responsibility of surgeons undertaking this the gravest amputation of all—viz., amputation at the hip-joint. The gravity of such procedure ought to forcibly impel surgeons to take measures to prevent its necessity. Early diagnosis of ilio-femoral disease, intelligent treatment, and perseverance with general and local measures should be written in bold type on the title-page of its history. Yet, in spite of warning, care, and weariness of well-doing, cases eventuate whose only solution rests in ablation of the joint or of the limb. Traumatism plays an important initial part; insanitation and poverty supplement it; an amputation at the hip-joint amongst the well-to-do classes is almost unknown, bearing out the accepted dogma, that "circumstances alter cases." Let us take an instance where continued and exhaustive suppuration, hectic, hill and dale on the temperature chart, emaciation or commencing lardaceous disease of the viscera compel interference; then as a rule it is better to excise the joint in view of giving a patient the chance of improving, and as a preliminary step in any future operation. Yet personally I do not view excision of the hip-joint very favourably in any but young subjects; children up to and below ten do admirably after excision of the hip; over that age the dangers are greater, and the ultimate usefulness of the limb not so good.

The record of my own personal experience shows that I have operated on ten patients in fourteen years, all except one have been markedly inveterate cases of morbus coxæ; four of them had suffered excision prior to amputation at the hip-joint, profuse suppuration and resultant enfeeblement have been the immediate conditions necessitating amputation; all these doubly operated upon patients have recovered, one good argument in favour of subdividing an amputation at the hip-joint into two stages, as advocated by Keetley; the mortality is 20 per cent; both were men, aged twenty-nine and forty-three respectively. Two of the patients have subsequently died, one eleven, the other eight years after operation. The first of these (Case 2 on the table) was supposed to have had lardaceous disease of his viscera, at any rate he had copious albuminuria and epithelial casts in his urine in 1878. In speaking of this boy in 1880 it was remarked: "This boy had lardaceous disease of his viscera, with distressing ascites. The rectal lever was used. It would have been impossible to compress his aorta or common iliac artery through the abdominal wall, by reason of the distension. This boy's recovery is pleasing, and the albumen in his urine is daily diminishing." On April 7th, 1890, he was readmitted into Westminster Hospital from Dr. Barnardo's Home, the subject of urgent and uncontrollable sickness, with a puffy and discharging right stump of thigh, and an œdematous foot (left). His urine was albuminous, alkaline; sp. gr. 1016. The patient passed about 11 oz. of urine in twenty-four hours, and there was persistent diarrhœa. On May 1st a piece of bone was removed from the stump and sinuses were laid open. He got weaker, duller, and more helpless, dying on May 23rd, 1890. Appended are Dr. Hebb's notes of the necropsy. "These I need not state fully, but will give an excerpt. The kidneys weighed 9½ oz. and 9¼ oz.

TEN CASES OF AMPUTATION AT THE HIP-JOINT.

No.	Sex.	Age.	Date of admission.	Nature of disease.	Operation.	Departure.	Result.	Blood lost.
1	Boy	9	July 10th, 1876.	Morbus coxæ (right).	Jan. 16th, 1877.	May 16th, 1877.	Recovery.	1½ oz.
2	Boy	5	Aug. 14th, 1878.	Morbus coxæ (right). Excision previously.	July 16th, 1879.	Oct. 21st, 1879.	Recovery.*	1 "
3	Boy	8	Nov. 28th, 1879.	Caries. Left dislocation. Sequel of scarlet fever.	Jan. 20th, 1880.	June 24th, 1880.	Recovery.	5 "
4	Man	29	June 30th, 1880.	Pelvic necrosis (left).	Oct. 15th, 1880.	Oct. 15th, 1880.	Death from shock in 5 hours.	4 "
5	Boy	16	April 18th, 1882.	Excision, July 11th, 1882 (right).	Nov. 21st, 1882.	Feb. 24th, 1883.	Recovery.†	1½ "
6	Girl	18	Oct. 4th, 1885.	Old dislocation at 2 years old (left morbus coxæ).	Nov. 13th, 1883.	March 28th, 1884.	Recovery.	2 "
7	Girl	23	Jan. 16th, 1885.	Excision of right hip-joint, Jan. 22nd, 1883. Flail limb.	Jan. 27th, 1885.	May 1st, 1885.	Recovery.	3 "
8	Man	43	May 4th, 1886.	Necrosis of left head, neck, and shaft of femur.	June 8th, 1886.	June 9th, 1886.	Death from syncope (18 hours).	2 "
9	Boy	10	Oct. 21st, 1886.	Morbus coxæ (left).	Oct. 29th, 1886.	Jan. 25th, 1887.	Recovery.	2 "
10	Boy	14	Oct. 20th, 1890.	Morbus coxæ (left) Excision, Nov. 9th, 1890 (elastic tourniquet.)	Jan. 20th, 1891.	April 21st, 1891.	Recovery.	2½ "

* Boy died May 23rd, 1890.

† Ambulanced to Harlington. Death in the Royal Free Hospital from pelvic necrosis on Feb 6th, 1890

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right and left respectively. They are typical examples of large white kidney. None of the viscera present any of the characteristics of lardaceous disease, nor do they give any amyloid reaction with iodine." We see therefore how difficult it is to diagnose lardaceous disease in these exhausted surgical cases. Case 5 died on Feb. 6th, 1890, eight years after operation, in the Royal Free Hospital, of pelvic necrosis. I positively declined to see the complete post-mortem examination on this boy's body because the post-mortem room was filled with women. In my opinion women are quite out of place in the deadhouse of any general hospital. So, as they would not leave, I did.

Method of operating.—In 1880 (Surgical Lectures) I stated: "With reference to the method of operating I shall only advise you to exercise common sense, and apply it to each individual case; keeping the skin intact where the scrotum rubs the thigh, saving as much soft tissue as you possibly can, and having your front flap covering the wound epaulette fashion, for the production of a dependent drainage, and the utmost simplicity of future dressing." Furneaux Jordan, in recapitulating the essentials of his operation, says, "I conclude by again repeating the principle of the operation—enucleate the bone where it is most thinly covered; cut across the soft parts where they are smallest; do not touch the bulky soft parts at the inner and upper parts of the thigh."

Professor Ollier of Lyons did this operation in 1859, but the credit of bringing the method prominently before surgeons is, in my opinion, greatly due to Furneaux Jordan. The lever or elastic tourniquet having been applied, a circular incision is made at about the upper third of the thigh, through all the soft structures down to the femur; the lower section is drawn down forcibly towards the knee, to give space for the ligation or torsion of vessels. The bone is not divided, but kept intact for future leverage in disarticulating at the hip-joint (a most valuable act of conservatism). After all vessels are carefully secured an external wound is made right down to the shaft of the femur; the muscles around the trochanter major and the shaft of the bone are freed from their attachments; utilising the under surface of the rectus femoris as a guide, divide the psoas and iliacus on the capsule of the joint, as well as the capsule itself, by a long anterior slit and two short crucial nicks. The assistant then rotates the limb outwards, and forcibly adducts the knee towards the opposite armpit to dislocate the femur from the pelvis. By the yet further availableness of the limb and femur as a lever the member is removed by a few well-directed touches of the knife, any vessels which may have been injured are promptly secured, the acetabulum is scraped, if necessary, the wound is thoroughly syringed with hot water and corrosive sublimate solution, stitches are put in, and the patient is at once conveyed to a warm bed. Use all proper speed in operating short of hurry. "Festina lentè" is a good motto for convenient haste. Only one word about the lever. Nine out of these ten cases have submitted to its employment. The elastic bandage in the hands of a competent assistant is quite sufficient to control any hæmorrhage, and especially so in those cases where excision of the joint has preceded amputation. The elastic cord must be applied obliquely, spica fashion, and be manipulated so as not to interfere with abdominal respiration. The use of the elastic cord is absolutely free from danger; that of the lever is not.

Let me correct an error that has frequently been expressed, that an amputation at the hip-joint involves a loss of nearly one-fourth of the human frame. I have already contradicted this, and can adduce chapter and verse on this point. On Jan. 20th, 1891, I amputated at the hip-joint of a boy aged fourteen. The weight of the parts removed was 41b. On Feb. 19th, 1891, I weighed the boy—as soon as I felt it safe—and his body weighed 501b. Admitting that he might have gained 21b. in weight since the operation, we have the proportion of tissue removed to tissue saved as 4 to 48. This reduces the mutilation to one-thirteenth of the boy's body—a great difference from one-fourth. The point of selection (upper third of thigh) as now practised necessarily makes the comparison favourable; for in olden days the catlin entered at the anterior superior spine of the ilium, and emerged near the tuber ischii, slap-dashing off the limb by two flaps.

On Oct. 17th, 1881, the late Mr. Shuter amputated a boy's left thigh at the hip-joint[1] by a subperiosteal method. In 1882 the boy had a strong movable stump, and it had the appearance of an amputation in the middle third of the thigh. An artificial limb was made for the boy by Mr. Gray. This was worn for five months, and it had to be discontinued by reason of a painful sinus, which opened opposite the acetabulum. The case was exhibited on Feb. 9th, 1883. The committee appointed to report on the condition of the boy's stump state that by "the preservation of the muscles of such a length, and with their attachments becoming so firmly united around a strong central cord, the result obtained approaches that of an ordinary amputation at the upper third of the thigh, in respect both to the facility of adapting an artificial limb and the power with which the patient can move this appliance when walking."

My patients are all walking with the aid of crutches, except one, who has an artificial limb. For working folk crutches are such a support, such a warning to outsiders, so easily discarded or resumed, and so comparatively cheap, that practically they are preferred in cases of this nature.

The explanation of the reduced mortality from 60 to 20 per cent. appears to be a general one.

1. The use of anæsthetics. We are too apt to forget the benefits handed down to us by previous workers better than ourselves, and to pocket their results as if they were our own. The patient being free from pain, permits a more careful and studious dexterity on the part of the surgeon, and lessens the shock on the part of himself. 2. The more rigorous application of measures calculated to prevent the loss of blood; such as the lever, elastic bandage, torsion, and the composed conduct of dressers. 3. The diminished shock, by adopting the method of operating at the juncture of the upper and middle third of the thigh instead of the old high transfixion plan; the less risk of hæmorrhage (primary and secondary); and the uninjured condition of parts at the inner side of the thigh, situated in the confines of Scarpa's triangle. 4. Improved sanitation, nursing, and hygienic surroundings; more skilful dressings; marked cleanliness and the use of the syringe. 5. The greater quiet of isolation, the careful selection of cases for operation, and the better sustained discipline preparatory to and after the operation.

Let me again advocate every possible trial on the part of the surgeon to prevent the necessity of recourse to amputation at the hip-joint. Should such necessity occur as a last resource for saving life, let the operation be done on somewhat similar lines to what has been narrated in this paper; let it be completed with resolution and composure. Then, after the daily and nightly care of surgeon and nurse, for may be weeks or months, the patient will be able to walk on crutches or with the aid of an artificial limb, and enjoy a further lease of life.

Welbeck-street, W.

[1] Vide Clin. Soc. Trans., vol. xvi., p. 86.

IODODERMA, OR DERMATITIS TUBEROSA, DUE TO THE INGESTION OF IODIDE OF POTASSIUM.

BY NORMAN WALKER, M.D., M.R.C.P. EDIN.

THE following case, which occurred in Dr. Unna's clinic last summer, and which Dr. Unna kindly handed over to me for investigation, is one of considerable interest, for although several cases have been clinically described, the pathological histology of the new growth has, with a very few exceptions, remained uninvestigated.

J. E——, male, aged forty-one, married, was admitted on July 21st on account of a rapidly growing tumour situated on the lower part of the nose. He has always enjoyed good health. He has had gonorrhœa at least twice, and seven months ago he acquired a sore on the penis, which, he says, healed up under the application of cupric sulphate, and gave him no more trouble. His glands are everywhere hard, but not much enlarged. He never had any cutaneous eruption or loss of hair. His urine contained no albumen. The history of the present affection is as follows:—On July 8th, on account of a feeling of dryness and discomfort in his throat, he consulted a laryngologist, who prescribed for him a mixture containing iodide of potassium, of which he was to take doses amounting altogether to seventy-five grains a day. The throat affection improved, but on July 13th a small nodule appeared on the bridge of the

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nose. It was red and inflamed looking. On the 14th it had grown larger, and he squeezed from it what he describes as matter and blood. Later in the day a ring of vesicles appeared round the original nodule, and, as next day the growth still increased, he revisited his doctor, who ordered him to apply to it Hebra's Diachylon ointment. On the 16th, as it was still larger, a dressing of lint was applied and the doses of iodide increased, so as to amount to 100 grains a day; but the tumour continued to increase in size up to the time of his entering the clinic.

The tumour was situated on and occupied the lower half of the nose. It was of a dark-yellowish or orange-red mahogany tinge, with here and there lighter yellowish spots. It was in appearance granular, and here and there

FIGS. 1 & 2.



Full face and profile views before operation.

were what looked like the openings of sebaceous glands. It was elevated about a third of an inch above the normal level of the part, and looked just as if a piece of coloured and varnished putty had been stuck on the end of his nose. It caused him no pain. Its appearance at once suggested that of an epithelioma. On touching it, however, this impression was dispelled, as the tumour was of an extraordinarily soft and sponge-like consistence. Manipulation was also painless. The diagnosis, excluding epithelioma, was thus limited to three possibilities: mycosis fungoides, syphilis, and a dermatitis due to medication. Against the first two were the rapid growth and the unity of the tumour, with the addition, in the case of mycosis fungoides, of the fact that there had been no preceding skin affection, and the production of the prescription for the medicine, which had been taken so freely for almost a fortnight, put the diagnosis, which had been already made by Dr. Unna, beyond doubt. The medicine was at once stopped, and for a few days the tumour was left to itself. With the exception that it became somewhat darker, things remained very much *in statu quo*, and consequently on July 25th the patient was put under chloroform, and the natural shape of the nose restored by removing the superfluous growth with a razor. The cut

FIG. 3.



Condition fourteen days after operation. The white appearance in the engraving taken from the photograph is due to the staining by pyoktanin.

surface bled very freely, to which a Paquelin's cautery was applied, after which it was painted over with an alcoholic solution of pyoktanin. The wounded surface healed very rapidly, and on Aug. 2nd, with the exception of a small area in the centre, the skin looked as healthy as that of the rest of the nose. This central area had a warty nodular appearance, as if there still remained in it some excessive epithelial activity. Resorcin plaster was applied to shell off the outer layer of the epidermis; but as this central part remained somewhat obstinate, it was destroyed by the application of pure carbolic acid. On Aug. 9th the patient returned home with his nose practically as well as it had been before the appearance of the tumour.

In considering this case in relation to its commencement, its history, and especially to its after-progress, one can have little doubt that a correct diagnosis had been arrived at in the first instance. The microscopic examination, interesting as it is, gives little help in establishing the diagnosis, as the removal of a portion of the new growth for histological purposes seems hardly to have occurred to the majority of those who have clinically described this condition. Mr. Jonathan Hutchinson[1] says, in reference to the fatal case which he publishes in his Archives, that "the microscope was carefully used, but revealed nothing of importance."

Brocq[2] enumerates nine varieties of skin eruption which may be caused by the administration of iodine:—1. Diffuse erythematous. 2. Papular urticarial. 3. Vesicular and eczematous. 4. Pemphigoid. 5. Papulo-pustular. 6. Anthracoid. 7. Petechial. 8. Nodular or tubercular. 9. Polymorphous form. The form of eruption which is popularly, and probably most frequently, associated with the administration of iodine is the vesicular and bullous form, while the condy-

[1] Archives of Surgery, vol. i. 1889, plates 3 and 4.
[2] Maladies de la Peau, Paris, 1890, p. 262.

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lomatous, tubercular, or anthracoid form, though it has been not infrequently remarked by acute observers, has apparently attracted so little general attention that more than one of the most recent text-books of dermatology leave it absolutely unnoticed; although its resemblance to syphilitic processes, and the fact that iodine is usually exhibited in its larger doses on account of that disease, make its importance difficult to over-estimate.

The first reference, though not a very direct one, to this (tubercular) form which I can discover is an allusion by Ricord[3] as far back as 1842, who notes that a papular or nodular erythema may be caused by the administration of iodine. Fischer[4] describes a nodular among other forms of iodine eruption. He described it as consisting of papules slightly raised, regularly rounded, and of an intensely red hue. He considered it to be a sort of telangiectatic condition such as is seen in congenital nævus, and in a more marked degree in frambœsia. The attention of the profession was recalled to this condition by Tilbury Fox,[5] who described it as consisting of a pultaceous fungating mass which he characterised as "odd." He says: "The bullous form breaking down can produce mushroom-like masses varying in size from a pea to a shilling."[6] Colcott Fox[7] applied to the eruption the term "condylomatous." M. Hardy[8] briefly alludes to an erythematous form of eruption which may possibly have been an early stage of this form. McCall Anderson[9] gives a note of a fatal case of purpura, and an interesting allusion from Voisin, who, in six out of ninety-six epileptics treated with bromide, observed: "An eruption in the form of oblong or roundish swellings on the lower limbs, of a rose or cherry colour, which became yellow, and then developed little points like acne pustules." This eruption differed from most described cases caused by iodine in that the bases were very hard and painful.

One of the best clinical descriptions of the eruption is that by Nevins Hyde[10] of Chicago, who at different times has described three cases:—Case 1: An infant where there were isolated whitish and reddish-yellow nodules varying in size from a split pea to half a marble, and resembling molluscum tumours. On the left cheek was a patch as large as the section of a turkey's egg, surrounded by a narrow areolar blush, and raised about 6 mm. above the surface.—Case 2: Child, aged two years, with face and hands thickly studded with firm reddish-yellow, slightly umbilicated semi-solid lesion, varying in size from a small marble to a pigeon's egg.—Case 3: A most interesting case, where the diagnosis of leprosy had been previously made. For more than a month the patient, a girl aged seventeen, who had not yet menstruated, was dosed with iodide of potassium. The eruption appeared on the third day of the administration of the drug in the form of a number of semi-solid papules on the forehead. These rapidly increased in size and in number, and when Dr. Hyde saw her, the patient's scalp was covered with tubercles as large as pigeon's eggs, pressing on each other, and covered with a sticky puriform mucus. The head, chest, neck, and back were covered with superficial small egg-sized, semi-solid discrete or confluent oval or irregular tubercles, raised several millimetres above the surface. Many closely resembled condylomata. A few had the appearance as though they contained boiled sago grains. Incision gave exit to blood, grumous pus, and tissue débris. The lesions could in no sense be said to be chambered. He remarks, "They were evidently masses of softish vascular epithelium." He concludes that the iodine eruption may be manifested in three forms—(1) bullous, (2) polymorphous, and (3) occurring only in infants and young persons neither cachectic, syphilitic, or moribund, but often otherwise healthy—semi-solid, slightly umbilicated lesions resembling condylomata and molluscum.

Hallopeau's[11] case differed very markedly in many points from Hyde's. The patient was an elderly man markedly syphilitic, who had on that account had large and prolonged dosing with iodide. The eruption consisted of two elements, cicatrices and vegetations. The vegetations which are the elements with which we are concerned were very variable in size up to several millimetres in diameter. Some were small and pediculated, others resembled venereal condylomata. The colour was always a rosy red. The nose was very much altered and deformed, rosy in colour, and glazed as if it had been varnished. The lower border of the septum and the free border of the nostrils were enlarged and excavated, looking not unlike lupus. The tumefaction was so great as to prevent the entrance of air into the nose. Many other parts of the body were similarly affected by the double process of vegetation and cicatrisation, and he describes his case as an "atrophic and vegetative form of iodine eruption."

Besnier's[12] patient was a male, aged forty, who took two grammes of iodine daily. At the end of a week he returned with the face and thorax covered with small rapidly growing true tumours, varying in size from a pea to a bean. They were coppery red in colour, soft to the touch, almost like a mushroom, and presented punctiform lacunæ analogous to those of an anthrax furuncle. From this resemblance he named it "anthracoïde." It was impossible to express any contents, and incision only gave exit to blood. The eruption was accompanied by burning pain, but there was no disturbance of the general health; and, indeed, the patient looked on the eruption as a favourable sign that his disease was "coming out." He had no idea that it was connected with the drug. On the cessation of the drug, and the application of glycerine of tannin, the eruption disappeared in a fortnight, leaving behind it small cicatricial depressions. Besnier remarks that this case can only be compared to those caused by bromide, and noted by Voisin.

E. Bradley,[13] in a very exhaustive account of other forms of iodine eruption, makes only a brief allusion to this form, saying that "the eruption can be papular, or consist of subcutaneous nodes analogous to erythema nodosum.

"In Pellizari's[14] first case — a syphilitic male, aged forty — there appeared, preceded by chills and fevers, a papular and rupiform eruption. The papules were few in number, almost level with the skin, not extending deeply, and not containing blood. They had a rough surface, and were of a dark strawberry-red colour, which only slightly disappeared on pressure. The bullous form was chiefly on the limbs. The bullæ averaged half an inch in diameter, and were similar to the bullæ of rupia, having a deep base surrounded by an areola. They were of a light-yellow colour. On opening the bulla no characteristic ulcer was seen at the base, which was, however, irregular and covered with small pieces of gangrenous-looking tissue, but hardly any bloody sero-pus was present. A third manifestation was in the form of subcutaneous nodes. There were three of these tumours, varying from a nut to an apple in size. One was soft and covered with healthy skin, another was surmounted by a large blister of a slatey-grey colour. Every fresh exhibition of the drug called out these same manifestations. He quotes, on the authority of his father, Pellizari, two cases where similar subcutaneous nodes were caused by the drug. His second case was that of a young prostitute, aged eighteen, who had been treated by her employer with large doses of iodide on account of a sore on her genitals. She was covered with numerous pasty nodules varying in size from a hazel nut to a walnut. They were painless, deep-seated, and covered with healthy skin. Only a few of the smaller ones were covered with a reddened cutis. These cases bear no very close relationship to the form we are at present discussing. I have related them because the papules and bullæ which occurred in Case 1 have most probably a relationship to the tuberous form. It will be noted that in their progress they correspond to the case described by Fox. The subcutaneous nodules, as will be seen on reading the pathological anatomy of our case, are in no way connected with such cases as ours.

Duhring[15] describes a case which he calls "local circumscribed phlegmonous dermatitis," due to the ingestion of iodide of potassium. A tumour arose on the forehead which grew to a size of two inches, and was not unlike ringworm in appearance. It was surrounded by vesicles, pustules, and nodes.

Taylor[16] records a case where, after very prolonged and

[3] Bulletin Génér. de Thérapeut., 1842.
[4] Wiener Med. Wochenschrift, No. 29.
[5] Trans. Clin. Soc., London, 1877.
[6] Brit. Med. Jour., Dec. 1877. [7] Ibid., 1885.
[8] Maladies de la Peau, Paris, 1886.
[9] Treatise on Diseases of the Skin, London, 1887.
[10] Archives of Dermatology, 1879. Journal of Cutaneous and Genito-urinary Diseases, Dec. 1886. Medical News, Oct. 1888.
[11] Annales de Dermatologie et Syph, Deuxième Séries, ix.
[12] Ibid., 1887, p. 162.
[13] Thesis (Paris, 1887) L'Iodisme.
[14] Lo Sperimentale, 1884 (translated Archives of Dermatology, Jan. 1885)
[15] Medical and Surgical Reports, 1877.
[16] Journal of Cutaneous and Genito-urinary Diseases, 1886.

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frequent dosing with iodine, the forehead, cheeks, eyelids, and neck became covered with a number of distinct tumours. They were deep red in colour, and varied in size from 0·5 to 15 mm. They were much larger on the surface than on the base, many having a mushroom-like form. They were very soft and yielding to the touch, and a little pus could be squeezed from some of them. The large ones had numerous little trumpet-shaped openings from which pus could be pressed. There was very little constitutional disturbance, and the tumours mostly disappeared in a week under the application of tincture of perchloride of iron. He considered the process one of inflammation of the sebaceous glands.

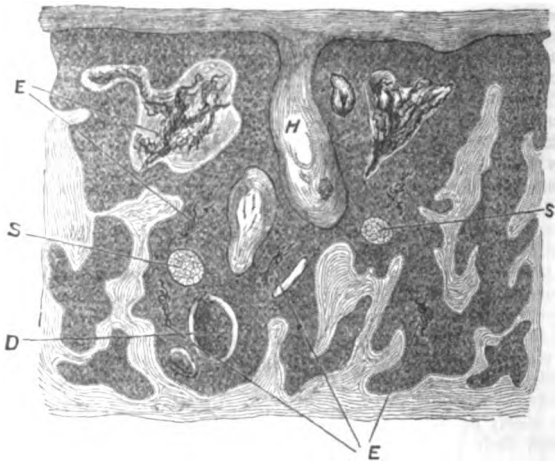
The date of the appearance of the tumours varies in different and also in the same cases. Pellizari, who verified his diagnosis by inducing the eruption several times, found the time necessary for its production varied from thirty-six hours to ten days. Duhring gives four hours, Hyde three days to three weeks, and in the case under consideration the first appearance of the tumour was five days after the first dose of iodide. It is an interesting fact that practically none of the patients showed any of the more common manifestation of iodism. Although iodine has been frequently demonstrated in the urine, as indeed it can be in that of anyone taking the drug, none of the previous observers have succeeded in demonstrating its presence in the lesion. In examining a portion of the tumour immediately after removal I was equally unsuccessful, but on testing the alcohol in which the greater part of the tumour (cut in small pieces) had been hardened for three weeks the hydrochloric acid and chloroform test showed a distinct violet tinge. Control tests were of course made, and gave absolutely negative results.

The anatomy of this form of eruption, or of forms nearly allied to it, has been described by Thin[17] from a case of Vincent Harris, Duckworth,[18] Hallopeau,[19] and Pellizari.[20] Thin found the blood and lymph vessels dilated, the latter filled with leucocytes. The normal (?) sebaceous glands in the neighbourhood were swollen and filled with disorganised blood. Dyce Duckworth describes his case as "localised superficial dermatitis." The hair-follicles and sweat glands were unaffected; the vessels numerous and sheathed with exudation corpuscles. The effusion was greatest in the papillary layer, which was flattened out and excavated. Hallopeau describes the histology of his case as a "dermatitis relatively recently developed, and especially in relation to the vessels." He says, however, that the papillæ are elongated, some filiform, and others very much swollen. The interpapillary processes of the rete are thickened, equally elongated, and larger than normal. Pellizari found dilatation of the sebaceous glands, which, as well as the vessels, were surrounded by a collection of round cells. From this presence of cells around the vessels he concluded that the cause of the disease had its seat in a special irritability of the vessels, and was a species of purpura.

Portions of our tumour were hardened in alcohol and Flemming's solution embedded in celloidin and paraffin, and stained by a large variety of methods. The first noticeable point on examining a section was the enormous epithelial growth, which at first sight gave one the impression that the section was that of an epithelial cancer. This, however, closer inspection removed, as the process was evidently an abnormal and excessive upward growth of all the skin elements, and not a downgrowth of the epithelium into the connective-tissue beneath.

Fig. 4 shows the appearance of a section under a low power, with the epithelium extending from the cut margin to the surface of the tumour. The fibrous tissue can be observed to be sharing in the new growth, but not by any means to the same extent as the epithelium, while the comparatively regular arrangement and relation of the two elements are also noteworthy. The epithelium is in a most active state of proliferation, sections stained with methyl blue or safranin showing everywhere numerous mitoses. The mitotic process was also observed in some of the connective-tissue cells. The elastic tissue does not appear to have shared in the abnormal activity of the new growth. Sections stained with orcein do indeed show that it is present; but it is only present in small amount, is distinctly thinner than normal, and is generally matted together in bundles or arranged like a tangled skein of thread. It has in all probability been carried from its original seat by the growth of the other tissues, and this is the more probable as in some instances fibres appear to be entirely surrounded by epithelial tissue. The bloodvessels are much dilated, their walls thin, and in some sections vessels of unusual size lie covered by little more than a layer of epithelium. (This superficial position of vessels is noted by Hallopeau.) The connective tissue everywhere is very œdematous, the capillaries and lymph spaces being largely dilated, and some of the spaces contain

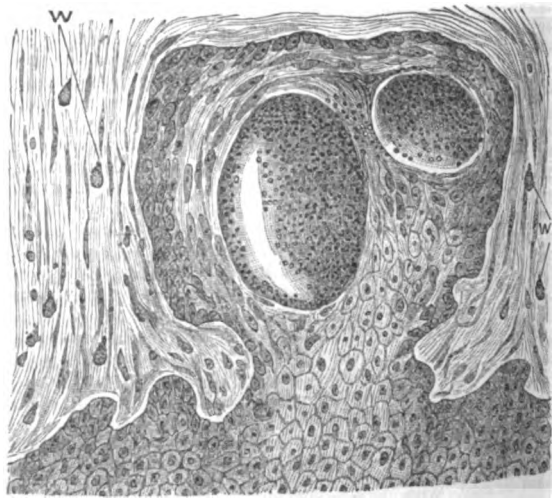
FIG. 4.



H, Hair-follicle. S, Remains of sebaceous glands surrounded by masses of epithelium. D, Degeneration of new-formed cells. E, Elastic tissue. × 50.

wandering cells. Methyl blue sections showed the presence in the connective tissue of a considerable number of "Mastzellen" stained of the usual purplish-red colour. As a rapid growth such as we are considering can hardly be put in the category of chronic inflammation, their presence is another proof that these curious bodies are not associated with that condition only. Nearly two hundred sections were carefully examined without finding anywhere a single trace of a sweat duct or gland; but in a few sections the concentric arrangement of

FIG. 5.



Degeneration of new-formed cells occupying site of sebaceous glands. M, Mastzellen. × 300.

the epithelial cells on the side of a hair-follicle suggested the presence of a duct opening. The hair-follicles, which were found in considerable numbers, were, as usual in this situation, large in size. They were frequently filled with horny débris, among which varying numbers of pus cells could be seen. The number of micro-organisms found in the follicles was not greater than usual. They were in-

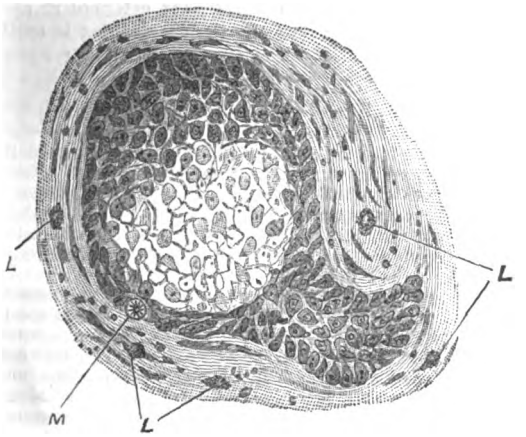
17 Medico Chirurg. Trans., 1879.
18 Brit. Med. Jour., Dec. 7th, 1878.
19 Loc. cit.
20 Loc. cit.

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variably surrounded by an enormous growth of epithelium, and often in their immediate neighbourhood was a large or small collection of leucocytes. These collections were also found in other parts of the tumour, some of them covered only by the horny layer, and thus presumably forming those small yellow points which have been noted by many observers. Among the leucocytes could be seen the more or less perfect remains of flat, nucleated epithelial cells.

On a mere superficial examination the impression produced at first is that the sebaceous glands, at all events as such, do not exist in the tumour. Close inspection, however, shows here and there sections of two or three sebaceous cells surrounded by epithelial tissue, and in one or two sections larger portions can be seen. In considering the relation of these glands to the tumour there are two theories which have to be considered. One is that the excess of the tumour which was removed was above the level of these glands, and that the portions which can be seen are merely tangential sections of normal glands. This view, however, appears to me to be hardly tenable. Not only were portions

FIG. 6.



Sebaceous gland. The marginal cells are proliferating as epithelial, and not degenerating into sebaceous, cells. M, Mitosis. Z, Mastzellen. × 300.

of the tumour one-fifth of an inch thick cut entirely in sections, every one of which was mounted without showing anywhere a large section of gland, but the portions embedded in paraffin were mounted serially, and almost every section only showed the few sebaceous cells above referred to. The other, which seems to me to supply the key to the process, is that these cells are the remains of the normal sebaceous glands which are usually such large and striking features in a section of the skin from this region. The position of these cells in relation to the hair-follicles, the fact that they are invariably surrounded by large new growths of epithelium, and the large size of the normal gland in this region, seem to be sufficient evidence that the new growth of epithelium has taken place in relation to these glands. If the tumour were really removed above the level of the glands, it would seem to me impossible that almost every other section should show, on careful search, some trace of a gland. Tradition is not always a good guide in investigating histological relations, but it is at least a matter of interest that many observers have considered that the various lesions produced by iodine do have their seat in the sebaceous glands. Unfortunately, the process had in this case gone far, and it was therefore not possible to obtain a section showing the very earliest evidences of change; but one section, which taken alone would be of little value, when examined in the light thrown on it by those in which the process is further advanced, seems to give at all events a suggestion as to how the process commences. In the section referred to (Figs. 5 and 6) the gland lies much deeper than usual. It shows a section of a hair-follicle with sebaceous cells on each side. On one side the cells are entirely surrounded by proliferating epithelium, while on the other the gland can be analysed into three portions. Farthest from the follicle the new epithelium is invading the gland. In the centre we have the sebaceous cells, and immediately in relation to the follicle the gland has broken down, and the formation of pus has taken place.

The process would seem to be this: Owing in some way to stimulation by the iodine the epithelial cells lining the gland do not undergo their normal fatty degeneration and transformation into sebaceous cells; but, reverting under the stimulus to their primitive type, they proliferate once more as true epithelial cells. The sebaceous cells already existing merely fulfil their normal destiny, and as they break down and are thrown off into the follicle, their place being no longer filled by the development of new sebaceous cells, the number gets less and less, until we have the appearance shown in Fig. 6 of two or three sebaceous cells surrounded by a large mass of proliferating epithelium. The cells at the margin can be observed in a condition of active mitosis. The new formation is, however, not entirely confined to this seat. As to the relation of the sweat ducts, I was unable to make any direct observation. The epithelium was never distinctly observed descending from the upper layer, but that lining the hair-follicles, apparently also affected by the stimulus, proliferates rapidly, and sends out from the sides of the follicle buds of epithelium. To these buds is due the irregular growth in the upper part of the tumour, while the large masses lower down are occupying the position of the sebaceous glands. A degenerative process is, however, also present. In the hair-follicles, occasionally in the sebaceous remains, and often also in the centre of epithelial masses, leucocytes have found their way and led to the formation of small abscesses, the existence of which has been frequently noted clinically.

In conclusion, I must tender my thanks to Dr. Unna, firstly for his kindness in entrusting me with the investigation of the case, and secondly for his help in elucidating doubtful points; and also to Dr. Phillipson of Hamburg for his most useful, if at times adverse, criticism.

Edinburgh.

MORBUS COXÆ.

WITH DESCRIPTION OF A NEW BED.

BY E. STANMORE BISHOP, F.R.C.S. ENG.,
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THE problems which any surgeon has to face, when called upon to treat a case of morbus coxæ, will vary greatly. In some the tendency to recovery, as Thomas of Liverpool used to say, is so great that mere protection from further harm is all that is necessary. The patient has a good family history, is in every other way in good health, until the fall or other accident happened which produced the synovitis or osteitis. A short rest, protection against repetition of the injury, and some slight medication, and the boy is as well as ever. Varying combinations of injury and constitution produce varying results of lighter and graver kind, the character of the constitution appearing to have the strongest influence in the modification; more and more difficult becomes the struggle for recovery, until in some extremely strumous children the merest knock or tumble appears sufficient to light up a persistently progressive disease which ends in death or permanent and very marked lameness. Of course, the measures required must equally vary. In the lighter cases the most that is required will be a light Thomas's splint, with patten and crutches. The little patient can go about almost from the first. He can benefit by fresh air and a slight amount of exercise. There is never a hint at suppuration, and bedsores are not dreamed of; therefore all through its duration there has been nothing extraneous to lower the vitality or decrease the chances of recovery. But it is far otherwise with the more delicate cases. It is another exemplification of the old text: "To him that hath shall be given, but from him that hath not shall be taken away even that which he seemeth to have."

From the first the often comparatively slight injury has acted like a spark amongst shavings. Rapidly the inflammation increases; every slight movement gives great pain, and causes fresh and increased irritation. The little patient is racked with the constant suffering, and weakened by the feverish reaction. It is imperative that the joint shall rest, and that absolutely, but the skin is so sensitive and so lowly vitalised that continual rest in bed

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produces bedsores, and the pressure of an iron splint is unbearable. Moreover, to children of this age perfect rest in one position is the acutest misery. But if this is bad, the next stage is infinitely worse. A large abscess forms in or around the joint, with disintegration of the femoral head or the acetabulum, or both. It is necessary to remove the necrotic or carious bone, and to provide free exit for the abundant pus. At the same time it is imperative that the large cavity produced should be kept aseptic, or septic fever or pyæmia will certainly carry off the patient, already so greatly enfeebled. But the opening which has to be made is at the very centre of the body, and close to the two main emunctories, and the dressing of the wound is painful, and almost necessitates the lifting of the patient, when movements at the very spot which should be most immovable will certainly take place. Sooner than call attention to himself and risk the repetition of the dreaded dressing, the child will lie with its excretions soaking into the coverings of the wound; and it requires the most careful nursing to prevent this. Careful nursing may, and doubtless will, do much to obviate the danger; but it cannot prevent the pain endured at every dressing or cleaning, nor the ever-recurrent dread in which the life of the child is passed at this time, when of all others, for the best chance of its recovery, its mind should be at ease. And to add to all this, one of the best helps to the child's recovery is fresh air, and this is almost, if not quite, unobtainable. To dress the wound sufficiently often to secure asepsis without pain or movement at the diseased part, to permit of the performance of the natural functions without danger of soakage of decomposable or decomposed material into the cavity produced by operation, to keep the bones of the trunk and lower limb in their relative position whilst permitting the area of pressure to be varied from time to time, or even, if possible, occasionally allowing the patient the upright position—these are the problems which every surgeon tries to solve who has to treat one of these severe examples of morbus coxæ. And the appliances at present in use do not assist him greatly. Some—most—are effective only so long as the patient lies supine, the bed itself forming an integral part of them; so that the difficulties arising from decubitus are not to be thus overcome. Some are too heavy, and some must be removed at the time when they are most required, during the change of dressings. To assist in solving the difficulty I have devised a bed which is pivoted, the pivots at each end resting upon upright standards, which with the framework beneath form its support and hold it at a convenient height from the ground, so that the patient shall be on a level coincident with the surgeon's chest. When the child is laid supine, its chest is comfortably held by flexible bands, which are fixed below to the bed itself and united in pairs above. Its legs lie each in a separate channel, which is suitably padded. The sound extremity has its foot firmly braced against a wooden block, which can be fixed at any point, whilst the affected limb has an extension apparatus applied, the cord of which passes through an eyelet on the lower arc, and is connected with a weight, which acts in any position of the bed. The hips rest each upon a pair of trap-doors which open downwards, and allow free access to this part of the body. The traps beneath the sound hip are always bolted, and maintain, in conjunction with the extension, the body and diseased limb always in the same plane, whilst the unsound region can be reached with comfort, dressed or cleaned with ease, and without discomfort to the patient.

As the bed is pivoted, it is easy to see that it is capable of alterations in position so that the plane of pressure can be constantly varied. This is usually done by turning the bed so that one of the perforations in the upper pivot coincides with one of those in the standard, and fixing it at that angle by a steel pin; but if greater range of movement is required, a worm-and-wheel movement is attached, which renders it practically unlimited. In any case, there is no alteration in the relative position of parts operated upon, as the whole body is moved at one time. When the case is sufficiently advanced to permit of the upright position, the lower arc and the extension can be removed, and the entire bed placed against the wall in an almost vertical position. The patient then resting his sound foot on the block, and secured to the bed by the chest and hip bands, has extension going on by the weight of the unsound leg, and is in practically the same condition as if he had a Thomas's splint and patten applied. Several severe cases have been treated by its means in the Ancoats Hospital, and in every instance with success, whilst the comfort to nurses and surgeon, and the freedom from the distressing scenes formerly so common, have been most marked. But whilst this bed was originally intended for the treatment of severe morbus coxa, it is extremely useful for other purposes, such as the treatment of fractures of the lower extremity, and for any case in which the supine position has to be maintained for any length of time.

These beds are now made by John Carter, 6A, New Cavendish-street, Portland-place, W.

Manchester.

LARYNGEAL CHOREA.

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SURGEON TO OUT-PATIENTS, GLASGOW WESTERN INFIRMARY, ETC.

By the term "laryngeal chorea" is here meant an affection of the laryngeal muscles similar to that of the other muscles of the body in the disease commonly described as chorea. Under the term "laryngeal chorea," or "chorea of the larynx," certain authors have described an affection of the laryngeal muscular system resulting in certain defects in vocalisation. The descriptions of its symptoms and causation are almost as varied as the authors referring to it are numerous. It would seem to be in some respects analogous to "writer's cramp,"—i.e., a fatigue or spasm of certain of the laryngeal muscles, and the latest view of its causation seeks to trace it to a faulty habit of voice production from an inability to breathe during sustained speech or song. The term "vocal asynergy" has been given to it, and, both for the sake of distinction and because the term seems more accurately descriptive, it would be well to use it alone.

That the laryngeal muscles are liable, in common with all the muscles of the body, to suffer in chorea and to exhibit the movements characteristic of that disease is well known. Ziemssen and other authors have described such movements of the laryngeal and respiratory muscles, with resulting irregularities in speech and respiration and the production of unexpected "grunting" noises in the throat. During the past four years there have come under my observation three cases of chorea commencing in the pharyngeal and laryngeal muscles, and limited for some considerable time to these muscles, the only symptom being a cough. As these cases, in the first place, presented very considerable difficulty in diagnosis, and, in the second place, are of a class to which I have been able to find only one distinct reference in the more accessible literature of chorea, and as, finally, they came under my notice accidentally, I feel constrained to give them publicity in order that the value of the observations made, and the conclusions drawn therefrom, may be tested by those who, from the nature of their practice, have more ample means of observation of choreic patients and of laryngeal disorders. That such cases are fairly common seems probable, unless one is to conclude that my experience has been altogether exceptional. That the true diagnosis of the laryngeal affection, as evidenced by the cough, is frequently missed seems still more probable, seeing that a laryngoscopic examination is necessary to establish it, such an examination being by no means of easy accomplishment in children, the usual victims of chorea. In Case 1 the correctness of the diagnosis may be questioned, but as it was the means of directing inquiry in the second and third cases I give it here along with them.

CASE 1.—J. H——, aged eight. This boy is the son of a lay friend in Glasgow. Four years ago, when house surgeon in Glasgow, and visiting frequently at my friend's house, my attention was directed by the parents to the boy's condition, which was giving them some anxiety. At that time he was a healthy well grown child of nearly four, and had had measles only of the usual troubles of childhood. There was neither family nor personal history of rheumatism or any "neurosis," nor had he suffered from fright or shock. For several months he had been troubled with a cough, which distressed both himself and his parents, and for which he had been unsuccessfully treated by several practitioners. The cough, which at first had recurred at intervals of hours, had gradually increased in frequency of repetition to intervals

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of only a few minutes towards night, though in the early part of the day the intervals were more prolonged. It always ceased during sleep, though not infrequently preventing sleep for a time after the child was put to bed. I did not see the child professionally, and therefore did not examine him in any way, but the characteristics of the cough were unusual in a child, and attracted my attention. Nasal respiration was free, and there was no abnormal respiratory sound. The cough was invariably of the same type. It was not the hoarse or aphonic cough of laryngeal inflammation or growth, nor the noisy "moist" rattling or wheezing cough of bronchitis. It had not the prolonged paroxysms and inspiratory crow of pertussis, nor the "hawking," "hemming" character of the cough due to the effort to clear secretion from the pharynx. It consisted in a sudden single sharp dry cough, like that produced in adults by the sharp contact of a probe with the external auditory meatus near the tympanic membrane. It appeared, in short, to be the cough of momentary irritation of some spot capable of reflexly exciting the cough centre. The cough persisted, gradually increasing in frequency, for ten months, when typical choreic movements appeared in the legs, gradually extending over the entire body, with great increase in the severity of the cough, which became still more frequent and of a hoarser quality. The attack of general chorea lasted over one year, was treated by bromides, and since its cessation has not returned. The cough diminished with the other symptoms, its final cessation preceding that of the limb movements by several weeks.

CASE 2.—J. S——, aged fourteen, came under my observation at the Public Dispensary in Stoke Newington, London, in November, 1889. He complained of a troublesome, "hacking cough." The characters of the cough were such as to at once recall to my mind the case of my friends' child (Case 1). The description of the one cough exactly describes the other, with the exception that J. S——'s mother stated that he frequently coughed during the night. He had had scarlet fever and measles before the age of four. One uncle had chorea in youth. Beyond this there was no history, personal or family, of rheumatism or nervous affection. He was a stunted, thin boy for his years, but was said to enjoy good health. The cough had troubled him for several weeks, and occurred at intervals of two or three minutes. Respiration was normal, and there was slight hoarseness. His lungs and heart, on examination, appeared healthy. On completely stripping him, no muscular tremor or twitch could be detected in any part. Physical examination of ears and nose detected nothing abnormal, and the mucous membrane of the pharynx and mouth was healthy. The tongue was absolutely free from abnormal movement, but the soft palate exhibited frequent twitchings of momentary duration. Laryngoscopically the ventricular bands seemed of a deeper hue than normal. The vocal cords, while in energetic normal motion, as in phonation and deep inspiration, acted readily and fairly steadily; but when relieved from conscious voluntary effort, and left to the more passive movements of quiet respiration alone, they exhibited frequent jerky movements of unequal extent towards and away from the middle line. So far as could be observed, the two cords were equally affected, and moved simultaneously in all such movements with one exception. Near the junction of the posterior third with the anterior two-thirds of the right cord there was a darkish red area. At intervals the right cord exhibited a movement by which it became partially kinked, the apex of the kink, which was convex outwards, being situated at the red part. (Such a movement in a vocal cord is something unique, in at least my experience, and its causation opens a wide field for speculation. The only thing approaching it I have met was a case I observed over two years ago, when assistant to the Central London Throat Hospital, in which an elderly man came complaining of his voice "going off in squeaks." In his case, on attempting phonation for low notes, both of his cords were observed, just after sound production had commenced, to suddenly leave the middle line and jerk outwards, momentarily forming sharp curves with the convexity outwards. In this case both cords were bent or curved and the position was less of a sharp kink than was the case in my choreic patient, in whom the kink in the right cord was a more or less angular one, the apex corresponding with, and presumably causing, the small congested area. As to the mechanism by which such a position of the cord became possible, adductor paralysis, which in its early stage at least gives rise to an outward bend during deep inspiration, may be dismissed. The bend was too acute and too transitory, and there was no other evidence of paralysis. It is open to assume either, on the one hand, a sudden spasm of the whole or of a part of the thyro-arytenoid muscle of the affected side; or, on the other, what seems more probable, some sudden tilting or shifting of the thyroid cartilage by the intrinsic or extrinsic muscles, causing some alteration in its relations to the cricoid other than that normally produced by the action of the crico-thyroid muscles—a partial dislocation, in fact, or sliding of the inferior cornu of the thyroid on the flat articular surface of the cricoid.) The larynx as a whole appeared not to be shifted in position by any choreic spasm of the external muscles attached to it, and, indeed, except in the palate and intrinsic laryngeal muscles, no choreic movements could be detected. The cough exhibited all the reflex associated muscular action normal to such an act, the contemporaneous fixing of the muscles of the neck and the diaphragm, the contraction of the chest and the explosive passage of air through the rima glottidis denoting a physiological combination of forces to effect one object, strongly contrasting with the irregular and apparently purposeless choreic laryngeal movements. On the patient's second visit a week later, in order to obtain a more complete examination, the fauces and pharynx were painted and the larynx sprayed with a 5 per cent. solution of cocaine. (N.B. Much of the information detailed above as to laryngeal movements in this case was obtained at the second and subsequent examinations under cocaine.) Within a few minutes after the application the cough had entirely ceased. The choreic movements were quite unaffected. The application of cocaine was repeatedly made within the next few weeks, and invariably with the same result—viz., the complete cessation of the cough, the choreic movements continuing unaffected. On several occasions when no cocaine had been employed I probed different points of the pharynx and larynx, and in particular the congested spot on the right cord, in order to discover, if possible, a reflex spot which might excite the cough. I failed to do so, but cannot regard the result as of any conclusive value, as, in in the first place, I easily excited retching in the pharynx; and secondly, the congested spot, which might reasonably be supposed to be the cause of the cough, was not easily hit, owing to the choreic movements. The patient was treated with chloral and bromides. Five weeks after his first admission a slight twitching in both coraco-brachiales was detected. Shortly after the hands and neck became affected, and subsequently the whole of the upper limbs. The choreic attack was a mild one, and the patient was dismissed well nearly four months after the arms were affected, the laryngeal symptoms being the last to subside. The cough ceased with the laryngeal movements, having survived by six weeks the red congested spot, which disappeared on the commencement of the subsidence of the muscular twitchings.

CASE 3.—A. P——, aged fifteen, was admitted to the Public Dispensary, Stoke Newington, London, in the spring of last year complaining of a "dry cough." The patient was a healthy-looking well-grown girl approaching puberty. She had never menstruated, had had one previous attack of chorea, and there was a family history of both chorea and rheumatism. The characters of the cough were similar to those in Case 1. On stripping the patient slight but distinct choreic movements were seen in the forearms and fingers. The tongue was slightly affected, but no movements of the palate could be detected. On laryngoscopic examination irregular movements of the cords towards the middle line were seen to occur frequently. Occasionally one cord appeared to move independently of the other, or, at least, to precede the other in movement, but the motions were so rapid and irregular that accurate observation on this point was impossible. The larynx as a whole was frequently raised and depressed by the extrinsic muscles acting on it, which were also to a certain extent affected by choreic spasm. The mucous membrane of the larynx and pharynx seemed perfectly healthy. Nothing abnormal was found in nose or ears, and the lungs and heart appeared to be normal. The pharynx and larynx were sprayed by cocaine on several occasions, but without any such result as followed the application in Case 2. Both cough and muscular movements remained unaffected. The cough, which occurred at intervals of three or four minutes as a rule, occasionally recurred more frequently, so that during a period of from six to ten seconds four to ten coughs

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might occur. Such periods of greater frequency were of very irregular occurrence, and repeated observation convinced me that their commencement coincided with alterations in position of the whole larynx by the extrinsic muscles, and that the alterations with which they were associated were those in a downward direction. Descent of the larynx was, though by no means invariably, frequently the starting-point of one of these periods of frequency. That it was the cause of these periods was difficult of proof; for while ascent, which was easily produced voluntarily in swallowing, failed to produce increased frequency or to excite the cough in any way, descent to any great extent could not be produced at will, that connected with the production of deep notes being insignificant in extent in comparison with the ascent of deglutition. The amount of descent produced in this patient, however, by choreic spasm of the depressors of the larynx appeared to be all but, if not quite, as great as the amount of ascent. In order to test the point as far as possible, having placed the patient recumbent with her head hanging well back over a pillow under the neck, I grasped the larynx, and, pressing it well up towards the base of the tongue, held it there as steadily as possible. This manœuvre, which I repeated on several occasions, never failed to check all cough for a period which varied from twelve minutes to twenty-eight minutes on different occasions, but on all these occasions cough did return before the larynx was released from its fixed position. During fixation of the larynx in such a position laryngoscopic examination was of course impossible, but the movements of the tongue and of the depressors of the larynx continued.

Dr. B. Sachs of New York, writing in the "Encyclopædia of Diseases of Children," says: "Laryngeal chorea is a special form of chorea in which the laryngeal muscles are chiefly affected, the result being a peculiar bark which is repeated at short intervals. These cases are sometimes mistaken for cases of hysterical bark, but the general restlessness, the age of the patient, and the choreic movements of the tongue make the diagnosis an easy one. From my own experience I infer that this is the rarest form of chorea." This, as I have said, is the only distinct reference to such cases as the above which I have been able to find in the more accessible descriptions of chorea and laryngeal neuroses, and it may be of interest briefly to examine the cases and Dr. Sachs' description a little more in detail. In regard to Cases 2 and 3 it seems to be reasonable to conclude that the cough was the result of chorea of the laryngeal muscles. Case 1, though very suggestive, has not, for obvious reasons, the same claim. In regard to the ease of diagnosis, I cannot agree with Dr. Sachs. Certainly in Case 3, where there was neither "general restlessness" nor "choreic movements of the tongue," nothing but a laryngoscopic examination could have established a diagnosis, at least for many weeks. Into the interesting question of the mechanism by which the cough was produced in these cases, others with more ample means of observation will be able to enter. Dr. Sachs says: "The laryngeal muscles (*vide supra*) are chiefly affected, the result being a peculiar bark &c.," just as, presumably in the same way, in chorea of the forearm the flexors and extensors of the fingers are affected, the result being movements of the fingers. It seems needless to point out that a cough is a purposive act comprising many complicated muscular efforts coördinated into one whole, which is set in action by a reflex excitation or by voluntary effort. Such an act is quite unlike the irregular faulty spasmodic muscular movements of chorea which, when occurring in the larynx or pharynx, may, by obstructing the current of air in a more or less passive and accidental way, cause irregular speech or respiration, or even unusual laryngeal sounds—indeed, a cough could not be produced by any action of the laryngeal muscles alone. The facts of the above cases seem to point to the conclusion that the reflex cough was excited by abnormal sensations in the larynx caused by the choreic movements of the muscles. The cessation of the cough under cocaine in Case 2 seems to demonstrate this, for in this case the only abnormal condition found beyond the choreic movements was the congestive spot, which disappeared six weeks before the cough. Further, cough from such irritation as inflammation or congestion of the laryngeal mucous membrane would hardly exhibit such characters as were observed in these cases, but would be more prolonged and paroxysmal, and would almost certainly be accompanied by hoarseness and aphonia, from an early period of its duration. Hoarseness at a late period of chorea of the larynx may accompany the cough. This occurred in Case 1, and was probably due to some amount of congestion or inflammation of the laryngeal mucous membrane due to the irritation of the continued cough. The momentary choreic contractions of the muscles would, in all probability, cause unexpected tensions and bulgings, or possibly contacts of various points of a very sensitive mucous membrane, irritation of which invariably leads to cough. The sensations produced in this way would, it may be supposed, simulate closely those due to momentary contact of a foreign body. That in Case 3 cocaine had no effect in checking the sensibility of the membrane and thus stopping the cough is no argument against this view. Stoerck of Vienna and other observers have proved experimentally that cough may be excited by irritating by contact the mucous membrane over the inter arytenoid folds, the posterior wall of the larynx, and the upper surface of the vocal cords, and also the inferior surface of the cords and the trachea, especially its posterior wall, for some distance below the larynx. It requires no argument to prove that the application of cocaine, even by the spray, to the inferior surface of the cords and the larynx and trachea below the rima must be a thing of so great difficulty that its possibility is very doubtful. Therefore, should the point irritated by the choreic movements be below the rima, it is not to be expected that the application of cocaine would check the reflex. Now in Case 3 there was (*vide supra*) some reason to think that the starting point of the reflex was below the rima, for it was just when the larynx descended, and possibly caused some pressure on or folding of some part of the mucous membrane below the cords, that cough was excited or increased. Though experimental demonstration of this was impossible, some negative evidence in proof of it was obtained by holding the larynx well up under the base of the tongue and jaw as described. This was always successful for a time, but it is open to anyone to argue that tightly grasping the throat would tend for a time to check cough arising from any cause whatever, and that the return of the cough, when presumably the parts had become accustomed to the manual pressure, demonstrates this. My own impression is that the amount of compression used was not sufficient to support this argument, and that the true explanation is that by preventing descent of the larynx the source of irritation was removed, the ultimate return of the cough being due to one of two causes, either a momentary or gradual relaxation of the restraint on my own part, or an unobserved and gradual movement of the patient to relieve an irksome position by bringing the rest of the body up to the raised larynx, as the larynx could not descend to the body, the effect in either case being the same.

Glasgow.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

RUPTURED HEART.

BY BARRINGTON WM. MUDD, M.B., C.M.ABERD.

AS rupture of the heart is a lesion of somewhat rare occurrence, the following case may be of some interest.

J. W——, aged thirty-one, carman, was brought to me a few days ago, having been found lying on his face at his horse's feet quite unconscious. He had been seen a minute or two previously standing at the heads of the horses, ready to back his van into a shed. The men who brought him said they thought the pole of the van must have struck him on the chest, but of course this was mere supposition, as nobody had seen him fall. On admission, half an hour after being picked up, I found him quite unconscious, voluntary motion being absent. He was extremely blanched; pupils widely dilated, and showed no reaction to light; pulse hardly perceptible; perspiration profuse. In this condition he remained for nearly an hour when he began to show signs of slight consciousness. I asked him if he had any pain; he understood me, and put his hand to his chest. About a quarter

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of an hour later he vomited a little blood, and expired shortly afterwards. He lived two hours from the time he was picked up.

Necropsy.—Externally there was a slight abrasion over the centre of the sternum; with this exception there were no other injuries on the body. On opening the chest the pericardium was distended, and on opening it I found it contained a quantity of uncoagulated blood. This I carefully removed, and then I could see that blood was oozing from the right auricle. On further examination I found that there was a laceration situated just between the auricular appendix and the commencement of the superior vena cava, measuring in length about a quarter of an inch and an eighth in breadth. The heart was slightly undersized and its muscular tissue was pale, while on the surface there was an undue amount of fatty deposit. This case, I have no doubt, was traumatic, although there is very little to prove it. With the exception of the abrasion over the sternum there were no other signs of injury. I am inclined to think that the condition of the heart predisposed to the lesion, as the accident which caused it could not have been severe, otherwise there would have been more contusion and injury to external structures.

Seamen's (Branch) Hospital, Albert Docks, E.

DIPHTHERIA ARISING FROM FAULTY DRAINAGE.

By H. MALLINS, M B.

THE remarks in THE LANCET of Feb. 20th, under the heading of "Insanitary Dwellings," leads me to briefly place on record an unequivocal case of the origin of diphtheria from faulty drainage, which came under my observation some five or six years ago. The case was that of a boy ten years of age, who was attacked with membranous sore-throat, followed in a few weeks by almost universal paralysis, a circumstance that proved its true diphtheritic nature. On endeavouring to trace the source of infection I found that the bed in which the boy slept was in a small room directly over the scullery, and that a most unpleasant smell had been noticed to pervade this room for weeks past. On examining the scullery sink it was found to communicate by an untrapped—in places broken—pipe with a cesspit situated about twenty-five yards from the house. There was, therefore, every opportunity for the foul air from the cesspit to be syphoned into the house. The patient was carefully isolated, and though one of a very large family of children no one else caught the infection. As there was not a single case of the disease in the neighbourhood, as the boy did not mix with any children except his own brothers and sisters, and, lastly, as he was the only one in the family sleeping in the line of escape of foul air, the conclusion seems irresistible that in this case, at all events, the diphtheritic poison was conveyed in the emanations from a foul drain, such emanations polluting the air that was nightly breathed. How the specific bacillus got into the cesspit is of course a very difficult matter to explain.

Watton.

CASE OF SYNCOPE DURING ETHER INHALATION.[1]

By A. C. WILSON, M.B., CH.B. VICT., &c.,
ASSISTANT HOUSE SURGEON AT THE SHEFFIELD GENERAL INFIRMARY.

THE following is an account of a case exhibiting grave and somewhat unusual symptoms while under the influence of ether.

A youth aged seventeen was admitted to the infirmary on Jan. 9th for a wound of the eyeball. He was well grown and free from any organic disease. Mr. Snell decided to enucleate the eye, and on Jan. 15th I administered ether in the usual way with Clover's inhaler. The patient took the anæsthetic extremely well, and was soon properly under its influence, as evidenced by the regular stertorous breathing, loss of corneal reflex, and contracted pupil. The ether apparatus was then removed, and Mr. Snell commenced the operation, but no sooner had he clipped round the conjunctiva and divided one of the tendons when suddenly the face and lips of the patient, up to this point of a good colour, became very pale. For a few seconds I thought he was going to vomit, but as there were no further signs of this, and as the breathing became sighing in character, and the pulse, previously full and regular, began to run rapidly down, the operation was at once stopped. We inverted the patient, drew forward his tongue, began artificial respiration and had the window opened. After doing artificial respiration for a few times we stopped for a moment to see if there were any response, but there was no breathing perceptible, and the pulse at the wrist was flickering. Artificial respiration was then resumed, flagellation resorted to, and the battery held in readiness. After some minutes the pulse improved, the patient was found to be breathing again, and he finally recovered completely.

A few points I wish to draw attention to: 1. The room was a small one, leading off from a larger one, and the air of both of these was, I think, exhausted by numerous outpatients. 2. The inhaler had been removed for quite one minute before the bad symptoms came on. 3 The extreme pallor the patient exhibited when at his worst. 4. His complete recovery. So far I have been unable to find any record of death from syncope during the administration of ether. Of eighteen deaths recorded under ether, the fatal result was due to asphyxia. How to explain the symptoms in my case appears difficult. Had the division of tendons of the eyeball anything to do with it? Mr. Mills, anæsthetist at St. Bartholomew's Hospital, speaking of syncope from chloroform, says: "This shock is very marked when, in the operation for strabismus, the internal rectus is divided, the pulse often intermitting and remaining feeble for some minutes." Now, if this operation has a lowering effect on the heart during chloroform anæsthesia, is it not possible that there is a similar tendency while under ether? It is true that there is some doubt as to whether it was the internal or the inferior rectus which was divided; but, since they are supplied by the same nerve, it can, I think, make little or no difference. On the other hand, the syncope may have had no connexion with the operation; and it is on these points that I should feel grateful for any suggestions from more experienced members of the profession.

Addendum.—Since writing the above I find that there are two cases of failure of the heart's action during ether inhalation recorded—one, in THE LANCET of October, 1876, by Mr. A. S. Morton; and the other, in the *British Medical Journal* of May, 1877, by Mr. R J. Pye-Smith. Doubtless other instances have been observed.

Sheffield.

[1] Paper read before the Sheffield Medico-Chirurgical Society on Feb. 11th, 1892.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. PANCRAS INFIRMARY.

A CASE OF SCIRRHOUS CANCER OF THE HEART.

(Under the care of Mr. C. DUDLEY COOPER and Mr. A. B. KINGSFORD, Assistant Medical Officers.)

DISEASE of the muscular walls of the heart of malignant nature is probably always of secondary character, and is of rare occurrence. Dr. Bristowe[1] writes: "Malignant disease of the heart and pericardium has rarely, if ever, been diagnosed during life, and, indeed, only gives evidence of its presence by symptoms referable to the heart. It is obvious, however, that the symptoms to be looked for are those indicative of cardiac obstruction and weakness, and that the supervention of such symptoms in the progress of malignant disease might suggest the possibility of cardiac

[1] The Theory and Practice of Medicine

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involvement." In this case the absence of evidence of growth of any kind, primary or secondary, until the post-mortem revealed its presence, rendered diagnosis quite impossible.

George T——, a coach trimmer, aged forty-eight, was admitted into St. Pancras Infirmary on Dec. 7th in a semi-unconscious state, with a history of having been seized with right-sided paralysis and loss of speech on Dec. 4th. On examination of the heart the sounds were distant but distinctly heard, fairly normal in quality and regular in rhythm; the impulse was weak but not displaced, and the area of cardiac dulness was not increased. The patient improved slightly until Dec. 12th, when at 9 A.M. he suddenly became much worse; his temperature rose in a few hours to 107° F., and he died the same evening.

Necropsy.—On examination of the brain no hæmorrhages or emboli were found anywhere, but the left optic thalamus was decidedly softened as compared with that on the opposite side. On removal of the sternum several nodules were noticed on the surface of the heart showing through the pericardium, which, though completely adherent, was not involved in the growth. The ventricular walls were slightly hypertrophied, but the valves appeared perfectly normal. The chief seat of the growth was in the auricles; there were also several small masses about the apex, mostly involving only the outer half of the thickness of the (ventricular) wall, and nowhere projecting into the cavity of the ventricle. The endocardium of the auricles also was intact throughout; but outside this the walls of the left auricle were almost entirely formed by new growth, and attained a maximum thickness of one inch and a half. There were two masses of growth in the inter-auricular septum about the size of small filberts. The anterior wall of the right auricle also was almost entirely replaced by new growth, which extended thence up the adjacent wall of the pulmonary artery, embracing it so closely that it could not be dissected off. Several of the mediastinal glands were hard and enlarged. On examining the lungs, the left bronchus was found to be all but occluded by a mass of new growth close to its bifurcation, which was continuous with that in the walls of the auricle, and extended for a short distance into the tissues of the lung at its root. There were also a few isolated nodules of growth in the lower lobe of the lung. The masses of growth were white, hard on section, cupped slightly, and when scraped yielded a thin semi-transparent juice. On microscopical examination they were seen to consist of a large amount of fibrous tissue enclosing alveoli of various sizes. The alveoli contained many epithelial cells, some of which were distinctly columnar in form. A careful examination of every other organ of the body was made, and in none was any trace of growth found. Hence it was thought that the growth might have originated in the epithelial lining of some mucous gland in the left bronchus and have affected the heart and mediastinal glands secondarily. The case is of interest on account of the rare occurrence of the disease and the total absence of any symptoms pointing to so serious an affection of the heart and lungs.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

HYDRONEPHROSIS OF RIGHT KIDNEY; NEPHROTOMY; PYONEPHROSIS OF LEFT KIDNEY; NEPHRECTOMY.

(Under the care of Mr. WHIPPLE.)

THE explanation of this case seems to be as follows: The girl was the subject of some congenital stricture of both ureters. The left kidney first became dilated, and eventually all its secreting tissue was completely absorbed. Whilst the left kidney was undergoing atrophy the right kidney was undergoing compensatory hypertrophy, and at the same time its pelvis and calyces were dilating. At the age of fourteen the right hydronephrosis had become apparent. Ten years later the right loin being drained and all the urine escaping from it, it became evident that the left kidney was destroyed. The patient being very anxious to get rid of the fistula, an attempt was made, by exploring the bladder and the right kidney, to find the cause of the obstruction, which at that time was unexplained. Either owing to the examination of the bladder or the palpation of the left loin, suppuration was set up in the sac of the old hydronephrosis on the left side. For the notes of this case we are indebted to Mr. W. Gifford Nash, late house surgeon.

A. S——, aged twenty-five, a school teacher, was admitted into the South Devon Hospital on Nov. 18th, 1890, suffering from a renal fistula, of which she wished to be relieved. She stated that since the age of fourteen she suffered from a dragging pain in the right loin and occasional attacks of vomiting; she never had any hæmaturia or passed gravel. For many years she passed very little urine by day, but had to get up two or three times each night. On Feb. 19th, 1890, she was admitted into the West Kent General Hospital, Maidstone, where it was found that there was a large fluctuating swelling in the right loin. The circumference of the abdomen varied from thirty-two to thirty-four inches. The urine had a sp. gr. of 1010, and contained pus and phosphates. The daily quantity varied from sixty to 106 ounces, about two-thirds of this being passed by night. This ratio was maintained whether she got up or remained in bed all day. Under chloroform no urine could be squeezed from the tumour into the bladder. Nephrotomy was performed and 100 ounces of alkaline fluid containing pus, sp. gr. 1012, evacuated. A urinary fistula has remained since then.

On admission the patient was a florid and well-nourished woman, with a urinary fistula in the right loin just above the iliac crest. In the right loin and iliac region could be felt a large firm tumour. A probe passed into the fistula towards the umbilicus six inches, and upwards and downwards four inches each. No kidney could be felt on the left side. During the first week in hospital the urine from the loin averaged fifty ounces, but none came from the bladder. On Nov. 26th chloroform was given and the bladder examined digitally, but nothing abnormal was detected. The renal tumour was explored through the fistula, and the dilated kidney pelvis examined. The upper opening of the ureter could not be found. On Dec. 16th the patient had a rigor and aching in the left loin; next day two ounces of purulent fluid came away from the bladder. The signs of suppuration continued until operation. On Dec. 24th a swelling was first felt in the position of the left kidney, and on the 27th a pyonephrosis was opened in the left loin, and thirty-one ounces of pus evacuated. The sac was well washed out, and its edges stitched to the skin. After this there was no discharge of pus from the bladder, and the wound in the left loin rapidly contracted. On Feb. 13th, 1891, the wound in the left loin was enlarged, and the pyonephrotic sac peeled off the surrounding tissues, and as much as possible removed. The sac extended high up under the ribs, so that its upper part could not be got at. Nothing was seen of the remains of ureter or renal vessels. On July 24th, as there was still some discharge from a sinus running up under the ribs, chloroform was given and the cavity scraped out. A few days later there was a discharge of pus from the wound resembling softened spleen. This lasted three or four days, and then the discharge gradually diminished, so that when the patient left the hospital at the beginning of October there was only a small sinus remaining. The urine from the right loin contained about one-twelfth albumen, and was collected in a Maw's urinal.

Remarks by Mr. W. GIFFORD NASH.—The points in favour of the obstruction being a congenital stricture of both ureters, either at their origin from the pelvis of the kidney or at their entrance into the bladder, are the facts—(1) That the majority of hydronephroses in children are due to congenital narrowing at one or other of the spots mentioned, as shown by the examination of museum specimens; (2) the absence of any urethral obstruction or tumour of the bladder blocking the urethra, or involving the apertures of the ureters; (3) the absence of any history or signs of a previous attack of pelvic cellulitis; (4) the absence of any pelvic tumour; (5) the absence of history of renal calculi, or any other known cause of hydronephrosis. The other points of interest in the case are: (*a*) The increased flow of urine by night, which cannot be explained on mechanical grounds, as it occurred if the patient was up all day, or if kept in bed. (*b*) The large quantity and low specific gravity of the urine and albuminuria are no doubt due to the chronic interstitial nephritis which accompanies the hydronephrosis. (*c*) The escape of splenic pus, which is easily explained by the fact that the spleen is in contact with the left kidney. (*d*) The fact that the absence of the left kidney could not have been diagnosed, so that if the hydronephrotic kidney

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had been removed without previous drainage, as recommended by Barker, the only working kidney would have been removed. It is, therefore, advisable to drain a hydronephrotic kidney before removing it so as to find out what is the working capability of the other kidney. (*e*) The obstruction which caused the hydronephrosis was incomplete on both sides. (*f*) The renal vessels on the left side had atrophied *pari passu* with the kidney which they supplied, the pyonephrotic sac receiving its blood-supply from the vessels in the fatty capsule.

RIO TINTO HOSPITAL, HUELVA, SPAIN.

CASES OF PERINEAL AND SUPRA-PUBIC DRAINAGE OF THE BLADDER, ILLUSTRATING THE USE OF GLASS-TUBES IN THE SURGERY OF THE URINARY ORGANS.

(Under the care of Dr. W. A. MACKAY.)

THIS series of cases illustrates the advantages of prolonged drainage in some conditions of disease of the urinary tract. The results cannot be ascribed to the fact that glass was the material used to form the drainage-tubes, but it is desired to draw attention to the value of that material in the after treatment of such patients. We are in receipt of a communication from Mr. Haydon Brown with reference to glass tubes for drainage of other than abdominal wounds, and he has forwarded us specimens of tubes which may be more safely used than those at present at our disposal, less liable to break or cause damage to parts. We have tried them, and find them very useful in many cases where at present the ordinary rubber tube causes pain in introduction, readily becomes foul, or where it is necessary to continue the drainage for a long time.

CASE 1.—M. B——, aged thirty-seven, was admitted on May 28th, 1886, much emaciated and confined to bed. He was suffering from urinary abscess in the anterior abdominal wall, seven fistulæ in the perineum, a tight stricture, cystitis of a year's standing, with much pus in the urine. The patient was unable to bear the presence of a catheter when tied in. The abscess was opened and drained. The catheter was again passed four days later. A staff was also passed down to the stricture, and an incision made through the perineum, dividing the stricture; the finger was passed along the catheter into the bladder. A glass-tube was then tied in. The bladder was drained for six weeks. The patient has been seen lately (five years after the operation), and is in perfect health and never passes an instrument.

CASE 2.—R. M——, aged forty-one, was admitted on Dec. 5th, 1889, with a history of ten years' suffering from stricture of the urethra and urinary fistulæ. The urine contained a large quantity of thick, ropy, tenacious mucopus. The bladder, which was contracted and extremely irritable, was drained through the perineum for three months, and gradually but forcibly dilated with boracic acid solution. The patient continues in perfect health, and does not require to pass an instrument.

CASE 3.—J. C——, aged thirty-two, was admitted on Aug. 15th, 1891, suffering from gangrene of the skin of the penis and scrotum caused by extravasation of urine, which followed the bursting of a deep perineal abscess into the urethra; no external opening. On admission the pulse was 130, the scrotum was the size of a fœtal head, with gangrenous patches, and the anterior abdominal wall was dusky red and hard up to the umbilicus. The case was considered hopeless. Carbolic acid and mercury were powerless against the stench arising on incising the gangrenous patches. No urine had been voided for thirty hours. A staff was passed as far as possible. Incision through the perineum on the point of the staff enabled a large solid slough to be turned out, and after clearing a fetid cavity in the deep perineum a glass-tube was passed through the wound into the bladder, and fastened in. Beside the gangrenous patches a large piece of the skin of the anterior abdominal wall sloughed, and the penis was left almost denuded. Twenty-four hours after the operation the pulse was under 100. The patient made a rapid recovery.

CASE 4.—M. D——, aged eleven, was admitted on Feb. 24th, 1888, with a history of stone extending over a period of six years. There was severe prolapse of the anus; the patient was weak, and suffering from malarial fever. Through a supra-pubic incision a phosphatic stone weighing 300 grains was removed. Three large worms were expelled during convalescence. Wound healed; patient discharged April 7th. The boy continues quite well.

CASE 5.—M. C——, aged fifty-nine, was admitted on Nov. 2nd, 1890, with a history of stone for four years. He had severe cystitis, a large prostate, and much pus in the urine. Lithotrity performed a year ago gave little relief. Seven stones (phosphatic) were removed through a supra-pubic incision; the largest was the size of a pigeon's egg. A wide glass-tube was inserted, and replaced at the end of twenty-four hours by one of smaller calibre. The bladder was drained for two weeks. The wound then healed, and the urine was normal. The patient was discharged cured on Nov. 24th. A year later he reported himself in perfect health.

CASE 6.—J. C——, aged seventy-five, was admitted on Dec. 30th, 1891. There was a history of stone in the bladder for eight years. Four years ago Dr. Mackay removed with the lithotrite a large quantity of phosphatic matter, but the relief was only temporary. On admission the patient was suffering from severe cystitis; much pus in the urine, which was ammoniacal; a large prostate; there was no stone. The catheter no longer relieved him. He was worn out by pain and want of sleep. Supra-pubic cystotomy gave immediate relief. The pulse before the operation was constantly over 100. After the operation it never reached 90, and was seldom over 80. A wide glass-tube was used for the first twenty-four hours. This patient was in his chair at the end of the first week. The bladder is to be drained until the urine is normal, and free from pus.

Remarks by Dr. W. A. MACKAY.—Far from imagining that there is anything new in the idea of employing glass in the surgery of the urinary organs, I am rather anxious to learn whether we have any other substance which ought to be preferred. After a trial of all kinds of lithotomy and other drainage-tubes, I have found that the general well-being and comfort of the patient are best attained with glass. Why abdominal surgery should have such a monopoly of this commodity I have never been able to understand; but it is certain that abdominal surgeons through attention to such simple details have reached a position of security from which neither the fear of a germ nor the beautiful colouring of an antiseptic dressing can allure them. I do not attempt to enumerate the advantages of a glass-tube in the drainage of the urinary bladder, but have simply given details of a few cases where glass was used. There has been an entire absence of any grave symptoms after operation in all cases in which I have either opened or drained the bladder. Sufficient time has now elapsed in most of the cases cited to ensure a trustworthy result. The bladder was in some instances drained for a very long time. This, I believe, has a marked influence on the permanency of the result. A patient can wear with little inconvenience a properly fitting tube, and it seems to me unwise to let the wound close before the condition for which it was made is radically relieved. In all the cases a glass-tube was employed, like that used in abdominal surgery, only of smaller calibre. To this is attached a small piece of indiarubber tubing, which conveys the urine to a vessel in the bed, and the patient is kept quite dry and undisturbed. No dressing is used except a T-bandage in a perineal case, and a piece of fine sticking plaster and thread to fix the tube when it is inserted above the pubes. A rectal bag and warm solution of boracic acid were employed at the operation in all the supra-pubic cases. In none of these was there any appearance of extravasation of urine or abscess formation about the wound. In the case of old men the stone is often not the most important factor in the pathological condition of the patient. It may be got rid of by means of a lithotrite, and yet no rest is given to the prostate and bladder. Such cases can only be cured by prolonged drainage, which I venture to suggest might well supersede prostatectomy in many cases.

DEATH OF DR. IMMISCH.—A well-known figure in Heidelberg has just passed away in the person of Dr. Immisch, the Heidelberg "duel" doctor. Dr. Immisch had occupied for over forty years the post of doctor to the students who were wounded in duels. All the students of the Heidelberg University attended the doctor's funeral, each corps bearing its banners and devices.

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Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Enterostomy in Intestinal Obstruction.

AN ordinary meeting of this Society was held on March 8th, the President, Sir Andrew Clark, in the chair.

Mr. JAMES GREIG SMITH (Bristol) communicated a paper on Enterostomy in Intestinal Obstruction. The object of the paper was to advocate operative evacuation and drainage of intestinal contents in cases of obstruction of the bowels where distension was a marked feature. It was shown that mere over-distension of the intestinal walls was a potent factor in the production of obstruction; physical and physiological causes combined to render an over-distended gut incapable of passing onwards its contents. It was argued that the operative treatment of intestinal obstruction was not completed until this continuing cause was removed. According to the nature of the case the measures adopted should be—(1) simple evacuation of contents with immediate return of the gut; or (2) evacuation with drainage for several hours or days, and subsequent closure and return of the gut; or (3) evacuation with drainage that might be permanent. The operative details were described. Anæsthesia should never be carried out while the stomach was distended with fluid; then either the stomach should be artificially emptied, or the operation should be performed with the help of a local anæsthetic. Anæsthesia should be continued only for so long as was necessary to make the parietal incision and place the sutures. 1. The proceeding of simple evacuation was described in detail. The handling and opening of the gut, the means to promote evacuation, and the length of time which it was advisable to spend over the proceeding, the closure, cleansing, and return of the gut, were in turn considered. 2. The proceeding of drainage carried out continuously or intermittently over several hours or days was next described. The means to be adopted for temporary fixation of the gut in the parietal opening, for removing and collecting the intestinal discharges, and for closing the gut and uniting the parietal wound over it, were related. 3. The continuance of drainage for an indefinite period—the formation of fæcal fistula—as the best means of dealing with a certain class of cases was discussed. The position of enterostomy as a means of dealing with cases where the cause of the obstruction was not found, or, being found, could not be removed, was considered only incidentally. The arguments adduced were intended to apply only to cases where over distension existed; and the measures advocated were intended to supplement and complete the ordinary surgical methods for relief of the strangulation, and in no sense to replace these.

Mr. BRYANT said that the paper was evidently the result of considerable observation and experience. Everyone would admit the evil effects of over-distension, which gave rise to paralysis of the intestine. The treatment was not new, for it had often been practised before, but it was a question in which class of case it would be applicable. It was not uncommon to find persistence of symptoms after operation for strangulated hernia, and after death no obstruction would be found; but the knuckle of bowel which had been relieved appeared not to have sufficiently recovered to allow the forcing through it of the intestinal contents, and the bowel above would be paralysed and would not act. Would the author recommend a second operation for the relief of the distension in such a case? He himself thought that a small enterostomy might be advisable. In a second large class of cases of band, volvulus, or other form of internal strangulation the operation was a valuable one. All had probably recognised the difficulty there often was in returning the distended intestine in such cases, and in three he had been obliged to relieve the over-distended bowel by tapping it, though he confessed that he had not done it on the principle laid down by Mr. Greig Smith, but simply as a mechanical measure to aid the return of the gut. Whether the operation for the removal of the cause were done at the time of the relief of the distension or later would depend on the individual circumstances of the case. He agreed with the author as to the details of the operation. He held it to be unnecessary to connect the parietal peritoneum with the skin, and he had never done it in practice; he preferred to allow the bowel to come in contact with the freshly cut tissues and the skin. For years he had performed the operation of lumbar colotomy by pinning the gut in the wound without stitching; after thirty-six hours adhesion would take place, and then the gut could be dealt with in any fashion required.

Mr. KNOWSLEY THORNTON referred to the paper as an interestingly suggestive and valuably practical communication dealing with some of the most unsatisfactory cases of abdominal surgery. He desired particularly to refer to the part played by the parietal abdominal muscles in these cases. They also lost their tone and their power of contracting, and this contributed in no small degree to the distension. Great assistance could be given them by means of firm strapping, aided by padding with towels and cotton wool. He asked if, in the cases in which the intestine required emptying frequently, the multiple points of puncture were each secured by suture. He himself was always in the habit of closing punctures in the intestine by means of a single fine parietal suture.

Mr. PEARCE GOULD said that any suggestion having for its end the increased success of abdominal surgery would be warmly welcomed by all, for it had to be confessed that the results of practice in these particular cases had up to the present time been very disappointing. The chief aim of the author appeared to be a physical one—to relieve an over-distended bowel which was by its over-distension unable to pass on its contents. But he thought that there was generally an additional factor in these cases; that a poison was frequently produced and absorbed which was of a very dangerous character. It was perhaps this poison which rendered the patients so liable to be unfavourably affected by chloroform. Washing out the stomach in cases of fæcal vomiting did great good, and the total effect was more than that which would be produced by the mere removal of the fluid. A few ounces only might be withdrawn and yet a great improvement in the patient's condition follow. The benefit, so to speak, seemed to be a chemical rather than a physical one. A patient might be suffering from acute intestinal obstruction and might not be very bad; he would be submitted to an operation which was not very severe, the procedure being, perhaps, limited to the speedy division of a band, and yet on return to bed he would not recover; the pulse would become more feeble and frequent, and death would take place in an hour or less. At the post-mortem examination the obstruction would be found to be completely relieved, but the bowels remained distended. This had been called abdominal shock, but this term did not at all explain the effect we had to deal with. He related another case in which the patient died suddenly two hours and a half after the administration of chloroform for the relief by operation of a hernia which had been reduced *en bloc*. At the necropsy the small intestine was found to be greatly distended, but no obstruction remained. It seemed that the patient was poisoned by some ptomaine secreted in his intestine. It was certain that the fluid which these patients vomited was not only greater in amount, but was different in its coarse physical characters from the healthy gastric or intestinal fluids.

Mr. THOMAS SMITH held that time was a most important element in all operations done for the relief of strangulation or obstruction, and anything which tended to reduce the time of the operation was worthy of consideration. The suggestion that the amount of chloroform given should be reduced to a minimum was a valuable one. He inquired if the patient was conscious of the grasp which the assistant had of the intestine. He himself had demonstrated many times that the stomach could be cut without giving rise to pain, and he had, in a patient without an anæsthetic, scratched the intestine with a pen, put ink, tincture of aloes, and other fluids on it, and yet the patient had experienced no unpleasant sensation. Another valuable practical point was the division of the operation into two stages, relieving the distension first and dealing with the cause of it later. He asked if any kind of antiseptic was used in these operations. He thought that the parietal peritoneum should be secured, as otherwise it was apt to slip away from the wound and leave a raw surface presenting towards the peritoneum. He referred to the advantages of Paul's tube in these cases: it was easily adjusted, and could be corked so as to regulate the outflow of intestinal contents.

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Mr. HOWARD MARSH agreed in the importance of this question of distension, which the author had shown could be dealt with by properly contrived methods. He asked if much use had been made of it in its application to the treatment of strangulated hernia. It had been held that the failure of the contents to pass onwards after the relief of the obstruction was due to the paralysis of the gut for some distance above the site of the constriction; and some surgeons, in cases in which it had been necessary to open the gut at the time of the operation, had drawn down and excised a length of the proximal intestine, so as to get above the level of the assumedly paralysed part. He asked the author how he would deal with a case of strangulated hernia in which there was a patent canal and the gut had been opened. Would he make a further opening at some other point proximal to the seat of former obstruction for the purpose of relieving the distension?

Mr. GODLEE inquired what was the size of the needles used, and how would the cæcum be dealt with where the contents were solid. Would he in such a case use a larger instrument? He was obliged to operate the other day on a case of strangulated umbilical hernia in an old man, and he observed that the patient suffered nothing while the gut was being manipulated.

Mr. BARKER asked if the author had ever met with prolapse of other portions of intestine through the wound. Such a mishap had been more than once seen in inguinal colotomy. He asked if any ill effect had been observed from failure to cover the edges of the wound with parietal peritoneum. The advantage of attending to the latter was to keep any oozing out of the peritoneal cavity.

After some congratulatory remarks from the president, Mr. GREIG SMITH replied. He recapitulated shortly the measures he would take if they were dealing with a typical case. If the stomach were distended he would first empty it; then a little anæsthetic should be administered, and an incision should be made where necessary, the exigencies of the particular case determining the site. Three or four sutures were then passed through the abdominal walls, and their ends were gathered in forceps. The anæsthetic was now stopped, and, the patient having come round, the finger was inserted into the abdomen, and a gentle search made for the obstruction. When this was relieved the question arose whether the patient should be allowed to run the risk of recovery without any more being done. If there were much distension he always evacuated and drained, and the delighted expression of the patient bore testimony to the benefit of it. The bowel was drawn out and sponges packed round it, a small incision was made through the muscular coat, and a big needle, such as a Spencer Wells's ascites tube, thrust through the mucous lining; this was attached to a large aspirator not too fully exhausted. After the first gush of fluid had stopped one should then deliberately sit down and wait, if necessary for half an hour, until the successive coils had emptied themselves. A Dupuytren's suture was then inserted, and if the distension were completely relieved the wound was closed; but if not, a loop of thread was passed under it, and it was retained in the mouth of the wound. In a case of intestinal obstruction the operator should be prepared to wait by the side of the patient for at least twenty-four hours. Sutures to fix the intestine in the wound were in most cases unnecessary; a stiff skewer passed under the gut would hold it in place, and a properly applied dressing would prevent prolapse. Solid fæces were not usually found in cases of acute obstruction, the contents being fluid enough to pass through the needle. He held it to be a waste of time to suture the peritoneum to the skin, and, in addition, he considered it to be deleterious to bring the peritoneum into a common suture-hole with the bowel and skin, and thus increase the risk of contamination. The union which took place between gut and raw muscle was much firmer than that which formed between gut and peritoneum. He agreed that it was useful to strap the abdomen to aid the parietal muscles. He could give abundant testimony as to the absolute insensibility of the intestine to pain. He did not use the steam spray, but observed great cleanliness, and used for dressings boracic lint and powder, and also boroglyceride. Formerly he had used celluloid tubing in some cases, but in most it excited a secretion of mucus from the gut, which decomposed readily and would not absorb on any dressing. He had therefore come to the conclusion that he would rather tap three or four times during the twenty-four hours than leave a tube in for that period.

ANNUAL GENERAL MEETING.

The annual general meeting of this Society was held on March 1st, Mr. Timothy Holmes, President, in the chair.

The minutes of the last annual meeting having been read and approved, the report of the President and Council, together with the financial statement, were presented. The latter had been duly audited, and showed that the pecuniary position of the Society, in spite of the increased outlay in connexion with the new premises, was satisfactory. The President then moved that the alterations in the by-laws proposed by the Council be adopted. They were, for the most part, purely technical, being connected with the extension of the radius for resident members and the removal of limitations as to numbers in respect to general practitioners, and were declared duly carried. The President then delivered his annual address, in which he commented upon the unusual length of the list of deceased Fellows, owing to the epidemic and the severity of the preceding winter, and which numbered in all twenty-five. A vote of thanks was proposed by Sir Edward Sieveking and seconded by Dr. Powell. The usual votes of thanks having been accorded to the retiring officers of the Society, the meeting adjourned. The following were elected as officers for the ensuing year:—President: Sir Andrew Clark, Bart., M.D., LL.D., F.R.S. Vice-Presidents: William Selby Church, M.D; George Harley, M.D., F.R.S.; Messrs. Howard F. Marsh and Henry Power. Treasurers: Charles John Hare, M.D., and John Ashton Bostock, C.B. Hon. Secretaries: Frederick Taylor, M.D., and Rickman J. Godlee, M.B., B.S. Hon. Librarians; Samuel Jones Gee, M.D., and John Whitaker Hulke, F.R.S. Members of Council: Alfred Lewis Galabin, M.A., M.D.; Norman Moore, M.D.; John Mitchell Bruce, M.D.; Thomas Tillyer Whipham, M.B; Thomas Barlow, M.D.; Sir Joseph Lister, Bart., D.C.L., LL.D., F.R.S.; J. Neville C. Davies Colley, M.C.; William Henry Brace, M.D.; Messrs. Chas. N. Macnamara and Alfred Pearce Gould, M.S.

MEDICAL SOCIETY OF LONDON.

The Causation and Treatment of Piles.

AN ordinary meeting of this Society was held on March 7th, the president, Dr. Douglas Powell, in the chair.

Dr. LAUDER BRUNTON read a paper on the Causation and Treatment of Piles and Allied Affections. After pointing out that dilatation of the hæmorrhoidal veins might be due to obstruction to the return of blood, either in the liver or at the point where the hæmorrhoidal veins pass through the muscular coats of the rectum, he referred to the various conditions under which the different kinds of obstruction might occur. Over-eating led to congestion by maintaining the liver cells in a state of repletion, thereby interfering with the local circulation. Cold might act either through the liver or by causing reflex contraction of the muscular walls of the rectum, and so preventing the blood finding its way back through the veins. In reference to the influence of cold in causing disturbances of the alimentary canal, he pointed out that the parts of the body most susceptible to chill were—(1) the nape of the neck; (2) the abdomen; (3) the shins; and (4) the feet. Passing to the question of treatment, the author, after alluding to the beneficial effect of mercurial purgatives followed by mild salines in the prevention of hepatic congestion, showed that though large doses of aloes might conduce to the formation of piles by unduly stimulating the muscular coats of the rectum, small doses exerted a contrary effect. Another way of relieving hepatic congestion *a frigore* was to apply hot-water bags to the back of the neck and over the liver. When a patient was subject to piles it was advisable that he should accustom himself to empty the bowels at night, in order to secure rest in the recumbent posture after defecation. Moreover, when there was much irritability it was preferable to use a soft sponge and water, instead of paper more or less harsh. He also advised the introduction of a pledget of animal wool dipped in hamamelis, which acted as a mechanical support and a local astringent. With regard to this he observed that the official extracts or tinctures were not so efficacious as certain

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proprietary preparations. In obstinate cases he had obtained great relief from the use of the anal pad.

Mr. CRIPPS drew a sharp line of distinction between internal and external hæmorrhoids, both in regard to pathology and treatment. The external, he thought, were far the more common, and were totally unconnected with disorder of the liver. Experimentally he had been quite unable to inject the portal system from the anal veins. He recognised two varieties: the one, in which, as a result of straining or accident, a small vein burst and gave rise to a thrombus in the folds of cellular tissue around the anus; the other, which occurred more frequently, was due to the development of œdematous folds of skin in the same position, which were tender and painful and often due to the presence of a fissure. This, which was really the primary lesion, resulted from constipation or from cracking of the epithelium, as occurred in the lips in cold weather. Internal hæmorrhoids became obvious when inflamed, or prolapsed and strangulated, but attention was still more frequently called to them by hæmorrhage.

Dr. LAZARUS BARLOW was also of opinion that the liver had in most cases nothing to do with the formation of piles, and he cited some forms of hepatic enlargement, such as amyloid disease, cancer, and pylephlebitis, which were not, in his experience, accompanied by hæmorrhoids. He agreed with Sir George Humphry's teaching, that piles resulted mostly from straining.

Dr. CAMPBELL POPE mentioned a case in which an acute attack of hæmorrhoids followed sitting on a wet truss of hay, pain coming on within two hours. Much relief subsequently followed a discharge of blood. He thought that if champagne produced a tendency to the disorder, it was by causing over-distension of the bladder.

Mr. GOODSALL also exonerated the liver from any share in the production of piles. He thought the principal factors were heredity, constipation, and any cause of local congestion. In young women they appeared with remarkable constancy on the right side of the anus near the perineum. Hæmorrhoids were more frequent in people with lax tissues, who were also the subjects of varicose veins and hernia. Sedentary occupations favoured the malady.

Mr. PEARCE GOULD expressed the opinion that there was a great want of proper differentiation in nomenclature in regard to piles, a term which he objected to, and more especially when described as an "attack of the piles." He thought there was very little, if anything, in the view that the liver was an important factor in the production of the malady, which resulted mainly, in his opinion, from straining at stool in connexion with constipation, this being favoured by the brittleness of the epithelium around the anus. He placed great reliance in enemata in the treatment of the disorder.

Mr. BOYCE BARROW said that palliative measures were seldom of any avail, and that the straining often resulted from the presence of internal hæmorrhoids. He dwelt upon the value of an operation and the importance of extreme cleanliness.

Dr. BRUNTON, in reply, said he was glad he had introduced the subject, as it was evidently one which required a good deal more discussion, but he regretted not having given more time to making his views clear. He regarded the liver and variations in its circulation as being only one of many factors in the production of hæmorrhoids. There was no doubt local dilatation of arteries as well as veins, assisted by straining, local irritation, and abrasion. The evidence of congestion in the liver was similar to that of congestion elsewhere—enlargement and tenderness. The liver was liable to vary in size greatly and with remarkable rapidity.

The following is a list of officers elected at the general meeting held on March 7th, 1892:—President: Jonathan Hutchinson, F.R.S. Vice-Presidents: William Henry Allchin, M.B., William Rose, F. de Havilland Hall, M.D., and David Henry Goodsall. Treasurer: Arthur Edward Durham. Librarian: William Henry Allchin, M.B. Honorary Secretaries: Arthur Marmaduke Sheild and William Pasteur, M.D. Honorary Secretary for Foreign Correspondence: Jean Samuel Keser, M.D. Council: Charles Alfred Ballance, Albert Boyce Barrow, Thomas Bridgwater, M.B. (Harrow), Charles James Cullingworth, M.D., Joseph Ewart, M.D. (Brighton), George P. Field, Thomas Colcott Fox, M.B., William F. Haslam (Birmingham), George Allan Heron, M.D., Donald W. C. Hood, M.D., Charles Bell Keetley, Augustus Cooper Key, Percy Kidd, M.D., Stephen Mackenzie, M.D., Joseph Arderne Ormerod, M.D., Stephen Paget, Richard Douglas Powell, M.D., William Travers, M.D., George Robertson Turner, and Samuel West, M.D.

OBSTETRICAL SOCIETY OF LONDON.

Cæsarean Section.

AT the meeting on March 2nd, Dr. J. Watt Black, President, in the chair, the following specimens were shown:—

The PRESIDENT: Professor Braun's (of Vienna) Axis-traxis Forceps.

Dr. HANDFIELD JONES: (*a*) Fœtal Monstrosity; (*b*) Hydrosalpinx and Ovarian Cyst.

Dr. HORROCKS: Uterus Extirpated for Cervical Cancer.

Dr. AMAND ROUTH: Uterus Extirpated for Cancer of the Body.

Dr. RUTHERFOORD: Fibroma of Ovary.

Three papers on Cæsarean Section were then read.

Dr. LEITH NAPIER communicated notes of a case on which he operated on June 14th, 1891. The patient was a secundipara, having been delivered of her first child by craniotomy and embryulcia on March 15th, 1890. She was a squat-built woman, 4 ft. 10 in. high, with well-marked rickety curvature of the left tibia. The pelvis was of the contracted, flat variety, with a conjugata vera of 2⅝ in. The Sänger-Müller modification of the Cæsarean section with deep and half-deep sero-muscular sutures was performed 280 days from the date of the last period. Labour had not begun nor had any means been adopted to excite pains. The placenta was situated on the anterior wall. The operation lasted forty-six minutes. Some delay arose on account of the flabby state of the uterus. The sutures were of sterilised silk. The Fallopian tubes were tied in two places and divided between the ligatures; the ovaries were not removed. There was some post-partum hæmorrhage. A severe attack of pleuro-pneumonia followed, but there was no peritonitis or appearance of general sepsis. Recovery was good. The patient went home well thirty-four days after operation. The child (a male) is alive and well.

Dr. JOHN SHAW read notes of a case on which he performed Cæsarean section for contracted pelvis. The patient, an unmarried primipara, was 4 ft. 5 in. high. The pelvis was very rickety, the true conjugate being 2½ in. Sänger's modification of the operation was performed before the actual onset of labour. There was not much loss of blood. Chromic catgut sutures were used—stout, deep, interrupted ones, and a few continuous peritoneal ones. The ovaries were not removed, but the Fallopian tubes were tied with silkworm gut. The child was delivered alive and left the hospital well. The mother suffered from septicæmia due to the retention of some shreds of decidua, but recovered after the uterus had been repeatedly washed out. She left the hospital well.

Dr. CULLINGWORTH narrated the case of a rachitic dwarf, aged twenty-one, 4 feet 5 inches high, on whom he operated on Oct. 8th, 1891. Her general health was good, her pelvis was obliquely as well as generally contracted and flattened, the conjugata vera being from two and one-third inches to two inches and a half. The operation was performed a few days before labour was expected. The uterus was rotated on its long axis so that the right appendages were almost directly in the line of incision. The uterus was opened *in situ*, but was brought out of the abdomen after being emptied, to facilitate the introduction of the sutures. The child, a well-formed male, weighed 7 lb. 7 oz., and cried on delivery. The elastic ligature was not used. There was very little hæmorrhage, the uterus contracting well. Ten deep silk sutures were inserted, and between each two a half-deep suture was passed. No douching or swabbing of the uterine cavity was used. Sterilisation was effected by ligature of each Fallopian tube. The lochial discharge scarcely amounted to more than a stain. The patient left the hospital well twenty-four days after the operation.

Dr. MURDOCH CAMERON (Glasgow) said he was strongly in favour of the Cæsarean section over the Porro-Cæsarean operation. He had performed Cæsarean section fifteen times with only two deaths, and these were in no way due to the operation. He described his method of procedure. First, if labour has not set in, it should be induced; then a five- or six-inch incision in the abdominal wall ought to be made. The uterus is not brought out

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until after the fœtus has been extracted. Any rotation is carefully rectified, and a small incision made in the median line until the membranes (which must not be ruptured) are reached. Next the incision is enlarged upwards and downwards on a bistoury, the hand introduced, and the child extracted. The uterus is now brought out and thoroughly emptied of placenta and membranes. The edges of the uterine incision are everted by an assistant and deep carbolised silk sutures inserted, with, if necessary, a few superficial catgut ones. He strongly deprecated any interference with the uterus after the operation by using intra-uterine douches or by the introduction of a drainage-tube. The debate was then adjourned to the next meeting.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Obstetrical Section was held on Feb. 12th, Dr. Horne, President, in the chair.

Exhibits.—Dr. W. SMYLY: (*a*) Six cases of Pyosalpinx; (*b*) Three Uteri Extirpated for Cancer.

Dr. MACAN: (*a*) Fibrocystic Tumour of Uterus; (*b*) Double Dermoid Cysts of Ovary; (*c*) Dermoid Cyst of Ovary with Cancerous Degeneration of Cyst Wall.

Notes of a Case of Ruptured Uterus, with Recovery.—Dr. BARRY said: "The patient, aged thirty-five, a primipara, was thirty-eight hours in labour when I saw her; liquor amnii had drained away early in labour. On making a digital examination, os uteri about the size of a florin, thick and rigid. On passing my finger through the os uteri I detected a tear passing in an oblique direction for about four inches. No prolapse of intestine. Promontory of the sacrum easily felt, with vertex presenting at the brim of the pelvis. Conjugate diameter measured three inches. Having passed a catheter and drawn off about a pint of bloody urine, I got an assistant to steady the uterus. Keeping pressure in the axis of the brim of the pelvis, I incised that portion between the os uteri and the tear. Applying forceps, I failed to deliver. Perforated head, when an easy delivery was effected, but considerable difficulty was experienced in extracting the shoulders. The placenta, which was morbidly adherent, was attached to the fundus and slightly posteriorly. The patient made a good recovery. I saw her three months after delivery, when, on examination, the uterus was found normal in size and position, menstruation being normal and painless. Os externum quite small, admitting with difficulty the point of a sound, very little evidence of rupture remaining."—Dr. ATTHILL said the case as described by Dr. Barry was a remarkable one, and, as far as he (Dr. Atthill) was aware, no similar one had been recorded. Here was a woman thirty-eight hours in labour, and in whom the waters had long before drained away, with so small a conjugate diameter that the head never came in contact with the os, yet a rent occurred in a position so situated that the finger passed into the os could detect it; it evidently was a rupture of the cervix. How it could have occurred under the conditions detailed Dr. Atthill was unable to explain.

Fæcal Fistula following the Removal of Abdominal Tumours.—Mr. M'ARDLE read a paper on this subject. After detailing cases of this trouble he explained that the condition seemed to be due to extension of suppuration from the tumour into the intestine, ulceration from the intestine extending into the tumour, local necrosis of the bowel wall due to pressure of the tumour, tearing of the coats of the bowel during the operation, disturbance of the nutrition of the bowel owing to injury of the vessels of the intestine, and constant pressure of the glass drainage-tube in contact with the bowel. In reference to the treatment, Mr. M'Ardle said: "The situation of the opening in the bowel will more than any other circumstance determine the extent of surgical interference. While referring to this matter, there is one method of determining the site of perforation which does not seem to be as generally recognised as it deserves. I refer to inflation with hydrogen gas. As a diagnostic aid, gaseous distension is infinitely superior to the injection of fluids, since it does not interfere with the steps of any operation which may be deemed necessary after its use, while fluids are a source of constant annoyance during suture of the bowel. Often the character of the discharge suffices to show the position of the opening; at other times the relation the intestines bear to the tumour indicates the locality of the fistula. When the opening is in the rectum, closure is almost certain, owing to (*a*) fixity of this portion of the gut, (*b*) great vascular supply, and (*c*) the chance of extra-peritoneal healing, hence early operative interference is contraindicated."—Dr. ATTHILL had met with three cases of fæcal fistula in his practice. In one of them the case had been diagnosed as one of suppurating ovarian tumour. The operation was performed under very unfavourable circumstances, the temperature before it being 103°. The tumour proved to be a suppurating one, and in addition there also was a deep-seated pelvic abscess, which during the removal of the tumour ruptured, discharging very fetid pus. In this case fæces were discharged through the wound on the fifteenth day after the operation. Dr. Atthill thought in this case it was due to the softening of the intestines at the seat of the pelvic abscess. This patient recovered perfectly, the fistula closing in about six months. In the second case the fistula formed on the tenth day after the operation, the tumour being a small ovarian one, very firmly bound down by adhesions in the left inguinal fossa. An operation to cure the fistula was performed nearly a year after, which ended fatally. The third case was one which occurred seven days after vaginal hysterectomy for malignant disease. The fæces were discharged per vaginam for a few days; the fistula then closed.

Reviews and Notices of Books.

A Treatise on the Ligation of the Great Arteries in Continuity, with Observations on the Nature, Progress, and Treatment of Aneurysm. By CHARLES A. BALLANCE, M.S. Lond., F.R.C.S., Assistant Surgeon to St. Thomas's Hospital; and WALTER EDMUNDS, M.A., M.C. Cantab., &c., F.R.C.S., Resident Medical Officer at St. Thomas's Home. Illustrated by 10 Plates and 232 Figures. London: Macmillan and Co. 1891.

FOR many reasons the pathological and clinical questions which arise in connexion with the ligature of large arteries are, and will probably always continue to be, of great interest and importance. Although the introduction of antiseptic surgery has profoundly influenced the course of wounds and the results of operations, it has not as yet been followed by those perfect results in cases of ligature of great arteries that have been obtained with other tissues. The authors of this work are able to show that even the most recent results of operations upon great arteries are by no means satisfactory, and that the danger of secondary hæmorrhage is still a very real and pressing one. The chief object of Messrs. Ballance and Edmunds is to show how this failure comes about, and how it may be avoided. To obtain the solution of these problems they have carried out an elaborate series of experiments which have occupied them for six years, and which they in this treatise fully detail. The main results they have obtained are not new, although they are now supported by exact and minute observations, which were not possible in earlier days. Since the publication in 1810 of Jones's classical work on Hæmorrhage, surgeons have generally sought so to tie their ligatures as to rupture the inner and middle tunics of the arteries, and have regarded such a rupture as an additional security. On looking back it is evident that such a conclusion was too hastily arrived at. Jones's experiments were not completed, and his dicta were opposed to the clinical experience of some of the leading surgeons of the day. So it has always been. Men arise from time to time whose writings have an undue influence upon their fellows, whose opinions are accepted too readily and too generally, and Jones seems to have been of this number. For nearly a century his work and his teaching have been unquestioned, and have formed the basis for the surgical treatment of arteries in Europe and America. The experiments of Messrs. Ballance and Edmunds show—we think conclusively—that the division of any portion of an

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arterial wall by a ligature is unnecessary for the accomplishment of its obliteration, and that it in no way so facilitates its obliteration as to compensate for the grave danger it introduces by the serious weakening of the vessel. It is shown that simple occlusion of a vessel without any laceration of its walls will be followed by its permanent obliteration, and that the proliferation of the endothelial lining of the intima plays a very important part in the organisation of the clot. Stress is also laid upon the comparative tenuity of the walls of the main arteries during life, and especially of the outer coat, and so a very strong case is made for the contention that ligatures should be tied so as to occlude a vessel, but not to rupture any part of it. The many factors in the problem are separately dealt with—the conduct of the corpuscles, of the coats of the artery, of the ligature, and of the aneurysm. The great majority of the statements made are based upon the authors' own experiments, and no labour has been spared to make the investigation thorough and complete. But the book is far more than a record of personal work and opinions; the work of others is cordially recognised, and the literature of the subject is largely referred to and drawn upon. The result is a volume highly creditable to its authors. That all their conclusions will stand the test of experience we cannot say. Many will no doubt differ from them on the matters of the best ligature material and of the most reliable knot. What the authors call the "stay-knot" has certain apparent disadvantages which may prevent its general adoption. But the candid reader will be slow to question the results arrived at by such evidently painstaking and impartial observers as Messrs. Ballance and Edmunds, and will be careful not to let prejudice bias his judgment.

The work has been issued as an *édition de luxe*. The paper, the type, and the illustrations are all that the most fastidious of book fanciers could desire. In fact, we are inclined to think that too much attention has been given to the mere form in which the book is issued. Its bulk is unduly large, and will no doubt frighten some who would otherwise read it. The text, too, could bear a good deal of compression without any sacrifice of cogency in argument or richness of illustration. But such criticisms are perhaps a little censorious in these days of many and cheap books, sometimes badly written, badly printed, and insufficiently illustrated.

The Human Figure: its Beauties and Defects. By ERNST BRÜCKE, Emeritus Professor of Physiology in the University of Vienna; with a Preface by WILLIAM ANDERSON, F.R.C.S., Professor of Anatomy to the Royal Academy of Arts and Lecturer on Anatomy at St. Thomas's Hospital. 1891. London: H. Grevel and Co.

No book could be more welcome to the English artist and anatomist than this translation of Professor Brücke's "Schonheit und Fehler der menschlichen Gestalt," and we congratulate Mr. Anderson on marking his election to the professorship of anatomy at the Royal Academy by the publication of such an excellent translation of this most interesting and valuable work. By it we are reminded that before becoming a great physiologist Professor Brücke was a teacher of anatomy in the Academy of Fine Arts in Berlin, where his love for art, doubtless inherited from his father, and his knowledge of anatomy made his lectures and writings eagerly attended and perused by students of art and those who wished to gain a proper insight into the ideal construction of the human frame. As Professor Anderson well remarks in his preface, "an anatomist may be no more competent to give a verdict upon a question of the beautiful than a person who has never heard the name of a single muscle in his body; ..... on the other hand, such a familiarity with the human figure as may be gleaned by casual and unreflecting observation is of no greater value." Professor Brücke has wisely combined anatomical considerations with criticism of the external form, but has only introduced such anatomical details as are necessary to convey accurate general ideas, so that he might not weary the artist with mere technical anatomical knowledge. The work is most clear and interesting throughout, whether judged from the artistic or the anatomical standpoint. The body is divided into seven sections, beginning with the head and neck and finishing with the legs and feet. An extract with regard to the length of the toes will give sufficient evidence of the breadth of view and knowledge of detail which characterises the whole work. "Some authorities insist that the great toe ought to project furthest, others that it should not project quite so far as the second toe; while others, again, maintain that the two should be of equal length. It is well known that in antique statues the second toe is usually the longer of the two, while the first is longer in living men. Some persons are of opinion that the latter condition is a consequence of wearing boots and shoes, while others hold that the longer second toe in the antique is an artistic figment. Both are in the wrong." To prove this, he then gives the exact measurements of the foot of an old man in whom the second toe was obviously longer than the first, and yet the man had worn ordinary footgear from his earliest youth. To show that in addition to external influences personal and racial characteristics must be considered, he next instances an Egyptian fellah girl, in whom the great toe was conspicuously longer than the second, although she had certainly never worn shoes of the European pattern, and probably not any at all. That it is not an artistic fiction is clear from the statement of an Italian sculptor, that though in Italy it is the exception for the second toe to exceed the first in length, yet this is not infrequently to be met with. Hence Professor Brücke concludes that an artist is justified in representing the feet on the type which he regards as the most beautiful among the forms actually observed by him, and not necessarily as in his model. The work is most artistically printed, and the illustrations by Hermann Paar are quite worthy of the book. It is a matter of some slight satisfaction to English anatomists and artists that the drawings, although reproduced from Hollstein's "Anatomie des Menschen," are really copies from the well-known woodcuts of the brothers Bagge, in Wilson's "Anatomist's Vade Mecum."

Journeys in Persia and Kurdistan. By Mrs. BISHOP. London: John Murray.

MRS. BISHOP is well known, under her maiden name of Isabella L. Bird, as a writer of books of travel which have attained a wide reputation. This latest issue from her pen is in the form of a series of letters written from Persia and Kurdistan, which depict in a very graphic manner the incidents encountered in the course of a prolonged and by no means uneventful progress through these little-known regions. In her preface the writer apologises for a supposed want of accuracy, the result of defective revision, she having suffered the loss of some carefully made notes which had been prepared for that purpose. It is not, however, in these respects that the lack of editing will be felt by her readers, for the letters, having been originally written with a view to publication, are eminently readable, notwithstanding the disadvantages under which they were produced. But it is not easy to repress all complaint of the entire absence of index, table of contents, or argument at the heading of the chapters. The only indication which is afforded to Mrs. Bishop's readers of the subject of the text is a single phrase, which is superscribed to the page. Small as it may seem, this omission will seriously impair the book

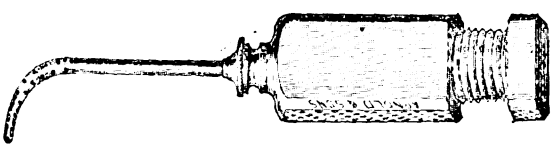
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for the purposes of reference, since it is nearly impossible to recover a passage, though remembered, without such guidance, and quite impossible to find one's way about the book without reading it through. The glimpses of Eastern life and manners which the letters afford are for the most part exceedingly interesting, and although the monotonous badness of the roads gives rise to a certain sameness in much of the narrative, even this circumstance produces a stronger impression than could otherwise be conveyed of the serious material obstacles to progress in these backward countries. An interesting story is told of Mrs. Bishop's visit to a harem on the Persian frontier. The principal wife of the local magnate was suffering from a tumour, upon which the medical man in attendance desired to operate, being of opinion that only by surgical treatment would his patient's life be saved; but, although urged to act upon his views and to accept Mrs. Bishop's services in the capacity of a nurse, he replied that if the patient were to die he would in that case be accused of murder.

New Invention.

OINTMENT INTRODUCER.

ALL who have much to do with the treatment of scarlet fever with, amongst its many complications, that of rhinorrhœa, must not infrequently be annoyed at the failure of success with the conventional syringing by means of the ordinary apparatus, not to mention the difficulties, details, and now and then struggles that are associated with the operation on very young children. For some time past I have employed an ointment introducer, identical with Mr. Allingham's, except that the stem is made of electro-plate,



of less size, perforated with a set of thirty-three holes, arranged in lines of eight, with one at the extremity. Being curved exactly similar to a Bellocq's cannula, its introduction is, as a rule, equally easy, except when there is excessive blocking of the nostrils by hypertrophy of the mucous membrane. By means of this contrivance, admirably worked out by Messrs. Arnold and Sons, London, ointments of all kinds are readily and freely placed upon the whole surface of the inflamed parts, and the quantity so introduced is regulated to a nicety by the screw at the end of the box, composed of either boxwood or vulcanite. Its cost and simplicity are such as, I venture to think, to recommend it; at least as a supplement to the means at our disposal.

WM. GAYTON.

THE ETHICS OF LIFE INSURANCE AND MEDICAL CERTIFICATES.

To the Editors of THE LANCET.

SIRS,—As another "M.D.," let me corroborate every statement as set forth by a "Doctor of Medicine" in *The Times*. My district is a manufacturing one, where the major portion of the inhabitants—men, women, and children—are insured in one or several insurance offices. The more precarious the life, the larger the amount, the greater the number of offices insured in. The "necrologist" lives and thrives here. His or her method of procedure is as follows: The patient is generally brought to a practitioner whose prognosis can be relied on. His opinion is sought, and, if unfavourable to a long duration of life, the person is rushed forthwith into several insurance companies. The insured one then invariably becomes an out-door patient to an infirmary, and, finally, when the disease has reached a critical stage, a practitioner (not the prognostic one, but one of the "good' sort) is called in, and death ensues. No mention is made of the first practitioner nor of the out-door attendance. No; the patient was attended in her last illness by Dr. ——, and the illness lasted one month!

I am in attendance at present on a family all of whom have a phthisical diathesis. One member, who died about two years ago, was examined by me, and I pronounced her phthisical. Instantly she was rushed into several insurance companies and insured to the amount of £70, the relatives all partaking of the spoil after her death. The family are so poor that my bill is paid at the rate of about sixpence per week. Two other members have lately shown signs of the same disease, and I have no doubt are insured for an equal if not a greater amount. Another patient died a fortnight ago—a case of chronic phthisis, in my opinion of about two years' duration. He was a poor man; insurance money £40. Another last week; insurance money £60. To do what is known as "good business," the agents of the companies will insure all and everyone; all is fish that comes to their net.

Now for the ethics. A proposal in cases like these is made by the person who comes for the certificate. Could not you put it down bronchitis, doctor? If cancer, could not you say a tumour? This is put very innocently, as I suppose they want the tumour described accordingly. The practitioner stands firm, and puts down phthisis or cancer. Instantly he is swooped down on by the agents of the respective companies, and asked, impudently very often, to furnish them with full particulars regarding these cases. I invariably show such persons the door. They are strangers. They always remonstrate, and have informed me that it is customary for the practitioners in the district to furnish them with full particulars, and furthermore that they are willing to pay for the information! If this is so, it speaks very badly for the honourable confidence which is supposed to exist between the medical attendant and his patient. I regret to say it is done. One agent of a large company to whom I refused information informed me that a phthisis certificate was the first they have had for the last two years. And this in a district where phthisis is so prevalent, and the competition of this company so keen, most of their people being accepted without an examination. Amongst the industrial classes the statistics of the Registrar-General, as regards phthisis, cancer, &c., in my opinion must be taken with a goodly pinch of salt. It is marvellous how death rejuvenates the insured. People who are, and who appear to be, seventy or eighty bloom forth on a death certificate as fifty or sixty. "Mens conscia recti" is, as "Doctor of Medicine" insinuates, the sole reward for signing his death certificates properly. For him there is no refereeship. He is boycotted by the agents, for they are all "honourable men." He must either dishonourably divulge his professional secrets to every stranger who says he represents an insurance office, or accept the other alternative, falsify his death certificate and keep on good terms with the life insurance agents and with his patient's friends. I hesitate to touch on the insurance of children. God alone knows all that it is responsible for. One instance may suffice. I was present some years ago at an annual meeting of an insurance society which was and is doing an extensive business in this district. The agents and collectors were delivering their customary after-dinner speeches. One man got up and related amidst great applause how he out-manœuvred another agent of a competing insurance company. There were four children in the family. He had two; his rival two. But, with a knowing wink, he informed the company present that he had got the fifth. The woman was far gone in pregnancy, and he had entered the unborn child on his books and paid for it in advance! Comment on this is needless.

I am, Sirs, yours faithfully,

Feb. 29th, 1892. ANTI-NECROLOGIST.

SUICIDE OF A MEDICAL PRACTITIONER.—Last week Dr. John Grime of Great Bolton-street, Blackburn, J.P., a surgeon in large practice, and a borough magistrate, was found by Dr. Irving, his partner, lying on the floor of his dining room, with a bottle of prussic acid by his side. Three months ago he suffered from influenza, and subsequently had been very depressed in spirits. He was forty-eight years of age.

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THE LANCET.

LONDON: SATURDAY, MARCH 12, 1892.

THE approaching visit of Her Majesty the QUEEN to Hyères naturally invites attention to the climate and general characteristics of that health resort. Hence an article in the *Climatologist*, from the pen of Dr. C. E. CORMACK on Hyères and the French Riviera comes opportunely at the present moment. He claims for Hyères that it is the most southern of the winter resorts of the Riviera, and that it is also the warmest, and at the same time possesses the most equable temperature and the advantage of having the closest contiguity to England." The principal town is distant about three miles from the Mediterranean, while one of the suburbs—Costobelle—is almost on the sea, invalids having thus the choice of the more bracing marine, or more sedative inland, situation. Hyères has as protectors against the northerly and Alpine winds Mount Fenouillet, 981 feet high; Mount Condon, 2305 feet high; and the Maure range, 2556 feet high. On this very important subject of wind Dr. CORMACK writes as follows:—"During the autumn months the east, west, and north winds are those most frequently met with, and they all blow in about the same proportion. During the winter the winds are much more violent, and sometimes there are very violent storms, which have a marked influence upon the temperature, and may cause a sudden fall of from 6 to 10 F. The reigning winter winds are north, north-east, and north-west. The latter wind is popularly known in the country by the name of the 'mistral.' It is a most searching wind, and very trying to invalids and those of a nervous temperament. ..... The mistral is not peculiar to Hyères, however; it is to be met with all along the Riviera, and in very much the same proportion."

We are curious to know upon what authority Dr. CORMACK bases his statement that Hyères does not suffer from the mistral more than the other Rivieran resorts, or whether he can furnish any trustworthy meteorological observations in support of that assertion. We thought it was generally admitted that, while this troublesome and dangerous wind was the curse of Marseilles and the more western resorts of the Riviera (especially Hyères), it was very much less prevalent and annoying at Mentone and San Remo. On this subject Dr. SPARKS writes as follows in his well-known handbook on "The Riviera":—"The curse of Hyères is the north-west wind or mistral, which not unfrequently rages with great violence, sweeping in tremendous gusts down the valley of Hyères on to the town or plain. ..... The mistral blows at Hyères on upwards of sixty-four days in winter, spring, and autumn, according to the observations of Dr. BATTAILLE for the years 1816-25. ..... I myself noted it fifteen times between April 12th and May 21st, 1877, and on six of these days it is marked in my notes as 'rough,' and on two others as 'furious.'" The same high authority gives the average number of days on which the mistral prevails at Mentone from November to April as from twenty-three to twenty-four, and its force (especially on the east bay) is described as usually so moderate that it has even been questioned (erroneously, however) whether the true mistral prevails at Mentone at all.

As evidence of the mildness of Hyères Dr. CORMACK adduces its well-known wealth of trees, flowers, and vegetables. Orange trees abound; the olive is largely cultivated; palm trees are to be seen on every hand; early vegetables are raised in large quantities for the northern market; and an immense trade is done in the exportation of roses, violets, anemones, mimosæ, hyacinths, &c. The temperature at Hyères during the winter months ranges from 50° to 59°F. between the hours of 8 A.M. and 4 P.M., taken in the shade, and from 75° to 85°F. taken in the sun. "The early morning and the evening temperatures are often very low, and there is always a rapid fall in the thermometer after sunset, frequently as much as from 7° to 9°F." This last feature is common to all warm and dry or moderately dry climates, and is due to the energy of radiation. Snow is very rare, but not unknown, at Hyères. Frost during the night and early morning is not uncommon. Cloudy days are rare, blue sky being the rule.

As regards rainfall, Hyères comes out well in the comparative tables. Statistics based on the returns for twenty-six years show that out of the 243 days included in the months from October to May there were only thirty-six wet days, while Nice is credited with fifty-one, Cannes with fifty-four, and Mentone with sixty-four. The average number of wet days per month at Hyères was four or five, October and December being the wettest months, and March the driest. Sufficient statistics do not exist for determining the average rainfall at the various resorts, but there are good grounds for believing that the fall at Hyères is less than at Nice, Cannes, or Mentone. We may remark, however, that far too much stress is often laid upon this point in comparing the relative advantages of various health resorts. A few inches of rain more or less is a matter of no consequence at all to the invalid, except as a gauge of the amount of sunshine and number of fine days that may be expected. A rainfall of thirty inches may coexist with 150 or 180 wet days in the year, while in another locality where the rainfall is less frequent but more violent we may find only 60 or 80 wet days in the year, but a total precipitation of perhaps fifty inches or more.

Hyères is, according to Dr. CORMACK, "admirably suited to cases of phthisis. Should the disease be in its first period when the patient arrives, a complete cure may take place. The same result may be obtained with cases which have arrived at their second period, although the chances are less, but in any case a considerable improvement may be expected. When the disease has passed into its third period, or is too far advanced for any reasonable hopes of recovery to be entertained, life is prolonged for a time." These rules are at once much too vague and too roseate. Many cases of phthisis, even in the first stage, are wholly unsuitable for the Riviera, and the benefit to be expected in the second and third stages is always problematical. To discuss this question adequately would take us much beyond our present limits, but we may say in a general way that the Rivieran climate is somewhat stimulant and excitant, and should be avoided for cases of

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phthisis of the erethic type, or where nervous symptoms are prominent. The presence of anæmia, rheumatism, or renal complications is, on the other hand, an indication *quantum valeat* for the Riviera.

As regards other diseases, Dr. CORMACK informs us that "all chest complaints and bronchial affections improve under this genial climate. Liver complaints, affections of the kidneys, Bright's disease, diabetes, &c., are all favourably influenced by the warm and equable temperature. Gouty and rheumatic cases get on very well here [i.e., at Hyères] and generally are much relieved after a winter or two's residence. ..... Cases of anæmia and asthma also do remarkably well." These statements are also somewhat too sweeping, though in the main correct. The Riviera is very useful in bronchial affections, in Bright's disease, in gout and in rheumatism. We are less sure of its beneficial influence with regard to affections of the liver; and asthma is too erratic a disease, as regards its relation to climate, to admit of any very definite rules regarding it being laid down.

ANY contribution towards the better comprehension of diphtheria must be welcome, and it is a singular fact that for some years after its discovery by KLEBS, and subsequent rediscovery by LÖFFLER, there should have been comparatively little attention paid to the bacillus, which is now on all sides recognised as being the prime agent in the disease. It was not, indeed, until ROUX and YERSIN succeeded in showing that the products of the cultures of this organism give rise to some of the characteristic effects of the virus, including paralysis, that the etiological relationship of the bacillus to diphtheria could be said to have been established. This point in the history of the subject was brought out by Professor BAGINSKY in a paper recently read before the Berlin Medical Society, that occasioned a discussion which occupied two sittings.[1] It may be remarked in passing that Professor BAGINSKY, in giving so much credit to the French observers, did not escape the criticism of one of the speakers, who pointed to the long array of German men of science who had worked at the subject; but Professor BAGINSKY successfully maintained his ground. The main purport of his communication was to develop what may be termed the bacteriological diagnosis of diphtheria, and to advocate its routine employment as an adjuvant to clinical observation. During the past year he has been engaged at the Hospital for Sick Children, which bears the names of the Emperor and Empress FREDERICK, in obtaining tube cultures from the false membranes of all cases admitted with the diagnosis of diphtheria. Blood-serum was used for the cultivations, which were carried on at a temperature of 37°C. In most cases the microbes found in association with LÖFFLER'S bacillus disappeared, and there was left a pure culture of the latter, which in a few hours assumed its typical and easily recognisable characters. This test was supplemented by microscopical examination of dry preparations, and, in doubtful cases, by the results of inoculation on animals. A pure culture of the bacillus was obtained in 118 out of 154 cases thus examined; of these 118, 45, or more than 38 per cent., proved fatal. Thirty-nine of these cases were associated with paralysis, 17 with severe septic phenomena, and 44 cases required tracheotomy; whilst only 28 (or 25 per cent.) ran a mild and favourable course. On the other hand, there were 36 cases of the whole group from which the deposit yielded no bacilli, but only cocci; and it is particularly instructive to note that only 4 of these were fatal, one being a case admitted with severe paralysis, another complicated with measles and dying from pneumonia, and two developing bilateral empyema. All the rest ran a favourable course, and recovered in a few days without complications. The inference drawn by Professor BAGINSKY from these facts is that there are two types of disease, indistinguishable in their superficial characters, marked by a deposit of false membrane on the fauces and tonsils, and associated with fever, prostration, and swelling of lymphatic glands. The one is true diphtheria, and is caused by LÖFFLER'S bacillus; it is of far greater severity than the other, which appears to be excited by staphylococci and streptococci, and runs mostly a favourable course. Nor is the latter so remarkably contagious as the former; whilst he has known the bacillary disease to supervene upon and prove fatal in a child who had gone through the milder affection. So convinced is he of the value of this distinction that he has devised apparatus for conducting this bacteriological inquiry as a part of clinical investigation; but, as was pointed out by Professor HENOCH, the time required to obtain the characteristic cultures would render of little use the information gained therefrom. Moreover, as other speakers said, the delicacy of bacteriological experimentation was such that it could hardly be expected to become the appanage of every clinician. Professor BAGINSKY'S research further led him to establish that the mild and non contagious malady known as "rhinitis fibrinosa" was dependent on LÖFFLER'S bacillus. At any rate this microbe was found in the membrane from two cases of this affection, suggesting, he said, a relationship to diphtheria akin to that of varioloid to variola. On the other hand, he proved by the same method of investigation that the so-called scarlatinal "diphtheria" has nothing to do with true diphtheria. For, in all the cases of this class that he had examined, he had never once found the bacillus of LÖFFLER, but only cocci in the false membrane. Moreover, in cases of true bacillary diphtheria, upon which scarlet fever or a scarlatinal rash supervened, the growth of bacilli was replaced by that of cocci, thus appearing as if a new contagium had driven the old one out of the field.

As might have been expected, this novel method of diagnosis and the ideas that flowed from it gave rise to considerable discussion. Dr. RITTER, who had some years ago pursued a similar inquiry, had also found the bacillus absent in a certain number of cases of supposed diphtheria. He pointed out that one great distinction between septic disease and diphtheria consists in the fact that the diphtheria bacillus is only to be found locally in the false membranes, whereas in septicæmia streptococci are met with in the blood. He repeated the well-recognised clinical fact that diphtheria may by its local lesions afford entrance to septic organisms; and as regards scarlatinal angina, he said that he had found the diphtheria bacillus in one out of nine cases examined. Dr. ZARNIKO protested warmly against the labours of

[1] Berliner Klinische Wochensch., Nos. 9 and 10, and Deutsche Med. Wochenschr., No. 10, 1892.

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German investigators upon the diphtheria contagium being ignored, and said that no new facts had been adduced by Professor BAGINSKY. He thought, however, that the latter's observations on scarlat fever were of importance, but could not reconcile the discovery of LÖFFLER'S bacillus in the purely local affection—rhinitis fibrinosa—with the known history of the diphtherial virus. Dr. TROJE said that, after all, the application of Professor BAGINSKY'S test would not *give certainty* to a diagnosis of *true* diphtheria—that could only follow on the results of inoculation; and for his own part he would not regard the occurrence of a streptococcal invasion of the injured parts with such favour as Professor BAGINSKY would, since it points to a septicæmic condition. He alluded also to observations by BARBIER and DAHMER which went to prove that a "mixed infection" of the diphtheria bacillus and of streptococci was of the greatest gravity. Dr. B. FRAENKEL admitted the occurrence of a non-bacillary membranous pharyngitis; he doubted, however, the practical utility of placing the fine methods of bacteriological analysis in the hands of private practitioners. Professor HENOCH spoke in much the same strain, doubting if the methods described could add much to clinical facts which pointed to the relative severity of attacks of alleged diphtheria. He hoped, however, that the vexed question of the nature of primary membranous croup would be determined by these methods of research; and he was pleased to find a confirmation of the view he had long held as to the non-diphtheritic character of membranous exudation in scarlet fever confirmed. Dr. SCHEINMANN desired more information as to the presence of the diphtheria bacillus in rhinitis, which was a purely local affection. If correct, the observation would tend to mitigate the unfavourable prognosis which the presence of the bacillus might convey. Dr. P. GUTTMANN was sceptical as to the non-diphtherial character of cases in which the bacillus was not found, urging that it might have been present at an earlier stage, and had then been replaced by other microbes. He also asked as to the relationship of primary croup to diphtheria. The debate was closed by the President, Professor VIRCHOW, who recalled the meeting to the old and essential definitions of diphtheria (a necrotising process) and croup (an exudative process), and who pointed out the need for a revised nomenclature of such diseases which have been proved to be dependent upon the action of bacteria. For the anatomical term "diphtheria" embraces far more than the disease evoked by the diphtheria bacillus; and a croupous exudation may be caused by the latter as also by other agencies. He urged the necessity of having botanical terms applied to distinguish these different organisms, so as to avoid the confounding of conditions which were etiologically or anatomically dissimilar. In his reply, Professor BAGINSKY maintained his position, and held that the difficulties of the method he had desired to introduce into practice had been over-rated. Of its importance he was convinced, since it was obvious that at least two totally different affections were liable to be included under the head "diphtheria" so long as reliance was placed upon clinical characters alone. He mentioned that he had found LÖFFLER'S bacillus in cases regarded as true croup; and that since his paper was read he had confirmed his observations on rhinitis fibrinosa in a third case.

It will be seen that throughout this debate there was a general recognition of the pathogenic position of the bacillus discovered by KLEBS and LÖFFLER, and the acceptance of the corollary that at its onset diphtheria is a local malady. But where opinion varied was as to the absolutely pathognomonic value of the detection of the bacillus, since it may have been present at the earlier period of the malady, but have been replaced by an invasion of septic organisms subsequently. The discovery of the bacillus in membranous rhinitis was a new fact, and, as all concurred in the mild clinical course run by that affection, this discovery is hard to reconcile with what is known of the virulent character of the bacillus in question. Nor, interesting as his suggestion is, do we think that the method which Professor BAGINSKY desires to introduce into ordinary practice—as an aid to diagnosis—is likely to prove of much value, owing in part to the technical skill and knowledge requisite to obtain the cultures and identify their nature, and in part to the valuable time occupied in obtaining them.

THERE is only one serious disease of horses which is communicable to man, and which for this reason, if for no other, we have an interest in seeing diminished or suppressed. This is the specific eruptive fever called "glanders." Though it has been known as affecting solipeds from the earliest times, yet, strange to say, it was not until this century was well advanced that its transmissibility to the human species was discovered; and in this direction the observations of ELLIOTSON in this country, and RAYER in France, were of great importance. Their conclusions have since received ample corroboration, and now it is a well-recognised fact amongst medical men and veterinarians that the malady can be conveyed to man, and in a more or less virulent and dangerous form. In him it is not invariably fatal, as it is in the horse sooner or later, for cases of recovery in the human subject are on record; but it is, nevertheless, a very grave disorder, and the prognosis must be always doubtful and serious. Though special to equines, it can be conveyed to many other species of creatures besides man, the ass being particularly susceptible, and the ox altogether insusceptible.

Glanders is very much less prevalent than formerly. In the pre-railway days, when horses were so extensively employed in road traffic of all kinds, it was a veritable plague, and there were few stables in which it did not exist. Horses suffering from it were regularly worked, and in the cavalry and artillery corps it was extremely rife. It occasioned great losses in horse establishments, and there can scarcely be a doubt that many people must have died from it, though its nature in them was not suspected. Indeed, its contagiousness in horses was not universally recognised until the beginning of this century in England; while in France it was only about the middle of the century that chronic glanders was acknowledged to be transmissible from horse to horse. As a consequence, precautions were seldom adopted to check the contagion, and curative measures were usually preferred to those of a preventive kind. It was also supposed to be of spontaneous origin, and ascribed to all sorts of influences. But, with the

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progress of veterinary medicine and better notions of horse sanitation, a great change has been effected in the prevalence of glanders. It has been for some years banished from our military stables, and only exists to any considerable extent in some of our large cities, while believers in its spontaneity must be few indeed and are certainly out of date.

It may, however, be considered doubtful whether all the cases that occur are reported; as, though this is one of the disorders included in the Contagious Diseases (Animals) Act, yet there is reason to think that, from the way in which it is dealt with, it is more prevalent than the annual reports issued by the Government would lead us to believe. However this may be, it would appear that in 1891 only 1357 outbreaks were reported for Great Britain, though this number was much in excess of that in 1890, when it was 937; in the former year the number of horses involved in these outbreaks was 2315, and 2064 of these were in London.

Of late years there has been a gradual increase in the proportion of outbreaks, and it is probable this will go on until the law relating to glanders is amended and more rigorously carried into operation. There is no reason whatever why it should not be extinguished and kept out of the country, provided always that infected horses are not allowed to be imported. One reason why the malady has not been extinguished or reduced to very much smaller dimensions than at present, may be found in the circumstance that, in the Act, glanders and farcy are spoken of and prescribed for as if they were different diseases, whereas they are one and the same, farcy being merely an outward or cutaneous manifestation of the disorder. In the days of farriery, glanders was one disease, farcy was another, and each was submitted to its own kind of treatment; but modern veterinary medicine recognises no distinction, farcy being merely external or skin glanders. This mistake in the Act has had a mischievous effect in perpetuating the disease, as it has recognised a difference in the sanitary police measures applicable to it; for the authorities who carry out these measures are only allowed to kill horses which are glandered, while those affected with farcy may be permitted to live, though they are just as dangerous to other horses. It is somewhat extraordinary that the law has not been amended long ago, and this obsolete notion got rid of; as it can scarcely be doubted that it is chiefly to blame for the maintenance and extension of glanders. Another weak point in the Act, and one for which there can be no tangible reason, is the long lapse that must take place—twenty-one days—after a horse has been declared affected before it can be lawfully slaughtered, though it may be so situated as to endanger the lives of many other horses during that time. The Act should be amended, and brought into harmony with present knowledge of the malady, especially in view of the increasing prevalence of glanders; and as it exists in only a few centres it ought to be easily extirpated from them. It does not require the severe measures which are now in force with regard to bovine contagious pleuro-pneumonia; indeed, they could not be imposed without great hardship. When a case of that malady is discovered on a farm or in a dairy, no matter how many the stock may be, all are slaughtered and the place is declared infected. Glanders exists chiefly in large studs of horses; to kill all these because one case of disease was detected would be most serious and quite uncalled for. It was not in this way that the army was freed from glanders, but by careful inspection, isolation, and destruction of those discovered to be diseased. In contagious pleuro-pneumonia compensation is allowed for the healthy cattle which are destroyed; in dealing with glanders this should not be necessary, for several reasons, but particularly because healthy horses should not be killed, and there are certain inoculation tests that can be resorted to in the case of those which present suspicious symptoms. The principle of compensation is liable to abuse, and there would be the greatest tendency to this if it were applied to glanders. It should be made the interest of the owner to rid his stables of the disease as quickly as possible; to give him a monetary interest in having it on his premises would lead to remissness, and in some cases probably to fraud.

It must not be overlooked that so long as horses are imported from countries in which glanders is present—and there are none in our hemisphere in which it does not exist—we shall always be exposed to its reappearance after it is stamped out, unless the entrance of these horses is entirely prohibited, as cattle now are from infected regions. And even then, in case of a continental war, our mounted corps, though taking the field with a clean bill of health, would not remain free for long; as remount horses must be purchased in other countries, and, as during the Crimean War, these would carry infection with them. The question of glanders, of course, interests everyone more or less; but the fact that it can be conveyed from diseased horses to mankind endows it with a special interest for members of the medical profession, and this will be greatly increased if horseflesh ever comes into use for human consumption in England, as it has done in nearly every European country.

ONE of the electrical journals in the United States, the *Electrical Age*, is very angry with us for our denunciation of what is called "electrocution," and demands of us where we collected our information so far away from the scenes of the decivilising exploits. We can assure our contemporary we spoke of nothing that did not come to us in the way of common information from published American sources, as well as from our own correspondents, and that our comments do not vary a jot from what they would be if the same kind of exploits of "electrocution" were being enacted in this country. And now we have something to say that does relate to something here. We are threatened with a new professor. Mr. BERRY, who calls himself "the executioner for England," has resigned his post, and, turning away from the late field of his operations, is betaking himself to another platform, from which he is about to orate against capital punishment. Until we have heard what the new professor has to say publicly on this topic we can of course express no opinion on his views; but there is another point connected with his change of occupation on which we must have a word. The prevailing opinion is that Mr. BERRY leaves his old vocation because the gaol surgeons have been directed by the Home Office to instruct him in his duties and tell him each time he officiates what length of rope

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and what drop he is to employ. This, it is said, he resents as an interference with his professional duty. He has learned an art by experience; why should a man who has no experience of the art interfere with him? Why, indeed? Mr. BERRY, from his professional view, has a strong case. But is it true that the Home Office has tacked this new amateur task on to the work of the gaol surgeon? If it be so, we trust that gaol surgeons will tell the Home Office it is no part of their business to direct executions; that they have had no practical experience in the matter, and that the theory involved in it is too uncertain for them to take any part in it. It is, perhaps, their business to stand by and see that the condemned person is actually killed, but for them to be responsible for the details of the execution means a responsibility shamefully imposed, and to be resisted at every step. Suppose, by the direction of a surgeon, a criminal who was brought to be hanged were decapitated owing to some miscalculation on the part of the medical official; or suppose a man hanged were to come to life again after being cut down. These events, and worse, have happened, but, being attached to the executioner have been accepted by that functionary as a sad and unavoidable part of his office. Let, however, the blame rest with a medical man holding a respectable position in society, and what would be his fate? There cannot be two opinions upon the matter. He would be from the moment a marked and avoided man. His knowledge would be impugned; he would be charged with the offence of holding for gain an office for which he was unfitted; terms of obloquy would be attached to his name; and his family, as well as himself, would be liable to ridicule which it would take two generations to wipe out. More than this, if such a rule be enforced, the gaol surgeon will be at everlasting conflict with the executioner. Mr. BERRY resigns in what people will call "cool blood," when there is no particular issue at stake. Another executioner may not have professorial distinctions and good fees therefrom staring him in the face; but, content with his own work, may strike on the spot at a critical moment, and, refusing to accept the surgeon's length of rope, may tell that learned officer to do the job himself and take the consequences. The dilemma is easily conceivable, and would doubtless quickly have occurred if executioner BERRY had not betaken himself to what he considers a nobler and more remunerative vocation. This unpleasant event may therefore be for a time averted; but, if it be not, wranglings between the surgeon and the hangman are inevitable—a most unbecoming conflict. The subject altogether is one on which it would be advisable for a medical voice in the House of Commons to ask a question relating directly to the interests of a large body of highly qualified and conscientious professional men, charged already with duties sufficiently responsible. Since the above was written we have received from a prison surgeon a letter, which we print in another column, and which argues in the same direction as that taken by us in the foregoing remarks.

ON Thursday, the 3rd inst., a most important deputation waited on Lord SALISBURY at the Foreign Office, and laid before him the various objections to the Charter of the Gresham University, now before the Houses of Parliament. The numerous dissentient bodies were all represented—viz., the Victoria University, with its Manchester, Liverpool, and Leeds Colleges; the provincial medical schools of Birmingham, Bristol, and Sheffield; the University of London, and the various teaching bodies in London interested in the different forms of higher education in the metropolis. Although Lord SALISBURY pointed out that the deputation was very late in making their objections, and that they should have been placed before the committee of the Privy Council when the application for the Albert Charter was before that body, it is evident that the Government has every desire to meet the views, so far as is possible, of the objectors, and it has therefore been decided, as Mr. BALFOUR announced on Monday last, to remit the Draft Charter for reconsideration. We understand that this means a reopening of the case before a Royal Commission, where the various dissentient bodies will have to appear by counsel. This means a delay of at least twelve months, and a rehearing of all the parties interested. The objections in respect of the Faculty of Medicine which were placed before Lord SALISBURY by Earl SPENCER, Vice-Chancellor RENDALL, and Mr. CHAMBERLAIN, are, practically, that some of the London schools of medicine do not possess a complete equipment for all the branches of scientific teaching allied with medicine; that there is nothing in the Charter to enforce a sufficient standard of attainment in arts and science for the medical degrees; that the medical authorities will be able and intend to lower the standard for medical degrees; and that the requirement compelling students who migrate from other Universities to reside for at least the final two years in a London medical school will injure the clinical teachers in the provinces. We do not think it would be difficult to meet these objections, but we can quite see that the formation of a strong Teaching University in London may temporarily injure those provincial medical schools which have no power to grant degrees, and it is on this account that we so strongly advise the formation of a Midland University as well as a Teaching University in London. Unless degrees can be given on equitable facilities to medical students at Birmingham and Bristol, those provincial schools will gradually lose their students, as has for some years been the case in London, and this will take place whether the Gresham University be established or its promoters be defeated. The Provincial and Scotch Universities are now attracting an increasing number of students from the midland counties as well as from the metropolis. The answers to the objections raised by the members of the deputation who referred to the medical question are that sufficient science teachers and schools exist in London to permit of preliminary science being carried on efficiently in them, so that those schools which desire to be clinical and to give up the preliminary scientific training can easily do so; that there is no intention of lowering the standard in arts and science (this has been expressly stated by Professor ERICHSEN, Sir GEORGE YOUNG, and the Deans of the London Medical Schools, whose statements were altogether ignored by Mr. CHAMBERLAIN); and that the two years' "final" clause was insisted on, in its own interest, by the University of London. But we see no reason why any other two

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years should not be allowed, as in the Charter of the Victoria University itself and in the Scotch Universities. We hope that some workable plan will be arrived at whenever the case comes to be reheard. The Victoria University can grant degrees to Manchester, Liverpool, and Leeds medical students on fair terms, and it is a grave injustice that London should be debarred from a similar privilege. With regard to the question of higher education in London, which is now so interwoven with the medical problem, we can only express, with Lord SALISBURY, the wish that whether the Houses of Parliament finally decide on a positive or a negative action, after such modifications are made in the Charter as may be determined by the Royal Commissioners, "it will not be such, on the one hand, as to put a stop to the development and growth of this question, and, on the other hand, that if it takes a positive character, it will leave the door open for the introduction of such improvements and extensions as shall bring together all the educational power and all the educational enthusiasm of this metropolis in the common search after one end."

Annotations.

"Ne quid nimis."

THE PREVENTION OF SMALL-POX.

AN important communication was made to the last fortnightly meeting of the Metropolitan Asylums Board, held under the presidency of Sir E. Galsworthy. It related to the maintained freedom of the metropolis from small-pox, a freedom which has gone hand-in-hand with the prompt removal of small-pox patients out of London. It is well known that, owing mainly to Mr. W. H. Power's investigations, it was ascertained that the aggregation of small-pox patients in London hospitals led to the diffusion of the infection to the population around; and it is certainly most significant that since this practice has been abandoned London has experienced an unexampled freedom from small-pox, and that, with but few exceptions, the provinces heretofore attacked in sequence to metropolitan small-pox epidemics have experienced a similar freedom from the disease. The result bears out the views expressed by the Medical Department of the Local Government Board in this matter, and it is now authoritatively announced by the Metropolitan Asylums Board that the continuance of this policy of prompt removal from the metropolis for isolation purposes is essential to the safety of London. Another point which was brought under the notice of the meeting had to do with the scattering of responsibility concerning infectious diseases amongst different authorities. Taking small-pox as an example, it may be noted that isolation is carried out by the Asylums Board, disinfection by the vestry, and vaccination by the guardians. The report, which was communicated to the meeting, pointed to the desirability of unity of administration in these respects, and it was suggested that if the Legislature were to hand over to the Asylums Board the duty of seeing to vaccination and revaccination an important gain would result, especially by way of promoting the needed operations for prevention at the earliest possible moment. When it is remembered that Sir E. Galsworthy is at the present time a member of the Royal Commission on Vaccination, this utterance appears significant of views that may come to influence the report of that Commission in respect of modifications in the existing practice and administration of vaccination.

THE LONDON COUNTY COUNCIL.

THE very considerable interest taken in the election of the new London County Council is full of promise. We are not concerned in any question whether "Progressives" or "Moderates" should have the ascendancy, but we hail with satisfaction the fact that Londoners recognise the importance of a satisfactory government of the metropolis. The last Council devoted itself assiduously to its public health duties, and, so far as its powers permitted, encouraged in every direction a more active health administration. Apart, therefore, from any thought as to whether Londoners should return Conservatives or Liberals to manage their business, we are glad to find many members of the old Council remaining to continue the work they have begun. In a few cases the vote of the electors has deprived London of the services of men who deserved a better fate, and in others active and useful members have not submitted themselves for election. With regard to the former, we sincerely trust that the Council will exercise a wise discretion, and will by electing them aldermen secure a continuance of the good work they have done in the past. The Progressives have so large a majority that they need have no concern for the consideration to which party these members belong. It is the interest of the dominant party to show that London, vast as it is, is able to administer its own affairs, and this party will be acting wisely if its choice fall upon those who are certain to make its administration as useful as possible.

Among the representatives who have at the recent election been returned to serve on the London County Council for the ensuing three years are a proportionately small number of members of the medical profession, some of whom have already done useful service in the capacity of councillors. The names of Mr. W. Gibson Bott (West Newington) and Dr. G. B. Longstaff (Wandsworth) will be recalled in this connexion. Dr. W. J. Collins (West St. Pancras) and Mr. J. T. Macnamara (Rotherhithe) are the only new medical County Councillors. Mr. Bradenell Carter, the former member for West Islington, did not seek re-election, and one or two medical practitioners who sought the suffrages of the electors were, unfortunately, unsuccessful in their candidature.

MR. STANHOPE ON THE ARMY.

ON Monday night Mr. Stanhope introduced the Army Estimates by a long statement in the House of Commons. Owing to the controversy that has been going on about the state of the army, and all that has been written concerning military matters, to say nothing of the recent publication of the report of Lord Wantage's Committee, the occasion was looked forward to with an unusual amount of interest and curiosity. The War Minister's speech was long and lucid, and optimistic in tone. Mr. Stanhope evidently gave his mind to the task, and traversed the whole controversial field, alleging that he had approached each debateable question with an open mind. The subject, however, is far from closed, and later on much in the way of sharp criticism and discussion may be expected. Speaking of the army in India, Mr. Stanhope gave some interesting information on the relative health statistics of a long and short service system. Comparing the figures for two periods, he showed that the annual average mortality was 25 and the invaliding nearly 44 per 1000 for the long-service period, while the figures were respectively 15·5 and 23·5 for the short-service period. This does not, however, prove conclusively that the inefficiency from sick-

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ness is less under the short-service system, although it does undoubtedly show that the invaliding and death rates are much less. Mr. Stanhope, speaking of the Army Medical Department, the strength of which had been carefully reconsidered, said that considerable reductions had taken place. He alluded to the employment of civil practitioners, the growth of an Army Medical Reserve, and dwelt upon the time that had been devoted to the arrangments necessary, in case of mobilisation, for the medical services in *personnel* and equipment. What with the new Lee-Metford magazine rifle, an improved system of artillery, and smokeless powder, the next big war is likely, we should imagine, to strain the powers of a medical service to the utmost. With regard to the increased barrack and hospital accommodation and the sanitary services projected or already carried out, Mr. Stanhope looked forward to the beneficial results that would accrue from expenditure in this direction. In connexion with this subject he expressed himself as well satisfied with the work done by the Army Sanitary Committee.

THE LONDON WATER-SUPPLY.

DR. FRANKLAND reports that the water abstracted from the Thames in January by the Chelsea Company was much inferior as regards organic impurity to that delivered by the same company in December. The water supplied by the other Thames companies was, on the other hand, of much better quality in January than in December, the most marked improvement being observed in the water of the Southwark and Lambeth companies. All these waters were efficiently filtered before delivery. The water taken chiefly from the Lea by the New River Company exhibited only a slight improvement over the sample taken in December, whilst that sent out by the East London Company was not quite so good. Both these supplies were inferior to the best of the Thames waters. They were efficiently filtered before delivery. The quality of the water-supply during January has distinctly improved, according to the report of the three experts, Dr. Odling, Dr. Tidy, and Professor Crookes, who state that "except for the occurrence in three instances of but 'very slight turbidity,' the condition of the water-supply to the metropolis during the month of January was entirely satisfactory.'

PRESCRIBING BY TELEGRAM.

OBJECTIONABLE and dangerous as is the practice of issuing medical prescriptions by means of the press, or by letter, it may well be questioned whether the employment of the telegraph for the same purpose is not still more open to misuse. Novel and of more than doubtful expediency, this custom nevertheless is not unknown. A case was lately reported in the daily press in which a patient thus received by wire instructions wherewithal to provide himself with physic. Thus furnished, he was somewhat annoyed to find that hardly any druggist could be induced to execute the informal mandate of his medical adviser. We do not wonder at this, and the less so that poisonous ingredients were included in his "order." Cases of this kind expose the patient and the practitioner likewise to more than one difficulty. There is first the delicate point of diagnosis. How is a medical man to understand and correctly treat ailments of which he has, except from a mere statement of subjective symptoms, no present—and, therefore, no certain—knowledge? It may be said, indeed, that previous examination will often afford a reliable clue, and, to some extent, this is true. Chronic states are doubtless in this respect quite different from more acute ailments, and their features are appreciable in proportion to their character and duration. Still, even in such cases the best results and the least anxiety must ever accompany a personal interview. As for medical treatment by promiscuous advertisement, this is nothing less than immoral. Returning to the telegram, however, we find in it yet another element of danger in that it affords no reliable guarantee of correct statement. The prescriber's expressions may easily be misunderstood or misstated by the officiating clerk, thus committing the dispenser, if he will, to a matter of guesswork, and that perhaps in circumstances of critical importance. The druggist in such a case has no ready means of reference or amendment, his salutary influence as a check upon *lapsus pennæ* is impaired, and the risk of the confiding but too heedless patient is proportionately greater. Clearly, therefore, the wire affords no suitable medium for professional prescription, and its employment, even where it does not prove a means of mischief, is at least a serious error of judgment.

NOTIFICATION FEES.

THE Ebbw Vale Board of Health at a recent meeting betrayed much dissatisfaction with the payments due to their excellent medical officer, Mr. J. W. Davies, under the Notification Acts. They appointed a deputation to wait on this gentleman to urge him to reduce his legitimate charges. The deputation seemed to shrink from so unreasonable a request, but one of its number was more courageous. Mr. Davies objected to act differently from his neighbours. One member of the board was for abandoning the Act, but was firmly informed by the clerk that that was not possible. Another thought that the high mortality of the district was a reason for lowering the fees, an argument which we fail to see. In the end, the board appointed the medical officer for only six months, with a threat to advertise for another. This is highly discreditable conduct towards a creditable officer. The *Tredegar and West Monmouth Times* has evidently a high respect for Mr. Davies, but a low opinion of the framers of the Act, which it characterises as another instance of the bungling and incomplete legislation of a Tory Government. Mr. Davies should disregard the threat of his board, and appeal for protection to the Local Government Board.

MEDICAL LITERATURE.

A PURELY commercial view of medical literature has been put forward in a leading article in the *Author*, the official organ of the Incorporated Society of Authors, conducted by Mr. Walter Besant, and, if the article is to be believed, medical literature, as an investment, occupies a peculiar position in rarely bringing any direct profit and in mostly entailing a heavy outlay. The writer divides medical books into (1) works of general medical reference, (2) books written in one of the popular series, (3) monographs on special medical subjects. It is admitted that the first and second classes may be financial successes, but in both the success seems to be rather that of the publisher than the writer. Books written as parts of a series pay the author by bringing in some money and some reputation. The good books of a series sell the bad ones, and the popular prices suit the purses of a great many people. The actual amount of remuneration received by the author is mostly small, but the work is undertaken, according to the writer, partly with a view to fame, and partly perhaps for the sake of not being crowded out of the field by some other person equally fitted for the task. The third class, however, the monographs on special medical subjects, is the one whose unique position seems most interesting. The chief difficulty is of course that when an expensive book has been produced the circulation is extremely limited and necessarily entails loss. A few *savants*, a few professors, and a few libraries purchase the book, and by these the knowledge is disseminated in lectures, comments, reviews, and scientific articles. The reward is in-

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direct, and is supposed to come in the form of appointments, pupils, lectureships, practices, and "legitimate notoriety, with its substantial results.' Although there is a certain amount of truth in these remarks, the way in which material for the book is to be gathered seems to be curiously ignored. Mostly "appointments" have preceded the publication of the book and have furnished the experience, which has gradually crystallised into new theories or new aspects of the subject; indeed, unless this is the case, it is to be feared that the author has been engaged on the profitless task of endeavouring to make bricks without straw. Still, there can be no doubt that books on special medical subjects published on commission do not and cannot pay the author by their sale. Whether the "legitimate notoriety and its substantial results" are always quite as legitimate and quite as substantial as the writer of the article appears to believe may be open to doubt. The laws which govern the growth of fame and of practice are so subtle that they elude definition, and their uncertainty has to be faced by all who feel tempted to try the effects of an investment "on commission."

COKE OVENS AS SHELTERS.

IT is difficult to picture a condition more strikingly illustrative of destitution than that which has lately attracted the attention of the Durham sanitary authorities. We refer to the practice of allowing disused coke ovens to be occupied for human habitation. According to recent information one such oven constituted a domicile for eleven men, while a number of poor creatures lay and slept, or appeared to sleep, on the roof and sides of this extraordinary bed chamber. We may take it for granted that the fires of these extinct volcanoes had long before become cold, otherwise there would not have been wanting a record of fatal consequences from inhaling their poisonous atmosphere. It is conceivable, however, that an oven which had not quite cooled down may occasionally have been used as a shelter, its remaining warmth constituting a seasonable attraction, its lingering carbonic fumes a deadly and insidious peril. In order to develop the causes of mischief, however, not even this condition is needful. The air of a small and confined space in which a number of persons are sleeping cannot be of the purest, since the mere act of respiration must very soon produce a dangerous excess of carbonic acid. We must, therefore, while we pity those who are expelled from even so cheerless a shelter, approve the action of the local sanitary board, who have requested colliery owners to deny access to their ovens for sleeping purposes. It is evident, however, that a further duty remains for the board and the parochial authorities—namely, to afford to these evicted outcasts as far as possible some alternative and more wholesome protection against the weather.

NERVOUS SEQUELÆ OF INFLUENZA.

WHEN a storm has swept across a tract of country, although the bulk of the damage which it has done may be visible at once, there are many of the effects of its violence which do not immediately obtrude themselves. Trees may have been shattered and buildings wrecked, growing crops may have been ruined and live stock destroyed, but its ravages do not stop there. This country has recently been exposed to the full force of a severe epidemic—an epidemic which the obscurity of its origin and the suddenness and severity of its attack have combined to render even more alarming than others with which our acquaintance is greater, we cannot say closer. The full force of the epidemic has now, it may be hoped, spent itself. But as the storm leaves behind it trees which are blighted but not destroyed, so this disease, apparently so trivial, seems not rarely to be succeeded by conditions of nervous exhaustion and depression, to combat which requires all the art and skill which knowledge and experience can suggest. There seems to be little reason to doubt that the poison of influenza has a special influence on the nervous system. Numerous sequelæ of the disease have been described affecting the nervous system in its various parts, both central and peripheral; and there are not a few who hold strongly the opinion that in all its manifestations, both primary and secondary, it is essentially a nervous disease. But whether this view be correct or not, it will scarcely be questioned that the disease gives rise to symptoms of nervous disturbance, both widespread and severe. In estimating the amount and the frequency of such disturbance, allowance must of course be made for errors of observation. No doubt there has been too much tendency lately to ascribe morbid conditions of various kinds to a precedent attack of influenza, and this disease, already sufficiently loaded with its own burden, has been made to bear a share of others from which it had a right to claim exemption. Thus a patient may date the commencement of symptoms which now clearly point to cerebral tumour from an attack of influenza, but careful inquiry may elicit the fact that the only evidence of this was an attack of headache and vomiting, probably the first attack of this character associated with intracranial growth. So also, no doubt, with other conditions; but even after making a liberal allowance for such errors on the part of the patient or other observer, a considerable residuum is left in which one is driven to acknowledge an incidence of cause and effect; and if this is true of actual structural change in the nervous system, it is no less true of the serious and alarming conditions of what is known as functional disorder, which may go on to manifest itself in profound mental alteration. The excessive depression and lassitude which follow an attack of influenza are too familiar to require more than a mere mention, and in highly neurotic patients such a condition is often quite sufficient to upset entirely the somewhat unstable mental equilibrium. This was no doubt the case with a poor woman who a few days ago was found sitting on her kitchen floor in front of the fire tugging at a clothes line, which was twisted round her neck. Upstairs her two children, one a boy of two and the other a baby of six months, were found strangled. Evidence was to the effect that, although previously a healthy woman and living happily with her husband and family, she had become much depressed after an attack of influenza, and this depression had apparently been succeeded by mental derangement. Many similar cases are on record, and they show the profound effect which the poison of this disease has upon the highest nervous centres.

A NEW WEAPON AGAINST MEDICAL ADVERTISING IN THE UNITED STATES.

IT is well known that in all the more enlightened parts of the United States there is a creditable effort to elevate the medical profession by legislation that shall secure the better education of its members, a due examination of them or of their credentials, and the advantage of certain privileges. Such legislation to be complete must provide means for enforcing some discipline by which medical men are to be distinguished from unbridled and unprincipled quacks who prey on the sufferings and credulity of the ignorant. A Bill before the General Assembly of Ohio not only creates a board for examining all persons desirous of practising in the State, but contains a penal clause which provides that every travelling physician must pay for the privilege of practising the sum of twenty dollars a day for the entire time that he shall remain in each town, under a penalty of from fifty to a thousand dollars fine and imprisonment. We gather from the newspapers which object to this

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clause that it is meant to meet the case of "regular" physicians who itinerate, and "sound a trumpet before them" as other deceivers of old did, and after staying just long enough in a place to extract the money of the deluded, pass off to another town to repeat the same discreditable charlatanry. Such tactics are the resource of dangerous nd unprincipled men, whom every reputable College would be ashamed of. Without committing ourselves to this exact form of punishment, we heartily approve of clauses for giving to a rightly constituted Medical Board the power of dealing with a great public evil.

EXAMINATIONS FOR ADMISSION TO THE ARMY MEDICAL DEPARTMENT.

WE briefly alluded last week to the fact that at a Comitia of the Royal College of Physicians, held on the 3rd inst., the report of the delegates appointed by the Royal Colleges of Physicians and Surgeons to consider a letter from the Secretary of State for War in reference to the examinations for admission to the Army Medical Department had been read and adopted. The delegates were Mr. Thos. Bryant, F.R.C.S. (chairman), Sir Joseph Fayrer, M.D., K.C.S.I., Dr. Cheadle, Sir Dyce Duckworth, M.D., Dr. T. Henry Green, Dr. Farquharson, M.P., Dr. Norman Moore, Sir William Savory, Bart., F.R.C.S., Mr. J. W. Hulke, F.R.C.S., Sir William Mac Cormac, F.R.C.S., and Mr. N. C. Macnamara, F.R.C.S. The delegates recommended the Royal Colleges to reply to Mr. Stanhope that the two Colleges were willing to undertake the conduct of the examinations, subject to the conditions that the examinations were under the control and management of a committee consisting of representatives of the War Office, the Royal College of Physicians, and the Royal College of Surgeons; that the examiners be nominated by the committee and appointed for a definite period by the two Royal Colleges; and that every candidate shall be examined in each subject by two examiners in conjunction. In the event of these conditions being accepted by the Secretary of State for War, the delegates recommended the immediate appointment of the committee, with a view to their drawing up a scheme of examination for the consideration of the War Minister and the Royal Colleges. It seems to us that this is, on the whole, a step in the right direction, which will commend itself to the profession. The appointments of examiners should be for fixed and definite periods, and not life appointments.

POISONING BY ROBURITE.

WE have in our columns on several occasions reported cases of poisoning by roburite, and have also given prominence to the inquiries and investigations of Professor Harold Dixon, F.R.S., Mr. Hannah and Mr. Mounsey; also of Professor Bedson, Drs. Hume and Drummond of Newcastle. The conclusions of the latter gentlemen were to the effect that the products of the explosion of roburite and tonite are not more deleterious than the products of the explosion of gunpowder. Last week Mr. Butcher, one of the coroners for Lancashire, held an inquest on a man named Sandsland at Atherton, near Manchester, whose death was said to have been caused by meningitis induced by the inhalation of fumes from an exploded roburite cartridge. This appears to have been the opinion of Dr. Martin, who had attended the deceased during his illness, which lasted three days. The fireman who fired the shot had also been in the place after the explosion, but complained of no ill effects. The coroner, recognising the importance of the inquiry, adjourned it, so as to obtain scientific evidence on the point. Professor Paul, F.R.C.S., of University College, Liverpool, was engaged, and he examined a portion of the deceased's lung, a kidney, and a piece of liver for nitro-benzine, also some of the blood spectroscopically for carbon monoxide; in both instances negative results were obtained. He further stated that from negative results it does not necessarily follow that such poisoning had not at some time been present, because these poisons are volatile and may have passed out of the system. Being further questioned as to accepting the cause of death as meningitis, he was of opinion it was due to natural causes. The jury returned a verdict, however, that the deceased died from inflammation of the brain and membranes of the brain, and that such inflammation arose from his having by accident inhaled certain noxious gases liberated upon the explosion of a roburite cartridge, and came by his death by accident, and not otherwise. Our readers are familiar with the curious findings of jurymen. Often the profession, or rather individual medical men, meet with censure most undeservedly at times from twelve intelligent jurymen; but in an inquiry like this it is impossible to remove from our minds the fact that if a pitman meets with anything which causes death that can be construed as an accident, his friends participate in the allowance made by the Miners' Permanent Relief Society, and it is no uncommon thing in colliery districts for even the most trivial injury which has occurred months before to be blamed for what is really due to natural causes.

THE MANCHESTER AND SALFORD PROVIDENT DISPENSARIES ASSOCIATION.

THE annual meeting of this Association was lately held in Manchester, and the reports were considered by the promoters to be pretty satisfactory. They congratulated themselves that 1300 members of clubs were connected with the dispensaries, or 159 more than in 1890. We cannot regard this as a matter for much satisfaction. Clubs and friendly societies can take care of themselves, and the promoters of friendly societies would do better to cater for those who cannot do so. The amount of members' subscriptions for the year was £4183, of which sum only £2563 found its way to the medical staff. An attempt to increase their pay by charging three halfpence instead of a penny for medicines was unsuccessful. An ungracious attempt to make the notice for terminating medical appointments three months was much resented by the medical men. One practitioner, in a letter, said that if this were carried his resignation would follow. Not only that, but he would "expose the so-called philanthropy of your council, who make the medical men the scapegoats of your vicarious philanthropy," and he would take care to enlighten the public with regard to the feeling which existed in the council towards the medical staff. After a further protest from other medical men the motion was withdrawn. The most creditable boast of the Association is to have reduced hospital abuse from 42 per cent. to 6 or 7 per cent. by coöperation between dispensaries and hospitals.

"CHEMOTAXIS" VEL "CHEMIOTAXIS."

AS science advances and new ideas spring from new observations, fresh terms have necessarily to be employed to denote phenomena that have previously passed unnoticed. But investigators who employ such terms should be careful to see that they are well understood by those who listen to expositions or peruse writings which contain them. It is in the interest of the many who desire to have a clear comprehension of the knotty question at present dividing the pathological world that we would invite the next "phagocytist"—another new term (!) necessitated by the struggle that is now in progress—who speaks in the debate at the Pathological Society to condescend to state explicitly the precise etymology of the phrase that lies at

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the root of the controversy, and concerning the spelling and pronunciation of which there seems to be as great a difference of opinion as there is between the two opposing camps on the main question. Of course, it may be said that it does not matter an "iota" if that useful little vowel be omitted, and the word of five syllables degraded to one of four; but there must be some reason for its retention in the minds of those who do retain it, or for its rejection in the minds of those who discard it. Nor is this all. The ordinary man would like to go a step farther, and ask the expert how the two parts of this compound word hang together. By a stretch of imagination he can conceive that "taxis" may imply the marshaling of the phagocyte forces to resist the invader; but then the chemical influences which he may suppose to be denoted by the first root are considered to act either "positively" in attracting or "negatively" in repelling the martial leucocyte. So that "taxis" cannot be used in its classical sense. It is, perhaps, unfortunate that the discovery that some substances attract and others repel leucocytes (the term "chemotaxis" was in the first instance, we believe, applied to micro-organisms should have led to the use of the adjectives "positive" and "negative." But we suppose there is no help for it now. Only it would be satisfactory to know how this important word is to be spelt, especially if it is going to assume a permanent place in pathological terminology. We should like to add also a protest against the lax way in which such words as "immune," "vaccination," and the like are being used by pathologists. For it would seem that the precision with which they conduct their scientific researches is somewhat lacking in their language. Can it be because science is replacing the old-fashioned classical education in primary schools that so little regard is often paid to etymology by scientific men?

MEDICAL STUDENTS IN THE FRENCH ARMY.

CONSIDERABLE dissatisfaction prevails concerning new regulations enforced upon the medical students who are serving their time in the French army. Every medical student, unless he is physically unfit, must serve at least the full 365 days under the flag and in the barracks; but formerly they were allowed to frequent the military hospitals and faculties. Here they proved of considerable service. They took temperatures, dressed wounds, &c., and rendered intelligent and efficient aid. They were popular with the officers, the medical staff, and the soldiers because they were useful to one and all. Now, however, orders are given that medical students are not to be admitted to the military hospital during their term of military service, nor are they to be allowed to follow any medical teaching. The whole of their time must be devoted to drilling, they must shoulder gun and knapsack, and march with the awkward squad. This would be quite right and fair if doctors went into the battlefield as simple soldiers. Students in seminaries training for the priesthood have to serve in the rank and file, and medical students must pay the blood-tax as well as every other member of the community. The only objection is that, though the medical student when he becomes a doctor is, in common with every other Frenchman, liable to military service up to the age of forty, he has his position as surgeon to such or such a battalion assigned to him. When the order comes to mobilise he does not take a gun, but his surgical instruments. Therefore, it is urged, it would be more useful to the army if, during the year he is under the flag and in active service, he were allowed to acquire some experience of military hospital work. To this the War Office reply that every medical student does not of necessity become a doctor, but he must of necessity and without a single exception serve his country in case of war. Therefore in the event of war breaking out before the medical student has become a fully qualified surgeon, the War Department expects to find him fully qualified as a simple soldier. Even when dealing with a well-educated and intelligent medical student, 365 days' constant drilling, rifle in hand, is not too much to make a good soldier. Nevertheless, it is easy to understand that the medical students should protest. It is hard that they have to work very rigorously for a whole year to qualify as simple soldiers when, in the majority of cases, they will never have to serve in that capacity.

INDIAN SANITATION.

SIR WILLIAM MOORE read an elaborate paper before the Society of Arts, Adelphi, on March 3rd in the course of which he said that in no three large cities in Europe had greater advances in sanitation been shown during the last twenty years than in the cities of Bombay, Madras, and Calcutta. This is a very important statement; for if it be true that the history of men is reflected in the history of their sanitation, it contains important evidence of general progress among the inhabitants. Further, on comparing many Indian towns with those in Continental countries between Great Britain and the East, it is found that they occupy a very favourable sanitary position. Those authorities, consequently, who are of opinion that insanitary conditions are necessary to the generation of cholera will not require to search for these conditions so far eastwards as India. It was pointed out that they may be found in greater numbers, and possibly in more noxious intensity, in countries between Europe and India where climatic conditions are more favourable to the development of that disease. Sir William Moore thinks, notwithstanding the fact that cholera is always present more or less in India, owing to the defective personal hygiene of the people, and from other causes, that European epidemics would occur just as frequently if no such condition existed. But Indian sanitation is still young. Much requires to be done to perfect it. "The requirements," he says, "are numerous and should be reiterated again and again." That may be applicable to most countries. There is deep philosophy in Descartes' saying, that if it be possible to perfect mankind, the means of doing so will be found in the medical sciences. Sir William Moore's paper shows very strikingly the amount of progress towards sanitary perfection which has already been attained in India.

THE HEALING OF WOUNDS IN BLOODLESS OPERATIONS.

THE after effects of the bloodless system of operating, as carried out by means of Esmarch's bandage, not having been very satisfactorily ascertained, Dr. Sokolovski of St. Petersburg, working in Professor Ivanovski's laboratory, has recently performed a large number of experiments for the purpose of ascertaining whether under this system the healing of wounds is at all altered or retarded. His plan was to make similar incisions or other wounds on the two hind legs of a dog or a rabbit. One of the limbs had been rendered bloodless by an elastic bandage, while the other was operated on without this precaution. Both wounds were dressed, and their subsequent progress compared both by ordinary and by microscopic observations. The regeneration of epithelial elements is brought about by the multiplication of the cells of the formative layer by indirect or partially direct division. Sometimes the wound becomes covered with an epithelial growth, which is inefficient, not being permanent, but undergoing degeneration. Generally the cells of the old epithelium at the edges of the wound undergo changes consisting in a diminished amount of chromatin, in consequence of which the nuclei are bright and stain badly, or the chromatin fibres become

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diminished in number, but are shorter and thicker; these changes do not, however, go as far as chromatolysis. Mitoses of the epithelial cells are mostly seen when the wound is covered with one or two layers of cells; sometimes, however, they occur in the cells of old epithelium lying in close vicinity to new cells. All the above processes take place in wounds, whether they have been inflicted on a bloodless limb or on one in its ordinary condition; but in the former case there is a marked retardation. If the bloodless condition of the part has not lasted more than three hours, the alteration in the cells is but slight, and confined to the superficial layer. When, however, it has persisted for a longer period, the cells of all the layers are affected, the nuclei becoming stellate, staining badly, appearing too bright, and having a deficiency of chromatin. The mitoses are diminished in a wound made in a bloodless part, and some of the karyokinetic figures are abnormal, the rays of the asters being irregular or shortened and thickened.

ETHER AS A STIMULANT AT THE TEMPERANCE HOSPITAL.

A CORRESPONDENT of a contemporary expresses surprise that at a public meeting at the Temperance Hospital it was announced that the internal use of ether is allowed in the hospital in place of alcohol. We cannot think that there is much to justify this difference. Ether drinking is a vice which has but lately in Ireland assumed grave proportions, requiring special legislation. It is affectation to regard the use of such an agent as morally or physically better than the use of approved forms of alcohol. By all means let the physicians of the Temperance Hospital cure disease—where they can do so equally well and equally quickly—without alcohol. Such treatment is instructive, but where some form of diffusible stimulant is needed, to prefer ether to alcohol is scarcely the way to promote temperance.

OVERCROWDING OF THE PROFESSIONS IN THE COLONIES.

THE *Sydney Morning Herald* has lately published an interesting series of articles on the overcrowding of the profession in New South Wales. It is difficult to get at perfectly reliable data for a medical census. Chiefly because there is no satisfactory means of ascertaining the number of deaths among the registered practitioners or of the removals from the colony. But taking all possible precautions and using the best means to arrive at an approximately accurate conclusion, our contemporary's special correspondent estimates that whereas in England there is one medical man to 1562 persons, there is in New South Wales, and perhaps other Australian colonies, one medical man to 1890 persons. There are in New South Wales about 600 qualified practitioners to a population of 1,134,207. We confess to being rather doubtful of statistics from registers on which it is believed that dead men figure year after year, and others are regarded as dead on very insufficient evidence. The estimated income of medical men in the colony of New South Wales is calculated to make us dissatisfied with our modest emoluments. Several leading practitioners in Sydney have an income of £6000 a year, and the average income of the medical practitioner is considered to range between £1000 and £2000. We should enjoin on our young readers a little wholesome scepticism on these calculations, which exceed if not "all Greek all Roman fame," at least all English and probably American experience, and which ill consort with those breaches of professional manners and methods of which we have already written, the best excuse for which, though an entirely inadequate one, is the pressure of competition, largely, it is true, from unqualified practice which rages unchecked. The great thing wanted is an improvement in the means of informing the registrar of the death or change of residence of those registered. Our own Act is not very effective in this respect, but it is much more so than that of New South Wales. There is a Bill now before the Colonial Parliament for perfecting the system of registration, to which we wish every success.

EXPULSION OF A DEAD FŒTUS IN FRAGMENTS.

THE *Wiener Med. Chir. Rundschau* gives an account by Dr. Liebmann of a remarkable case of expulsion of the dead fœtus. It is necessary, he points out, to remember that a dead fœtus may remain in the uterus some length of time. At the second month it may become absorbed or transformed into a mole. At the fourth month it may become either mummified or macerated, either undergo fatty degeneration or calcification, or, in cases of extra-uterine gestation and ruptured uterus, it may escape into the abdominal cavity, to be removed either by the formation of an abscess or by operative interference. It rarely happens that the fœtus undergoes complete decomposition in the uterus and is discharged piecemeal. In the case described by Dr. Liebmann this, however, occurred. The soft parts of the fœtus, which was between the third and fourth month, came away in the form of a sanious discharge from the vagina, attended with slight rise of temperature. Later on the bones, either separately or several at a time, appeared at varying intervals. This continued for some months, the placenta being discharged, at the end of that time, as an oval fleshy mass, the size of a pigeon's egg, with eight bones attached to it.

THE HEALTH OF MALVERN.

THE appointment of medical officer of health to the district of Great Malvern is vacant. The place has a considerable and deserved reputation as a health resort, and it should have a health officer who, by reason of his qualifications as an expert in public health, should inspire confidence with the public and their medical advisers in all parts of the country. And where skilled services are sought they should be adequately remunerated.

PASSAGE OF TUBERCLE BACILLUS FROM THE MOTHER TO THE FŒTUS.

BIRCH-HIRSCHFELD AND SCHMAL[1] have recorded a case which they consider is the first in which it has been definitely shown that in the human subject tubercle bacilli can pass from the mother to the fœtus. The patient was a young woman who, shortly after the commencement of her first pregnancy, began to exhibit symptoms of incipient phthisis; the disease assumed an acute form, and progressed so rapidly that the patient died during the seventh month of her pregnancy. Immediately after the death of the mother the child was removed by the operation of Cæsarean section. A post-mortem examination was made on the body of the mother. Advanced tubercular changes were found in the lungs, and also some miliary tubercles in the liver and other organs. The child had been felt to move after the death of the mother, but by the time the operation had been performed it was found to be dead. The thorax was at once opened, but the lungs appeared to be quite healthy. The body was then removed to the laboratory, the surface of the abdomen washed with perchloride of mercury, and the cavity opened by means of sterilised knives. No evidences of tubercle could be found in any of the organs. Small pieces of the liver, spleen, and kidney were removed with sterilised instruments, and placed in the abdominal cavity of two guinea-pigs and a rabbit. One of the guinea-pigs died in

[1] Beiträge zur Path. Anatomie und zur Allg. Path., 1891, p. 429.

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fourteen days; miliary tubercles were found in the peritoneum and large omentum. The second one was killed about six weeks after inoculation, and the same appearances were noted. The animal had appeared ill, it was feverish, and emaciating rapidly. The rabbit lived considerably longer—three months; after death tubercles were found in the liver and lung. From these experiments it was evident that although no tubercular lesions could be found in the organs of the child, yet the latter were capable of infecting animals; and had the child survived, it would have undoubtedly developed tuberculosis at an early age. It is a point of great interest to read that tubercle bacilli were found in the umbilical cord and in the blood of the umbilical vein.

INTERNAL ADMINISTRATION OF CHLOROFORM IN ENTERIC FEVER.

DR. P. WERNER of St. Petersburg has treated 130 cases of enteric fever with a 1 per cent. solution of chloroform with the greatest success. His attention was first called to the use of this drug by the investigations of Behring as to the germicide action of chloroform upon the bacillus of typhoid fever, but he was not aware at the time that Dr. Steppe of Nurenburg had used chloroform in 1890. Dr. Werner made use of a 1 per cent. solution of chloroform in water, of which the patients took a tablespoonful every hour or every two hours during the height of the disease, and for some days after the temperature had become normal. In all cases in which this treatment was adopted, before the tenth day great improvement was manifested, and even when commenced as late as the third week benefit resulted. The usual typhoid symptoms did not appear, the tongue did not become brown, diarrhœa and tympanites gradually disappeared, there was no tendency to bedsores, and relapse was very rare. The treatment was in most instances well borne, but in four cases slight jaundice, sufficient to cause a discontinuance of the drug, was observed. Dr. Werner's observations agree with those of Dr. Steppe, and he considers this treatment well worthy of a trial, if for no other reason than its absolute harmlessness.

AN INDIAN FAKIR.

AN account of the "performances" of the Indian fakir Soliman ben Aissa is supplied by our Vienna correspondent. The exhibition has very properly been forbidden in public places in Vienna, but a series of private entertainments has been arranged. An aristocratic audience was present at the first of these, Professor Mosetig Moorhof representing medicine. The fakir commenced his performances by inhaling the fumes of a burning powder prepared from extracts of snake and scorpion poison, and certain quick movements of the head produced a foaming at the mouth. After these preliminaries, needles and other sharp instruments were thrust through various parts of his body, including a stiletto a foot long and half an inch broad, which was thrust through his tongue. Another feat which is said to have caused great sensation consisted in pulling forward the eyeball and presenting it outside the orbit, to the view of the audience, between two fingers. He was "invulnerable" also to the heat produced by a flaming torch held for a minute and a half against the under surface of his forearm. After chewing glass and playing with poisonous snakes the fakir nearly fainted, but speedily recovered his good spirits. The recital of these feats recalls the excitement that was caused in London many years ago by the similar so-called "experiments" of M. Chaubert, the renowned fire king, who succeeded to all appearance, in defiance of all laws, chemical and medical, in drinking poisons and swallowing hot irons and boiling lead, amid the enthusiasm of a large portion of the British public. He succeeded only for a time. The history of his exposure, sudden downfall, and subsequent malignity forms perhaps one of the most interesting and humorous passages in the older volumes of THE LANCET. The fire king had boldly advertised that on a certain occasion he would take a large quantity of hydrocyanic acid without injuring himself. Mr. Wakley thereupon inquired at Bow-street what the consequences would be if, on his administering a dose of this poison to M. Chaubert, the latter gentleman happened to die. The responsibility was placed on Mr. Wakley's shoulders, but that did not alter his determination to demonstrate to a very large audience the nature of the "experiments." A few weeks after the exposure M. Chaubert challenged the Editor of THE LANCET to a duel with swords or pistols. The Editor replied caustically that "THE LANCET was the only weapon he could fight with in a matter of this kind." The fire king was never again heard of in this country.

BACTERIOLOGY OF ENDOMETRITIS.

IN order to investigate the bacteriology of endometritis, Dr. Brandt of St. Petersburg recently examined twenty-five cases, including hæmorrhagic, catarrhal, gonorrhœal, and septic forms. After carefully cleansing the external genitals, the vagina, and the cervical canal with a solution of corrosive sublimate of the strength of 1 in 1000, with alcohol and with ether, preliminary bacteriological observations on scrapings from the cervical canal invariably giving negative results, the internal surface of the uterus was scraped with a curette, and dry preparations as well as cultures in agar and gelatine were made. The plate method was likewise employed, as were inoculations in animals. The portions of mucous membrane brought away were also carefully examined with the microscope. In almost all cases microbes were found, both pathogenic and non pathogenic—the former, however, preponderating. Of these both cluster and chain cocci were met with, amongst the non-pathogenic bacteria there were occasionally bacilli, but most commonly cocci. It was remarked that cases where pyogenic microbes were found were not clinically distinguishable from others where none could be detected; these pyogenic microbes, however, when injected into animals invariably produced both local and general symptoms, such as abscesses and a rise of temperature. Sometimes, but by no means always, microbes were seen in the substance of the mucous membrane.

ALBUMINOUS PERIOSTITIS.

DR. DZIERZAWSKI communicates to the Polish medical journal, the *Kronika Lekarska*, an article on the so-called "periostitis albuminosa" of Poncet, Terrier, and Lannelongue. He has been able to find, in addition to his own case, twenty-seven cases reported in medical literature. It is an affection of the periosteum characterised by a clear, tenacious exudation, resembling the synovial fluid or the white of egg, and it is of course from this circumstance that the name has been given it. Some authors, as Nicaise, Riedinger, Albert, and Duplay, look upon it as a special pathological form; while others, as Schlange, Roser, Vollert, Garré, and Oliver, are disposed to regard it merely as a variety of purulent periostitis. Dr. Dzierzawski's own view is that it is not a disease *sui generis*, but that it is comparable to those cases of contagious osteomyelitis where a clear fluid exudation is formed owing to a low type of inflammation, or to tubercular cases, where there are infiltrations or cold abscesses. The small number of pus corpuscles can be explained, according to Schlange, by their deficient formation owing to the weakness of the inflammation, or, according to Garré, by supposing a secondary liquefaction of these bodies by the serous exuda-

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tion. Under some conditions the periosteum may give rise to exudation containing mucus, consequently there is no need to suppose that the pus corpuscles undergo mucous degeneration, and a better name for the affection under consideration would perhaps, according to the author, be "non-purulent osteo-periostitis."

PTOMAINE POISONING.

AN interesting condition, apparently resulting from the ingestion of unwholesome food, is described by Dr. Guttmann in the *Berliner Klinische Wochenschrift*, and a short abstract of the case is given in a recent number of the *Centralblatt für Klinische Medicin*. A man aged thirty, after enjoying part of a somewhat "high" goose, suffered from symptoms of gastric disturbance accompanied by rigors. In five days he was unable to raise his eyes, and he had diplopia and swelling of the parotid and sublingual glands. Twelve days from the commencement nearly all the branches of the right third nerve were affected, as well as the fourth and sixth on the same side. On the left side the condition was similar, but there was no ptosis. The pupils, however, were normal, vision was good, and there was no optic neuritis. There was no paralysis of accommodation. Except for some paræsthesia in the left hand there were no other signs of disease, and in four weeks' time the patient had recovered perfectly. Dr. Guttmann concludes that the case was one of meat poisoning, and he mentions the fact that nuclear palsies, although no cases of complete ophthalmoplegia, have been described as occurring under similar circumstances.

FOREIGN UNIVERSITY INTELLIGENCE.

Geneva.—Dr. Sulzer has been recognised as *privat-docent* in Ophthalmology.

Kharkoff.—Dr. Popoff has been promoted to the Professorship in Ordinary of Anatomy.

Lausanne.—M. Barde has been recognised as *privat-docent* in Hygiene.

Madrid.—Señor Don Rodriguez y Fernandez of Havana has been appointed to the chair of History of Medicine.

Moscow.—Extraordinary Professors Ostrumoff and Mansuroff have been promoted to the chairs of Therapeutics and Dermatology respectively. Dr. Korzakoff has been appointed Extraordinary Professor of Midwifery and Gynæcology.

Warsaw.—Extraordinary Professor Nikolski has been promoted to the chair of Pharmacology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. C. Hubert de Change, late Inspector-General of the Medical Department of the Belgian Army. He was a particularly skilful surgeon, and while on the surgical staff of the University of Liége he wrote a good deal, and designed several improvements in surgical instruments. During the Franco-Prussian war he was chief of the field lazaret of the First Division of the Belgian Army of Observation, and rendered important services to the wounded who were conveyed across the frontier.—Dr. J. von Hasner, formerly Professor of Ophthalmology in the German University of Prague.—Dr. Smortchevski, senior *chef de clinique* of the St. Petersburg Town Hospital, suddenly, while in the hospital.—Dr. Popoff, Prosector of the Nikolaeff Naval Hospital, St. Petersburg.

IT is believed that Portland will be the place selected for the meeting of the Congress of American Physicians next summer. Cushing's Island will probably be the rendezvous, and the Congress will assemble about Sept. 1st for its annual business.

PRINCESS CHRISTIAN will be present at a public meeting to be held in support of the Royal British Nurses' Association at the Mansion House on Friday, March 18th, at 4 P.M. Sir William Savory, Sir James Crichton Browne, and Sir Dyce Duckworth have promised to address the meeting.

REPORT OF
The Lancet Sanitary Commission
ON
SANITATION IN THE SHOP.

PART II.

THOUGH shop assistants have so much to complain about, but little has been done on their behalf. This is undoubtedly in a great measure their own fault. For reasons which it is not our special mission to investigate or to explain, shop assistants have not resorted to those methods of combination and of association by which the working classes have ventilated their grievances and often obtained redress. The shopkeeper's assistant, though receiving inferior pay and working longer hours, deems himself to be altogether a superior person, and disdains to follow the same tactics as the skilled artisan. Also, as in many shops a commission is paid on the amount of sales effected, this engenders a spirit of competition and antagonism between shop assistants, so that it is difficult to bring them together into one compact and harmonious organisation. Nevertheless, some associations have been formed, and there are the United Shop Assistants' Union in London, the National Union of Shop Assistants, with its headquarters at Manchester, the Scottish Shop Assistants' Union, and the Early Closing Association. These organisations, and the protests raised from time to time in the press, have effected some slight improvements. If this progress is not very effective in itself, it at least suffices to show that there is a possibility of achieving much more. One of the first endeavours, and in this THE LANCET took a leading part, was to provide seats for shop assistants. For young women especially the long hours of standing are most injurious, and we sent circulars round to the principal retail shops of London asking if seats were provided. Many answered favourably, and in consequence of this movement seats were introduced where they had not existed previously. There was even a sort of contrivance invented to meet the case, which consists of a little seat that can be pulled out from under the counter and pushed back again when no longer required. The shop assistants themselves, however, maintain that this reform, though kindly meant, is of but little use to them. The seats in too many cases were provided in deference to a popular outcry rather than from any desire to see the assistants utilise them. The theory of trade is that the assistant should always be busy, and should not have time to sit down. The shopkeeper imagines that if a customer were to enter his establishment and find a number of assistants sitting down behind the counters an impression would be engendered that the shop was not well patronised and did but little business. Therefore, when the shop assistant has nothing to do he has to invent something and pretend to be busy. A shop assistant told us that when he first took a situation he imagined the seats provided behind the counter were meant to be used. He therefore sat down, but his employer soon came up, exclaiming that he wanted someone who was "more lively." Another assistant explained to us that, though there were seats in his shop, anyone found idle was fined sixpence. The assistants therefore had to pretend to work, even when they had nothing to do and there was no work that they could do while sitting. At another very large establishment, which boasts of the seats it provides for its assistants, anyone found sitting down is reprimanded the first time and dismissed on a repetition of the offence. The assistant, who worked there himself, added to this information that there were mirrors on all sides, in which every movement was reflected.

The shop assistants themselves do not, therefore, think that the seats provided behind the counters are of much service. They may be there, but it is not often practical

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to utilise them. Of course the circumstances differ in various trades, and in restaurants, for instance, there is ample time for sitting down between the rush at the meal hours. In some places, however, the sitting down is not all rest. A vegetarian restaurant was pointed out to us in where, it was stated, the waitresses receive only five shillings a week wages and vegetarian meals! Between the meal hours, when there is nothing to do, the forewoman distributes sewing among the waitresses, and makes them work for her. Probably the owner of the restaurant knows nothing about this, but it is equally hard upon the girls. Nor is this all. During the first month of service they do not receive any wages whatever, as they are then supposed to be only learners. It is not, therefore, always advantageous to work in places where it is possible to sit down during the day. Yet undoubtedly the standing for such long hours is a great and terrible grievance. Young shop assistants have explained to us how towards the evening they became giddy, "a swimming sensation" overcame them, and they continued to serve almost unconsciously. In time they became hardened to this excessive strain, but in the course of years many were obliged to lie up, the most frequent complaint from which they suffered being that of varicose veins.

Terrible as must be the strain of standing fourteen hours a day and sixteen hours on Saturdays, with only about one hour's rest in all for meals, this is greatly intensified at the Christmas season. In the grocery trade especially is the pressure hard to bear, and but few people realise what an amount of acute physical suffering the Christmas pudding causes to the grocer's assistant. At the Christmas season the assistants have often to remain in the shop all night to weigh out parcels of plums, fruit, spice, candied peel, sugar, &c., so as to sell more quickly on the morrow, when the shop will be crowded and overflowing with persons making their Christmas purchases. It would be an act of humanity if customers would get into the habit of buying leisurely some weeks before time their Christmas provisions. Very frequently in the grocery trade the assistants are kept up three nights consecutively. They may snatch a moment or two's sleep. Coffee-bags are, it appears, especially attractive as forming cushions on which a little rest may be obtained, but of course this is contrary to all rules. An assistant described how, during one of these Christmas nights, devoted to weighing and packing, he was so overcome by fatigue that he fell asleep on a marble counter, and only awoke when almost frozen. Workmen thus toiling through the night would be paid overtime, at the rate of perhaps 50 per cent. more than their usual wages. The poor shop assistant gets only a small Christmas-box, varying from half a crown to half a sovereign; but, as one of them put it, "the half sovereigns only come from the princes in the trade."

The long hours which men find so hard to bear are, of course, much more injurious to women. This fact is so obvious that we need not insist upon it. More than three hundred medical men practising in London signed a petition in favour of the Early Closing Bill introduced in the House of Commons by Sir John Lubbock in 1888. The evidence collected by the House of Commons' Select Committee on the Shop Hours Regulation Bill, and published on May 18th, 1886, confirms this view. According to the special report of the Select Committee, drawn up after hearing all the evidence, "the practice of keeping open shops till a late hour of the evening prevails extensively." The Committee state that the prolonged standing and labour, especially in crowded and ill-ventilated shops, "must be exhausting and often injurious to health, especially in the case of girls." The packing of parcels is often done underground, where gas has to be burnt all day. Apprentices and young persons, after working in a workshop the number of hours allowed by the Factory Act, are sent into the retail shop attached to the premises and made to serve customers or to clear up. Thus the spirit, if not the letter, of the Factory Act is disregarded, and another proof given of the fact, on which we insist, that much better protection is given to the artisan and the labourer than to the shop assistants." The Select Committee then added:—

"A widespread desire has also been expressed by grown-up persons employed in shops that in some way their labours also may be limited by law, and your committee believe that employers are not indisposed, as a rule, to such limitation, provided that it takes the form of general early closing of shops ..... Your committee have evidence that in many localities the desire of the great majority of shopkeepers to close early has been frustrated by the dissent of some few individuals, while in many cases the large establishments are induced to keep their doors open longer than they otherwise would do for fear of their customers being diverted to smaller shops in the trade..... It appears, moreover, from the evidence taken before your committee, as well as by that taken before the Factory and Workshop Act Commission of 1876, that a large majority of the inspectors of factories are in favour of some legislative regulation of the hours of labour in shops: Mr. Taylor, inspector in the North-west Lancashire Division, expressed his belief that they are now almost unanimously of this opinion."

The report goes on to say that work in licensed public-houses and refreshment-houses of all kinds "must be at least as fatiguing, and in many respects as injurious, as in shops. ..... In conclusion, your committee, being satisfied that the hours of shop assistants range in many places as high as from eighty-four to eighty-five hours per week, being convinced that such long hours must be generally injurious and often ruinous to health, and that the same amount of business might be compressed into a shorter space of time, recommend this Bill to the favourable consideration of the House."

As a result of this Parliamentary inquiry and of the efforts then made on behalf of shop assistants, the Shop Hours' Regulation Act came into force in 1886. Half a century ago the Factory Act limited the work of women in factories to sixty hours. This Act only limited the work of young persons to seventy-four hours a week. Now Mr. Provand has a Bill before Parliament to extend this limitation from young persons to women; and, again, after the second reading of the Bill, it has been thought necessary to appoint another Select Committee to travel all over the same ground once more. The objection to Mr. Provand's Bill is that it is a direct blow struck against the independence of women, and will make it more difficult for a woman to earn her living than for a man. In some cases, it is thought, women will be discharged, and men employed in their stead. Without entering upon the vexed question of women's rights we may nevertheless urge it as an indisputable physiological fact that, when compelled to stand for long hours, women, especially young women, are exposed to greater injury and greater suffering than men. The proportion of women who are under twenty or only just a little over twenty, and who are employed in shops, is very large. Numerous witnesses testify that healthy looking girls come up from the country; but after a couple of years spent in serving behind the shop counter they become pinched and pale. Not only do they suffer, but their offspring suffer after them. Mr. T. Sutherst, in his book entitled "Death and Disease behind the Counter," quotes the opinion of Dr. B. W. Richardson to the effect that "the diseases incident to these long hours in the young are: anæmia in both sexes; dyspepsia, with much constipation and flatulence; depression of spirits. In the females, the suppressed natural function; and in male and females, the development of pulmonary consumption, where there is a tendency to it. In my opinion, eight hours daily of actual work is the maximum time during which labour ought to be carried on in shops." Mr. Lawson Tait, surgeon of the Midland Hospital for Women, says that, judging from his own experience, "long hours for women produce a great variety of uterine and ovarian diseases, general dyscrasia and anæmia. Women should not work more than ten hours a day, and in many cases not so much as that. A great many cases have come under my observation of women suffering from uterine displacements, chronic inflammatory diseases of the ovaries and tubes." Dr. J. H. Rutherford (Newcastle-on-Tyne) insists more particularly on the general enfeeblement of the mental and moral nature. Dr. Arthur W. Edis, honorary physician to the Dressmakers' Medical Institution, attributes to the long hours and bad sanitation the great prevalence among women shop assistants of "consumption, heart disease, indigestion, dysmenorrhœa, constipation, hæmorrhoids, leucorrhœa, neuralgia, varicose veins, amenorrhœa, and countless other conditions." He also considers eight hours' work sufficient, and argues that the overwork and miseries the girls have to endure drive many to immoral lives. Any amount of evidence of the same description could be adduced, but in quoting the above our object is to show that, though it is most necessary to reduce the hours of work for men and youths, it is still more urgent

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where women and girls are concerned. Consequently, Mr. Provand's Bill will undoubtedly do good, though it certainly will not put an end to most of the existing grievances. If the only object in view is the preservation of health, there is no reason why its provisions should not apply to adult males; for no one can say it is healthy, even for adult males, to work and stand, often in unhealthy shops, for more than seventy-four hours a week. The shop assistants themselves see no necessity for making any difference between male and female, old or young. Their demand is for a law by which all shops should be licensed to be opened only for a certain number of hours, no matter who are employed therein. Mr. Musset and Mr. Lillington, secretaries of the United Shop Assistants' Union, were particularly anxious that a limit should be put to the number of hours a shop could remain open. In that case we urged that, as the exigencies of trade varied so greatly according to the district and the nature of the occupation, shopkeepers should be free to select their own hours For instance, it would not cause a very great shock or disturbance—and in some cases, that is, with the better-class shops in central districts, would occasion no change at all—if a law was passed rendering it illegal for anyone to keep a shop open for more than twelve hours in the twenty-four. One of the objections to legislation for reduction of hours is that it requires an army of inspectors to enforce such laws. But, in this case, each shopkeeper might be required to take out a licence on which should be inscribed the hours he proposed to keep open. Then, in some prominent place, as is already done with regard to public-houses, an inscription could be put up stating that the shop is licensed to be open for trade from eight in the morning to eight in the evening, or from nine to nine, or any other hour found advantageous by the tradesmen concerned. No additional inspectors would be required. The policeman on his beat could see that each shop closed at the hour indicated over the shop-door. By this also we should get rid of the invidious distinction made in so many projects of law between shop assistants who belong to the shopman's family and strangers. Whether the shop assistant be related to the shopkeeper or not, excessive hours and excessive fatigue are equally injurious; and why should a shop where the assistants belong all to the same family be allowed to compete unfairly with other shops where the assistants are not related?

Something in any case must be done to prevent the physical degeneration of the million or so of men and women who in England work as shop assistants. Abroad the male shop assistants are, in a measure, saved from physical degeneracy by compulsory military service. For so many years at first, and then for so many days each year, they have to join their regiment and go through hard, healthy exercise. But in England the shop assistant has little time for healthy exercise. He cannot join the Volunteers; he has not the time and he is too exhausted. Then, unless in the presence of the enemy, the soldier is never kept under arms for more than four, or at most, in exceptional cases, six hours, and this with intervals of rest; but the shop assistant has to stand at "attention," when he is not actually working, for twelve, fourteen, and sixteen hours a day. In the army care is taken of the health and physique of the soldiers: in the shop these are too often looked upon as negligeable quantities. As a result a few shop assistants have formed the societies to which we have alluded, and we cannot perhaps better conclude this report than by quoting the evidence of Mr. W. Johnson, general secretary of the National Union of Shop Assistants. Mr. Johnson writes to us saying that the inevitable results of shop labour, as at present obtains, is to dwarf the physical and mental capacities of those employed—in short, to produce a state of general debility, to engender nervous complaints, kidney diseases, indigestion, &c, and these maladies prevail more extensively among shop assistants and kindred trades, clerks, &c., than among the general population. Mr. Johnson goes on to say that these, he presumes, arise from "lack of physical exercise, draughty shops, long hours, mental anxiety, insufficient time for eating meals, limbs and mind working at racing speed. The food and bedroom accommodation in some places is vile, outrageous, and abominable. In fact, the nature of the work and its conditions prevent the girls from arriving physically at womanhood. Mentally and physically a large percentage are, in my opinion, unfit for the responsibilities of wifehood, and the same may be said with regard to the men and the effect upon their manhood." Mr. Johnson also suggests that enforced celibacy may be a cause of ill-health. This remark brings us to a last point. There are some large establishments where great care is taken of the assistants. They are provided with many comforts, and even with some luxuries. But they must be single men and single women. They lose their situations if they marry, and in any case the men lose their rights of citizenship, for, as they sleep in dormitories on the premises, they do not come under either the lodger franchise or the householder franchise. Consequently boarding on the premises is not popular with shop assistants. They demand to be free when their work is done, and they urge that hours of work should not be so long and the pay so slight as to debar them from the possibility of living healthy, useful, enjoyable lives.

THE REPORT OF LORD WANTAGE'S COMMITTEE.

No. I.

WE make no apology for returning to a consideration of the Report of Lord Wantage's Committee on the terms and conditions of service in the army. The subject is important—from a national as well as from a medical point of view. It is of interest to the taxpayer and to medical officers of the military services generally. The subject is confessedly a big one, and of extreme difficulty. Disguise it as we may, the fact remains that military service is not popular with "the masses," whatever it may be with "the classes." The Britisher does not like to sacrifice his inherited freedom for the discipline and restraint of army life. Recruits are hardworked in the present day. Drills are not a particularly exhilarating occupation. Young men who enlist are but imperfectly acquainted with the terms proffered them. They look at the promised advantages on a Government poster, and, disregarding all the conditions, find out after enlistment that, what with stoppages and outlay on their clothing, but little is left of their daily pay to spend on themselves. They consequently consider that somehow or other they have been defrauded, and speedily become discontented.

Lord Wantage's committee seem to have fully availed themselves of the opportunity afforded by their instructions. They certainly have not circumscribed their inquiries within any narrow limits. The evidence before the committee has not yet been issued. After referring to the present organisation of the Army, their report discusses the questions of home establishment, recruiting and recruits, the proposals to meet requirements for drafts, deferred reserve pay and pensions, civil employment after leaving the colours, and so forth, here and there touching upon matters of medical and physiological interest. The general report, signed by all the members of the committee, is followed by some remarks from those members who dissent from different portions of it, and notably by an exhaustive contribution, which is really a separate and independent report, from Sir Arthur Haliburton. Sir A. Haliburton is in agreement with the committee on some subjects. His two strong points of objection, however, appear to be these—the admirable nature of Lord Cardwell's original scheme, and the futility and costliness of some of the committee's proposals Whether he is right or wrong in his views, we feel bound to say he has stated them with conspicuous force and ability. We are nevertheless inclined to doubt if his views would be quite the same were he a soldier and as practically well acquainted with the state of the army as he unquestionably is theoretically. The committee is strongly in favour of a "short" as opposed to a "long" service system. There is no other system practicable for creating and maintaining a reserve. The evidence as to the value of the territorial connexion is held to be overwhelming. The committee have no hesitation in stating their belief that the double-battalion system is not only the most economical, but also the best machinery which can at present be devised for furnishing the foreign drafts and effecting reliefs. The fact that England has at one and the same time to maintain an army in India (which may be considered as permanently on active service), adequate garrisons in her colonies, and an army at home,

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which has to fulfil the dual purpose of home service (including the provision of a force for small wars) and also of feeding the army abroad, lies at the root of the difficulty with which we have to contend. It is in this and in the absence of conscription that we differ from every other military power in Europe. The conditions of the system adopted in 1872, which is the foundation of the present organisation of the army, have never been fulfilled, and the unfulfilled conditions have been precisely those essential to the successful working of the system. Some of the causes of undue strain on the home battalions have been of an exceptional and merely temporary character; but others have not. To mention one among many causes, and disregarding the requirements of small wars, the machinery has been quite put out of gear by the fact that there are eleven more battalions abroad than at home. That is a state of things which was evidently not calculated to last or to be successful. These are, however, matters of military organisation and administration of general interest no doubt, but they do not concern us. All are agreed as to the weak and depleted state of the home battalions. But it must never be forgotten that for war purposes these home battalions always have the reserve to fall back upon. We confess that we cannot see any reason why the Guards should not take a tour of duty abroad.

The great fault found with the present recruit is his youth and the inferior physique due to youth. Given time, he will develop into a satisfactory type of man. As regards the youth of the men enlisted, we must say that so long as we can remember this has always been a subject of complaint, but, conjoined as it is now with a short-service system, its importance is not to be underrated. The committee have no hesitation in saying that the enlistment of any large number of men below the present low physical standard is to be deprecated. Certainly the present standard touches, if it does not already go beyond, the border line of the physical efficiency of the people. It is true that the finger of a small man lends as much impetus to a rifle bullet as the finger of a big one, but that is far from being all that is required in warfare. It is not so much height as weight and build that are desirable in a youth of seventeen or eighteen. A short man of good weight, with fair chest expansion, is more likely to develop into a strong man than a taller youth without corresponding proportions in this respect. The committee appear to think that by improving the pay and position of the soldier not only a larger number, but more mature and stronger men would be attracted to the service. The cost of carrying out their proposals would be great, and the question at once arises whether any reasonble increase of pay would, after all, remedy the evil as far as the youthfulness of the present recruit is concerned. There is no possibility of going back once the soldier's wages have been increased. We confess that we agree with Sir A. Haliburton in doubting whether the number of older men coming forward as recruits would be increased commensurately with the outlay. But, for all that, we consider that the soldier is insufficiently paid, and a number of things suggested by the committee ought, in our opinion, to be done. We imagine that under any circumstances we shall have to regard the army for the first year or two of a recruit's life in it as a nursery, and during that time the young soldier must be fed, clothed, and trained. He is but a youth on enlistment, and unfit for man's work. Added to his immaturity, he is frequently underfed, for the pinch of poverty and the want of work are probably the spurs which drive the larger number of lads into the recruiting-room. As almost any number of lads can be had, while grown men are scarcer, it seems to us that the subject of instituting nursery or probationary battalions might be worthy of consideration. Would it not be possible in this connexion to devise some method of tapping our State-endowed schools or of imparting a military character to the physical education of boys at such institutions? That our recruits are capable of developing into fine men and good soldiers cannot be doubted by anyone who has seen our troops in India and abroad. It is generally admitted that they will compare favourably with any in the world. We agree with the committee in favour of a more elastic system by which soldiers can be allowed to extend their services with the colours, and do not believe that, within limits, it would have any really injurious effect upon the reserves. A bird in the hand is, after all, worth two in the reserve bush. It was a very different thing under the long service system—where recruits, quite as young as they are now, were added to a corps mostly composed of soldiers of many years' service—from what it is now, when corps are composed of soldiers of short service only. On grounds of physical efficiency, discipline, and what may be termed moral grounds, a regiment requires to be "stiffened" with a fair proportion of older soldiers, to say nothing of the maintenance of the non-commissioned ranks. As regards any long extension generally of the soldier's service in India, however, it cannot be said to be advisable on medical grounds. The late Dr. Bryden, while he fully recognised the increased susceptibility of the young soldier to certain diseases in India, held nevertheless that the health statistics of the army under the short service system compared very favourably with those under the long service system in that country.

There are a great many subjects that still remain to be considered, but here we must stop for the present. We are afraid that with a general election in front of us the present Government, at any rate, is not likely to grapple with big and expensive military questions.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Exeter City.—Dr. J. Woodman reports that during the past year 222 patients were under treatment in the city sanatorium, 185 coming from the city itself and 37 from other parts of the county of Devon. The cases were 182 of scarlet fever, 32 of enteric fever, and 8 of measles. During the period 1882-91, there have been 895 cases under treatment in this institution, and of these 44 have died, the percentage of deaths being 4·9. During 1891 the fatality rate was only 1·3 per cent. The hospital is increasingly used, and it speaks volumes to find that, although the number of patients received during 1891 was 108 more than in any previous year, all the cases have come in voluntarily, no legal compulsion having been resorted to. The general death-rate for Exeter was 23·0 per 1000 living, the increase having been brought about by a severe epidemic of measles during the last quarter of the year.

Herefordshire Combined Districts.—Diphtheria has in a number of instances prevailed in this combined area; it has, as is commonly the case, been associated with undefined forms of sore-throat; and its causation has in certain instances been a matter of much doubt and uncertainty. Its prevalence has, at the same time, added force to Mr. V. Sandford's repeated plea for more means for isolating first cases of infectious diseases. The reports refer but rarely to anything but prevalences of such diseases, to death- and birth-rates, and the like; but the inspector of nuisances in some measure supplies the deficiency. Well-cleansing is a not uncommon practice, and yet from the condition of the soil, as described around wells in the Hereford rural district, we should have thought that it was a most untrustworthy method, since it leaves the soil through which the water flows still contaminated and further to be fouled—as, for example, by cesspool soakage At Kingsland Mr. Sandford strongly urges the provision of adequate means of sewerage, and similar provision has been decided on as regards Weobley.

Wakefield Rural District.—After needed correction, the death-rate for this rural district during 1891 is given as 19 per 1000. The zymotic rate is low, but the infant mortality is unnecessarily high. Nine patients were admitted into the isolation hospital, and its use is highly spoken of. The notification system brought 113 cases of infectious diseases to light, and many were dealt with for preventive purposes. The lead poisoning due to potable water is causing anxiety in this as in many Yorkshire districts, and it is to be hoped that before long some satisfactory explanation of the occurrence will be forthcoming. Mr. J. W. Walker appends a quinquennial report which deals with the district statistically, and indicates the improvements effected during the term of years in question.

Barnstaple Rural District.—According to Mr. Joseph Harper the general death-rate for this district during the past year was 15 2 per 1000 on a population somewhat ex-

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ceeding 19,000. The zymotic rate was 1·4 per 1000, the diseases causing the largest number of deaths being whooping-cough, with 8 deaths, and diphtheria, with 5 deaths. The diphtheria, which was associated with some cases of sore-throat, led to delay in opening the elementary schools after the holidays. Three deaths also resulted from membranous croup, a disease which can rarely be dissociated from diphtheria when any prevalence of that disease exists. One of these "croup" deaths occurred under conditions which appeared to point to one of the forms of paralysis so typical of true diphtheria. Only three fatal cases of scarlet fever took place, but no less than 250 cases were notified. The system of notification is likely to supply information as to the varying fatality of diseases of this class, and so to lead to our learning something as to the conditions which control these variations. Hitherto we have only known that some outbreaks, of scarlet fever for example, occasioned an exceptional mortality, and that others of the same disease, like this prevalence in the Barnstaple rural district, were characterised by a singular absence of fatality; but the reason for the difference has remained largely, if not altogether, unexplained.

Stroud Urban District.—Mr. T. Partridge, in referring to influenza, gives some information as to the prevalence of a kindred disease amongst horses at the same time as the human affection. Diphtheria and scarlet fever also prevailed; but it was difficult to understand either their extent or the relationship of one to the other, owing to the short-sighted action of the authority, who have not adopted the Notification Act, lest it should "injure the trade of the town." Under these circumstances it now goes forth to the public that scarlet fever invaded the town "in an epidemic form," and that had there been notification with isolation these would have helped "materially to stamp out" the disease. How the action of the authority can be good, either for trade or anything else, we fail to see; especially as the death-rate for the town was 19·2 per 1000, or the highest for some years past. The zymotic rate, which was excessive—namely, 3·5 per 1000—led mainly to the increase.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 5668 births and 4013 deaths were registered during the week ending March 5th. The annual rate of mortality in these towns, which had been 21·1 and 23·4 per 1000 in the preceding two weeks, declined again last week to 20·5. In London the rate was 18·9 per 1000, while it averaged 21·7 in the thirty-two provincial towns. The lowest rates in these towns last week were 15·3 in Portsmouth, 15·5 in Newcastle-upon-Tyne, 15·7 in Croydon, and 15·8 in Plymouth; the highest rates were 27·8 in Liverpool, 28·8 in Swansea, 30·5 in Burnley, and 32·5 in Preston. The 4013 deaths included 390 which were referred to the principal zymotic diseases, against 388 and 426 in the preceding two weeks; of these, 158 resulted from whooping-cough, 105 from measles, 45 from diarrhœa, 41 from diphtheria, 28 from scarlet fever, 13 from "fever" (principally enteric), and not one from small-pox. No death from any of these zymotic diseases was registered in Brighton; in the other towns they caused the lowest death-rates in Norwich, Bradford, Hull, and Plymouth, and the highest rates in Birkenhead, Swansea, Wolverhampton, and Derby. The greatest mortality from measles occurred in Sunderland, Liverpool, Halifax, and Birkenhead; from scarlet fever in Preston; from whooping-cough in Portsmouth, Burnley, Cardiff, Croydon, Derby, and Wolverhampton; and from diarrhœa in Nottingham and Blackburn. The mortality from "fever" showed no marked excess in any of the thirty-three large towns. The 41 deaths from diphtheria included 27 in London, 2 in Liverpool, 2 in Derby, and 2 in Newcastle-upon-Tyne. No fatal case of small-pox was recorded in any of the thirty-three large towns; 11 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and 1 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of last week was 1170, against numbers declining from 1397 to 1198 at the end of the preceding six weeks; 96 new cases were admitted during the week, against 82 and 86 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 450 and 460 in the previous two weeks, declined again last week to 379, and were 126 below the average. The causes of 81, or 2·0 per cent., of the deaths in the thirty-three towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Salford, Oldham, Newcastle-upon-Tyne, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Blackburn, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·1 and 22·8 per 1000 in the preceding two weeks, declined again to 22·5 during the week ending March 5th, but was 2·5 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·5 in Perth and 17·3 in Edinburgh to 24·9 in Glasgow and 26·0 in Paisley. The 626 deaths in these towns included 19 which were referred to whooping-cough, 12 to diphtheria, 11 to measles, 8 to "fever," 7 to diarrhœa, 4 to scarlet fever, and not one to small-pox. In all, 61 deaths resulted from these principal zymotic diseases, against 62 and 68 in the preceding two weeks. These 61 deaths were equal to an annual rate of 2·2 per 1000, which was slightly above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 15 and 24 in the preceding two weeks, declined again to 19 last week, of which 7 occurred in Glasgow, 5 in Aberdeen, and 5 in Paisley. The deaths from diphtheria, which had increased from 1 to 9 in the previous three weeks, further rose to 12 last week, and included 6 in Glasgow and 3 in Aberdeen. The 11 fatal cases of measles showed a decline of 5 from the number in the preceding week, and included 10 in Glasgow. The 8 deaths referred to different forms of "fever" exceeded by 3 the number in the previous week, of which 6 occurred in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had increased in the preceding three weeks from 146 to 165, declined last week to 155, but slightly exceeded the number in the corresponding week of last year. The causes of 67, or nearly 11 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had risen from 31·8 to 39·5 per 1000 in the preceding three weeks, declined again to 32·7 during the week ending March 5th. During the first nine weeks of the current quarter the death-rate in the city averaged 38·8 per 1000, against 30·8 in London and 19·8 in Edinburgh. The 219 deaths in Dublin during the week under notice showed a decline of 46 from the high number in the preceding week, and included 8 which were referred to whooping-cough, 7 to measles, 4 to "fever," 2 to diarrhœa, and not one either to small-pox, scarlet fever, or diphtheria. In all, 21 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3·1 per 1000, the zymotic rate for the same period being 2·2 in London and 1·0 in Edinburgh. The fatal cases of whooping-cough, which had been 3 and 8 in the preceding two weeks, were again 8 last week. The deaths referred to measles, which had been 3 in each of the previous two weeks, rose to 7 last week, a higher number than in any week since January, 1890. The 4 fatal cases of "fever" showed a decline of 3 from the number in the preceding week. The 219 deaths in Dublin last week included 30 of infants under one year of age, and 62 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked decline from the numbers recorded in the preceding week. Seven inquest cases and 5 deaths from violence were registered; and 65, or nearly a third, of the deaths occurred in public institutions. The causes of 23, or more than 10 per cent., of the deaths in the city last week were not certified.

NEWARK HOSPITAL AND DISPENSARY.—The report for the past year of the resident medical officer showed that 1439 cases had been treated during the year—namely, in-patients 164, out-patients 983, casualties 145, and dental cases 147.

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THE SERVICES.

THERE are thirteen votes in the Army Estimates among the effective services. The first, which is the largest item of all, is for pay of the Army. This amounts to £5,635,000, against £5,632,700, an increase of £2300. The vote for medical establishments amounts to £290,100, a decrease of £2700 on the current year—£292,800.

THE ROYAL WARRANT FOR THE INDIAN MEDICAL SERVICE.

The Royal Warrant for the above service published in the Indian journals is the outcome and consequence of what has been done in this country for the Medical Staff. It cancels former warrants, and lays down the substantive ranks and military titles of the medical officers of the Indian military forces on the lines adopted in the case of the Medical Staff, and it revises the rules for the promotion and precedence of the Indian Medical Service in accordance with the latest ruling on the subject, with such modifications and adaptations as are necessary for the purpose.

Surgeon-General Geo. Smith, M.D., late Indian Medical Department, Madras Presidency, died on the 23rd ult.

Dr. George J. Shaw, Deputy-Inspector-General, Bombay Army, and late Assay Master, Madras Mint, died at Ventnor on the 3rd inst., aged seventy-three.

Surgeon-Captain J. D. Moir, Army Medical Staff, has been appointed to the Brigade of Foot Guards in London.

The following Surgeon-Captains of the Medical Staff have now completed twelve years' service, and become entitled to promotion to the rank of Surgeon-Major:—F. R. Barker, M.B.; A. Keogh, M.D.; C. B. Hill; J. R. A. Clark, F.R.C.S. Edin.; H. J. Michael; T. Dorman, M.D.; A. W. P. Inman, M.B.; T. M. Corker, M.D.; E. H. Myles, M.B.; T. B. Moffitt; C. A. Webb; H. Martin, M.B.; A. F. J. Croly, F.R.C.S.I.; R. O. Cusack; E. F. Smith; W. D. A. Cowen; R. H. Forman, M.B.; S. J. Flood, F.R.C.S. Edin.; G. W. Robinson; J. Watson, M.D.; O. Todd, M.B.; A. O. Geoghegan, M.D.; J. D. Day, M.B., F.F.P.S. Glasg.; A. M. Kavanagh; J. G. Harwood, F.R.C.S. Edin.; R. D. Donaldson, M.D.; H. L. E. White; A. H. Burlton; E. North, F.R.C.S. Edin.; G. F. Poynder; G. F. A. Smythe, F.R.C.S. Edin.; H. L. Battersby; A. Hewett, F.R.C.S. Edin.; P. Mulvany; J. E. Nicholson; W. O. Wolseley; T. F. MacNeece; B. T. M'Creery, M.B., F.R.C.S.I.; A. P. O'Connor, F.R.C.S.I.; J. M'M. Bolster, F.R.C.S.I.; D. Wardrop, M.B.; G. T. Goggin; J. M. Jones; F. M. Baker, M.B.; A. Asbury, F.R.C.S.I.; P. M. Carleton, M.D.; F. B. Maclean; R. W. Barnes; and P. H. Fox, F.R.C.S.I.

ARMY MEDICAL STAFF.—Surgeon-Captains T. R. Lucas and J. C. Connor have been posted to the Rangoon District, Madras command, for duty. Surgeon-Captain D. D. Shanahan has been transferred from the Madras District to the Rangoon District; the duties of Principal Medical Officer of the Woolwich District are performed by Surgeon-Lieutenant-Colonel M. M. Gallwey until Surgeon-Colonel P. Broke Smith joins for duty.

ARMY MEDICAL RESERVE OF OFFICERS. — Surgeon-Captain Richard T. Cæsar to be Surgeon-Major (dated March 9th, 1892).

NAVAL MEDICAL SERVICE. — The following appointments have been made at the Admiralty:—Fleet Surgeons: John K. Conway, M.D., to the *Liffey;* George Curtis to the *Victory*, additional; Richard J. Sweetman to the *Dædalus;* and Robt. H. More, M.D., to the Plymouth Division Royal Marines (all dated March 5th, 1892); Thomas C. Hickey to Haslar Hospital (dated March 8th, 1892). Staff Surgeons: Richard D. White, M.A., M.D., to the *Boadicea*, and Jas. A. Collot to the *Collingwood* (both dated March 5th, 1892); William A. Breton, M.D., to the *Superb* (dated March 19th, 1892); and Robert M'Iver to the *St. Vincent* (dated March 8th, 1892). Surgeons: Robert Hill to the *Surprise* (dated March 8th, 1892); Alfred T. Rimell to the *Alexandra* (dated March 24th, 1892); and John Ottley to the *Victory* (dated March 13th, 1892). Surgeons and Agents: James H. Bogan at Arthurstown, and William J. Shee at Fethard (dated March 4th, 1892).

VOLUNTEER CORPS. — *Rifle:* 2nd Volunteer Battalion, the Welsh Regiment: Surgeon-Captain J. H. Davies to be Surgeon-Major (dated March 5th, 1892).—3rd (Renfrewshire) Volunteer Battalion, Princess Louise's (Argyll and Sutherland Highlanders): James Mason, Gent, to be Surgeon-Lieutenant (dated March 5th, 1892).

Correspondence.

"Audi alteram partem."

"THE LARYNGOSCOPE IN ENGLAND."

To the Editors of THE LANCET.

SIRS,—In your annotation on the first use of the laryngoscope in England you have forgotten to mention the name of Dr. Walker of Peterborough. He is the author of "Larynx" in Quain's Dictionary, and was amongst the first, I believe, to bring the instrument into practical use. I well remember seeing Czermak at the London Exhibition, and how he displayed his larynx to the multitude as he ran up and down the musical scale, declaring that providence had given him a special mouth and throat for the demonstration. It was at this period that the laryngoscope came into practical use; but as you allude to previous inventors of the instrument, I may remind you that you have omitted to mention the name of our countryman, Dr. Benjamin Babington. In the *Medical Gazette* the following may be found referring to a meeting of the Hunterian Society in March, 1829: "Dr. Babington submitted to the Society an ingenious instrument for the examination of parts within the fauces, not admitting of inspection by unaided sight. It consisted of an oblong piece of looking-glass set in silver wire, with a long shank. The reflecting portion is placed against the palate, whilst the tongue is held down by a spatula, when the epiglottis and upper part of the larynx become visible in the glass. A strong light is required, and the instrument should be dipped in water so as to have a film of fluid upon it when used, or the halitus of the breath renders it cloudy. The doctor proposed to call it "glottiscope." Dr. Hodgkin refers to the instrument in his lectures as "the speculum laryngis, or laryngoscope invented by my friend Dr. Babington in 1829.'

I am, Sirs, yours faithfully,

Grosvenor-street, March 5th, 1892. SAMUEL WILKS.

ROYAL COLLEGE OF SURGEONS, IRELAND.

To the Editors of THE LANCET.

SIRS,—As the election of a President and Vice-President of the Royal College of Surgeons in Ireland must be held annually (June) according to the present Charter, it is most desirable that the Council of the College should bestir themselves to obtain the necessary alterations to enable a President and Vice-President to be elected biennially only, and thus prevent unseemly contests, as occurred in the time of the President just preceding, and which must from time to time again occur; this would be the only correct settlement of a question of biennial presidency, which does not now and cannot exist until the necessary alteration of the Charter is made. At present there must be not only a yearly election for the President, but a re-election should the outgoing President seek to be re-elected, and who may or may not be opposed. True, many have held the office of President for two, three, and four years, such as Crampton, Cusack, and others. Croker-King was the first who held the office for two years consecutively, but he had to be re-elected, and the present President was elected without opposition for a second term. Some of the younger and less experienced members of the corporation of the Irish College have erroneously formed the opinion that being re-elected to the office of President for a second year signifies a "biennial presidency." But, as required by Charter, a new election has to be held at the expiration of each year. I cannot but agree with those senior men of the College that not any such office as biennial presidency exists, and could not, as it would be contrary to the words of the Charter—viz., "The Fellows shall elect *yearly* by ballot out of their own body one person President and one other person to be Vice-President, and which persons shall serve during one whole year." It would just be as rational to call the present Lord Mayor of Dublin a biennial Lord Mayor because he has been re-elected to the mayoralty for two years consecutively. I have written at length with the endeavour to persuade Fellows of the College that a biennial presidency of the College of Surgeons does not exist, and cannot until the Charter is altered, and express a hope that the necessary

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alteration may be obtained; for, as at present, there is nothing to prevent a contest either at the first or second candidature, which occurred to the present President, not only at his first candidature for the presidency, but also upon another occasion, and to the preceding President upon his second candidature, and not unlikely to occur when the Vice-President seeks promotion to the presidential chair.

I am, Sirs, yours truly,

Dublin, March 7th, 1892. F.R.C.S.I.

POST-MORTEM APPEARANCES OF THE BRAIN OF INFLUENZA PATIENTS.

To the Editors of THE LANCET.

SIRS,—When dealing with the subject a fortnight since I confined myself to a bare record of facts which appeared worthy of consideration by the side of certain statements made by a Danish observer upon the same topic, and brought forward by Dr. Althaus in his letter of the 13th ult. I propose now, with your permission, to deal chiefly with matters of opinion. In my opinion the statements bearing upon this subject, which are quoted by Dr. Althaus in his letter of the 5th inst., invite criticism. I am not at all prepared to concede that the "series of records" therein referred to is "very significant." I am disposed to believe that much of the apparent significance will disappear upon examination. In the first place, we are promised information concerning twelve necropsies of influenza cases; three of these have no bearing upon the subject in question, for in them the condition of the brain is not mentioned. Nine cases remain. Now I think that exception may fairly be taken to Nos. 2, 3, 9, and 10 (adopting the figures given); it is doubtful whether the appearances described in these had any real association with influenza. In No. 2 there was "copious hæmorrhage at the base of the brain, proceeding from an aneurysm of the basilar artery"; further, blood in a lateral ventricle, and "granular ependymitis." I am unable to see the bearing of this upon the pathology of influenza. Are we to gather that a hyperæmic state of the basal blood-vessels—such as is supposed to be present in influenza—by causing additional strain led to the rupture of the aneurysm? I am disposed to think that any stress which may have been put upon the diseased artery is more likely to have been due to a fit of sneezing or coughing than to any such theoretical cause as that suggested. As regards granular ependymitis, that condition is too commonly seen to have any significance in the present case. In Case 3 "the dura was completely adherent to the skull, and the pia thickened and strongly congested." There is no evidence here of recent disease—nothing whatever to exclude the supposition that the appearances were independent of and antecedent to the attack of influenza. The adhesions may have been strong, difficult to break down (i.e., old), the pia opaque and tough, as well as thickened, and the patient an old alcoholic. Case 9 showed "general subarachnoid œdema" only. There is no mention of the state of the lepto-meninges, and certainly no reason for inferring that the œdema was associated with undue vascularity of these membranes, owning a special cause. The age of the patients is not stated. Perhaps the brain was in a measure atrophied, in which case the œdema was probably compensatory and any vascular congestion present merely arose *ex vacuo*. In Case 10 we have to deal with "a tubercular and alcoholised person." The post-mortem appearances were those found in tubercular meningitis; even the "strong subarachnoid œdema" may, I think, be reasonably referred to this affection; if not, alcoholism has in any case to be reckoned with, which is quite capable of producing such œdema in association with cerebral atrophy. I am, in short, unable precisely to understand the claim of this case to figure in its present position. Five cases remain for consideration—Nos. 1, 4, 8, 11, and 12. Case 1 showed "great hyperæmia in the right hemisphere of the cerebellum, with hæmorrhagic spots and complete softening of the medullary matter." No other morbid appearances are stated to have been present. Surely this is a curiously limited mode of pathological expression, granting that the cranial contents are in some way implicated in influenza. We might at least expect hyperæmia elsewhere—at the base of the brain, for instance. Might not the same accidents as those referred to as capable of causing rupture of an aneurysm bring about rupture of diseased vessels in the cerebellar hemisphere? The hæmorrhagic spots and the softening (a secondary process) would thus be accounted for. In Case 11 there was "slight subarachnoid œdema and lepto-meningitis with hyperæmia." It is not stated that the inflammation was acute and recent, and the omission necessarily detracts from the interest of the case. Cases 4 and 12 showed different degrees of lepto meningitis (acute); Case 8, "hæmorrhagic pachymeningitis, chiefly in the middle fossæ." Again, I would remark that we are not told whether the inflammation in this last case was recent or not. The affection spoken of may be met with, even outside asylums, in a chronic form. As regards the habits and history of the case we know nothing.

In my opinion, any significance which may attach to these cases (as a whole) is concentrated in Nos. 4 and 12, and I believe that even the morbid appearances in them can be reasonably explained in more ways than one. Some might be disposed to associate the inflammation described with the action of a microbe special to influenza. For my part, I consider that these two cases of acute lepto-meningitis may not unfairly be ascribed to pre-existing pneumonia. Doubtless meningitis is a very rare complication of pneumonia; but lepto-meningitis in influenza is probably equally rare. It may be further objected that the pneumonia occurring in influenza is merely secondary, not the specific disease which occasionally precedes meningitis. To this I would reply that Fraenkel's diplococcus (found alike in lobar pneumonia and meningitis) occurs in secondary as well as in primary pneumonia; and further, that other inflammation-generating organisms which might well cause meningitis occur in the lung of secondary pneumonia—for example, streptococcus pyogenes and staphylococcus aureus. With apologies for trespassing upon your space to such an extent,

I am, Sirs, yours faithfully,

EDWIN GOODALL, M.D. Lond.

West Riding Asylum, Wakefield, March 8th, 1892.

To the Editors of THE LANCET.

SIRS,—Having read Dr. Goodall's account in a recent number of THE LANCET, purporting to be a verified record of the pathological appearances as observed in the brain of patients dying of influenza, the following facts may be of some little interest as supporting the views set forth by Dr. Althaus. In one instance only have we had the opportunity of examining the brain of a patient dying from influenza. In this case the pia mater was thickened and excessively congested, there was an excess of subarachnoid fluid, and a more or less general cortical hyperæmia. But the most remarkable pathological appearance was the intense congestion, almost amounting to capillary hæmorrhage, of the medulla. This condition of the bulb Dr. Goodall does not seem to have met with, which is all the more remarkable when the apparently trustworthy records published by Dr. Althaus are read in conjunction with the facts here stated. The case forming the subject of these notes died from broncho-pneumonia after an illness of five days. In addition to a high temperature and general prostration, the most noteworthy clinical fact was persistent vomiting. There would seem to be some justification for drawing a relationship between this symptom and the congestion of the medulla.—I am, Sirs, yours faithfully,

P. W. MACDONALD, M.D.

Dorset County Asylum, March 8th, 1892.

"THE EFFECTS OF INFLUENZA UPON THE MIDDLE EAR."

To the Editors of THE LANCET.

SIRS,—My attention has been drawn to Sir Wm. Dalby's paper under the above heading, published in THE LANCET of Feb. 20th, by Dr. Walker Downie's letter in your last issue. I quite agree with the latter's remarks, and would take most emphatic exception to Sir William Dalby's statement "that those with healthy ears have little to dread from influenza." My experience both in private and hospital practice of the three epidemics of 1890, 1891, and 1892, most decidedly does not agree with it. I have had a large number of cases under my care of acute middle-ear suppuration and of non-suppurative catarrh, the effects of influenza. In the suppurative cases the inflammatory action was exceptionally virulent and rapid. On the authority of the

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patients, among whom were several medical practitioners, they most of them had healthy ears before the attack, and I myself suffered from an acute and exceedingly painful attack of the non-suppurative variety during the 1890 epidemic.

I am, Sirs, yours faithfully,

W. R. H. STEWART,

Aural Surgeon to the Great Northern Central Hospital, &c.

Devonshire-street, Portland-place, March 7th, 1892.

PUBLIC EXECUTIONS.

To the Editors of THE LANCET.

SIRS,—I observe in the *Standard* for March 7th the following passage:—"In consequence of the recent order, authorising the medical officers of Her Majesty's prisons to decide the length of drop required for a condemned prisoner, Berry, the public executioner, has resigned his position." If it is true that the executioner has resigned in consequence of interference with his unpleasant duty by a prison doctor, I for one am not at all surprised at it, for it is not the duty of a prison doctor to do more than certify that the death sentence has been carried out, and any meddling with the mechanical details of an execution is not only unworthy of the position of a medical man, but must necessarily make the prison doctor responsible for a properly carried out execution. I am a prison doctor, but I have not seen the order which is above alluded to, and my disposition would be to decline to act as hangman's assistant, either to Berry or any other person appointed for the purpose by a sheriff. It has always seemed to me a matter for regret that a prison doctor should have made a study of the science of hanging, and thereby brought upon prison doctors responsibilities which do not belong to them. I can fancy the heckling that prison doctors will henceforth receive from coroners' juries. Berry generally was out of reach when the inquest was going on, but a prison doctor cannot get away so easily, and if in the future any untoward accident happens at an execution the prison doctor will probably be held up to public ridicule. I am not without experience of executions, and look forward to deaths on the scaffold with feelings akin to horror; but what will be the sensations of a prison doctor when watching for the drop when the length of rope given has been his own calculation. I hope other prison surgeons have thought over the matter if the paragraph quoted has been observed by them.

I am, Sirs, yours faithfully,

"FIAT EXPERIMENTUM IN CORPORE VILI."

March 9th, 1892.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Street Noises and their Prevention.

WITH reference to the annotation on the above in THE LANCET of last week reference may be again made to a very wholesome local Act which certainly shows one advantage of local government. Some years ago street music was an intolerable nuisance here, and no streets were more infested than those inhabited by medical practitioners. The local Act contains the very reasonable proviso that any householder may personally, or through a relative, servant, or police constable, request a street musician to go away *out of his hearing*. If, after receiving such a request, the musician continues to play, he or she is liable to a fine of forty shillings. A little firm persistence in enforcing this very wholesome regulation has worked wonders, converting a well-known "doctor's street" from the pandemonium it used to be to a quiet neighbourhood. Another nuisance which has been dealt with by local Act was that caused by screeching cart wheels. It was wholly avoidable, as was proved by its discontinuance when it came to be punishable by fine. Street cries still continue, but to a less extent than formerly.

Suicides and Crimes of Violence.

These have been rather frequent of late, which is somewhat unusual, spring and autumn being the seasons in which these lamentable occurrences generally occur in more or less epidemic form. A mother has been committed for trial for the alleged murder of her two young children by strangulation. An adjourned inquest is to be held by the city coroner on Saturday on the body of a citizen, who first shot a young woman with a pistol, terminating his own existence with another shot from the same weapon. The young woman still remains in the Northern Hospital in a very serious state, and it is very unlikely that she will be able to attend the adjourned inquest, as had been hoped.

Kirkdale Gaol.

The building which for many years received prisoners from this city and from the county has been finally closed, this having been gradually effected during the last few months. Kirkdale Gaol, as it was called even after it became Her Majesty's prison, was first occupied in 1819 as a house of correction. It was then in a very isolated position, situated three miles north of the centre of Liverpool, and in what must have been a pleasant situation until spoilt by brick-kilns. Without and within its walls have been executed all the criminals condemned to death at the Liverpool Assizes since their being first held in Liverpool in 1835, with the one exception of Elizabeth Berry, executed within the precincts of Her Majesty's prison at Walton some years ago for the murder by poison of her daughter. All future executions will take place in this same prison in a place specially erected for the melancholy purpose.

Death from Alleged Irritant Poisoning caused by Eating Tinned Salmon.

An inquest was held by the deputy county coroner this day on the body of a girl aged thirteen, who died on Monday at the house of her employer. On Friday, the 4th inst., the deceased partook, with two other persons, at tea, of a tin of salmon. This was at half-past six, and deceased went back to her place. Her mistress, who had seen her before she went out in her usual good health and spirits, noticed that on her return she looked cold and ill. She complained of stomach-ache, and after having some warm tea she went to bed. Next day (Saturday) and all Sunday she was ill, complaining of stomach-ache and vomiting. At half-past nine on Sunday night she moaned a little, and her mistress gave her some brandy. As the deceased said that she was comfortable, she was left for the night. On Monday morning she came downstairs complaining of great thirst and looking very ill. Even after three cups of tea she felt thirsty. Dr. Mitchell was then called in and pronounced her to be very seriously ill. They laid her on a couch in the kitchen, and she died soon after the doctor's visit. Dr. Jackson, who made the post-mortem examination, deposed that death was caused by acute inflammation of the bowels, and Dr. Mitchell expressed an opinion that the symptoms pointed to poisoning. The deceased's sister, who had also eaten the salmon, felt sick, but recovered, while a seafaring man who also had it felt no ill-effects whatever. The jury found that the cause of death was inflammation of the stomach set up by an irritant poison.

March 9th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Proposed "Gresham" University.

THE new University for London under its changed name finds no more favour in Manchester on the lines of the present proposed charter than it did before. On the broad principle of a Teaching University for London no objection is raised; quite the reverse. The head and front of the offending is to be found in the provisions respecting the granting of medical degrees, and it is alleged by the objectors that, if the present scheme be sanctioned, a great and lasting injury will be done to all provincial medical schools; or, to put it in the words of the report of the Council of Owens College, protest is made "against the establishment of a new university, from whose constitution the necessary safeguards for a maintenance of a high standard of medical education and training are conspicuously absent."

Owens College.

At the half-yearly meeting of the Court of Governors of the College last week several matters of medical interest transpired. The Duke of Devonshire was elected President,

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to fill the vacancy caused by the decease of his father, the late Duke, who had held the office for more than twenty years. The appointments of Dr. Dreschfeld to the chair of medicine and Dr. Delépine to that of pathology were confirmed. The minimum age of admission of any student to the College was raised from fifteen to sixteen years, though as a matter of fact but few students of late years have been under the latter age. It was reported that arrangements are in progress between the College and one or two of the smaller medical charities for the adaptation of certain houses on the College estate to hospital purposes, where facilities will be given for instruction in the special subjects of skin diseases, cancerous diseases, and diseases of women and children. These arrangements are, however, in a state of suspense, pending the decision of the authorities of the Royal Infirmary with regard to the proposed hospital extension. Another link between the College of the present and the College of the past has been severed by the resignation of Professor Williamson, F.R.S. For forty years he has occupied the chair of Botany. Though in the early days of the College this was combined with Geology and Zoology, these latter have long since had professors of their own, leaving Professor Williamson free to follow his favourite study. As a medical man he is scarcely known, his professional work having for many years been entirely subordinated to his scientific work. A farewell address from the Senate of the College was presented to him in the College library, the principal, Dr. Ward, paying an eloquent tribute to his life-long services to the College in particular and to science at large. Mr. F. E. Weiss, of University College, London, has been appointed his successor. The additions to the buildings of the medical department are now in progress, towards the expense of which upwards of £18,500 has been subscribed; but a considerably larger sum will be required to complete the work, and a further appeal to the public is to be made.

Provident Dispensaries.

The Manchester and Salford Provident Dispensaries Association has just held its annual meeting. A very flourishing and, from a managerial point of view, satisfactory account was given of the year's work. Six out of the nine dispensaries are self-supporting. The subscriptions of members amounted to £4183, and the sums paid to the medical staff reached £2653; but the amount of work done by the latter was not stated, though it is reported that no less than 24,000 persons are entitled to medical attendance by the medical staff. One influential member, Mr. Gustav Behrens, asserted that in his opinion the doctors attached to the dispensaries had not been remunerated to the extent which he thought was their due. On a proposal to make a new rule, "by which any medical man could have his agreement terminated by three months' notice from the Council," a warm discussion arose, one member of the staff writing to say that if such a rule were made he should at once resign and "expose the so-called philanthropy of the Council, who make medical men the scapecoats of their vicarious philanthropy."

Death of Dr. Ross.

Manchester and the profession at large are losers by the untimely death of Dr. James Ross. A Scotchman of robust physical frame, he was attacked something more than a year ago with malignant disease of the stomach, though he bravely kept at his work until within a few weeks of the end. His funeral, on the 1st inst., was attended by a large assembly of medical men, representatives of the leading medical charities, and others.

Medical Men and Local Government.

Amongst the successful candidates at the elections to the Lancashire County Council is Dr. Rhodes of Wilmslow, who was returned by a large majority for the district of Withington. Dr. Rhodes has for years taken an active part in the work of the Chorlton Guardians; it is understood he will now resign his seat upon that Board.

Dr. Braddon, who for many years has practised at Cheetham Hill, has consented to become a candidate for a vacancy recently created in the City Council. His presence there would be a decided acquisition to the Council, which is not too strong in professional men as distinguished from those engaged in purely business pursuits.

Manchester, March 8th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle Hospital for Diseases of the Skin.

THE annual report presented at the meeting of the Hospital for Diseases of the Skin showed that 536 new patients had been under treatment, and that over 2232 separate consultations had been given. The financial state of the hospital was satisfactory, the balance being in its favour. The committee desired most thankfully to acknowledge the increased interest taken in the hospital by numerous bodies of working men, as evidenced by their combined subscriptions, and especially to thank Mrs. E. P. Barnes of Sunderland for her handsome donation of £100.

Hexham and Influenza.

Dr. Jackson, the medical officer for Hexham, reports as to influenza, that although influenza was only credited with one death last year, it had indirectly, he had no doubt, caused many. The late epidemic was more severe and complicated in its character than that of 1889 or 1890. It attacked Hexham with the first appearance of winter weather, when both whooping-cough and measles were prevalent, thus taking its victims at a disadvantage and causing a lamentable mortality. Dr. Jackson says as to the cause of the disease he knew nothing, nor was anything known, although it was not a new disease, having visited this country and the whole civilised world at irregular intervals, with more or less severity, since the year 1100. Dr. Jackson believes it to be infectious, but that with proper care it does not of itself prove fatal.

Frivolous Complaints against a Union Medical Officer.

A medical officer of a district in the Malton Union has "been had up," as the expression is, before the Malton guardians to answer complaints of not visiting a pauper patient for ten days, and not attending in his appointed place at the proper times. The local papers say that the doctor denied the chief allegations made against him, and produced his journal in proof of his *bona fides*, showing that it was impossible for him to be at various places at the same time, and further expressed his readiness to carry out his engagements with the guardians so far as was possible. The guardians accepted his explanations; but meantime a great injustice has been done the medical officer in having his name pilloried, as it were, in the local papers for an unsustained charge of neglect.

South Shields: Low Death rate.

South Shields would seem to be again getting up its reputation as an exceptionally healthy seaport, as the rate for the week ending Feb. 20th was only equal to an annual death-rate of 13·3 per 1000 of the population, while the zymotic death-rate was just 1·2. Since then the rate has not been so very low, but there has been no zymotic death.

Sunderland.

The customary annual collections for the infirmary were made in all the Sunderland churches and chapels on the 20th ult., but most unfortunately, owing to the previous heavy fall of snow, the streets were in a wretched condition, and the collections suffered thereby. A new scheme in connexion with the Sunderland Infirmary has lately been put in operation, which promises well. The workmen's committee and some volunteers have divided the town into districts, and call at the workshops and places of business once a month to take up a systematic collection. About ninety persons are engaged in the work.

Newcastle Health Society.

The fourth of the series of lectures now being delivered under the auspices of the Newcastle Health Society has been given by Dr. V. Rutherford to a large and appreciative audience, on "The Skin." In the course of his lecture Dr. Rutherford referred to the water-supply a few years ago to several large towns, and said that out of ten large cities of the United Kingdom Newcastle stood fourth, with 35 gallons per head per day, Glasgow being first, with 53 gallons; Dundee second, with 40 gallons; and Edinburgh third, with 39 gallons. Of the same ten towns, only three—Birmingham, Bradford, and Newcastle—put a prohibition upon cleanliness by charging extra for baths. Dr. Rutherford said at the same time many householders did not utilise the water-supply and baths which they had,

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and he mentioned instances which had come under his notice where baths were fitted with shelves &c., and used as receptacles for pots, pans, &c.

Cremation in the North.

Dr. Drummond of South Shields has delivered an interesting lecture on cremation before the Literary and Scientific Society of that town. He, being supported by many of his fellow-practitioners, is a strong advocate of cremation, and adduced all the arguments which are now put forth in its favour. Cremation does not, however, seem to make much headway in the north; at Darlington I believe there is a crematorium, but I have not heard of its being much, if at all, used.

North of England Surgical Aid Society.

The annual meeting of this very useful Society has been held in the city; the Bishop of Newcastle presiding. Dr. Arnison read the report, which was satisfactory so far as the working of the Society was concerned; on the other hand, it showed that the help received from the general public had not increased, but working men had largely increased their support, and they promised still more this year.

Death of Dr. G. Y. Heath of Newcastle.

I regret to say that Dr. Heath (of whose serious illness I apprised you in a previous communication) died at his residence, Cocken Hall, near Durham, on Friday last, the immediate cause of his death being, it is said, hepatic disease and gall-stones. This is not the place to attempt to do justice to the successful and brilliant career of Dr. Heath, whose death will be felt as a blow to the profession all over the northern counties of England, and indeed by his old pupils in many distant lands.

It is stated that, for the benefit of the county of Westmoreland, Messrs. Bindloss of Kendal have handed to the secretary a cheque for £1000 as a donation to the Royal Albert Asylum for Idiots, Lancaster.

Newcastle-upon-Tyne, March 7th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Presentation of a Portrait of Professor Gairdner to Glasgow University.

To commemorate his great services to medical science and their affectionate regard for their old teacher, Professor Gairdner's former pupils are taking steps to have his portrait presented to the University of Glasgow. Sir George Reid, President of the Royal Scottish Academy, has accepted the commission; and it is intended that each subscriber should receive a reproduction of the painting by photogravure or otherwise. A circular has been issued to all Dr. Gairdner's pupils, whether in Edinburgh or in Glasgow, whose addresses have been found. Any former pupils who have not received a copy may communicate with the honorary secretaries, Dr. Joseph Coats and Dr. George S. Middleton, Glasgow.

Complimentary Dinner to Dr. Haycraft.

Dr. Haycraft is to be entertained to dinner, on the occasion of his leaving the University of Edinburgh, by his professional brethren and friends in the city. This is intended as a recognition of his services in connexion with the Association for the Reform of Medical Education, and as an expression of sympathy with him under present circumstances. The dinner is to be on the 17th inst., and Dr. James is to occupy the chair.

The Edinburgh Medico-Chirurgical Society.

At the meeting of this Society last week Dr. John Macpherson (Larbert) showed a patient who had been affected with myxœdema, and whom he had treated by implanting the thyroid of a sheep under the skin below the mammæ. The patient's symptoms were markedly altered, and her general condition, especially the mental condition, showed a very great improvement. The strange point in the case is that the improvement was decided within twelve hours after the operation; thus suggesting the possibility of some other explanation of the results. Dr. W. Russell showed a number of pathological specimens, including a lung with acute miliary tubercle taken from a man over seventy years of age, who died after a few days' illness, which was ushered in by a rigor, and presented the character of influenza with pulmonary congestion; a lung showing the scar of a bayonet wound, and another lung with a localised patch of necrotic pneumonia. Dr. Dawson Turner showed a universal electrical battery. Dr. R. W. Philip read a long and elaborate paper on "A Thousand Cases of Pulmonary Tuberculosis, with Etiological and Therapeutic Considerations." The cases were classed under occupations and sex, and gave results corresponding in the main with the statistics of others. As regards the question of heredity he had only succeeded in ascertaining the existence of hereditary predisposition in a comparatively small percentage of his cases. He laid much stress upon the infectiveness of tuberculosis, and gave instances illustrating this point; he advocated treating phthisis like other infectious diseases, and preventing phthisical persons being engaged in workrooms and shops with others. He further advocated the establishment of hospitals where they might die in comparative comfort, and their removal to which would lessen the risk of infecting those about them. He only touched on the therapeutic side of the question, reserving that for another occasion. Mr. A. Lockhart Gillespie read "Notes on Toxic Effects of Exalgine."

Health of Edinburgh.

The mortality last week was 82, making the death-rate 16 per 1000. Diseases of the chest accounted for at least 24 deaths, and zymotic diseases for 3. The intimations for the week comprised: typhus fever, 1; typhoid fever, 2; diphtheria, 2; scarlatina, 19; and measles, 80.

Edinburgh Sanitary Protection Association.

The annual meeting of this Association was held on Monday, and was presided over by Sir Douglas Maclagan. The report showed increasing prosperity and usefulness during the past year; and the fact that some of the larger schools in the city had been placed under the engineers of the Association for inspection was referred to with special satisfaction.

Meat Inspection in Edinburgh.

It was mentioned lately that a sub-committee of the Edinburgh Public Health Committee had discussed the question of meat inspection, and rather favoured the proposal to have clearing-houses for the inspection of all meat intended for human consumption. The Master Butchers' Association in the city has had a meeting, and has drawn up a memorial to the magistrates and council against this proposal. They consider compulsory inspection an unnecessary harassment of the trade, and they contend that it would be ineffectual in preventing the introduction of diseased meat. They propose severer penalties and a larger detective staff as the best means of discovering and of dealing with culprits. The document is not a convincing one, nor will it satisfy the intelligent public that things ought to be left as they at present are. The proposal of the Public Health Committee may be a novel one, and this, to the Butchers' Association, seems a weighty objection; but with a medical man and a sanitarian in the Lord Provost's chair there is considerable reason why Edinburgh might be in the van of progress in this matter.

Leith Hospital.

The annual meeting of the subscribers to this hospital was held on Monday, Professor Struthers in the chair. The report showed that 91 fewer patients had been treated in the wards than during the preceding year, the total being 883 cases, of which 409 were medical cases, 308 surgical cases, 157 cases of zymotic disease, and 9 submersions. In the dispensary department 8932 patients had been prescribed for and treated at the hospital, 4088 were visited at their own homes, and 232 were visited by the district nurse. There had been a falling off in the subscriptions, and the expenditure for the year exceeded the income. This is one of the general hospitals which continues to provide accommodation for infectious cases, and this has been unfavourably commented upon before. It is now satisfactory to note that the hospital authorities have given notice to the Town Council that they desire to be relieved of the responsibility of these cases, and request them to provide hospital accommodation for them elsewhere. The necessity of providing a special hospital for infectious cases was strongly pressed by the chairman in proposing the adoption of the report, and he hoped the roof would be on the new hospital before their next annual

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meeting. Professor Struthers was appointed president of the institution.

The Universities Commission.

The ordinance bearing upon assistants and lecturers has been issued. The terms of the Draft Ordinance were referred to at length in the pages of THE LANCET, and it is to be regretted that the Commission has made no material alteration on the ordinance as it was in draft. It perpetuates the present anomalous state of affairs as regards assistants, and provides for lectureships in a manner that will make good men hesitate to apply for them, or even accept them if offered to them.

March 8th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Dublin Hospital Sunday Fund.

THE eighteenth annual meeting of the subscribers to the Fund was held on Monday last. The report of the Council for 1891 stated that the total amount to the credit of the Fund for the year was £4159 12*s.* 6*d.*, or a decrease of £196 3*s.* 6*d.* as compared with 1890. The working expenses amounted to £271 5*s.* 2*d.* The Visiting Committee report that many of the defects complained of in hospitals in the previous year have been remedied, but impress upon the authorities of the participating hospitals the necessity of removing the defects which still exist, and have been commented upon by the Visiting Committee. The Council, acting upon their advice, reduced the grants to the Coombe Lying-in Hospital and Mercer's Hospital by £10 and £20 respectively, on account of the dirty condition in which these hospitals were found by the visitors. The Adelaide Hospital received the highest grant (£819 6*s.* 2*d.*), and Mercer's Hospital the lowest—viz., £62 17*s.*

Census for County Tipperary.

The population, according to the recent census of this county, was 173,188, or 13·2 per cent. less than in 1881, while the number of persons returned as receiving relief under the Poor-law was 6215, or 1 in every 28 of the population. The births during the ten years were 40,328, being an average annual rate of 21·6 per 1000, the average yearly rate for the whole of Ireland during the same period being 23·2. The deaths for the decade amounted to 32,951, a number equal to an average annual rate of 17·7 per 1000, while the corresponding rate for the whole of Ireland was 17·8.

Monkstown Hospital.

A memorial ward in memory of the late Duke of Clarence has now been named the "Albert Victor Christian Edward" in this institution. At first it was contemplated to call it the "Clarence Ward," but at the request of H.R.H. the Princess of Wales it was changed. A large portrait of the late prince, in the uniform of the 10th Royal Hussars, will shortly be placed in the ward.

The death is reported of Dr. Abraham Crawford Swayne, J.P., at Carrick-on-Shannon, on the 6th inst., aged seventy-two. The cause of death was influenza.

March 8th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Prolonged Non-recurrence of Cancer of the Tongue after Ablation.

SOME years ago Mr. A. E. Barker undertook researches into the results of removal of the tongue for epithelioma, and he found that out of 170 cases only seventeen remained free from recurrence one year after the operation. A patient of Mr. Christopher Heath actually remained well for ten years after a very radical operation. Any such exception to the general rule is therefore worthy of record, and the following facts will be found interesting to your readers, emphasising as they do the importance of removing any enlarged glands that may be found in the neighbourhood of the affected organ. On Feb. 10th M. Quenu presented a patient—a gardener—whose tongue had been removed by him in its entirety four years ago for epithelioma. No signs of any return of the disease are now recognisable. On Feb. 17th M. Jalaguier spoke of a patient of his, aged sixty-eight years, who, being affected with cancer of the tongue with adherence to the lower jaw, underwent on Aug. 6th, 1888, the following operation: Excision of half of the diseased organ, of half of the jaw, the submaxillary gland, and of two lymphatic glands. Cicatrisation occurred in six weeks; and the patient, who sends an annual report of his condition to M. Jalaguier, has remained free from any return of the disease since.

Typhoid Fever in the French Army in 1891.

All friends of sanitation who have followed the recent political crisis will be pleased to learn that that very capable administrator, M. de Freycinet, has consented to remain at his post at the Ministry of War. A continuation of the sanitary policy followed by him would bring the number of cases of typhoid fever occurring annually in the ranks of the French army down to a comparatively insignificant figure. From the report just issued we find that wherever it has been possible to substitute pure for polluted water, or where, in default of this, such impure water has been systematically subjected to a filtering process by the Chamberland method, enteric fever has practically disappeared. Thus at the garrisons of Compiègne, Le Mans, Domfront, and eighteen others, which bore an evil reputation in this respect, the disease no longer appears in an epidemic form, only isolated and rare cases occurring. The epidemics which have made such ravages at such places as Montargis, Avesnes, Lisieux, Evreux, Nantes, and Perpignan were all traced to the consumption of water furnished by wells previously condemned as contaminated, or to accidents to municipal water-pipes necessitating recourse to impure drinking-water. This latter accident happened in Paris in January and February of last year, and the consequent consumption of Seine water brought about a serious outbreak of typhoid fever in the garrison of Paris. Notwithstanding these unfavourable circumstances, great progress has been made of late years towards stamping out this curse of French barracks. In 1867 the cases of typhoid fever in the army reached the formidable total of 6881; in 1889 this total had fallen to 4412; in 1890 to 3491; and in 1891 to 3225. That is to say, the number of cases of typhoid fever occurring in the French army have decreased since 1867 52 per cent., a most encouraging state of things. The deaths in 1867 were 864, as against 534 in 1891. It is hoped that the extension of the measures now being taken to provide the men with pure drinking-water will in 1892 have brought down the mortality noted during the years 1886 and 1887 at least 50 per cent., and the number of cases treated 60 per cent. Up to Dec. 31st last, Chamberland filters had been installed in France and Algeria in such numbers as to guarantee ample provision of pure water to 200,000 troops (185,000 in France and 15,000 in Algeria). The hygienic programme undertaken by M. de Freycinet will be complete when provision is similarly made for 45,000 more men. The Minister of War terminates his report by complimenting the Army Medical Service for the manner in which its members have seconded his efforts to render this filth disease a thing of the past in the armies of the Republic.

The Law and the Dieting of Infants.

Patriotic law-makers are very sensitive on the question of the decline of the population and the eventual relegating of France to a, numerically speaking, second- or third-rate position amongst the family of nations. Remedy after remedy has been suggested to stem this decline, but while it is generally felt that the control of human production is beyond the ken of Acts of Parliament, the Code Napoleon can at least be made to serve a purpose in safeguarding the existence of the newly acquired additions to our population. A year ago the Prefect of the Department of Orne enjoined the local practitioners charged with the inspection of the numerous infants which are nursed at the expense of the Assistance Publique, to refuse to give the necessary certificate to any nurse who used in the rearing of her charge a bottle with a tube or who gave the child any form of solid food before it reached the age of one year, unless otherwise ordered by the practitioner. It was one thing, however, to thus threaten the nurses, but it was quite another matter to get them to carry out the order. In their annual report the medical inspectors pointed out to the Prefect the impossibility of getting strict compliance with his order short of a formal local Act or by-law. This has now been enacted, and in the following terms:—It is prohibited

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(1) to give to infants under one year any form of solid food unless such be ordered by a written prescription signed by a legally qualified medical man; (2) it is further prohibited for the nurses to use, in the rearing of infants confided to their care, at any time or under any pretext whatsoever, a bottle or bottles with tubes. Then follow the penalties which will overtake nurses who do not conform to the above. In the reforms in the law which cannot be long delayed on your side of the Channel on the burning question of infant life assurance and its terrible abuses, note might with advantage be taken of the foregoing life-saving enactment.

March 9th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Sleeping Miner.

THE following details have transpired regarding the state of the German miner, Johann Latos, who slept for four months and a half. At the present time he is in excellent health. The rapid emaciation which set in after his awaking has been completely remedied by suitable nourishment. His mental condition is very satisfactory, and he is able to answer questions put to him. An attendant asked him the other day whether he could remember the beginning of his illness, whereupon he spoke of his first moments of consciousness after awaking. The kidneys are not affected.

Dr. Shibasaburo Kitasato.

Dr. Kitasato, the well-known Japanese bacteriologist, who has been called to direct an institute for infectious diseases belonging to the University of Tokio, has lived for about six years in Berlin. He has occupied himself all the time, under Koch's guidance, with bacteriological research, first at the Hygienic Institute of the University, and since last autumn in the Institute for Infectious Diseases. Not only Koch, but also Löffler (now Professor at Greifswald), has had a share in the training of this most able investigator. Some of his first researches were undertaken at Löffler's suggestion, and carried out with his help. It was not until the winter of 1890 that Kitasato became widely known by his publication, conjointly with Behring, of studies on the production of diphtheria immunity and tetanus immunity. He has recently published communications on the cultivation of the influenza bacillus, and important new observations with reference to the cultivation and vitality of the tubercle bacillus. It is interesting to observe that Kitasato is not the only Japanese who has distinguished himself in bacteriology; his countrymen, Ogata, Kumagawa, and Miura are worthy fellow-labourers in that vineyard.

An International Clinical Interpreter.

The Berlin firm of Hepner and Co. has published the first part of a book entitled "Internationaler Lazareth-Sprachführer" ("International Clinical Interpreter"), by Paul Blaschke, containing not only the most necessary medical words and expressions, but also the natural questions and answers between doctor and patient. The first part is in German and French, and its purpose is to enable doctors and attendants who cannot speak French to understand French patients and make themselves intelligible to them as far as is practicable

Professor Kussmaul.

On the occasion of his seventieth birthday, on the 22nd ult., Professor Kussmaul made over the sum of 10,000 marks (nearly £500) to the Louisa Hospital at Heidelberg. The fund is to bear the name "Hedwig Kussmaul Fund," in memory of a daughter of the founder who died as a child.

The Leuton Prize (5000 fr.) has been awarded to Dr. Theodor Landau of Berlin, assistant in Dr. Leopold Landau's private clinic for diseases of women.

Berlin, March 8th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Medical Literature for 1891.

IN setting out to chronicle the literature of these colonies for the past year, one is tempted to use the laconic style of the historian of "Snakes in Iceland," and write "there is no Australian medical literature." In a measure such a description would be true. The only work of any note professing to deal with a subject peculiarly Australian is Dr. Graham's monograph on Hydatid Disease, which may well be consulted by all interested in parasitic disorders. Truth to say, there is very little original research done in Australia. Scientific work does not pay, and the laity do not understand it. As in all new countries, the *auri sacra fames* is here the guiding motive, and any work that does not bring gold as a result is pushed aside. Perhaps the most interesting work of the year has been the testing of strychnine as an antidote to the virus of snake bite. Dr. Meuller of Tackandandah, Victoria, is, however, not *propheta in patria sua*, for the Victorians do not admit his claim to the discovery of the strychnine method of treatment. Moreover, Dr. Bancroft of Brisbane is doubtful of the results of the treatment. As the readers of THE LANCET had recently an opportunity of studying the physiological part of the question through an article by Dr. Meuller himself, I will not touch on that subject. As regards the treatment of snake bite by hypodermic injections of strychnine, it may be said at the outset that there is abundance of evidence that cases so treated have recovered. There is also evidence showing that in some cases—as, for instance, in the Prince Alfred Hospital, Sydney—the strychnine remedy has failed to prevent a fatal termination. With contradictory results it is impossible to accept strychnine as the physiological antidote of snake poison. Dr. Bancroft puts his finger on the weak part of Dr. Meuller's argument in favour of strychnine when he shows that a large number of Australian snakes are not at all venomous, and that persons bitten by such snakes would get well under any treatment, or without any treatment at all. Up to the present the investigation has been carried on in a most unscientific manner, hence the results cannot be relied upon. Dr. Ross of Warranambool, Victoria, published during the year in the *Medical Journal* various papers on the "Moulds and Yeasts as Morbific Agents." I referred to Dr. Ross' discovery of a mycotic form of pneumonia in a former communication, and will just say here that further investigations, not yet completed, show that nephro-mycosis and mycosis of other organs are not at all uncommon in Victoria. Strangely enough, while Dr. Ross is investigating the yeasts from the disease-producing point of view, M. de Bavy, a Melbourne bacteriologist, claims to have discovered that yeast is a disease destroyer akin to the phagocyte of Metchnikoff. How far this claim will bear investigation remains to be seen. As might have been expected in a country which has become the dumping ground for the consumptives of the Old World, Koch's method of treatment has been extensively tried. One of the physicians to the Melbourne Hospital (*Kochior Kochio ipso*) published a string of cures—I do not remember if he had a failure; but bearing in mind Professor Virchow's dictum on the matter, I shall wait for another year before giving details of the results attained here by Dr. Koch's method of treatment. The most useful and interesting paper read at any of the societies during the year was one on Typhlitis, by Dr. G. A. Syme, F.R.C.S. Eng., before the Melbourne Medical Society, which gave rise to an animated and instructive discussion. On the whole the year 1891 was very barren of original work.

The Increase of Medical Clubs.

At the annual meeting of the Victorian Medical Society held in Melbourne this month, Dr. Hinchcliff, the retiring president, adverting to the club system, stated that it was so much on the increase that before very long the whole population would belong to clubs.

Jan. 24th.

BURTON-ON-TRENT GENERAL INFIRMARY.—The twenty-second annual report, 1891, just issued, shows a marked increase on the number of both in- and out-patients over the totals of the preceding twelve months, and, with one exception, the largest number of in-patients yet admitted in any one year. The annual subscriptions have been fully maintained. The year's Sunday collection was more by upwards of £31, and the Saturday committee had successfully exerted themselves to keep up the amount of their contributions, without which, it is stated, it would be difficult to carry on the infirmary, forming, as they do, so large a proportion of the total receipts.

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Obituary.

PROFESSOR JAMES ROSS, M.D., LL.D., F.R.C.P.

BY the death of Dr. James Ross, which took place at his residence in Manchester on Feb. 25th, from cancer of the stomach, we deplore the loss not only of a most distinguished physician and teacher of medicine, but of one of the foremost of English neurologists, whose fame had extended far beyond the borders of England, and whose name and works were known all over the scientific world.

Dr. Ross was the third son of Mr. John Ross, farmer, and was born at Kingussie on Jan. 11th, 1837. Educated at the parish school at Laggan, it was intended that he should follow the teaching profession, and with this end in view he went to Edinburgh to attend the Normal School, and for a time was locum tenens for the teacher at the East Free Church School, and many of his pupils still recall to memory the gentle lad who took their teacher's place. Destitute of the sterner qualities required to govern a set of rough lads, he resolved to quit the teaching profession, and turned his thoughts to medicine. After having studied pharmacy under Messrs. Shield and Mill at Arbroath, he went to Aberdeen for his medical studies, where he passed through a very distinguished curriculum. Besides medicine, the study of philosophy and metaphysics had special charms for him, and this, no doubt, laid the foundation for his subsequent career and line of work. After having made two voyages in a Greenland whaler he came to England in 1863, where he began practice as assistant to the late Dr. Bywater at Knottingley, who was ill at the time, and died in November, 1863. Dr. Ross, with characteristic self-denial, carried on the practice for two years, to the greatest satisfaction of the patients, till the son of his late principal became qualified. He then, after having been at Burnley (Lancashire) for some months, started practice at Waterfoot, in the Rossendale valley, where he succeeded Dr. Crabtree, and where he soon became a very busy and popular general practitioner. In 1869 he married Miss Bolton, niece to the late Dr. Crabtree. In spite of a large practice he still found time for literary work, and, besides a number of papers in the *Practitioner*, he published some remarkable essays, of which the one on Protoplasm and the one on the Graft Theory of Disease, subjects which at that time, chiefly through the writings of Huxley, caused a good deal of stir in the scientific world, became more widely known. Those who knew Dr. Ross will understand how deeply he would at times become absorbed in philosophical thoughts even in the busy round of country practice, and he had, whilst going his round to his patients on horseback, many narrow escapes from the horse getting astray or the reins becoming entangled; and on one occasion, when he paid an evening visit on horseback to a patient, he forgot all about his horse, which he left in front of the patient's house, and walked home on foot a distance of several miles. His love for scientific work was so great that he decided to relinquish the large and lucrative practice at Waterfoot, much to the regret of his numerous patients and friends, and went to Manchester in April, 1876, where in August of the same year he was appointed pathologist to the Royal Infirmary. He was also elected physician to the Children's Department of the Southern Hospital for Diseases of Women and Children, but held the post only for two years. As pathologist, though already nearly forty years old, he worked with surprising enthusiasm and zeal, and following partly his own natural inclinations and partly the events of the time—as about this period the study of the diseases of the nervous system received such great impetus from the important researches of English and continental observers—he devoted himself chiefly, but not exclusively, to the study of nervous diseases. In October, 1878, he was appointed assistant physician to the Manchester Infirmary, and soon became a very popular teacher. Having as yet no large consulting practice, he devoted a good deal of his time to collecting materials for his great work, "A Treatise on the Diseases of the Nervous System," which appeared in 1881, a work which was not only a compilation of all that was known on the diseases of the nervous system at that time, but which contained also a great many original observations and new views on many subjects—viz., on the functions of the ganglia cells in Clark's columns, on the origin and relations of the nerve nuclei in the medulla, &c.—which were confirmed by subsequent observers. This treatise made its author at once famous, received the most favourable criticism on all hands, and was so much in demand that a second edition appeared in 1883. Dr. Ross became a Fellow of the Royal College of Physicians in 1882, and his *alma mater* conferred on him the honorary LL.D. degree in 1883. Acceding to the request of an American publishing firm, Dr. Ross wrote his "Handbook on the Diseases of the Nervous System," which was published in 1885, and which, shorter and more concise than his great work, at once became popular. In the meantime Dr. Ross's consulting practice had much increased, and extended over a very large area. He found, however, still time for much original work, and his excellent clinical teaching attracted a large number of students. In 1887 he was appointed Co-Professor of Medicine at Owens College, taking the lectures on the diseases of the nervous system, the rest of the course being given by Professor Morgan, who, to the regret of all, has recently resigned his chair, owing to ill health. In 1888 Dr. Ross succeeded to the full physicianship of the infirmary, which gave him further facilities for clinical teaching and observations. His increasing consulting practice put some check on his literary activity, which is much to be regretted, as on some subjects—e.g., traumatic neurosis—he held new and original views, which well deserved to have been placed on record. In the winter of 1890 his health began to fail, and he himself was the first to suspect his symptoms to be due to malignant disease of the stomach; but as he had suffered before from nervous dyspepsia, and as there were no physical signs of a malignant growth, he tried for a time change of air, and then underwent treatment with massage and forced feeding. He returned to Manchester in the beginning of this year, evidently suffering from malignant disease. He, however, bravely struggled on with his private and hospital work for a few weeks; but, alas, the fatal termination came sooner than expected. He was conscious to the last, and died peacefully and resigned.

Of his great merits as a practical and scientific physician, as a clinical teacher, and as a writer and original thinker, and of his sterling qualities and his private character, it is impossible to speak too highly. Though his publications refer chiefly to the nervous system, yet he had a most extensive and profound knowledge of medicine generally and of the collateral sciences. As a clinical teacher he will not be easily surpassed; though naturally a very quick observer and diagnostician, in his teaching he was methodical, clear, and exact; he impressed his hearers very much, and incited his students to original work. His contributions to medicine are numerous; his earlier publications refer chiefly to therapeutics. In his later papers he occupied himself almost exclusively with neurological subjects. His writings bear the stamp of accurate clinical observation, of deep philosophical thought, and of great originality. The following are the titles of some of the works which proceeded from his pen, in addition to those published in medical journals: "On Counter-irritation: a Theory constructed on the Deductive Method of Investigation" (Lond., 1869); "The Graft Theory of Disease; being an application of Mr. Darwin's Hypothesis of Pangenesis to the Explanation of the Phenomena of the Zymotic Diseases" (Lond., 1872); "On Protoplasm; being an Examination of Dr. James Hutchinson Sterling's Criticism of Professor Huxley's Views" (Lond., 1874); "On Aphasia; being a Contribution to the subject of the Dissolution of Speech from Cerebral Disease" (Lond., 1887); "Technical Education": an Address (Manchester, 1889); "On Evolution": an Address (Manchester, 1888). As a writer he was clear and precise, and in some of his philosophical papers, as in that on Evolution, his style and language are exquisite. His papers comprise the various subjects of Neurology, from the peripheral nerves to the highest nerve-centres. Of the more important ones we may cite the papers on Peripheral Neuritis (published in the *Medical Chronicle*), which his premature death prevented him from completing, but which will remain for many years as the best and most complete treatise on this interesting affection, and a masterpiece of accurate clinical observation. The paper on the "Segmental Distribution of Sensory Disorders" is a truly remarkable production; it shows its author to have been conversant with the most recent researches in anatomy,

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physiology, and embryology; it gives proof of his general knowledge of medicine and of his faculty of generalisation. The subject matter of this contribution forms a valuable diagnostic aid to many affections besides those of the nervous system, and its importance has not as yet been sufficiently recognised by the medical world. The collected papers on Aphasia show that even a subject which had been exhaustively treated by many before him still presented to him, the psychologist and philosopher, new points for elucidation. Dr. Ross was not afraid to attack the most difficult subjects. In proof of this we may refer to his address on Evolution (which is described by an able critic as "the concession of a cultivated scientist to the demands of a religious idealism") and the last of his papers, on Memory, read before the Neurological Society when his health was already impaired and the first signs of his fatal disease had shown themselves.

This sketch would not be complete without alluding to Dr. Ross's private character. He was singularly modest and unobtrusive, a man of sterling honesty and kindly disposition. His death has cast a gloom over the whole district in which he had so many friends, both amongst the poor and the rich, the lay and the medical world, for to all he endeared himself by his lovable qualities; and no one appealed to him in vain for advice or assistance.

GEORGE YEOMAN HEATH, M.B.LOND., F.R.C.S.ENG., NEWCASTLE-ON-TYNE.

FOR some months past the friends of Dr. Heath have been aware that he was not in a satisfactory state of health. For one thing he suffered from arthritis of the hip, which much hindered his walking power. But more seriously he suffered from somewhat vague hepatic symptoms, sometimes like those of gallstone, and at others having more the aspect of grave hepatic disease. He was present at the November meeting of the General Medical Council, where he ably represented the University of Durham. At the previous meeting he was only present once, being unable to attend from illness. But in November he displayed his usual animation in the society of friends, in discussing questions not only in surgery, which always lighted up his face, but in general literature and modern thought, with great personal force. His last illness, which terminated fatally at his residence, Cocken Hall, near Durham, on Friday, March 4th, had lasted about seven weeks, and was noticed in our Northern Counties Notes.

It will not be regarded as any disparagement of his colleagues to say that Dr. Heath was the *facile princeps* of surgery in Newcastle-on-Tyne and in the adjoining counties. There was in him a combination of personal qualities which is rarely found, and which—together with his education in the school of Liston, whose house surgeon he was at University College, whose methods he learnt and followed so well, and whose gold medal in surgery he took—made him a model surgeon, firm and cunning of hand, quick of eye, ready in resource, and open to all the lights of modern teaching. There was a certain irascibility about him as there is often about men of strong individuality of character. But in the general intercourse of his profession he was extremely courteous and agreeable, and in the debates of the Council he displayed a modesty and reticence which obscured the range of his knowledge and his vast experience. Dr. Heath was no mere specialist in surgery, but was equal to every duty. He was for more than a generation surgeon to the Newcastle Infirmary, whose environment secured a rare variety and range of surgical cases. He was, however, remarkably successful in lithotomy. He had performed 104 lithotomies before he learnt the more excellent way of lithotrity. He was for many years surgeon to the Eye Infirmary of Newcastle. On the occasion of the meeting of the British Medical Association in Newcastle in 1870 Dr. Heath was selected to give the Address in Surgery. He expatiated with great eloquence and effect on what he called the three characteristics of modern operative surgery—its *audacity*, its *conservatism*, and its *success*. And he did so with such wealth and pith of illustration as would not ill become an address in surgery now.

Dr. Heath's reputation in the profession is to be gathered from another incident in his history—the gift of the Fellowship of the Royal College of Surgeons of England in 1886. This compliment of the College gave him much pleasure, but it gave still more to his students and his colleagues. The University of Durham conferred on him the degree of D.C.L. His interest in the practice of surgery scarcely exceeded his interest in the teaching of it and in the discussion of methods of medical education. He was connected most intimately and almost affectionately with the School of Medicine in Newcastle, both before and after its junction with the Durham University. In a most interesting history of this Medical School by that veteran of the profession, still vigorous with octogenarian strength, Dr. Embleton, there is a list of students of the school in 1839–40, including Dr. Heath's name. In the list of lecturers in the school for 1845–46 his name appears jointly with Mr. Potter's as lecturer on the Principles and Practice of Surgery, and ever since then his interest in the school has been an element of its strength. When the school became a college of medicine in connexion with the University of Durham, Dr. Heath appeared with his brother, Mr. Henry Heath, as joint lecturer on the Principles and Practice of Surgery. On the death of Dr. Charlton he was made President of the College, and continued so till his death. Visitors to Newcastle will recall the pride and pleasure with which he was wont to show them over the new handsome and commodious buildings, which constitutes a feature in the modern architecture of Newcastle. He showed his feeling, too, in a more substantial way by the gift of a thousand guineas towards its cost.

Dr. Heath was born in Westoe, a village hard by South Shields, where his father, Mr. Heath, lived. On his mother's side he was related to Dr. Winterbottom of Westoe, formerly physician to the Colony of Sierra Leone, and author of a classical book on the "Diseases of the Natives of Africa." We are not favoured with any account of his school-days, but a very slight acquaintance with him was enough to show that he was a man of great general culture and knowledge. His early medical education began, as was the fashion in those days, in apprenticeship to his brother Henry, who was surgeon to many neighbouring collieries. This experience was gratefully remembered by Dr. Heath in after years, and moved him to speak in the Medical Council in favour of some form of pupilage. After studying in Newcastle, at University College, London, and Paris, and after graduating M.B. in London, he returned to Newcastle and began the career of practice and of teaching which has made him one of the most conspicuous figures in the medical history of that ancient and famous city, and the termination of which, even at the age of over threescore years and ten, leaves men with a sense of blank and loss expressed to us well by a colleague: "We shall miss Heath very much; his place will not be filled."

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council of the Royal College of Surgeons held on the 10th inst., the minutes of the ordinary meeting of the 11th of February were read and confirmed.

The name of a Member was removed from the roll of the College for infringement of the By-laws, Clause 5, Section 17.

A letter of the 15th ultimo from the Secretary of State for Home Affairs was read, stating that Her Majesty had been pleased to receive very graciously the Address of the College on the occasion of the death of his Royal Highness the Duke of Clarence and Avondale, K.G.

A report, dated Feb. 15th, 1892, from the Committee of Management and the Treasurers of the Royal Colleges on the arrangement of fees under the five years' curriculum, was read and entered on the minutes. By this report it is agreed by both Colleges that the fees for the conjoint examinations shall remain as at present; they will, however, be differently disposed as regards the final examinations.

On the report of the Committee of Management the synopses of the subjects of the first and second examinations under the regulations of the five years' curriculum were agreed to. The one relating to Elementary Biology was prepared after consultation with several of the teachers. The existing synopsis of Chemistry, Physics, and Practical

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Chemistry has been altered to a small extent, at the suggestion of the examiners, and the synopsis of Practical Pharmacy has been completely rewritten with the assistance of the examiners. The Committee do not recommend any alteration in the existing synopses of Elementary Anatomy and of Physiology.

The following resolution of the Council was carried *nem. con.*:—"That the Council, after full consideration of the infraction of Section 17 of the by-laws by certain Members of the College, who took part in an attempt to convene an illegal meeting for the 28th of February, 1889, hereby determine to take no further action in the matter."

The President stated that he had accepted, on behalf of the Council, a bust, by W. M. Kemp, of the late Mr. John Gay, past member of the Council, presented by his widow Mrs. Gay. The best thanks of the Council were given to Mrs. Gay for her gift.

A letter was read from Mr. Morrant Baker resigning his post as examiner to the College. The vacancy thus caused will be filled at the next meeting of the Council on April 7th.

Sir W. Savory moved, and Mr. Macnamara seconded, a resolution, which was agreed to: "That a committee be appointed to consider and report to the Council whether any, and if so what, further advantages can be extended to the Fellows." The members of the committee appointed are Sir W. Savory, Bart., Messrs. Cadge, Macnamara, Willett, and Rivington.

Mr. Willett moved, and Sir W. Savory seconded, the following resolution:—"That it is desirable to celebrate in some suitable manner the fiftieth anniversary of the institution of the Fellowship of this College (the Charter creating this order being dated Sept. 14th, 1843), and that a committee be appointed to report on the best means of giving effect to this resolution." This was agreed to, and referred to the same committee.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen, having passed the necessary examinations and conformed to the by-laws and regulations, were at a meeting of the College on March 3rd admitted Licentiates:—

Mackinnon, Andrew Robertson, M.R.C.S., University of Aberdeen.
Reid, Mathew Alexander, M.R.C.S., University of Edinburgh.
Smyth, Reginald Mander, M.R.C.S., St. Mary's Hospital.
Stack, Edward Hugh Edwards, M.R.C.S., University of Cambridge and St. Bartholomew's Hospital.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations, and conformed to the by-laws and regulations, were, at an ordinary meeting of the Council on the 10th inst., admitted Members of the College:—

Howe, George Bradley, L.S.A., Owens College and Royal Infirmary, Manchester.
Prosser-Evans, Jehosophat, L.R.C.P. Lond., University College Hospital.

ROYAL FREE HOSPITAL.—On Thursday, the 3rd inst., Mr. Mackellar presented, on behalf of the past and present residents of the Royal Free Hospital, an address to Mr. F. J. Gant on his appointment as consulting surgeon to the institution. The delay in making the presentation was owing to the difficulty in obtaining the signatures of such a large and scattered body of medical men. The address, which was given after a graceful speech, was as follows:—"We, the undersigned past and present resident medical officers of the Royal Free Hospital, desire to express to Mr. Gant, upon his retirement from the post of senior surgeon, our sincere regret at his withdrawal from the active staff, and to tender him our hearty congratulations on his completion of over thirty-seven years' connexion with the institution. The great services which Mr. Gant has rendered to the hospital and to surgical science by his published works are well known to all. We are able and privileged to express our hearty appreciation of his excellent qualities in his personal relation to us as our senior surgeon and chief. In Mr. Gant we have at all times found a most sterling and sincere friend." Mr. Gant feelingly replied. Mr. Ford North was in the chair, and members of the weekly board, of the hospital staff, and students were present. Mr. Gant had already received addresses from the hospital committee, the students, and the nursing staff.

THE PRUDENTIAL ASSURANCE SOCIETY.—The quinquennial report of the Prudential Assurance Company states that during the past five years the assets of the company had grown from £6,811,954 to £14,623,627, being an increase of £7,811,673. The annual premium income amounts to £5,386,990.

CHILDREN'S HOSPITAL, BRIGHTON.—The twenty-third annual report states that during the year 1891 348 children were treated in the hospital, and the out-patients numbered 2842. The balance-sheet shows a deficit of £231 13*s.* 9*d.*, which have been partly provided for by the withdrawal of about £200 from the savings bank. A considerable outlay is at the present time needed, owing to the growing demands upon the charity, and it was felt, especially by the medical staff, that provision for convalescent accommodation was a necessity.

ROYAL PORTSMOUTH HOSPITAL.—The annual meeting of this deserving institution was held at the town hall on the 23rd ult. Mr. J. Pares, J.P., occupied the chair. The Duke of Connaught and a numerous and influential assembly attended. The total number of persons deriving benefit from the charity during 1891 was 7825. The balance against the hospital on the year's work in respect of the ordinary sources of income and expenditure was £991 15*s.* 5*d.* His Royal Highness, on proposing a vote of thanks to the honorary medical staff, remarked on the great value of such an institution to a town like Portsmouth, and the admirable services of the medical staff.

ROYAL SURREY COUNTY HOSPITAL.—This charity continues to enlarge its sphere of usefulness. The report for 1891 shows that there had been an addition on the previous twelve months to the number of in-patients treated, and about the same total of out-patients as in 1890. The receipts were £4257 1*s.* 5*d.*, showing a small increase, but, owing to unavoidable additions to the expenditure, the income was exceeded by £245, the total disbursements amounting to £4502 4*s.* 10*d.* Funds were specially required to enable the committee to open a second ward in the new wing, the expense of which would be from £300 to £400 per annum.

ROYAL METEOROLOGICAL SOCIETY.—At the ordinary meeting of the Society, to be held at 25, Great George-street, Westminster, on the 16th inst., at 7 P.M., the president, Dr. C. Theodore Williams, will deliver an address on "The Value of Meteorological Instruments in the Selection of Health Resorts," which will be illustrated by a number of lantern slides. The meeting will be adjourned at 8.30 P.M. in order to afford the Fellows and their friends an opportunity of inspecting the exhibition of instruments, charts, maps, and photographs relating to climatology, and of such new instruments as have been invented or first constructed since the last exhibition. The exhibition will be open from Tuesday, the 15th inst., to Friday, the 18th.

CHELTENHAM EYE, EAR, AND THROAT INFIRMARY.—The second annual meeting of this infirmary was held on March 1st at the Cheltenham Assembly Room. By the report it appeared that there was a deficit of some £64 on the year's working, but the hope was expressed that the amount would disappear in 1892. The honorary surgeon, Dr. F. A. A. Smith, M.D., C.M., said that during the first year they had treated 720 patients—31 in-patients and 687 out-patients. The number of attendances was 3656, with 219 operations. Comparing these figures with those given in the present report, during the past year they had admitted 42 in-patients, all serious cases, and treated 709 out-patients, while the number of attendances had been 4418, and of operations 246.

A COMPLIMENTARY DINNER.—Dr. S. M. P. Roberts, lately senior physician to the Public Hospital and Dispensary, Sheffield, has been entertained at a dinner at the Wharncliffe Hotel by a large number of friends on the occasion of his leaving the town to practise at Beckenham. Mr. W. Fisher Favell occupied the chair. There was a large attendance of the leading practitioners of Sheffield and the neighbourhood. Dr. J. H. Keeling proposed the toast of the evening, "The Health of Dr. Roberts," expressing the high sense entertained of his earnest work for the public hospital and medical school, his loyalty to those with whom he worked, and his untiring energy in promoting the building of the new hospital.

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SUNDAY LECTURE SOCIETY.—Dr. Benjamin W. Richardson, F.R.S., is announced to lecture on "Pestilences in England, Ancient and Modern, their History, Causes, and Prevention," at Langham-place on Sunday next, at four o'clock, instead of Dr. Klein, invalided.

LITERARY INTELLIGENCE. — Messrs. Longmans announce as in the press a new work by G. J. Romanes, M.A., LL.D., entitled "Darwin and after Darwin," an exposition of the Darwinian theory, and a discussion of post-Darwinian questions.—We have received a specimen copy of the International Medical Magazine, a new monthly published by J. B. Lippincott, Philadelphia, and edited by Judson Daland, M.D.

LIVERPOOL STANLEY HOSPITAL.—The report for 1891 just circulated shows that the number of in-patients was in excess of any former year except the year 1889. In the out-door department 11,123 patients were treated, and the attendances were 34,667. During the year there had been a large increase in the number of subscribers. The adverse balance brought forward from the previous year had been reduced by donations to £445.

THE DENTAL HOSPITAL OF LONDON.—The thirty-fourth annual meeting of this institution was held at the hospital, Leicester-square, on the 10th inst. The report stated that in consequence of the ever increasing number of patients it had been decided to open all the departments of the hospital in the afternoon. A subcommittee had been appointed to consider the advisability of additions to, or alterations of the present accommodation. The managing committee pointed out that there had been many losses by death, and, as the charity was unendowed, additional funds would enable it greatly to extend its usefulness.

THE LONDON SANITARY PROTECTION ASSOCIATION. The report of the council for 1891 shows a further increase of members; 477 new members had joined during the year. On the other hand, 455 members withdrew. The total membership at the end of the year was 1613, an increase of twenty-two on the previous twelve months; 475 houses were inspected for the first time in the course of the year, and the special inspections numbered 486, against 457 in 1890. The council again report that no application was received for sanitary inspection of the dwellings of the working classes throughout London. The cash statement showed a balance in hand of £703 5*s.* 2*d.*

FOOTBALL CASUALTIES.—In a match at Devizes recently between the Devizes Recreation Club and Trowbridge a player fractured his clavicle.—On the 20th ult., during a game played at Lurgan between the Newry Wanderers and a local team, a youth (one of the former) sustained a bad fracture of the right leg "below the knee," and was conveyed to the infirmary, where he remained under treatment.—On the same day, whilst playing at Farsley, with the Thornhill Lees Trinity against Farsley, a Dewsbury three-quarter back "sprained the muscles of one of his thighs." He was carried to the Farsley headquarters, and received medical assistance.—On Saturday, during a game between the Gala Second and Hawick Second at Mossilie, a young man who played for Hawick fractured his leg.—On the same day, in a match at Goole between the Goole and the Wakefield Trinity (second teams), a player was badly injured. Medical assistance was obtained, when it was found he had sustained a serious injury in the groin, and was removed to the Goole Cottage Hospital; and at Linthorpe, whilst playing in a match—Middlesbrough Vulcan and Newport Excelsior—a Vulcan forward had his "nose broken."—On Saturday, during a game at Kingsholme between Gloucester and Exeter, a Gloucester three-quarter back collided with the Exeter back and was picked up in an unconscious state. He was taken to the infirmary, and on examination was found to be suffering from concussion of the brain.—On the same day, whilst playing at Winchcombe in an Association match between the Evesham Wanderers and Winchcombe, one of the Evesham backs "sprained his ankle and severely wrenched the muscles and tendons"; and a young man playing in a game at Acton fractured his clavicle and was removed to the University Hospital. Also, in a match played at Crewe between Alexandra Hornets and Nantwich, a Nantwich forward fractured his leg.

THE DENTAL HOSPITAL ATHLETIC CLUB.—Mr. Morton Smale, dean of the Dental Hospital of London, presided at the annual dinner of this association, held at the Holborn Restaurant on Saturday last. The secretary, Mr. Pike, said that the finances of the club showed a balance on the sunny side, and in the field its record was one of success.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—The report for 1891 of this hospital is highly satisfactory; 436 more patients had received treatment than during the previous year. The separate attendances numbered 56,340. The year's income from all sources was £2655, against £2272 in 1890, but legacies amounting to £516 10*s.* had come to hand, and had averted a deficit.

ROYAL BERKSHIRE HOSPITAL. — The fifty-third annual court of governors was held on the 23rd ult. This hospital receives patients not only from the town of Reading but from Berkshire, and many districts in Oxfordshire, Hampshire, and other neighbouring counties. The number of in- and out-patients treated during the past year was 1145 and 1687 respectively. Additional accommodation for the nurses had been provided. The treasurer's report showed that the year had been remarkable as regards income. Donations had been received by which the ordinary receipts were raised to £8486, being £2100 more than in 1890. The total expenditure amounted to £7069.

VOLUNTEER MEDICAL OFFICERS' DINNER. — Brigade-Surgeon Lieutenant-Colonel Wills, Mersey Infantry Volunteer Brigade, presided at the dinner of the officers of the medical staffs of the volunteer service of the City (D. District), held at the Adelphi Hotel on Feb. 25th. The guests of the evening were Fleet-Surgeon Woods, R.N., H.M.S. *Eagle*, and Brigade-Surgeon Lieutenant-Colonel Nicolson of Seaforth. There was a good attendance, and the meeting was a great success, largely due to the admirable arrangements of Surgeons-Captain Barnes of Greenwich, mess presidents of the committee of management.

ESSEX AND COLCHESTER GENERAL HOSPITAL.—The annual report for 1891 records a marked addition to the public utility of this institution. The admission of both in- and out-patients exceeded any preceding year since the foundation of the hospital. The cash statement shows that £149 3*s.* 5*d.* was due to the treasurer. It is worthy of notice that as it is now four years since the experiment was tried of electing a physician, at a salary of £200 a year, to do the whole medical work, so far, the result proves that the appointment has, in all respects, been highly satisfactory.

DELANCEY FEVER HOSPITAL, CHELTENHAM.—The past year's report states that during the previous four years there had not been a single case of small-pox in the town; 71 cases of scarlet fever, more severe than usual, were treated, yet the mortality was small—not 3 per cent. The fees for patients were proportionally greater in the last year in consequence of an increase in the charge per day for patients in the public wards—a change rendered necessary by the town council still withholding their annual subsidy of £100, and refusing the payment of £300, which is stated to be undoubtedly due to the hospital funds. Notwithstanding a large accession during the year in the number of subscribers, the amount still falls much below the sum required for the efficient working of the hospital.

SEAMEN'S HOSPITAL SOCIETY, GREENWICH.—The annual report (the seventy-first) for the past year shows that the number of patients treated in all the establishments of the Society was larger than in any year since the foundation of the charity. It exceeded the average number of the last five years by 872 in-patients and 3000 out-patients. An excess of expenditure over the income during the year, amounting to £2479 5*s.*, had necessitated a draft on the capital fund of £3500. As to the proposed branch hospital in the neighbourhood of the Tilbury Docks, the committee reported that an offer had been received of an eligible building, free of cost, together with £390, towards the preliminary expenses, but they did not think it advisable, in the present financial position of the charity, to take any steps in the matter, unless adequate funds were forthcoming to meet the large prospective outlay.

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THE LIVERPOOL DISPENSARIES.—During the past year the total number of patients treated at the North, South, and East Dispensaries was 62,245, and the attendances showed a total of 174,659. There had been a considerable falling off of patients in 1891 as compared with the previous year, caused, to some extent, in a natural annual variation, but more particularly in the continued advance of sanitation, and the extensive demolition of insanitary dwellings. Patients had themselves contributed during the year over £1000.

UNITED HOSPITALS' ATHLETIC CLUB.—By the kind permission of the committee of the Lyric Club a concert in aid of the United Hospitals' Athletic Club will be held in the theatre of the Lyric Club, Coventry-street, on the 23rd inst., at 8.30 P.M. The entertainment will include songs, recitations, a short play, and a banjo quartette. Miss Henden Warde, Mr. Norman Salmond, Mr. Charles Bertram, Mr. Richard Green, Mr. Helmore, and Slaverdale's Banjo Quartette, have already kindly consented to appear. Tickets, 5*s.* each, may be had of Mr. Green, St. Bartholomew's Hospital, and of Mr. J. G. Turner, St. Thomas's Hospital.

EAST LONDON NURSING SOCIETY.—The Lord Mayor presided at the annual meeting held at the Mansion House on the 26th ult. The object of the society is to nurse the sick poor of the whole of East London in their own homes by means of trained nurses. At present the society is only able to provide for little more than one-fourth by sending nurses to twenty-eight parishes, comprising a population of 250,000. The staff at present consists of four matrons and twenty-eight nurses, and last year they nursed 3971 persons. The society was affiliated with the Queen Victoria's Jubilee Institute for Nurses early in the year. The year's financial position shows a deficiency of about £150. The Lord Mayor pointed out the benevolent work of the institution, and urged its claims upon the liberal support of the public. The report was adopted.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on March 8th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	199	57	..	20	..	276	442
North-Western Hospital	194	49	..	13	1	257	411
Western ,,	88	25	..	6	1	120	224
South-Western ,,	183	39	..	16	..	238	350
South-Eastern ,,	206*	10	..	32	2	253	424
Northern ,,	298	18	..	12	...	328	480
Totals	1168	201	..	99	4	1472	2331

* Infant with mother.

SMALL-POX.—*Atlas* hospital ship, 14.

MEDICAL NOTES IN PARLIAMENT.

Army Medical Department.

IN the House of Commons, on Monday last, Mr. E. Stanhope, in stating the Army Estimates for next year's expenditure, went in detail over some of the requirements of the army. Speaking of the Medical Department, he said: "The strength of the Army Medical Department has been very carefully reconsidered, and considerable reductions have taken place. The assistance of civil practitioners has been called in, and an Army Medical Reserve was formed in 1888, with the view of supplementing the reduced medical staff by a body of officers available for service at home in time of emergency. Very much time has been devoted to the arrangements necessary in case of mobilisation for the medical service, and the arrangements for the *personnel*, the medical equipment, and the necessary base hospitals have been almost completed."

Queen's College, Belfast.

In answer to Mr. Sexton, the Attorney-General for Ireland said that the President of Queen's College, Belfast, had reported that full provision was made in that institution for the instruction of students in anatomy, and that there was nothing to oblige them to attend Dublin in order to obtain subjects for dissection.

Foot-and-Mouth Disease.

Mr. Chaplin, in answer to Mr. Beach, said that the outbreak which occurred in Surrey was believed to have had its origin at Aldershot, one of the places to which some of the beasts, amongst which the disease was originally discovered, were sent down from the London market on the date of the first appearance of the disease. Under these circumstances the movement of animals out of Hampshire was prohibited.

Birmingham Corporation Water Bill.

On Tuesday, March 8th, Mr. Chamberlain moved the second reading of this Bill, which proposes to obtain a supply of pure water from Wales, from the sources of the Elan and the Claerwen, two small tributaries of the Wye. By this means it was intended to provide for the wants of the city of Birmingham and the important towns, villages, and hamlets all along the route for fifteen miles on either side of the aqueduct. This would possibly include supplying such towns of importance as Wolverhampton, Worcester, West Bromwich, and Wednesbury, altogether possessing a population of about a million and a quarter. After a lengthy discussion Mr. Ritchie said the second reading had been opposed from two points of view—the one that of Wales, and the other that of London. If the water-supply of the district were sufficient, it was essentially a matter for representation to a committee, which might succeed in arriving at an understanding satisfactory alike to London, to Birmingham, and to Wales. The House divided, and the second reading was carried by a majority of 142.

Police and Sanitary Regulations Bill.

Mr. Stuart-Wortley moved that all private Bills relating to police and sanitary regulations should be referred to a committee of nine members appointed by the Committee of Selection. The motion was agreed to.

The Gresham University.

In the House of Commons, on Thursday, Mr. Bartley asked the First Lord of the Treasury whether, in the event of the Draft Charter of the Gresham University being referred back to the Privy Council, it was understood that it would be brought before a Royal Commission.—Mr. Balfour said his answer was in the affirmative. If the House referred the Charter to the Privy Council it would be on the understanding that it should be subsequently referred to a Royal Commission. The Commission must be a new one, because the old Commission had come to an end, and care would be taken to make it a strong one. It must not, however, be taken that members of the old Commission would not be asked to stand.—Sir Albert Rollit asked whether the Commission would inquire into the whole question of University education.—Mr. Balfour thought that would be too large a reference. At the same time, very full powers should be given the Commission. Their object was to have a Teaching University worthy of London.

Plumbers' Registration Bill.

The Committee of the House of Commons on this Bill met for the first time on Thursday. They appointed as their chairman Mr. Lees Knowles, and arranged to begin work on Wednesday of next week.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALLAN, H., M.B., C.M. Aberd., has been reappointed Medical Officer for the Whaley Sanitary District of the Macclesfield Union.

BENNET, C. J., M.R.C.S., has been reappointed Medical Officer to the Fairfield Local Board.

BERRY, FRANCES MAY DICKINSON, M.B. Lond., has been appointed Assistant Physician for Out-patients to the New Hospital for Women.

BROWN, F. L. H., M.B., C.M. Edin., has been appointed Medical Officer for the No. 1 District of the Coventry Union, vice Fowler.

COLBECK, EDMUND HENRY, M.B. Cantab., M.R.C.P. Lond., has been appointed an Assistant Physician to the City of London Hospital for Diseases of the Chest, Victoria-park, vice Dr. Wethered, resigned.

CORNISH, E., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Medical Officer to the Walthamstow Public Dispensary, vice C. H. Wise, M.D., resigned.

DEAN, H. P., F.R.C.S., M.B., B.S. Lond., M.R.C.S., L.S.A., has been appointed Assistant Surgeon to the London Hospital, vice H. A. Reeves, resigned.

DENHOLME, JAS., M.B., C.M. Edin., has been appointed Medical Officer for the Ford Sanitary District of the Glendale Union.

DRURY, A. E., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer to the "Weymouth" Tent of Rechabites.

EVANS, E. P., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Mountain Ash Urban District.

FAULKNER, WM. COOKE, M.B., C.M. Edin., has been appointed Resident Surgeon to the Port Curtis and Leichardt Districts Hospital, Rockhampton, Queensland.

FERGUSON, D. W., L.S.A., has been reappointed Medical Officer for the Wallingfen Sanitary District of the Howden Union.

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FOTTRELL, W. J., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer to the North Dublin Union.

FRASER, P., M.D., C.M. Edin., has been reappointed Medical Officer of Health for the Llangefni Urban District.

GRAY, A. M., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the No. 6 Sanitary District of the Devizes Union.

GREENWOOD, E. CLIMSON, L.R.C.P., M.R.C.S., has been appointed Surgeon to the Portland Town Subdivision of the Metropolitan Police, vice Horace Smith, resigned.

HAYDON, ARTHUR GEORGE, L.R.C.P. Lond., M.R.C.S., L.S.A. Lond., has been appointed Junior House Surgeon to the London Temperance Hospital, Hampstead-road.

HARDWICKE, A., M.B. Durh., L.S.A., has been reappointed Medical Officer of Health for the Newquay Urban Sanitary District.

HILL, A. B., M.D. Giessen, L.R.C.P., L.R.C.S. Edin., D.P.H. Camb., has been reappointed Public Analyst for the City of Hereford.

HYATT, JAMES T., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Shepton Mallet Urban District.

JAMES, F. P. R., L.R.C.P. Irel., has been appointed Medical Officer for the Fourth District of the Hunslet Union.

JOHNSTON, DUDLEY C., L.R.C.P., M.R.C.S., has been appointed House Physician to Charing-cross Hospital.

JOY, F. WILLIAM, L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health for Thetford.

KEMPE, A. W., M.D. Brux., M.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Budleigh Salterton Urban District.

MACKIE, JOHN, M.B., C.M. Glasg., has been appointed Medical Officer for the No. 3 Sanitary District of the Southwell Union, vice Sers, resigned.

MUIR, ROBERT D., M.R.C.S., L.R.C.P., has been appointed House Surgeon to Charing-cross Hospital.

MORE, JAMES, M.D. Edin., M.R.C.S., has been appointed Medical Officer of Health to Rothwell Local Board.

PECK, HERBERT, L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Ormskirk Rural Sanitary Authority.

RABAGLIATI, A. C. F., M.D., F.R.C.S. Edin., has been appointed Honorary Gynæcologist to the Bradford Infirmary.

RABY, L., M.D. Durh., M.R.C.S., has been appointed Medical Officer for the No. 2 Sanitary District of the Devizes Union.

ROBINSON, ALFRED, M.D., M.R.C.S., L.S.A., Lic. San. Science, has been appointed Medical Officer of Health to the Rotherham Urban Sanitary Authority, Certifying Factory Surgeon to Rotherham and District, and Medical Officer to the Rotherham Post-office.

SANDFORD, H. V., L.R.C.P. Lond., L.F.P.S. Glasg., has been reappointed Medical Officer of Health for Hereford.

SKIMMING, R., M.D. Edin., F.R.C.S. Edin., has been reappointed Medical Officer of Health, East Molesey.

SMITH, FREDK. J., has been appointed Consulting Physician to the City of London and East London Dispensary.

SMITH, JAS. W., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Consulting Surgeon to the Doncaster Infirmary.

STEVENSON, EDGAR, M.B., C.M. Aberd., has been appointed House Surgeon to the Liverpool Eye and Ear Infirmary.

STUBBS, JOHN DIXON, M.B., B.C. Camb. (Trin. Coll.), has been appointed House Surgeon to the London Temperance Hospital.

TEBB, W. S., M.D. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Surgeon to the Boscombe Hospital and Provident Dispensary.

TURTON, W. H., M.B., C.M. Edin., has been reappointed Medical Officer of Health for the Heanor Urban Sanitary District.

WATSON, WM., M.R.C.S., L.S.A., has been appointed Medical Officer for the Rochester Urban Sanitary District.

WEARNE, WALTER, M.R.C.S., has been reappointed Medical Officer of Health for Helston.

WILLIAMS, W. E., F.R.C.S. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Abertillery Urban District.

WILLS, CHAS., M.R.C.S., has been reappointed Medical Officer of Health for the Mansfield Urban District.

WOODFORDE, W. T. G., M.D. Lond., has been reappointed Medical Officer of Health for the Berkshire Combined Sanitary Districts.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BARNWOOD HOUSE HOSPITAL FOR THE INSANE, Gloucester.—Medical Superintendent. Salary £600 a year, with furnished house, board, and all domestic expenses for self and family.

BEDFORD GENERAL INFIRMARY.—Resident Surgeon. Salary £100 per annum, with apartments, board, and washing.

BRADFORD INFIRMARY.—Junior House Surgeon. Salary £50 per annum, with board and residence.

BRADFORD MEDICAL AID ASSOCIATION.—Qualified out-door Assistant. Salary £10 per month. (Apply to Medical Officer, 38, Little Horton-lane, Bradford, Yorks.)

BOURNEMOUTH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Qualified Assistant Medical Officer (out-door).

CARDIFF INFIRMARY.—Assistant House Surgeon for six months. No salary. Residence, board, and washing provided.

CITY OF LIVERPOOL INFECTIOUS DISEASES HOSPITALS, Netherfield-road and Grafton-street.—Resident Medical Officer at the City Hospital North, Netherfield-road, and at the City Hospital South, Grafton-street, at a salary of £100 per annum each, increasing £10 per annum to £120 as a maximum (subject to a contribution of £5 per cent. to the Superannuation Fund), together with board, washing, and lodging at the hospital in each case. (Apply to the Town Clerk, Town Clerk's Offices, Liverpool.)

COUNTY ASYLUM, Whittingham, Preston.—Assistant Medical Officer. Salary £150 a year, with board, lodging, washing, and attendance.

DENBIGHSHIRE INFIRMARY, Denbigh.—House Surgeon. Salary to commence at £85 per annum, with board, residence, and washing in the house. (At the end of year a gratuity of £15 is usually given by the committee.)

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Glamis-road, Shadwell, E.—Assistant Surgeon.

EXETER CITY ASYLUM, Digbys, near Exeter.—Assistant Medical Officer. Salary £100 per annum, increasing by £10 annually to £150, with board, lodging, and washing.

JESSOP HOSPITAL FOR WOMEN, Sheffield.—House Surgeon (unmarried). Salary £50 per annum, with board, lodging, and washing.

LONDON HOSPITAL, Whitechapel-road, E.—Surgical Registrarship.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon.

ROYAL BERKS HOSPITAL, Reading.—Assistant House Surgeon. Salary £40 per annum, with board and lodging.

ROYAL COLLEGE OF PHYSICIANS, Pall Mall East, London.—Milroy Lecturer.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—House Physician for six months. Salary at the rate of £40 per annum, with board and lodging.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—Junior House Surgeon for the Branch Hospital, Royal Victoria and Albert Docks, E. Salary £60 per annum, with board and residence.

Births, Marriages, and Deaths.

BIRTHS.

GOOD.—On March 1st, at St. Neots, Hunts, the wife of F. T. Good, Surgeon, of a daughter.

HARE.—On March 3rd, at Weston-park, Crouch-end, N., the wife of Evan H. Hare, M.A., F.R.C.S., of a son.

MORGAN.—On March 6th, at Hurdis House, Seaford, Sussex, the wife of W. Pringle Morgan, M.B., of a daughter.

SALISBURY-SHARPE.—On Feb. 29th, at Gloucester-crescent, Hyde-park, the wife of Wm. Salisbury-Sharpe, M.R.C.S., L.R.C.P., of a son.

SAVAGE.—On Jan. 20th, at Maseru, the wife of S. Radford Savage, M.B., &c., Principal Medical Officer, Basutoland, of a son.

MARRIAGES.

BARKER—MORGAN.—On March 3rd, at St. Mary's Church, Balham, George Henry Barker, M.B. Lond., B.Sc., to Elizabeth (Bessie), youngest daughter of the late William Morgan, Esq., of Tower House, Bath.

CARTER—GREEN.—On March 7th, at St. Luke's, Chelsea, Arthur Joseph Carter, M.R.C.S., F.G.S., of Shepherd's-bush-road, W., and youngest son of the late Thomas D. Carter, to Blanche Green, youngest daughter of the late William Green, of Harley-gardens, The Boltons, S.W.

DAVIS—WIMSHURST.—On March 3rd, at Emmanuel Church, Liverpool, Arthur Holdsworth Davis, M.B. Lond. &c., of Sunderland, to Ada Marie, youngest daughter of J. B. Wimshurst, Esq., Ramsay, Isle of Man.

MACK—DUFF.—On March 1st, at the Parish Church, Bishop Auckland, by the Rev. John Thompson, uncle of the bride, assisted by the Rev. John Price, Vicar of the parish, Cyril Gordon Mack, M.B., M.R.C.S., L.R.C.P., to Mary, eldest daughter of Theophilus R. Duff, of Bishop Auckland.

PRICE—DE BURIATTE.—On Thursday, March 10th, at St. Andrew's, Holborn, Frederick Sterne Price, L.R.C.S.I., L.C.P.I., to Augusta Sarah Theresa, only daughter of the late F. B. W. De Buriatte, Esq.

DEATHS.

BAYLEY.—On March 7th, at Stourbridge, Robt. L. Bayley, LL.D. L.R.C.P. Lond., M.R.C.S., aged 58.

HEATH.—On March 4th, at his residence, Cocken Hall, in the county of Durham, George Yeoman Heath (also of Newcastle-upon-Tyne), M.D., D.C.L., F.R.C.S., President of the College of Medicine, Newcastle-upon-Tyne, Member of the Medical Council of the United Kingdom, &c., in his 73rd year.

HOPWOOD.—On March 3rd, at the District Bank House, Stalybridge, W. F. Hopwood, M.R.C.S., aged 36.

SHAW.—On March 3rd, at Aberlow, Ventnor, George James Shaw, M.D., Deputy Inspector-General, Bombay Army, and late Assay Master, Madras Mint, aged 73.

SOUTAR.—On March 2nd, at Golspie, Sutherland, Robert Ker Soutar, M.D., aged 59.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, March 14.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Professor Charles Stewart: The Physiological Series of Comparative Anatomy in the College Museum.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. C. H. Ralfe: Some Questions regarding the Treatment of Diabetes.—Mr. Stillingfleet Johnson: Reducing Agents in the Urine.

Tuesday, March 15.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor V. Horsley: The Brain.
ROYAL COLLEGE OF PHYSICIANS (Examination Hall, Victoria Embankment).—5 P.M. Dr. Francis Warner: Enquiry as to the Physical and Mental Condition of School Children. (Third Milroy Lecture.)
PATHOLOGICAL SOCIETY OF LONDON.—Adjourned Discussion on Phagocytosis and Immunity by Dr. A. M. Ruffer, Mr. C. A. Ballance, Mr. E. H. Hankin, and others. Card Specimens:—Cystic Mamma, Colloid Carcinoma of the Mamma, Large Sebaceous Cyst in Brain, Vermiform Appendix and Enterolith.

Wednesday, March 16.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Professor Charles Stewart: The Physiological Series of Comparative Anatomy in the College Museum.
EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Dr. S. Monckton Copeman: The Bacteriology of Vaccine Lymph.
ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. E. M. Nelson: Virtual Images and Initial Magnifying Power.—Mr. H. L. Breroort: Observations on the Brownian Movement.—Dr. A. C. Mercer: Lantern Demonstration on Photomicrographs and Photomicrographic Apparatus.
SOCIETY OF ARTS.—8 P.M. Dr. Tempest Anderson: Iceland.

Thursday, March 17.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
ROYAL INSTITUTION.—3 P.M. Professor W. P. Ker: The Progress of Romance in the Middle Ages.
ROYAL COLLEGE OF PHYSICIANS (Examination Hall, Victoria Embankment).—5 P.M. Dr. Francis Warner: Enquiry as to the Physical and Mental Condition of School Children. (Fourth Milroy Lecture.)
NEUROLOGICAL SOCIETY OF LONDON (Physiological Laboratory, University College).—8 P.M. Dr. Sherrington: Experimental Note on Knee Jerk.—Prof. Schafer: Descending Degeneration following Lesions of the Cortex Cerebri.—Prof. Schafer and Dr. Mott: Ascending Degeneration following Lesions of the Spinal Cord.—Dr. J. R. Russell: On the Arrangement of Nerve Fibres in Nerve Trunks and Roots in relation to Function.—Dr. W. H. Thompson: Degeneration following Lesions of the Superior Temporal Gyrus.—Dr. Tooth: On the Ascending Antero-lateral Tract in the Medulla.
HARVEIAN SOCIETY (Stafford Rooms).—8.30 P.M. Clinical Evening. Cases will be shown by Dr. Cheadle, Dr. Luff, Mr. C. B. Lockwood, and others.

Friday, March 18.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL (Fulham-road, S.W.).—4 P.M. Mr. W. H. Elam: Sarcoma of the Breast
ROYAL COLLEGE OF SURGEONS.—4 P.M. Professor Charles Stewart: The Physiological Series of Comparative Anatomy in the College Museum.
ROYAL INSTITUTION.—9 P.M. Mr. George du Maurier: Modern Satire in Black and White.

Saturday, March 19.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
ROYAL INSTITUTION.—3 P.M., Right Hon. Lord Rayleigh: Matter, at Rest and in Motion.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 10th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Mar. 4	30·29	N.E.	31	..	44	34	29	—	Cloudy
,, 5	30·32	N.E.	32	..	70	41	30	—	Overcast
,, 6	30·31	N.E.	34	..	71	39	31	..	Cloudy
,, 7	30·01	E.	31	..	64	38	31	..	Cloudy
,, 8	29·93	E.	31	..	63	36	28	..	Cloudy
,, 9	29·64	S.W.	31	..	60	40	25	.	Hazy
,, 10	29·34	W.	31	..	60	38	26	·20	Snowing

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

DEATH CERTIFICATION BY UNQUALIFIED ASSISTANTS.—THE RESPONSIBILITY OF THE PRINCIPAL.

Opiferque per Orbem &c. directs our attention to the case of Thomas Frederick Mondro Mondro, 431, New Cross road, who was fined five shillings and costs for certifying the death of a child and signing his principal's name. Mr. Mondro is the dispensing assistant of Dr. Tayler. Our correspondent asks if a qualified man has the power to sanction an unqualified man to sign a certificate of death. The answer is very simple. A qualified medical man has no such power, and in acting so would incur serious risk. It is only fair to say that the evidence showed that in this case Dr. Tayler had not given his sanction. The summons was at the instance of the Registrar-General. It is satisfactory to see the quickened interest of the Registrar-General in dealing with this great evil.

Striring.—A medical man is supposed to have the instruments mentioned. Our correspondent would do well to determine his own charges on a sober estimate of his patient's circumstances and the value of his own services. We can only suggest that for the first duty from half a guinea to a guinea would be reasonable, and for the second half a guinea. It is important that private practitioners should not charge such vaccination fees as drive their humbler patients to the public vaccinator.

Dr. Wm. Harding.—We shall be pleased to receive the paper for consideration.

ALLOXAN.

To the Editors of THE LANCET.

SIRS,—I shall be much obliged if any reader of THE LANCET can give me any information concerning a drug called "alloxan." It was discovered by Liebig, and has the reputation of being of value in cases of obstruction of bile-ducts, jaundice, &c. I am anxious to know if it has been tried, in what doses, and with what result.

I am, Sirs, yours faithfully,

Rugby, March, 1892. E. SCUDAMORE ANGOVE, L.R.C.P.Edin. &c.

THE DUBLIN CIVIL SERVICE MEDICAL AID ASSOCIATION.

Mr. J. J. Murphy.—We are obliged to Mr. Murphy for a copy of his annual report; but we hesitate to criticise it without more information than appears on the face of it. Are we to understand that the members of the Civil Service in Dublin, and, if married, their families, are attended medically for 5*s.* a year, and, if single, for 2*s.* 6*d.*? We should like more light on the social position and pecuniary means of those happy civil servants who get so much for so little. Perhaps Mr. Murphy will oblige us with a copy of the rules and other data for a judgment.

Inquirer.—We should reply in the negative.

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THE PATHOLOGY OF FATIGUE.

THE Italian school has made a special study of the phenomena of fatigue, physiological and pathological. Besides the well-known treatise, "Sulla Fatica," of Professor A. Mosso, of Turin, the transactions of the several scientific bodies of Italy contain, from time to time, the results of investigations on the subject. Of such papers the two latest are those just contributed to the R. Accademia dei Lincei (the "Royal Society") of Rome. The first is that of Dr. Salvioli, entitled "Influenza della Fatica sulla Digestione Stomacale;" the second that of Dr. Albanese, on "LA Fatica negli Animali privi di Capsule Soprarrenali." (The Influence of Fatigue on Digestion in the Stomach, and Fatigue in Animals deprived of the Supra-renal Capsules.) The papers may be had in the fascicoli of the Accademia from the publishers, Messrs. Loescher, Rome, Florence, and Turin.

C. P. M. S. can claim (1) to keep fees for attendance at assizes; (2) £1 1*s.* per day and travelling expenses.

Dr. Cagney.—The announcement appeared in our last impression, p. 562.

THE HEIGHT OF ROOMS.

To the Editors of THE LANCET.

SIRS,—Your interesting article on the height of rooms intended for human habitation (THE LANCET, Feb. 27th, p. 479) tempts me to offer a mild protest against the assumption that the sanitary value of high ceilings is generally admitted. In the class of dwellings which chiefly require regulation and supervision several things in due proportion are required to secure the best sanitary results. We want a good deal of free space in relation to the total height of the building to secure light and air; we want elbow room for a family confined in many cases (here at least) to one apartment; and we want cheap rents, to leave as little inducement as possible for overcrowding. Now, it is manifest that if you insist on high ceilings you increase the height of your building, and make more dingy and airless the adjoining streets or courts. You also make the approach to the upper floors more difficult, and the building more expensive. Of course, these objections may be met by taking a storey off the height of the tenement; but how, then, about the rent, especially where ground is dear? I think there can be no doubt that the Local Government Board exercised a wise discretion in refusing to allow sanitary authorities a by-law regulating the height of dwellings; and it is greatly to be regretted if they have recently yielded to the clamour of sanitary authorities so far as to sanction by-laws prescribing a minimum height of nine feet for rooms intended for human habitation. There seems to be a growing tendency on the part of local authorities to confound things that are desirable with things that are necessary; and if the Local Government Board itself ceases to discriminate between the two, there is no saying to what lengths of extravagance local legislation may be allowed to run. Nothing can justify a Government Department in deliberately sanctioning a law which must add to the cost of the dwellings of the poor, except the proved and urgent necessity of such a law, and in the present case no such proof is possible. On the contrary, it can, I believe, be demonstrated that a ceiling a foot lower than the proposed minimum would be preferable on sanitary grounds, apart from any other, in all rooms dependent on fire flues for ventilation. I have seen no refutation of the views I advanced on this subject at the Sanitary Institute Congress of 1883 (see Transactions of the Sanitary Institute of Great Britain, vol. v., p. 204), to which I must refer, as I dare not ask more of your valuable space.

I am, Sirs, your obedient servant,

Glasgow, Feb. 29th, 1892. JOHN HONEYMAN.

*** We cannot but think that Mr. Honeyman, in enunciating principles, attaches too little importance to the fact that large floor-space with diminished height of rooms almost necessarily means crowding of floor-space at the level of the human breathing apparatus, and this especially in the case of bedrooms, together with insufficiency in cubic space. But he is in error in implying that the Local Government Board have prescribed "a minimum height of nine feet." Neither did we imply approval of such a minimum. The actual minimum referred to in the memorandum is eight feet—that is to say, just "a foot lower," such as our correspondent himself suggests.—ED. L.

ILL EFFECTS OF "THE MILK CURE."

THE *Münchener Med. Wochenschr.* publishes a lecture given by Dr. Agéron on the ill effects sometimes attending "the milk cure." The author points out that many persons have a distaste for milk, and suffer from more or less dyspepsia after taking it. This becomes a serious matter in chronic affections of the digestive organs requiring an exclusive milk diet. The symptoms in most of these cases are loss of appetite, vomiting, distension of the stomach, acid eructations, with colicky pains and constipation alternating with diarrhœa. The continuance of the treatment gives rise to general malnutrition, characterised by anæmia and loss of weight. Dr. Agéron points out that these symptoms may be mistaken for those of malignant disease. He suggests the advisability of examining the patient's digestive organs thoroughly before adopting "the milk cure," and the necessity for repeated weighings during its continuance.

Dr. Edwd. Davies.—We think a rule of the kind mentioned should not have a retrospective effect.

DR. SISLEY'S PAPER ON INFLUENZA AT THE EPIDEMIOLOGICAL SOCIETY.

AT Dr. Richard (not Robert) Sisley's request we desire to make the following corrections in the report of the meeting of the Epidemiological Society on the 17th ult. (THE LANCET, p. 581). In speaking of local outbreaks of influenza previously recorded, he referred only to the writings of Sir Peter Eade, Feissinger, and Tessier, and also said that MM. Magnin and Vaillon, at the Société de Biologie, "came to the conclusion, after careful consideration, that until French veterinarians expressed more clearly what they meant by equine influenza it was useless to draw any deductions from observations on the disease." Professor Fleming has given an exhaustive account of epizootics of influenza in his classical work on Animal Plagues, and in Dr. Creighton's recent book, "History of Epidemics in Britain," many additions have been made to our knowledge of the disease in this country. "Mr. Caird of Lochgoilhead" (THE LANCET, vol. i. 1891, p. 741)—and not "Sir J. Caird"—published an account of an outbreak in horses; whilst Ollivier's case was one in which influenza was supposed to have been communicated by a cat. As to immunity being conferred by one attack, Dr. Sisley also desires to explain that he stated the balance of evidence was that although the "protection" afforded by an attack of influenza was much less than in many other diseases, yet, *cæteris paribus*, a person who has had an attack of influenza is less likely to take the disease than one who has not had it. He suggested the possibility of some "second attacks" being akin to recurrence of malaria.

M. A. Cantab.—It is not quite certain that reference is made in the advertisement to medical practitioners.

PUSCHMANN'S "HISTORY OF MEDICAL EDUCATION."

To the Editors of THE LANCET.

SIRS,—In your review of the "History of Medical Education" in last week's issue it is stated that no allusion is made to Dr. Gilbert of Colchester in connexion with his discovery of the magnetic polarity of the globe. I beg to refer to page 350 of the translation, where it will be seen that he is referred to in this connexion. The reviewer also would substitute "Severus Alexander" for "Alexander Severus." May I be permitted to remark (1) that on the coins of this Roman Emperor the word Alexander follows immediately upon the abbreviated form of Imperator, and (2) that we have the authority of Gibbon for calling him "Alexander Severus" (*vide* "The Decline and Fall," &c., vol. i., chap. vi., pp. 204, 205; chap. viii., pp. 253, 270). Thanking you on behalf of Dr. Puschmann and on my own account for your long and sympathetic notice of the book,

I remain, Sirs, your obedient servant,

Crouch End, N., March 7th, 1892. E. H. HARE.

*** We have referred Mr. Hare's letter to our reviewer, who writes as follows:—"The meagre reference to Dr. Gilbert of Colchester certainly escaped us. But it seems to have escaped Mr. Hare also; for in his (otherwise) very complete Index Dr. Gilbert's name does not appear. As to 'Alexander Severus' for Severus Alexander, Gibbon's authority is worthless. The German Archæological Institute has discredited much of the 'Decline and Fall,' from its topography and nomenclature downwards. If Mr. Hare will consult the Cavaliere Lanciani's 'Ancient Rome in the Light of Recent Discoveries' (Macmillan and Co., 1891) he will find, *passim*, a very distinct preference for Severus Alexander. Another first-rate authority—Professor H. F. Pelham of Oxford—in his masterly digest of the History of Rome for the Encyclopædia Britannica, also gives Severus Alexander, which we therefore hope to find adopted in the next edition of the English version of Prof. Puschmann's 'History of Medical Education.'"—ED. L.

MEDICAL ETHICS AND THE LAY PRESS.

THE following two paragraphs from, respectively, the *Essex Telegraph* and the *Essex Standard* are curious. They would seem to imply prodigious skill on the part of the practitioner and the corresponding importance of the patient. That two papers should be so inspired in a matter which requires investigation by the medical man whose name is used so absurdly:—

"We are glad to learn that Mrs. Fulton, of High-street, who has been dangerously ill with congestion of the lungs following influenza, under great care and the skilful attention of Dr. Weller, is now progressing towards recovery."

"*Influenza.*—There are now comparatively few cases of influenza in Colchester. We are asked to state that Mrs. Fulton, of High-street, who has been dangerously ill with influenza and congestion of the lungs, is, under the treatment of Dr. Weller, progressing towards recovery."

"DYSMENORRHŒA."

To the Editors of THE LANCET.

SIRS,—In reply to "Baffled" I should suggest that he put his patient under an anæsthetic and make a thorough pelvic examination. It may be a case of tubercular salpingitis.—I am, Sirs, yours faithfully,

March 5th, 1892. F.R.C.S.

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DIFFERENCES OF MEDICAL MEN AT HOUGHTON-LE-SPRING.

AN extract from a newspaper is sent us giving in parallel columns the opinions of two medical men delivered before a bench of magistrates on an unfortunate child, which strike the *Child's Guardian* as very contradictory. They are not so contradictory as they seem; but it is to be regretted that there should be such apparent contradiction. They are perhaps both incomplete.

Mr. Jackson (Plymouth) is thanked. The subject has been frequently discussed in our columns, and will receive further notice.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Angove, Rugby; Dr. H. Adams, Philadelphia; Messrs. Blackiston, Son, and Co., Philadelphia; Mr. Barwell, London; Messrs. Burroughs and Wellcome; Dr. Buss; Mr. Birchall, Liverpool; Messrs. Baillière et Fils, Paris; M. Belzung, Paris; M. Berthier, Paris; Mr. E. Blake, Yarmouth; Dr. Boyland, Paris; Mr. J. W. Barnes, London; Mr. E. Clarke, London; Messrs. Clarke, Wolverhampton; Mr. Cooper, Eastbourne; Dr. Charteris, Glasgow; Mr. Coleman, Cardiff; Mr. Cooper, London; Mr. Crowhurst, Hastings; Dr. J. A. Campbell, Garlands; Dr. Davies, Wrexham; Dr. W. Duncan, London; Messrs. S. Deacon and Co., London; Mr. Davis, London; Mr. T. S. Ellis, Gloucester; Mr. Elliott, South Devon; Mr. Frost, London; Messrs. Fannin and Co., Dublin; Dr. Foxwell, Birmingham; Messrs. Foster, Brown, and Co., Toronto; Mr. Ford, Devonport; Dr. B. Fenwick, London; Dr. J. Murray-Gibbes, Boost, Vic.; Dr. Guthrie, London; Messrs. Griffin and Co., London; Dr. Grant, London; Dr. Gayton, London; Dr. Gilroy, Ecclefechan; Dr. Goodall, Wakefield; Dr. Gourley, West Hartlepool; Mr. Hicks, Hatton-garden; Mr. Hugo, Reading; Messrs. Hertz and Collingwood, Milan; Mr. Horncastle, London; Dr. Harding, Berry Wood; Mr. Hawkins, Cannes; Dr. Hedley, Brighton; Mr. Hounsell, Bournemouth; Dr. C. N. Hewitt, Minnesota; Surgeon-Major Hatch, Bombay; Mr. Hornibrook, London; Dr. Illingworth, Clayton; Dr. Hugh Jones, Dolgelly; Dr. Klein, London; Messrs. Kingsford and Co.; Dr. Little, London; Dr. Lawton, Poole; Messrs. Leggott and Co., Bradford; Messrs. Lea Brothers, Philadelphia; Mr. H. Lewis, Bristol; Mr. Lund, Newcastle-on-Tyne; Mr. Montford, Upton-on-Severn; Mr. Maw, Bradford; Dr. Moorhead, Notts; Mr. Martinier, Hampstead; Mr. Maitland, Wigan; Dr. Mallins, Watton; Dr. J. J. Murphy, Dublin; Dr. Middleton, Glasgow; Messrs. Maythorn and Son, Biggleswade; Mr. J. McMunn, London; Dr. Macdonald, Dorset; Mr. H. Milton, Cairo; Dr. Menzies, London; Mr. Meadows, Hastings; Dr. McAlister, London; Dr. Nicoll, Glasgow; Mr. A. Neve, Kashmir; Dr. E. F. Neve, Kashmir; Messrs. Newton, Chambers, and Co., Sheffield; Mr. Needham, Gloucester; Messrs. Oppenheimer, Son, and Co., London; Mr. O'Reilly, Highgate; Messrs. Orridge and Co., London; Dr. J. Parsons, London; Mr. Provand; Mr. Preston, Holborn; Dr. Pearson, Sheffield; Dr. F. G. Parsons, London; Mr. F. Raymond, Woolwich; Dr. Ruffer, London; Messrs. Richardson and Co., Leicester; Messrs. Richardson Bros. and Co., Liverpool; Dr. O. Sturges, London; Mr. W. R. H. Stewart, London; Dr. Stephenson, Aberdeen; Dr. Sisley, London; Dr. H. Spencer, London; Dr. Steele, London; Mr. Stacy, London; Mr. Stenhouse, Glasgow; Mr. Stilwell, Portsmouth; Dr. Tibbits, London; Dr. Tooth, London; Dr. Turner, London; Mr. Townsend, Belfast; Mr. Vickers; Messrs. Vinton and Co, London; Dr. Wilks, London; Messrs. Wright, Layman, and Co., Southwark; Mr. Wand, Leicester; Messrs. West, Newman, and Co., London; Dr. N. Walker, Edinburgh; Messrs. Whitworth and Stewart, Manchester; Mr. Warner, Sheffield; Messrs. Wright and Co., Bristol; Dr. A. Wallace, Colchester; Dr. F. P. Weber, London; Mr. Roger Williams, London; Dr. Zavitziano, Constantinople; Maltine Manufacturing Co., London; Striving; Felix, London; *Western Daily Mercury*, Plymouth; Sigma, Manchester; Delta, London; Gamma, London; Waterloo; W. D. S.; M.D.Lond.; Inquirer; Rauschke, Leeds; F.R.C.S.; B. K., London.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Trevor, Manchester; Mr. Tully, Hastings; Mr. Davies, Maesteg; Mr. Evans, Llanerchymedd; Mr. Birkenhead, Atherstone; Mr. Tyte, Minchinhampton; Mr. Halpin, Alfreton; Dr. Herschell, London; Mr. Thin, Edinburgh; Mr. Bruce, London; M. Merck, London; Mr. Roberts, Sheffield; Mr. Pennington, Ulverston; Dr. Savage, Cape of Good Hope; Mr. Wilkinson, Staffs; Mr. Branch, Bath; Messrs. Krohne and Sesemann, London; Mr. Hoare, Huntingdon; Dr. Hocken, New Zealand; Mr. Slater, Sheffield; Mr. Leeder, Petworth; Messrs. Baels and Co., London; Mr. Symons, Worcester; Mr. Pelton, Tunbridge Wells; Mr. Breach, Newbury; Miss Monement; Messrs. Beal and Son, Brighton; Mr. Anderson, Carmarthen; Dr. Anderson, New Zealand; Mr. Davies, Ivybridge; Mr. Northley, Devon; Mr. Godber, Middlesbrough; Mr. Hemming, Bridgend; Mr. McConville, Glasgow; Mr. Holmes, Pontefract; Mr. Shepheard, Islington; Mr. Williams, Oswestry; Dr. Tate, Nottingham; Mr. Lloyd, Ruabon; Mr. Garrod, Ledbury; Dr. Maskew, Fawley; Miss Vincent; Messrs. Armstrong and Paton, Harpurhey; Mr. Hammill, Ringwood; Messrs. Squire and Sons, London; Dr. Magrath, Wimbledon; Messrs Porteous and Co., Glasgow; Mr. Bellord; Mr. Smither, London; Dr. Bourke, Earl's Court; Mr. Rowley, Barnsley; Mr. Unsworth; Mr. Barrett, West Bromwich; Mr. Oxley, Wisbech; Mr. Gilyard, Bradford; Dr. Knott, Middlesbrough; Dr. Griffith, Ravenglass; Mr. Scriven, Ludgate-hill; Mr. Maudsley, Twyford; Mr. Davies, Cardigan; Mr. Alford, Somerset; Mr. Patmer, Brighton; Mr. Lerry, Oswestry; Messrs. Clark and Son, London; Mr. Ward, Birmingham; Messrs. Giles, Schacht, and Co., Clifton; Mr. Saunders, Wolverhampton; Messrs. Bryant and Co., Toronto; Mr. Fawcitt, Broughton-in-Furness; Messrs. Ross and Co., Belfast; Mr. Clarke, Dublin; Mr. Wheeler, Dublin; Mr. Jones, Monmouth; Dr. Parsons, Burnley; Dr. Gardiner, Bexhill; Mr. Hart Rathfriland; Mr. Stephens, St. Austell; Mr Heywood, Manchester; Dr. Harris, Birchington; Mr. Keely, Nottingham; Mr. Kelvin, Manchester; Dr. Turner, Edinburgh; Mr Farmouth, Reading; Price's Candle Co., London; Vix, London; Fides, London; Secretary, North Staffs Infirmary; S. K., London; Secretary, Imperial Life Insurance Co., London; Pepsine, Sheffield; Jacobus, London; Secretary, County Asylum, Prestwich; Vernon, Sheffield; Gloster, Walsall; Enville House, Moseley; W. W. W., London; X. Y. Z., London; Scottish Equitable Society, London; T. J., Macclesfield; Secretary, Stockport Infirmary; Viner, London; Menicus, London; R., Pontymister; Be Traist, Edinburgh; Zeta, London; Dr. O. S, Darwen; W., Hereford Station; A. B. C., London; D., Birmingham; Treasurer, Corporation of Birkenhead; Finer, Lee; Hermes, London; M. F., London; R. P., London; Medicus, Liverpool; W. E. F., Southsea; Salop, Shrewsbury; W. H. S., Whitby; Diatom, London; Fidelis, London; Beta, London; Sanitas; Etascan, London; Bachelor, London; Medicus, Kent; Brock, London; W. P., Dulwich; Carman, London.

NEWSPAPERS.—*Norfolk Daily Standard, Manchester Examiner, Evening Chronicle (Newcast e-upon-Tyne), Scotsman, Financial Times, Yorkshire Herald, Eastbourne Gazette, Sheffield Independent, Birmingham Gazette, Liverpool Mercury, Law Journal, Wolverhampton Chronicle, Liverpool Daily Post, East Anglian Times, Essex Telegraph, Western Mail, Insurance Record, Weekly Free Press and Aberdeen Herald, Local Government Chronicle, Dundee Advertiser, Mining Journal, Hertfordshire Mercury, City Press, Bath Gazette, Bristol Mercury, Newspaper Review, Reading Mercury, Poole Herald, Builder, Architect, Dorset County Chronicle, Essex Standard, Liverpool Courier, North Devon Journal, Metropolitan, Guy's Hospital Gazette, The Press (Pretoria, S. Africa), Windsor and Eton Gazette, West Middlesex Advertiser, Oracle, Worcester Herald, Citizen, Newcastle Journal, Leicester Advertiser, Surrey Advertiser, Grocers' Chronicle, Windsor and Eton Express, Cheltenham Mercury, Bolton Chronicle, Stirling Sentinel, Tasmanian Mail, Blackburn Standard, Blyth Examiner, Barmouth Advertiser, Scottish Leader, Christian Commonwealth, The Manufacturing Chemist, Nurses' Journal, &c.*, have been received.

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Lecture
ON
SOME SPECIAL FEATURES IN THE HEART AFFECTIONS OF CHILDHOOD.

A Demonstration in connexion with the London Post graduate Course.

BY OCTAVIUS STURGES, M.D.,
PHYSICIAN TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

GENTLEMEN,—My present design is to call attention to certain features of heart disease special to children, and apt, therefore, to be overlooked or misunderstood unless separately studied. What chiefly claims notice is the nature of functional heart disturbance and of carditis in these young subjects; the frequency of recovery from such conditions; and the fact that both are often expressed by physical signs merely, the child's general health being unaffected. The latency of early heart disease in children is due in large measure to the indefiniteness of child's rheumatism. Yet not to this alone. The physical indications themselves may be difficult. This is especially the case with pericarditis. The friction graze indicative of this inflammation may be so slight or so inconstant, or so precisely synchronous with the proper heart sounds, as to escape notice. The frequency of pericarditis in connexion with slight joint pains—which are really rheumatic—is on this account much under-estimated. Until the ear is attuned to them the many modes of pericardial rubbing are hard to catch. The obvious to-and-fro friction sound of extensive pericarditis in no way resembles it. What has to be listened for is the presence of a sound or of sounds over and above the endocardial, and nearer than they are. In very many cases it is only by long and repeated listening, both with the stethoscope (varying the pressure) and with the ear applied directly to the naked chest, that this graze will be revealed, presently it may be to disappear for a while, yet once heard of perfectly definite significance. In the ten examples of heart disease exhibited here at our last meeting no less than four had pericardial graze. In all of these the rubbing had been of fugitive character, sometimes present, sometimes absent, and in none was there any open symptom on the part of the patient likely to call attention to the heart.

But with the quickest ear the frequency of pericarditis is not to be estimated by audible friction only. There may be neither rub nor graze, and yet pericarditis, of which, in that case, the earliest certain sign is effusion. Evidence of this consists in a slight shifting to the left of the apex, and a slight broadening of the cardiac triangle near its base, physical signs too small to be estimated unless the exact apex place and the exact shape of the cardiac dulness have been previously ascertained.

The recurrence from time to time in rheumatic children of pericardial friction or slight effusion, with perhaps some joint pain and tenderness, but no repetition of the original rheumatic attack and no obvious disturbance of health, is an important element in prognosis. The pericardium is as the joints; pericarditis is the equivalent of arthritis. Every recurrence of joint pains in these subjects must be regarded as a fresh menace to the heart and suggest physical examination. Yet though the discovery of a pericardial graze is no doubt disquieting, it is not easy to see what good is to be got (pain being absent) by local applications or active treatment. If we could silence the rub it does not follow that we should therewith help the heart. What does silence it sometimes of a sudden and for ever is pericardial adhesion, an event we would avoid. Children who suffer these recurrent attacks are very apt in the end to become cardiac cripples; they need extra care, with protection from exposure, mental excitement, and bodily fatigue—all in their several degrees possible provocatives of rheumatism.

Now, pericardial rubbing in the circumstances we are considering, though it may be intermittent and hard to hear, yet once heard can have but one meaning. On the other hand, what precisely are the physical signs of early endocarditis nobody knows. Where there is pericarditis, provided it is rheumatic, we may almost assume that there is endocarditis also, which may or may not presently reveal itself by infallible physical signs after the exocardial rubbing has ceased. What I would now call your attention to is the extreme caution that is necessary before pronouncing that the altered heart signs—the murmurs and disturbed rhythm which, more or less, are invariable in child's rheumatism—are of such sort as to imply heart disease. Quickened action, "excited" impulse, uneven rhythm, soft apex murmur, double second sound at mid-sternum—these are habitually concurring heart signs in acute rheumatism. As the joint inflammation subsides and the heart steadies there comes the time of doubt as to its precise physical state—a doubt which is seldom quite resolved when the patient becomes convalescent and is dismissed. The subsequent return of some of these children may decide this question in so far as they are concerned. By that time some are found to have unquestionable signs of heart disease, and some have wholly recovered. But it is obvious that the former class will return in larger proportion than the latter; so that we can never be sure whether recovery is the rule or the exception.

The first of the patients now before you, L. W——, is a girl of seven. She was admitted for acute rheumatism, of which the joint symptoms were slight, and had nearly disappeared. There was a distinct blowing murmur at the apex just after and separate from the systole, conducted about an inch towards the axilla. In a few days this murmur became fainter, and in a week it had gone. There was next (Dec. 1st) a recurrence of articular rheumatism, with some fever, pain, and swelling of the left knee and knuckle of the left hand. Recovering from this second attack in a few days, it was now noted that the heart had become unrhythmical, but there was no murmur. On Dec. 18th, when the child seemed well, a faint rubbing was heard just to the left of the sternum at the third cartilage. It became louder, but lasted only a few days. A week later (Dec. 21st) a soft systolic murmur reappeared at the apex, not constant, while the second sound in the pulmonary area became reduplicated. The last note (Feb. 4th) is to the effect that the heart is unequal in force and frequency with soft systolic murmur, ill-conducted and sometimes hardly audible.

Here is a characteristic example of heart disturbance concurring with rheumatic arthritis. The two subside together, leaving it doubtful whether or not the heart has received permanent damage. The fact that pericarditis has been heard favours the belief that there has been endocarditis also. The persistence up till now of irregular heart action, with occasional doubling of the second sound, argues on the same side. The recurrence of rheumatism suggests recurring endocarditis. But only time—some month or more, with the appearance of further and more definite physical signs, such as blowing or presystolic apex murmur, thrill, and, more than all, change in size and shape—can determine the fact that the heart is permanently crippled.

But in addition to the physical signs observed in this case, of which pericardial friction is the most distinct and significant, a presystolic murmur may come and go, and does not afford absolute proof of heart disease. We have had lately two children, neither of them known to be rheumatic, but both the subjects of marked anæmia. In the elder, a girl of seven, who has just left the hospital recovered, the extreme pallor was readily explained by repeated attacks of hæmatemesis. The spleen was enlarged, and the case resembled one of so called splenic anæmia. At first a single systolic apex murmur was heard, then a presystolic, or, as at times it might be better called, a diastolic mitral as well. And one day, when the child had been some while in hospital and was improving in all respects, a soft, double, pericardial friction sound was heard. This lasted more or less distinctly for some days during the patient's convalescence; she left the hospital free of it, and with a soft presystolic murmur only. The second and more striking example is now before you, A. R——, a boy of five. Anæmia was here extreme and quite unaccounted for. He had never had rheumatism, and there was no splenic enlargement. On the first examination of the blood (Dec. 7th), the proportion of white to red was 47 to 1; hæmoglobin 15 per cent. On the last examination (Feb. 10th), the proportion was 60 to 1: hæmoglobin 40 per cent. This child, too, on admission, had an apex systolic murmur, which afterwards became presystolic, occasional doubling of second sound, uneven rhythm, and a pericardial rub which

went and came and was at times very distinct. If you listen at this moment you will hardly perceive more than a want of strict rhythm, with a suspicion of presystolic murmur. Nevertheless the course of the physical signs, and especially the undoubted friction rub, renders it quite uncertain what the child's heart will show some months hence.

In this last case, if not in the other, the association of anæmia with pericarditis, and probably with endocarditis also, seems best explained by a common origin in the rheumatic state. Anæmia is one of the proper sequels of rheumatism. And when the most profound anæmia is otherwise unaccounted for, it may be permissible to accept the occurrence of pericarditis, notwithstanding the absence of joint pain, as confirming the rheumatic view, and thus to group and interpret symptoms either of which taken by itself is inexplicable. However that may be, the point I would now emphasise is that in these two children with presystolic murmur the physical signs of heart disorder have so far subsided that we hesitate to credit them with heart disease. We might even, I think, go so far as to say that in children there is hardly any heart action or heart murmur which, provided it be new (a provision which excludes blowing murmur, thrill, and marked presystolic or double mitral murmur), indicates for certain irrecoverable disease. Unlike what we observe in the adult, except very rarely, a slight presystolic murmur at apex, diastolic aortic murmur,[1] doubling of the second sound, equally with pericardial graze, will appear and disappear. Their significance is determined by their endurance. Time will serve in some cases to develop additional morbid signs of no doubtful meaning, and in some to restore almost or altogether the heart's natural sounds and rhythm. Acute rheumatism will always disturb the heart. That only is certain. It must be left for the future to say whether such disturbance means permanent damage.

Perhaps the best illustration of the character and course of valve murmurs in childhood—their disappearance in some cases, and in others the gradual development of obvious heart disease—is to be seen in chorea. In fatal cases of this disorder, apart altogether from rheumatism, we get, as a rule, ocular evidence of recent endocarditis which during life has given no certain sign of its presence. On the other hand, in non-fatal chorea in connexion with rheumatism we may watch week by week the gradual transition from soft mitral murmur to physical signs plainly indicative of mitral stenosis. What would be the later steps of the recent endocarditis of non-rheumatic chorea which death, and death only, reveals we cannot tell. But it will not be denied, so far as clinical evidence goes, that the mitral murmur associated with such chorea will often grow by degrees more pronounced, more blowing, and better conducted, until it becomes hard to say whether it may not be evidence sufficient of structural change. Then, and as gradually, with the recovery of the nervous disorder the heart will revert to its normal state. Putting together these facts, the anatomical and the clinical, is it too bold an inference that endocarditis is a common occurrence in chorea, that its proper physical signs are not immediately recognisable, and that the rule of it is, in this association, rheumatism being excluded, to inflict no permanent injury on the heart?

I have yet to show, by the example of a boy, J. W——, ten years and a half old, who has had recurring rheumatism, how obvious and distinct are the physical signs of formed heart disease in children. This boy, who was lately readmitted for dyspnœa fits, had at first, signs precisely similar to these others, and was regarded with the same sort of doubt. He has now, as you can easily see, enlarged heart-thrill, systolic and presystolic murmur. The hand placed on his chest at once perceives all this. The patient is a specimen of what rheumatic carditis comes to. Yet for the while these obvious heart changes are perfectly compensated. The progress of such cases follows one pattern, only the rate varies, and what chiefly accelerates it is adherence of the pericardium. Of this boy's early physical signs, when first he came under notice, one of the worst omens was pericarditis. Later he developed presystolic murmur and apex thrill, the heart enlarged, and doubt was no longer possible as to his physical state. Yet still with evident heart disease he had no dyspnœa, and was hardly different from other boys. And so he might have remained for a long time but for the occurrence of adherent pericardium.

Mitral stenosis in children, then, which is almost always rheumatic, is not at first disabling. I doubt the wisdom of making patients of these young subjects solely for the reason that their hearts are thus changed. The need for early treatment will depend very much on the recurrence or not of rheumatic attacks, and the worst event to be feared in the course of them is pericardial adhesion. Children who keep free from such attacks will go on for a long time without heart trouble. Other children less fortunate will have frequent recurrence of what is really acute rheumatism, though of short duration, with only slight pyrexia and transient joint pains. With these latter the heart deterioration in the way of dilatation is apt to be very rapid, and is indicated by dyspnœa, palpitation, and presently œdema. And there are two physical signs which as these cases progress indicate what the end is to be. One, and the earlier, is the detection from time to time with the successive rheumatic attacks of renewed pericardial friction; the other, and the later, which becomes the more obvious after the rubbing has finally ceased, is rapid enlargement of the heart area, both across and lengthways. Of the origin of this change it does not become us to speak positively in the patient's lifetime. But we know for certain, and can show you in our museum, that the common cause is adherent pericardium.

You will notice that the time usually taken in the full development of post-rheumatic valve disease exceeds the time needed for the child's full recovery from its acute symptoms. The consequence is that in most instances it is only by the accident of a second admission that we get to know the sequel of carditis, whether in permanent damage or gradual recovery. Sometimes, however, as in the child I now show you, the changes are so rapid that we may follow them step by step, almost day by day; and during the short period of a single admission note the transition from abnormal cardiac signs which are changeful and indeterminate to those that afford conclusive evidence of organic disease. The patient in question (L. P——) is nine years and a half old, and on admission had recently had rheumatism. Without entering into particulars of her case, except to say that she gradually improved in general health, it will serve my present purpose to quote a few short entries from the notes referring to the heart signs:—"Jan. 7th (on admission): The apex between the fifth and sixth spaces in the nipple line. Cardiac dulness not enlarged; no thrill. At the apex a soft systolic murmur conducted into the axilla and faintly heard at the angle of the scapula. There is a friction-like rub at the apex, and also to the left of the sternum in the third and fourth spaces.—14th (a week later): The systolic murmur is rather more blowing. Just above the apex and to the left of the sternum is now a second murmur occurring early in the diastolic period, there being a short interval between the second sound and murmur.—19th (twelve days later): The diastolic murmur is only faintly heard. There is now slight rubbing at both apex and base.—21st (fourteen days later): Murmur at apex is blowing. Internal to nipple and along left edge of sternum, after the second sound, is a murmur which, in some revolutions, assumes rather the character of reduplication of the second.—Feb. 3rd (twenty-seven days later): No diastolic murmur is heard, but internal to nipple after the second sound a short sharp bruit not occupying the whole of diastole.—Feb. 8th (thirty-two days later): The bruit noted on Feb. 3rd after second sound has gradually faded, the systolic apex murmur is well heard behind at angle of scapula.—23rd (forty-seven days later): Cardiac dulness now extends to a finger's breadth outside left nipple. The systolic apex murmur is blowing and prolonged and conducted to back. It is immediately followed (or interrupted) by a sharp second sound, succeeding which is a post-diastolic murmur. At the base there is now double aortic murmur, the second sound is audible only over pulmonary area. There is marked thrill." These extracts, taken in their sequence, are characteristic of the mode in which indeterminate physical signs are gradually exchanged for those that are more definite. Systolic apex murmur of very doubtful significance becomes more prolonged and blowing; there comes presently an additional murmur in the diastolic period; friction rub is heard. But at the first none of these signs are constant, and the opinion as to organic disease formed one week may be questioned

[1] Though no example was exhibited at the time of this lecture, I make no doubt that a regurgitant aortic murmur occurring in the course of acute rheumatism may disappear within a short time of its inception, leaving out of account cases where it is difficult to distinguish endocardial murmur from pericardial rub.

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the next. Yet, on the whole, the more significant and ill-omened physical signs become more obvious and more persistent, and at last the occurrence of thrill, marked presystolic murmur, and sometimes, as in this instance, signs of aortic disease besides, with perceptible increase in the heart's size, complete the evidence in favour of permanent and extensive lesion. Meanwhile the patient himself is gradually regaining his former health, disturbed by the rheumatic attack, and by the time heart disease is established beyond a doubt he is apparently well.

That is one and a too common ending of acute rheumatism in children as regards the heart. There is also another. Let me, in conclusion, contrast this patient with one just returned from the convalescent home at Highgate. A. C——, aged seven, was shown to you at the last meeting, and had then signs similar to those of L. W——, just mentioned—namely, pericardial rub, reduplicated second sound, alternating with presystolic murmur. On Jan. 15th the note is: "Systolic murmur at apex, soft and blowing and conducted well into axilla; heard also at angle of scapula. To the right, and a little above left nipple, is a loud presystolic murmur. At the second and third spaces, near sternum, friction rub is heard, increased in loudness on pressure." There seemed at this time little to choose between the children as regards their future prospects of heart disease. But now, on careful examination of the two side by side (Feb. 26th), L. W. shows the indubitable signs of extensive heart disease just mentioned, while A. C. has a rhythmical heart, without murmur or any physical signs whatever portending mischief to come.[2] The points which have been discussed and illustrated may be thus stated:—1. Heart disease in childhood, whether functional or organic, is apt to be overlooked and misunderstood. Overlooked because its early signs are often only discoverable by careful physical examination, and misunderstood because such divergence from the normal as in the adult usually implies structure change is in the child often due to temporary disturbance. 2. Owing to the equivocal symptoms of acute rheumatism in children and the indistinct and intermittent character of pericardial rub at that age, the occurrence of pericarditis, which may mean the commencement of heart disease, often escapes notice. 3. The earliest physical signs proper to endocarditis cannot be defined. The heart's sounds and action are invariably modified in acute rheumatism, and while pericarditis almost implies endocarditis, irregular rhythm, systolic apex murmur, doubling of second sound, slight presystolic murmur, will all in their several degrees suggest it; but indubitable signs of material heart change are gradually developed as the result, and not by the mere presence, of endocarditis. 4. The clinical history and morbid anatomy of chorea warrant the belief that mitral systolic murmur, increasing until it becomes slightly blowing, and then decreasing until it disappears, may be due to a form of mitral endocarditis common in chorea, less common in rheumatism, that is recovered from without heart deformity. 5. Mitral stenosis, the common sequel of rheumatic endocarditis, is not at once disabling. The well-being of a child having this defect depends largely on his immunity from subsequent rheumatic attacks, however slight; and what chiefly abridges the period of health he will enjoy is the occurrence of adherent pericardium either in the first or some later attack.

[2] This final examination was made at a ward visit three weeks after the lecture. It is here appended in further confirmation of the text.

REMUNERATION FOR EXTRA MEDICAL SERVICES DURING THE INFLUENZA EPIDEMIC.—The Farnham Board of Guardians have awarded the following sums to their district medical officers for extra services rendered necessary by the recent influenza epidemic. To Messrs. Tanner, Sloman, and Gibson, £10 each, Mr. Manders (Frimley) £6, and Mr. Whiting (Shottermill) £4.

ROYAL LONDON OPHTHALMIC HOSPITAL.—During the past year 1892 in-patients and 25,553 out-patients were treated, and 2126 operations were performed. There was a falling off in the year's income, arising from a decrease in the amount of legacies. The expenditure was £6333, which the committee deemed absolutely necessary to provide for the reception and care of the patients. Additional support was urgent. With reference to the new building, which is to cost £35,000, it was hoped the money would soon be subscribed.

ABSTRACT OF THE

Milroy Lectures

ON THE

PHYSICAL AND MENTAL CONDITION OF SCHOOL CHILDREN.

Delivered at the Royal College of Physicians, London, March 8th, 10th, 15th, and 17th,

BY FRANCIS WARNER, M.D., F.R.C.P. LOND.,
PHYSICIAN TO THE LONDON HOSPITAL.

LECTURE II.

THE SIGNS OBSERVED IN DESCRIBING CHILDREN.

"CRANIAL ABNORMALITIES appear to be the most important defects in development; they are the most numerous and have the highest pathological correlation of any sign with 'abnormal nerve signs,' 'low nutrition,' and 'mental dulness.' Boys, 1528; girls, 1048—total, 2576. The size and probable volume of the brain are points of first-class importance, and the size of the cranium is in children a fair indication of the size of the brain. The following standard of the normal in a well-developed child of good potentiality may be given: head circumference at nine months 17·5 in., at twelve months 19 in., at seven years 20 in. to 21 in. This, I believe, to be a high-class standard of the normal, too high if deviations therefrom are to be considered as pathological; after three years of age 19 in. cranial circumference is too small. The figures given indicate the number of cases in which the condition stated was noted among the 50,000 children seen in this inquiry. Boys, 26,884; girls, 23,143. Defects of the cranium may be divided into subclasses. Small heads: Boys, 327; girls, 738—total, 1065. It is seen that in this group, contrary to the usual rule, the defect is more common among girls. If there be no other defect, mental faculty may be average, but the child usually remains thin and delicate. Such cases in after life may undertake good work and do it, but are more liable than others to exhaustion, migraine, and break-down of the nerve system. At school these children are often delicate and irregular in attendance from ailments. Large heads: Boys, 257; girls, 46—total, 303. It seems probable that a large proportion of these cases resulted from rickets at an earlier period, for of the 168 cases of rachitis with defect of cranium, 55·3 per cent. were large heads. Cranial bosses: Boys, 495; girls, 129—total, 624. Cranial bosses are most usual at the site of the ossific centres of the two halves of the frontal bone; they may occur at the sides of the head over the parietal centres and elsewhere, as well as at the site of the anterior fontanelle. Asymmetrical heads: Boys, 84; girls, 16. These did not appear to have marked correlations with defects. [Various other defects of head and forehead were then described.] The palate was ill shapen in 1331 children, standing next to the cranium both in frequency and in a high correlation to defectiveness; the palate was examined in all children. The frequency of the various types has been given, but their relative correlation was not determined; there were twenty-two cases of cleft palate in the 50,000 children. The ears were malproportioned in 1047 boys and 268 girls. [The various forms of defect were described. Among pathological curiosities supernumerary ears, remnants of branchial clefts, congenital absence of ear, &c., were described; the adherent lobe did not appear as a marked defect.] The epicanthis was noted in 898 children. It appeared to have a lower correlation with defectiveness than other signs; when associated with defects of the cranium, however (90 cases), the defectiveness of the group of cases was very marked. Defective growth in the bridge of the nose (455 cases) did not appear to be associated with rickets; the condition appears to be outgrown in many children, and its pathological correlation is not high. Among conditions of the facial tissues notice was taken of cases of 'features large and coarse, 251'; 'palpebral fissures small, 181'; 'mouth small, 44'; 'bridge of nose in its soft tissue redundant, 61.' It is important to note each feature separately, as the defects seem to have different correlative values. The epicanthis was found to a considerable extent local or endemic in certain districts. These defects are often

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associated. A hairy forehead, large frontal veins, and a small face under a well-made calvaria were found in some cases. Prognathous type was noted in eleven boys, ichthyosis in seventeen cases, congenital cyanosis in three boys; there were various other minor defects."

Passing on to the description of "abnormal nerve signs," Dr. Warner proceeded to enumerate them, the number found among the 50,000 children, and to give their pathological correlations.

"Expression defective: Boys, 694; girls, 474. This sign has the highest pathological correlation of any nerve sign. The term is here used to connote the general expression of the face, as above and apart from the special muscular balances and action described further on; a good expression may be present with abnormal coarse muscular action. Frontal muscles overacting: Boys, 1322; girls, 1616. Horizontal creases are thus formed; these muscles may often be seen working in athetoid fashion under the skin. The sign may appear in children at any age, and is usually most marked when they are least occupied. Corrugation: Boys, 199; girls, 40. This knitting of the eyebrows may be a 'coarse' or a 'fine' movement; like the last sign, it may be athetoid in character, and the two signs often coexist. Orbicularis oculi relaxed: Boys, 522; girls, 343 The skin of the lower eyelid is relaxed, puffy, and bags forward. The sign often accompanies fatigue and recurrent headaches. Eye movements defective: Boys, 798; girls, 485 The eyes may wander and fix badly, or they may be too immobile, so that the child follows a moving object by turning the head, not by moving the eyes. Nearly half of these children were dull at lessons. Two modes of hand balance were described. In the weak type—715 boys, 504 girls—the wrist and digits fall into moderate flexion; the 'nervous type'—550 boys, 516 girls—presents flexion of the wrist with over-extension of the digits. The former type is common in weak children, the latter in those who are irritable, nervous, over-mobile. The percentage correlations are for the 'weak hand' defects in development 47, low nutrition 18, mental dulness 38; for the 'nervous hand' defects in development 43, low nutrition 25, mental dulness 33. Finger twitches: Boys, 445; girls, 261. This condition, though more common in boys, passes on to chorea more frequently in girls. Lordosis: Boys, 184; girls, 279. The lumbar spine is markedly arched forward when the hands are held out in these cases. Head balance asymmetrical: Boys, 219; girls, 319. The percentage correlation of this sign is high; defect in development 61, low nutrition 29, dull 45. Among the less frequent abnormal nerve-signs were described 'general defective balance,' 'defective response in action,' 'speech defective,' 'mouth open,' 'grinning,' 'nystagmus,' 'ptosis,' 'tremor'; these minor groups included 668 children."

REMARKS ON PNEUMONIA AS A CAUSE OF DEATH IN ASYLUMS:

WITH AN ACCOUNT OF A SERIES OF CASES WHICH OCCURRED IN THE CARLISLE ASYLUM IN 1888.

BY J. A. CAMPBELL, M.D., F.R.S.E.,
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THE average death-rate from pneumonia taken for a period of five years from the Registrar-General's returns for England is 6·1 per cent. of the total deaths. Pneumonia in 1890 caused 7·1 per cent. of the total deaths, but this year is probably an exceptional one from the prevalence of influenza and sequent pneumonia. An average of five years should, and probably does, give a fair idea of the proportion in which pneumonia stands to other causes of death. Considering the care which is expended on lunatics in public asylums, at the first glance one would say it was unlikely that the average percentage of deaths from pneumonia would be as high in asylums as the total of returns show it in England. For my own part, until I looked into the matter I was ignorant on the subject, as I have never seen it touched on in any medical book or paper. If the Commissioners in Lunacy were to adopt the table of the Psychological Association, giving the causes of death and the age at death, it would add greatly to the value of their returns. Had it been in use I could easily have ascertained the proportion of deaths from pneumonia in asylums. The Scotch commissioners in their table of deaths adopt a classification based on the Psychological Association table; but as they group all pulmonary diseases except phthisis it is valueless for any inquiry into a special lung disease with that exception. Now that post-mortem examinations are the rule in asylums it would be of great advantage if the lunacy boards in England and Scotland would introduce into their reports death tables drawn up in such form as to give the information contained in the table of deaths of most asylum reports, and the Irish Lunacy Board would do well to begin life anew with their fresh inspectors, and issue a series of tables; which would be of some value, unlike those hitherto in use.

As I was unable to get, as one should, the information from one source, I set about collecting statistics to give me a fair average of the death-rate of pneumonia in asylums in the following manner. I took the total deaths for 1890 in ten Scotch asylums, in twenty-six English county asylums, and in eight English borough asylums; they numbered 3065, while the deaths from pneumonia numbered 250 (8·1 per cent.). I took the total deaths for 1889 in ten Scotch asylums, twenty-seven English county asylums, and ten English borough asylums: they numbered 3607, while the deaths from pneumonia numbered 194 (5·3 per cent.). I also took the total deaths and deaths from pneumonia during 1887 in twelve Scotch asylums, thirty English county asylums, and eight English borough asylums. The total deaths numbered 3402—220 deaths from pneumonia, or 6·4 per cent. of the total deaths. As there seemed a considerable disparity in the percentage of deaths in these years I pursued the inquiry further. I took a ten years' period of seventeen asylums and worked out the individual percentages of the deaths from pneumonia in each instance. I give the table here, as it may be of use, perhaps, even to the medical officers of some of the asylums where the death-rate from pneumonia is high; they may be able to ascertain some special cause, and guard against it in the future:—

TABLE I.

Showing the total Deaths and Deaths from Pneumonia, with Percentages for Ten Years ending 1890, in Seventeen Asylums.

Name of asylum.	Total deaths.	Total deaths from pneumonia.	Percentage of deaths from pneumonia.
Hants	932	15	1·6
Beds, Herts, and Hunts	934	41	4·3
Stafford	915	44	5·2
Leicester	448	35	7·8
Glamorgan	762	53	6·9
Abergavenny	604	47	7·7
Beverly	260	6	2·3
Chester	641	42	6·5
Rainhill	1054	68	6·4
Lancaster	1469	122	8·3
Whittingham	1415	117	8·2
Carlisle	490	30	6·3
Newcastle	285	29	10·1
Northumberland	341	38	11·1
Edinburgh Royal	765	39	5·0
Glasgow Royal	334	23	6·8
Fife and Kinross	279	24	8·6
Totals	11,932	777	6·5

A glance at this will show the vast disparity which exists in the cause of death by one disease in different asylums; and geographical position doubtless accounts for it. I know few asylums situated in more cold localities than the Newcastle and Morpeth asylums, and there the death-rate from pneumonia is singularly high, while it is extraordinarily low at Hants. I do not see why it should be so high at Whittingham and Lancaster. I think it will be quite conceded by all that exposure to cold is one of the most common causes of pneumonia, although no doubt other causes, some of which at present we are ignorant of, contribute in the production of this disease. I then massed the total deaths of the three years and the totals of the seventeen asylums. They amounted to 22,006, of which 1441 were from pneumonia—a percentage of 6·5. This, considering the large number of deaths taken, should be a fair percentage. It is 0·5 above the death-rate for five years from pneumonia in England, and it points strongly to the conclusion that as a cause of death pneumonia figures too highly in asylums, and it might be well for all who have to do with insane patients to look if possible into the causes of their pneumonias. When I deal with the period of the year at which pneumonia is most rife, I shall have only my own experience

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to go on, as I cannot without vast trouble to others get such information. Is pneumonia caused by exposure in cold weather in working parties of dements of feeble circulation who frequently are allowed to sit thinking of nothing when they should be on the move? Do patients after a warm bath on bathing nights go to bed as they should in all asylums, or in some do they go from the warm bath to their usual avocations? I analysed the deaths from pneumonia in the ten asylums, and found that in seven instances the deaths were proportionately higher among the men than the women; and on taking the total of these ten asylums I found the male deaths from pneumonia preponderated. This is also the case at Garlands. It is what one would expect, for as a rule, even in asylums, men are more exposed from out-door occupations to the climatic causes which give rise to this disease. Outbreaks of pneumonia have not been unknown in asylums, as one may perceive from asylum death tables. When they occur the superintendent should allude to them in his report, and where possible give his solution of their cause, if he does not report them in a medical paper, for whatever can throw more light on this subject is desirable from a scientific point of view. In the report for 1887 of the Montrose Asylum, Dr. Howden fully reports a series of cases which occurred there in March and April of 1887; eleven cases of pneumonia, two of pleuro-pneumonia, one of bronchitis, and one of pleurisy during March; and one of pleurisy, two of pneumonia, and one of pleuro-pneumonia during April; also twenty-one cases of acute lung disease, with twelve deaths, between March 20th and April 16th. He gives the mean temperature during March and April, which was low, and says, "There can be little doubt, however, that the sudden cold, added to some unknown condition, was an important factor in the production of lung disease." The following sentence occurs in the report of one of the Visiting Commissioners, dated July, 1886: "It must be recognised, in spite of so much that is gratifying in the condition of the asylum, that it is still more crowded than it ought to be." Is this the "unknown condition" mentioned by Dr. Howden? I believe vitiated air proves a very important factor in the causation of pneumonia—or, more correctly speaking, the transition from vitiated air to cold. Many people can tell with accuracy that their attack was originated by coming out into the cold air from a crowded meeting or close church; and not long ago two well-known members of Parliament took pneumonia, which proved very rapidly fatal, from walking home on a cold night from a crowded house. During the thirty years the Carlisle Asylum has been opened only 41 deaths from pneumonia have occurred—3 8 per cent. of the total deaths. During the first fifteen years of its existence only nine deaths occurred from this cause—7 men and 2 women (2 6 per cent. of the total deaths). During the fifteen years ending 1891 32 deaths, 19 men and 13 women (4·2 per cent.). In Table I. the Carlisle percentage of deaths from pneumonia is shown for the ten years ending 1890 as 6·3, but this rate is greatly caused by the results of one year, and it is the outbreak of this year that I now propose to deal with. I show in Table II. the number who died, as well as the number who were under treatment for pneumonia at the Carlisle Asylum during fifteen years ending 1891:—

TABLE II.

Showing Deaths from Pneumonia and those under Treatment for Fifteen Years ending 1891.

Year.	Deaths from pneumonia.			Under treatment for pneumonia.		
	Male.	Female.	Total.	Male.	Female.	Total.
1877	0	0	0	0	1	1
1878	0	0	0	0	1	1
1879	1	0	1	4	1	5
1880	0	1	1	3	1	4
1881	2	1	3	7	4	11
1882	1	0	1	1	3	4
1883	2	3	5	2	6	8
1884	2	3	5	9	6	15
1885	3	0	3	4	1	5
1886	0	1	1	2	2	4
1887	0	1	1	2	1	3
1888	7	1	8	14	5	19
1889	1	1	2	4	2	6
1890	0	0	0	2	0	2
1891	0	1	1	0	2	2
15 Years' Totals	19	13	32	54	36	90

An examination of this table will show that more men were affected by pneumonia, and also died of it, than women, and that an unusual proportion of deaths took place from it in 1888, and an unusual number of patients were affected by it. Fourteen of the nineteen who were affected by the disease were so between April 22nd and July 24th. Now, June and July are not common months to see pneumonia in at all. In ordinary experience one sets down pneumonia as occurring most in January, February, March, and April. I worked out all my cases for fifteen years, and, excluding this exceptional year, I found them stand thus: In January, 9; February, 5; March, 13; April, 11; May, 6; June, 3; July, 1; August, 2; September, 5; October, 3; November, 7; December, 5. In March and April they were most frequent, and next January and November. I think most practitioners will bear me out when I say that this is very much what is seen in practice outside of asylums.

TABLE III.

Direction of wind the day before and day of onset, with dates.	Showing portions of lung affected, with result.
1888.	
Jan. 7th, W.; 8th, S.W.	T. F., male, 71 years; epileptic dementia. Death after 7 days. Posterior portions of right lung in a state of red hepatisation.
March 7th, S.W.; 8th, S.E.	E. T., female, 70 years; melancholia. Death after 7 days. Upper lobes of right lung in a state of red hepatisation.
March 11th.	J. B., male, aged 35; mania. Left base affected. Recovered. Came in with pneumonia present.
April 21st, N.E.; 22nd, N.E.	M. E. J., female, 35 years; dementia. Base of left lung affected. Recovered.
April 30th, S.E.; May 1st, S.S.E.	T. B., male, aged 48; general paralytic. Right lung affected. Death after 6 days. Upper lobes of right lung in a state of red hepatisation.
May 11th, S.; 12th, calm; 13th, W.	G. G, male, aged 53; dementia. Right base affected. Recovered.
May 16th, S.E.; 17th, S.; 18th, S.E.; 19th, S.E.; 20th, W.S.W.; 21st, S.W.	J. B., female, aged 40; mania. Both bases affected. Recovered.
June 5th, S.E.; 6th, S.E.	G. M., male, aged 34; dementia. *Left* lung affected. Death in 6 days. Left lung throughout in a state of grey hepatisation.
June 6th, S.E.	J. F., male, aged 42; mania. Left base affected. Recovered.
June 7th, S.E.	J. G., male, aged 68; melancholia. *Left* lung affected. Died in 5 days. *Left* lung almost entirely solid, passing from red to grey hepatisation.
June 12th, S.E.; 13th, S.	T. H., male, aged 64; mania. Died in 6 days. Whole of left lung and base of right lung in a state of grey hepatisation.
June 19th, N.N.W.; 20th, N.E.	T. H., male, aged 38; dementia. Died in 5 days. Upper portions of right lung in a state of red, lower of grey hepatisation. Base of *left* lung in a state of grey hepatisation.
June 26th, calm; 27th, S.E.	M. N. W., male, aged 49; dementia. Both bases affected. Recovered.
June 28th, calm.	Bd. S., male, aged 54; mania. Right base affected. Recovered.
June 29th, calm.	R. R., male, aged 57; dementia. Died in 5 days. Upper portion of right lung in a state of red, lower in a state of grey hepatisation, and base of left lung in a state of grey hepatisation.
June 30th, N.E.; July 1st, N.E.; 2nd, S.S.E.; 3rd, W.; 4th, W.	P. L., male, aged 40; dementia. Left base affected. Recovered.
July 18th, E.; 19th, E.; 20th, E.; 21st, S.; 22nd, S.E.; 23rd, S.; 24th, calm.	S. T., male, aged 48; mania. Died in 6 days. Right lung throughout in a state of red hepatisation, also base of left lung.
Nov. 5th, E.; 6th, S.E.	B. M., female, aged 26; imbecile. Base of left lung affected. Recovered.
Nov. 10th, S.E.; 11th, S.S.E.	J. O. C., female, aged 75; dementia. Base of right lung affected. Recovered.

Summary of TABLE III.

14 males and 5 females affected.
Right lung implicated in 6 cases.
Left " " " 7 "
Both " " " 6 "

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I now deal with the outbreak of pneumonia which occurred at Garlands Asylum. Table III. shows the number of patients who had pneumonia and who died of it in 1888, with the date of onset of disease, and the direction of the wind on that day and the day before. I at first attributed this outbreak to the east wind, which that year was more persistent than usual; but I subsequently came to the conclusion that another factor might, and probably did, play an important part in originating the disease. In dealing with this outbreak I exclude the cases which occurred in January, March, and November. They, I believe, were due to ordinary climatic causes. One of the patients got a chill by being brought from her ward to see her clergyman, as it was getting dark on a cold night in March, with a bitter east wind blowing. She complained almost at once, and next morning had the physical signs of pneumonia. The old farmstead of Garlands, with piggeries attached—which had existed from time immemorial, and since the opening of the asylum had been fully inhabited, containing usually from seventy to a hundred pigs, besides horses and cows—was pulled down, and its foundations rooted up, between the middle of April and the end of July, 1888. The farmstead was situated due east of the centre main door of the asylum, at sixty-six yards' distance from it, but it was within twenty yards of a portion of the men's ward, where eighty men lived. The construction of the total asylum is such that any wind, except west, might blow floating rotten débris from the in-course-of-being-razed steading into some portion of the asylum, and where buildings project swirls of wind often are seen to be diverted, and carry floating objects even in directions which the usual course of the wind would not but for artificial obstruction. Now,[1] from April 21st to July 24th inclusive, ninety-four days, wind west, or with west in it, only blew thirty days. Calm days only amounted to nine; on the other fifty-five days the wind blew on some portion of the buildings from this steading. The mean temperature for May was 0·01° above the usual average, but for June it was 1·6° below it, and 2·7° for July. The mean temperature for May was 48·5°, for June 52·8°, for July 53·8°. Of the fourteen patients who had pneumonia between April 21st and July 24th 12 were males, 2 females, and of the 12 males 8 were employed in demolishing the old buildings, 3 lived in the most contiguous building to the work, and the other lived in a building opposite to it. I am aware that it may be said, If you think the floating débris was the primary cause of this outbreak, why did it not affect more of the people engaged at work? and how was it that none of the attendants were implicated? It is exceedingly rare that an outbreak of any disease attacks all who are in its vicinity. Some individuals are less susceptible to diseases than others. As a rule, people who work with dusty material do so on the wind side. Many of those who were at work might have had the sense to do this, and though close to the source of evil have been all the safer from this proximity. It is usually dements of low circulation, depressed nerve condition, and generally low vitality, who in asylums suffer first, and most seriously, from deleterious surroundings or exposures. I strongly suspect, and I think with reasonable grounds, that the razing of this old and foul building, which never should have been permitted to exist in such propinquity to the asylum, had an intimate relation to the outbreak of pneumonia I record. Though I am aware that one, if not more, recorded outbreaks of pneumonia have been ascribed to similar causes as this I mention, I purposely abstain from attempting to quote references on the subject, as my not having easy access to a medical library would prevent my doing so exhaustively.

I believe congestion of the lungs, which otherwise might go on to pneumonia, may be arrested by prompt treatment. The following was a well-marked case: A. H——, aged fifty-five, an M.R.C.S., told me on the morning of Dec 19th, 1886, that he had a rigor the previous night, and that he believed he was in for pneumonia. He had the signs of acute congestion of one lung. Temperature 103°; pulse 114 I gave him a bath of from 110° to 114°, put him to bed with much extra covering, made him swallow a stiff tumblerful of hot toddy and a good dose of Dover's powder, and put a large mustard poultice on his chest. He perspired profusely. His temperature quickly fell, but rose at night to 102·4°, but next day was normal, and he seemed well. I adopted the same treatment in several cases with success, and in a good many without success. In cases of very high temperature in pneumonia I have used antipyrin. I do not consider the treatment by forced reduction of temperature conducive to recovery. Pleuritic effusion is not often seen in this asylum. Aspiration has only twice been required in the last fifteen years: once in the case of an attendant whose chest had subsequently to be drained for empyema sequent to influenza; the other occasion, a patient whose one side of chest was full, containing 75 oz.; he was a stupid dement. His illness was not noticed at first. That pleuritic effusions are not common in most asylums is probably owing to early treatment and warmth.

I think I am warranted in summing up the contents of the foregoing as follows:—(1) That the percentage of deaths from pneumonia is higher in asylums than among the general public, and in asylums the male sex are most liable to it; (2) that this should not be the case, considering the amount of care and money which are expended on lunatics; (3) that the geographical position of some asylums, with the accompanying lowering of temperature, accounts for a high percentage of pneumonia in them; (4) that a high death-rate from pneumonia seems to occur in some asylums which are not situated in cold regions, and that inquiry should be made into the causes; (5) that various causes predispose to and originate pneumonia, and where exceptional outbreaks appear thorough investigation should be made, probable causes should be ascertained, and the matter should be carefully recorded; (6) that an exceptional outbreak of pneumonia took place at the Carlisle Asylum during April, May, June, and July, 1888; (7) that the period of the year at which this outbreak took place pointed to some special or exceptional cause, as January, February, and March are the most usual months to see pneumonia in; (8) that this outbreak chiefly affected the male patients, and was synchronous with the razing of an old farmstead which was contiguous to the male division; (9) that eight of the patients affected were employed at work in demolishing the buildings, and three resided in the buildings next the work, and the wind blew from such directions during the period of the attack as to justify the belief that inhaled débris might be the principal factor in the production of the disease; (10) that the number of cases of pneumonia at Carlisle Asylum is usually not high year by year, the percentage of deaths from it to other causes being only 3·8 over a period of thirty years,—this, almost more than any other circumstance, points to a special and exceptional cause for the outbreak.

Carlisle.

[1] For the direction of the wind and mean temperature I have to thank T. G. Benn, Esq., of Newton Reigny Observatory, who always most kindly puts his observations at my disposal for such purposes as this.

A SUCCESSFUL CASE OF LAPAROTOMY FOR A SUPPURATING HYDATID CYST OF THE LIVER.

BY ALEX. G. R. FOULERTON, L.R.C.P.LOND., M.R.C.S.

IN this paper it is proposed to give some short notes about a case of suppurating hydatid cyst of the liver on which I lately operated. The patient, Michael B——, aged fifty-five, came under my care in St. Bartholomew's Hospital at Chatham, on July 18th of last year, having then been in the hospital three days. He had been a soldier; ten years of his foreign service had been passed in Malta and Gibraltar, and the last twelve months in Bermuda, just sixteen years ago. He described himself as having been a healthy man, and up to quite lately had been subject to no illness worth speaking of. But about two months ago he began to feel unwell. During these two months he had been constantly conscious of some slight tenderness on pressure over the right hepatic region. Three weeks before admission his skin suddenly became yellow, and at the same time his urine was of a dark-brown colour. This attack of jaundice seems to have been transient, lasting but four days. When I first saw the man his general appearance was good; no sign of jaundice was noticeable. He had really nothing much to complain of except the slight tenderness already mentioned, and a certain feeling of lassitude and weakness. His principal excretions were

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natural. The upper margin of liver dulness was normal as to its level; the lower margin descended lower than usual, reaching in the middle line to just above the umbilicus. Towards the left the region of dulness extended as far out as the nipple line. Neither the margin of the liver nor any definite tumour could be marked out by palpation. The subcutaneous veins of the right side of the chest below the nipple were considerably engorged. The earlier readings of the temperature chart were as follows:—

	Morning.	Evening.		Morning.	Evening.
July 15th ...	97·6°	99·6°	July 19th ...	98·0°	98·4°
,, 16th ...	97·4°	100·6°	,, 20th ...	98·4°	98·8°
,, 17th ...	97·4°	98·4°	,, 21st ...	98·2°	99·0°
,, 18th ...	97·4°	98·4°	,, 22nd ...	98·4°	99·2°

Then, on the morning of July 23rd, it was seen that a considerable fulness had developed, and it seemed quite suddenly, in the epigastric region. The lower margin of this swelling, which was obvious to the touch, corresponded fairly accurately with the lower margin of dulness already mapped out by percussion. The recti muscles moved freely over the surface of the swelling which was clearly not adherent to the abdominal walls, rising and falling with respiration. The pulsation of the aorta was transmitted very distinctly through the tumour, in which no bruit could be heard or any expansile pulsation detected. The swelling gave a certain sense of elasticity to the touch, but definite fluctuation was not to be obtained. During the next week nothing was done. The man remained in excellent condition; his only complaint was against confinement to his bed. The swelling increased very slightly, if at all, in bulk. The temperature was somewhat irregular.

	Morning.	Evening.		Morning.	Evening.
July 23rd ...	98·0°	100·4°	July 27th ...	97·8°	100·0°
,, 24th ...	98·8°	98·0°	,, 28th ...	98·0°	99·2°
,, 25th ...	98·4°	98·6°	,, 29th ...	98·0°	100·6°
,, 26th ...	98·6°	100·0°	,, 30th ...	98·6°	99·4°

On July 30th the patient did not feel quite so well as he hitherto had felt. He had occasional pain, described as griping, in the region occupied by the swelling. His tongue was coated, and he was inclined to vomit.

July 31st: Patient remained in much the same condition. In the evening he had a rigor, followed by profuse sweating. Morning temperature 98·4°, evening 100·4°. — Aug. 1st: The man was better again, the feeling of nausea had left him. Morning temperature 98·4°, evening 101·6°. — 2nd: Condition of things remained unaltered. An exploring syringe introduced into the more prominent part of the swelling and in the middle line struck pus at a depth of about two inches. Morning temperature 98°, evening 99·8°.—3rd: Chloroform having been administered I made an incision about three inches and a half in length along the middle line, the ends of the wound being at an equal distance from the sterno-xiphoid joint and the umbilicus respectively. The peritoneum having been reached, was opened by an incision of similar length. The surface of the liver, natural in appearance, presented at the opening; it was free from any adhesion to the abdominal wall. The lower margin of the liver was examined by the finger, and the gall-bladder felt slightly distended, but the surface presented by the gland was so much increased that a thorough examination was impossible with an opening of the size made. Three or four exploratory punctures with a hollow needle from the middle line towards the right proved unsatisfactory. But the first puncture towards the left reached pus. Some attempt was now made to attach the liver to the margin of the peritoneal wound by sutures. But this attempt, as might perhaps have been foreseen, resulted in failure, the sutures cutting through the gland and its capsule very readily. The liver was then steadied as much as possible by external pressure, and a pair of dressing forceps were thrust into its substance along the hollow needle, as a guide. As some pus oozed up the blades of the forceps were separated and quickly withdrawn. A rent, about two inches long, in the liver substance was the result, and through this there was a large gush of sweet thickish pus, containing numerous daughter cysts. Whilst the forceps were being withdrawn the two forefingers were passed into the pus-containing cavity, and thus the margins of the opening in the liver were hooked close to the abdominal walls. The flow of pus having ceased, it was ascertained that the opening led through rather more than half an inch of liver substance into a cavity, the walls of which, so far as they could be explored, were lined with soft gelatinous material. Five deep sutures of stout silk were then passed by means of a large strongly-curved needle from within the cyst through the liver and overlying abdominal walls. These being firmly tied shut out the peritoneal cavity effectually, leaving a gaping wound which readily admitted two fingers and led directly into the cyst cavity. These sutures, it may be mentioned, did not appear to cut through the liver substance as the superficial ones had done, probably because the cyst wall below and the abdominal wall above presented a sufficient resistance to their cutting action. The interior of the cyst wall, wherever it could be reached, was rapidly scraped with the finger-nail and washed out repeatedly with warm water. When this water returned quite clear about a drachm of iodoform was introduced into the cavity and a pad of absorbent wool applied over the wound. The patient, after the evacuation of the large volume of pus, had become collapsed in the extreme, but rallied quickly when he was put back into bed. Morning temperature 99°, evening 99·6°.—4th: The patient had passed a good night and was comfortable in the morning. The pad having become soaked with sweet blood-stained discharge the wound was dressed. The cavity of the cyst had contracted considerably and its walls could be examined everywhere with the finger introduced through the wound. The walls were also becoming everted at the margins of the opening. The cyst was washed out with tincture of iodine and warm water (half an ounce to the pint), a small quantity of iodoform introduced, and a fresh pad of the absorbent wool applied. Morning temperature 98·6°, evening 99°.—5th: The patient was doing very well; the amount of discharge on dressings was much less. The cyst was washed out and treated as before. Morning temperature 99°, evening 99·4°.—6th: Morning temperature 98·8°. The patient was doing well in every way. Very slight amount of discharge. The continued eversion of the cyst had produced a granular mass around the opening. Wound dressed as before.

On this last date I left Chatham, and cannot give any detailed notes of the further progress of the case. I have since learned, however, that this progress was satisfactory. The sutures were removed, and the patient ordered up on August 11th. Recovery was uninterrupted, save that the patient suffered from a typical attack of ague one afternoon when he was up and about. He had not suffered from ague before, so this attack was probably incidental to his stay in the hospital, which is situated in a distinctly malarial district where such attacks are common enough. The wound had healed up, and the man appeared to be quite cured when he left the hospital shortly afterwards. The case has been reported because operations for suppurating hydatid disease are not of very frequent occurrence in this country, and when they do occur the termination is not always satisfactory. But after the bare notes have been given there is not much more to be said in the way of comment. The cyst must have been connected with the under-surface of the left lobe of the liver, which was more or less flattened out on its surface. Its size was doubtless considerable, judging by the large quantity of pus which escaped. The rapidity of its contraction and subsequent spontaneous eversion must be attributed chiefly to the normal intra-abdominal pressure and the presence of an opening of fair size. Eversion at the time of operation, a procedure which has sometimes been recommended, was not judged to be expedient, partly because of its seeming difficulty in this particular case, partly because of the collapsed condition of the patient. And if it had been performed I do not think that the cure would have been better or more rapidly accomplished. From the wounded liver substance there was little or no haemorrhage. Why this was I am unable to say. From what one has seen of other wounds of this organ the opposite might have been anticipated. More than half an inch of the gland substance was penetrated, but the tissue might possibly have been rendered less vascular by the pressure to which it had previously been subjected. The sudden swelling which appeared at the epigastrium on July 23rd, caused either by some sudden alteration of the position of the cyst, or by some sudden increase in its size, is also difficult of exact explanation.

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ON A FORM OF PAINFUL TOE.

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THE intense suffering caused by this complaint, and the prompt and certain relief which may be obtained by suitable yet simple treatment, lead me to record my own experience of a special form of painful toe. Both in symptoms and pathology the complaint is identical with that to which Dr. Auguste Pollosson, in 1889,[1] gave the name "anterior metatarsalgia." Only in the latter the metatarso-phalangeal joints are affected, whilst in the former the distal phalangeal joints are alone involved. In order to avoid a more cumbrous designation I have called the former affection "a form of painful toe." In either case, under the influence of prolonged standing or walking in tight boots, the ligaments of one or more joints, metatarso-phalangeal or phalangeal only, become strained, slight subluxation takes place, the nerves are stretched and pressed upon by the partially dislocated bones, and the characteristic pain is produced. The pain occurs suddenly, and with a sense of something giving way at the site of the joint affected. It is relieved by taking off the boot and gently pressing the displaced bones into proper position. The reduction is always accompanied by a sharp twinge of pain, followed by instantaneous relief. I have only met with one case of the major affection. It was that of a tramcar conductor, who suddenly developed the symptoms, and had suffered from them for three months. The pain was under the head of the third metatarsal bone, and he could relieve it by taking off his boot, flexing his toes whilst pressing gently with his finger on the site of the pain. His occupation prevented him from carrying out this treatment as often as he desired, so I directed him to wear a boot with a very broad sole, slightly convex on the upper surface, so as to support the sunken head of the third metatarsal bone, and with plenty of room across the base of all the toes. This treatment proved thoroughly satisfactory. The following are cases of the minor but similar affection—painful toe.

CASE 1.—In the autumn of 1883, after a long day on duty as hospital dresser, I walked through the wet streets to the opera. The theatre was crowded, and I had to stand throughout the performance. Towards the close I suddenly felt most severe shooting and burning pain in the fourth toe of my left foot. The boring of a hot iron into the flesh might have caused similar pain. It extended up the nerves of the outer side of the foot and leg into the sciatic, with a numbing, sickening sensation. I limped home, with dismal misgivings lest I had fallen a premature victim to gout; but on taking off my boot I discovered that the last phalanx of the fourth toe was over-extended, whilst the head of the second phalanx was slightly displaced downwards. Reduction caused a sharp twinge of pain, followed by immediate relief. From this time for many months I was constantly liable to these attacks of pain, especially in hot, damp days, after standing or walking for any length of time. I learned to reduce the dislocation and obtain relief by treading heavily on the empty part of the toe of my left boot with the heel of my right, and then forcibly drawing the left foot back within the boot, at the same time elevating the toes against the "uppers." Both the displacement and the reduction were accompanied by a distinct click. This manœuvre became necessary with more and more frequency, and the pain increased in severity until I had serious thoughts of having the toe amputated or the joint resected. At last, with the happy inspiration of Mark Twain's hero, who after twenty years' confinement opened his cell door and walked out, I discovered an equally easy means of escape. My boot, though quite comfortable when first put on, became too tight across the toes as soon as the foot became at all congested. Under this condition the last phalanges became jammed and fixed together, whilst the relaxed ligaments of the second joint of the fourth toe allowed the head of the second phalanx to drop and press painfully upon the nerves. I ordered a boot with plenty of room for lateral expansion of the toes, and I was at once freed from the attacks of pain which made my life a burden.

CASE 2.—A gentleman recently consulted me on what he believed to be a soft corn between the fourth and little toe of the right foot. On examination I could find no trace of the soft corn, but infantile paralysis had left his foot with slight talipes varus and marked pes cavus. The great toe was hyper-extended and pointed outwards at an acute angle from the metatarsal joint. The rest of the toes were crushed together in the form of a cone; the fourth toe was laterally flexed, and almost hidden beneath the third. The calf muscles were wasted, and the limb was nearly three-quarters of an inch shorter than the other. To counteract the shortening he had worn for many years an extra three-quarter-inch heel inside his boot. The sole was not similarly raised, so he was compelled to walk in a downward plane, forcing his toes together at each step into his somewhat pointed and short boot. He suffered no inconvenience from these deformities until the beginning of the year 1891, when he acquired the habit of walking on the outside of his foot, bearing especially on the outer side of the little toe, in order to avoid resting his full weight on the ball of the great toe, which was unduly prominent and tender. In July, 1891, during a long walk, he was suddenly attacked by acute pain in the little toe. The sensation, he said, was as if a hot fusee were placed between his toes, and were burning slowly outwards through the little toe. From that time until I saw him three months later, he had been constantly subject to these attacks of excruciating pain, and they had so increased in frequency and severity that he said he would have his toe amputated at once if he could not otherwise obtain speedy relief. He could wear a loose slipper with comfort, but on walking in a boot for even a few yards the pain occurred. It was not relieved by taking off the boot, but he showed me how, on gently pressing the tip of the little toe outwards, the pain instantaneously ceased, the manœuvre being accompanied by an extra sharp twinge of pain. Obviously his suffering was due to slight inward displacement of the last phalanx of his little toe, and consequent stretching and compression of the nerves between the displaced bone and the adjoining toe. The treatment in this case was not so simple as in my own, owing to the various deformities of his foot. But to make the story short, complete relief was obtained by a boot contrived on the following principles: Plenty of room was given across the toes, the little toe being especially relieved of all pressure. The outer side of the fore part of the sole was raised, and the heel lowered, so as to throw his weight from the outer to the inner side of the boot, and to prevent forcing of the toes together. A graduated depression was made beneath the ball of the great toe, in order to avoid walking on the downwardly displaced head of his first metatarsal bone.

Remarks.—These cases form additional links in the chain of evils attendant on wearing boots too tight across the toes. Patients will be probably loth to admit that a form of boot to which they have always been accustomed, and which they have regarded as both comfortable and elegant, can be the cause of their sudden attacks of pain. And the latter they will readily attribute to gout or rheumatism; for to the non-professional public, pain in a toe means gout, and pain elsewhere in a limb means rheumatism. Not only do the paroxysms of pain strongly resemble those of gout, but it is possible that the strained and unnatural position into which many force their great toes may account for the prevalence with which those parts become the primary seat of true gout.

Upper George-street, Bryanston-square, W.

[1] THE LANCET, March 2nd, 16th, and April 6th, 1889.

ACUTE OTITIS; CEREBRAL ABSCESS; OPERATION, AND DEATH.

BY W. K. HATCH, M.B.,
SURGEON-MAJOR, BOMBAY ARMY.

THE following case, terminating in cerebral abscess, was under the observation of a careful practitioner from its commencement up to its termination by death after operation. The patient, a man aged twenty-seven years, resided in rather a low-lying part of Bombay, and was in fair circumstances. Up to the present illness he had enjoyed good health. He was attacked by acute inflammation of the right

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ear on March 19th, 1890, followed a week later by similar inflammation of the left. Both drums were much congested, and severe pain, with deafness, was complained of. Ultimately rupture of both membranes took place; and when I first saw him, on April 25th, there was a large perforation in each, with considerable congestion of the drums and meatus; there was a very profuse discharge from both ears, and a good deal of deafness. By May 23rd the discharge had entirely ceased, and soon afterwards hearing on the left side became normal, but the patient continued to be very deaf in the right ear; the perforations had completely healed, and the appearance of both tympanic membranes was nearly normal; some congestion, however, remained present. Curiously enough, the patient's wife on April 27th of the same year was also attacked by acute inflammation of both ears, which ended by perforation and discharge of pus. Subsequently the discharge stopped, and hearing was perfectly restored. No further symptoms were noticed up to July 20th in the husband, he having meanwhile returned to his work in an office and being apparently in good health, although he had certainly lost flesh and colour since his illness. He now began to complain of neuralgic pains about the right half of the head, particularly in the supra-orbital region and the side of the neck. The pains continued for about ten days, and then slowly disappeared; the left side of the head was then affected in a similar manner. About the middle of August the pains on the right side reappeared, but could not be in any way localised; the neck was said to be painful but not at all tender. Tonics were given and anodyne applications to the head and neck were used; they gave temporary relief. Being suspicious of the formation of an abscess we carefully examined the patient, but nothing definite except loss of flesh could be made out. On Sept. 5th, for the first time, the pain was said to be more confined to the back of the head, somewhere about the posterior inferior angle of the right parietal bone. The paroxysms of pain came on at various times during the twenty-four hours, and were very severe in character, necessitating the frequent injection of morphia, which had a very good temporary effect; if not immediately injected the patient became wretched in the extreme, begging for the morphia, and quite unable to bear the sharp pain which he felt shooting down the neck and back of the head. On Sept. 10th we again saw the patient, and I felt convinced that there was an abscess somewhere in the brain, but could not localise it. There was and had been no fever, but the severe pain, inability of the patient to do any work, and the fact that he seemed rather stupid and slow in answering, were very suspicious symptoms. As the patient was of a sallow complexion naturally, it was difficult to say whether there was or was not any change in his appearance. The pulse was feeble and slow, and he suffered from dyspeptic symptoms, constipation, and loss of flesh. The eyes were normal. I accordingly recommended an exploratory operation, but the relatives would not hear of it. The patient continued in this state, suffering severe pain and becoming almost frantic and uncontrollable if not at once injected with morphia, so that his medical attendant was constantly being sent for both night and day. On Sept. 18th the patient became delirious and remained so until the 20th, when I again saw him, with Brigade Surgeon W. Gray, who agreed with me that immediate operation was necessary. Arrangements were completed for its performance that day, when, a little before the appointed hour, the patient became suddenly conscious and intelligent; the relatives, therefore, would not permit the operation to be performed. He now stated that he felt pain behind the right ear and tenderness on percussion over the temporal bone. The severe neck pains still, however, continued. There was no paralysis of any muscles discoverable, and the appearance of the membrana tympani was unaltered. Next day we succeeded in getting the consent of his relatives to an operation, and chloroform was administered. It was then believed that the muscles of the left arm and leg were much sooner under the influence of the anæsthetic than those of the right side, which remained rigid until there was complete anæsthesia. A small flap was then dissected up behind the right ear, and a small trephine applied an inch and a quarter above and behind the meatus; a trocar was then slowly introduced, and after it had gone into the brain about three-quarters of an inch a quantity of healthy-looking pus escaped, to the amount of an ounce and a half. A drainage-tube was put in and dressings applied, and the patient awoke free from pain. Next day he rapidly became unconscious, and died about noon. No examination was allowed. In this case acute otitis was followed by cerebral abscess very rapidly, and ended fatally within the year. No cause could be ascertained for the ear attack, either in the case of the man or his wife.

I am indebted to Mr. Shepherd, who attended him, for part of the notes in this interesting case.

Bombay.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

DEATH BY AN ELECTRIC SHOCK.

BY WALTER BUCHANAN, M.R.C.S., L.S.A.

ON March 4th I received a message to visit an accident by an electric light alternating current of 2400 volts. The patient was seen by me, as far as I could judge, about ten minutes after the accident; he then presented the following appearances. The face was livid, lips congested, pupils dilated, bloody mucus issued from both nares, his hands were almost clenched. He was lying on his back, inclined a little towards the *right side*. *Artificial respiration* was resorted to, he inspired slightly three times, and then died. In about four minutes he became quite rigid. There were no marks of violence on the body or head, but on the palm of the right hand there was a dirty mark (no doubt that of japan) about three inches by half an inch. There is no doubt now that this was fused off an iron bar, which it was proved he had in his hand, by the electric current, he having struck at the induction wire off which the insulating indiarubber was fusing. After having raised the bar to strike at the wire, he fell back with *one cry* for help. He was then carried away insensible to the place where I visited him.

Thirty-one hours after death, in conjunction with Drs. Voisey, Holroyde, and Burns, I made a post-mortem examination, and the following appearances were noted. The deceased appeared to be about the age of twenty-six; he was 5 ft. 8 in. high, and weighed about 11 st. The body was well-nourished and strongly muscular; it was cold, post-mortem rigidity well marked, no marks of violence, lividity well marked. Incision showed a quarter of an inch of fat. Abdomen looked healthy when first opened; on lifting up the great omentum the superficial intestines were slightly congested, and the deeper intestinal contents highly congested (hyperstatic). Kidneys normal in size, capsules not adherent, but deeply congested. Liver firmly and universally adherent on the upper surface, normal in size, and very deeply congested. Gall-bladder normal, containing two drachms of fluid. Urinary bladder congested, containing two ounces of fluid. Spleen firmly adherent to the posterior part by bands of adhesions, slightly enlarged, and deeply congested. Stomach contained much semi-digested food and some evidences of old inflammation. Heart normal in size, superficial veins highly congested, right auricle distended, right ventricle flaccid, left ventricle firm and solid, left auricle empty; blood liquid from one to two ounces; walls normal in thickness, no hypertrophy or dilatation; aortic and pulmonary valves slightly thickened and nodular; cordæ tendineæ normal; right auriculo-ventricular ring admits three fingers, and the left one two. Lungs: Right one firmly and universally adherent; both universally congested, the right one more than the left. Tarry blood and air issued on pressure; lungs float easily in water; entire absence of disease. Epiglottis: Larynx and trachea deeply congested, but otherwise normal; no foreign body in larynx. Brain healthy, but congested. Spinal cord healthy, but congested.

Remarks.—We particularly noticed the tarry condition of the blood, as it has been stated that this is caused by the action of the electric current on the red blood-corpuscles. The auriculo-ventricular rings were no doubt enlarged by muscular contraction. The cause of death was evidently by asphyxia. The case is interesting, as we get very limited evidence of deaths from electricity. In those occurring from lightning coroners rarely engage the services

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of medical men, and far more rarely order a post-mortem examination, taking other evidence for granted. I cannot conclude without thanking the medical men before mentioned for their valuable coöperation and assistance.

FATAL CASE OF INHALATION OF ROBURITE FUMES.

By W. A. HATTON, M.B.

IT is a strange coincidence that while a committee was investigating the probable effects of this explosive compound, of which THE LANCET of last week gave so able a summary, a fatal case should have occurred lately in the Atherton district, the leading features of which will, no doubt, be of interest on account of its very rare occurrence. The deceased, a miner, was at work on Feb. 9th, and allowing a reasonable time (eight minutes) to elapse after the firing of a roburite shot, proceeded to take down the hanging coal. Ten minutes afterwards he complained of pain in the head and faintness, though he worked till closing time. The next day, when I saw him, he was in a confused condition and complained of a good deal of dizziness and pain, chiefly above the frontal and supra-orbital region; his articulation was thick and almost unintelligible; he was, however, able to give a short account of the whole occurrence, and attributed the onset of the symptoms to the inhalation of the fumes. There were some nystagmus and indistinctness of vision, owing no doubt to the retinal congestion present. The pulse was thready and irregular, ranging from 70 to 90 in the minute; temperature 101°; there was also marked cyanosis about the lips. The respiration was good, though a little hurried, and there were no abnormal physical signs on examination of the chest, no cough or odour noticeable in the breath, neither was there anything to lead to a suspicion of any pulmonary congestion. There had been no vomiting or feeling of sickness. The knee-jerk was a little exaggerated. The cephalalgia became more intense, coma rapidly supervened, and the patient died on the third day. The post-mortem examination was made, in conjunction with Dr. R. Martin of Atherton, on the 15th; the only noticeable point on external examination was the cyanosis of the lips. On opening the skull the dura mater was adherent, and found to be inflamed; there was intense venous congestion on the brain surface, and there was some superficial encephalitis present. Punctiform ecchymoses were unusually numerous on section, and very little fluid was present in the lateral ventricles. On opening the thorax, there was no odour perceptible, as has been noticed in cases of nitro-benzine poisoning; the lungs were intensely congested, more so at the apices, though there was no sign of any inflammatory change. The remaining organs were quite healthy, and portions of lung, liver, the stomach, and a kidney were sent to Dr. Paul for especial examination, though with negative results. There was no trace of carbon monoxide in the blood, tested by the spectroscope, or of the presence of any nitro-benzine compounds. In the report drawn up by Professor Dixon and Messrs. Mounsey and Hannah in the Park-lane Colliery dispute, in relation to the probable effects of the use of roburite, the presence and smell of nitro-benzine were detected in the fumes. On the other hand, at a meeting of the Manchester Geological Society the fumes were stated to be nothing but carbon dioxide and nitrogen; and the joint commission appointed by the workers and owners of the Durham collieries declared that there was no trace of nitro-benzine found in their experiments.

Walkden.

INTER-PARTUM HOUR-GLASS CONTRACTION.

By H. MARTYN EAMES, L.R.C.P. & S.ED., L.F.P.S.GLAS.

THE following case of inter-partum hour glass contraction seems to me to be of sufficient rarity and interest to warrant its publication.

On Sunday, Jan. 31st, I was called to a young multiparous woman in labour, whom I had delivered with forceps eleven months previously. On examination I found the os uteri fully dilated, and the uterine contractions strong and regular. I therefore ruptured the membranes, which resulted in the rapid descent of the head to the perineum. After this the pains gradually, as in her last labour, became inefficient and unsatisfactory; so I applied the forceps, and her delivery was effected without any difficulty, and in about a quarter of an hour a placenta was expelled. Having discovered it to be a case of twins, I examined for the purpose of ascertaining the presentation of the other child, when I found that the liquor amnii had escaped, and the left arm was presenting. I therefore determined, if practicable, to turn and deliver without delay; but upon introducing my hand into the uterus I found the internal os uteri intensely constricted, rigidly unyielding, and tenaciously gripping the upper region of the presenting arm, rendering it impossible for me to pass even one finger beyond the barrier into the upper uterine segment. There being no special indication on the part of the mother for immediate delivery, I determined to await the effect of forty grains of chloral hydrate in two doses of half an hour's interval. On re-examination I found that the internal os had slightly relaxed, and that the funis had descended, and was being compressed by the contracted ring, the pulsation being only slightly appreciable. However, I was able to return the prolapsed cord, but fœtal turning was out of the question, as I was unable to pass more than a couple of fingers through the constriction. In the interests of the child, as indicated by the almost pulseless cord, I placed the patient deeply under chloroform for the purpose of prompt delivery, by turning if possible. Despite this the obstruction only yielded very slightly, and as I found the funis had ceased to pulsate, and there being no maternal indications for immediate delivery, I decided to leave matters alone for a while. In an hour or so I was summoned to my patient, when I found the contraction obliterated, uterine action regular and efficient, the arm obtruding from the vagina and the shoulder had descended into the pelvis. I again administered chloroform, turned and completed the delivery without any further trouble. The hand and arm of the child were deeply cyanosed, much swollen, and a deep sulcus remained on the upper arm at the point where it was gripped, thus proving the intensity and persistency of the spasm. I have referred to several authorities, who only describe cases of ante- and post-partum hour-glass contraction, and hence I presume that hour-glass contraction after the birth of the first child in cases of twins is of very rare occurrence, and it suggests itself to me that it may not be inaccurately defined as *inter*-partum hour-glass contraction.

Goole, Yorks.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. BARTHOLOMEW'S HOSPITAL.

ACUTE YELLOW ATROPHY OF LIVER; NECROPSY.

(Under the care of Sir DYCE DUCKWORTH.)

THIS case is recorded as it appears worthy of notice, first, on account of the rarity of the disease, and, secondly, because it differs in some respects from most other published cases. As in many older cases, the jaundice followed a mental shock. With the onset of coma physical signs pointed to rapid diminution in the size of the liver. This probably cannot wholly be accounted for by the shrinking of the liver, but must be partly due to some change of its position—falling away from the ribs. Instead of the urine, as was supposed usually to be the case, being not very deeply bile-stained, albuminous, and with diminution of salts and urea, the excretion in this case was exceedingly deeply bile-stained, not albuminous, and contained a fair amount of salts and urea. The urea, however, in this case was only estimated by the nitrogen method, which, like Liebig's method, is open to error. The nearly complete absence of any hæmorrhage throughout the case is noteworthy. For the account

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of this case we are indebted to Mr. F. P. Weber, house physician.

E. S——, aged forty-one, a fish-curer, was admitted into the Elizabeth ward on Oct. 23rd, 1891. History (gathered from her relatives): The patient was in her usual health up to Sept. 26th, 1891. On that date she is said to have received a great mental shock from seeing her youngest child nearly run over in the street. On the following day the patient vomited several times, and jaundice commenced. She did not complain of any abdominal pain at this time or just before. The yellow colour of the skin has gradually deepened since then, and vomiting has continued on and off. Menstruation was regular up to the commencement of the jaundice. Since then she has "lost blood" on and off. No epistaxis or hæmatemesis. During the last fourteen days she has complained much of pain in the left hypochondriac region. She is said to have been "queer in her head" for the last three days, constantly yawning, confused in her ideas, asking funny questions, and doing apparently purposeless things. There was negative history as regards the possibility of phosphorus poisoning. The patient is said to have been always temperate in alcoholic drink, and to have enjoyed good health usually. Never any mental illness. Never jaundice before. There was no history of syphilis. One of her sisters is insane.

On admission the patient was very drowsy, and lay quietly in her bed. At very short intervals she yawned with considerable noise. She sometimes answered questions addressed to her correctly, but often repeated answers to a former question several times, apparently not knowing that a new question had been asked. Temperature subnormal. Respiration natural; pulse rather infrequent. She was exceedingly deeply and brightly jaundiced, the greenish-yellow colour of the skin contrasting strikingly with the flushed and dilated veins on her cheeks. Tongue clean. Pupils equal; ophthalmoscopic appearance of eyes natural. No discharge from the ears. Nothing abnormal was found in the heart or the lungs. The liver dulness commenced at the sixth rib; the edge was felt just above the level of the umbilicus in the nipple line. Spleen not felt; no tenderness to pressure. Very slight lumbar œdema. The upper limbs are moved naturally; no rigidity. Lower extremities were rigidly crossed. Knee-jerks excessive; much ankle clonus on both sides.

Oct. 24th.—Mental condition much worse; will not answer questions. Constantly giving noisy yawns. Seems to see nothing. Recurrent utterances of "Oh, my!" "Oh, dear!" "Oh, my!" "Oh, dear!" at short intervals, with yawns interspersed. Pulse 72; regular, rather excessive tension. Eyelids drooping. Edge of liver not felt. Can draw up the legs. Bowels confined. Urine passed unconsciously, about a pint in the night; sp. gr. 1012; no albumen or sugar; fairly dark with bile pigments.

25th.—Very little sleep last night, in spite of the hypodermic injection of $\frac{1}{15}$ grain of the hydriodide of hyoscin. This morning she is in a deep sleep, a semi-comatose condition, and has to be fed by nasal tube; liver edge not felt; lower limbs not so rigid; knee-jerks excessive, and marked ankle-clonus as before; no plantar reflex; sensation very dulled; the patient just feels the prick of a pin. Urine: sp. gr. 1012, neutral, deeply coloured with bile pigment; no albumen; under the microscope crystals of tyrosin are seen and deeply bile-stained bodies (?leucin); urea estimated 1·6 per cent. The tyrosin crystals increased in number on letting the urine stand till next day. Bowels not opened by two calomel and colocynth pills; small hard white scybala came away after a soap enema.

26th.—At 12.45 A.M. deep coma; respiration 60; pulse 120, very great tension; temperature rising. Eyes: nothing abnormal seen by ophthalmoscope. Liver: no dulness in back or axillary region; one inch and a half of liver dulness in front in the right nipple line from the sixth rib downwards; urine passed into bed, but eight ounces saved. The respiration gradually became shallower, and the patient died at 5.50 A.M.

The temperature was below 98° until the evening of Oct. 25th.

25th Oct., 11 P.M., 100·6°.	26th Oct., 3 A.M., 101·0°.
26th ,, 1 A.M., 100·4°.	,, ,, 4 A.M., 102·0°.
,, ,, 2 A.M., 100·6°.	,, ,, 5 A.M., 102·6°.

Examination of the last eight ounces of urine: It was dark-brown coloured, turbid, the turbidity slightly clearing upon boiling; alkaline; not a trace of albumen. Chlorides, sulphates, and phosphates, about the natural amount. Urea, 1·5 per cent. Two ounces concentrated failed to show leucin; a similar amount concentrated failed to show tyrosin. Examination by microscope of the sediment: It seemed to consist of amorphous phosphates and of "rods" and "crossed-stick" crystals of phosphate of lime. No crystals like tyrosin were seen, even on carefully neutralising the urine and saving it up. The treatment consisted in feeding the patient when she refused food, and relieving the constipation. The presence of tyrosin crystals in the urine decided the diagnosis.

The post-mortem examination was made on Oct. 27th, thirty-one hours after death. Examination of the head and neck was not permitted. Considerable subcutaneous fat; rigor mortis in legs, not in arms; brightly jaundiced; no eruption; congestion of dependent parts; lungs emphysematous, congestion of dependent portions; heart flabby, no valvular disease; some atheroma of aorta and vessels. Abdomen: Liver, weight twenty-eight ounces, completely hidden under the ribs, adhesion to hepatic flexure of colon; the gall-bladder contained some thin yellowish fluid, which could be pressed out through the papilla of the duct. Liver is uniformly small, with soft wrinkled capsule; easily indented by a small stream of water from the tap. The liver substance is everywhere mottled, tracts of a yellowish colour being interspersed amongst tracts of a deep reddish tissue. By microscope: Liver cells were quite broken up in most parts; at other spots they were still to be recognised, though looking shrivelled and angular; around the portal vessels everywhere was a dense infiltration of small round cells; no crystals could be seen in freshly cut sections. The spleen weighed five ounces, soft and decomposing. Pancreas soft. Lymphatics and suprarenals natural. Kidneys natural size; capsule separated easily; cortex a little thin in places. Under the microscope there appeared to be a little increase in the interstitial fibrous substance.

CHISLEHURST, SIDCUP, AND CRAY VALLEY COTTAGE HOSPITAL.

COMPLETE EXCISION OF THE RIGHT ELBOW-JOINT TWICE WITHIN SEVEN MONTHS; RESULT.

(Under the care of Mr. GEO. WM. DAVIS.)

THE points of especial interest in this case are—(1) The absence of pus in conjunction with well-marked caries; (2) symptoms simulating the onset of tubercular meningitis; and (3) the fact of there being but one inch of shortening after the removal of three inches from the continuity of the bones of the limb.

H. M——, aged nine, first came under notice on April 10th, 1891, and was admitted into the hospital on the 16th. The patient, a clever, pleasant-looking lad, markedly emaciated about the body, but showing no signs of disease save in the right elbow-joint, which had been flexed for two years, with loss of all movement and disused on account of pain. No family history of tubercle. On admission the right arm was markedly atrophied; the right elbow, half an inch larger than its fellow, was wanting in distinctive shape and felt relatively hot; of the landmarks about the joint only the condyles could be defined; pressure over the coronoid process caused pain.

From April 16th to May 12th every local treatment was resorted to which it was thought might improve the condition, with cod-liver oil as medicine. No improvement having taken place, it was resolved to excise the joint. On May 13th, assisted by other of the medical officers of the hospital, Mr. Davis performed the operation as follows:—The patient being under chloroform, the usual single incision over the back of the elbow was made, and the inner and outer flaps carefully dissected up by short strokes of the knife, the cutting edge being continually towards the bone; the extreme softness of the olecranon process caused some difficulty. The flaps being cleared from the condyles the olecranon process was removed by an oblique saw cut. The joint was now easily opened, and much diseased synovial membrane was removed by scraping and dissection, as were also pulpy granulations filling the olecranon fossa. The forearm now being flexed to its fullest extent, it was possible to force the head of the radius and extremity of ulna through the incision. One-eighth of an inch was sawn from the articular surface of the ulna, the cartilage had disappeared, and the surface was

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hard and roughened beneath the section; the bone appeared healthy and resistant. The head of the radius was now removed for a quarter of an inch, leaving the orbicular ligament intact. On the under surface of the section removed an elliptical yellow patch was observed, suggestive of tubercle; beneath this patch in the shaft of the radius was a cavity of tubular form, a quarter of an inch wide and three-quarters of an inch long, extending towards the tubercle of the radius. The cavity was bounded by hard bone, and contained matter which resembled broken-down sequestrum, but nothing suggestive of pus. This cavity was carefully scraped. The articular cartilage of the humerus was eroded, so the end of the bone was removed up to the condyles, half an inch externally and three-quarters of an inch internally. The whole of the surfaces exposed by the operation were then irrigated by means of a syphon douche, the fluid used being half an ounce of carbolic acid, half an ounce of tincture of iodine, and two ounces of glycerine to one quart of water at 105° F. A drainage-tube was inserted and the incision brought together by eight sutures. The arm was then fixed on an interrupted splint in an almost extended position and dressed with iodoform, protective pine-wool bags, jaconet, and carbolic gauze bandages. The operation had taken two hours and a half. The after-progress of the case was highly satisfactory so far as recovery from the operation was concerned. The patient was out of doors on May 31st. The first passive movements were commenced on June 1st, but were at this time and every other attended with pain. On June 20th the patient was sent to St. Leonards for three weeks. On his return on Aug. 11th no marked improvement had occurred; the condition was almost identical with that before the operation. On Aug. 19th an attempt was made to improve the movement under chloroform.

From Aug. 23rd to Sept. 30th alarming symptoms developed. Unaccountable vomiting, the temperature became intermittent (from Sept. 2nd to the 15th it never fell below 100 F., and on two occasions reached 102°), night screaming, constipation, retention of urine, sweating of the head, and nystagmus were noted. The eyes were examined by direct method, and revealed signs representing optic neuritis. The right elbow had improved in contour, and was free from pain. On Oct. 25th Mr. J. B. Lawford kindly saw the patient, and reported: "Oct. 25th, 1891: Eyes examined ophthalmoscopically: pupils atropised; refraction hypermetropic, about 2 D; exact measurement not recorded; media clear. Optic disc in each eye hyperæmic; margins blurred, and showing radial striation (visible nerve-fibre bundles); vessels at the upper and lower edges partially obscured; no measurable swelling; no hæmorrhage or exudation; vessels not kinked. These appearances most marked in the left eye. The vision was not tested, but was said to be good. The appearances were thought to be due to the hypermetropic refraction, and not indicative of neuritis from intracranial mischief." In confirmation of the above favourable opinion of Mr. Lawford, the boy was found to be gaining weight. On Sept. 4th he weighed 43 lb., and this gradually increased until on Oct. 24th, when he weighed 49 lb. A second operation was therefore contemplated, and on Nov. 23rd, 1891, the right elbow was re-excised, Dr. Battiscombe again giving his assistance. All the stages of the operation were conducted as on the first occasion, but the incision was internal to that of May 13th. The bones removed in this operation were the end of the humerus, part of the ulna and of the radius. There was no definite disease observable; the bones were rough and coated by what had the appearance of organised inflammatory exudation; there was a firm fibrous band uniting the radius and ulna, and the head of the radius was filled with fibrous material. The extent of bone removed was nearly one inch from the humerus, three-quarters of an inch from the radius, and one inch from the ulna. The dressing of the limb was the same as on the previous occasion. There was so much oozing after the operation as to necessitate a fresh dressing; perhaps this may have been due to the bloodless method of operating. The arm was redressed on Dec. 1st, 4th, and 7th. The temperature never rose beyond 99°. On Dec. 16th, the incision being united and firm, the splint was removed, and passive motion to a considerable extent was practised without causing any pain. Passive motion and massage were practised for twenty minutes twice each day until Jan. 20th, 1892, when there were then some pain and stiffness, but these completely disappeared after one week's complete rest of the arm in a sling. At the date of this report—that is, eleven weeks after the operation—the boy can touch his right ear with his right little finger; he can put his hand to his mouth, he can hang from a horizontal bar, can take coal from a scuttle by means of a shovel and place the coal on the fire, an exercise which requires some strength and variety of movement on the part of the arm used.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Adjourned Debate on Phagocytosis and Immunity.

AN ordinary meeting of this Society was held on March 15th, the President, Sir George Humphry, in the chair.

The discussion on Phagocytosis and Immunity was resumed by Dr. RUFFER, who said that he accepted Metchnikoff's view in its entirety. Not one-half of those who had spoken had defined what they meant by immunity. It meant freedom or exemption, and in its absolute sense it was almost an impossibility; for there was no animal naturally protected, or artificially so, that could not be killed by micro-organisms if a sufficient number were introduced. "Resistant" was a word he preferred as better than immune. Metchnikoff had been accused of saying that the destruction of micro-organisms was effected entirely by amœboid cells, but he had never gone so far as that. Dr. Woodhead had already stated what we knew for certain of the origin of amœboid cells; he himself had not stated that all amœboid cells were derived from leucocytes, but he had simply asserted that he had seen such a thing happen. In some of the invertebrates the actual process of development could be watched. As for the ingestion of the micro-organisms by the cells, all that was needed was a lens, a little frog's lymph, and some anthrax bacilli, and the process could then be easily watched. Dr. Klein had laid especial stress on the fact that the process was sometimes reversed, and he instanced leprosy and tubercle as examples of it; but even in these cases the destruction of bacilli was always more marked than the destruction of cells. His experiment of injecting bacilli into the lymph sac of a frog was a fallacious one, for far too great a quantity was introduced, and though the leucocytes of a frog might comfortably be able to destroy as many bacilli as would kill a mouse, yet they could not annihilate as many as would kill an elephant. Dr. Walker and he had injected into adult guinea-pigs a small quantity of a pure cultivation of bacillus pyocyaneus, and the destruction of the micro-organisms introduced was so well performed by the amœboid cells that not a single bacillus penetrated into the viscera of the animal. But if at the time of the injection of the organisms into the guinea-pig a small quantity of chloral was injected into the other side, the leucocytes would be paralysed, and the animal would die with all its organs absolutely crammed with bacilli. There was no evidence to show that the fluids of animals which had been chloralised were better or worse cultivating media than those of animals which had not been chloralised. The poison of the micro-organisms might cause the attraction of the amœboid cells, while under other conditions the poison might repel the leucocytes. If a small piece of sponge soaked in pure turpentine were placed under the skin of a frog, after a time no leucocytes would be found accumulated round it; but if the sponge were soaked with turpentine diluted with olive oil, in a short time it would be found to be crammed with leucocytes; it was evident from this that turpentine would act differently according to its state of concentration. He then proceeded to criticise Dr. Klein's rival theory that the bacilli were attracted by the cells. The argument that the bacilli were found in the cells simply because they preferred to go there was, he thought, absurd. If a lamb were found inside a dead lion it did not follow from that that the lamb of its own choice took refuge there. While he admitted the excellence of the work done by Buchner, he could not agree with that worker that the fluids of a living animal played any part in killing bacilli, and he proceeded to quote much evidence against this view. It was a most remarkable fact that if the serum of an animal was found to possess the power of killing any germ, yet that same microbe, if injected into the living tissues of that animal,

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would flourish and multiply. Indeed, the only exception he knew to this was the white rat, which was not only resistant against anthrax, but its serum was also bactericidal to that microbe. He thought it could be laid down as a general rule that there was no relation between the bactericidal power of serum and the resistance of the animal to the micro-organism. It had been recently demonstrated that the serum of animals protected against the pneumococcus was a far better cultivating medium for that organism than was the serum of similar animals not so protected. It was easy to understand why micro-organisms became more virulent when passed through resistant animals, for in them a process of elimination took place, the weaker germs being killed, and only the more hardy of the race surviving; there was no evidence, however, to show that the fluids of a living resistant animal took any share in this attenuation of the virus. In conclusion, he said that he believed the only process essential to resistance or so-called immunity was the power the cells possessed of taking into their interior and destroying micro-organisms, though Metchnikoff and his pupils had never said that this was the only cause of increased resistance.

Mr. BALLANCE said that the question of immunity had an especial and weighty interest for surgeons, whose daily occupation was the making of wounds, which, if they were not rendered immune against the attacks of micro-organisms, might seriously imperil life. This immunity was attained as the direct outcome of the actions of the living cells and fluids in the neighbourhood of the wound. The surgeon could only aid the natural processes by employing means calculated either to prevent the entrance of, or to destroy, or to inhibit the action of, those deleterious things which could thwart the struggle of the injured tissues towards the attainment of immunity. The healing of the body against the more generalised specific diseases was comparable with the processes employed by nature in the healing of wounds. The presence of pathogenic micro-organisms or their poisons in the body constituted, in one sense, really nothing more than the presence of a foreign body, which it was the function of the natural processes to get rid of. The observation, then, of the manner in which nature could absorb and remove foreign material in wounds would to some extent aid us in the study of similar processes when engaged in warfare against disease. He had been assisted by Professor Sherrington in studying the question of repair, and they introduced small Ziegler chambers into the subcutaneous tissue and peritoneal cavity of certain animals. In the chambers, in the tissue around the chambers, as well as in the normal tissue-plasma and normal peritoneal moisture, they found two distinct kinds of cells. The one kind resembled in all respects the leucocyte; the second kind was much larger, and possessed a large oval vesicular nucleus, which stained faintly, and the protoplasm of the cell body was markedly granular. Both these kinds of cells migrated into the chambers, but there was a definite sequence of events—the leucocytes commencing to enter the chamber shortly after it was implanted in the body, whilst the larger corpuscles (which sections of the inflamed tissue around showed to be the daughter cells of the surrounding connective-tissue corpuscles) did not commence to invade the chamber until some eighteen hours had passed. Briefly, the subsequent events observed were a loss of vitality of the small kind of cell and its inclusion in the vacuole of the larger kind. The larger kind, when all available food in the shape of fibrin and blood-corpuscle had disappeared, commenced to lengthen out and spin fibrous tissue. The less nutritious the more inert the foreign body, the sooner did the amœboid tissue cells become fixed. They were greatly assisted in the interpretation of the appearances seen in the osmic fixed preparations by the processes described by Miss Greenwood in the Phizopoda. Just as in her interesting observations little monads coexisting in the same water as amœba proteus were by it ingested, so the leucocyte became the prey of the amœboid connective-tissue cell. In the chambers we observed giant cells formed by the fusion of connective-tissue cells, or by nuclear multiplication without actual separance of the daughter cells from the parent. These giant cell formsseemed especially to be present when the substance to be absorbed was more resistant than usual. We arrived, then, in this way, at the conclusion that the invading leucocyte had only a temporary purpose to fulfil in the healing of a wound. The rush of leucocytes which occurred towards a spot invaded by micro-organisms might be thought of as useful in various ways:—(1) Though of feeble vitality, they might be able to digest and destroy certain of the foreign organisms; (2) by the death of others a ferment might be set free, which might diminish the vitality of some of the bacteria, and thus caused them to be an easier prey of other cells; and (3) abundance of food (in the shape of leucocytes) for the after-coming connective-tissue corpuscles would be associated with the attainment by them of the highest degree of vigour and vitality. All the main work, then, in wounds, not only with regard to repair, but with reference to the removal of foreign bodies, such as clot, ligatures, micro-organisms, &c., fell upon the connective-tissue cell. Their observations gave no countenance to the old Cohnheim doctrine of the development of leucocytes into connective-tissue cells. The legitimate succession of cells was now a well-established law in pathology, as well as in embryology, and, according to this, tissue was never produced by substitution of function. No positive proof had yet been furnished that the elements of the blood took any active part in the restoration of lost parts. It did not appear reasonable or logical that such an indifferent cell as the leucocyte should ever become transformed directly into a fixed tissue cell, and it was still more improbable that it should be possessed with such a diverse vegetative capacity as to undergo a transition in one place into a connective-tissue cell, in another into bone, and still another into muscular fibre. And if leucocytes in the healing of wounds had a subordinate function to fulfil, it was probable that they had a subordinate place in the fight against disease and in the attainment of a state of either natural or acquired immunity. In the formation of an abscess it was not the leucocytosis to the part which arrested the disease, but the wall of connective tissue formed around the infected spot by the aftercoming connective-tissue corpuscles. The speaker then discussed the question of the action tissue cells had upon substances outside themselves, and gave his reasons for believing that these cells furnished to the body fluids their bactericidal power. The death of leucocytes, which was always occurring, might be thought of as setting free into the body-fluids fibrin ferment, and fibrin ferment (if it existed) must be closely allied to Hankin's anti-toxic substance and Wooldridge's tissue fibrinogen. Clearly, whatever was in the fluids of the body must come from the cells. The normal physiological activity of the cells of the body might thus possibly explain the defensive action of the healthy tissues and fluids against bacterial infection. This clearly existed, for to produce disease a definite dose of micro-organisms must be administered. The normal quantity of anti-toxic substance present during any given period might perhaps correspond to the anti-toxic substance present in the food vacuoles *plus* the quantity secreted from the surface of the cells into the surrounding fluid. If, on the other hand, it were proved that living serum and plasma were not bactericidal, it followed that the anti-toxic substance was a weapon only used under conditions of irritation or emergency by the cell. It might be that an increase in the normal physiological activity of the cells, acquired as a habit, might explain, to some extent at least, some of the varieties of immunity. In conclusion, he desired to express the opinion that, however beautiful the researches might be that were conducted by the aid of the microscope alone in revealing more of the activity and life of cells, yet that in this way we should not progress far on the road towards a true knowledge of the intimate pathology of immunity. The problem of immunity was essentially a chemical one, and its solution must be sought in the laboratory of the chemist.

Dr. E. H. HANKIN said that all previous speakers had taken one or other of the two sides of the question under discussion, but he believed that it was perfectly possible to take a middle course and combine the two opposite theories. There was a good deal of evidence to support the view that if an animal was naturally susceptible, very little phagocytosis occurred, and *vice versâ;* and on the other hand there was a certain amount of evidence that, after immunity had been acquired, the fluids of the body possessed bactericidal power. It was a pity that those who belonged to the school of solidists seemed to imagine that every additional piece of evidence bearing out the truth of the theory of phagocytes was of necessity evidence against the humoral theory, and similar reasoning had been adopted by those of the opposite camp. It appeared to him that the phagocyte theory was much like that put forward to explain the power of the magnet, and like it, though it was not the

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ultimate explanation, and did not contain the whole truth, had yet been of service, and had led to good results. He desired to discuss in a somewhat polemical way certain criticisms which had been made against his work. It had been asked if there was any evidence that elexin was a definite chemical body, or was it only a hypothetical body supposed to exist in fluids possessing bactericidal powers? He reminded them that elexins were probably proteids, and, like most proteids, were excessively difficult to obtain in a pure state. Many observers had shown that blood serum possessed a certain power of killing bacteria, and that this substance existed in small quantity, and was probably allied to the fibrin ferment. Some time later Halliburton isolated a body which he called cell globulin β, and which he thought was identical with fibrin ferment. By putting two and two together the speaker came to the conclusion that the proteid of Halliburton was the bacteria killer, and he did his best to obtain this body in a state of purity. Dr. Wright had suggested that these elexins were identical with the tissue-fibrinogen of Wooldridge; but there was much evidence to produce against this view. They had, for instance, exactly opposite effects as to clotting, and he was prepared to give many other reasons as to his belief in the non-identity of these two bodies. He then dealt at length with the criticisms of his work by the French investigators; they had repeated some of his experiments and obtained different results, but they had not used cultivations of the same virulence as his own. They regarded the death of the micro-organism not as due to its being poisoned by the chemical substances contained in the fluid, but rather to a change of the media. This he considered as tantamount to saying that if a man died of poisoning by arsenic he had succumbed to a change of diet. A baby rat's blood had no power of delaying disease or of preventing it; but yet it had just as great a power of attracting leucocytes to the seat of inoculation as that of an adult rat; this was because the blood of the latter contained a fluid of bactericidal power which was lacking in the former.

Dr. SIMS WOODHEAD, in reply, drew attention to the word "immunity," which was used in two different senses in clinical and experimental work. A patient was only exposed to the ordinary chances of infection as usually understood, whereas an animal in the hands of the experimenter was subject to very different conditions, as, for instance, when injected with an organism of specially virulent character. It was well known that under suitable conditions an organism might become much more virulent than usual. In the case of the tubercle bacillus, if it were injected into the peritoneal cavity of an animal, which was ordinarily insusceptible to the bacillus, tuberculosis could be produced with great certainty. He thought that specificity was to a great extent a question of phagocytosis; that, if an animal was immune, it was due to its phagocytic power. Professor Klein's case of injecting innumerable anthrax bacilli into the lymph-sac of a frog had no analogy, and, as Metchnikoff had stated, the phagocytic power of the leucocytes might in certain individuals be imperfectly developed. With regard to the main question, all the positive evidence was in favour of phagocytosis so far as the earlier stages of infective diseases were concerned, and it was the only theory on which both the experimental and clinical evidence could be explained. There was no real evidence for the humoral theory, and such would always be difficult to get. Results obtained with serum, which was a product of dead blood, could not be assumed to hold good for living blood. He quoted some experiments of Pflüger's, in which, after injection of peroxide of hydrogen into the blood of a living rabbit, no effect was produced so long as no blood escaped; but, if a single drop exuded, an evolution of gas occurred, not only in that drop, but throughout the blood of the animal. Again, freshly drawn pus had bactericidal properties which disappeared after the pus had stood for some time. These experiments showed how delicate was the substance with which we were dealing. Klein's fluid, obtained by dialysis through collodion from the lymph-sac of a frog, ought not to be considered as exactly the same as the lymph from which it was drawn; yet results obtained with this fluid were taken as holding good for the fluids of the living animal so far as its bactericidal powers were concerned. He could not agree with Klein's statement, that bacilli got into the leucocytes to avoid the bactericidal blood-plasma, for many of them were non-motile, and could not possibly push their way into the leucocytes. If a paralysed lamb disappeared in the neighbourhood of a lion, it would be only fair to accuse the latter of some active part in the transaction. He firmly believed that the discussion, if it had not brought to light much new truth, would yet open up many new paths for investigation.

Sir GEORGE HUMPHRY, having thanked those who had contributed to the discussion, congratulated England on its rising school of bacteriologists, who had accomplished so much, though having great disadvantages to contend against, owing to the false sentimentalism and prejudices against the true interests of humanity which existed in this country. Though he expressed himself as unable to sum up at all adequately the points of the discussion, yet he desired to offer the impressions the remarks of the speakers had made on his own mind. Zymotic diseases were dependent upon the introduction of micro organisms into the system, and these microbes possessed the power of rapid propagation, and exerted a pernicious effect upon the organs of the body. They produced, moreover, certain excreta or toxines, which, even more than the microbes themselves, were prejudicial. The microbes and their toxines could not be dissociated; they both came into contact with the cells of the body, and with the body fluids. These body cells were undergoing continual change—change essential to their vitality, absorbing, modifying the material absorbed, and returning what was excreted into the fluids around. All body cells were phagocytes; that was an essential feature of their existence. But they were promiscuous feeders, and would take up other things besides those normally supplied from the blood—they would absorb foreign matters—they would certainly absorb bacteria. Speaking technically they were phagocytic as regarded the bacteria with which they came in contact, and there was abundant microscopical evidence of this, that they could exercise a solvent or destructive influence upon them. By far the majority maintained that the cells were an important element in the destruction of bacteria. Professor Burdon-Sanderson had found it difficult to conceive that there could be any special function in cells by which they could exert this malignant influence upon bacteria. But it was not necessary to assume that they were specially bactericidal; they were only phagocytic to bacteria by virtue of their general phagocytic qualities; it was a part of their general natural function, and not a special endowment. There was evidence that certain poisonous elements introduced into the blood did tend to attract leucocytes into their neighbourhood. In some cases the cells, so attracted, overpowered and destroyed the bacilli; while in other cases they failed to do so, and the microbes spread over the system. In such instances cells might be found packed with microbes, the latter afflicting the former with such an indigestion as to cause their death. On the whole, the general result of the discussion seemed to be in favour of the phagocytic action of leucocytes and other cells upon bacteria. A much more difficult question was the effect of the body fluids upon the bacilli and their toxines. In considering that we passed out of the range of ocular inspection and almost beyond the range of chemical examination, we had to deal with fluids of very peculiar composition and very great instability. It was found that the fluid serum in the test-tube might be fatal to a micro-organism, and yet inject that microbe into an animal from which the serum was obtained, and it would flourish there; this showed with what delicate materials one had to deal. In this part of the discussion it seemed to him that the probability was in favour of the humoralistic view. But the fluids and the solids of the body interacted so intimately each upon the other that there could be no such thing as solidism and humoralism separately. Anything that could affect the blood serum must also produce an effect upon the cells and the bacteria in it. The toxine of the bacteria diffused throughout the blood serum must exert some pernicious effect upon that serum as well as on the cells, and the serum so altered might finally react on the bacteria, and we must not assume that there was no effect because we could not demonstrate it. All the results he had spoken of so far had been obtained by experiment upon animals, but Dr. Bristowe had thrown some practical light upon the subject. He had remarked especially upon the resistance offered to the entrance of bacteria to the body, and referred to the probability that they became altered in their passage. When we considered the utterly inappreciable evidences there were to account for the degree of immunity possessed by different persons, we should not be surprised that it was surpassingly difficult to trace out the causes of immunity in different

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animals. He regarded it as almost hopeless to form an idea of the essential nature of the change which produced immunity from small-pox by vaccination. He regretted that the point of exhaustion had been rather summarily excluded from the debate. The manner in which a disease attacked one part, ceased there, and passed to another was difficult to explain on any view, phagocytic or other. The migration area in the course of a common cold was an instance in point. He referred to the phenomena of scarlatina, its incubation, its sudden accession, the sequence of phenomena to quiet subsidence, and, if not fatal, the immunity of the subject for a period. How was this explained by phagocytosis or any other theory? To what influence did the microbes succumb after having obtained a maximum of power? Was it because of some poison which they themselves engendered, or because they had exhausted the pabulum upon which they existed? It was difficult to explain the course of certain diseases of the skin by any theory of phagocytosis. We might rest assured that the interest in this subject had not yet passed away, for many of these problems were still invested with uncertainty, and that uncertainty was an invitation to work yet to be done.

The following card specimens were shown:—

Mr. J. J. CLARKE: (1) Cystic Mamma; (2) Colloid Carcinoma.

Dr. H. D. ROLLESTON: (1) Large Sebaceous Cyst in Brain; (2) Vermiform Appendix and Enterolith.

MEDICAL SOCIETY OF LONDON.

The Treatment of Diabetes.

AN ordinary meeting of this Society was held on March 14th, Dr. Allchin, Vice-President, in the chair.

The customary votes of thanks were unanimously accorded to the retiring president and to the officers and members of the council.

Dr. RALFE read a communication on certain questions in the Treatment of Diabetes. He said that the points which he wished to submit for consideration were—(1) in cases of confirmed diabetes running a protracted course: might any relaxation from the usual dietetic restriction be permitted? (2) in such cases at what period of the disease should opium or its derivatives be commenced, and how far might the drug be pushed? The first question might be considered superfluous were it not that of late certain relaxations had been introduced, chiefly by continental physicians, proposed partly with a view of improving general nutrition, and also to prevent the dangers arising from the accumulation of morbid products, the result of a purely proteid dietary. Dr. Ralfe divided these cases of confirmed diabetes into two classes: 1. *Alimentary*, in which the sugar was at first entirely removable by dietetic restrictions, and was probably entirely hepatic in origin, but in which, after a time, the glycosuria failed to be entirely removed by restricted diet, and a portion of sugar remained non-removable. 2. *General*, in which, from the onset, only a portion of the sugar was reduced by diet, the remainder being non-removable by any amount of restriction. This form of diabetes had usually a neurogenic origin, and was also observable in the so-called cases of pancreatic diabetes. With regard to the origin of this non-removable sugar, it did not proceed, the author thought, entirely from the metabolism of the proteid elements of the food, as had been taught, but from the transformation of the glycogen held in the other tissues and organs of the body beside that of the liver, either by a general lowering of the power of sugar assimilation in the body by the continued passage of sugar into the circulation, or, as some had recently thought, owing to the loss of a sugar-destroying ferment in the blood—glycolytic, normally furnished by the pancreas and other glands. Dr. Ralfe then proceeded to state that observations he had made led him conclusively to the result that in purely *alimentary* diabetes any addition, however slight, of starchy or saccharine food to the diet still further lowered the assimilative processes in the liver, and caused an exacerbation with respect to the amount of sugar excreted, whilst in the *general* form any relaxation of diet led to an increase in the "non-removable" sugar, showing that the disease was assuming a more serious form. In one case in which on strict diet the proportion of removable sugar was as 5 to 1 non-removable, it became after a short resumption of mixed diet only 1 to 1·6. Having shown that a relaxation in diet always aggravated the disease, the author went on to prove that the relaxations proposed were insufficient to combat any theoretical dangers resulting from a proteid diet. The modicum of bread, milk, mashed potatoes, and sub-acid fruits proposed were insufficient in themselves to restore the balance, whilst they contained sufficient sugar to materially injure the patient. Instead of such relaxations Dr. Ralfe was in favour of lowering the amount of proteid taken, of which he showed the diabetic often takes too much, and of increasing the green vegetable food, which is frequently much neglected. Massage, too, also powerfully aided the assimilation of the proteid food. With respect to the second question, Dr. Ralfe remarked that there were no rules regarding the administration of opium and its derivatives, some giving it early, some late, some not at all. Nor was the character of the opiate best suited for administration yet finally decided on; for whilst Dr. Pavy advocated codeine, Dr. Mitchell Bruce had recently put in a claim for morphine. Nor was there any reliable information as to how far the drug might be pushed. The author endeavoured to answer these questions by the light of his own observations, and was of opinion that opium and its derivatives should not be administered so long as the glycosuria could be entirely controlled by diet; but as soon as the sugar was not entirely removable by the strictest of diets, then opium should be commenced, and might be safely increased as long as the excretion of sugar continued to fall under its administration. The signal for stopping any further increase of the drug was when no further fall took place, when an increase was made, or when an actual rise took place in spite of it. Dr. Ralfe also made some remarks regarding the individual preferences of some patients for special preparations of the drug, the greater tolerance of some than others for it, and the best time, as regards food, for its administration.

Dr. PAVY, having congratulated the author on the excellence of his paper, said that the views put forward did not exactly correspond with his own. He would lay more stress upon dietetic measures than Dr. Ralfe appeared to do. He regarded diabetes as essentially the faulty assimilation of the carbo-hydrate elements of food. The fact should not be lost sight of that glycogen and sugar were universal constituents of the body. Carbo-hydrate material might be locked up in proteid compounds, such as the glucosides. Mucin, which existed extensively throughout the body, had comparatively recently been demonstrated to be a glucoside, a complex proteid molecule consisting of a simpler proteid in combination with a carbo-hydrate. As he looked upon all diabetes as being due to defective assimilation of carbo-hydrate matter, he could not follow the author's classification. The statement often made, that the liver was more saccharine than other organs of the body, was not true; nor was it true that the portal vein contained less sugar than the hepatic vein. He had performed a great number of experiments with a view to determine this point, and in all instances he found that the portal vein contained much more sugar than did any other vein in the system, and therefore, if blood of the same quality as the portal blood circulated through the body generally, it would certainly invariably give rise to diabetes. The amount of sugar found in the urine was always proportionate to the amount of sugar at the time in the blood. A trace of sugar could always be found existing in normal urine, which corresponded precisely with the amount found existing in the general circulation. A deviation in the amount of sugar in the urine would indicate a deviation of the blood in this respect from its natural state, and in proportion to its deviation from this natural state would be the impairment of the health of the patient. If his views were correct, it followed that the first object in treatment should be to bring back the blood to its natural state. In some cases there was actually a return of assimilative power, but this would never come about if the urine were permitted to contain much sugar. His habit with those patients whose assimilative power was gradually being restored was to give them some carbo-hydrate, at first in very small quantities, and then gradually increase it, taking the urine as a guide, and keeping it free from sugar. The kind of carbo-hydrate material administered was perhaps not of much moment, but it should be remembered that substances like cane sugar were more irritating than the starches. Given a patient under diet in whom the assimi-

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lative power was being restored, a safe indication of this was to be found in the fact that when the restoration was beginning the patient would commence to lose weight, though previously, under the same regimen, he had been gaining weight. In the case of people beyond middle life, where the assimilative power was not restored, they would keep on a restricted diet for years and not lose weight.

Dr. LAUDER BRUNTON was glad to hear that Dr. Pavy believed there was a certain percentage of sugar in ordinary healthy urine. For his own purposes he had divided these cases into the true diabetics and the gouty glycosurics; the former were usually thin, nervous people, and in them the disease began early in life and ran a rapidly fatal course. In the second category the patients were usually of middle age, full habit, robust frame, and red face. The disease usually yielded readily to diet and exercise, and when the sugar went from the urine it was generally replaced by oxalates or uric acid. He referred to the case of a lady aged eighty-five who for thirty years had passed a quantity of sugar in her urine, but she was still healthy and strong. Though there were these two distinct classes, yet he had often met with mixed cases. In the second variety he had found the administration of salicylate of soda of more benefit than that of opium. He referred to an article which he wrote many years ago in Reynolds's System of Medicine, in which he rather threw cold water on the skim-milk treatment of diabetes. He desired now to correct that criticism, and to state that he had found this treatment very useful, especially in cases in which the glycosuria was combined with albuminuria; in such instances it gave sometimes very good results indeed. He advocated, as an article of diet useful to diabetic patients, the *pommes de terre frites*, as cooked in France. They were not really fried, but the potatoes were cut in very thin slices, thrown into boiling oil, which browned them at once, and then they were taken out and dried. As a rule English cooks, in attempting to make this dish, did not use enough oil, and they did not allow it to heat enough. They served excellently to relieve the monotony of a purely proteid diet. In hospital practice he had been accustomed to prescribe for diabetic patients a draught containing iron and morphine, which he had found very useful in those cases in which it was impossible to carry out a rigid system of diet. But more than one case had ended fatally under this treatment, although the morphine only amounted to three-sixteenths of a grain in the twenty-four hours. He had now made it a rule never to administer morphine if the aceto-acetic reaction with perchloride of iron were present in the urine.

Dr. MITCHELL BRUCE agreed in the necessity of endeavouring to lay down definite rules to follow in particular cases. First, as to the time when opium should be commenced, he did not think it necessary to begin to administer opiates until the dietetic treatment had been exhausted. As to the form of drug which should be chosen, no doubt many cases were better treated with opium than with the pure alkaloids; but he himself had selected morphine because it was a definite substance, and its dose could be so easily regulated; and of the salts he had chosen the acetate in order that he might administer it subcutaneously if he wished to. It should not be given sparingly if all were going well, but it was unwise to push it to extremities in order to rid the urine of the last small quantity of sugar which it contained; it was most difficult to get rid of the latter, and it was foolish to try to do it by means of an increase of the remedy.

Mr. STILLINGFLEET JOHNSON said that he believed that there was no sugar whatever in normal urine. The reducing agent was certainly removed from urine by precipitation with mercuric chloride, which latter would not precipitate sugar.

Dr. ALLCHIN demurred to the common belief that the analysis of the urine from day to day was an exact index of the effect of the diet on the patient, and in the older chronic cases the amount of sugar passed was far from being an exact index of the state of the patient's health.

Dr. RALFE, in reply, thought that they were all very much in touch upon the question of restriction of diet. Dr. Pavy, however, had mistaken the drift of the paper, which was to insist strongly on dietetic measures, as also to point out that the glycosuria might be furnished by the carbohydrate element in proteid tissues. His paper had no reference to cases in which the assimilative power was restored, and he agreed that there were so many cases of all grades that it was exceedingly difficult to classify them. Of the opium preparations, he relied upon morphine as being a more definite substance than codeia, though he often combined it with advantage to some other preparation of the drug.

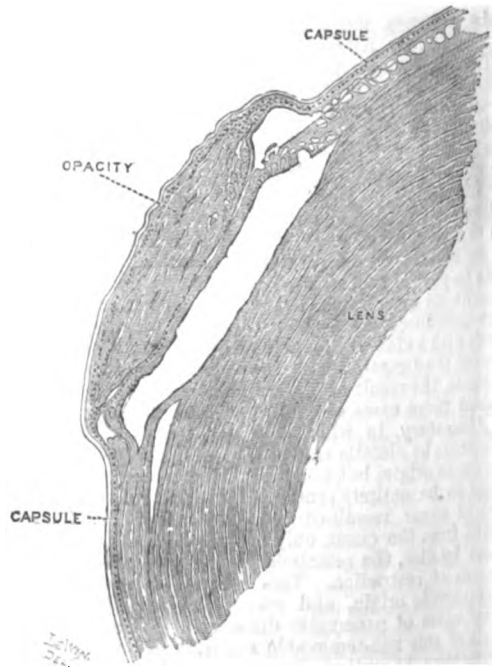
OPHTHALMOLOGICAL SOCIETY.

The Minute Anatomy of Pyramidal Cataract.—The Physical Factor in Conical Cornea.

AN ordinary meeting of the above Society was held on Thursday, March 10th, the President, Mr. Henry Power, F.R.C.S., in the chair.

Mr. TREACHER COLLINS read a paper on the Minute Anatomy of Pyramidal Cataract, which was illustrated by a number of photomicrographic lantern slides. He described six cases which formed a series with relation to the date of formation of the cataract and that of excision of the eye. The most recent was one in which the opacity was of less than six weeks' duration, whilst in the oldest it had existed for twenty-one years. The earliest changes were shown to consist in a localised proliferation and breaking up of the epithelial cells which line the hyaline capsule at the anterior pole of the lens, with some elevation of this capsule. (See Fig. 1.) There was also some breaking up of the lens fibres immediately beneath these proliferated cells, which gave rise to shallow excavation of the lens substance. Pyramidal cataracts of longer duration were found to have a layer of cells between the opaque part and the unaltered lens substance. These were continuous with and apparently derived from the cells lining the anterior capsule elsewhere. (See Fig. 2.) In two cases of some

FIG. 1.

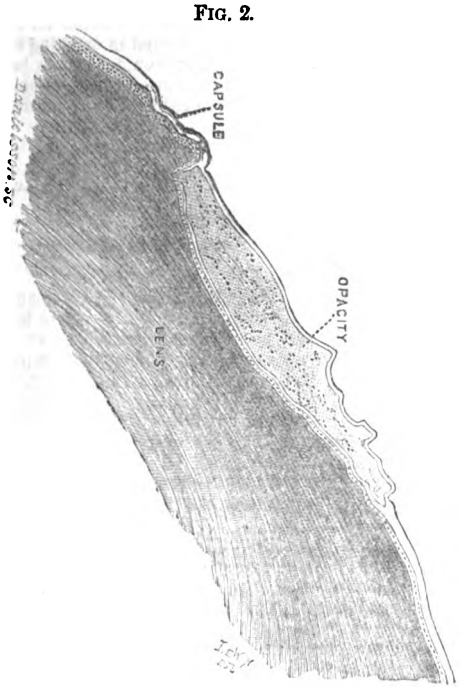


years' duration there existed between the opacity and the lens substance, in addition to the layer of cells, a layer of hyaline capsule, apparently secreted by the cells. Mr. Collins thought these cases helped to explain the readiness with which these opaque portions sometimes became detached on being touched with a needle, for such a slight disturbance only completed a separation which had already been partially effected by natural means. (See Fig. 3.) He considered that they also threw some light on the development of the lens capsule, for if the epithelial cells lining it were capable, on the application of a morbid stimulus, of secreting a hyaline layer identical in all respects with it, the inference that the capsule was originally formed by such a secretion seemed a reasonable one. Mr. Collins challenged the statement which had been made, "that in the majority of cases pyramidal cataract was found associated with a perfectly transparent cornea." This, he thought, could only be proved or disproved by the pathological examination of a large number of eyes with opaque cornea, and he questioned if this had been done by

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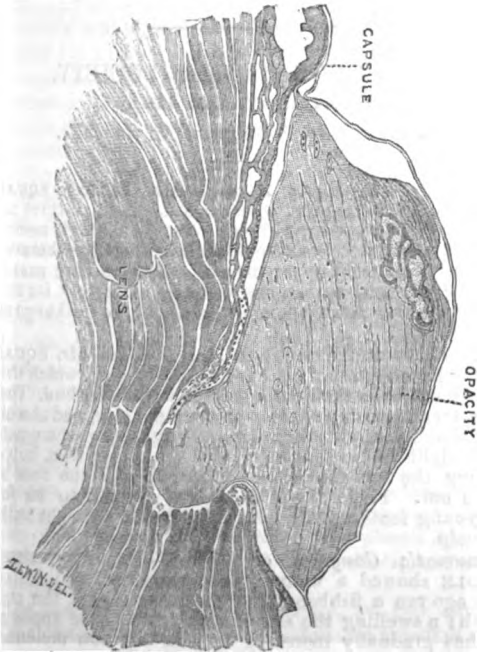
those responsible for the above assertion. In his six cases the cornea was the seat of old or commencing opacity.—Mr. TWEEDY referred to the rarity of opportunities for the microscopical examination of pyramidal cataract. He exhibited a sketch he had made many years previously of the appearance of the lens

FIG. 2.



capsule in the case of a child with perforation of the cornea and escape of the lens in the course of ophthalmia neonatorum. He was of opinion that an inflammatory deposit first occurred upon the lens capsule, and set up an intra-

FIG. 3.



capsular cell proliferation. He was opposed to Mr. Collins, view, that the lens capsule was entirely derived from the cells lining it, and thought that its origin was partly epiblastic and partly mesoblastic. He had only once seen a case of pyramidal cataract with perfectly clear corneæ.—Mr. NETTLESHIP mentioned a case in which he had made sections of a lens affected with pyramidal cataract, and found that the capsule passed in front of the opacity. He could not say whether the capsule was split into two layers, as in some of the specimens shown.—Mr. COLLINS, in reply, said he would divide cases of opacity at the anterior pole of the lens into three groups, and to only one of these could the term "pyramidal cataract" be properly applied. He maintained that the structure of the lens capsule and the character of the diseases which affected it were evidence of its epiblastic origin.

Mr. TWEEDY, in relation to the Physical Factor in Conical Cornea, made a communication to the Society, in extension of some remarks by him at the previous meeting. He alluded to several theories that had been put forward in explanation of the causation of this curious disease, such as—(1) increased intra-ocular pressure; (2) malnutrition and atrophy of the central part of the cornea; (3) diminished power of resistance; (4) inherent weakness of the corneal structure. The last hypothesis he thought was most in conformity with observed facts, and this inherent weakness he considered was best accounted for by imperfect completion of the developmental processes. In early fœtal life the gap in the embryonic cornea, caused by the involution which gave origin to the lens, was filled up by cells, beneath which was a homogeneous layer. Into this layer an intrusion of mesoblast took place, and, extending centripetally, gradually closed over the central part, which was the last to be formed. This mesoblastic tissue was the fœtal cornea, and the physical factor in conical cornea consisted in the imperfect growth of the central portion of this layer. No other explanation, he thought, would account for the conical shape assumed by the cornea in this affection.—The PRESIDENT asked if Mr. Tweedy's hypothesis would explain the onset of keratoconus in adult life.—Mr. BRAILEY mentioned that he had once made a microscopic examination of a portion of conical cornea removed by operation, and found a small cavity just beneath the epithelial layer. He referred to the fact that conical cornea in some cases developed for a time, then appeared to become stationary, and subsequently underwent rapid increase.—Mr. TWEEDY, in reply, said he did not wish to exclude the agency of other factors in the causation of conical cornea, but merely to draw attention to what he thought was the true physical one.

The following living and card specimens were shown:—

Dr. ROCKLIFFE (Hull): Case of Unilateral Proptosis.

Mr. HARTRIDGE: Case of Double Lacrymal Fistula.

Mr. WORK DODD: Case of Scleroderma of Lower Eyelid and Cheek.

Dr. D. J. WOOD: (1) Disease of Retina and Choroid, with Detachment of Retina; (2) Double Congenital Coloboma in Fundus.

Mr. TAY: Bleaching of Eyelashes and Eyebrows in Sympathetic Iridocyclitis.

Mr. LAWFORD: Reversible Spectacle Frame.

Mr. WRAY: New Vascular Growth in Vitreous.

Mr. HOLMES SPICER: Keloid in Scars of Herpes Ophthalmicus.

MANCHESTER PATHOLOGICAL SOCIETY.

WEDNESDAY, FEB. 10TH.

T. C. RAILTON, M.D., M.R.C.P., President, in the chair.

Birth Palsy.—Dr. RAILTON showed specimens from a case of Double Spastic Hemiplegia in an idiotic boy aged three. There was a history of difficult labour, forceps, and asphyxia. On admission into hospital it was noted that he lay habitually upon his side, with head strongly retracted, the thighs crossed and somewhat flexed upon the abdomen, the feet being extended. All four extremities showed "lead pipe" contracture. The slightest touch produced universal rigidity, so that he could be lifted "all of a piece." When fed, the muscles of the lower jaw were thrown into spasm. There was fine tremor of the hands when raised, and on yawning general clonus occurred. Knee-jerks were exaggerated and the superficial reflexes active. On being held up under the arms he became universally spastic. Death occurred from broncho-pneumonia. The necropsy revealed little alteration in the naked-eye appearance of

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the brain. There was merely a slight depression, forming a shallow groove, most marked near the vertex, which ran parallel with and involved the pre-central fissure, the fissure of Rolando, and the central convolutions, in both hemispheres. The pia and arachnoid in these regions were thickened, opaque, and adherent. A similar thickening of the pia was found over the temporo-sphenoidal region and at the bases of the frontal convolutions, but no depression. The paracentral lobules were slightly depressed and the pia was thickened and opaque. The base of the brain was normal.

Sections of Whole Organs.—Professor DELÉPINE exhibited a series of transparent and of opaque sections of Brain, Heart, Lung, Liver, Spleen, Kidney, Intestine, &c., and pointed out the advantages offered by this method of preservation, for teaching purposes and for preserving the appearances of lesions. He then described in detail a section of lung, in which the whole organ had been infiltrated with soft pneumonic products, as a result of destructive lesions of the vagi due to aneurysmal pressure. These pneumonic products were full of tubercle bacilli, yet there were no indications, either in the lung or elsewhere, of the formation of any miliary tubercle or of any cheesy products. There was, in fact, a distinct tuberculous infection without any tuberculosis. The bacilli had grown in the pneumonic products just as they might have in a nutrient medium kept in a test-tube, and incubated. Dr. Delépine then briefly described the method of preparing these large sections; it was first described by Professor Hamilton some ten years since.

Fractured Skull in an Infant.—Dr. KELYNACK showed Skull-cap and Brain from an infant of five months, where extensive fracture of the vault resulted from a fall. At the necropsy there was no evidence of external injury. A fracture extended from a little in front and above the right parietal eminence, backwards across the lambdoid suture, into the occipital bone. There was no laceration of underlying dura mater, but distinct subdural clot on the opposite side. The frontal and parietal lobes were covered by an effusion of puriform lymph. No distinct cerebral symptoms occurred at the time of the accident, but convulsive attacks appeared on the third day, the temperature rising to 106·2°. The little patient became comatose, and died four days after the fall. The infant was the subject of early rickets, but otherwise healthy.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

WEDNESDAY, FEB. 17TH.

Mr. ANDERSON, F.R.C.S., President, in the chair.

Typhoid Fever.—A paper on the treatment of typhoid fever was read by Dr. W. E. TRESIDDER. He advocated careful watching, nursing, dieting, and keeping up the patient's strength until the fever had run its course. Drugs were only needed for the treatment of special symptoms. The mortality at the General Hospital, Nottingham, for the year 1890-91 was 6·1 per cent.; eighty-one cases were treated. The preventive treatment might be divided into the prevention of immediate infection and general prevention. The patient should be kept scrupulously clean, tow being used for cleansing instead of lint, sponge, flannel, or pocket-handkerchief. All sheets, blankets, &c., should be put immediately on removal in an antiseptic fluid. The nurse must wash her hands immediately after attending to the patient and before either giving or taking food. As regards general prevention, water companies should be heavily fined for supplying water polluted at its source or in transit. There was necessity for legislative reform in the existing system of the drainage of dwelling-houses. The machinery of compulsory notification was put in motion too late after the disease had got a hold. The landlord of any property should be held accountable for the state of the drainage, and punishable by fine if it were found defective, whether disease had broken out or not. There should be two sets of plans of the drainage of any property—one kept by the landlord and the other at the sanitary offices, where tenants or those about to rent property might inspect it on paying a small fee. Any alterations in the drain system made from time to time to be entered on the plans.—After some remarks from the President, Dr. HANDFORD remarked on the relation of case mortality to the age of the persons affected. The larger the proportion of young subjects attacked, the lower the mortality. While confessing to some disappointment in the results of treatment by β-naphthol, he thought that in the present state of our knowledge of the cause of the disease an antiseptic plan of treatment the most rational.—Dr. BOOBBYER thought carelessness in connexion with dairies was responsible for much evil, while in the country people persisted in drinking water known to be unsafe.—Dr. CATTLE would hesitate before giving purgatives as routine treatment of constipation, but occasionally the administration of calomel was attended by brilliant results.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY

THURSDAY, FEB. 25TH.

Mr. W. F. FAVELL, President, in the chair.

Spasmodic Torticollis.—Mr. ATKIN showed a woman with spasmodic torticollis, for whom six months before he had excised an inch of the left spinal accessory nerve. The relief afforded by the operation was immediate, the patient eating and sleeping better than she had done for months. Unfortunately the symptoms gradually returned in seven weeks' time. The muscle, though weakened, was by no means entirely paralysed by the operation. The cervical nerves were evidently affected as well as the spinal accessory. The only assignable cause of the affection was trouble, the patient being a widow and having a large family to support.

Sarcoma of the Mesentery.—Dr. KERR showed a specimen of a large spindle-celled sarcoma of the mesentery from a man forty years of age, who had been under Dr. Porter's care in the infirmary. The illness had only lasted about ten weeks, during which time the tumour rapidly increased in size, although the discomfort arising from it was comparatively slight. The mass weighed twenty-one pounds, and almost entirely filled the abdomen. The liver and mesenteric glands were infiltrated with nodules of new growth, many of which had undergone cystic degeneration. All the other organs were free from malignant disease. Microscopic sections which were exhibited showed the tumour to be composed of large nucleated spindle cells, intermingled with a few round cells. The tumour was very vascular, the vessels being imperfectly formed.

PLYMOUTH MEDICAL SOCIETY.

SATURDAY, FEB. 13TH.

Mr. T. LEAH (Stonehouse) in the chair.

Congenital Syphilitic Ataxia.—Mr. ELLIOT SQUARE showed a girl, aged nine, whose mother had had three miscarriages. The patient walked in a marked ataxic manner, the tendon reflexes were absent, she had interstitial keratitis, and typical notched upper incisors. For ten days past she has had left facial paresis and deafness of left ear for three or four weeks. Ataxia commenced about six weeks ago and has increased.

Left Traumatic Hemiplegia in a Pigeon.—Mr. SQUARE also exhibited a hen "feather-footed tumbler," which three weeks ago was pecked on the vertex by another bird. There was evident bruising of scalp on the right side, and the bird walked and flew with difficulty. There is now a bare patch on the right half of the vertex, and the pigeon flies, but on walking the left foot slips backwards, and the toes are spread out. There is no depression of skull to be felt, and young feathers are now sprouting on the right half of the scalp.

Traumatic Ganglion of Thumb.—Dr. ANSTRUTHER RENDLE showed a woman, aged sixty-one, who thirteen years ago ran a fishbone into the inner side of the right thumb; a swelling the size of a walnut at once appeared, and has gradually increased in size. It now presents a painless, semi-fluctuating ovoid swelling in the situation of the right thenar eminence—quite superficial and unconnected with bone or tendon.

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Reviews and Notices of Books.

A Treatise on Diseases of the Lungs and Pleura. By the late WILSON FOX, M.D., F.R.S. Edited by SIDNEY COUPLAND, M.D., F.R.C.P. London: J. & A. Churchill.

THE appearance of the late Dr. Wilson Fox's book on "Diseases of the Lungs and Pleura" has been awaited with great interest not only by those who remembered him as a beloved teacher and friend, but also by all who knew him by repute as a sound clinical observer who had the power of conveying to others what he himself knew. Now that the work is before the profession we do not think that any disappointment will be felt. Much was expected, but in Dr. Fox's *magnum opus* we find even more than we had hoped for. One who was well entitled to speak of the author's mode of work said that "only those who knew him intimately in his mode of writing and of publishing can be aware of the enormous labour he imposed upon himself in order to secure accuracy and fulness ..... His reading of all literature, past and present, that bore upon his subject was wide, deep, and critical; and the pains which he took to verify quotations by one author from another, whether in monograph, contribution to scientific journals, in this country or elsewhere, was beyond all praise." This thoroughness of research is apparent in all Dr. Fox's writings, but nowhere more than in the present volume. An extensive bibliography is given at the end of the book, but this "only comprises the larger monographs and treatises referred to"; on every page are copious references and quotations from other authors, given as foot-notes, so that the reader is in possession of abstracts of everything worth reading which has been written on the subject under consideration.

Dr. Fox's lamented death occurred in 1887, and the manuscript was therefore not up to date. The arduous duties of editing the treatise were entrusted to Dr. Coupland, and it is a matter of general congratulation that the work fell into such competent hands. He has performed his part in a manner meriting the highest commendation. The additions which were necessary have been inserted with most excellent taste, and in so dexterous a manner that the reader is scarcely conscious of any change of authors. To edit a work of this class and this extent (1200 pages) was indeed a great undertaking, but Dr. Coupland will feel that his labours have not been in vain, for he has presented us with the most complete monograph on diseases of the lungs and pleura now extant.

The various diseases are treated in a uniform manner. Each division opens with a definition of the disease. These definitions are singularly full and precise, and by studying them a comprehensive idea of the subject to be discussed is at once obtained. Then follow the history, etiology, morbid anatomy, associated pathology and pathogenesis, symptoms, complications, clinical variations, prognosis, diagnosis, and treatment. Needless to say, each subdivision is dealt with in the thorough and complete manner characteristic of the author. Diseases of the Air-passages, including acute, chronic, and plastic bronchitis, spasmodic asthma, influenza, bronchiectasis, &c., are first considered.

As regards the Pathology of Asthma, Dr. Fox adheres to the views of Cullen and Laennec, that the spasm of asthma depends upon the contractility of the circular muscular fibres of the bronchi, and that it is essentially spasmodic in character. He says: "Although this view has often been disputed, it has remained the prevalent one up to the present day, and is, I believe, the only one by which the phenomena of the disorder can be adequately explained." With this statement we cordially agree.

The chapter on Bronchiectasis is probably the most complete account that has yet been written on this subject. Those who have studied Dr. Fox's "Atlas of the Pathological Anatomy of the Lungs" will have already formed a high opinion of the author as a pathologist of the first rank, and will not be surprised, therefore, when we lay special weight upon the sections treating of pathological conditions. This is well exemplified in this chapter, where the mechanism bringing about the dilatation of the bronchi, and the condition of the tubes themselves, are described in a most masterly manner.

We now pass to the main division of the book, Diseases of the Lungs. One of the first points that will strike the reader is the exhaustive manner in which some subjects are treated which are usually passed over in a few pages. Especially is this the case with Gangrene of the Lungs, to which no less than forty-two pages are allotted. Most interesting also are the chapters on Collapse of the Lungs, Pulmonary Embolism and Thrombosis, and Diseases due to Inhalation of Dust.

Dr. Fox's style of writing is charming, and tempts the reader to linger over the pages, every one of which is full of interest. We would particularly draw attention to the vivid description of the symptoms of pulmonary embolism and thrombosis. The way in which the pathology and pathogenesis of emphysema are described is another example of the detail with which every feature of the disease is worked out.

Those who have consulted Dr. Russell Reynolds' "System of Medicine" will be already familiar with the articles on Pneumonia and Broncho-pneumonia, although for the purposes of this work they have been subjected to a most thorough revision. Although with the development of bacteriology our knowledge of the causes of diseases has greatly increased, Dr. Fox's views as regards the etiology of pneumonia were much the same as are held by most authorities at the present time. He says: "It can hardly be held that acute pneumonia in its ordinary manifestations is a common inflammation; a blood state, either engendered within or without the body, is absolutely necessary to explain its occurrence. Its main characters are those of a general and not of a local disease." Again, after comparing the causation of pneumonia with that of typhoid fever and diphtheria, he says: "To sum up this subject I believe that the evidence at present existing tends to show that pneumonia may arise from miasmatic influences of the pythogenic kind, and that it is very possible that this may be the origin of a large proportion, if not the whole, of the cases of acute primary pneumonia."

We turn to the section on Phthisis with a great deal of interest. It was Dr. Fox's favourite study. Readers of the "Atlas" will know what a complete grasp the author had of his subject, and his clinical knowledge was no less profound than his pathological. The subject of tuberculosis of the lungs occupies over 400 pages, and forms a most complete exposition on phthisis. It was written at a time when most of the German observers were promulgating the idea that inflammatory changes were necessary for the development of tubercle. Dr. Fox taught that the tubercle was primary, and some of his remarks penned before the bacillary doctrine was so firmly founded, show what a wonderful insight he had into the etiology and pathology of the "national disease." Thus he says: "It will be apparent from the account which I have already given of the pathology of phthisis, that I do not accept Niemeyer's views, that I believe it to be essentially one disease,

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and that it is of a tubercular nature"—thus at once declaring his firm belief in the unity of the disease. In speaking of caseation he says: "Neither in my own experience nor in the writings of any author unbiased by a special view of tubercle have the lobular pneumonias been shown to undergo caseation or lead to phthisis, except in the presence of tubercle." Referring to the different appearances of "yellow" and "grey" tubercle, Dr. Fox remarks: "The point on which I would insist is that, whether it be regarded as infectious or constitutional, the different appearances of tubercle cannot be classified separately, according to arbitrary histological definitions; it must, I believe, be regarded as a *disease*, and for this disease a distinctive name is desirable."

As above stated, this article was written in the early days of the germ theory of phthisis; but had it been as firmly established as it is now, the author could hardly have written differently, as witness the follow passage: "It may now be very generally accepted that tubercle can be reproduced by inoculation with tubercle, but with tubercle alone." Again, he recognises a second etiological factor, as is now universally admitted: "As a hypothetical question it may be held that, even if tuberculosis depends exclusively on the effect of bacilli introduced into the body, these may owe their power of germination in certain tissues to the weakening of the latter by disease or other causes." He does not uphold the doctrine of phthisis *ab hæmoptoë* as is shown by several of his remarks. The clinical description of the disease is most graphic, and he enters upon a most exhaustive discussion of all the symptoms. In reference to treatment, he would place climatic conditions first in the category of active measures, but he also lays special stress on prophylaxis. "I believe, however, that the most efficient prophylaxis for phthisis in the future, as in the past, will be found in increasing attention to the sanitary condition of dwelling-houses and workshops, though the discovery of unhealthy conditions, masked as they occasionally are, is sometimes even more difficult in the homes of the wealthy than in houses of less size and pretension."

We have not space to enter more fully on a review of this excellent work. We would willingly have discussed the section on Pleurisy and Empyema, which is one of the most important in the book. The amount of labour expended on it has been immense. We would especially draw attention to the careful and detailed study of the question of paracentesis. The advance of surgery has rendered considerable addition necessary to the treatment of empyema, and for this purpose Dr. Coupland has called in the services of Mr. Pearce Gould, whose large experience in the surgery of the chest renders his remarks particularly valuable. We would cordially recommend all those who wish to extend their knowledge of diseases of the chest to consult this volume, for they will find collected in it an enormous amount of information, presented in the most captivating manner. In addition, this treatise will have a special charm for those who knew the esteemed author and listened to his teaching, as the editor remarks in the preface: "No former student of University College and Hospital can peruse this book without its recalling memories of one who was revered as a teacher, admired as an ideal physician, and trusted as a friend; for surely these pages reflect that earnest seeking after truth, with its minute and painstaking scrutiny of every detail, that discriminating judgment and careful analysis, which were his attributes. One can truly say that 'being dead he yet speaketh' through the pages of this book, and his old pupils should know that the opportunity now given for its perusal is owing, in the first place, to the author's widow, and, finally, to his eldest son."

OUR LIBRARY TABLE.

The Medical Register and Directory of the Indian Empire. By JAMES R. WALLACE, M.D. Calcutta: C. J. A. Pritchard.—This compilation supplies an important want to members of the medical profession, not only in India, where perhaps it is most needed, but also in other parts of the United Kingdom. It is founded mainly on the lines of the Medical Directory of this country, but adapted especially to the requirements of India. It is intended to clear the way for systematic regulation of medical practice in India. It will go far to fulfil its purpose, and to the scattered members of the profession in that empire will provide a social bond by affording definite knowledge of one another's existence. The title explains the nature of the contents. The volume is a monumental record of four months' arduous labour, but of a kind which is certainly not unproductive or merely ornamental. The defects, such as they are, will doubtless be obliterated in other editions.

On a New Cysticercus and a New Tapeworm. By T. B. ROSSETER, F.R.M.S.—In the Journal of the Quekett Microscopical Club, Vol. IV., Series 2, page 361, No. 30, January, 1892, Mr. T. B. Rosseter describes a new cysticercus and a new tapeworm. The cystic form he finds in Cypris cinerea; it is oval, invaginated at the anterior portion, and has a long caudal appendage. The cyst is not fenestrated; the hooks around the rostellum of the mature scolex are constant in number—ten,—and lie in an angular position; they are about $\frac{1}{3\,0\,0}$th of an inch in length. There are four oval suckers, each of which is armed with 132 small hooks, arranged symmetrically in rows around the periphery of the sucker and longitudinally in the centre from the apex to base. These hooks are about $\frac{1}{5\,0\,0\,0}$th of an inch in length. On feeding ducks or drakes (by means of pipettes) with cypridæ containing these new cysticerci, there were developed in the pylorus and part of the duodenum a number of tapeworms about the twentieth of an inch in length. At first sight they appeared most like the tænia lanceolata, but Dr. Blanchard of Paris has come to the conclusion that it must be placed in a new genus, "Echinocotyle"; and he suggests that the special tænia described by Rosseter should be named "echinocotylus Rosseteri."

A Treatise on Practical Anatomy. By HENRY C. BOENNING, M.D., Lecturer on Anatomy and Surgery in the Philadelphia School of Anatomy. Philadelphia and London: Davis. 1891.—We cannot recommend Dr. Boenning's book to English students. It appears to be merely a condensation from other and better text-books. A description of a muscle such as this—"Internal pterygoid; origin, pterygoid fossa; insertion, inner side of angle of inferior maxillary: nerve, inferior maxillary"—will show how little can be learnt from this work, and how scanty is the knowledge conveyed therein, for the other parts of the subject are dismissed in much the same summary style. The illustrations have no more merit than the text, for most of them are reproductions of drawings with which we are quite familiar in some former text-books, and they give us the impression that the blocks from which they have been struck off have now become much worn.

Merck's Bulletin.—With the commencement of its fifth volume the size and the scope of Merck's Bulletin have been very considerably altered. The familiar tinted pages have given way to larger white pages, and the length and the style of the contents have further undergone modification, room being now found for much new material in an unabbreviated form. The profusion of notes of exclamation, which so often distracted attention in the past, seems to have largely vanished before the magic wand of the new editor, Dr. W. H. Porter, of New York. The present aim is ambitious; it is hoped to attract original

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communications dealing with pharmaceutical chemistry and the physiological actions and therapeutic uses of both new and old remedies, while another section will be devoted to clinical papers in which the practical and chemical side of therapeutics will be discussed. New remedies, formulas, practical hints, and miscellaneous clippings will be represented as hitherto. A section will be devoted to medical dietetics and another to monographs upon "interesting drugs which are attracting the special attention of the medical profession." Many of the original articles in the first number are of great interest—notably that by the editor upon some new observations on the physiological action of the mercurials and iodides. Ichthyol is the subject of very extended notice, monographs from numerous sources being quoted in its interest. The new venture seems well worthy of support, but we hope that in future it will not be found necessary to print "trade announcements" on the same pages with the text.

The Journal of Physiology. Vol. XIII., Nos. 1 and 2. Edited by MICHAEL FOSTER, M.D. The Engraving Company, Cambridge.—The contents of this part are: 1. Warren P. Lombard: Some of the Influences which affect the Power of Voluntary Muscular Contractions, with two plates. 2. E. N. Stewart: The Influence of Temperature and of Endocardiac Pressure on the Heart, and particularly on the Action of the Vagus and Cardiac Sympathetic Nerves, with two plates. 3. W. B. Hardy: the Blood-corpuscles of the Crustacea, together with a suggestion as to the Origin of the Crustacean Fibrin Ferment, with a plate.

The Quarterly Journal of Microscopical Science. Edited by Professors LANKESTER, KLEIN, SEDGWICK, and MILNES MARSHALL. Vol. XXXIII., Part 2. January, 1892. London: J. & A. Churchill.—This part contains six communications. 1. On Onchnesoma, by Arthur E. Shipley, with one plate. The Onchnesoma is one of the Zephyrea. 2. Note on a Sieve-like Membrane across the Oscula of a species of Leucosolenia, with some observations on the Histology of the Sponge, by E. A. Minchin, with two plates. 3. The Development of the Oviduct in the Frog, by Ernest MacBride, with two plates. 4. On the Nauplius Eye persisting in some Decapods, by Margaret Robinson, with a plate. 5. On two Acanthodriloid Worms from New Zealand, by Blaxland Benham, with two plates. Lastly, an article on the new genus of Synascidians from Japan, by Asajiro Oka and Arthur Willey, with two plates.

New Inventions.

NEW GLASS DRAINAGE-TUBES.

THESE are made of glass of such soft consistence that they will readily admit of being bent by the surgeon or assistant into any shape required merely by the aid of an ordinary spirit lamp or Bunsen burner. The tube being held in the flame until well heated, is easily and quickly manipulated into the desired shape; it will rapidly cool of itself down to the temperature of the body. Being absolutely smooth throughout, and having a gently bevelled distal end, any irritation, whether that of insertion, removal, or *in situ*, is reduced to a minimum, and excretion is rendered much more expeditious. Granulations are also not so liable to be injured as they are by the indiarubber tubes, which have less perforations than those under notice. Thus, while ever remaining patent, they collect the discharge from all parts. The perforations themselves, having perfectly smooth rounded edges, neither offer the resistance to the flow nor the injury to granulations that the perforations of the indiarubber tubes are so apt to do. They are provided with a substantial shoulder at the proximal end, designed to prevent them from slipping in beyond reach, and favouring facile manipulation by fingers or forceps, as well as obviating the necessity for any particular fixing scheme, judicious bandaging being all that is required. The tubes should be turned round while heating, so that the whole circumference may be influenced equally. They should be well heated, and but little force applied in bending. The tubes, which have been devised by Mr. Haydn Brown, are made in all sizes by Alexander Kemp and Sons, glass blowers, Edinburgh.

A TRUSS FOR WORKERS.

MR. W. YEATMAN WARRINGTON of Wolverhampton has forwarded to us a truss for inguinal hernia, now used generally by men who work at the furnaces &c. in great heat in the iron-works. He writes: "There is nothing especially new about it, but it is most effectual, does not chafe the skin, and has no spring to corrode by sweating. It lasts as long as three of the ordinary trusses with a steel spring." There must be many members of the profession to whose patients a cheap, reliable, lasting truss would be of service.

THE ROYAL BRITISH NURSES' ASSOCIATION.

To the Editors of THE LANCET.

SIRS,—I desire to thank you for the kind and powerful support which you have always given to the Royal British Nurses' Association, and would ask you to accord me space in your widely-read columns to lay its case once more, very briefly, before your readers. It was founded just four years ago, in order to unite trained nurses for their mutual aid, and so increase their efficiency and usefulness to medical men and the public. It has already been approved and joined by a considerable number of the leading members of the medical profession in this country, and by more than 3000 nurses. It has instituted, and is successfully carrying on, several important schemes to assist its members in their work and in times of adversity, sickness, and old age. Through the efforts of its members in South Africa, a system of Government registration of nurses became law last year throughout the Cape Colony, while in other parts of the British Empire similar legislation is now being sought for. In this country, I need scarcely remind your readers, any woman, even if destitute of knowledge or of character, can term herself a trained nurse. Hospital certificates can be and have been forged or stolen, and by such means unworthy persons can obtain and have obtained positions of great trust, while genuine hospital certificates, once given, cannot be recalled or cancelled, even though the recipient in after years may give way to habits which render her unworthy of trust, or even commits grave offences against the law. And so it is, unhappily, undeniable that such persons obtain employment, bring danger to the sick and discredit on the nursing vocation and on all their fellow-workers. To remedy these grave evils, it was proposed by the Association that trained and duly qualified nurses should be enrolled on a general register to be published annually, and that the names of anyone who might prove to be untrustworthy should be removed from this list. At a cost of great time and trouble, and of about £800, the Association has commenced this work *as a voluntary measure* by publishing a Register, showing the names and addresses of some 1800 nurses, with the places and length of hospital training which each has received. I now venture to appeal to medical men, to whom nurses already owe so much, and who are so deeply interested in securing good nurses, to become members of the Association, and give it their assistance and advice. The by-laws and all other information can be at once obtained upon application to the Secretary, 8, Oxford-circus-avenue, Oxford-street, W.

I am, Sirs, your obedient servant,

HELENA,
President of the Royal British Nurses' Association.

Cumberland Lodge, Windsor, March 15th, 1892.

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THE LANCET.

LONDON: SATURDAY, MARCH 19, 1892.

THE newly elected London County Council held its first meeting on Tuesday last, and its committees will shortly be at work, and will doubtless, in view of the recent decision of the electors, continue the policy which was pursued by the recently expired Council. This policy, so far as public health administration is concerned, has been one of unceasing activity, guided by a desire to use to the utmost the powers vested in the Council for the removal of unhealthy conditions from London. We may briefly review the work of the Council in this direction since it first came into existence.

The Council in its early days appointed a medical officer of health, and without loss of time addressed to the several sanitary authorities a circular letter asking for information as to the insanitary areas within their respective districts. This letter evidently met with a ready response, and from that moment the small staff at the disposal of the Council must have been severely taxed, for we learn from the annual statement of the Chairman, Sir JOHN LUBBOCK, that the Housing of the Working Classes Committee had under consideration as many as 200 insanitary areas. Until the end of the year 1890 the Council had, however, no powers other than those under CROSS'S Acts for dealing with this subject, and as a result it could not do more than urge upon the sanitary authorities the desirability of enforcing as far as practicable the provisions of TORRENS' and the Nuisance Removal Acts. Much difficulty had been experienced in working both CROSS'S and TORRENS' Acts, and the first business of the Council was therefore to propose those amendments in the law which were necessary for immediate purposes, and to point out the urgent need for opportunity to be given for dealing with small areas which were not of sufficient extent for the purposes of CROSS'S Acts and were yet unsuited for the application of TORRENS' Acts. The Housing of the Working Classes Act, which received the Royal assent during the latter part of the year 1890, supplied this deficiency and placed the Council in a position to undertake more seriously the work it had already begun.

Under this Act many hundreds of houses actually unfit for human habitation have been closed by the orders of magistrates, and the Council and the district authorities have been confronted with the difficult question whether areas which needed complete clearance should be dealt with under Part I. at the expense of the Council, or Part II., either at the expense of the district authority or at the cost of both. The Act provided that the Secretary of State should arbitrate when this point was in dispute, and the Council at once made the necessary appeal in respect of five areas, two in Shoreditch and three in the district of St. George the Martyr, which had been represented to it under CROSS'S Acts. In each case the Home Secretary, after holding a local inquiry, decided that the Council should bear but part of the expense, and the district authorities were required to effect the improvements and the Council to contribute one-half of the cost of improving the first two areas, and one-third of the cost of improving the last three. Schemes were therefore prepared by the Vestry of St. George's for the improvement of two of the areas in its district, and the Local Government Board held an inquiry last week with a view to determine whether the schemes should be approved.

In numerous other instances steps have been taken for carrying out improvement schemes in various parts of the metropolis, and these earlier negotiations between the Council and the district authorities may be expected very shortly to bear fruit. In one instance the Council decided, after communication with the sanitary authority, itself to carry out an improvement scheme under Part II. of the Act, and the local inquiry ordered by the Local Government Board in respect of this (the Brookes Market Holborn Scheme) was held a few weeks ago.

The Council has as yet prepared only one large scheme under Part I. of this Act. The neighbourhood of Old Nichol-street, Bethnal-green, had long been known as a metropolitan sore. The insanitary circumstances of this locality were clearly brought to light during an inquiry held by order of the Home Secretary some five years ago, and to those who knew this part of London well it was evident that no incomplete method of dealing with it would prove satisfactory. The Council therefore resolved, after representations by the medical officers of health of the districts of Bethnal-green and Shoreditch, to effect this improvement, and prepared a scheme which for comprehensiveness proved that the Council was not disposed to exercise in any feeble way the powers with which Parliament had endowed it. It is a somewhat curious commentary upon health administration in London that the action of the Council in this matter did not in any way give universal satisfaction. One section of the lay press particularly failed to see that the mere closing and repair of houses, assuming this method could have been universally applied to all the houses in this area, would not have brought out the rearrangement of buildings which was necessary. It was evidently not understood that owing to the ownership of these premises being vested in many persons, no other action was possible than that adopted by the Council, and that nothing but the purchase of the property by the metropolitan authority would enable the improvements to be effected which were so urgently needed. The Housing of the Working Classes Act of 1890 had, moreover, provided more favourable terms for a local authority purchasing insanitary property under these circumstances, and it was very necessary that experience should be gained in the shortest time of the usefulness of the new measure. It may be expected that this scheme will give ample opportunity for this purpose, and the future action of the Council may to some extent depend upon the results of this large undertaking.

So far therefore in the year and a half which has elapsed since the Council obtained its powers under the Housing of the Working Classes Act, the important work of steadily

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improving London has been undertaken, and we sincerely trust that it may be continued until the worst of the London slums have been finally removed.

THE settlement of the action "STEELE *v.* SAVORY" has proved advantageous to the cause of progress at the Royal College of Surgeons of England. It has removed an obstacle which blocked the path of reform. It has established the validity of the Charter and By-laws, and thereby terminated a condition of uncertainty which led to developments not calculated to conciliate the governing body of the College. It has diffused a glow of quiet satisfaction through the breasts of the members of the Council of the College, and has disposed them to seek peace by conciliatory measures. It has opened out to the Fellows of the College a prospect of early improvement in their status and constitutional importance which will ultimately prove beneficial to the Members, and it has now resulted in the Council of the College proclaiming an amnesty for the thirty-one Members of the College who had the courage or temerity to infringe Section xvii. of the By-laws in February, 1889. The exact situation of affairs is readily grasped on perusing the minutes of the proceedings of the Council on March 10th. In our article on March 5th we mentioned that on Feb. 11th the Council of the College had deferred the consideration of the infraction of By-law xvii. till March 10th, and resolved to inform those concerned in this infraction of the intention of the Council. The intimation of this intention was conveyed to them in a letter from the Secretary of the College, with the result that a large majority responded to the letter, and generally in a manner which satisfied the President and Vice-Presidents to whom the documents were in the first instance submitted. A few did not reply, but the doctrine of supererogation appears to have been adopted by the representatives of the Council and the fund of merit formed by the contents of the approved letters was sufficient to allow of a dividend in favour of those Members who had perhaps been influenced by the proverb that "speech is silvern, but silence is golden," or had been deterred by some hidden fears from even acknowledging the receipt of the Secretary's letter. However this may be, any intention which may have existed to vindicate further the authority of the Council and the By-laws was abandoned, and the Council adopted unanimously the following resolution: "That the Council, after full consideration of the infraction of Section xvii. of the By-laws by certain Members of the College who took part in the attempt to convene an illegal meeting, hereby determine to take no further action in the matter." This decision will, we think, meet with very general approval. Had the Council drawn a distinction between those who acknowledged their mistake and expressed regret and those who declined to do so, it might very probably have drifted into the ludicrous position voluntarily assumed by that celebrated official DOGBERRY, when charging the watchman to "comprehend all vagrom men" and "to bid any man stand in the prince's name":—

Watchman: How if he will not stand?

Dogberry: Why then, take no note of him but let him go; and presently call the rest of the watch together, and thank God you are rid of a knave.

As it is, the Council has as much reason to be grateful to the majority of the thirty-one Members for replying so courteously to the Secretary's letter as those Members have for the act of grace which the Council has unanimously passed.

The termination of a struggle which has dragged its slow length along for more than three years has reopened the questions of constitutional reform which had been suspended by the action of the Members against the Council. It could not well be expected that, under the circumstances, the claims of the Members of the College to a voice in the management would have in any wise been recognised by the Council after frequent denials of such claims and the repetition of the opinion that they ought to be allowed to rest. The Council is not like Archbishop CRANMER, of whom it was said, "Do my Lord of Canterbury a shrewd turn and he will be your friend ever after." Even if the Council were convinced of the propriety of making concessions to the Members, human nature might stand in the way for a time; but, so far as we can judge, there are only a few of the Council who are prepared for any concession, and possibly all of these few would not have the courage of their opinions and face the opposition with which they would be met. The time of the Members has not yet come in the Council, but with the Fellows it is different. The Council has acknowledged their claims to be consulted, and is probably anxious to meet their wishes. At all events, it has lost no time in redeeming its implied pledge to take the case of the Fellows into consideration as soon as the action STEELE *v.* SAVORY was settled. Sir W. SAVORY, who was one of the members of the Council who met the deputation from the Association of Fellows in October, 1890, moved at the last meeting of the Council on March 10th: "That a committee be appointed to consider and report to the Council whether any, and if so what, further advantages can be extended to the Fellows." This proposition was seconded by Mr. MACNAMARA, and unanimously accepted. Thereupon Mr. WILLETT moved, and Mr. RIVINGTON seconded, a resolution to the effect that it is desirable to celebrate in some suitable manner the fiftieth anniversary of the institution of the Fellowship (the Charter creating this order being dated Sept. 14th, 1843), and that it be referred to the committee appointed under the preceding resolution to report on the best means of giving effect to this resolution. This proposal also was carried unanimously, and the committee appointed consisted of the President and two Vice-Presidents *ex officio*, Sir W. SAVORY, Bart., Messrs. CADGE, MACNAMARA, WILLETT, and RIVINGTON. As this committee comprises three members who belong to the Fellows' Association, there seems every prospect that the main principles for which the Association has been contending will soon receive official recognition. It must, however, be borne in mind that the cup may be dashed from the lip even in the very moment of triumph; and it will be as well for the Committee of the Fellows' Association to be ready to strengthen the case of the Fellows at a moment's notice. It is not difficult to suggest all kinds of technical difficulties in carrying out the simplest concession to the Fellows. What hindrances may not be conjured up to the provision of a common room

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at the College, and how many more to consultation of the Fellows, and how many more again to the simplification of voting by voting papers and the election of the President by the Fellows! How easy is the utterance of *non possumus*, but everything that the Fellows desire will be possible if, like NAPOLEON, they decline to admit the existence of the word "impossible."

THE announcement made by Mr. RITCHIE in the House of Commons on Monday, the 14th inst., in regard to the new Royal Commission on Metropolitan Water-supply, is satisfactory in two respects. The scope of the inquiry is clearly defined, and, although it is not necessary to quote the instructions in full, our readers will see that the points referred to the Commission are precisely those which have been so often urged by ourselves. Before further legislation can be attempted it is necessary to know, first, whether the present sources of supply are sufficient for the requirements of London for some years to come; secondly, whether with scrupulous care the quality of this water-supply may be rendered safe even in times of epidemic; thirdly, whether increased demands on the other waters of the Thames and Lea will inflict injury on suburban districts; and, fourthly, if a distant source of supply is found to be necessary whether such supply can be obtained without injustice to provincial towns and centres.

The Commission appears, on the whole, to have been wisely chosen. In addition to two or three experienced officials, it includes the names of three well-known engineers, of Sir A. GEIKIE as a geologist, and of Professor DEWAR as a chemist. No exception can be taken to any of these gentlemen, and our only regret is that no trained bacteriologist is included.

That this is not the first inquiry of the kind is probably known to everyone, but no one who has not made a special study of the subject can have any idea of the enormous amount of research that has been devoted to it or of the mountain of Blue-books in which previous researches have been collected and fossilised. The history of the London water-supply, the complaints, inquiries, laws, and proposals in regard to it would, if told in detail, fill a large book, and the new Commissioners, instead of starting with a *tabula rasa*, will be embarrassed by the great mass of material they have to sift. A short and most imperfect sketch of the evidence already collected is all that is at present possible, but it will not be without interest, considering the magnitude of the question.

In the year 1581 PETER MORRYS, a Dutchman, obtained permission to supply a portion of London from the Thames by means of a water-wheel under one of the arches of London-bridge worked by pumps set in motion by the tide. For about 200 years a considerable supply was obtained in this way. Complaints, however, naturally arose in regard to such water, although there were then no drains to pollute the river with sewage, and accordingly in 1609 Sir HUGH MYDDELTON, with the assistance of a grant from King JAMES I., completed the great work which had previously been beyond his means, and the New River was opened to London. It need not be said that it has been a priceless boon to the metropolis. In 1691 the York Buildings Waterworks Company took water from the river near Charing-cross. This company was transferred to the New River Company in 1818, and the works were shortly afterwards abandoned. Following by a long interval the New River Company, the Chelsea Waterworks Company was started in 1723, and the Lambeth Company in 1785. The other London companies date from the earlier part of the present century. There are now eight water companies supplying London, of whom five draw their water exclusively from the Thames above Hampton, while two depend in part on the river Lea, and the last, the Kent Company, on deep chalk wells to the south of the Thames.

It is not surprising that, even in pre-sanitary times, complaints were made of water drawn and supplied without filtration from the tidal portions of the river. A Committee of the House of Commons sat in 1821; it, however, did nothing, and the complaints increased, and in 1828 another Committee of the House appointed the well-known Mr. TELFORD to inquire and report. The report was presented in 1834. Mr. TELFORD'S recommendations were impracticable, and then two more committees inquired but did nothing. In the meantime, in 1832, the cholera appeared in England. There was nothing to connect it with water-supply or drainage, and therefore its dread lesson was not learnt; but in 1849 another terrific visitation of cholera occurred. The deaths in 1832 are roughly estimated at about 5000, equal to 31·4 to 10,000 of the population. In 1849 the deaths amounted to 14,137, or 61·8 out of 10,000 people. By this time much human sewage went into the river, and so, unfiltered, into a portion of the water-supply, and subsequent investigations showed that the cholera explosion coincided pretty closely with the area of impure water-supply. Omitting several important inquiries, some of them instituted by the General Board of Health, which had recently been established, we come to 1852, when the Metropolis Water Act, which is still in force, was passed. This most valuable Act prohibited the companies from drawing any water from below Teddington Lock, and enforced filtration and the use of covered reservoirs. Shortly afterwards Dr. SNOW propounded the theory of water-carriage, which, although at first regarded as visionary, was by subsequent and bitter experience raised to the rank of a great sanitary law. In 1854 the cholera, to which sanitation is so deeply indebted, came once more, and 10,758 persons died in London, equal to 42·9 per 10,000. The water was better and the mortality less.

In 1866 the last, and we may hope the final, visitation of cholera took place. Thanks to Dr. SNOW and others the dangers of water pollution are now well recognised. The water-supply of London was far better, and the deaths in London, in spite of the greatly increased population, amounted to 5596 or 18·4 per 10,000. Of these a very large proportion occurred in an East-end district which was supplied for a time with water polluted by cholera poison.

The newly appointed Royal Commission, over which Lord BALFOUR of Burleigh is to preside, will be the fourth Commission of the kind, for we must exclude those bearing on the closely cognate subject of sewage disposal. The first was appointed in 1865. It issued three reports with important appendices, the last in 1867. It is known

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as the first Rivers Pollution Commission, and its three double volumes deal with the Thames, the Lea, and the Aire and Calder. This was succeeded in 1868 by the second Rivers Pollution Commission, of which Dr. E. FRANKLAND was the presiding intelligence. The members of this Commission continued and greatly extended the work of their predecessors. They published six reports with many appendices, including maps and plans; the last, and much the most important, was the well-known Sixth Report, which appeared in 1874, in the form of a Blue-book containing 525 pages. This may be taken as the last public utterance on the great question. It is a monument of careful scientific study and reasoning. In 1867, a year before the appointment of the Second Rivers Pollution Commission, a Royal Commission on Water-supply was appointed under the presidency of the Duke of RICHMOND. Unfortunately, no chemist was nominated on this Commission, and the value of the conclusions arrived at are somewhat impaired by the omission. The report of this Commission, with two valuable appendices, appeared in 1869.

We must leave untold much that will be of vital importance in the labour of the new Commission. The Rivers Pollution Commissioners and the Commissioners on Water-supply differ diametrically from one another in their conclusions. Many schemes for future water-supply, some highly interesting, some absurd, were brought before each Commission and must now be reconsidered. Finally, bacteriology in its relation to disease has developed so rapidly in the last few years that it may almost be said to have been unknown in 1874, when the last great Blue-book was published.

MR F. W. LOWNDES, surgeon to the Liverpool police, has published in pamphlet form a paper[1] which he recently read at the Medical Institute of Liverpool, in which he sets forth from a medical standpoint some of the reasons why the office of coroner could better be filled by a member of the medical profession than by a solicitor or a barrister. There is much force in many of his arguments on the subject of this curious "survival of mediævalism," in respect of which "a general opinion prevails that much more security than exists for the election of suitable officials is needed." In ancient times the coroner was not thought to require special knowledge of either law or physic. He was a knight of the shire, who was "required to go upon information to the places where any be slain or suddenly dead, or wounded, and to summon four or five or six persons to aid him in inquiring when, and where, and how the deceased came to his or her death." Mr. LAWSON TAIT pointed out quite recently that the coroner's function as it exists now is "purely one of inquiry, the theory of which is that the inquiry shall be directed in all cases of death where the method of death is not clearly satisfactory." And *The Times* in like manner observes that "the operation of disease may be mysterious, or there may be reason to suspect violence. As soon as the coroner's court has ascertained the manner in which the fatal result was reached, its business is at an end." Mr. LOWNDES devotes himself to the question whether, in elucidating the mysteries of disease or the probabilities of violence, a knowledge of the laws which govern disease and health, and an intimacy with the modes of death, should not be the first essentials for adequate enlightenment. On the other hand, he asks whether familiarity with legal phrases and modes of detailing evidence should have the most weight, and if medical knowledge should be viewed as of secondary importance to an exact solution in a matter so restricted. Vague generalities, such as "found dead," "excessive drinking," "natural causes," and other equally unsatisfactory proofs of inability to state the true cause of death, need not entail much knowledge at all, either legal or medical; but neither can they be held to give an adequate verdict of the cause of death, which is the primary function of the court. He suggests that if every legal coroner had associated with him a medical assessor whom he would be bound to consult in every case where a discretionary power had to be exercised, the result would be different. Records of inquests held before the period of medical coroners are full of astonishing results arising from ignorance of the simplest medical facts on the part of coroners. In many a clear case of poisoning a verdict has been brought in and accepted by the coroner certifying that the deceased had "died by the visitation of GOD." From time to time incidents occurred which moved the tardy wheels of the Legislature in regard to this office, but the remedies were generally of a "meagre, miserable, and worthless character." The lack of medical evidence was deplorable, and the question of these "useless, expensive, and pernicious exhibitions" becoming one of national importance, a Select Committee of the House of Commons was appointed to inquire into the functions of the coroner. If it is urged that matters have become more satisfactory with advancing years, it is only necessary to refer to recent correspondence on the whole question.

Apart from these aspects of the subject, Mr. LOWNDES maintains that a medical man can administer the oath just as well as a barrister or solicitor, and looks upon the proceeding of "viewing the body" undertaken by persons who have had no previous medical training as a "farce." The object of this procedure is to obtain identification upon oath, and the due registration of all details, the latter especially when identification is impossible. The Bill to amend the Coroners Act of 1887, which Sir WALTER FOSTER has laid before Parliament, aims at dispossessing the jury of the function of viewing the body on which the inquest is to be held, unless the coroner or a majority of the jury should regard that procedure as essential. It may be readily questioned whether in the case of legal coroners their discretionary powers should be extended in this direction. Then there is the question whether a legal coroner is competent to decide the purely medical question of cause, in cases of sudden death, or of uncertified death, especially in those brought to his notice, but in which no inquest has, according to the exercise of his discretion, been deemed necessary. The ability of the medical coroner to obtain and deal with evidence has been frequently disputed by the members of the legal profession. Mr. LOWNDES answers the objection by remarking: "After

[1] "Reasons why the office of Coroner should be held by a Member of the Medical Profession," by F. W. Lowndes, M.R.C.S.Eng., surgeon to the Liverpool police.

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years of medical practice, taking the evidence of witnesses in the Coroner's Court would be a very simple matter indeed." But, after all, it is necessary to grasp intelligently the meaning of evidence before it can be sifted. The medical witnesses are often embarrassed in giving evidence by having, as it were, to explain to the legal coroner the use of medical terms. Numberless instances of misconception might be recorded from the published reports of coroners' inquests. Dr. BENJAMIN WARD RICHARDSON refers to this. "For seven or eight years," he says, "I had much practice of this kind. There was at that time one of the most remarkable men in London as coroner for this district (the Central Middlesex)—Mr. WAKLEY,—a man of intense earnestness, force of character, indomitable courage, and sound freedom of expression in the views which he took. He was a medical coroner, and I remember well how very different a matter it was to give evidence before him compared with giving it before a coroner who knew nothing about medicine. It was simply impossible to make a mistake before Mr. WAKLEY, for there he was, ever ready to test the truth down to the bottom. If it came to be a question of chemistry, anatomy, or pathology Mr. WAKLEY was ready. The result was that never have the public interests been so well served as from the time when Mr. WAKLEY as a coroner took them in hand. It is natural that a witness should be more exact if he goes before a man who is a competent judge than if he goes before one who has no knowledge of the subject beyond the rest of the community."

Indeed, a great part of the lifework of the founder of THE LANCET was directed to effect reforms in the Coroner's Court which he held to be of supreme importance to the public interests. In the discharge of his duties he never failed to exercise his opportunities either as a coroner or as a Member of Parliament for the public benefit, and we notice that Mr. LOWNDES characterises as absurd the contention of those who consider that coroners and their inquests are superfluous, and should be ended instead of mended. In the hands of duly qualified coroners, that Court has been productive of much influence for good. To take only one example, the abolition of flogging in the army, and subsequently in the navy, can be traced back directly to vigorous action taken in the Coroner's Court. It cannot be too often reiterated that the abolition of this barbarity was due to the courage of the first medical coroner, already referred to, who, in spite of the most strenuous efforts made against him, fearlessly and determinedly overcame every obstacle, and exposed to the public in all its cruel reality the story of the unfortunate soldier who had been flogged to death at Hounslow. It seems to us unfortunate that of the 331 coroners in England only fifty-one have any medical qualification. The curiosities in the way of verdicts arising out of this condition of things are supplied by some 247 coroners having merely legal qualifications, and it has been for the last seventy years our frequently expressed opinion that the anomalies, too apparent and frequent in connexion with coroners' inquests, might to an enormous extent be prevented if purely legal knowledge were replaced by medical knowledge, and technicalities and subtleties gave place to accurate and intelligent comprehension of observed fact. This, however, will not be possible unless for the vacancies which occur suitable medical candidates are forthcoming.

THE Charter of the proposed Gresham University has been remitted by the Government to the Privy Council for reconsideration, and it is understood that this will result in the whole question of a Teaching University for London being again submitted to a Royal Commission. This means a delay of a twelvemonth or more. It is intended that this Commission shall be formed by such of the former Commissioners as choose to again serve on the inquiry, and of some three or four others, so as to make up the number to nine or ten. It seems quite certain that one or more of the former Commissioners will decline to serve, and the name of Lord SELBORNE, the chairman, has been included amongst these. This is much to be regretted, as his lordship is more familiar with the necessities of the higher education in London and of the peculiar position of our medical students than almost any other public man. He not only presided at the sittings of the former Commission, but drew up the main report, and he was also the most active member of the Select Committee of the Privy Council. The questions he put to the various counsel engaged by the numerous bodies interested in the problem amply showed how well versed he was in the subject, and how anxious he was to clear up and arrange the conflicting views put before the Committee. We can well understand that the abandonment by the Government of the judicial decision of the Privy Council drawn up by him and his colleagues is sufficient to cause his retirement from any further action in the matter, but his absence will in every way give cause for regret. The other members of the Royal Commission were Lord HANNEN, Vice-Chancellor Sir JOHN T. BALL, Sir WM. THOMSON (now Lord KELVIN), Sir G. G. STOKES, and Mr. J. G WELLDON. Lord SELBORNE, Lord HANNEN, and Vice-Chancellor BALL signed the report urging a reconstitution of the University of London, whilst the inability of that body to carry out such a reform, as was shown by the vote of the graduates in Convocation in May last, was accurately predicted by the three members who had had practical experience in university teaching. We would strongly urge upon the Government, when adding other members to the Commission, not merely the justice, but the absolute necessity, of nominating some member of our profession who is conversant with the needs of London medical education, and who may be relied on to investigate and clearly bring into prominence the disadvantages under which the London medical student is now placed, since the University of London only gives degrees on such onerous conditions as to constitute them really "honours" degrees, as declared by the former Commission. The existence of the Victoria University, and the freedom of its Colleges from the restrictions under which they laboured when affiliated only to the examining University of London, afford the clearest proof that there is a need of, and a precedent for, the establishment of a medical degree to rank between the London degree and an ordinary qualification, with which latter it is not proposed to interfere. The

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opposition of the provincial schools of medicine was most ungracious and unwarranted, for the charge of an intention to lower degrees brought against the London teachers of medicine had been expressly and authoritatively refuted by their representatives again and again; but we are sure that another Royal Commission will only make it still more clear that to London medical students must be granted similar facilities for graduation as those existing at Manchester, Edinburgh, or Glasgow. Throughout the whole agitation in the press, at public meetings, and in Parliament the medical side of the question has received too little attention. We doubt whether the University of London, even though it may again make the attempt, can gather under its wing the various University Colleges in the provinces and in Wales, King's and University Colleges, unattached and collegiate students, and the London medical schools and those in the provinces, and mete out equal justice to its past graduates and to the future collegiate student in arts or science, much less in medicine. Its former scheme was the most unwieldy that could have gravely been put forward. The Gresham Charter presented a compact workable scheme, and, under a council composed of the various teachers as well as of the Crown nominees, would have done much to advance and consolidate medical teaching in London. We question very much whether the University of London can do a similar good service, whilst those who look to some great thing being the outcome of the Commission to be presently nominated will probably suffer much disappointment. The "democratic university of the future," and its establishment on a scale worthy of the metropolis, belong to the land where dreams are dreamed rather than to that which is guided by sober aspirations of practical teachers.

Annotations.

"Ne quid nimis."

THE IMPORTATION OF INFECTION BY SHIPPING.

AN important point has been raised by the Health and Sanitary Committees of the Corporation of Liverpool. It relates to the different procedures adopted under our present legislation with regard, on the one hand, to diseases the infection of which is practically endemic with us; and, on the other, to those, like cholera, which we deem to be of foreign origin. Small-pox, imported by vessels into the port of Liverpool, is allowed to spread, the sanitary authority getting little or no knowledge or power over it; and to this is attributed the fact that some forty cases of that disease are now under treatment in the corporation hospital. Then, again, it is pointed out that the distribution of authority in this country is most inconvenient, and calculated to prevent prompt action. Thus, when infection on board a vessel arriving in a port is in question, we have first the customs authorities and their powers; next comes the Privy Council, with their quarantine functions; then the Board of Trade are concerned; and lastly comes the Local Government Board, both as a central authority and as concerned with the administration of the Public Health Act by the local authority. The result is that Liverpool has decided to approach the Local Government Board on the basis of the following resolution:—"That the committee approve of the recommendation of the medical officer of health with reference to the more effective system of inspection of vessels coming into the port of Liverpool, and that the Local Government Board be respectfully requested to obtain such an alteration of the Quarantine Act as would transfer the power of dealing with all infectious disease on shipboard to the Local Government Board, and also to obtain an alteration of the Shipping Act relating to the passengers and the sanitary arrangements on shipboard." It must be admitted that our system for the sanitary control of vessels reaching our ports, and with regard to dealing with different diseases thus coming to our shores, is one that could never be defended if it were set out as a new scheme. It has grown up bit by bit, with increasing knowledge as to the necessity of preventive action; but early its stages preceded the formation of a public health department; and we now have to face the difficulty due to a number of departments dealing with the same or kindred subjects, and several of them clinging with tenacity to functions which they are ill-fitted to perform, but which must before very long be taken from them and amalgamated under one department. Whilst we would, for the present, avoid expressing any opinion as to whether increased powers should be given as to the control of individuals who are merely suspected of being bearers of infections that are current with us, we cordially agree in the main contention which Liverpool has embodied in the above-quoted resolution.

LIFE ASSURANCE AND DEATH CERTIFICATES.

A "Doctor of Medicine," upon whose letter to *The Times* we recently commented, writes us to reassert that he has good ground for saying that "there are members in our profession who would tone down death certificates." He does not, however, adduce any instances of the disgraceful conduct which in general terms he attributes to his professional brethren, and the only passage from experience which he gives us is the fact that he has himself been asked to examine for life assurance a patient who was suffering from cancer of the uterus. Our correspondent very properly refused to make the examination, knowing what he did know as to the condition of the person proposed for assurance, and he is not able to say what happened next. It is not necessary, therefore, to assume that the patient obtained a favourable medical report or a life assurance policy, or that any impropriety was committed by any person in this instance. We have the satisfaction of knowing that one medical man acted exactly as he ought to act in such circumstances, and we do not see any reason for making injurious assumptions about any others. While, therefore, we feel no doubt that a "doctor of medicine" is fully convinced that he has ample reason for the serious charges which he makes against his professional brethren, and while we quite agree with him that such conduct, if practised, should be strongly denounced and even severely punished, we must point out that it is the manifest culpability of such conduct which makes us loth to believe that it prevails in any part of the country. We, of course, do not pretend to believe in the probity and integrity of every man who holds a medical diploma. There are, as the old saying runs, "black sheep in every flock." But the charge, as we understand it, is that medical men in certain parts of the country are accustomed to fill up death certificates in such a way as to lend themselves to fraudulent life assurance. If that be so, the man who exposes the practice will be a public benefactor. But an accusation so terrible can only be made good by evidence precise, verifiable, and convincing. We cannot consent to take our opinions on such a matter at second-hand, even from the best informed and most judicious of our readers. A pseudonym which anybody in the kingdom might have assumed led us at first rather to suspect than

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to believe the anonymous author of so odious a charge; and although we have now learnt, from a direct communication, and to our great regret, that the accusation is made by a member of our own profession, and one for whom we entertain a sincere respect, we must still decline, upon the grounds already indicated, to admit that a case has been made out. No man is entitled in such a matter to be judge and witness both. We shall hope that he is mistaken until convinced by evidence of the fact that he is correct.

ETHER AS A STIMULANT AT THE TEMPERANCE HOSPITAL.

IT will be seen that Dr. Ridge, in a letter which we print in another column, refutes the statements of the correspondent of a contemporary (the *Echo*) that ether is used at the Temperance Hospital instead of alcohol. We are much pleased to insert Dr. Ridge's letter, and not sorry that our allusion (which he calls a homily) to the subject has brought forth his reply. Whether our short notice of a serious public statement be a homily or not, his rejoinder certainly partakes of that character, if not of that of an actual sermon. We shall not follow him into all the various medical aspects of the alcohol question. He should know that THE LANCET is not insensible to the responsibility of practitioners who prescribe alcohol, or who give medical sanction to its use. It is a very frequent theme in these columns. We are not prepared to argue that alcohol, like ether in Ireland, should be scheduled as a poison. But we look confidently to the profession to sharply define its medical and dietetic uses, and by such definition to assist in the abatement of our greatest national vice.

ENTERIC FEVER AT TEMPLE CLOUD.

AN outbreak of enteric fever at Temple Cloud in the Clutton rural sanitary district is naturally causing local anxiety, because it is believed to be due to contamination of drinking water. The *Bristol Mercury* has done good service in bringing to light the facts with regard to this matter. One main source of water-supply is an old coal-pit; and such a source is known by experience to be in many instances a suspicious one. Then there are local private wells, some of which are referred to as indifferent in point of quality; and lastly, there is a tributary to the Cam which is also resorted to. The guardians of Clutton are guardians of health as well as of pauperism, and, notwithstanding this, it is stated that in their Poor-law capacity they allow the workhouse to pollute the Cam, which stream they, as a sanitary authority, ought to protect. This special pollution does not seem to have influenced the enteric fever at Temple Cloud; but its existence naturally lessens confidence in the local sanitary administration. Whatever be the cause of enteric fever at Temple Cloud, it is evidently a recurring one, and the least that the sanitary authority should do is at once to call upon their medical officer of health for a report on all the sources of water-supply which are resorted to in the village, together with an account of any means of contamination to which they run risk of being subjected. And if any such sources of contamination cannot with certainty be cut off or otherwise prevented, the authority having the duty of seeing that their district is throughout supplied with a wholesome water-supply should forthwith obtain advice as to an alternative service from an extraneous source. As the matter now stands, the circumstances are wellnigh unintelligible. The medical officer of health has reported on certain drain nuisances, but he significantly adds that the question of water-supply calls very strongly for the immediate attention of the sanitary authority. And yet, when the sanitary committee subsequently meet, they resolve that because the houses having either a deficient or an impure supply belong, with one or two exceptions, to the same owner, the question "does not require any interference on the part of the Parochial Sanitary Committee." What this means it is difficult to determine. Everyone knows that the Public Health Act distinctly refuses to admit that the responsibility of a sanitary authority is ever removed by delegation of duty to a parochial committee; and in the case of Temple Cloud this is fortunate, for this special parochial body is described as "almost defunct." One thing is certain, that the question of ownership of special cottages has nothing to do with the duty of the sanitary authority itself to perform its functions of protecting the public of their district from preventable disease, and o seeing that the inhabitants are provided with a proper water-supply. And it is this that should be definitely pressed upon them either locally or, if this fails, from without.

"VENICE IN LONDON."

IN special reports on the subject we have dwelt at length on the difficulties of warming and ventilating theatres and places of public assembly. It is no easy matter to enjoy an evening's entertainment without being exposed to foul air, overheating, or else violent draughts. For some time, however, Londoners have been able to avail themselves of at least one opportunity of witnessing a magnificent spectacular representation without incurring such inconveniences and risks. At Olympia there is such a vast expanse of space that it would be indeed difficult to befoul the atmosphere. The main building measures 500 ft. in length, 300 ft. in width, and 120 ft. in height, or a cubic capacity of 18,000,000 ft. The hall, it is true, can, it is stated, seat 10,000 persons; but, even in the extraordinary event of every seat being occupied, there would still be close upon two thousand cubic feet of air for each spectator, or about double as much as is generally considered necessary in a hospital. The problem, therefore, at Olympia is not that of giving sufficient air, but of maintaining the temperature of the air at a proper degree of warmth. The space is so great that the impression produced is that of an out-of-door entertainment. This agreeable result has been attained in a measure by warming the water of the canals. What we suppose may be called the lagoon in the main building and the canals in the reproduction of modern Venice present a surface of water measuring altogether a mile and a quarter. The Rosher system of hot piping is laid throughout the canals, and the water is thus warmed; but it took more than a week of continual firing to warm this immense bulk of water. There are altogether three million gallons of water, and, as it is necessarily shallow, the surface of evaporation is correspondingly large. The water, therefore, readily parts with its heat, and thus warms the building; but the process of warming the water has to be actively carried on day and night. The temperature of the water is never allowed to fall. Theoretically it is supposed to be kept at 60° F.; but during the recent extremely cold weather, when outside water was converted into ice, the temperature of the canals at Olympia has fallen as low as 54° F., and has seldom been above 57° F. A warming surface of a mile and a quarter has converted the icy air coming in from the outside into a soft atmosphere, in which the spectator can sit on the terraces of the cafés overlooking the canals, or watch the spectacular representation with ease and comfort, as if it were a summer's day. Here and there, in corners, where they are not readily observed, the hot-air pipes may be found outside the water. They then part with their heat directly to the atmosphere. Olympia, therefore, as a place of entertainment, offers

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advantages similar to those of out-of-door pleasures, without the risk of the exposure to the rigour of our climate. The spectators may walk about or ride in the gondolas, stopping here to listen to the mandolin players or the melodious Italian singers, and there to watch the busy scene on the canals, where close upon a hundred gondolas flit about in every direction. The spectacular representation is one of the most gorgeous displays that has ever been presented to the London public. On the stage, which measures 300 ft. by 450 ft., 1400 persons appear simultaneously, without causing any sort of encumbrance, or in any way interfering with the atmospheric condition of the great hall. The large lake of warmed water between the stage and the spectators, and the distance of 120 ft. from the surface of the water to the roof above, constitutes a vast space where the air vitiated by the performers and the spectators is diluted and mixed with the unused supply. Thus an excellent entertainment can be enjoyed without any of the risks and inconveniences that mar the charm of even some of our best theatres.

A RIGOROUS EXPERIMENT.

INTERESTING and perhaps important in point of utility, an experiment lately carried out in the Russian army must come dangerously near to censure if tried in the light of humanitarian principles. In order to ascertain whether tents would suffice to shelter troops in the field during severe winter weather, eight soldiers chosen at random were, it is stated, made to pass the night, or as much of it as they could endure, under such conditions. Every care seems to have been taken to provide these men with warm and heavy clothing, and the snow within the tent was beaten down and covered with mats and straw. The men slept comfortably from nine in the evening until nearly four next morning, at which hour the thermometer showed that the temperature, originally registered as 31° F., had fallen to 4° below zero, within as well as outside the tent. Nature could then endure no more; sleep was impossible, and the soldiers only saved themselves from freezing by taking exercise in the open air. Everyone can understand the bearing of such observations on practical warfare, and we would not lightly disparage their useful intention. Nevertheless, it is something new to find the human species thus subjected to such an *experimentum in corpore vili*, and we sincerely hope that military necessity will not—as we believe it should not—call for its repetition. The recorded experience of arctic voyagers—who have often camped out in tents—may surely now suffice for evidence as to the amount and quality of clothing and of tent appliances required to withstand the extremes of winter cold.

THE DEBATE ON PHAGOCYTOSIS.

THE debate at the Pathological Society came to a close on Tuesday last, having thus occupied three evenings. It has certainly been of great value, and it says much for the skill with which it has been conducted that the interest in a subject which involves of necessity many points and arguments that are not easily grasped by the uninitiated should have been so well maintained. The paper with which Dr. Ruffer opened last Tuesday's proceedings was well worthy of the subject, and of one who is entitled to be regarded as perhaps the foremost student of phagocytosis in this country. It seemed to leave no debatable point untouched, and dealt in masterly fashion with the criticisms of Dr. Klein and the alternative hypothesis of Buchner and his followers. One great merit of this paper was the care with which its author avoided using the somewhat equivocal phraseology that has sprung up around this subject. There is no such thing, he boldly said, as "immunity" in the absolute sense, and throughout he preferred to speak of animals as being "naturally resistant" or "artificially protected," instead of using the hyperbolic terms that have become current. Phagocytosis, he maintained, is the only process which has been proved to be essential in the production of this resistance or protection, although "neither Metchnikoff nor any of his pupils has ever said that this was the *only* cause of natural or artificial resistance." Mr. Ballance's lucid exposition of the active part played by the fixed tissue cells in inflammation and repair and the subordinate *rôle* of leucocytes led up to the declaration that the former are probably the chief agents in phagocytosis; although the essentially chemical nature of the processes whereby immunity is secured was also pointed out. Mr. Hankin's interesting discovery of a proteid in the spleen of the white rat having bactericidal properties—although discounted by the supporters of the exclusive phagocytosis doctrine—undoubtedly gives strong support to the chemical theory of protection, and his speech was interesting as affording a reply to some of the arguments of Dr. Ruffer. In replying on the whole case, Dr. Sims Woodhead claimed that all the evidence hitherto adduced spoke in favour of phagocytosis being the agency at work in the living body, since the evidence on behalf of the humoralistic doctrine was derived from blood-serum or its products, which probably do not exist as such in the living animal. The summing up of Sir George Humphry was weighty and judicial, and his tribute to English bacteriologists was felt to be well deserved. The debate will, we doubt not, go far towards opening up new paths of research in this extremely interesting question.

RECOVERY OF MEDICAL CHARGES.

IT is always gratifying to report the success of a medical man in an action for recovering his charges. We have lately had occasion to notice the frequency with which such actions are rewarded by success. A case has just been reported in the *Sussex Daily News*, where, on March 8th, Dr. Whitmarsh of Brighton brought a claim against the Rev. J. Moses, rector of Itchingfield, for £25 odd for attendance on the defendant's wife and daughter. Medical particulars were not given. The defence was that the visits were too frequent and were over-charged. The defendant paid twelve guineas into court. The plaintiff, on the contrary, maintained that there was no excess of visits, and that the charges were reasonable. His Honour (Judge Martineau) said that, in regard to the number of visits, one must trust to the honour of the medical man. "If one thought that the doctor was making a job by running up the bill unnecessarily, the sooner one got rid of him the better." The jury found for the full amount, and expressed their belief that all the visits charged for were paid and that the charges were just.

MEDICAL LEGISLATION IN NEW SOUTH WALES.

THE Minister for Justice has introduced to the Legislative Assembly a Bill passed by the Legislative Council in 1890 to regulate the practice of medicine and surgery in New South Wales. The object of the Bill is to secure the registration of all regular practitioners possessing respectable diplomas, including those registered under the Imperial Act of 1886, or possessed of the degrees or diplomas of our examining bodies. The difficulty in such legislation is to deal with persons who have been practising for a certain time in the colony without diplomas. Great care is needed here, or the profession becomes identified with men who are sure to discredit it and to greatly injure the public. The following way of dealing with advertising quacks is somewhat original. The 17th clause is in these terms:—"Any person who shall advertise as treating disease, injury,

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or ailment shall state his Christian and surname in full in the advertisement, and shall also place them upon any house or premises to which such advertisement refers, and, if not a medical practitioner, shall also add '*not registered under the Medical Act, 1890*,' in such manner as is prescribed by regulations. Any person who shall violate or neglect to comply with the requirements of this section shall be liable for every such offence, for every day he is guilty thereof, to a fine not exceeding £5; and any person, not being the person whose name appears in any such advertisement, who shall treat disease, injury, or ailment at any house specified in such advertisement, purporting to be the person whose name appears on such house or in such advertisement, shall be liable to a penalty not exceeding £25 for every such offence, and the proof of being such person shall lie on the defendant."

THE ROYAL BRITISH NURSES' ASSOCIATION.

WE publish on another page a letter from H.R.H. Princess Christian respecting this Association and its work which will attract great attention and awaken no small interest throughout the circle of our readers. The manner in which the endeavours of the founders of this society to create an organisation which shall consolidate and represent the profession of nursing in Great Britain have been beset and hampered by an interested opposition on the one hand and official perversity on the other is a very recent story, upon which we have been compelled from time to time to speak in terms other and stronger than we should have desired to use. But the difficulties so created have not daunted the promoters of the movement, who are entitled to the credit of having persevered with exemplary determination in the task to which they have set themselves. On the other hand, it cannot be doubted that the very sharp fire of criticism to which the scheme has been subjected has enabled its framers to perfect its details, as they probably could not have done without this assistance, although the tone and manner of the criticism have absolved them from any oppressive sense of gratitude to their critics. The result of this not too genial coöperation is before our readers in the abstract of the Draft Charter, which we publish on another page. From that abstract it will be seen that H.R.H. the President is supported by a distinguished body of corporators, whose eminence cannot fail to satisfy the Privy Council that the scheme commands the cordial support of at least a fully representative body of medical men and nursing authorities. If it should be necessary to renew at Whitehall the discussion which has been carried on in the press and elsewhere ever since the initiation of the movement, we do not doubt that the promoters, who have had much the best of the argument throughout, will be able to satisfy the committee, which is at least too familiar with legal procedure to adjudicate upon a claim without hearing in its support those who advance it.

THE MEDICAL MISSIONARY.

THE Edinburgh Medical Missionary Society has just celebrated its jubilee, and in the speeches delivered on the occasion the amplest evidence was adduced of the success with which it has been worked, and of the yet greater future in store for it. History repeats itself, and the medical scholar will note the fact that, while the healing art had its first beginnings under the fostering care of the priesthood, it has returned, in one important field of its exercise, to its early alliance with religion. Returned, we say, but with a difference, for while in ancient India and China medicine was made the instrument of a degrading superstition, it has nowadays become in those very regions the handmaid of a civilising faith; the two professions, that of practitioner and preacher, coöperating duly each in its proper sphere, for the rehabilitation of a morally and intellectually impoverished humanity. In the first quarter of the present century religion and medicine had no grander representatives than Dr. Chalmers, on the one hand, and Drs. Abercromby and Alison on the other—the men at whose instance the Edinburgh Medical Missionary Society sprang into life. Every decade that has since elapsed has witnessed an advance both in the theological and the medical qualifications of its votaries, till it attracts to its service young men combining in both capacities a professional efficiency unsurpassed by their home-placed contemporaries in either. Dr. Martyn Clark was able to draw on his great Indian experience in proof of this position, insisting as he did on the necessity of exacting from the medical missionary a standard of excellence in his twofold activity not inferior to that of his single-handed brethren of the Motherland. Already, as the literature of the profession can testify, the resources of the healing art have been enriched by medical missionary labour and experience; while an interesting paper might be written on the peculiar advantages possessed in the field of territorial exploration by pioneers who have combined with the religious impulse the accomplishments and the spirit of the surgeon and physician. Names like those of Mungo Park and Livingstone rise at once to the memory; and among German and Italian explorers of more recent date the twofold coincidence receives yet fuller illustration. At the meeting in Edinburgh on Monday last Mrs. Bishop, herself a traveller of distinction, pointed out the vast field yet to be covered by such societies, whose emissaries are everywhere "the object of love and trust, everywhere offering in themselves the best interpretation of the Christian law of love." Great Britain is the most successful of colonising Powers. The rapid development of her medical missionary societies is the most effective proof that, in the highest of all respects that success is merited, and will be more than maintained.

FAT EMBOLISM.

DR. W. F. WHITNEY contributes a paper on this subject to the *Boston Medical and Surgical Journal*, Feb. 18th, 1892. He relates the case of a man, aged sixty-two, who sustained a fracture of the right femur by the falling of a life. Nothing unusual was noticed until the middle of the third day, when vomiting commenced, and fluid collected in the abdominal cavity. The patient died on the fourth day. At the necropsy the vessels of the lungs were found to be extensively plugged with fat; the head was not opened, and all the other organs were healthy. Dr. Whitney reviews some of the work which has already been done on the subject. Majendie, in 1827, was the first to prove experimentally that oil injected into the veins of an animal would produce death. But it was not until 1862 that Zenker called attention to the presence of fat in the vessels of the lungs in some cases of death after fracture of the leg, and it then came to be regarded as sufficient to account for the fatal issue. "But gradually, as the infective processes with which it was often associated were better understood, the conviction grew that fat embolism of the lungs alone was not sufficient to produce death, and that its action on centres more remote must be considered. By far the most thorough and exhaustive study was made by Scriba in 1879, and since then but little has been added to our knowledge. The problems which he proposed were: 1. How much fat is required to kill? 2 In what way does it act? 3. How is it eliminated? In answer to the first question he found that in order to kill an animal by fat embolism a quantity is necessary varying with the force with which it is injected and with the distance of the point of injection from the heart. But in

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no case was it less than three times the amount of fat contained in the entire femur of the animal. His conclusion as to the mode of action is that death after aseptic fat emboli occurs only from large numbers of them in the brain and spinal cord, and in consequence of the arterial anæmia and the resulting disturbance of nutrition." He further showed that the oil has no action on the heart, and that in regard to the lungs, five-sixths of the arteries must be tied before an animal is killed, and that therefore there is never such a degree of embolism of the lung capillaries that death must result. On the other hand, it is the fat which has passed the lungs and reached the central nervous system that is the cause of death. In answer to the third question, his experiments and clinical evidence point to the kidneys as the organs by which the greater part is eliminated. A smaller part is undoubtedly burned up in the system. Of the symptoms noted, one of the most striking was the constant fall in temperature. Another symptom was dyspnœa, due to the loss of oxidation of the blood; this was often only transitory. Slight hæmoptysis, due to infarction, has also been noticed. The most important clinical symptom of fat embolism is the presence of oil in the urine. Scriba sought this in a number of patients suffering from fractures, and was able in nearly all the cases to demonstrate it to a greater or less degree. The fat could not be recognised as such by the eye alone, but with the microscope there were seen numerous very small, round drops, which were highly refracting, and had a fine dark border. The elimination was not continuous, but interrupted. A marked pallor of the skin and mucous membranes was noticed in all the animals experimented on.

DEATH OF DR. C. MEYMOTT TIDY.

WE regret to have to announce the death of Dr. Charles Meymott Tidy. Dr. Tidy last year suffered from an attack of influenza which left him much impaired in strength, flesh, and colour. He seems never fully to have recovered, and for the last few months he has been much hindered in the discharge of his multifarious duties. He was Professor of Chemistry, Medical Jurisprudence, and Public Health at the London Hospital, the official analyst to the Home Office, and medical officer of health for Islington. He wrote many works on legal medicine, and was the author, conjointly with Dr. Woodman, of a "Handy Book of Forensic Medicine and Toxicology." He had for some time assisted in drawing up the monthly and annual reports on the quality of the water supplied to London. He graduated with the highest honours in Aberdeen University, was a Member of the Royal College of Surgeons, and a Licentiate of the Society of Apothecaries. He was also a barrister at law. His position was due to no accident of birth or education, but was the result of inherent ability and indefatigable work.

THE NOTIFICATION OF MEASLES.

AT a recent meeting of the Public Health Committee of Cork a forcible letter from Mr. Donovan, the superintendent medical officer of health, was read, arguing the unreasonableness of leaving out measles from the list of notifiable diseases under the Notification Act. Mr. Donovan pointed out how much more fatal it is than the diseases whose notification is specified in the Act. Thus in the three years 1886, 1887, and 1888 the deaths from erysipelas, simple fever, and measles were respectively 1, 2, and 159. From the comparative abeyance of measles in recent years, except 1887-8, he estimates a large number of children to be liable to the disease, which is already showing itself in different parts of the city. He is strongly of opinion that the early notification of cases would tend greatly to prevent an epidemic. The absence of measles from the notification list is the more marked as it used to be notified before the Act. These obvious and weighty considerations prevailed with the committee, which, on the motion of Mr. Atkins, took steps to have measles included in the Notification Act. We may expect this course to be followed by all sanitary authorities who are not penny wise and pound foolish. Some authorities are concerned at the fact of having to pay for the notification of measles. At Kidderminster, where the authorities had received notification of ninety-five cases of measles since Feb. 1st, one gentleman complained of the cost as a perfect waste of money. In moving the adoption of the Health Committee's report Mr. Parry complained that they did not receive from some medical men all the help they might expect, and seemed especially displeased with one gentleman who very properly apprised the Committee of a recent decision—Chisholm *v.* Radcliffe Local Board—that medical men notifying cases were entitled to the full fee *without deduction for postage*. It will be unworthy if the authorities show any illiberality towards medical men doing their duty. On the contrary, they should reward early notification by generous admission of its utility, if not by extra pay. They should allow, too, for the difficulties of notification, arising from difficulties of diagnosis, which are felt by all but the ignorant.

THE REPORT ON PERFECT COMBUSTION AND SMOKE PREVENTION.

WE have received a very lengthy communication from Mr. J. Knapton Thompson, C.E., of Leeds, claiming that a portion of the construction of Leggott and Marsh's patent fire-range violates an invention and patent of Mr. J. Knapton Thompson in, as he alleges, two most important particulars. It is obvious that we cannot decide between the rights of the respective parties, nor have we room in our columns for such a discussion. We simply described the fire-range as we found it.

A NEW BOMBAY VACCINATION BILL.

THE *Times of India* contains a very interesting report of a meeting of the Council of the Governor of Bombay for the purpose of hearing the second reading of a Bill to prohibit the practice of inoculation, and to make the vaccination of children in certain parts of the Presidency compulsory. The meeting was addressed at great length by the Hon. Mr. Javerilal W. Yajnik, the Hon. Mr. Rao Bahadoor, Mr. G. Ranade, the Hon. Mr. N. N. Wadia, the Hon. Mr. J. R. Naylor, and others. The second reading was moved by the Right Hon. Sir Charles Pritchard. Vaccination has been compulsory in Bombay since 1877. The purpose of the present Bill is to extend the law to other parts of the Presidency. The discussion was very creditable to the intelligence of the Council, not least to its native members. The chief feature of the Bill is that it enjoins compulsory vaccination with calf lymph whenever the parent or guardian of the child shall so require. Practically all the speakers recognised the benevolence of this law, and agreed to the principle. The only subject on which any material difference arose was contained in certain words in Section 14, giving the Governor in Council power to sanction vaccination with human lymph in cases of emergency and where delay would be dangerous. His Excellency the Governor heard objections stated at great length and certainly with much ability. But finally the Bill was read a second time on the understanding that the time for the statement of such objections was in committee. The objection is based not only on the ground that disease, such as syphilis or leprosy, might be conveyed through vaccination, but that considerations of caste might be offended by vaccination from those of inferior caste. Mr. Naylor spoke with great force in defence of the Bill as

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it stands, and made a statement to the following effect: "No case that I have ever heard of in India has been brought forward as a proof that the employment of human lymph is dangerous to the health and life of the child. I have now had pretty nearly thirty years' experience of the Mofussil, and in the course of my duties have come across Indian gentlemen of all classes, and I cannot recall an instance in which I have ever had brought to me a single complaint against the use of human lymph." We commend this statement to anti-vaccinationists at home, and the fact that the principle of compulsory vaccination is recognised by all classes and creeds in Bombay as a law of benevolence and wisdom. We think the Government are right in reserving to themselves power to use human lymph in emergencies. The supply of calf lymph is practically capable of great extension, but in the case of outbreaks in outlying districts it would be absurd to hesitate in the use of arm-to-arm vaccination where animal lymph was not at hand. Arm-to-arm vaccination is still practised in England, though there is an increasing disposition to supply the alternative of calf lymph.

THE ROYAL MEDICAL BENEVOLENT COLLEGE, EPSOM.

EPSOM COLLEGE is an institution not unknown to our readers, and one the claims of which have on many occasions been advocated in these columns. The appeal which we print to-day from the chairman of the Council and other representative officers of the institution brings the matter afresh to the notice of the profession under a new aspect; but the position is by no means hard to understand. The work of the College is twofold. It affords a retreat to a certain number of poor and incapacitated medical men or their widows during the declining years of life. It also provides a first-class education for some 600 boys, among them being foundationers. At present these two departments are carried on under one roof, and the arrangement, not an ideal one at best, has become exceedingly inconvenient by reason chiefly of the growth of the school, which demands more space than is afforded by the accommodation at present assigned to it. Hence the Council propose to send the pensioners home to their friends and convert the premises at present occupied by them to educational purposes. It is, however, impossible to carry out this plan without providing the pensioners with such allowances as will enable them to live elsewhere. The dwelling accommodation which they at present enjoy free of cost is a large part of their allowance, and if this be withdrawn it must be compensated for by an additional pension granted in lieu of it. To provide such additional pensions the Council are appealing for a capital sum of £26,000, in furtherance of which object the Lord Mayor of London has consented to preside at the biennial festival of the College on the 5th proximo. The cause is one which does not need to be supported by eloquent or ingenious pleas; to state the facts is to plead the cause, and we hope that the timely notice of the festival now given will secure a large attendance, in which case we have no doubt that the necessities of the College will evoke a generous response.

ARMY RECRUITING.

LIEUTENANT GENERAL FIELDING, the Inspector General of Recruiting, has just issued his yearly report. He states that the total number of recruits that joined the regular army during 1891 was a little over 36,000. Of these, there were 12 975 specially enlisted, either on account of their not being up to the required standards or because of the regiments selected by them being closed for recruiting. We have not space to go into the details connected with these figures and the inspector-general's remarks as to the medical examination and the chief causes of rejection, nor can we discuss those sections of the report dealing with the waste of the army and the army reserve. As regards the militia, out of 37,487 recruits enlisted only 34,983 were finally approved and came up for preliminary drill. General Fielding's report refers to the depopulation of rural districts and the increase of towns, the comparative failure of Ireland as a recruiting ground, and other things as seriously affecting recruiting. That the returns for each year show a steady decrease of crime of all sorts in the army is a satisfactory and well-known fact. After due consideration of the subject from every point of view, and in face of the necessity to provide over 39,000 recruits during the present year, General Fielding cannot do otherwise than recommend that no change be made in the standards of age, height, weight, or chest expansion, and in the permission to enlist lads of eighteen and upwards who appear likely to develop into efficient soldiers. With the continuance of these regulations he does not apprehend that any well-founded ground for complaint will arise as to the ultimate fitness of most recruits for the career of a soldier.

THE COUNTY COUNCIL.

WE observe with much satisfaction that the London County Council has elected amongst its aldermen Sir John Lubbock, Mr. Beachcroft, and Mr. Hoare. Sir John Lubbock occupies so high a position among thinking men that his association with the London County Council will materially strengthen it. Both Mr. Beachcroft and Mr. Hoare have done excellent work on the Housing of the Working Classes Committee, and it may be anticipated they will take prominent positions on the Public Health Committee which will shortly be constituted.

"ELIMINATION OF MICRO-ORGANISMS BY THE SWEAT."

UNDER the above title a short paper appears in *L'Union Médicale* for March 3rd of this year. It commences by stating that it is still an unsettled question as to whether micro-organisms are able to pass through certain vessels and organs, and then be eliminated by means of the kidneys or intestinal canal, when these organs are in themselves perfectly unaffected and in a healthy condition. According to some authorities, amongst whom is Wyssokowitch, such an event can only occur when there is a sanguineous exudation, or the tissues of the kidneys or intestine are diseased. Some observers, on the other hand, deny that such conditions are necessary. Thus Trambusti and Maffucci maintain that they have found anthrax bacilli in the urine and bile when no disease whatever could be found in the kidneys and liver. Baumgarten, again, states that he has seen tubercle bacilli pass from the blood into the tissues when the walls of the vessels were quite healthy. From other authorities we learn, on well-established evidence, that pathogenic micro-organisms can pass into the milk when the mammary glands are unaffected. Brunner[1] investigated this matter from another side, and demonstrated the fact that pathogenic microbes could be eliminated by means of the sweat. This investigation was met with a great difficulty from the outset—namely, that it was not easy to sterilise the skin so as to be sure that the micro-organisms which were found in the secretion, and cultivated in artificial media, were derived from the tissues and fluids of the body, and not from its cutaneous surface. This difficulty was overcome by using animals for experiment which had been inoculated with disease, the pathogenic organism of which could not accidentally have found its way on to the skin. The animal was then made to perspire profusely by artificial means, pilocarpine being usually employed for this purpose, and then

[1] Berlin. Klin. Wochenschrift, May 25th, 1891.

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further inoculation and cultivation experiments were made with the sweat. Proceeding in this way, Brunner injected a culture of staphylococcus aureus into a hog, one of anthrax into a cat, and one of micrococcus prodigiosus into a sucking-pig. In all three cases the microbes injected were found in the sweat, and also in the saliva. This is an important discovery, from both practical and theoretical points of view. It gives to crises, accompanied by profuse perspirations, which may be produced artificially or occur naturally, a still more important place than they formerly held. It also demonstrates that there may be great danger in allowing a patient who has been sweating profusely to possibly reabsorb the secretion, and that therefore it is a good plan to employ moderate friction with dry cloths when such a crisis occurs, and to subject all linen and clothing capable of absorbing the sweat to immediate disinfection. Another precaution which the investigation indicates is that when an abscess is discharging externally, or when a patient is suffering from erysipelas or other infectious cutaneous affection, there is great danger to the patient himself if the linen &c. are not changed after profuse sweats, as the micro-organisms may possibly be absorbed by the skin. It is singular, however, that several observers (including Mattei, Surmont, and Lille) have failed, after numerous attempts, to find tubercle bacilli in the sweat of phthisical patients; so numerous have such trials been that we may almost consider it as absolutely proved that such migration of the bacilli does not occur.

A MEDICAL CENTENARIAN.

IN a morning contemporary of the 16th inst. is published the following paragraph: "Mr. William Salmon of Penllyne Court, Glamorganshire, who was born in the parish of Wickham Market, Suffolk, on March 16th, 1790, completes his 102nd year to-day. He is supposed to be the oldest living Freemason, and the oldest member of the Royal College of Surgeons." On reference to the College Calendar we find the name of William Salmon under the date 1809, in which year Thomas Keate was "Master" (there were no "Presidents" in those days). Mr. Salmon was perhaps examined by Everard Home (the first "President" and the brother-in-law and executor of John Hunter), whose name appears in the "Court of Examiners" for 1809. John Hunter died in 1793, so that there is still living a member of the profession who was born before the great surgeon's death the centenary of which is fast approaching. Truly, Mr. Salmon is a most interesting link with past professional history. Would it not be a graceful act on the part of the Council to confer honorary distinction on their venerable "Member"?

THE CLEANSING OF WOOD PAVEMENT.

No one who has lived in a city during recent years will dispute the fact that wood pavement now in such common use, notwithstanding the comparative ease and quiet it has introduced into the course of traffic, is open to at least one permanent objection. It is, in consequence of its comparatively non-absorbent composition, essentially dusty, and the dried mire and refuse of the thoroughfare, not wholly removed by the boys with brush and shovel, is blown here and there, and is a cause of annoyance to the olfactory sense and the air-passages of any persons whose perceptions have not been quite blunted by its repeated irritation. We might speak, too, of possible risks of contagion. Germs in endless variety may be looked for among its particles, and if we are happily not ourselves conscious of their mischievous influence we may attribute this, not to their assumed absence, but rather to personal immunity, or more probably to the attenuating influence of surrounding air and sunlight. If we ask by what means this chronic inconvenience may best be remedied, one principal agent, water, however applied, seems alone to promise an effective result. It has been suggested that the watering cart now in use for this purpose were best superseded by a hose worked often and regularly upon all roadways paved with wood. The suggestion is a good one. It would, however, we fear, prove expensive both as regards the supply of apparatus and of labour. The same end would be served, and probably at a less cost, by supplementing the existing agency of water carts by means of a roller brush like that used in clearing tramway lines. Whatever the method employed, it behoves local authorities to give the matter their early consideration. Should we be favoured with a period of dry, mild weather after the recent snow, frost, and rain, we need have no doubt that March winds will early remind us, whether in town or country, of the discomforts of the dusty highway.

NEURITIS FROM EXPOSURE.

IN the new *International Medical Magazine* Dr. G. W. McCaskey utters a word of warning with regard to the early recognition and treatment of the simpler forms of nerve inflammation. Many of these, he says, are first regarded as cases of rheumatism or neuralgia until a subacute or chronic stage has been reached, at which the condition is very intractable. To assist in making the diagnosis he emphasises the importance of discovering whether there is tenderness in the nerve trunks as well as of attending to the etiological factors in the condition. Amongst these exposure is conspicuous, and continuous pressure is also to be kept in mind as a not uncommon cause. With regard to treatment, absolute rest is insisted upon. Even the hand, if the arm is affected, must be rendered immobile, and the limb should be placed in the posture which exposes the nerve trunks to least tension. The free use of hot compresses to the limb is also recommended, but in the early stage the beneficial effects of electricity in any form are somewhat doubtful. A compress, however, as hot as it can be borne, usually secures marked relief from pain, and allows morphia to be for the most part dispensed with; and after the acute symptoms have subsided the use of a weak galvanic current—whether ascending or descending is of little consequence—is strongly recommended.

THE VENTILATION OF COW BYRES AND TUBERCLE.

ANYTHING bearing upon public health which comes from the pen of Dr. J. B. Russell is always worth careful perusal, but he has seldom set forth more important considerations than those which he has included in a memorandum in which he points to the need of some modification in the existing system for the licensing of cow-byres in Glasgow; his object being to secure that such questions as the ventilation and the cubic capacity to be required in cowsheds shall be controlled by the sanitary authority. Throughout he holds in view the danger which the public run of contracting tuberculosis through the agency of cow's milk, and in considering, in the first instance, the necessity for maintaining the health of the cows themselves, he quotes Professor MacFadyean to the effect that "there is not a single known fact in connexion with physiology to lead us to believe that those animals are any more resistant to the prejudicial influence of the effete matters they add to the atmosphere than human beings are." He then recalls the fact that the Army Regulations require 1600 cubic feet for each horse, and that in the army horse-infirmaries 1900 are insisted on; and he again quotes Professor MacFadyean, who says that "probably a suitable cubic capacity would be, for a cow or other full-grown bovine, 1200 cubic feet." But when we come to compare

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horses and milch cows, we must remember that the health of man is directly concerned in the latter, whereas the health of horses has no such bearing. And, further, the horse is not exposed to any such exhausting process as an artificially induced excessive lactation, so that whatever is needed to maintain a horse in reasonable health can hardly be deemed excessive in the case of a cow supplying milk for human consumption. Having regard to all these considerations, it is somewhat startling to find that in Glasgow the prescribed space for the town-stalled cow is only 400 cubic feet, that in Kilmarnock the same has hitherto been allowed, and that in Oldham as few as 350 cubic feet have been sanctioned. Kilmarnock now makes a slight advance to 500 and Oldham to 600 cubic feet. The majority of towns from which information could be obtained require some 800 cubic feet, and the Local Government Board have also advocated that as a minimum standard. According to recent experience, such a standard cannot be regarded as excessive; and, if health alone had to be considered, it must necessarily be regarded as falling short of that which ought to be provided in the case of milch cows, whether in town or in country places. The main objection raised against a healthy standard has been the contention that warmth is necessary to maintain the flow of milk. But, as Dr. Russell asks, is this warmth to be the heat of the cow herself, preserved by enclosing her in an atmosphere loaded with impurities from her own pulmonary, cutaneous, and intestinal excretions? He definitely states that no conditions could well have been more surely devised for the cultivation of the bacillus of tubercle than those of a cow drained by the forced secretion of her milk, living in an atmosphere heated by her own body, and loaded with her own organic impurities. A free flow of milk from tuberculous cows is, in the first instance at least, profitable to the farmer; but, quite apart from the danger which it involves to our milk-fed children, it surely cannot, in the end, pay the farmer to produce tuberculous cows by such means as have hitherto been so common, and such as Dr. Russell so graphically describes. The cry of farmers is for compensation in the case of cows found to be tuberculous, and this cry has in the main led to the Royal Commission on Tuberculosis. But surely, so long as there is any chance of profit as the result of keeping cows under conditions which must certainly tend to tubercle, the case can hardly be one for compensation to the owners of these cows. Dr. Russell's memorandum, which is primarily addressed to his own authority, deserves the serious consideration of all sanitary authorities and dairy farmers; and so long as such conditions obtain as he describes, so long will it be important for parents and householders to boil or otherwise cook all milk used for the purposes of human consumption.

CHOLERA OCCURRENCES.

IN Syria the villayets of Aleppo and of Damascus have now remained free from cholera since early in January; and in Beyrouth the disease would seem to have almost disappeared, a few mild or suspicious attacks alone having occurred at Halessa and the immediate neighbourhood of that place. The Hedjaz is also free; Yemen district is, however, still looked upon as "suspect," although no definite occurrences of cholera would appear to havebeen reported thence. The cholera epidemic in Japan caused 4020 deaths in 1891. This is much less than in 1890, when 31,463 fatal cases were recorded. It is also to be hoped that the 1891 outbreak closed the epidemic period, for no fatalities were recorded during the month of December. From Teheran comes recent intelligence to the effect that cholera is widely prevalent amongst the inhabitants of Herat, and that the disease is extending. Within the last two years we have had repeated information as to cholera in Persia, but it was mainly towards the western portion of that empire, and in connexion with the epidemic in Mesopotamia; but this by no means implies that the disease at Herat has not been imported owing to unreported occurrences of cholera in Persia. Herat lies some fifty miles beyond the western boundary of Persia, and at the present moment the disease is stated to be spreading eastwards towards and across the Perso-Afghan frontier, along the main road from Herat to Meshed; Kuh-Sam, the last Afghan town in the direction of the frontier, is already attacked. Russia is taking special precautions against the spread of the disease from Afghanistan into Russian territory.

PARLIAMENTARY MATTERS.

MR PEASE has procured from Mr. Balfour the consent of the Government to a Select Committee on the registration of midwives. This is undoubtedly the way in which to settle this vexed question, and to give a fair hearing to all opinions. It may be questioned, however, whether Mr. Pease would not have shown more discretion in waiting for a new Parliament. Members are thinking now of little but their constituencies. Dr. Cameron hopes to induce the Government to order more perfect returns from the authorities of churchyards and cemeteries as to the number of burials of stillborn children. With regard to the present position and prospects of the Gresham University and the action of the Government in regard to it, we may refer our readers to a leading article in our present issue.

EFFECT OF DEEP INSPIRATION ON THE ASSIMILATION OF FAT.

ACTING on Professor Chudnovski's advice, Dr. A. Pavpertoff has made a series of observations on the effect of deep or forced inspiration and expiration on the assimilation of the fatty matters contained in food. The observations were made on nine healthy young persons, some of them being carried out in winter, others in summer. The sittings were held once a day in a large and well-ventilated room, each subject making from 120 to 200 forced inspirations and expirations. By analyses of the fæces during the three periods—before, during, and after the forced inspirations—it was found that the amount of fatty acids in the fæces in all cases diminished during the second period, the average diminution being 1·246 per cent. In the third period the quantity of fatty acids, as compared with that excreted in the first, diminished slightly in some cases and increased slightly in others. All that can be stated therefore as the result of the experiments is that a slight increase in the assimilation of fat takes place while forced or deep respiration is going on. The above research is published as a "preliminary note" in the *Vrach*, No. 6, 1892.

INTRA-CRANIAL SURGERY IN ITALY.

IT is cheering to witness the advance of surgery in Italy, which now bids fair to resuscitate the best traditions of Fallopio, Tagliacozzi, and Scarpa. Intra-thoracic and intra-abdominal surgery owe not a little to her recent operators, prominent among whom may be mentioned poor Count Loreta of Bologna, whose tragic end on July 23rd, 1889, as described in THE LANCET of Aug. 3rd following, is one of the saddest pages in the annals of the profession. His resection of the liver, and, still more, his digital divulsion of the œsophageal and pyloric orifices of the stomach, did not require the commemorative tablets in the Bologna Hospital and University to perpetuate their author's pre-eminence among his contemporaries. His influence and teaching are still active for good in the direction which would have pleased him most—that of intra-cranial surgery. In Florence, the week ending March 12th has been

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signalised by a brilliantly successful operation in this department. Professor Baiardi, of the Spedale della Maternità there, had under his charge in the children's ward a little boy of four years and two months, suffering from "general cortical epilepsy," according to the official bulletin, "and idiocy." Having trepanned the cranium, Professor Baiardi (assisted by Drs. Mattucci and Giarré) removed two great tracts of bone in the parietal regions, "in correspondence with the *zona motrix* of the cerebellum." From the first day after the operation the little patient's eye, nearly always wandering, uncertain, and unconscious, "si mostrò sereno ed animato da un lampo di intelligenza" (showed itself serene and enlivened by a flash of intelligence), the "habitual restlessness was replaced by calm," and "sleep came to restore the feeble limbs of the child, which, a prey to sickness at the threshold of life, had neither consciousness nor instinct, could neither speak, nor walk, nor indicate its bodily requirements in any way; did not even know how to masticate." The recovery, vigilantly watched and assisted, is already so far satisfactory as to warrant every confidence in the lasting success of Professor Baiardi's operation.

THE ROYAL COMMISSION ON VACCINATION.

THE question which was recently addressed to the President of the Local Government Board as to the date when the Royal Commission might be expected to report affords an indication of an impatience which is not without justification. The Commission has already sat for nearly three years, and still sits weekly. The Commissioners began taking evidence under their third heading: "The case against vaccination, and especially against its continuing to be made compulsory," on Dec. 4th, 1889, and witnesses to the same effect have since then almost continuously occupied their time. We have no desire that any improper curtailment of evidence under this heading should be made; indeed, some of the most verbose witnesses whose evidence has as yet been published have rather helped than hindered the cause of vaccination. But we do hope that some limit will be put to mere verbiage, whether coming from one or the other side, and that the essential points on which the public desire authoritative guidance will not be lost amid a mass of unintelligible and irrelevant material, such as is regarded by some people as constituting "evidence."

REPORTED INFLUENZA AT NICE.

THE reports circulated in some portions of the daily press concerning the prevalence of influenza at Nice and in the Riviera generally, and the large exodus of visitors from that favoured resort, appear to be greatly exaggerated. A correspondent at Nice informs us by telegram that though influenza has been present there since November, the cases have at no time been numerous, and the mortality-rate has been small. The disease has now almost disappeared, and the health of the town is unusually good.

THE SLIPPERY STREETS.

THE unusual, and so far unseasonable, phenomenon of continued frost which has distinguished the present month has been comparatively free from some of its most familiar disadvantages. It has attained to no extreme severity, has not gravely affected public health, or occasioned a water drought with all its present and subsequent inconveniences. One inseparable drawback, the slippery street, is, however, of too near and pressing importance to be overlooked, and we are not, therefore, surprised that this has been duly marked for amendment in the daily press. Attention has been drawn to the perilous labour of overweighted horses as they struggle to make their uncertain way along our chief thoroughfares, guiltless as many of these are of any reliable attempt to provide a secure foothold. Ashes and sand may be had in abundance, and are even stored, evidently for use, at central points of traffic; yet there is lacking the intelligent energy required to utilise them. The matter clearly calls for inquiry on the part of civic authorities, and we trust that, should the present thaw prove to be of a transient character, the doorstep, the pavement, and the roadway, alike well dusted over, will bear witness to the prudent sense of those whose care they are. At least this much is due to the safety of man and beast.

DIPHTHERIA IN THE NEWBOTTLE DISTRICT.

DIPHTHERIA, evidently of a very infectious character, is prevailing around Newbottle and New Harrington in the Houghton-le-Spring rural district, and it is stated that in 20 per cent. of the cases the result has been fatal. The sanitary authority seem to recognise the special influence of the elementary schools in this diffusion, for they have not only closed them, but they have, in addition to processes of disinfection, ordered the destruction of books, maps, and other school property by which the infection may be retained.

THE PURITY OF CHLOROFORM.

IN a daily contemporary a curious mixture of "fact and fiction" recently appeared anent the dangers of impure chloroform. While we heartily concur in the general tenour of the writer's remarks, we feel bound to set him right in his facts. He refers to the researches of the younger Dr. Du Bois Reymond upon Pictet's chloroform, but omits to mention the eminent chemist's name or to credit him with his undoubtedly meritorious efforts to free chloroform from some of its dangers. The writer then quotes Dr. Du Bois Reymond, jun., and avers that "this high authority" says chloroform is often administered in a room "not designed for the purpose," and inferentially implies that thereby risk is run. This seems to us refining a little too far. If a room is large enough for a dwelling-place and is not lighted by illuminating gas, we fail to see why chloroform cannot reasonably be given in it, and no houses, save possibly those of the very poor, are without one such room; while in the case of the indigent, as a rule, the doctor sends the case to the hospital. Ventilation and absence of lighted gas are really the only desiderata. Again, exception is taken to the quality of the chloroform in general use, which is stated to be less pure than that described in the Pharmacopœia. Such a gratuitous statement cannot, of course, be answered, as no evidence one way or the other exists; but what the writer in question does not seem to be aware of is that the impurities upon which Dr. Du Bois Reymond lays such stress were those found even in the best samples of the drug, whether B.P. or not, but existing in so minute a quantity that a very large amount of the drug had to be crystallised before an appreciable amount of the refuse chloroform was obtainable. Nor could such impurities be discovered by ordinary tests. This being so, the statement—not strictly accurate, by the way, as the standard books give the rules for testing chloroform—that nowhere is "the physician" (*sic*) enjoined to test his chloroform before mixing it, is of less importance than at first seems apparent. As a rule, chloroform is not administered "pure," because, unless some spirit be added to it, it very rapidly undergoes decomposition, and is unfit for use; but the addition of alcohol obviates this, and if it be kept cool and out of contact with light it remains constant. Persons who undertake to give chloroform should of course respire the vapour themselves, test its reaction and smell, and this is always done; but to fractionate or freeze and distil the mother liquor is a task which, were the average medical

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man required to undertake it, would severely test not only his chloroform, but his time and pocket, and would need the command of the special apparatus at present the sole property of M. Pictet. Referring to the inferiority of the chloroform commonly used when compared with that of the B.P., the writer makes the following remarkable statement:—"It is for similar reasons that ether, otherwise unduly extolled by English authorities, is considered entirely unfit for use in India." A more mixed statement could hardly be imagined. Of course, ether cannot be used in India, owing to the extreme difficulty of obtaining and keeping so highly volatile a body in any but a temperate clime. Nor, on the other hand, must the chloroform of India be regarded as being exceptionally pure, as the well-known firm which supplies both Scotland and India also very largely supplies England. Whether chemical purity be an absolute necessity for chloroform has yet to be decided, nor can it be said at present how far Dr. Du Bois Reymond's work upon the lower animals is to be taken as absolutely on all fours with the experience of surgeons with their human patients. The statement that in nine-tenths of the reports of cases no mention is made of the purity of the drug is an exaggeration. We shall very shortly show that a considerable amount of information under this head has been given in the reports.

THE ALKALOIDS OF ACONITUM NAPELLUS.

TWO papers of unusual interest were read at the last meeting of the Chemical Society on the 3rd inst. by Professor Dunstan. The first paper was a record of the research carried out jointly by Mr. Umney and Professor Dunstan on the properties of the roots of aconitum napellus. For the purpose of experiment they dried the fresh roots at a low heat, and then, after powdering, exhausted them with fusel oil. The alkaloids were dissolved out of the fusel oil with weak sulphuric acid, and the acid mixture was treated with chloroform to remove resin. The liquid was next made alkaline with ammonia and shaken with ether and then with chloroform. The ethereal solution yielded a gummy residue, from which they extracted aconitine as a crystalline hydrobromide, all attempts to crystallise the residue having failed. Crystalline aconitine was successfully prepared from the hydro-bromide, and it was found that the base dissolves only to the extent of 1 in 4431 of water. The base does not appear to exist naturally in a combined state, as the juice squeezed out of the fresh root contained very little aconitine. All attempts to crystallise another alkaloid found in the ethereal liquid failed. It possesses a bitter taste, does not produce numbness, and Mr. Umney and Professor Dunstan have given it the name "napellin." The chloroform solution contained aconine, $C_{26}H_{41}NO_{11}$, the properties of which and its relation to aconitine formed the subject of the second paper, contributed by Professor Dunstan and Dr. F. W. Passmore. The authors showed that by heating aconitine with water in a sealed tube at 150° C., aconine and benzoic acid are formed, as originally stated by Wright and Luff. The properties of aconine have been studied; it is dextro-rotatory, while its salts, like aconitine, are laevo-rotatory. The authors made attempts to synthesise aconitine by heating aconine with ethyl benzoate, and the successful results which followed the experiments are calculated to be of the utmost importance to pharmacy and medicine. The action which takes place may be represented as follows: $C_{26}H_{41}NO_{11}$ (aconine) + $C_6H_5CO.OC_2H_5$ (ethyl benzoate) = $C_{26}H_{40}(C_6H_5CO)NO_{11}$ (anhydro-aconitine) + C_2H_5OH (ethyl alcohol). Anhydro-aconitine so obtained forms aconitine with water. The experiment indicates that aconitine is mono-benzoyl aconine. $C_{26}H_{40}(C_6H_5CO)NO_{11}$. One or two derivatives were prepared—aconitine methyl iodide, for example—the physiological action of which, as well as the other new compounds, are being studied.

END OF THE STUDENTS' STRIKE IN ITALY.

THE academic cyclone on which we commented on the 27th ult. has "stormed itself out." At Rome on Saturday last, in the Giocchino Belli Theatre, a mass meeting of students was held, at which an order of the day was proposed to the following effect: that while the *cives* of the University resumed their studies they demanded a free pardon for the three of their number who were undergoing punishment at the hands of the Senatus. To this a counter-order of the day was moved: that "the students simply resumed their studies." At this the few ringleaders of the strike broke out in a storm of hisses and hootings. The mover of this order of the day being denied further hearing, his supporters left the hall *en masse* under protest. Those who remained ultimately approved the following: "The students of the University of Rome, yielding to violence, resolved to return to their classes." The "violence," be it noted, was the determination of the Senatus to maintain discipline in the case of the three offenders. So ends the great academic strike, for, after the Roman students have "climbed down," those of the provincial seats of learning will no longer defy their professors. A sharp lesson has thus been taught the academic youth of Italy, and we hope it will be a lasting one. Politics in the undergraduate stage were forced on the students of a past generation when their country's unity and independence were at stake. Now that that consummation has been effected, there is no excuse for political preoccupation—certainly none for a premature indulgence of the demagogic spirit—in the undergraduates of the present day. It rests with them to remove, or at least not to justify, the reproach fastened on Italy by one of her most patriotic sons—the reproach of being "a carnival nation," fonder of the cheap triumphs of the piazza than of steady, prosaic work.

THE DIAGNOSIS AND PROGNOSIS OF SYPHILITIC DISEASE OF THE BRAIN.

DR. OTTO HARMSEN has been induced by the scarcity of information relating to syphilitic disease of the brain to publish particulars of nine such cases, which had remained under observation for a year or more in the Berlin clinic for nervous diseases. The *Archiv f. Dermat. u. Syph.*, which publishes the account, points out that the meagre statistics of this affection have often been complained of, more especially by Naunyn. The chief symptoms in most instances were headache, vomiting, vertigo, facial paralysis, aphasia, and hemiplegia. In one case polydipsia and polyuria appeared some years after the primary infection, and serious cerebral symptoms quickly followed. In another case the nervous symptoms appeared as early as two years after the initial sore. Nearly all the cases were cured by energetic anti-syphilitic treatment, this being most marked in a patient never before treated with mercury. It should be mentioned that in many instances a temporary disturbance of the reaction of the pupil was the first and only indication of cerebral mischief, as has been pointed out by Oppenheim.

THE TREATMENT OF REDUCIBLE HERNIÆ BY THE INJECTION OF ALCOHOL.

EDWARD STEFFEN of Zurich, during the past three years, has treated 326 cases of reducible herniæ by Schwalbe's method, and has published the results in the *Correspondenz-blatt für Schweizer Aerzte*. In most instances the patients were able to continue their work during treatment. After the injection the puncture was cleaned and covered with mercurial collodion. Notwithstanding, in a few cases,

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sloughing took place; but this acted rather beneficially than otherwise. The number of injections in a single case varied from 6 to 168, the latter extending over a period of two years and a half. A medium-sized rupture in an adult required from 80 to 100 grammes of alcohol. The author used alcohol 70 per cent. in doses of one to four grammes, substituting in exceptional cases extract of oak bark. Latterly he found the addition of phosphoric acid, in the proportion of 1 to 200, advantageous. In thirteen cases the result of the treatment is not known, in twenty-nine a cure was not possible from various causes, such as obesity or size of the rupture; of the remainder, 245 cases are reported cured and 19 improved. The longest time taken to effect a cure was four years, the shortest one year. Of 257 inguinal herniæ, 216 cases were cured and 16 improved, with 23 relapses. Of 13 femoral herniæ, 9 were cured and 2 improved, with 1 relapse. Of 19 umbilical herniæ, 17 were cured, with no relapse. Of 4 herniæ in the linea alba, 3 were cured, the other improved. It appears that the more recent the hernia and the younger the patient the more favourable the prognosis, and the ambulant treatment, with intervals of three to seven days between the injections, gave better and more lasting results than the treatment in bed with daily injections.

FOREIGN UNIVERSITY INTELLIGENCE.

Buda-Pesth.—Dr. J. Arkövy has been promoted to an Extraordinary Professorship of Odontology.

Prague (German University).—Dr. A. von Rosthorn of Vienna has been appointed to the chair of Gynæcology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. George Athanasovitch, a member of the first Bulgarian Ministry under Prince Alexander.—Professor Credé, the distinguished gynæcologist, of Leipsic.

THE annual dinner of the Medical Society of London was held in the Whitehall Rooms at the Hôtel Métropole on the evening of March 12th. Dr. Douglas Powell occupied the chair, and was supported by the President elect, Mr. Hutchinson, and the President of the Royal College of Surgeons. The list of speeches was short, but they did not lack in excellence. Among the speakers were the President, Mr. Hutchinson, Sir J. Crichton Browne, Mr. Brudenell Carter, and Dr. Allchin. A special and most pleasant feature of the evening was the excellent singing of Dr. Frederick Roberts and Mr. Anderson Critchett, which was very fully appreciated. Upwards of 160 Fellows and guests dined, the number being larger than on any previous occasion. A very enjoyable evening was spent, and the prosperous condition of this ancient Society was fully demonstrated.

Pharmacology and Therapeutics.

TELLURATE OF POTASSIUM IN NIGHT SWEATS.

THE effect of tellurate of potassium in arresting the night sweats of phthisis having been shown by some observations by Dr. Neusser, his results have recently been confirmed by a Polish physician, Dr. Poborecky, who employed the remedy in fifty cases. It was prescribed in the form of pills, and was commenced in doses of one-seventh of a grain, gradually increasing to a grain. Usually less than half a grain in the evening was sufficient to prevent sweating during the night. It was found, however, that day sweats required rather larger doses than night sweats for their prevention. The action of the drug was generally manifested in about three-quarters of an hour, but in the more obstinate cases the effect passed off, and the sweating began again in from five to seven hours. In cases of less severity the effect was more lasting. No untoward action on the stomach was produced by a dose of two-thirds of a grain, and only by long-continued doses of a grain, and in exceptional cases, were eructations and loss of appetite produced. These symptoms, however, ceased on stopping the medicine. The only unpleasantness due to the tellurate was the garlic-like smell imparted to the breath, and this, though evident to other people, even for some time after the drug had been stopped, was not so perceptible to the patient. In order further to test the anti-sudorific qualities of tellurate of potassium, it was given to healthy persons in hot weather, and was found to be capable of entirely preventing perspiration in doses of a third or even of a sixth of a grain.

DIAPHORETIC PROPERTIES OF WILD ROSEMARY.

Dr. Schnabl, writing in a Polish medical journal, mentions as a valuable sudorific the wild rosemary, Ledum palustre, or Rosmarinum sylvestre, which is used in some parts of the country as a household remedy. The herb must be gathered when flowering. It is then dried and kept in sealed boxes. The leaves contain, according to Meissner, a volatile oil, from which, after long standing, a kind of camphor separates out; the other constituents found in the leaves are tannin, a gum resin, citric acid with traces of acetic, formic, and valerianic acids, a bitter extractive matter, and ericoline. An infusion of from a drachm and a half to three drachms is sufficient to produce perspiration. A century ago this drug was prescribed by physicians as an expectorant. It is also considered as an astringent by some, and has at various times enjoyed a reputation in many different maladies.

BINIODIDE OF THIOPHENE.

This drug, which is an analogue of iodol, contains 75·5 per cent. of iodine and 9·5 per cent. of soda. It is insoluble in water, but readily soluble in warm alcohol, ether, and chloroform. Dr. A. Hock of Vienna considers it a good substitute for iodoform in dressing wounds. It checks the formation of pus and prevents exuberant granulation. It can be used either as a powder or in the form of gauze, the latter of which is prepared by soaking the material in the following solution: Biniodide of thiophene, 5 parts; rectified spirit, 50 parts; sulphuric ether, 50 parts; glycerine, 1 part.

THE EMPLOYMENT OF DIURETIN IN CHILDREN.

According to Dr. R. Demme of Berne this drug can be given to children between two and five years of age in doses of 0·50 gramme daily, and in doses of 1·50 grammes to those between six and ten. In infants under one year it is liable to cause gastro-intestinal irritation. It appears to act upon the renal epithelium, and has proved of service in the dropsy of scarlatinal nephritis as well as in that due to mitral disease, after digitalis had proved ineffectual. Its action is not cumulative, but in one case of amyloid degeneration of the liver, kidneys, and spleen its use caused an erythematous rash, accompanied with profuse diarrhœa.

BROMAMIDE.

Dr. Augustus Caillé, in the *New York Medical Journal*, gives a preliminary report of an experimental research into the therapeutic value of bromamide, a new antipyretic and anti-neuralgic remedy. The drug, which was discovered by Messrs. Fischedick and Koechling of New York, is a new bromine compound of the anilide group containing 75 per cent. of bromine ($C_6H_2Br_3NHHBr$). Experiments as to the therapeutic properties of bromamide were conducted at the German Hospital for six months in various affections, including typhoid fever, acute rheumatism, chronic nephritis, various forms of neuralgia, &c. It appears that bromamide has the power of reducing the temperature in most cases of febrile disease from 1° to 2·5° F., without the excessive sweating produced by other antipyretic drugs. The dose is ten to fifteen grains as an antipyretic and antineuralgic, and may be administered in capsule, wafer, dry upon the tongue, or suspended in a fluid.

SOLVEOL AND SOLUTOL.

Solveol is a liquid prepared by dissolving cresylol in a solution of cresotate of soda. It is miscible with water in

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all proportions, giving clear neutral solutions. It is an analogue of lysol, but it does not render the hands greasy like the latter and creoline. It is almost without smell, and possesses antiseptic properties superior to those of carbolic acid. In surgery a ½ per cent. solution is used. Solutol differs from the above in the fact that a solution of cresylate of soda is used to dissolve cresylol. This antiseptic cannot, however, be used in surgery on account of its caustic properties.

EFFECTS OF SALICYLATE OF SODA IN EXCESSIVE DOSES.

Dr. Frederick W. Mann, in a recent number of the *New York Medical Record*, records an instance of the serious and alarming effects produced by this drug in large quantity. He had prescribed for a patient suffering from acute rheumatism salicylate of soda in four-grain doses every two hours. The patient, however, finished the contents of his bottle—amounting, in all, to two drachms of the drug—within the space of four hours. He soon began to suffer from hallucinations, and finally became quite maniacal. After spending a night in a police cell he was removed to a hospital, and during the next few days he suffered from a condition closely resembling delirium tremens. When spoken to he responded pleasantly, and showed no coarseness of speech or action; his violence arose simply from his attempts to elude his imaginary pursuers. At the end of five days the hallucinations disappeared, and recovery was complete.

TREATMENT OF DYSENTERY.

Drs. Lardier and Pernet strongly recommend the use of salol and iodoform in the treatment of dysentery. Salol, in four-grain doses suspended in mucilage, acted in a most salutary manner; but iodoform—from four to six grains daily, combined with opium—gave the most beneficial results. The iodoform was given in capsules, each containing three-quarters of a grain of iodoform and a quarter of a grain of opium, to be taken five or six times during the day. The pain and tenesmus were relieved by warm boracic acid enemata, and in obstinate cases by a suppository containing hydrochlorate of cocaine and opium. In addition to this treatment great cleanliness was observed, the patient being washed daily with a saturated solution of boracic acid or with a solution of corrosive sublimate of the strength of 1 in 500.

REPORT OF THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

THE Medical Officer's report for 1890 appears as the supplement to the twentieth Annual Report of the Local Government Board, and it deals exclusively with the work carried out in the medical department. The vaccination returns form a forecast of an increasing laxity in the administration of the Vaccination Acts, which we fear is largely due to the determination of a number of authorities to discontinue the performance of their statutory duty during the sittings of the Royal Vaccination Commission, and which may at any moment bring about serious results. In 1881 the births unaccounted for as regards vaccination were 5·7 per cent. of the births in the metropolis and 4·3 in England; whereas the figures stood 10·3 and 8·2 respectively in 1888; and the increase of default will doubtless be found to be still greater since then. A considerable number of medical reports are reprinted in the volume, together with introductory comments by Dr. Buchanan. Some of these reports we reviewed at the time of their issue, notably that by Dr. Barry, on the Tees epidemic; that by Dr. Blaxall, on Staines rural district in relation to the state of the Thames above the intakes of the London water companies; that by Dr. Parsons, on epidemic pneumonia at Scotter; that by Dr. Low, on suspected cerebro-spinal meningitis in Lincolnshire and adjacent counties; and also that by Dr. Parsons, on the epidemic of influenza. All but the latter, which has been published as a separate volume, are reproduced *in extenso*, and they thus form part in the permanent record of the work of the department.

Then comes a lengthened report on an inquiry into certain systems which have been adopted in northern and midland districts, with a view of utilising slop-water for the purposes of water-closets, or of providing trough-closets, the desire on the part of certain authorities being to secure the water-carriage of excreta without the complication and expense of water-closets as commonly constructed. Both forms of closet reported on appear to answer certain limited purposes, provided they are of proper construction, and Dr. Parsons gives a lengthy description of their cost, adaptability to certain localities and classes, and of the conditions which are essential to their success, his report being freely illustrated by diagrams. All such closets must be out of doors; and as regards the slop-water closets, it is clear, as we have more than once pointed out, that success can only be obtained where the slop-water, after being allowed to accumulate, is then automatically discharged in bulk along the drain, so as to clear out the pipe or other receptacle into which the excreta are first received. If this and certain other conditions are not complied with, it seems pretty clear that greater nuisance will arise from slop-closets than is associated with several improved forms of ash-closet and other so-called dry-closets.

One very interesting chapter in the volume is that in which Dr. Ballard, who has recently retired from official life, gives a summary of his own labours and those of others in tracing out the causes of occurrences of disease of a specific character which have resulted from the use of infected articles of flesh food. These diseases have come to be styled cases of food-poisoning, and Dr. Ballard's name has been very closely identified with their study, both clinically and etiologically. He speaks, therefore, with authority when he gives his view as to the circumstances under which they are brought about. Discussing this view, Dr. Buchanan says:—"Dr. Ballard is disposed to infer that, in this class of cases, the morbific quality has commonly not been inherent in the animal furnishing the food, but has been obtained by the food *from its surroundings* during the time that the food-material was being kept"; and he adds a warning as to the bearing of this view on maintaining wholesomeness in all larders, pantries, and other places where human food is kept for sale or otherwise stored. Some account is also given of the preliminary work which has been done by Mr. Power, Dr. Barry, and Mr. Thompson in relation to the serious prevalence of lead-poisoning which has followed, at curiously irregular intervals, on the use of certain moorland waters for drinking purposes. Information on the subject has already been obtained from several hundred medical officers of health; and the extent of the mischief may be judged of when it is explained that even a preliminary record goes to show that the health of no less than 600,000 persons is involved in the subject. Hitherto efforts seem mainly to have been directed to methods of remedying the mischief after it has been allowed to take place; the present investigation has, however, been undertaken with a view of getting at the root of the mischief, for it is announced that its prime object is to learn how the waters in question come to acquire a power of dissolving lead. This is obviously the proper function of a health department, prevention, rather than cure, claiming its first attention.

Turning next to Dr. Buchanan's record of the auxiliary scientific investigations, we find that the study of the pathology of diphtheria has been continued by Dr. Klein, who reports additional instances in which inoculation of milch cows with cultures of the bacillus diphtheriæ have given rise to disease having the same pathological characters as those previously witnessed. In one such case the milk itself contained the characteristic bacillus at one stage, but not at another stage. Further work has been done by way of studying the influence of concurrent infections in the same animal; and in one instance, where the chemical products obtained by the growth of bacillus pyocyaneus were used to see whether they exerted any antagonism on the subsequent inoculation of the bacillus of diphtheria, it was found that, instead of any antagonistic action, the chemical products in question served rather to enhance the activity of the resulting disease. But as regards experiments bearing upon tuberculosis now in progress, Dr. Klein reports that "evidence has already been attained to justify

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an expectation that the chemical products of bacillus pyocyaneus will be found to have distinct inhibitory action on the tuberculous process."

Dr. Sydney Martin's investigations, following on his former ones in 1889, into the chemistry of anthrax go to show that whereas the anthrax albumoses, and not the alkaloid, give rise to the fever of anthrax, it is to the anthrax alkaloid that the local œdema and coma of anthrax are due. "The albumoses," writes Dr. Buchanan, "as such, have indeed seemed to possess but little specific quality, the fever produced by them being much the same as that producible by the familiar albumoses of peptic digestion. It is essentially, it would appear, the alkaloid (resulting from further change of the albumoses) which is the cause of the specific phenomena and of death in anthrax." The bearing of this on other specific infections is obvious, and Dr. Martin's other investigations as to the meaning of bacilli having on the one hand virulent, and on the other attenuated, characteristics are equally interesting. Amongst other contributions is one by Dr. Hamer, who, in studying the question of susceptibility and insusceptibility, has investigated the doctrine of phagocytosis, a doctrine which, it is admitted, cannot at once solve the difficulty with which the investigator finds he has to deal. Dr. Andrewes has also made examination of the micro-organisms associated with suppuration and with phlegmonous and other inflammation in man. Dr. Buchanan reports that in this work Dr. Andrewes has, amongst other things, made study of the life history of staphylococcus pyogenes within the bodies of the experimental animals, but that some of his ends were frustrated by his inability to obtain the erysipelas organism in an active state, facilitating comparison between the *streptococcus* of that disease and the streptococcus pyogenes. Whether the more exclusively scientific or the public health aspects of the volume be considered, it will be found one well worthy of study.

THE REPORT OF LORD WANTAGE'S COMMITTEE.

No. II.

WE concluded our previous article by saying that the present Government, with a general election in front of it, was not at all likely to grapple with a big and expensive military question. Still, it is certain that it must be undertaken sooner or later; and we shall be surprised if some more radical changes are not then proposed than any which have as yet been suggested. Meanwhile the divergence of opinion between Sir A. Haliburton and his colleagues is too wide, and some of the more prominent features in the report of Lord Wantage's Committee have been too seriously damaged by his vigorous criticism, for any War Minister to adopt the Committee's recommendations as part of a Ministerial policy. Nevertheless, as we have said, the report of the majority of the members is in many respects an able and interesting document, and, constrained as they were to run on existing lines, some of their proposals seem both pertinent and practical. As the Committee point out, the regulation prohibiting all recruiting beyond the army establishment annually voted by Parliament prevents advantage being taken of a favourable state of the labour market to provide for clearly foreseen needs. Checks are placed on recruiting when recruits can be had. The Committee suggest that, at any rate, it should be permissible to recruit above the establishment, so long as the average numbers maintained during the financial year do not exceed the numbers voted by Parliament. This seems a sensible suggestion. The Committee proposed modifications in the term of service, so as to make it as easy and elastic for the private soldier as possible. An army that depends upon voluntary enlistment must move with the times and adjust itself to popular requirements. As far as practicable, and without risk of grave prospective injury to the maintenance of an adequate reserve, the man who desires to continue with the colours and make the army his profession should be allowed to do so; and, on the other hand, if a man has strong reasons for leaving the colours and going into the reserve, he should not be prohibited from doing so. The function of a reserve is to complete the battalions for war service, and not to be a substitute for them, as would practically be the case now.

Foreign service, and especially service in India, is a great drain on the youth and manhood of the army, and the provision of drafts of a certain age and service for India depletes the home battalions, and is a recurring source of difficulty. As Lord Wolmer pointed out, battalions of very young and immature soldiers have a very high hospital admission-rate. In the case of the 2nd Battalion of the Suffolk Regiment, for example, which went to Egypt, it was 1406 per 1000. As the reserve, according to Mr. Stanhope, will soon amount to a strength of 80,000, it does not seem to us impracticable to introduce more elasticity into our system in the directions indicated. As regards such corps as the Royal Artillery, and the garrison artillery especially, every inducement should be held out to retain the services of technically trained men.

According to the present system, the militia is supposed to act as a nursery for the regular army. Might it not be preferable to reverse the position and make the latter feed the militia as part and parcel of the reserve, by which the military training of the men would be maintained to some extent, whereas the reserves at present get no training. The increase of pay recommended by Lord Wantage's Committee practically amounts to a proposal to offer the soldier seven shillings a week clear, with good board, lodging, and clothes. It cannot be said, as a matter of common sense and fairness, that these are extravagant terms to offer in exchange for efficient labour of the kind which soldiers are called upon to perform. But it is urged that this would in the aggregate amount to a large sum, and would not, after all, have the desired effect of inducing a proportionately larger number of men of nineteen and twenty years of age to enlist. We are inclined to think there is much force in this objection. But it would, we believe, attract a larger number of more desirable young men than the present terms, and there would, in any case, be a proportionately greater choice, the stronger and older lads could be selected, and the physical standard would consequently be raised. As regards deferred pay, the committee would abolish the present system in favour of one of gratuities of smaller amount, and the sum saved in this direction would go towards lessening the expense of their proposals for the soldier's benefit in another. A large majority of the men—and it is a soldier's question—are in favour, however, of maintaining the present system, which has not yet been in operation long enough to warrant a final decision as to its working.

Sir A. Haliburton's report, with its tables, figures, financial estimates, and bases of comparison with continental armies, has a kind of precision and method which give him a firmer foothold than his colleagues. Sir A. Haliburton estimates the cost of the Committee's proposals at a million and a half. Assuming this to be the case, the question at once arises whether this new expenditure could not be met by economies effected in other directions.

Adverting to narrow-minded prejudices against the army exhibited by the refusal to admit soldiers in uniform to places of entertainment and the like, the Committee suggest that the War Office, as the guardian of the rights and position of soldiers of the British army, should take steps to test the legality of such refusals. This kind of prejudice is keenly felt by soldiers, and is said to exercise an adverse influence on recruiting. This gives us an opportunity of inquiring, *en passant*, whether the class of accommodation provided in London, for example, for the examination of recruits, does not also exercise a prejudicial influence. Instead of having good, airy, and attractive quarters in a good position, the recruiting establishment at St. George's barracks is approached through a dirty back street, and is a very uninviting sort of place, but little calculated to make a favourable impression on a respectable recruit. It is open to question whether the authorities go the best way to work in this respect, and in advertising for recruits. The recommendation that the soldier should have two kinds of uniform — one for work, the other for show—is a sensible one. And, from a hygienic point of view, we consider that the number of sentries should be diminished. There is probably nothing that tells more on the health of young men, or is more unpopular, than the large and apparently unnecessary amount of night work in the army. A certain amount there must be of course, even as a matter of military training, but, to take the case of the Guards for example, the night duties are an important factor in causing inefficiency and waste

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from sickness and invaliding. It is very important, too, to avoid over-pressure in trying to form raw recruits into complete soldiers in the shortest possible time. Their habits of life are suddenly changed, they have often been underfed before enlistment, and are easily fatigued, and with one thing and another they find they have no time to themselves. It is not surprising that, under such circumstances, the recruit acquires a distaste for the service. We feel bound to say, however, that much more care is exercised nowadays in this respect. We think the Committee is right in urging the claims which our discharged soldiers and sailors have upon the State for employment in any posts for which they are qualified, as recommended in the report of Mr. Childers' Committee, and believe that it would give an impetus to recruiting. The day has gone by for exclusive privileges, and the Guards, as we have said already, should take their turn of foreign service, as far as the Mediterranean stations are concerned at any rate; and if there were a battalion of Footguards composed of soldiers selected from our infantry for physique and war service it would be a popular measure. Moreover, the stimulus of reward of some kind is necessary for soldiers as for other people. If it cannot be given in the way of increased pay it might be in another direction—viz., a greater number of commissions might be open to the rank and file than at present.

To conclude, it seems to be generally agreed that there must be as many battalions at home as there are abroad if the existing system is to work properly at the present time. And as regards the near future, the soldier's pay and advantages will have to be increased if a voluntary army of adequate strength has to be maintained. The appointment of committees and the adoption of different expedients will only postpone a decision of this question for a season.

ROYAL MEDICAL BENEVOLENT COLLEGE.

DR. C. HOLMAN, treasurer of the College, asks us to publish the following appeal:—

The Council are of opinion that on no previous occasion since the establishment of the College has so important a proposition been brought before their subscribers and before the profession at large. They earnestly hope that many medical men will exert themselves amongst their friends and patients, and make the ensuing festival a successful beginning of an alteration the benefits of which, to both pensioners and scholars, are simply at present not to be calculated.

Dear Sir,—On Tuesday, April 5th, the Right Hon. the Lord Mayor of London has consented to take the chair at the biennial festival of the College.

At this dinner the Council desire to raise funds: 1. To assist in meeting the annual outlay for the support of the fifty pensioners and fifty foundation scholars, an outlay amounting to between £5000 and £6000. 2. To aid in raising a sum of about £26,000, so that the Council may give the pensioners augmented incomes, and thus dispense with their compulsory residence at Epsom College, and enable them to spend their declining years amongst their relatives and friends.

That this is a truer form of charity has been of late years fully recognised; the system of pensions as opposed to compulsory residence in almshouses has been adopted by H.M.'s Government in the case of the Greenwich Hospital, and by many of the best known charities in England.

The suggestion, however, has in addition to its charitable side one which the Council submit is of almost as great importance.

It has been forced on the Council that the school cannot be carried on as it should be unless its accommodation is in all ways increased. Thanks to the unremitting and successful efforts of the head master and his staff, the school is full, and from the inquiries made respecting it, and from the number of names down on the list waiting for admission, there appears no reason to doubt that this satisfactory state of things will continue.

Even, however, with the present numbers more room is wanted for convenience, and therefore efficiency, in teaching and for general school purposes, so that if the numbers are to be *increased* an immediate and large *extension* of accommodation must be provided. This weighs very heavily on the Council who have the management of the school, and hence their urgent appeal to the public.

Any enlargement of the existing school buildings must, even when carried to its utmost limit, be a mere palliative, so that new buildings are essential; and if the pensioners could be provided for elsewhere the buildings they now occupy could be at once utilised, and so provide for an important part of the necessary extension. Thus a double benefit to the pensioners and to the school would accrue, and in this benefit the boys on the foundation, who are an integral part of the school, and who differ from the rest only in that they are educated and maintained free of cost to their relatives, take their full share.

The Editors of THE LANCET, impressed with the value of this scheme, have most liberally offered £1000 if the full amount be collected.

Some of the public recognise the very important services which the medical profession render to the community, and to them it is hardly necessary to appeal, or to do more than to state that money is wanted urgently for the objects set out above, to secure their cooperation.

Many, however, do not recognise the peculiar position in which a medical man stands. He is bound (if he does his duty, and there are few who do not) to hold himself at all times and in all weathers at the disposal of those who may want his help. He attends the poor as well as the rich, he goes to places and houses insanitary as well as sanitary, he exposes his life in all climates and at all seasons, with the result that the lives of medical men are shorter than those of men following other professions, and the time within which they can provide for their families is proportionately shorter. "The medical death-rate is far in excess of the rates in the other learned professions, and also of the rates in most trades and industries. .... The general result of the comparison is to show that, with very few exceptions, the mortality of medical men is higher under every heading than the mortality of males generally, and that under some of the headings the medical mortality is twice or thrice, or even more times, greater than the average."[1]

All these facts show how difficult it must be for medical practitioners to make adequate provision for their families, and accounts in some measure for the very large amount of distress which necessarily exists amongst the widows and orphans of medical men.

The Council earnestly hope that you will aid them in the great work they have in hand: firstly, in meeting the necessary annual outlay to fulfil the trust bequeathed to them by the founder; secondly, to secure at as early a date as possible an improved position for the pensioners; and, thirdly, to assist them in maintaining the school in its present state of efficiency, and in raising it to the level of the first schools of the country, a position to which it is fast attaining.

We shall gladly take charge of any donation or subscription you will kindly entrust to us. Ten guineas, or one guinea annually, constitute a governor.—We are yours very faithfully,

J. FAYRER, M.D., F.R.S., K.C.S.I., Chairman of Council.
C. HOLMAN, M.D., Treasurer.
J. L. PROPERT, M.B., Chairman of Festival Committee.
J. B. LAMB, Secretary.

37, Soho-square, W.

THE ROYAL BRITISH NURSES' ASSOCIATION.

THE Draft Charter submitted by this Association, with its petition for incorporation, to the Privy Council recites in the name of Her Majesty—

"That it has been represented to us by our most dearly beloved daughter Helena, Princess Christian of Schleswig-Holstein, Princess of Great Britain and Ireland, that in 1887 a Society was established in London called the 'British Nurses' Association,' which has since its establishment been joined by more than 3000 nurses, each one of whom has been engaged for three years or more in attendance upon the sick; that the said Association was not established for the purpose of gain, but for the purposes of the improvement of the profession of nurses and of the promotion of their efficiency and usefulness and of assisting them by various benevolent schemes; that in furtherance of the said objects a list of nurses has been compiled and published setting forth the names and addresses of nurses, with the names of the hospitals or institutions at which they have been trained and the length of training which each has received, thus enabling the public to form a more accurate judgment of the professional education and experience of the nurses so registered; that a benevolent fund has been established for the purpose of giving aid to nurses, and that the management of the said Association is vested in certain eminent members of the medical profession, matrons of hospitals, and other persons interested in nursing; and that in 1891 we were graciously pleased to confer on the said Association the prefix and title of 'Royal' and to command that the said Association should be styled the 'Royal British Nurses' Association.'"

It then proceeds, after some additional and merely formal recitals, to declare—"That our said most dearly beloved daughter Helena, Princess Christian of Schleswig-Holstein, Princess of Great Britain and Ireland, our trusty and well-beloved Sir James Paget, Baronet; Sir Spencer Wells, Baronet; Sir William Savory, Baronet; Sir Richard Quain, Baronet; Sir Joseph Fayrer, Knight Commander of the Most Exalted Order of the Star of India; Sir Henry Thompson, Knight Bachelor; Sir James Crichton Browne, Knight Bachelor; Sir Dyce Duckworth, Knight Bachelor; Sir Edward Sieveking, Knight Bachelor; Sir Alfred Garrod, Knight Bachelor; Sir George Humphry, Knight Bachelor; Robert Brudenell Carter, Fellow of the Royal College of Surgeons of England; John Williams, Doctor of Medicine; William Bezly Thorne, Doctor of Medicine; Bedford

[1] William Ogle, M.D.Oxon., F.R.C.P., Registrar-General.

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Fenwick, Doctor of Medicine; Isla Stewart (Matron and Superintendent of Nursing of St. Bartholomew's Hospital); G. M. Thorold (Lady Superintendent of the Middlesex Hospital); Ethel Gordon Fenwick (Lady Matron and Superintendent of Nursing of St. Bartholomew's Hospital); Cassandra Beachcroft (Lady Superintendent of the Lincoln County Hospital); Margaret Breay (Acting Matron of the Metropolitan Hospital); Mary N. Cureton (Lady Superintendent of Addenbrooke's Hospital, Cambridge); Christina Forrest (Lady Superintendent of the York County Hospital); Louisa Hogg (Head Sister, Royal Naval Hospital, Haslar); R. F. Lumsden (Hon. Lady Superintendent of the Royal Infirmary, Aberdeen); Henrietta C. Poole (Nursing Superintendent, Adelaide Hospital, Dublin); Gertrude A. Rogers (Lady Superintendent of the Leicester Infirmary); Georgina Scott (Lady Superintendent of the Sussex County Hospital); Maud G. Smith (Lady Superintendent of the Royal Infirmary, Bristol); Catherine J. Wood (late Lady Superintendent of the Children's Hospital, Great Ormond-street); and all other persons who, pursuant to this our Charter, become members of the Corporation established by this our Charter, shall be a body corporate by the name of the Royal British Nurses' Association, having a perpetual succession and a Common Seal," together with the usual incidents of incorporation which are duly set out.

It next proceeds to set out the purposes and powers of the Corporation as follows: "1. The maintenance of a list or register of nurses, showing as to each nurse registered her name and address, and the name of the hospitals or other places at which she has been trained and the length of training which she has received. 2. The founding and maintenance of schemes for the benefit of nurses in the practice of their profession and in times of adversity, sickness, and old age. 3. The promotion of conferences, public meetings, and lectures in connexion with the general work of the Corporation. 4. The doing anything incidental or conducive to carrying into effect the foregoing purposes."

Then follow certain ancillary clauses in common form, and a staff of officers is provided, to the following effect: "There shall be a President of the Association, and such number of honorary officers as the Association may from time to time think fit to appoint. The first President shall be Her Royal Highness Princess Christian of Schleswig-Holstein. The first honorary officers shall be those persons who at the date of this our Charter are honorary officers of the Royal British Nurses' Association in the recitals of this our Charter specified. On the resignation or death of the President or of any honorary officer, and as occasion may arise, the vacancies shall be filled up by the General Council hereinafter mentioned upon the nomination of the Executive Committee hereinafter mentioned. The President shall preside at all meetings of the Corporation and at all meetings of the General Council and Executive Committee, or of any sub-committees thereof at which she may be present. The President shall have power to summon meetings of the Corporation at any time she may think fit so to do, in order to submit to the members thereof such matters of importance relating to the affairs of the Corporation as she may deem requisite."

The members of the Corporation are defined to be—"1. The President. 2. All persons who at the date of this our Charter are members of the Royal British Nurses' Association in the recitals of this our Charter specified. 3. Persons from time to time elected as hereinafter mentioned, and being either (*a*) medical practitioners duly qualified to practise as such in any part of the British Empire according to the laws for the time being in force; (*b*) nurses (subject to such conditions as may be prescribed by the by-laws for the time being in force). 4. The Corporation may provide by by-laws for the admission of other persons to honorary membership."

In view of recent discussion as to the by-laws of the College of Surgeons, some special interest will naturally be felt in the provisions concerning general meetings. "There shall be a general meeting of the members of the Corporation within the space of six calendar months after the date of these presents. An annual general meeting of the members of the Corporation shall thereafter be held once in every year at such time as may be prescribed by the by-laws for the time being in force, for the election of members of a General Council of members of the Corporation, and to receive annual financial and other reports for the past year and for other purposes of the Corporation, and other general meetings may be held from time to time as occasion shall require and as the by-laws shall direct." Also in the power to make by-laws, which is conferred by the following clause: "At any general meeting it shall be lawful for the members of the Corporation, or such of them as shall be then present, to ordain and make such by-laws as to them or the major part of them shall seem proper for the regulation and good government of the Corporation and of the members and affairs thereof, and generally for carrying the objects for which the Corporation is founded into full and complete effect, with reasonable penalties and fines to be contained in such by-laws on the offenders for non-performance of or disobedience to the same, and the said by-laws, penalties, and fines, or any of them from time to time, to alter, change, or annul as the said members in general meeting shall think requisite, and to mitigate the same as they shall find cause, so as all and singular such by-laws, penalties, and fines be reasonable and not repugnant or contrary to the provisions of these presents or to the laws and statutes of this our realm."

The formation and powers of the General Council and of the Executive Committee, together with details as to voting and the like, complete the draft.

THE SCOTTISH UNIVERSITIES COMMISSION.

ORDINANCE No. 18 has just been issued by this Commission, and embodies regulations for the graduation and instruction of women in the Universities. It applies to the Faculties of Arts, Science, and Medicine, but only the provisions applicable to the last shall be referred to here. Power is given to the University Court to admit women to graduation in such faculty or faculties as the Court may see fit. Power is also given to the Court, after consultation with the Senatus, to make provision within the University for their instruction, either by admitting them to the ordinary classes, or by instituting separate classes for them; and such classes shall be conducted by the professors or lecturers in the several subjects, or by lecturers specially appointed for the purpose by the University Court. It is provided that the Court shall not institute classes where men and women shall be taught together except after consultation with the Senatus, and no professor whose commission is dated before the approval of the Ordinance by Her Majesty shall be required, without his consent, to conduct classes to which women are admitted. The conditions of graduation are to be the same for both sexes, with the following exception, namely, that so long as within the Faculty of Medicine in any University provision is not made for the instruction of women, it shall be in the power of the University Court to admit to graduation women who have received the requisite instruction in any University of the United Kingdom, or in any Indian, colonial, or foreign University recognised for the purpose by the University Court, provided that every candidate for graduation shall produce evidence of having satisfied the conditions with respect to the preliminary examination, and shall be examined in all the subjects necessary for graduation by the examiners of the University in which she takes her degree. As soon, however, as provision is made within the University for the instruction of women in all subjects required for graduation, the conditions of their graduation shall then, even in this respect, be similar to those for men. With reference to women who have begun their studies before this ordinance comes into operation, it shall be competent for the University Court to admit them to graduation in medicine if they complete their medical studies in accordance either with the regulations for graduation hitherto in force, or with the regulations prescribed by this ordinance; while, as regards their studies prior to the date at which this ordinance comes into operation, such women may have obtained their instruction in any classes which the Court may accept for the purpose. Provision is further made that women proposing to graduate must pay the matriculation fee of the University, and power is given to the Court to make arrangements for the use by them of the libraries and museums open to matriculated students of the University

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ARMY AND NAVY ESTIMATES.

UNDER Vote A for the establishment of the Regular Army, exclusive of India, we find, grouped under the head of General and Departmental Staff, that the Medical Department (including the Head Quarters Staff) numbers altogether 624. The total of the Medical Staff Corps of all ranks is 2410. The amount of Vote 2, for medical establishment, pay, &c., is £290,100, showing a net decrease of £2700 for the coming financial year. Under Vote 11, for establishments for military education, with an estimated total of £113,500, the cost of the Army Medical School stands at £7084, a small amount compared with that of the Royal Military College and Academy respectively; the estimated expense of the former being £43,635, that of the Royal Military Academy £34,421. From the detailed statement of medical staff it seems that the total numbers, including both British and Indian establishments, amount to 954. In the prefatory explanations of the differences between the amounts proposed in the Army Estimates for 1892-3, and the amounts voted for 1891-2, it is stated that the pay of the medical staff has been over-estimated in past years, insufficient allowance having been made for casualties. The cost of medicines and instruments is expected to decrease in the ensuing year. These estimates are a mine of well-arranged and clearly expressed information on a variety of subjects connected with the public services.

Vote 3 gives the gross estimate for the medical establishments and services for the Navy as £150,530, from which appropriations in aid (£25,530) have to be deducted, leaving £125,000 as the net estimate for 1892-3. There is a net increase of £2300 over last year. The numbers in the medical establishments at home and abroad amount to 111, which include two inspectors-general of hospitals, eight deputy inspectors-general, ten fleet surgeons, six staff surgeons and twenty-seven surgeons, three head sisters and twenty-one sisters, and fourteen dispensers, in addition to chaplains, storekeepers, &c. The total salaries and allowances amount to £35,256, being nearly the same as last year. Among the expenses of the Admiralty Office, salaries, and allowances, £7453 is the estimate for the Medical Department. This sum covers the pay and allowances of a total of seventeen, composed of the Director-General of the Naval Medical Service, a deputy inspector-general of hospitals and staff surgeon, with a clerical establishment.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 5866 births and 4469 deaths were registered during the week ending March 12th. The annual rate of mortality in these towns, which had been 23·4 and 20·5 per 1000 in the preceding two weeks, rose again last week to 22·9. In London the rate was 22·1 per 1000, while it averaged 23·4 in the thirty-two provincial towns. The lowest rates in these towns last week were 16·5 in Newcastle-upon-Tyne, 16·8 in Cardiff, 17·8 in West Ham, and 17·9 in Brighton; the highest rates were 28·2 in Blackburn, 30·0 in Liverpool, 31·0 in Halifax, and 32·8 in Swansea. The 4469 deaths included 406 which were referred to the principal zymotic diseases, against 426 and 390 in the preceding two weeks; of these, 170 resulted from whooping-cough, 113 from measles, 48 from diphtheria, 42 from diarrhœa, 15 from "fever" (principally enteric), 13 from scarlet fever, and 5 from small-pox. No deaths from any of these zymotic diseases were recorded in Plymouth, Preston, or Halifax, while they caused the highest death-rates in Birkenhead, Bolton, Liverpool, and Wolverhampton. The greatest mortality from measles occurred in Portsmouth, Swansea, Norwich, Birkenhead, and Liverpool; from whooping-cough in Burnley, Birkenhead, Derby, Bolton, and Wolverhampton, and from diarrhœa in Blackburn. The mortality from scarlet fever and from "fever" showed no marked excess in any of the thirty-three large towns. The 48 deaths from diphtheria included 34 in London, 2 in West Ham, and 3 in Manchester. Two fatal cases of small-pox were recorded in London, 2 in Liverpool, and 1 in Oldham; 13 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and 1 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of last week was 1202, against 1193 and 1190 on the preceding two Saturdays; 117 new cases were admitted during the week, against 86 and 96 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 461 and 379 in the preceeding two weeks, rose again last week to 454, but were 71 below the average. The causes of 88, or 2·0 per cent., of the deaths in the thirty-three towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Leicester, Leeds, Newcastle-upon-Tyne, and in nine other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Preston, Halifax, and Bradford.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·8 and 22·5 per 1000 in the preceding two weeks, rose again to 22·6 during the week ending March 12th, but was 0·3 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·0 in Paisley and 17·1 in Dundee to 27·5 in Perth and 28·1 in Aberdeen. The 629 deaths in these towns included 29 which were referred to whooping-cough, 16 to measles, 9 to diarrhœa, 7 to diphtheria, 6 to "fever," 3 to scarlet fever, and not one to small-pox. In all, 70 deaths resulted from these principal zymotic diseases, against 62 and 68 in the preceding two weeks. These 70 deaths were equal to an annual rate of 2·5 per 1000, which was 0·4 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 24 and 19 in the preceding two weeks, rose again last week to 29, of which 19 occurred in Glasgow, 4 in Edinburgh, and 4 in Aberdeen. The 16 deaths referred to measles exceeded by 5 the number in the previous week, and included 15 in Glasgow. The fatal cases of diphtheria, which had increased in the preceding four weeks from 1 to 12, declined again last week to 7, of which 6 occurred in Glasgow and 1 in Aberdeen. The 6 deaths from "fever" were within 2 of the number in the previous week, and included 3 in Glasgow and 3 in Aberdeen. Two of the 3 fatal cases of scarlet fever were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had increased in the preceding three weeks from 146 to 165, declined again last week to 154, and were 47 below the number in the corresponding week of last year. The causes of 53, or more than 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 39·5 and 32·7 per 1000 in the preceding two weeks, rose again to 35·5 during the week ending March 12th. During the first ten weeks of the current quarter the death-rate in the city averaged 38·5 per 1000, against 29·9 in London and 19·6 in Edinburgh. The 238 deaths in Dublin during the week under notice showed an increase of 19 upon the number in the preceding week, and included 12 which were referred to measles, 6 to whooping-cough, 2 to diarrhœa, and not one either to small-pox, scarlet fever, diphtheria, or "fever." In all, 20 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3·0 per 1000, the zymotic rate for the same period being 2·6 in London and 1·2 in Edinburgh. The fatal cases of measles, which had been 3 and 7 in the preceding two weeks, further rose to 12 last week, and exceeded the number recorded in any week since September, 1887. The deaths referred to whooping-cough, which had been 8 in each of the preceding two weeks, declined to 6 last week. No fatal case of "fever" was recorded in Dublin last week, the numbers in the previous two weeks having been 7 and 4 respectively. The 238 deaths in Dublin last week included 34 of infants under one year of age, and 71 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons exceeded those recorded in the preceding week. Two inquest cases and 3 deaths from violence were registered

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and 90, or more than a third, of the deaths occurred in public institutions. The causes of 20, or nearly 9 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

Inspector-General of Hospitals Doyle M. Shaw, C.B., completes his period of service in charge of the Naval Hospital at Haslar on the 25th inst., and, as already stated, will be succeeded by Inspector-General Mortimer, from the Plymouth Hospital. The vacancy at Plymouth will, it is understood, be filled by Inspector-General W. H. Lloyd.

Surgeon-Captain Hugh Rayner (Grenadier Guards) will accompany, as Medical Officer, the party under the charge of Major Julian J. Leverson, R.E., Her Majesty's Commissioner for the delimitation of British and Portuguese spheres of influence in East Africa. The party leaves Southampton on the 19th inst. by the Royal Mail steamer *Moor*.

Surgeon-Major T. J. Gallwey, M.D., has been appointed Principal Medical Officer of the Egyptian Army.

Deputy Inspector-General G. J. Shaw, M.D., late Bombay Army, and late assay master, Madras Mint, died on the 3rd inst. at Aherlow, Ventnor, aged 73.

We learn from the Navy Estimates that the vote for medical establishments amounts to £125,000, showing an increase of £2300.

ARMY MEDICAL STAFF. — Surgeon-Lieutenant-Colonel Henry Joseph O'Brien, M.B., to be Brigade-Surgeon-Lieutenant-Colonel, vice R. Collins, M.B., retired (dated Feb. 14th, 1892).

NAVAL MEDICAL SERVICE. — The following appointments have been made at the Admiralty:—Staff-Surgeon William Tait, M.B. to the *Nelson*, for temporary service (dated March 8th, 1892). Surgeons: Alfred Cropley and Edward A. Spiller, M.D., to Jamaica Hospital, and Ernest C. Lomas to the *Excellent*, additional (all dated March 15th, 1892).

MADRAS SUBORDINATE MEDICAL ESTABLISHMENT.

A Commission is conferred on the undermentioned Senior Apothecary under the terms of the Royal Warrant of July 19th, 1890:—Senior Apothecary, Second Grade, Chas. Thipthorp (dated July 19th, 1890, but to rank as Honorary Lieutenant from March 21st, 1889).—The undermentioned Senior Apothecaries, Second Grade, will rank as Honorary Lieutenants from the following, dates instead of those given in the *London Gazette* of Nov. 28th, 1890:—Christian Michael Antonio (since deceased), Dec. 22nd, 1889; Jonas Isaac Laffrey, Jan. 11th, 1890; Geo. Edwin King, Feb. 8th, 1890; Jonathan Chadwick, Aug. 28th, 1890. — The promotion of Apothecary, First Grade, Edmund Trutwein, to be Senior Apothecary, Second Grade, ranking as Honorary Lieutenant, notified in the *London Gazette* of Dec. 12th, 1890, is post-dated to Oct. 14th, 1890.—The promotion of Apothecary, First Grade, Chas. Trutwein (since deceased), to be Senior Apothecary, Second Grade, ranking as Honorary Lieutenant, notified in the *London Gazette* of Dec. 12th, 1890, is cancelled.

VOLUNTEER CORPS.—*Rifle:* 1st Nottinghamshire (Robin Hood): Herbert George Ashwell, Gent., to be Surgeon-Lieutenant (dated March 12th, 1892).

THE DRAINAGE OF CAIRO.—The Cairo correspondent of the *Daily News* states that a commission of engineers has sent in a report to Sir Colin Moncrieff on the drainage of Cairo. Sir C. Moncrieff will submit the scheme to the Ministers. The original outlay will amount to half a million sterling. It is proposed to construct huge sewers which will deposit their contents into a reservoir, whence the sewage will be pumped out on to a tract of land.

NATIONAL LEPROSY FUND.—A meeting of the Special Committee of the Fund was held in one of the Conference Rooms of the House of Commons, on the 11th inst., for the purpose of further considering the report of the Commissioners on the results of their investigations in India. There were present the Hon. G. Curzon, M.P., in the chair, Mr. Hutchinson, Dr. George Heron, Mr. C. Macnamara, Mr. E. Clifford, and, in attendance, Sir Somers Vine, honorary secretary of the Fund, and Dr. P. Abraham, honorary secretary of the special committee.

Correspondence.

"Audi alteram partem."

BLOOD CHANGES AND URIC ACID.

To the Editors of THE LANCET.

SIRS,—I should be very glad if you would allow me space for a few remarks on one point in the very admirable lecture of Dr. A. E. Wright in your issue of March 5th, as it has an important bearing on a research in which I have long been engaged. I refer to his remarks on the increased excretion of uric acid, on p. 517, where it appears that he attributes the *plus* uric acid to the nuclein constituent of the tissue-fibrinogen injected; that is, he believes it is due to a *plus* formation of uric acid. Another observer, Dr. Hunter, in his remarks on a paper which I read before the Medical Society in December, on a Case of Raynaud's Disease with Paroxysmal Hæmoglobinuria,[1] urges that the excess of uric acid is the result of the destruction of blood elements, and not, as I in the above paper and in my book[2] have contended, the cause of this destruction. In the case which formed the subject of my paper at the Medical Society I am reminded by my colleague, Dr. Wheaton, that in the blood which he kindly examined after one of the attacks of hæmoglobinuria he found not only great diminution of red cells, but an excess of white cells, and an increase in coagulability. I gave my reasons for believing that an excess of uric acid in the blood preceded and was the cause of these blood changes, the very ones about which Dr. Wright is speaking. I also pointed out that treatment of the uric acid factor produced a remarkable improvement in the case. I am not only prepared to assert that the uric acid is the cause of these blood changes, but I can go further, and show how there came to be an excess of uric acid in the blood.

In my paper on the excretion of uric acid in epilepsy[3] I pointed out that for some hours before the onset of the fits there was a *minus* excretion or retention of uric acid, and I inferred that the *plus* excretion and excess of urate in the blood which came later and produced the fits was the natural and ordinary result of the previous *minus* excretion. It is a very simple matter to alter from hour to hour or from day to day the excretion of uric acid; but whenever there is produced by drugs or diet a retention of, say, five grains of uric acid, there is certain to be at some future time, when the conditions become favourable to its solution in the blood, a *plus* excretion of a corresponding amount. I have pointed out that in epilepsy and in headache the *minus* excretion of urate that precedes the attack is accompanied by mental conditions of happiness and well being, the results of the blood being free from urate, so that if anyone was to argue that the *plus* excretion of urate is the result of the headache or of the fit, I should ask whether the headache or fit began a week ago, because the fluctuation in urate excretion began then. In my experience of epilepsy it is a very common thing to be told that he or she was very bright and well on Thursday, Friday, and Saturday, but on Sunday had six or eight fits; the whole thing is a fluctuation in urate excretion, which produced the fits, but was not produced by them. A similar fluctuation in urate excretion accounts for the periodicity of the uric acid headache, and in the case of headache I have shown (and I believe the same will yet be found to hold in cases of epilepsy) that if the blood is kept clear of uric acid the disturbance of the nervous system does not occur. Now precisely the same thing is seen in paroxysmal hæmoglobinuria—that is, the attack is preceded for days or hours (as the case may be) by feelings of happiness and well-being, and a *minus* excretion of uric acid. In the first case of this disease recorded in my book (p. 212) the symptoms of well-being preceding the attack were specially mentioned by the relatives, and I there give the excretion of urates in other cases during and between the attacks. If the *plus* excretion of the attack is due to a fresh formation of uric acid, why is it preceded by days or hours of *minus* excretion, why does the *plus* excretion of the attack correspond in amount to

[1] THE LANCET, vol. ii. 1891, p. 1339.
[2] Uric Acid as a Factor in the Causation of Disease. J. & A. Churchill. 1892.
[3] Neurologisches Centralblatt, Mai, 1888.

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the *minus* excretion which preceded it? I have been led to argue from these and other facts too numerous to mention here that in paroxysmal hæmoglobinuria the excess of urate in the blood is the cause of the changes that take place in it; but it can, I believe, be proved to demonstration that the *plus* excretion of urate which accompanies these attacks is not their result. Into the observations of Horbaczewski quoted by Dr. Wright I do not here attempt to enter in detail; but I will say that the *plus* excretion noticed by this observer does not seem to me to prove that there was in any of the conditions mentioned a *plus* formation of urates.

I am, Sirs, yours faithfully,

Brook-street, W., March 14th, 1892. ALEXANDER HAIG.

"THE BACTERIOLOGICAL DIAGNOSIS OF DIPHTHERIA."

To the Editors of THE LANCET.

SIRS,—In one of your leading articles in the current number of THE LANCET you comment upon the importance of the recent discussion at the Berlin Medical Society on the pathology of diphtheria, more especially with regard to the part played by Löffler's diphtheria bacillus in its causation. It must have been the experience of all of us that there are cases in which we have suspected the existence of diphtheria, and yet from the clinical characters alone we have been unable to arrive at a diagnosis; for all membranous exudations are not diphtheritic, and, moreover, diphtheria is not always accompanied by membranous exudation. All of us who see much of diphtheria in public institutions or in private are ready to welcome any bacteriological method by means of which, as in the case of the tubercle bacilli, we may make a certain diagnosis.

During a recent visit to Berlin I was enabled, through the kindness of Dr. A. Baginsky and his assistants, to watch the cases in the diphtheria pavilion of the Kaiser und Kaiserin Friedrich Kinderkrankenhaus, and to see the methods in use in the laboratories attached to that institution. The children admitted to the diphtheria pavilion were in the first place received into a special ward for twenty-four hours, during which time cultivations were made from the membrane or exudations taken from their fauces, and they were then either admitted to the general ward if the diphtheria bacillus was found, or to special wards if only streptococci or non-pathogenic micro-organisms were detected. I came away impressed with the value of the bacteriological diagnosis of diphtheria when the investigations were conducted by trained hands, and where it was possible not only to cultivate the bacilli, but in doubtful cases to test the correctness of the histological diagnosis by injecting a portion of the culture medium into guinea-pigs. Dr. Baginsky himself was sanguine enough to believe that before long this method will be practised by every general practitioner in Germany. You have pointed out the difficulties in the way of this as regards the time and skill required, and these difficulties must always be especially felt where it is impossible to resort to the inoculation of animals to confirm results. Nevertheless, I am inclined to think that much valuable aid may be rendered in the way of diagnosis by the microscopical examination of the exudations in suspected cases of diphtheria, and still more by cultivation if time and opportunity are afforded. In most cases cover-slip preparations of the exudations from diphtheria will, if properly stained, show the bacilli readily enough, and they can be recognised without difficulty. In this way I have been able to diagnose diphtheria from an examination of the nasal secretion and the sputa coughed up in patients where no membrane was found till some time later. The chief difficulty which meets us here is the different size and shape which the diphtheria bacillus presents according to its age and the circumstances of its growth. It stains well with carbol-fuchsine or Löffler's pot. methylene blue, but so do all sorts and conditions of micro-organisms, and we are dependent entirely for its recognition upon its morphological characters. The typical bacillus of diphtheria is thick and short, often slightly curved, found singly, but more often joined together in twos or more. In the older forms it is thicker and darker at the ends than in the centre. But even in pure cultivations forms may be seen which do not present typical characters, varying in size, and in some instances being shorter, so as to be almost indistinguishable from diplococci. It is certain we cannot depend on the morphological characters alone for their diagnosis in all cases. The difficulty does not always end when cultivations are made on blood serum; the colonies are not always characteristic, and a microscopical examination may still leave us in doubt, unless typical forms are present. These difficulties no doubt are lessened as experience increases, but that they are real difficulties I know by experience. It is certain that through the researches of Löffler, Escherich, Heubner, Baginsky, and others in Germany, and Roux and Yersin in France, an important addition has been made to our knowledge of the pathology of diphtheria and our methods of diagnosis, and if there are still difficulties in the way, we are not without hope that they may be overcome.

I am, Sirs, yours truly,

Manchester, March 13th, 1892. HENRY ASHBY.

THE ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—The several admirable and exhaustive leading articles which have appeared in the columns of THE LANCET on the recent action of "Steele *v.* Savory" seem to me to leave little room for further argument. The committee of the Association of Members fully deserve, as you have so well said, to be credited with the courageous effort made to serve the general body of the Members of the College; and it is scarcely possible to believe that anyone who has looked into the facts will deny this, much as he may disapprove of the legal proceedings. But this difference of opinion cannot be assigned as a reason why the expenses incurred should be defrayed by the few who have stood in the breach and thereby happen to appear the more immediately responsible. A considerable amount of difficulty, however, presents itself in any attempt to bring home this truism to the minds of the 10,000 or 12,000 Members of the College, most of whom must have felt more or less interest in the work in which the Association of Members have been engaged. I therefore venture to ask permission to occupy a small space in your columns to make it perfectly clear that the committee have invariably acted under the advice of counsel, and to the best of their ability in the interests of Members, and feel that they may confidently appeal to the 4000 Members who appended their signatures to the petition presented to the Privy Council some three or four years ago. A small contribution from each one of them will be sufficient to meet the legal expenses incurred on their behalf. The large body who supported the Association of Members at this period showed at least that they had the courage of their opinions; and it is impossible to believe that a profession proverbial for its generosity and open-heartedness will withhold its sympathy from those of their brethren "who have fought the battle and find themselves burdened with costs amounting to £2000." In your words, Sirs, I hope and trust "the Members for whom the struggle was commenced will respond to the appeal of Dr. Danford Thomas, the treasurer, and by their prompt and generous assistance testify to the courage and self-abnegation displayed in the important contest in which the plaintiffs were engaged on behalf of the members generally."

I remain, Sirs, your most obedient servant.

Bedford-square, March 15th, 1892. JABEZ HOGG.

POST-MORTEM APPEARANCES OF THE BRAIN OF INFLUENZA PATIENTS.

To the Editors of THE LANCET.

SIRS,—I have read with much pleasure and satisfaction the important statement which appeared in THE LANCET of March 12th, from Dr. Macdonald, who has, as far as I am aware, been the first to discover and to demonstrate the special lesion which I have been led to consider as productive of the feverish attack of grip. It was in the hope of eliciting such information as Dr. Macdonald has given us that I started, with your permission, the discussion on this subject which has been going on in THE LANCET. There can be no doubt that what Dr. Macdonald has found in one case must have been present in a great many others, but was overlooked because no special attention was given to it. I confess that I do not quite understand why Dr.

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Goodall should show himself so anxious to repudiate the existence of characteristic lesions in the brain of gripped patients. If he has read my paper on the neurotic aspects of influenza, which appeared in THE LANCET of Nov. 14th and 21st, he surely must concede that I have made out at least a *primâ facie* case for the existence of a bulbar lesion as the material base of the phenomena witnessed in the feverish attack. Let me remind him that Adams of Cambridge deduced the existence of Neptune from symptoms of disturbance seen in the movements of neighbouring celestial bodies, and that, after this idea had been duly ridiculed by the authorities at Greenwich, the planet was discovered by the French astronomer, Leverrier, in the exact position which the English *savant* had predicted. An analogous case in medicine is that of labio-glosso-laryngeal paralysis, the focal lesion of which was predicted by Wachsmuth in 1864, and shown to exist by Charcot in 1870. I can therefore claim good precedents for the course I have taken in this matter.

Dr. Goodall is dissatisfied with the meagre account of post-mortem appearances extracted by me from Maillard's work. I feel inclined to reply that half a loaf is better than no bread, and that I am not responsible for Maillard not having been more explicit, but as Dr. Goodall has indulged in an apparently destructive criticism of the cases brought forward, I will, with your permission, follow in his track, and endeavour to "pulverise" him in turn. Due regard for your space, however, must limit my remarks to the first two cases in question. Commenting on the first case, Dr. Goodall seems to be very much annoyed that the lesions should have been limited to the cerebellum, and states that "we might at least have suspected hyperæmia elsewhere." He also insinuates that the appearances noted—viz., hyperæmia, hæmorrhage, and softening—might be rather due "to a fit of sneezing or coughing than to any such theoretical cause as that suggested." In reply to this, I may mention that the subject of the case was a domestic servant, aged twenty-five, who was in perfect health ("en parfaite santé") at the time she was seized by influenza. Unfortunately for Dr. Goodall's startling suggestion that hyperæmia, hæmorrhage, and softening of the cerebellum in a young woman who was in perfect health might be owing to sneezing or coughing, she never sneezed or coughed at all during her short illness (three days). It happened to be a case of the so-called "gastric form" of influenza, beginning with most distressing vomiting, which was shortly followed by grinding of teeth, violent headache, incessant agitation, and later on by coma. The "sneezing and coughing" theory, therefore, falls absolutely to the ground in the present instance. In the second case Dr. Goodall can see "no bearing of the bursting of an aneurysm of the basilar artery upon the pathology of influenza." May I therefore be allowed to remind him that the bulb receives a vascular supply from the basilar artery, and that intense congestion of that vessel during the attack of grip may have led, first, to the giving way of the internal and middle coat of the artery, and, finally, to rupture of its external coat? The history of the case renders such an explanation highly probable. The patient was a man aged forty-seven, having no neurotic, alcoholic, or syphilitic antecedents, and who had been in good health, with the exception of having had typhoid fever and bronchitis some time previously to becoming gripped. He had two attacks of influenza, the principal symptoms of the first being severe pain at the back of the head, vertigo, and tinnitus, from which he had never suffered before. Now Dr. Goodall knows as well as myself that the basilar artery gives branches, not only to the bulb, but also to the membranous labyrinth, and that the vertigo and tinnitus are therefore most significant symptoms in connexion with the formation of the aneurysm of that artery, which, I take it, occurred during the first attack of grip. The patient, although he recovered from the first feverish attack, never felt well afterwards, and had a second attack three months later. The first symptom was, once more, vertigo; he fell down, and remained unconscious for half an hour. After coming to he complained of severe pain in the head and all over, of tinnitus, vertigo, impaired sight, and had a pulse of 50 beats in the minute—all signs of irritation in the sphere of the basilar artery. Two days afterwards he suddenly fell out of bed, and died—of course, from the rupture of the aneurysm. Surely there never was a clearer or more logical sequence of events. I now take leave of Dr. Goodall, in the hope that he may yet come round to my view of the subject, and that he may give us at some future time, not barren criticism, but positive contributions to our knowledge in the way Dr. Macdonald has done.

I am, Sirs, yours faithfully,

Harley-street, March, 1892. JULIUS ALTHAUS, M.D.

ETHER AS A STIMULANT AT THE TEMPERANCE HOSPITAL.

To the Editors of THE LANCET.

SIRS,—With regard to your homily to the staff of the Temperance Hospital, it would be well if you had made sure of your facts first. The anonymous correspondent has misled you. Nearly all the ether used therein has been used for anæsthetic purposes; a small quantity has been used externally, and a very little has been administered subcutaneously in rare emergencies. I am not aware that any has been used internally, and for the very good reason that ether is only soluble in alcohol, and there is not a drop of spiritus etheris on the premises. So much for the mare's nest. But your article shows a complete misapprehension of the object of the Temperance Hospital. It is admitted that some people (probably many) have acquired a craving for drink through having been ordered to take some common form of alcoholic beverage; it is also a fact that some reformed drunkards have had their desire for alcohol reawakened through being ordered beer, wine, or spirits during illness; and it is notorious that a large number of people think that some form of alcoholic liquor is absolutely necessary for the cure of most diseases, exceedingly useful in nearly all the rest, and especially valuable during convalescence as a tonic and "strengthening" agent. It is also thought that a remedy which is so valuable to cure disease must be equally useful to ward it off. Alcoholic liquors are still largely recommended and relied on by a great many medical men, and were still more when the Temperance Hospital was first established. Its object, then, is to show that the ordinary use of alcohol is totally unnecessary, and thus to check the spread of the alcohol habit. But we can avoid, and have avoided, that. It would be equally absurd to reject ether because some have taken excess in the north of Ireland as to abandon the medicinal use of opium because opium is a common curse in China. If I were practising among ether or opium drunkards I should avoid the use of these medicines as much as possible. If alcohol had never been taken save in medicine, and had only been dispensed as a drug, there would have been no great drink question urgently demanding solution. Such a use of alcohol would be harmless, but at the Temperance Hospital we have shown that even when alcohol might be useful it is possible to employ something else. Our experience proves that its value is grossly exaggerated, and that its total disuse would not render the cure of disease more difficult. You are also probably aware that the special legislation which has put an end to ether drinking in Ireland is an order scheduling ether as a poison, only to be procured as other poisons are. We shall be quite content when alcohol, which has done infinitely more harm than ether, is treated in the same way.

I am, Sirs, yours truly,

J. J. RIDGE, M.D. Lond.,

March 12th, 1892. Physician to the London Temperance Hospital.

THE EFFECTS OF INFLUENZA UPON THE MIDDLE EAR.

To the Editors of THE LANCET.

SIRS,—My limited experience as a country practitioner has been so strangely opposed to that of Sir W. Dalby regarding the effects of influenza upon the middle ear that I venture to ask your permission to draw attention to a case in which a very serious ear complication supervened upon an attack of influenza in a patient who had previously no ear troubles of any kind. This man came under my care in the spring of 1890. He was apparently in a fair way to recovery from this disease when he was suddenly seized with acute pain in the left ear. The influenza attack had run quite a usual course and was not of a very severe type. The temperature had been normal for a few days before the ear trouble began. With the view of relieving the pain I ordered hot applications in the way of fomentations and

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poultices, with the result that shortly a free discharge of pus escaped from the meatus. Relief followed, and the patient appeared better. The discharge continued to be free and abundant for a few days, when it became much scantier, and then disappeared almost completely. The result of this was that the patient began to complain of intense pain in some of the joints, more especially the knees. The temperature went up to 104° F., and the case had now all the appearances of rheumatic fever, but in view of the previous history one could not help associating the condition of the joints as well as the pyrexia with the stoppage of the discharge from the ear. With the renewed application of moist heat to the ear and the internal administration of salicylate of soda the discharge became more abundant, the pyrexia became less, and things looked generally more favourable, until a few days subsequently it was noted that there was considerable swelling, and some slight redness over the mastoid. The general condition of the patient was now not at all satisfactory. There were great anorexia, extreme debility, great pallor, and the discharge from the ear was not as abundant as one would have liked under the circumstances. In view of this state of matters, I became anxious to have a further opinion upon the case, and I determined to take the patient at once to see Mr. Richard Williams of Liverpool. Mr. Williams was impressed with the gravity of the case, and advised that the mastoid should be thoroughly dealt with. He proposed to cut down freely upon it, and if necessary to gouge the bone, and then to pass a drainage tube into the opening thus made and bring it out through the external meatus. On the following morning the patient was put under chloroform, and Mr. Williams dealt with the case precisely as stated above, with the exception that the drainage-tube was not passed through into the external meatus. A considerable amount of pus escaped when the incision was made, the mastoid was gouged, and the diseased portion thus removed. A drainage-tube was inserted and the wound stuffed with antiseptic dressing. The improvement in the condition of the patient after this radical form of treatment was most marked in two or three days. The appetite returned, the pallor diminished, and the wound steadily healed up with healthy granulations from the bottom, and the discharge became gradually less, until in a very short time it disappeared completely. Within a few weeks the wound was completely closed, the hearing power was returning and slowly improving, and in the course of a few months the patient was as strong as ever and the hearing excellent on the affected side. This is the only case in my experience during the epidemic in which the mastoid became so seriously affected, and the general condition so grave in consequence; but I met with a considerable number of cases of influenza in which there supervened during convalescence great pain in the ear, followed by a purulent discharge therefrom, in persons who stated that they had previously no ear troubles of any kind, and who thus corroborated the experience recorded in THE LANCET of March 5th by my old teacher, Dr. Walker Downie of Glasgow.

I am, Sirs, yours faithfully,

HUGH JONES, M.B.,
Late Resident Physician, Glasgow Western Infirmary.

Dolgelly, North Wales, March 14th, 1892.

"THE FUTURE OF THE HUMAN FOOT."

To the Editors of THE LANCET.

SIRS,—This, as Mr. Clement Lucas tells us,[1] "would appear to be a gradual suppression from without inwards of the toes, and a further strengthening of the great toe line on the inner side. That this is all that is required is abundantly proved by observing the thousands who, even at the present time, use only the great toe as a means of progression." Kindly permit me to point out how remarkable it is, if this be true, that we do not find proof of it in hypertrophy of the muscles acting on the great toe, and in atrophy of those acting on the smaller ones. These latter move together each of them in the same vertical plane, and, even when closely packed against each other, may be firmly pressed downwards in every step. That such is commonly the case it would be easy to prove. The great toe, on the other hand, having as its position of rest an inclination upwards and outwards over the second toe, moves downwards and inwards away from the others. *It* is clear that when fixed in the median-pointed boot the great toe cannot so move, and that the joint surfaces, which are prevented from following the course for which they are adapted, either do not move at all or do so only with irritation to the structure. And I venture to assert that if anyone will examine a large number of feet, as I have for many years been doing, he will find evidence of defect of function in the great toe more often than in the smaller ones. I except the little one, but cannot admit that even it, poor thing though it seems, is "useless." The metatarso-phalangeal joint of and the muscles acting on this toe are generally found to be in working order, and even when it consists of a continuous bone only, I maintain that it still coöperates with its fellows in relieving the pressure which falls on the heads of the metatarsal bones as the heel is uplifted and the body propelled onwards from the front part of the foot. Nor do I believe that it is "fast disappearing," hardly used though it be. A stunted form of it, I may remark, was an ideal, if not a reality, when the Venus di Medici was chiselled. I do not disparage the great toe. Seventeen years ago I wrote of it that "there is no more marked distinction between man and the lower animals." Then and ever since I have persistently enforced in THE LANCET (Feb. 9th and June 30th, 1884, and Sept. 25th, 1886) and elsewhere the importance of its functions. I plead only now that the smaller toes are also important and not likely to be effaced.

What "the future of the human foot" is to be will depend, to some extent, on how those who, in the present, have to advise with respect to its use and to the prevention of troubles arising from misuse. For myself, I regard it as an organ of the body having its own proper physiology, as definite as that of the eyeball, so that to speak of the joint at the base of the great toe as not equal to the strain upon it, while its functions are almost always exercised under conditions involving irritation, seems to me to be unfair. Moreover, I cannot without regret observe that Mr. Lucas continues to associate a common deformity (flat-foot) with "immoral practices"—he has spoken more plainly elsewhere.[2] It is really due, as I contend, to defect of function, and, as I know, it can, by renewal of function, be repaired. Anyway, the wide prevalence of it, in varying degree, among all classes, in both sexes, and at nearly all ages, appears to me to forbid, for the present, the prediction of "a further strengthening of the great toe line" as a prospective development.—I am, Sirs, yours faithfully,

Gloucester, March 4th, 1892. T. S. ELLIS.

HEREDITARY SUPPRESSION OF FINGERS.

To the Editors of THE LANCET.

SIRS,—Mr. Clement Lucas, in his interesting paper on Suppression of Digits in THE LANCET of the 27th ult., refers to the frequent occurrence of contracted little finger, accompanied by contraction or malformation of the toes. This subject has received some attention of late from Mr. Adams[3] and Mr. Anderson,[4] but I believe that the occasional association of contracted little finger with hammer-toe was first pointed out by my friend and colleague, Mr. Fisher, in his article on the treatment of deformities in the "International Encyclopædia of Surgery." Mr. Lucas attributes this not very common deformity of the little finger and the commonly ill-grown little toe to the same cause—the fact that they are not wanted. Now, Sirs, I venture to think that, however well we may get on without a little toe, thanks to the highly artificial circumstances of the foot in most civilised countries, those of us who use our hands would miss the little finger very much indeed were it to be removed, and so far from expecting this digit to disappear I should expect, if usefulness and evolution are related, that it would become more developed rather than less, for the civilised man (such, for instance, as the musician) uses his fingers independently of each other more than does the savage. I am inclined to the belief that the little toe is well formed in most newborn children, but that the early and continuous use of boots prevents its growth and development. If, however, it be in course of elimination as a useless appendage, I

[1] THE LANCET, Feb. 27th.

[2] Brit. Med. Jour., May 3rd, 1884.
[3] Transactions of the Medical Society of London, vol. xiv., p. 119.
[4] THE LANCET, July and August, 1891.

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should like to ask Mr. Lucas whether he would explain this as the effect of design, or on the Darwinian hypothesis that the individual with an ill-formed little toe has the best chance in the struggle for life; or would he, following Lamarck, attribute its suppression to the hereditary transmission of an acquired peculiarity.

I am, Sirs, yours truly,

Park-street, W., March 2nd, 1892. E. MUIRHEAD LITTLE.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The General Hospital.

THE annual meeting of the governors of this hospital was held on the 16th inst., the mayor, Mr. Lawley Parker, being in the chair. The 112th report was read, in which it was shown that the total number of patients was: In-patients, by ticket, 548; without ticket—i.e, accidents and urgent cases—3529; out-patients, by ticket, 14,153; without tickets—i.e., accidents and urgent cases—34,105; total number, 52 335. The total income from all sources has been £18,181 19*s* 3*d*.; the deficiency in the funds, which at the beginning of the year amounted to £6073 1*s*. 8*d*., has, thanks mainly to the receipt of £5000 from the musical festival, been reduced to the amount of £2458 6*s*. 8*d*.—a fact which the committee regard as a matter for sincere congratulation. The Earl of Dartmouth was elected president for the ensuing year. A meeting of the general committee was held on the 8th inst. to receive the report of the building committee upon the competitive plans, and to select the architect for the new building. There were twelve competitors. The committee, with Mr. Waterhouse, R.A., as consultant, recommended three plans for the prizes of £150, £100, and £50 which had been offered. The first prize was unanimously awarded to Mr. William Henman, who has already done good work in various parts of the country.

The Jaffray Suburban Hospital.

The committee have just issued their sixth annual report. During the year 208 patients had been treated. The average stay of the patients in the hospital was fourteen weeks. The epidemic of influenza interfered with the working of the hospital, the matron and several of the nurses having been affected. Twenty-four patients had been treated according to Koch's method for tuberculosis, and generally the utility of the hospital according to its objects had been fully maintained.

The Athletic Institute.

This new institution is vigorously pursuing its work, and already doing much good. "Purity of life in relation to athletic vigour" was the subject of a lecture given on the 10th inst. by Mr. C. G. Wheelhouse. A large and attentive audience listened to this discourse, and frequently showed their appreciation of the lecturer's remarks by the applause given. The next of the series is to be given by Sir Dyce Duckworth, on the "Value of Athletic Exercises as Counter-agents to Sedentary Pursuits." The series embrace a number of free lectures which the Council has been able to arrange by the kindness of the President, Mr. H. Mitchell. The institute will doubtless become popular and useful in promoting exercises and amusements conducive to health and interest.

The Water Scheme.

The attention of our rulers still continues to be given to the solving of this great problem. The expenditure involved in the proposed new supply involves some six millions of money. No wonder that some economists and captious critics view with alarm this enormous outlay. Alternative schemes have been mooted and some opposition raised to the original plans. The need of providing for the future supply of the city is the paramount necessity which governs the action of those who know most about it, and it is more than probable that Parliament will sanction the undertaking as at present propounded. The suffering ratepayer will have to sacrifice his sentiments and his pockets to the general good of the community, and continue his grumblings as heretofore.

March 16th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle Convalescent Society.

THE annual meeting of the Convalescent Society for Newcastle and for the counties of Northumberland and Durham has been held. Dr. Philipson submitted the report for the thirty-second year of the association, which showed that the admissions to the Prudhoe Memorial Convalescent Home at Whitley would bear favourable comparison with those of previous years. The number admitted in 1891 was 1495. The total number of patients admitted since the institution was opened in 1869 was 23,217, of whom over 95 per cent. received benefit.

Diphtheria in Durham County.

Owing to the late epidemic of diphtheria in the Aycliffe district of the Darlington sanitary authority the Local Government Board have requested the authority to instruct the medical officer for the district (Dr. Hardy) to prepare a report on the outbreak, in which he says that there were fifteen cases up to Jan. 15th, of which six proved fatal. Several scholars had suffered from sore-throat, and when seen were affected with paralysis. After the school was closed there were no more cases, but on its reopening fresh cases occurred, which he thought pointed to the school as an infected centre. On inspection of the school nothing amiss was found. I mentioned in a previous note the outbreak in the Houghton-le-Spring sanitary authority, which has now in most part subsided. In order, as far as possible, to prevent a fresh outbreak or a continuance of the disease, all the school books, maps, &c., to the value of about £120, have been burnt.

Newcastle Health Society.

The lectures under the auspices of this Society have been continued, Dr. J. W. Smith's subject being "The Nature of Disease and the Purpose of Medicine." Mr. Frederick Page, I believe, finished the course for the session last Saturday, his subject being "Human Parasites in relation to Food and Disease." The lectures have been very well attended.

Middlesbrough.

Middlesbrough has again made a feature of its Hospital Sunday, the processions to the various places of worship being headed by the mayor, members, and officials of the corporation. The Durham Rifles and other volunteers attended, also the Tees Submarine Miners. The collections were for the North Riding Infirmary and the North Ormesby Cottage Hospital.

Important Accident Assurance Case.

At the Carlisle Assizes last week an action was brought by a widow, and was decided in her favour, involving some very fine medico-legal points. Her late husband had taken out a policy, one of the conditions being that the deceased was suffering from no physical infirmity which rendered him peculiarly liable to accident. Now the deceased had lost an eye twenty years previously from an explosion, and the Lord Chief Justice held that the company could not repudiate their liability, as the loss of the eye must have been obvious to the agent of the company. The deceased met with another accident by which he lost the other eye, and from the effects of which he ultimately died. The widow stated that no conditions were read over to him when he made the assurance proposal, and that if they were he could not understand them, or do more than sign his own name. The jury returned a verdict for £500, and his lordship refused to grant the stay which was applied for.

Interesting Hospital Cases.

I have seen a case in the Royal Infirmary in which Mr. Frederick Page performed Mikulicz's operation (in a patient suffering from chronic dilatation of the stomach) on the 2nd inst. So far the case is doing well. I believe there is no record of this pyloro-plastic operation having been done in this country before. Mr. S. Macaulay has a curious case of objective tinnitus at the Newcastle Throat and Ear Hospital, which I have also seen. The patient is a little girl aged nine, who has not suffered from any other affection of the ear. On listening with the unaided ear a cracking sound is heard, such as would be produced by cracking the

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finger nails. The affection has lasted three months, and has not been mitigated even by treatment, including persistent Politzerisation &c. At the Sunderland Infirmary an inquest has been held on a boy aged six, who had been admitted for a burn which was shown not to have been the direct cause of death; but a necropsy disclosed extensive liver disease, caused in all probability by alcohol, as it was proved that his mother and his "granny" were in the habit of giving the boy small quantities of spirits extending over a long period. The jury came to the conclusion that the child had died from diseased liver, brought on by alcohol and want of proper nourishment. The coroner also admonished the father of the child.

The Funeral of the late Dr. Heath of Newcastle.

On Thursday last the remains of the late Dr. Heath were interred in Jesmond Old Cemetery in this city, with every manifestation of regret and respect from the profession and our general citizens. Although a blinding snowstorm came on before the funeral, the attendance was very large and representative. The procession was headed by students from the college in caps and gowns, numbering about one hundred; the members of the College of Medicine also of the College of Science, likewise in their robes, joined in, and a large number of country practitioners, old friends, and students. The floral tributes sent to Dr. Heath's memory by all classes were very beautiful and numerous. Dr. Heath at the time of his death was the oldest commissioned officer in the Yeomanry Corps, as surgeon-major. Sergeant-Major Forbes, representing the Northumberland Hussars, followed the remains.

Newcastle-on-Tyne, March 15th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Liability for Selling Unsound Fish.

IN Edinburgh within the past few weeks there have been one or two prosecutions for exposing to sale unsound fish. The prosecution has now been extended from the retailer of the fish to the auctioneer who sold them, and the sheriff has decided against the auctioneer, his contention being that the sections of the Act were framed to put down the traffic in unwholesome food, and he was of opinion that they were intended to reach every person through whose hands such food passed. This is an important decision, and, if it remains unquestioned, it will be an additional check of great efficacy in diminishing the admission of unsound fish at all events into the retail market patronised by the poorer classes.

Meat Inspection in Edinburgh.

It was mentioned in these columns that the Public Health Committee of the Town Council had proposed the establishment of clearing-houses for the inspection of all meat to be sold as food. The report containing this proposal has been before the Town Council, and meanwhile it has been decided to be content with the appointment of inspectors.

The Edinburgh Maternity Hospital.

The annual meeting of this hospital was held last week, the Lord Provost presiding. During the year 307 patients had been treated in the wards, and there had been 561 outdoor cases. During the year forty-one nurses had been trained. The expenditure was only £864 17*s.* 1*d.* The chairman commented upon the amount of work done for such a small sum, and thought the hospital must be conducted too economically.

Edinburgh Medical Missionary Society.

The jubilee of the Edinburgh Medical Missionary Society was held at the end of last and the beginning of the present week. Religious services of various kinds have been held, in which various eminent persons have taken part, including Archdeacon Farrar.

The winter session of the Edinburgh medical classes will end on Friday of this week. Next week the first professional examinations will begin, and the second professional the week following.

March 15th

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Banquet at the Royal College of Surgeons.

MR. H. GRAY CROLY, J.P., President of the College, gave a banquet in the Museum on Monday evening, the 14th inst., in celebration of the first biennial presidency of the College. His Excellency the Lord Lieutenant and a distinguished company, numbering nearly 200 guests, were present at the banquet. The President, in proposing "The Medical Licensing Bodies," referred to the expenditure of several thousand pounds in improving the schools attached to the College. He availed himself of the occasion, he said, to enter a public protest on behalf of the College of Surgeons and the College of Physicians against the attempt now being made to set up a degree granting monopoly for the benefit of London hospital students. They should not think of interfering with London in this matter if Irish students and teachers were afforded by this proposed university a "fair field and no favour." If the opportunity to show cause against the new Gresham University Charter were afforded they would be prepared to offer arguments which would satisfy the Government that no such monopoly of power to dispense medical degrees ought to be accorded to London or any other teaching centre.

Abolition of Visiting Physicians to Irish Lunatic Asylums.

A new rule which came into operation on Dec 31st, 1891, is to the effect that for the future when any vacancy shall occur in the post of visiting physicians or apothecaries it shall not be filled up. This regulation has caused considerable dissatisfaction, and last week the governors of the Cork District Lunatic Asylum passed the following resolution:—"That we, the governors of the Cork District Lunatic Asylum, entirely disapprove of the new rule dispensing with the services of visiting physicians throughout Ireland, and that copies of this resolution be sent to every asylum board in Ireland." This regulation has been adopted at the suggestion of the inspectors of lunatic asylums, who recommend that in cases of special difficulty the medical superintendent may be empowered to obtain assistance from a specialist in ophthalmic and obstetric affections.

Health of Dublin in 1891.

The births numbered 9850, and the deaths 9195, or 26·3 per 1000. Both the birth- and death-rates were below the average for the previous ten years. Zymotic diseases amounted to 865, or 390 below the average for the ten years 1881–90. To measles only 5 deaths were ascribed, and it is a remarkable occurrence that of 163 cases treated in hospitals during the year not one proved fatal.

Cork District Lunatic Asylum.

From the report for the past year it appears that 1305 patients were treated during the year, of which number 100 were discharged recovered, 45 improved, 27 not improved, 1 escaped, and 69 deaths took place.

A respectable farmer, named Devlin, died on Sunday in Tullyvaughan, co. Tyrone, at the advanced age of 102 years.

March 15th.

PARIS.

(FROM OUR OWN CORRESPONDENTS.)

Banquet in Honour of Professor Charcot.

ON the 5th inst., at the Restaurant Durand, the establishment rendered famous as the electioneering headquarters of the late General Boulanger, the former *chefs de clinique* and *internes* of M. Charcot celebrated their renowned chief's promotion from the rank of *officier* to that of *commandeur* of the Légion d'Honneur. The hosts numbered thirty-five, and included such well-known personages as Cornil (year of service 1863), Bouchard (1864 and 1866), Bourneville (1868), Joffroy (1869), Debove (1871), Raymond, Pitres, Brissaud, Ballet, Féré, and J. B. Charcot, the guest's son. At dessert the professor's senior *interne* (Professor Cornil) rose and, in proposing the toast of the evening, depicted in eloquent terms the arduous existence led by the eminent neurologist and his first pupils in the old days when the now celebrated École de la Salpêtrière was only in embryo. So touched was M. Charcot

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by the terms of the speech that he could not refrain from embracing the orator. Similar speeches having been delivered by M. Joffroy and Professor Pitres of Bordeaux, the distinguished guest returned thanks, and terminated his remarks by urging the younger members of the company to follow in the footsteps of his older pupils, and to drink to the continued prosperity of the Salpêtrière school.

The Civil versus *the Military Element at the Lyons Faculty.*

On the 7th inst. Professor Morat commenced a six months' course of physiology at the above-mentioned Faculty before an audience of 300 students. On his entrance into the theatre the professor was greeted by a volley of hisses, and such articles of consumption as potatoes and eggs—the latter being in various degrees of decomposition—were freely hurled at his devoted head. The unpopular lecturer stood to his guns for half an hour without succeeding in making his voice heard, and then discreetly beat a retreat. What was the head and front of M. Morat's offending? To enable your readers to understand the situation I must explain that there exists at Lyons, besides the Faculty, a Military School of Medicine, the students of which latter establishment being obliged to follow M. Morat's lectures, while such attendance is optional for the civilian students of the Faculty. The professor, perhaps not unnaturally, resents the consequent neglect undergone by his educational efforts at the hands of the civilians. The alleged favouritism enjoyed by the *pantalons rouges* has excited considerable ill-feeling between the civil and military students, the animosity culminating in a scene of violence at the Hôtel Dieu, where Professor Poncet had to separate the combatants. The Council of the Faculty decided to temporarily suspend the lectures, and the doors of the Faculty remained for some days closed to students of medicine, only students of the Faculty of Sciences being allowed to enter. The dissatisfied civilians took advantage of the interregnum to hold a mass meeting, at which there were passed resolutions claiming (1) equal privileges for civilian and military students; (2) the granting to civilian students of a choice of wards for clinical studies—a favour now accorded to the soldiers only; (3) the right to re-present themselves, like the military section, for examination within two or three weeks after a failure; (4) permission to attend night accouchements at the Charité Hospital, a privilege now enjoyed only by the military students; (5) the separation of the civil from the military students at special clinics; (6) an apology from the military student who struck a civilian at the Hôtel Dieu; (7) the exclusion of M. Morat from examining boards, and his replacement as a lecturer by a sub-professor. I understand that the gates of the Faculty have been reopened, but it remains to be seen if the drastic remedies embodied in the above resolutions will be adopted by the authorities. Students are proverbially sensitive, and apt to resent what they consider, often wrongly, to be an injustice. Thus at the Paris Faculty M. Gariel, the Professor of Physics, has incurred the wrath of first year students by his alleged severity as an examiner. Every year these young men are in the habit of celebrating the conclusion of the chemistry and physics classes by a *monôme*. This function, which consists in a procession along the boulevards of men marching in Indian file and holding on to each other's coat-tails, was indulged in the other day by 300 students, who, starting at 11.30 P.M. from the Hôpital St. Louis, made their noisy way towards the Quartier Latin. The cries indulged in were "*Conspuez Gariel!*" and "*Vive Blanchard!*" the last-named gentleman being a *sympathique* sub-professor, who has shown himself less critical of the attainments of more or less apprehensive candidates for examination than the perhaps too conscientious Professor of Physics. The *monômists* were dispersed by a squad of police, who were lying in ambush at the Prefecture, but the manifestation was resumed before the Faculty of Medicine.

Strontium Salts in Therapeutics.

In this country these salts have recently come greatly into favour, and seem destined henceforth to take an important place in the treatment of disease. Their therapeutic efficacy, when they respond to that paramount essential, purity of composition, would appear to be an established fact. Though hardly new to therapeutists, they are unquestionably so to therapeutics, for hitherto their frequent admixture with poisonous or deleterious substances, such as barium and other impurities, has greatly militated against their admission amongst our pharmaceutical resources. Thanks, however, to the patient investigation of Paraf-Javal, a means has been discovered of producing perfectly pure salts, and the use of such salts shows that previous ideas as to the toxic properties of strontium compounds were erroneous, and that toxic symptoms, when manifested, are in reality to be attributed to the impurities hitherto inseparable from these preparations. According to the testimony of such well-known authorities and clinical observers as Germain Sée, Dujardin-Beaumetz, Constantin Paul, Bucquoy, &c., the superiority of the lactate of strontium, when prepared after the process of Paraf-Javal, in the treatment of albuminuria, would appear to be established over all other medicaments. Again, the researches of M. Féré, in his wide field of clinical observation amongst the mental cases at the Bicêtre Hospital, have led him to the conclusion that the bromide of strontium can, in very many cases, be with advantage substituted for bromide of potassium in the treatment of epilepsy. He found that when the bromide of potassium was, from one reason or another, badly borne in doses large enough to be efficient, as often happens, the bromide of strontium was readily tolerated, showing no toxic effects, and with results equal, if not superior, to those obtained by the former salt. M. Laborde, at a recent meeting of the Therapeutic Society, while dwelling on the foregoing facts, impressed on his hearers the necessity of administering pure preparations only, and of avoiding unstable compounds of this element, such as the iodide of strontium, on which experimental pharmacology had not as yet pronounced.

Petroleum in Diphtheria.

At a recent meeting of the Academy of Medicine in Brussels M. Maison, for M. Larcher, read an interesting paper on the highly successful use of crude petroleum in diphtheria. Since 1886 M. Larcher has treated forty-two cases of this disease in this manner, and with only two deaths. Of these two, one was a very young child, which came under treatment at a very advanced period of the malady; the other being a little girl of six, with very extensive disease, who proved so intractable that it was almost impossible to make the necessary local manipulations. Of the forty successful cases, all presented well-marked diphtheritic symptoms. The treatment consisted in the energetic application of the petroleum every two hours by means of a brush, with the addition, in some cases, of sprays of carbolised water. As a result a rapid softening and shedding of the false membranes followed. In most cases the membrane reformed, but was less thick and extensive, appearing in patches, between which healthy mucous membrane appeared, finally encroaching on the patches, and permanently taking their place when the latter gave way a second time to the application. In seven of the cases there was paralysis of the soft palate. The petroleum was not found as disagreeable as might be imagined, for it was only towards the termination of the treatment that the patients began to complain of any unpleasant taste. M. Larcher concludes from the foregoing that if the future gives an analogous proportion of successful results by this method, it may be submitted with safety that—(1) Petroleum may be considered capable of curing diphtheria; (2) that its employment is unattended by any serious inconvenience; (3) that its use does not preclude other applications; (4) that the duration of the treatment varies between eight and eighteen days; and (5) that—a point of no small importance—in connexion with these forty-two cases, in no instance was there any spread of the contagion, a result not always achieved with other methods of treatment.

Paris, March 15th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

Investigation of Quarantines by Congress.

THE introduction of typhus fever into this country through the port of New York has become sufficiently serious to excite the attention of Congress. The immigrants of Russian Hebrew extraction who were carriers of the pestilence have dispersed throughout the country, and new cases of typhus fever are daily reported from widely different localities. Much blame is attached to the quarantine officers at this port for allowing these immigrants to

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disembark, and finally a joint resolution has been introduced into Congress directing a committee to investigate the charges made against the management of the quarantine. Probably the explanation of this misadventure will be found in the recent change of quarantine officials by the State government. The office of health officer of this port is a local political prize which is eagerly sought on every change of the political complexion of the State. If the coming investigation should result in placing the quarantines of the country under the government at Washington, with such regulations as would give permanency to their administration, the change would be in the interests of both commerce and the public health.

Typhus Fever in New York.

The typhus fever introduced by Russian Jews into this city has not gained any foothold apparently, owing to the energetic efforts of the health authorities to isolate the first cases. It is true that new cases almost daily occur in the crowded tenements, but each one is immediately removed to the hospital, thorough cleansing and disinfection secured, and thereafter a close watch is kept upon the place As yet all of the cases are limited to the immigrants. Cases of typhus fever are still reported from distant parts of the country, but they are confined to the immigrants of the ill-fated ship from Marseilles.

A Laboratory of Hygiene.

Through the generosity of a citizen the University of Pennsylvania has been able to build and equip a Laboratory of Hygiene. The formal opening of the institution took place on Feb. 22nd. The building is arranged throughout for scientific research and instruction, and each department is adapted and equipped for its special kind of investigation. This is the first Laboratory of Hygiene established in this country, and gives promise of being very successful. The director of the Institution is Dr. John S. Billings, of the U.S. Army.

Asylums for the Chronic Insane.

The proper classification of the insane in State care into the acute and chronic gave rise to the erection of an asylum (Willand) in the State of New York for the chronic insane. This asylum proved a great success. The asylums for the acute insane were relieved of the pressure upon their space by the chronic cases, and the chronic insane received that kind of care and treatment which they specially need. Within the last year this State has, however, abandoned its former policy and converted its asylum for the chronic insane into a mixed asylum. Meantime, the States of Massachusetts and Pennsylvania have adopted the policy of separating their chronic from the acute insane, and establishing separate asylums for each class. It is believed that New York has taken a backward step.

New York, Feb. 27th.

NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

The Pahiatua Poisoning Case.

BOXING DAY will long be remembered in the Masterton district, for a most alarming and extraordinary occurrence took place on that day. It appears that on Christmas Day last a wedding party assembled at the house of Mr. Naylor of Pahiatua, and the usual wedding breakfast was partaken of. In all, the party numbered about thirty. After the festivities were over the party dispersed, but a number again sat down on the following day (Boxing Day) as guests of Mr. Naylor. Practically the same food was partaken of, with the exception of a dish of sliced lamb. However, early on the morning of Dec. 27th the whole of the guests of the 26th (about twenty in all) were attacked with intense vomiting, diarrhœa, abdominal pain, and violent cramps. These symptoms developed for the first time twelve hours after the repast. There being no medical man immediately to hand, the local chemist was sent for, and he expressed the opinion that the symptoms were those of influenza coupled with biliousness resulting from the feasting of the previous day, and he prescribed according to his lights. Mr. Milne of Woodville, however, was then secured, and he was called in to attend the victims. He deposed at the inquest that he concluded from what he was told that the patients were suffering from an irritant poison, and that he was satisfied with the treatment adopted by the chemist, and ordered its continuance. At the same time he admitted that he had not ascertained what that treatment was, but assumed what it had been from the medicine he saw there. Being asked why he did not communicate with the police as to the fact that his patients were suffering from poison, Mr. Milne replied, "I suppose it must be put down to my ignorance or want of knowledge of the matter, and the fact that I did not think the cases sufficiently serious." It is to be regretted that he omitted to give instructions to keep some of the vomited matter. The symptoms of the victims increasing, Mr. Davenport of Woodville was sent for, and, diagnosing the cases as those of poisoning by an irritant, he administered emetics, which gave almost immediate relief to several of the guests; but on the following day most alarming symptoms developed, and Mr Hosking was communicated with. He first saw Mrs. Peter Dickson and found her in a serious condition, convulsions having set in. Having done everything in his power to afford relief, he was hurried to the bedside of Mr. Dickson, whom he found in an unconscious state, and suffering from tetanic convulsions. Mr. Dickson died shortly after the doctor's arrival. Mr. Joseph Moore of Rockroad had died under exactly similar conditions half an hour previously. Although all the guests suffered more or less, fortunately these are the only deaths to record. So many different foods were partaken of at the dinner that it was not easy to trace the direct source of the disaster. It was reported at the time that the calamity was the result of a practical joke, some person having mixed oxalic acid with the food, thinking it was Epsom salts. Arsenical poisoning was the other theory propounded. It was supposed to have been placed in the food by a disappointed lover. The late Mr. Dickson was an old settler in the colony, and was much respected. He was the proprietor of a large drapery business, and was a prominent member of the Masonic order. The inquest has just concluded. The Government analyst stated that the analysis of the stomach and other organs led to the conclusion that the victims had died from the effects of arsenical poisoning, but that no evidence of poison could be discovered in the articles of food taken from Mr. Naylor's house. Mrs. Naylor stated that some of the roast lamb had been cut up in slices late on Christmas Eve, but was not eaten by anyone except Mr. Naylor, who took a few slices for his supper about 11 o'clock. The witness, returning home from her daughter's house early on Boxing Day morning, noticed the scullery door open, and saw a man going in the direction of the main road. She shouted out to this person, but received no reply. On going into the scullery after this incident she found the cloth over the lamb had been disturbed. The witness stated that the lamb which remained over after the Boxing Day repast was given to a cat and a dog, and that the animals became very ill shortly after eating it. The engagement between her daughter and Mr. Sedcole had existed for five years, and she was not aware of any other lover in the case. She was not aware that she had any enemies, but she knew that some of the guests had been threatened. The result of the inquest shows nothing to connect the two facts elicited—firstly, that the poison was arsenic; and secondly, that there had been bad feeling between some of the parties; and it is still left to discover who put the arsenic in the lamb. An open verdict was the result.

New Zealand.

Obituary.

GEORGE SHEARER, M.D., L.R.C.S.

WE regret to announce the death of Dr. George Shearer, of Upper Parliament-street, Liverpool. He had attended a funeral, and on his return complained of having caught a chill. His complaint soon developed into acute pneumonia, to which, despite unremitting attention, he at last succumbed. He was a gentleman of varied talents. Born at Thurso and educated at Edinburgh University, where he graduated in 1859, his career was throughout distinguished and successful. He was gold medalist in anatomy, chemistry, surgery, and materia medica, and took Sir James Simpson's silver medal in midwifery. He was an F.L.S. and lecturer on botany in the medical faculty

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at the Liverpool University College, senior assistant physician to the Consumption Hospital, and lecturer on animal physiology and general biology in the School of Science. One of his first appointments was that of resident physician at Edinburgh Royal Infirmary, after leaving which he spent some years as voluntary missionary in China. Settling in Liverpool, he commenced practice about eighteen years since, and endeared himself to a very wide circle. He was the author of several works, of which the following were the most important: "The Neurosis of Sensibility," which he composed for the "Star" thesis; the "Autobiography of an Atom of Carbon;" and in 1881 an "Essay on the Best Means of Curing the Opium Habit," which carried off a £50 prize. His obliging disposition and engaging manner, together with his ability, enabled him to make friends of all his professional brethren.

BEN. TYDD HEUSTON, L.R.C.P. & S. EDIN.,
WESTERN AUSTRALIA.

INFORMATION has just been received by his friends in this country of the death of Mr. Ben. Tydd Heuston, surgeon in the Colonial Medical Service, and resident magistrate of the district of Derby in Western Australia. The name will recall to many of his old classmates the bright face and jovial manner of their erstwhile companion, who has been cut off in the pride of manhood at the early age of forty-two. A native of Ireland, he received his medical education in Edinburgh. After practising for some years in Dunse, in the south of Scotland, he joined the Colonial Medical Service, and for fourteen years was stationed in the Falkland Islands. Thereafter he was transferred to the south of Western Australia, and held appointments at Bussleton, Pinjarrah, and Derby. On his arrival in Western Australia his abilities were soon recognised by the Premier, and he was appointed resident magistrate, first in Pinjarrah, near Perth, and afterwards promoted to Derby. He was highly esteemed by the whole community, to whom his sudden death from apoplexy came as a great shock. Much sympathy has been expressed by all, from the Premier downwards, for his widow and family of four young children. His loss will be very much felt in the district.

Medical News.

UNIVERSITY OF OXFORD.—At a congregation held last week the following degree was conferred:—

Doctor of Medicine.—Walter J. Turrell, Turrell's Hall.

UNIVERSITY OF CAMBRIDGE.—A synopsis of the regulations for the examination in Sanitary Science of the University has just been issued. Two examinations in so much of State Medicine as is comprised in the functions of medical officers of health will be held during the year 1892 in Cambridge, beginning on the first Tuesday in April and in October respectively, and ending on the following Friday, or at latest on the following Saturday. With certain provisions, any person whose name is on the Medical Register of the United Kingdom may present himself for this examination. The names of candidates, with the necessary certificates, should be sent to the registrar, W. Clark, Esq., on or before March 29th.—At a congregation held last week Dr. Corfield (Oxford), Dr. A. Ransome (Gonville and Caius), Dr. J. L. Notter (Dublin), and Dr. Thorne Thorne (London) were appointed examiners in State Medicine. At the same meeting the following degrees were conferred:—

Doctors of Medicine.—Gerald Crowfoot Fitzgerald, Gonville and Caius; Arnold Clarkson Ingle, non-collegiate.

Bachelors of Medicine and Bachelors of Surgery.—Herbert Edward Durham, King's; Joseph George Hulbert and Frederick Meadows Turner, Trinity; Edward Hugh Edwards Stack, Pembroke; Maurice Craig and Thomas Wilfred Scott, Gonville and Caius; Joseph Beckett Gillam and Sidney Herbert Lee, Downing.

The examinations for Medical and Surgical Degrees in the Easter term will commence on the following dates:—Third Examination for M.B. degree, Parts I. and II., Tuesday, April 26th; Master of Surgery, Friday, April 29th. Second Examination for M.B., Part I., Monday, June 13th; Part II., Tuesday, June 7th. First Examination for M.B., Part I., Tuesday, June 7th; Part II., Thursday, June 9th.

ROYAL INSTITUTION.—Dr. B. Arthur Whitelegge will, on Thursday next (March 24th), begin a course of three lectures on "Epidemic Waves."

FOOTBALL CASUALTY.—Whilst playing in a game last week in the Pinderfields-road Recreation Ground, Wakefield, a young man aged twenty fractured his leg.

CITY OF LONDON AND EAST LONDON DISPENSARY.—The annual report for 1891, read at the meeting of the governors on the 16th inst., Earl Manvers in the chair, states that 37,352 patients were treated during the year, of whom 1716 were free, the renewals being 26,553. The cash statement shows a balance in hand of £357 4*s.* 11*d.*

BURNING OF A LUNATIC ASYLUM AT JACKSON, MISS.—The four-storey main building of the State Asylum for the Insane was set on fire on Feb. 10th by an inmate of the institution. There were 600 inmates in the building, most of whom were asleep when the flames were discovered. Through the exertions of the superintendent, Dr. Mitchell and his subordinates all were saved and safely transferred to the wings disconnected from the burning pile.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY-ROAD.—For nearly eighty years the benefits of this charity have been bestowed in the midst of densely populated districts of the metropolis, and the work is daily increasing. The new wing now completed, while increasing the usefulness of the hospital, will necessarily add to the cost of maintenance. The report for the past year read at the meeting of the court of governors on the 14th inst. states that the reliable income is quite insufficient to meet the expenditure.

ROYAL NATIONAL HOSPITAL FOR CONSUMPTION, VENTNOR.—This institution, which has carried on its benevolent work for upwards of twenty-two years, maintains its sphere of usefulness; 722 in-patients were treated during the past year, making a total number of 11,029 since the hospital was established. The year's income, including £1104 from legacies, was £10,103 18*s.* 11*d.*, while the expenditure amounted to £10,941 7*s.*, the increase being largely owing to heating and ventilating improvements. Her Majesty the Queen has become an annual subscriber of £10.

YORK COUNTY HOSPITAL.—The Dean of York presided at the annual meeting of the governors held on the 8th inst. The in-patients treated in 1891 were more by sixty-six than the previous year. The training school for nurses continues to make satisfactory progress. The year's fees amounted to £212 5*s.*; the net income, exclusive of legacies, was adequate to provide for the expenditure; the annual subscriptions, which rose at a bound as the result of special efforts two years ago, had been sustained. From legacies the receipts exhibit a total of £1968. Plans for certain improvements, involving an estimated cost of £4314, were approved.

THE GENERAL INFIRMARY, LEEDS.—The annual report for 1891 just issued shows a large addition to the number of in- and out-patients treated at the infirmary and the Ida Hospital. The horse ambulance continued to be of great service, and was called into requisition on 498 occasions. The treasurer's revenue account showed that the receipts were £20,154 12*s.* 6*d.*, while the total expenditure for maintenance in the infirmary and the Ida Hospital was £20,894. The new buildings of the infirmary are rapidly approaching completion, and will be ready for occupation in a few months. The maintenance of the new hospital, it is estimated, will cost at least £5000 per annum more than the present establishment.

VICTORIA HOSPITAL FOR CHILDREN, CHELSEA.—The annual report for the past year states that since the establishment of the pension fund for all nurses in the employment of the hospital eleven nurses have joined the fund; that 885 children had been treated in the wards of the hospital; 196 were sent to the convalescent branch at Margate, and there were 44,408 attendances in the out-patients' department. Anæsthetics were given on 972 occasions, for operations and medical examinations. The home at Broadstairs will be ready for the reception of patients early in April, but a further sum of £1500 is still required to enable it to be opened free from debt. The reduction of the charge of endowing a cot in the hospital from £1000 to £500 has been agreed to.

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DR. MACPHERSON LAWRIE, J.P. Dorset, has been elected a member of the Dorsetshire County Council.

SUPERANNUATION GRANT. — Mr. G. H. Davis, L.R.C.P. Edin., M.R.C.S., lately medical officer of the fourth district of the Bradfield Union, has been granted a superannuation allowance of £27 17*s.* per annum.

PRESENTATION.—Mr. J. M'N. O'Keeffe, L.R.C.P., L.R.C.S. Edin., was presented on Monday with an illuminated address and a cheque by a large number of his fellow townsmen, in recognition of the valuable public services he had rendered to the borough.

ANOTHER CENTENARIAN.—A correspondent telegraphs: "'Granny' Morphew, the well-known centenarian of Ham, Surrey, died to-day (Tuesday) at the age of 106. She had lived at Ham nearly all her life, had been confined to her bed for a comparatively short time, and retained her mental faculties to the last."

BRITISH INSTITUTE OF PREVENTIVE MEDICINE.—The following donations, among others, have already been promised:—His Grace the Duke of Westminster, £1000; Ludwig Mond, Esq., £2000; Sir Joseph Lister, Bart., £300; Sir William Roberts, F.R.S., £300; Sir Henry Roscoe, £100; Dr. M. Armand Ruffer, £100; the Right Hon. the Earl of Derby, £1000; His Grace the Duke of Devonshire, £1000; Dr. P. H. Pye-Smith, £105.

A NEW MEDICAL SOCIETY.—A Society having the name of the Bolton and District Medical Society has been formed in Bolton. The following are the list of office-bearers. President: F. B. Mallett, M.D., J.P. Vice-Presidents: James Robinson, M.D., and Mr. J. Johnson Martin. Hon. Secretary: Nathan Raw, M.D. Hon. Treasurer: Peter Yates, M.D. Hon. Librarian and Editor: J. Hilton Thompson, M.D. Committee: Mr. E. M. Garstang, J. Johnston, M.D., Mr. A. Kershaw, Mr. H. Murphy, J. E. Panton, M.D., and Mr. G. Patrick.

WARNEFORD HOSPITAL, LEAMINGTON. — Lord Leigh occupied the chair at the annual meeting held last week. The annual report, the fifty-seventh, stated that the erection of the new wing would cost altogether upwards of £14,000. This would exhaust the resources at the disposal of the committee for building purposes, and to carry out the whole proposed scheme additional funds were required. The financial statement was read by the secretary, and in moving the adoption of the report, which was carried, his lordship advocated a registration fee, the provision of a ward for paying patients, and that all patients should be allowed tea and sugar free.

THE St. Mary's Hospital Athletic Club's dinner was held on Tuesday last at the Holborn Restaurant. The dean of the medical school, Mr. George P. Field, presided, supported by about 150 of the staff and students. Messrs. Moon and Wall responded for football, Mr. Poynton for cricket, Mr. G. Mould for athletics, and Captain A. Thorne for the shooting club. The toast of the staff was proposed by Mr. H. E. Lawrence and responded to by Dr. Maguire. Dr. Sidney Phillips proposed the chairman, who congratulated the association football team in playing a drawn game (one goal all) with St. Bartholomew's in the final tie. The chairman also announced that he had just heard from Dr. Broadbent that the Prince and Princess of Wales were coming in October next to lay the foundation stone of the new buildings in Praed-street, and that their Royal Highnesses had consented to call the new portion of the hospital "The Clarence Memorial Wing," in memory of the late Duke of Clarence. The governors had already spent £45,000 in buying the land and houses. About 100 beds would be added to the hospital, and there would also be provided a nurses' home, special wards and lying-in wards, a new out-patient department, and also a presidential college in the hospital grounds. His Royal Highness Prince George of Wales had also that day consented to be president of the hospital.

MEDICAL NOTES IN PARLIAMENT.

Metropolitan Hospitals Committee.

IN the House of Lords on Tuesday, March 15th, the Earl of Kimberley, in the absence of Lord Sandhurst, moved that a Select Committee be appointed to consider the evidence taken during the sessions of 1890 and 1891 with regard to all hospitals and provident and other public dispensaries and charitable institutions within the metropolitan area &c., and to report thereon to the House; and that the following lords be named of the committee: The Archbishop of Canterbury, Earl Cadogan, the Earl of Winchilsea, the Earl of Lauderdale, Earl Spencer, Earl Cathcart, the Earl of Kimberley, Lord Zouche, Lord Saye and Sele, Lord Clifford of Chudleigh, Lord Sandhurst, Lord Fermanagh, Lord Lamington, Lord Sudeley, Lord Monkswell, and Lord Thring.—The motion was agreed to.

Registration of Midwives.

In the House of Commons, on Thursday, the 10th inst., Mr. Balfour, in reply to Mr. Pease, said the Government had no objection to the appointment of a Select Committee to inquire into the question of the registration of midwives.

Surgery Professorship at Netley.

Sir W. Foster asked the Secretary of State for War whether it was the intention of the authorities to second Brigade-Surgeon-Lieutenant-Colonel Godwin, about to be promoted as Surgeon-Colonel, while holding the appointment of Professor of Military Surgery at the Royal Victoria Hospital, Netley.—Mr. E. Stanhope: The officer in question is not seconded in his rank, but is made supernumerary to the medical staff. His appointment to a professorship therefore causes no reduction in the number of medical officers.

The Metropolitan Water-supply.

The names of the Commissioners appointed on the Royal Commission to consider the question of the Metropolitan Water-supply are—Lord Balfour of Burleigh (chairman), Sir George Barclay Bruce, C.E., Professor James Dewar, F.R.S., Sir Archibald Geikie, Mr. George Henry Hill, C.E., Mr. James Mansergh, C.E., and Dr. William Ogle, F.R.C.P.—The reference which the Commission has to consider is "Whether, taking into consideration the growth of the population of the metropolis, and the districts within the limits of the metropolitan water companies, and also the needs of the localities not supplied by any metropolitan company, but within the watersheds of the Thames and the Lea, the present sources of supply of these companies are adequate in quantity and quality, and, if inadequate, whether such supply as may be required can be obtained within the watersheds referred to, having due regard to the claims of the districts outside the metropolis, but within those watersheds, or will have to be obtained outside the watersheds of the Thames and the Lea."

Police and Sanitary Regulations Bills.

On Thursday, the 17th, in the House of Commons a number of instructions were adopted for the use of the Select Committee on Police and Sanitary Regulations Bills. One was to the effect that the Committee shall not sanction in any Bill referred to them any clauses relating to matters which are the subject of provisions in "The Infectious Disease Notification Act, 1889," "The Public Health Acts Amendment Act, 1890," "The Infectious Disease (Prevention) Act, 1890," or "The Museums and Gymnasiums Act, 1891," unless the Committee report that the insertion of such clauses ought to be allowed, with the reasons on which their opinion is founded. Dr. Farquharson, while not objecting to this instruction, emphasised the need for the Committee having a wide discretionary power, and reminded the House that many important provisions in our health legislation had been initiated in private Bills which had passed the scrutiny of this Committee. The President of the Local Government Board assured the hon. member that there was no desire on the part of the Government to interfere with the good work done by this Committee.

The Opium Trade.

Colonel Hughes presented a petition signed by 17,965 inhabitants of India against the growth of the poppy and the common sale of opium.

A Dangerous Practice.

Colonel Malcolm put a question to the President of the Board of Agriculture with reference to the practice of throwing over carcases from cattle ships in the immediate proximity of our coasts. Mr. Chaplin, in the course of his reply, said that any person who threw the carcase of an animal which died from disease, or was slaughtered in consequence of disease, into the sea within three miles of the shore was liable to a penalty. In the event of his becoming aware of the commission of such an offence he would at once take steps for proceedings against the offender. It was obvious, however, that the offence was one difficult to discover.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on March 15th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	190	58	..	20	..	268	442
North-Western Hospital	173	49	..	12	2	236	411
Western ,,	92	27	..	5	1	125	224
South-Western ,,	177	37	..	14	..	228	350
South-Eastern ,,	215*	14	..	28	3	260	434
Northern ,,	304	19	..	9	..	332	480
Totals	1151	204	..	88	6	1449	2291

* Infant with mother.

SMALL-POX.—*Atlas* hospital ship, 13.

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Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BAINES, EUSTACE, M.B., C.M. Durh., has been appointed Clinical Assistant to the St. Marylebone Infirmary, vice S. Hillier.

BOWMAN, H. M., M.D. Lond., M.R.C.S., has been appointed Senior House Physician to the National Hospital for the Paralysed and Epileptic (Albany Memorial), Bloomsbury, vice W. H. R. Rivers, resigned.

BREMNER, JAS., M.B., C.M. Aberd., has been appointed Medical Officer for the Eastern Sanitary District of the Strand Union, vice Welch, resigned.

CHAMBERS, A. B., M.D., M.Ch. Irel., has been reappointed Medical Officer of Health for the Long Eaton Urban Sanitary District.

COLLINS, RICHARD HAWTREY, M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Surgeon to the Poplar Hospital, vice R. D. Muir.

DAWSON, W. H., M.D. Durh., M.R.C.S., has been appointed Medical Officer of Health for Great Malvern, vice Tyrrell, resigned.

ESKRIGGE, R. B., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Roystone and Carlton Townships of the Barnsley Union.

FENNINGS, ARTHUR ALLEN, M.B., B.S., M.R.C.S., L.R.C.P., has been appointed Junior Medical Officer to the Camberwell House Asylum.

GIBSON, CHARLES, M.D., L.R.C.P., has been appointed Physician to the Royal Bath Hospital and Rawson Convalescent Home, Harrogate.

HENRY, G. F., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for St. James's Parish, Bury St. Edmunds.

HILLIER, S., M.B., C.M. Edin., has been appointed Assistant Medical Officer to the Paddington Infirmary, Harrow-road.

HODGES, JAS., M.R.C.S., has been appointed Medical Officer for St. Mary's Parish, Bury St. Edmunds.

HUNTER, A., M.B., C.M. Aberd., has been appointed Junior Assistant Medical Officer to the Montrose Royal Asylum.

LIDDELL, JOHN, M.D., has been appointed Physician to the Royal Bath Hospital and Rawson Convalescent Home, Harrogate.

MILLIGAN, H. N. D., M.B., C.M. Edin., has been appointed Junior House Surgeon to the Bradford Infirmary.

MORRIS, H. C. L., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Hambleden Sanitary District of the Henley Union, vice Deane, resigned.

NEALE, A. E., M.B., B.S. Durh., has been appointed Medical Officer for the Stotfield Sanitary District of the Biggleswade Union.

ORCHARD, T. N., M.D., M.C., has been appointed Divisional Police Surgeon for West Salford, vice A. W. Stocks.

ROBSON, C., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Pembridge Sanitary District of the Kington Union.

SNOAD, E. H., M.R.C.S., L.S.A., has been appointed Medical Officer for the Aylestone and Knighton Sanitary District of the Leicester Union.

TANNER, C. E., M.D. Durh., F.R.C.S. Eng., has been reappointed Medical Officer for the North and Seal Sanitary Districts of the Farnham Union.

WEBB, C. FREBE, M.D. Durh., F.R.C.S., F.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health and Medical Officer for the First Sanitary District of the Basingstoke Union.

WOOD, GUY E. M., M.B., M.R.C.S., L.R.C.P., has been appointed Junior House Physician to the National Hospital for the Paralysed and Epileptic (Albany Memorial), Bloomsbury, vice H. M. Bowman, M.D.

WRENCH, E. B., L.S.A., has been appointed Deputy Vaccination Officer, Bakewell.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester-street, S.W.—House Surgeon. Board, lodging, fuel, and light provided.

BETHLEM HOSPITAL.—Two Resident Clinical Assistants. (Apply to the Clerk, Bridewell Hospital, New Bridge-street, E.C.)

BRADFORD INFIRMARY.—Dispensary Surgeon. Salary £100 per annum, with board and residence.

BUCKINGHAMSHIRE GENERAL INFIRMARY, Aylesbury.—Resident Surgeon and Apothecary, unmarried. Salary £80 for the first year, with an advance of £10 per annum, up to £100, with board and lodging, washing, coals, and candles, in furnished apartments.

CHARING-CROSS HOSPITAL, London.—Pathologist and Curator. Salary £100 per annum.

CITY OF LIVERPOOL INFECTIOUS DISEASES HOSPITALS, Netherfield-road and Grafton-street.—Resident Medical Officer at the City Hospital North, Netherfield-road, and at the City Hospital South, Grafton-street, at a salary of £100 per annum each, increasing £10 per annum to £120 as a maximum (subject to a contribution of £5 per cent. to the Superannuation Fund), together with board, washing, and lodging at the hospital in each case. (Apply to the Town Clerk, Town Clerk's Offices, Liverpool.)

DERBYSHIRE ROYAL INFIRMARY.—Resident Assistant House Surgeon for six months. Salary for the six months £10. Separate apartments, board, and washing provided.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Glamis-road, Shadwell, E.—Assistant Surgeon.

JESSOP HOSPITAL FOR WOMEN, Sheffield.—House Surgeon (unmarried). Salary £50 per annum, with board, lodging, and washing.

LONDON HOSPITAL, Whitechapel-road, E.—Surgical Registrarship. Salary £100 a year.

LOW MOOR COMPANY.—Resident Medical Officer. Salary £300, inclusive of all expenses, dispensing, drugs, &c. (Applications, by letter only, to the Chairman, Low Moor Iron Works, Bradford.)

NORTH RIDING ASYLUM, Clifton, York.—Second Assistant Medical Officer. Salary £100 a year. Board, apartments, washing, and attendance.

PARISH OF BIRMINGHAM WORKHOUSE INFIRMARY.—Resident Assistant Medical Officer and Resident Assistant Surgical Officer for the Workhouse Infirmary. Salary £100 per annum each, with furnished apartments, rations (exclusive of alcoholic liquors), coal, gas, washing, and attendance. (Apply to the Clerk, Parish Offices, Edmund-street, Birmingham).

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Election to the Court of Examiners.

ROYAL FREE HOSPITAL, Gray's-inn-road.—Senior Resident Medical Officer for twelve months. Salary £100 per annum, with board and residence in the hospital.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City-road, E.C.—House Physician for six months. Salary at the rate of £40 per annum, with board and lodging.

ROYAL PIMLICO DISPENSARY, 104, Buckingham-palace-road, S.W.—Resident Medical Officer and Assistant Secretary. Salary £100 per annum, with percentage on payments by members (usually about £70 per annum). Unfurnished house, free of rates and taxes, with gas, and two-thirds of coal.

SALFORD UNION.—Assistant Medical Officer for the Union Infirmary, Hope, near Eccles. Salary £130 per annum, with furnished apartments in the Infirmary. (Apply to the Clerk, Union Offices, Eccles-new-road, Salford.)

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—House Surgeon for the Branch Hospital, Royal Victoria and Albert Docks, E. Salary £100 per annum, with board and residence.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—Junior House Surgeon for the Branch Hospital, Royal Victoria and Albert Docks, E. Salary £60 per annum, with board and residence.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Honorary Assistant House Surgeon.

SUSSEX COUNTY ASYLUM, Hayward's-heath.—Junior Assistant Medical Officer. Salary £100 a year, with board, lodging, and washing.

TAUNTON AND SOMERSET HOSPITAL.—House Surgeon. Salary £100 per annum, with board, lodging, and washing in the hospital.

TOWNSHIP OF MANCHESTER.—Resident Assistant Medical Officer at the Workhouse, near Crumpsall, for twelve months. Salary £100 per annum, with furnished apartments, fire, light, washing, and attendance. (Apply to the Clerk, Poor-law Offices, New Bridge-street, Manchester.)

Births, Marriages, and Deaths.

BIRTHS.

CLAREMONT.—On March 8th, at Petersleigh, Elm-grove, Southsea, the wife of Dr. Claude C. Claremont of a daughter.

DANIELL.—On March 10th, at Croydon-road, Anerley, the wife of Henry P. Daniell, L.R.C.P. and M.R.C.S., of a daughter.

GLYNN.—On March 1st, at Rodney-street, Liverpool, the wife of T. R. Glynn, M.D., of a son.

TERRY.—On March 14th, at 16, Green-park, Bath, the wife of Henry G. Terry, M.R.C.S., F.R.C.S.E., of a son.

TREND.—On March 6th, at Grosvenor-square, Southampton, the wife of Theophilus W. Trend, M.D., of a daughter.

VERRALL.—On March 6th, at Montpellier-road, Brighton, the wife of T. Jenner Verrall, M.R.C.S., L.R.C.P., of a daughter.

WALLACE.—On March 10th, at Harley-street, W., the wife of Dr. A. Wallace of a daughter.

MARRIAGES.

BERNAU—LOVELL.—On March 10th, at Holy Trinity Church, Tulse-hill, Surrey, by the Rev. E. L. Roxby, M.A., Vicar, Henry F. Bernau, M.R.C.S., L.R.C.P., of Park House, East Finchley, son of the late A. F. Bernau, of Tulse-hill, to Amy, daughter of John C. Lovell, of Tulse-hill.

CUNDELL—ECKHARD.—On March 12th, at St. Luke's, Kew Gardens, William H. Cundell, M.R.C.S., L.S.A. Lond., of The Avenue, Kew Gardens, to Fanny, daughter of Mrs Eckhard, of Ashfield, Kew.

YEATES—SCOTT.—On March 14th, at Chilton Foliatt, near Hungerford, Robert Andrew Yeates, M.B., Indian Medical Service, younger son of the Rev. George Yeates, Rector of Lissan, county Derry, to Sophia Marcia, eldest daughter of the Rev. Thomas James Scott, Rector of Chilton Foliatt.

DEATHS.

DUKES.—On March 15th, at Marquess-road, Canonbury, Esquire Dukes, Surgeon, in his 80th year.

MILNER.—On March 8th, at The Warren, Micheldever, Hants, Edward Milner, Esq., of New Cavendish-street, London, Surgeon to the Lock Hospital, aged 40.

REED.—On March 11th, at Hertford-street, Mayfair, London, W., Frederick George Reed, M.D., F.R.C.S., M.R.C.P. (formerly of Hertford), in his 73rd year.

TAYLOR.—On March 6th, at Montreux, Switzerland, Thomas Taylor, F.R.C.S., of Warwick-place, Grove-end-road, N.W., aged 78.

WIGMORE.—On March 6th, at Davos, Switzerland, Frederic H. Wigmore, M.B. Cantab., late of Macclesfield, aged 31.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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BOOKS ETC. RECEIVED.

AMERICAN OPHTHALMOLOGICAL SOCIETY, Hartford, U.S.A.
Transactions of the American Ophthalmological Society. Twenty-seventh Annual Meeting. 1891. pp. 241.

BLAKISTON, SON, & CO., Philadelphia.
A Manual of Autopsies. By J. W. Blackburn, M.D. Illustrated. 1892. pp. 84.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London; and LEONARD & COMPANY, Detroit.
Dictionary of Materia Medica and Therapeutics. By C. Henri Leonard, A.M., M.D., and Thomas Christy, F.L.S. 1892. pp. 387.

CHURCHILL, J. & A., New Burlington-street, London.
Uric Acid as a Factor in the Causation of Disease. By Alex. Haig, M.D. Oxon., F.R.C.P. Illustrated. 1892. pp. 272.

DORNAN, W. J., Philadelphia.
Transactions of the American Gynæcological Society. Vol. XVI., for the year 1891. pp. 574.

ELLIS, G. H., Boston, Mass.
The Etiology, Pathology, and Treatment of Diseases of the Hip-joint. By Robt. W. Lovett, M.D. 1891. pp. 220.

KEGAN PAUL, TRENCH, TRÜBNER, & CO., Charing-cross-road, London.
Laboratory Practice. A Series of Experiments on the Fundamental Principles of Chemistry. A Companion Volume to the New Chemistry. By J. P. Cooke, LL.D. 1892. pp. 192.
B. Bradshaw's Dictionary of Bathing-places, Climatic Health Resorts, &c. With a Map. 1892. pp. 410. Price 2s. 6d.

LEA BROTHERS & CO., Philadelphia.
Human Monstrosities. By B. C. Hirst, M.D., and G. A. Piersol, M.D. Part II. Illustrated. 1892. pp. 112.

LONGMANS, GREEN, & CO., London.
The Human Mind. A Text-book of Psychology. By James Sully, M.A., LL.D. In Two Volumes. pp. 501 and 393.

MACMILLAN & CO., London.
The Dietetic Value of Bread. By John Goodfellow, F.R.M.S. 1892. pp 328. Price 6s.

METHUEN & CO., Bury-street, London.
Air and Water. By V. B. Lewes, F.I.C., F.C.S. Illustrated. 1892. pp. 183. Price 4s. 6d.

PENTLAND, YOUNG J., Edinburgh and London.
Geographical Pathology: an Inquiry into the Geographical Distribution of Infective and Climatic Diseases. By A. Davidson, M.D., L.R.C.P. Edin. Two Volumes. 1892. pp. 1005.

PRITCHARD, C. J. A., Calcutta.
The Medical Register and Directory of the Indian Empire, 1892 By Jas. R. Wallace, M.D.

STEINHEIL, G., Paris.
Les Tumeurs de la Vessie. Par J. Albarran; Préface par le Professeur F. Guyon. 1892. pp. 494.

TAYLOR & FRANCIS, Red Lion-court, Fleet-street, London.
Museum of the Royal College of Surgeons of England: Catalogue of Osteological Specimens. Part III.: Aves. By R. B. Sharpe, LL.D. 1891. pp. 469.

WRIGHT & CO., Bristol, and SIMPKIN, MARSHALL, & CO., London.
Miners' Nystagmus. By Simeon Snell, F.R.C.S. Edin. 1892. pp. 143. Price 6s.
The Medical Annual, 1892. pp. 783. Price 7s. 6d.

Index Medicus: Authors and Subjects; Vol. XIV., No. 1, January, 1892 (Trübner & Co., and Lewis, London).—Service des Enfants Trouvés de Notre Dame de Péra; par le Dr. Spiridion C. Zavitziano (Imprimeur de la Société Impériale de Médecine, Galata, Constantinople, 1892).—Grundriss einer Klinischen Pathologie des Blutes; von Dr. R. R. v. Limbeck (Gustav Fischer, Jena, 1892).—California, its Life and Climate; by an Englishman and an Anglo-Californian (W. W. Gibbings, Bloomsbury, London); price 6d.—The Interpretation of Disease. Part II.: The Lessons of Acute Disease; by H. C. Gillies, M.B. (D. Nutt, Strand, London, 1892); price 1s. net.—Catalog der Firma H. Windler (Inhaber: Hermann Windler und Georg Windler, Berlin, N.W., 1892).—Higiene de la Vista y Causas de la Ceguera; por el Dr. Juan Gelpi y Jofre (E. Ullastres y Ca., Barcelona, 1892).—Il Triennio di Prova del Regolamento 29 Marzo, 1888, sulla Profilassi e sulla Cura delle Malattie Sifilitiche e sulla Prostituzione al Dispensario Celtico di Pavia; Nota del S. C. Prof. A. Scarenzio (Milano, 1892).—Del Mezzo di Cura più Sicuro della Sifilide Costituzionale; Lettura dal Prof. A. Scarenzio (Milano, 1891).—Catechism Series: Physiology. Part I.: Chiefly Histology (E. & S. Livingstone, Edinburgh, 1892); price 1s. net.—Illustrated Catalogue of the Military Equipment Stores and "Tortoise" Tents Company, Limited (Offices, 49, Pall Mall, London, 1892); price 1s.—Erfahrungen über die Gallensteinkrankheit, mit und ohne Icterus; von Professor Riedel in Jena (A. Hirschwald, Berlin, 1892).—Microscopical Observations on the Hæmotozöon of Malaria; by Surgeon P. Hehir, M.D., F.R.C.S.E.; illustrated (Hyderabad).—On Uncontrollable Drunkenness considered as a Form of Mental Disorder; by L. Forbes Winslow, M.B. Cantab., M.R.C.P. Lond. (Henderson & Spalding, London, 1892); price 1s.—Der Comfort des Kranken; von Dr. Martin Mendelsohn, Berlin (A. Hirschwald, Berlin, 1892).—Cocoa: all about it; by Historicus (Sampson Low, Marston, & Co., London, 1892); price 1s.—Die Behandlung der Tuberkulose mit Tuberkulocidin; Vorläufige Mittheilung von Professor Dr. E. Klebs (Leopold Voss, Hamburg und Leipzig).—Nouvelles Doctrines de Neuropathologie; par le Dr. Caubet; Examen Critique par le Dr. L. Chabbert (Bureaux du Progrès Médical, Paris, 1892).—Concerning the Kinsmen and Friends of Insane Patients; by F. A. Elkins, M.B. (Oliver & Boyd, Edinburgh, 1892).—Nineteenth Annual Report of the Govan Parochial Asylum for the year 1891.

Medical Diary for the ensuing Week.

Monday, March 21.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Professor Charles Stewart: The Physiological Series of Comparative Anatomy in the College Museum.
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Evening. Mr. T. P. Pick: Injury to Median Nerve; Operation; Restoration of Function. Dr. M. Murray: Multiple Sarcomatous Tumours.—Mr. E. Owen: Infant after Acute Epiphysitis.—Dr. T. C. Fox: Three cases of Senile Tuberculosis of the Skin.—Mr. C. B. Lockwood: Case of Nephrectomy.—Mr. W. H. Battle: (1) Compound, Comminuted, Depressed Fracture of the Skull treated by Trephining and Replacement of Bone; (2) Result of Partial Removal of the Clavicle for Necrosis.—Mr. Sheild: Spina Bifida Occulta; Necrosis of Foot and Talipes.

Tuesday, March 22.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Professor V. Horsley: The Brain.
ROYAL COLLEGE OF PHYSICIANS (Examination Hall, Victoria Embankment).—5 P.M. Dr. Sidney Martin: Chemical Pathology of Diphtheria compared with that of Anthrax, Infective Endocarditis, and Tetanus. (First Goulstonian Lecture.)
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Mr. Richard Barwell: The Operative Treatment of Congenital Dislocation of the Hip.—Mr. Rickman John Godlee: A case of Ligature of the Second Part of the Left Subclavian Artery for the Cure of an Axillary Aneurysm.

Wednesday, March 23.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Professor Charles Stewart: The Physiological Series of Comparative Anatomy in the College Museum.
HUNTERIAN SOCIETY.—8.30 P.M. Mr. A. H. Tubby: The Treatment of Compression Paraplegia following Pott's Disease.—Dr. F. J. Smith: On Three cases of Intestinal Obstruction.

Thursday, March 24.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
ROYAL INSTITUTION.—3 P.M. Dr. B. A. Whitelegge: Epidemic Waves.
ROYAL COLLEGE OF PHYSICIANS (Examination Hall, Victoria Embankment).—5 P.M. Dr. Sidney Martin: Chemical Pathology of Diphtheria compared with that of Anthrax, Infective Endocarditis, and Tetanus. (Second Goulstonian Lecture.)
BRITISH GYNÆCOLOGICAL SOCIETY.—Inaugural Address by the President (Professor Alexander Simpson).—Dr. Fancourt Barnes: Ovariotomy in a Patient over Seventy-two. Specimens:—Mr. Bowreman Jessett: Nephrotomy in a Woman with One Kidney.—Dr. Granville Bantock: Nephrectomy for Hydronephrosis.
CHELSEA HOSPITAL FOR WOMEN.—5 P.M. Dr. Hugh Fenton: Sterility.
SOCIETY OF ARTS.—4.30 P.M. Mr. G. H. M. Batten: The Opium Question.

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Friday, March 25.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
BRITISH LARYNGOLOGICAL AND RHINOLOGICAL ASSOCIATION (Rooms of the Medical Society, 11, Chandos street, W.).—General Meeting.
CANCER HOSPITAL (Fulham-road, S.W.).—4 P.M. Mr. W. H. Elam: Sarcoma of the Breast.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Professor Charles Stewart: The Physiological Series of Comparative Anatomy in the College Museum.
CLINICAL SOCIETY OF LONDON.—Living Specimens at 8 P.M. Mr. Stanley Boyd: (1) A case of Suture of the Musculo-spiral Nerve; (2) Three cases of Compound Ganglion treated by Complete Excision.—Mr. Frederic Eve and Mr. L. A. Lawrence: Two cases showing Results of Skin Grafting by Thiersch's Method after Removal of Rodent Epithelioma of Nose and Face.—Dr. Ord: (1) Two cases of Leucocythæmia; (2) A case of Unusual Eruption on the Chest.—Mr. Arbuthnot Lane: A case of Macrocheilia treated successfully by Electrolysis.—Dr. Arthur Davies: A case of Transposition of Viscera with Morbus Cæruleus in a Boy aged eight years. Papers at 9 P.M. Dr. Burney Yeo: On Cardiac Asthenia following Influenza.—Mr. Howard Marsh: A case in which an Affection of the Kidney presented Points of Resemblance to the Phenomena observed in Raynaud's Disease.—Dr. Washbourn and Mr. Arbuthnot Lane: Floating Kidney; New Mode of Nephrorrhaphy.
ROYAL INSTITUTION.—9 P.M. Mr. John Evans: Posy Rings.

Saturday, March 26.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
ROYAL INSTITUTION.—3 P.M. Prof. J. F. Bridge: Dramatic Music.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

TO OUR READERS.

INSET ADVERTISEMENTS.

OUR attention has been called by a correspondent, to whom we offer our best thanks, to a practice most reprehensible, as we venture to think, but which, though it appears to affect us in a measure, we have no power whatever to control. We refer to the introduction into copies of THE LANCET of fly-sheet advertisements inserted between the pages of the journal. Advertisements which have been refused admission to our pages are sometimes thus surreptitiously inserted when the issue has passed out of our hands into those of the newsvendor. We trust that our readers will for the most part see through this transparent artifice, and be so far from giving credit to an advertisement on any such ground as rather to regard it as a suspicious circumstance that the connexion of the advertisement with THE LANCET should be of so adventitious a kind. Such advertisements as we think it right to publish do not appear in the leaflet form, and although we cannot, as we have said, control the action of the newsvendors, we can at least denounce the practice, and invite our readers to withdraw their custom unhesitatingly and at once from any tradesman who adopts it.

SMALL BUT IMPORTANT DETAILS.

To the Editors of THE LANCET.

SIRS,—In his excellent and practical paper on Piles at the Medical Society Dr. Lauder Brunton calls attention to the dangers of the ordinary w.c., not only in this but in other more serious illnesses. The window of the closet is usually kept open in all weathers, and frequently there is a strong up-draught of intensely cold air from the pan. During the late epidemic I have known many lives endangered by a visit to a cold and draughty w.c. when the patient has been in a profuse perspiration and suffering from pneumonia after influenza. A few simple remedial precautions are within the reach of all; first, let the window be always shut at night, and if possible a small jet of gas left burning, or a small paraffin lamp be placed on the floor; secondly, a can of hot water should be poured into the closet pan just before its use. If the air be damp and cold, the temperature of so small a chamber may be easily raised *pro tem.* by very carefully lighting and flaring a piece of newspaper in it, or by keeping in the closet a large can of boiling water, which may be renewed every few hours. These may, to some, appear absurdly trivial details, but on such apparent trifles a life may, and often does, depend. I am, Sirs, faithfully yours,

Folkestone, March 14th, 1892. C. EGERTON FITZGERALD, M.D.

MEASUREMENT OF SCHOOL CHILDREN.

A PROPOSITION has been forwarded to Mr. Shaw, the Chairman of the Rochdale School Board, from Archdeacon Wilson, proposing that some measurement of the height and weight of boys at the elementary schools should be made every five or six years, to show whether the population is improving or deteriorating physically. Archdeacon Wilson maintains that physical training is recognised as a part of elementary education, and that measurements are the only efficient results of such calisthenics, drill, or gymnastics as may be introduced into the schools which can be relied on.

Mr. Wagstaff.—The information will be found under various headings in the First Report of the Royal Commission on Vaccination, issued on Aug. 12th, 1889, and notably in the Tables supplied by Dr. William Ogle, which are contained in Appendix II., page 114.

"A CAUTION."

To the Editors of THE LANCET.

SIRS,—It having come to my knowledge that some person is writing letters to old London Hospital men, stating that the writer, Francis Joseph Pound, is in London, in bad health and desperate pecuniary circumstances, and, of course, requiring pecuniary assistance, may I ask you to be good enough to allow me to contradict this begging-letter impostor's statements, as my brother, Mr. Francis Joseph Pound, M.R.C.S.Eng. &c., is still in Fiji in the Colonial Medical Service, and in no way requiring assistance?

I am, Sirs, yours faithfully,

Cdiham, March 16th, 1892. CLEMENT POUND, L.R.C.P.Lond.

MEDICAL ETHICS AND THE LAY PRESS.

Mr. John Weller writes to us to say with regard to the paragraphs quoted by us last week from Essex papers that he "had nothing whatever to do with them, either directly or indirectly, in any shape or form." Of this we are quite sure, and gladly accept our correspondent's disclaimer. At the same time we must always hold that the insertion of such paragraphs in the lay press cannot too strongly be deprecated.

Dr. Lys will perceive that the question has entered upon a phase which renders unnecessary correspondence on the point to which he refers.

THE CARPENTER AND DUKES FUND.

To the Editors of THE LANCET.

SIRS,—Will you kindly allow me to acknowledge in THE LANCET the receipt of the follo wing additional subscriptions to the above fund?

I am, Sirs, yours faithfully,

50, George-street, Croydon, March 14th, 1892. WM. F. COLES.

Dr. E. E. Shaw	..	£2	2	0	Dr. C. Holman	.. £1	1 0
Dr. W. M. Ord	..	1	1	0	Drs. Hearnden and Atkins	2	2 0
Mr. E. Marshall	..	1	1	0			

CHAPPED HANDS.

Penton writes to us to say that he has under his care a case of chapped hands which seems to defy all his efforts. They will heal for a few days; but then cracks appear, and soon deepen into bleeding cuts. Can anyone suggest a mode of treatment for such a case? Glycerine and unguents of various kinds have been tried.

Waterloo.—We must refer our correspondent to the Students' Number of THE LANCET published on Sept. 6th last.

Dr. Joseph McFarland (Philadelphia).—We must refer our correspondent to the author of the lectures.

A CORRECTION.

To the Editors of THE LANCET.

SIRS,—In your report of the meeting of the London Obstetrical Society there is a very serious error. I am reported to have said: "If the labour had not set in it should be induced." Now, I have always urged that *the operation should only be performed after labour has set in*, and when the os uteri is partially dilated. I have five cases coming during March and April, and in each case I shall operate during labour.

I am, Sirs, yours faithfully,

Glasgow, March 15th, 1892. M. CAMERON.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 17th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Mar. 11	29·55	N.W.	34	33	51	40	28	·05	Overcast
,, 12	29·76	N.W.	33	..	76	41	30	—	Hazy
,, 13	29·40	N.W.	33	..	67	42	28	—	Bright
,, 14	29·46	N.W.	32	..	65	42	29	..	Foggy
,, 15	29·68	S.W.	40	39	60	45	31	..	Cloudy
,, 16	29·86	W.	42	40	79	54	38	·18	Cloudy
,, 17	30·15	S.W.	50	48	89	57	42	·01	Cloudy

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Althaus, London; Dr. E. Blake, London; Dr. Boyle, London; Messrs. Bean and Co., London; Dr. Black, Edinburgh; Messrs. Burgoyne and Co., London; Dr. Bateman, London; Messrs. H. Burden, jun., and Co., Poole; Mr. Bagshaw, Salford; Mr. Blackwood, London; Mr. W. Buchanan, Chatham; Dr. J. Braithwaite, Leeds; Messrs. Boulton and Paul, Norwich; Messrs. Bentley and Sons, London; Mr. Stanmore Bishop, Manchester; Dr. Collier, Lincoln; Messrs. Carpenter and Westley, London; Dr. Coles, Croydon; Messrs. Crossley, Moir, and Co., London; Messrs. Cassell and Co., London; Dr. Chamberlain, Paris; Dr. Drzewiecki, Warsaw; Dr. Duhrssen, Berlin; Dr. Davis, Gateshead-on-Tyne; Mr. De Fraine, Aylesbury; Dr. Eastland, Texas; Dr. B. Fenwick, London; Mr. Field, London; Messrs. Foster, Brown, and Co., London; Dr. Fitzgerald, Folkestone; Dr. E. V. Gibson, Buxton; Mr. W. Gosse; Mr. Gloster, Walsall; Mr. Henbeck, Canning Town; Dr. Hunter, Edinburgh; Dr. Helen, Truro; Mr. Hosegood, Alexandria; Dr. Hatton, Walkden; Dr. Holman; Mr. Haigh, Bradford; Mr. Horton, London; Dr. Hedley, Brighton; Mr. Hornibrook, London; Dr. W. T. Hartshorn, Kansas; Mr. C. S. Kilner, Thingoe; Mr. Kent, Birmingham; Mr. Ling, Saxmundham; Messrs. Lloyd and Co., Leicester; Dr. Little, London; Mr. Lucy, Plymouth; Dr. R. C. Lees, Glasgow; Mr. R. E. Lord, Salford; Mr. Munkittrick; Dr. G. Macdonald, London; Mr. T. D. Mann, London; Messrs. F. L. May and Co., London; Mr. McClelland, Glasgow; Messrs. Mitchell and Co., London; Dr. Martin, Leith; Mr. Maw, Bradford; Mr. Maynard, Stourbridge; Dr. Martinez, London; Messrs. Newton, Chambers, and Co., Sheffield; Messrs. Oppenheimer Bros. and Co., London; Mr. J. Pickering Pick, London; Mr. Pinchard, Taunton; Mr. H. W. Page, London; Mr. Provand, London; Mr. Pound, Odiham; Mr. R. D. Pedley, London; Dr. Ruffer, London; Dr. Rolleston, London; Mr. Randle, Finchley; Dr. Ridge, Enfield; Dr. Ross, Christchurch; Mrs. Rowley, Burslem; Dr. Silk, London; Dr. Steell, Manchester; Mr. S. Spokes, London; Mr. Stenhouse, Glasgow; Miss Seal, Leeds; Dr. F. J. Smith, London; Mr. Smith, Westgate-on-Sea; Mr. Sell, London; Mr. J. K. Thompson, Leeds; Mr. Turner, Felixstowe; Dr. Thresh; Mr. Tyrrell, Great Malvern; Mr. Vickers, London; Messrs. West, Newman, and Co., London; Mr. J. C. Walker, Linlithgow; Mr. Wagstaff, Leighton Buzzard: Mr. Weller, Colchester; Dr. Samuel West; Messrs. Walker and Carver, Pendleton; Mr. Wilkes, London; Messrs. Whitworth and Stuart, Manchester; Mr. C. H. Wood, London; Messrs. Wright and Co., Bristol; Dr. E. W. White, Birmingham; Mr. Wood, Barrow-in-Furness; Mr. Watson, London; Mr. Wilson, Plymouth; Mr. H. R. Whitehead, London; Dr. Williamson, Manchester; Messrs. White, London; Fairplay; J. T. H.; M. A. B.; Delta, London; F. C.; New L.S.A.; A. H. Z.; Assistant, London; Zeta, London; Clerk, Township of Manchester; Solis, London; Delta, London; Secretary, London Skin Hospital; Secretary, Derby; Beta, Sheffield; Price's Candle Co., London; Hon. Sec., Lowestoft Hospital; Maltine Manufacturing Co., Bloomsbury; Malvern, London; Secretary, Taunton and Somerset Hospital.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Butler, Carnforth; Mr. Breach, Newbury; Dr. Evans, Anglesey; Mr. Dyer, Ilfracombe; Mr. Cowley, Northwich; Mr. Thomas, Llanelly; Mr. S. Smith, London; Mr. Patterson, Durham; Mr. Trimble, Enniskillen; Mr. Tyte, Minchinhampton; Mr. Strinock, Golspie; Mr. Woodman, Bridgwater; Surgeon-Captain Addison, Netley; Messrs. Murany and Co., Paris; Dr. Gardiner, Ashton-under-Lyne; Dr. Godber, South Bank; Mr. Sotheran, York; Dr. Grabham, Madeira; Messrs. E and S. Livingstone, Edinburgh; Mr. Simpson, York; Mr. Evans, Llanberis; Mr. Draper, Huddersfield; Dr. Harris, London; Mr. Hounsell, Bournemouth; Mr. Richardson, Staplehurst; Mr. Badger, Small Heath; Miss Crefandi, Norwich; Mr. Nicolet, Ascot; Mr. Norman, Salisbury; Dr. Griffith, London; Mr. Tully, Hastings; Dr. Gibant, Jersey; Mr. Gordon, Oban, N.B.; Mr. Gilchrist, Darlington; Dr. P. Hehri, Bengal; Dr. Grant, Ontario; Dr. Langley, Wilts; Mr. Lund, Newcastle-on-Tyne; Mr. Kelvin, Manchester; Mr. Warburton, Treherbert; Mrs. Ross, Manchester; Mr. Terry, Bath; Dr. Hamilton, Burton-on-Trent; Mr. Mackay, Darlington; Mr. Lewis, Wingham; Mrs. Campbell, London; Miss Hooper, London; Mr. Bolton, Blackburn; Dr. Dickey, Colne; Dr. Butler, London; Messrs. Roberts and Vivian, Southgate; Mr. Wilson, Dublin; Mrs. McLintock, Church Stretton; Dr. Snow, London; Mr. Maskew, Fawley; Messrs. Moore and Co., London; Mr. Anderson, Carmarthen; Mr. Gregson, Southend; Mr. Paterson, Durham; Mr. Shannon, Consett; Mr. Daniell, Anerley; Mr. Ling, Suffolk; Dr. Waters, Liverpool; Mr. Bullin, Cork; N. D. L, London; X., London; Diatom, London; International News Co., London; Net, London; Vernon, Sheffield; Hackney Furnishing Co., London; T. S, London; X. A., London; Smedley's Hydropathic Establishment, Matlock; Cantab, London; Secretary, Hospital for Consumption, Manchester; Dr. X., Liverpool; Fides, London; Class Rooms, Edinburgh; Partner, London; Secretary, Wirrall Children's Hospital, Birkenhead; Feliciter, London; Secretary, Medical Society of London; Domus, London; Patient, London; Felix, London; H. E., London; Immediate, London; Permanency, London; Forceps, Birmingham; Surgeon, Bristol; Locum, Leicester; Dorothy, London; Medical, London; S. E, London; Beta, London; Lux, London; D. T., Garnant; Victor, London; Warren, London; Surrey, London; M. J., Sheffield; Medicus, London; Western, London; Eureka, London; Graduate, Edinburgh; X. Y. Z, London.

NEWSPAPERS.—*Glasgow Herald, Liverpool Courier, Warrington Observer, Leicester Daily Post, Scotsman, City Press, Sheffield Telegraph, Sydney Morning Herald, Manchester Courier, East Anglian Times, Birmingham Gazette, Cape Argus Weekly, East Sussex News, Scottish Leader, Liverpool Daily Post, Insurance Record, Weekly Free Press and Aberdeen Herald, Bristol Mercury, Yorkshire Post, Times of India, Leeds Mercury, Cork Constitution, Local Government Chronicle, Pioneer Mail (Allahabad), Mining Journal, Reading Mercury, Surrey Advertiser, Law Journal, Hertfordshire Mercury, Windsor and Eton Express, West Middlesex Advertiser, Preston Herald, Builder, Hertfordshire Standard, Citizen, Lynn Advertiser, Newspaper Review, Nottingham Guardian, Le Temps (Paris), Architect, Wetherby News, Wellington Post, Hereford Mercury, Leigh Chronicle, West Middlesex Standard, Lichfield Mercury, Melbourne Argus, Journal of Gaslighting, Kentish Mercury, Woodford Times, St. Austell News, Windsor and Eton Gazette, Hastings and St. Leonards News, The Tocsin, &c.*, have been received.

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Goulstonian Lectures

ON THE

CHEMICAL PATHOLOGY OF DIPHTHERIA COMPARED WITH THAT OF ANTHRAX, INFECTIVE ENDOCARDITIS, AND TETANUS.

By SIDNEY MARTIN, M.D., F.R.C.P.,

ASSISTANT PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL AND TO THE HOSPITAL FOR CONSUMPTION, BROMPTON; LATE PATHOLOGIST TO THE MIDDLESEX HOSPITAL.

LECTURE I.

INTRODUCTION.

MR. PRESIDENT,—I must in the first place express my sense of the honour which has been conferred upon me by my appointment as Goulstonian Lecturer, and I trust that what I shall bring forward will be deemed worthy of the traditions of this distinguished College. The subject I have chosen is the Chemical Pathology of Diphtheria compared with that of Anthrax, Infective Endocarditis, and Tetanus—that is, of two diseases, anthrax and infective endocarditis, eminently febrile, and of two, diphtheria and tetanus, with symptoms specially referable to the nervous system. They are all disorders in which the symptoms are due to a primary infective agent or living contagium. A mere study of the morphology of this primary infective agent does not explain the symptoms of the diseases; still less is this so when we consider that in diphtheria and acute traumatic tetanus the infective agent has been found only at the point of inoculation of the disease, and does not diffuse itself throughout the body. Beside the morphological characters of the infective agent and a histological examination, a chemical investigation is necessary; and to this we shall probably in the future have to look not only for an explanation of the symptoms of infective disorders, but for a scientifically grounded method of treatment. The direction of the research which I shall bring before you is the investigation in these specific disorders of the presence of specific poisons, the product of the primary infective agent. I will, as an explanatory introduction, state quite briefly what I have already published on the chemical pathology of anthrax—a disease which serves as an excellent example, since its microscopical anatomy and bacteriology have been very completely worked out. It is characterised in its anatomy by the presence of the bacillus anthracis at the seat of inoculation and in different organs of the body, especially the spleen; and in symptoms by the onset of fever, by the presence of great prostration, and by the occurrence of stupor ending in coma and death.

ANTHRAX.

If the bacillus anthracis is grown in a medium which resembles the fluids of the body in containing an animal proteid and a certain proportion of mineral salts, it digests the proteid with the formation of products resembling chemically those found in peptic and in tryptic digestion, with the exception, however, that the final product is a base, an organic body forming salts with acids.

Primary agent or primary infective agent.	Ferment.	Digestive products.
Living cell	Pepsin	Syntonin, hetero-albumose, proto-albumose, deutero-albumose, peptone.
Living cell	Trypsin	Globulin-like body, tryptone (peptone), leucin, tyrosin, a bitter body.
Bacillus anthracis	(Anthrax digestion)	Hetero-albumose, proto-albumose, deutero-albumose, peptone, leucin, tyrosin, alkaloid (base).

A glance at this table will show you the relation between anthrax digestion and those by trypsin and pepsin. It is similar to the peptic digestion of proteids in the formation of albumoses and peptone, and it is like tryptic digestion in the fact that the proteid molecule is split up into non-proteid organic bodies, the chief of which is the anthrax base. The two chief proteid digestive products which concern us at present are proto-albumose and deutero-albumose. They have, in common with peptone, the following reactions:—(1) They are soluble in water, cold or boiling, forming a yellow solution; (2) they give a pink colour (biuret reaction) with copper sulphate and potash solution; (3) they are precipitated by alcohol, but not coagulated by it. In these reactions they differ from hetero-albumose and ordinary globulins and albumens. They are distinguished from each other by the following reactions:—Proto-albumose is precipitated in the cold by nitric acid, the precipitate being soluble on heating, reappearing on cooling, &c.; it is also precipitated by saturation with sodium chloride. Deutero-albumose is not precipitated by nitric acid, unless a certain percentage of sodium chloride be added, and is not precipitated by saturation with this salt if the liquid be only slightly acid. Peptone is not precipitated by nitric acid, and therefore the mode of precipitation by this reagent is a distinguishing reaction between the two chief albumoses and peptone. The anthrax albumoses have the same chemical characteristics as those formed in peptic digestion. The anthrax alkaloid is an amorphous yellow body with an alkaline reaction, soluble in alcohol and in amyl alcohol, and precipitated by many reagents which throw down alkaloids, but not by Mayer's solution.

Chemical products of tissues of anthrax animals.—The results of the investigation of the artificial chemical products of the bacillus anthracis indicated the chemical bodies to look for in the blood and other tissues of animals suffering from the disease. In guinea-pigs and a sheep, which were inoculated with anthrax and died from it, it was found that both classes of products were present in the œdema produced at the site of inoculation, in the blood, and in the spleen; and in a man who died of anthrax in Guy's Hospital from the natural disease the same results were obtained; and in this case it was also found that both classes of products were excreted in the urine. An approximate estimation of the amount of anthrax products present in the body at death is seen in the following table, in which the amount in the local lesion, the spleen, and the blood is shown.

In Full-grown Sheep dead of Anthrax.

	Albumoses.	Alkaloid.
From local lesion	0·167 grm.	0·1346 grm.
From spleen	0·191 ,,	1·2080 ,,
From blood (chiefly deutero-albumose)	0·455 ,,	0·6430 ,,
Total	0·813 grm.	1·9856 grm.

It will thus be seen that in the natural disease the two classes of products are both present, but that the amount of the alkaloid is much greater than that of the albumoses, and the results of the investigation of the physiological action of the products show that the alkaloid is the chief agent in producing death. In mice so small a quantity of the mixed products as 18 milligrammes of the albumoses and 28 milligrammes of the alkaloid will produce death in nineteen hours. In guinea-pigs in which the mixed products are injected subcutaneously there is at first fever, which may pass off. If a large dose of the alkaloid is given in proportion to the albumoses, coma ensues, which may last as long as fifty hours; and at the same time there is a spreading œdema at the seat of inoculation. During this coma there is no high fever, and there may actually be a depression of temperature. The *rôle* which these products individually play is seen by injecting them separately into animals. The albumoses are the fever producers; the alkaloid is the coma producer.

This chart shows the fever produced in guinea-pigs by a subcutaneous inoculation of anthrax albumoses compared with that produced by peptic albumoses; the dose in all is the same—namely, 0·2 gramme per kilogramme of body weight. The upper line shows a rise of temperature two hours after inoculation, and lasting over twenty-four hours; this is of anthrax albumoses unheated. The second thin line shows the fever produced after boiling for thirty seconds; it is slightly less than the first. The third dotted line shows the fever produced by peptic albumoses, which is not so well marked as that of the unheated anthrax albumoses. These animals showed no other symptoms but fever. The prolonged effect of the anthrax albumoses is best seen when they are injected directly into the circulation. The effect of the injection of a dose of 0·122 gramme per kilogramme of body weight into the marginal vein of the ear of a rabbit is a rise of temperature of over 40 in

four hours after inoculation, and a continuance of the fever during the second and third day of experiment, the temperature being normal on the fourth day. Three times this dose produces a very moderate rise of temperature and then a fall, ending in death in a few hours. The alkaloid produces either no rise of temperature or a very slight one; it is a local irritant, producing œdema, and is the cause of the coma. The investigation of the chemical pathology of anthrax gives us, therefore, a clear idea as to the means by which the bacillus anthracis, the primary infective agent, acts. When introduced into the body the bacillus begins to digest the proteids; the products of digestion cause a local œdema containing in solution (like other pathological effusions) a large quantity of proteids which are outside the metabolism of the body, and which therefore serve as a suitable food for the bacillus. The absorption of the digested products from the local œdema, and from the other parts of the body in which the bacillus grows, produces the symptoms of the disease, and it is to the gradual accumulation of the poisonous anthrax base that the stupor ending in coma and death is due. These bodies are the specific products of the bacillus, and are readily recognised either in a cultivation or when separated from the tissues of an animal dead of the disease.

DIPHTHERIA.

The general conclusion from the study of the chemistry of anthrax was that two classes of products were formed from the proteids of the body by the bacillus, one belonging to the digested proteids—viz., albumoses,—the other to the non-proteid class, a definite organic base with a specific action. With these results in mind the work on diphtheria was begun, but a somewhat different method of investigation was adopted. The tissues of patients dead of diphtheria were, in the first instance, chemically investigated before an attempt was made to isolate the products of the bacillus diphtheriæ. In the search for specific poisons in diphtheria the aim was perhaps theoretically simpler than in the case of anthrax, for in diphtheria there is the peculiar palsy which follows the disease, and is so closely associated with it that it is more properly considered a symptom, and not a sequela. All facts point to the diphtheritic membrane as the seat of origin of the disease, so that it was examined chemically, as well as the blood, spleen, and kidneys.

Cases of diphtheria examined.—In all eight cases of diphtheria were examined, six of which are shown in the following table. They all occurred in children.

No. of Post-mortem Exams.	Hours after death.	Age of Patient.	Duration of disease.	Extent of diphtheria.	Other lesions.
1	3½	1 year	6 days	Laryngeal	—
2	3	5 years	8 ,,	Nasal, pharyngeal, & laryngeal	—
3	6½	4 ,,	10 ,,	Tonsillar	1 small suppurating gland below jaw
4	12	1½ ,,	9 ,,	Pharyngeal and laryngeal	—
	4	3½ ,,	7 ,,	Pharyngeal and laryngeal	Broncho-pneumonia
	13½	8 ,,	4 ,,	Naso-pharyngeal	—

Cases 2, 4, 5, and 6 showed at the post-mortem examination the typical diphtheritic membrane, and a microscopical examination exhibited the typical structure of the membrane with the presence of the bacillus diphtheriæ in the superficial layers. Case 6 might be classed as one of malignant diphtheria from its rapid course with high fever and great prostration. Cases 1 and 3 differed from the others in the following respects. In Case 1 there was at the post-mortem examination nothing visible to the naked eye as the cause of death. There were a few small erosions on the under surface of the epiglottis and in the upper part of the larynx, but no membrane, nor had membrane been observed during life. The pharynx and fauces were normal. On a microscopical examination a few minute flakes of membrane were found in the larynx with the diphtheritic bacillus near the free surface of the membrane. During life the child had suffered from a croupy cough, and died in dyspnœa after tracheotomy. This case resembles those described as croup. Case 3 showed at the post-mortem examination congestion and erosion of the tonsils and congestion of the pharynx; there was no membrane, and cultivations of the throat yielded only micrococci, and not the bacillus diphtheriæ. Membrane was, however, present in the throat on admission into the hospital. These six cases, therefore, represent the different classes of cases which die; those with typical membrane in the nose, pharynx, or larynx, as Cases 2, 4, 5, and 6, some of which may have broncho-pneumonia as well; those in which the disease is limited to the larynx, and in which membrane is discovered only microscopically; and, lastly, cases in which the membrane, as such, has disappeared, leaving a congested condition of the throat, and in which the disease is associated with a secondary pus infection of the lymphatic glands below the jaw.

Method of examination of tissues.—In the separation of poisonous products from the tissues or from a culture of a micro-organism, the same method is applicable, except that the culture has first to be freed from bacilli. With the tissues, for example, the spleen and other organs are finely minced and placed in rectified spirit, the blood is also placed in rectified spirit, and the mixtures are allowed to stand until all the ordinary proteids are coagulated. They are then filtered and the residue is extracted with cold distilled water until nothing more dissolves. All the extracts are mixed together, evaporated at 35° C. to a small bulk, and thrown into absolute alcohol. This precipitates most of the albumoses, some deutero-albumose remaining in solution. After standing the alcohol is poured off the precipitate, evaporated to dryness at a low temperature, and extracted by absolute alcohol until nothing more dissolves. The residue left is deutero-albumose with mineral salts. All the proteid is mixed together, dissolved in a small quantity of water and precipitated by alcohol, the process being repeated several times to remove any traces of bodies soluble in alcohol and the excess of mineral salts. At the last precipitation the precipitate is allowed to stand under alcohol for from six weeks to two months, after which the alcohol is poured off and the precipitate dried *in vacuo*; so that from first to last the products are in contact with no reagent but pure alcohol, and are never heated to above 40° C. The resulting product is a light-yellowish brown powder, which yields nothing to alcohol, ether, or chloroform, and which keeps indefinitely if preserved in a dry atmosphere. It is soluble in water, cold or boiling; its solution being yellowish, sometimes faintly acid or nearly neutral. It consists almost solely of deutero-albumose, a small amount of proto-albumose being also present. There is no peptone in it. It gives all the ordinary actions of proteid and a well-marked biuret reaction. It is completely precipitated from solution by saturation with ammonium sulphate; nitric acid gives a slight precipitate, which is greatly increased if sodium chloride be added to the solution. In fact, this proteid powder is chiefly deutero-albumose, giving reactions similar to those of peptic deutero-albumose. The alcoholic extract of the tissues is strongly acid, and contains an appreciable quantity of free fatty acid, and also of another organic acid, which is separated from the first by its insolubility in chloroform. This organic acid is readily soluble in water and absolute alcohol, and quite insoluble in ether, chloroform, and benzene. It is a yellowish amorphous body, which becomes a deep brown on being made alkaline. Its further chemical characteristics are not at present investigated. In the tissues of none of these patients was there any organic base or alkaloid present.

Amount of these products present.—An attempt was made in some of the cases examined to estimate the amount of albumoses and alcoholic extract (that is, organic acid) present in the blood and spleen. The weights given are only approximate, as there is such a great loss of the substances during purification.

No. of case.	Seat of Disease.	Albumoses in grammes.			Alcoholic Extract.
		Blood and Spleen.	Blood only.	Spleen only.	Blood and Spleen.
1	Larynx	0·974	..	..	0·271
3	Tonsils	0·5955	..	..	..
4	Pharynx and larynx	..	0·149	..	0·167 (blood only)
5	Pharynx and larynx	0·805	0·450	0·355	0·455
6	Naso-pharynx ..	..	trace	0·715	..

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From this table the following conclusions may be drawn:—1. The albumoses are always associated with the presence of the organic acid, and the amount of albumoses is much greater than that of the acid. This is a fact of great importance in considering the relative physiological action of the two classes of substances. It will be noticed, too, that in Case 1, which occurred in a child only a year old, nearly a gramme of albumoses was obtained from the blood, spleen, and kidneys, which represents a much larger quantity really existing in the body, owing to the large amount lost in purification. 2. In two of the cases the greatest quantity of albumoses was present in the spleen—in Case 1, in which the organ was not enlarged, and in Case 6, in which only a trace was found in the blood and 0·715 gramme in the spleen. Similarly from the spleen a larger amount of the acid body was obtained than from the blood. The spleen is, in fact, the chief repository of the diphtheritic poison in the body. 3. It is also noticeable that in Cases 1 and 3, to which attention has been already drawn, as differing from the typical cases of diphtheria seen on the post-mortem table, the same bodies were found as in the typical cases of diphtheria, and it may be at once stated that the results of the physiological action of these bodies were the same in all the cases. Cases 1, 3, 5, and 6 were those in which the products were used for physiological experiments. We might, therefore, sum up the chemistry of the tissues in diphtheria by saying that two classes of substances are present which are abnormal to the body, one belonging to the group of digested proteids—namely, albumoses; the other an organic acid. Contrasted with anthrax, it is seen that, whereas the bacillus anthracis produces albumoses and an organic base, in diphtheria we have albumoses and an organic acid. The albumoses of diphtheria cannot be distinguished from those of anthrax or peptic digestion by chemical means. Their physiological effect—a test more delicate than any chemical reaction—is the only method by which their specificity is made evident.

Physiological action of the albumoses found in the tissues in diphtheria.—1. When subcutaneously injected the diphtheria albumoses produce a local œdema, which in one case came on in two hours, spread rapidly for twenty-four hours, and rapidly diminished; so that in thirty-six hours it had practically gone and left no trace behind. It is a clear œdema, unaccompanied by any naked-eye congestion of the part, and not followed by any necrosis. 2. A more important effect is that on the body temperature. The subcutaneous injection of 0·256 gramme per kilogramme of body weight in a guinea-pig produced only an irregularity of the temperature and no well-marked rise—a result in marked contrast to the similar experiment with anthrax and peptic albumoses, which I have already demonstrated. When injected into the circulation of rabbits, however, these albumoses will produce fever.

Rabbits (precautions).—It is necessary to premise that in all experiments on the effect of the intravenous injection of these proteid poisons certain precautions must be taken in order to ensure that the animal you use for experiment is a healthy one. My usual practice is to isolate an animal and to take its weight, then to observe its temperature three or four times daily for a week or more. If during this time the animal gains in weight, and if the rectal temperature does not at any time rise to 103°, or for one day does not keep at about 102·5°, the animal is used for experiment. If such precautions are taken, both time and animals are saved, and greater accuracy in the experiments is secured. There is one disease in rabbits—viz., spinal curvature causing paraplegia—which is not excluded by the precautions which I have enumerated; but this disease is a very definite one, and readily recognised.

Intravenous inoculation, single doses.—In one animal a dose of 0·117 gramme per kilogramme of body weight produced a well-marked rise of temperature on the day of inoculation, and a slight degree of fever lasting two days more. Nothing further happened to this animal. It did not get paralysed, and when killed in ninety-four days it was fat and well nourished. In another animal a dose of 0·122 gramme per kilogramme of body weight produced a rapid fall of temperature, and death in three hours. Paralysis of the hind limbs occurred in one hour and a half, and was followed by coma. An examination made just after death showed a pinkish colouration of the lungs, due to congestion, and pallor of the spleen. There were no ecchymoses and no effusion. The blood was profoundly altered; it was dark and fluid, and was slow in coagulating. A small quantity put into a watch glass did not set for over fifteen minutes. Normal rabbit's blood begins to coagulate in from half a minute to one minute and a half. The retardation of coagulation observed in this instance is not peculiar to diphtheria products, but is observed also with the ordinary peptic albumoses.

Intravenous inoculation: multiple doses.—The effects following the intravenous injection of the diphtheria albumoses in divided doses is much more important than similar experiments with single doses. With multiple doses one imitates, imperfectly it is true, the course of events in the natural disease; moreover, as is well known, multiple small doses of a poison have a more powerful effect than a simple large doses.

Intravenous Injection of Diphtheria Albumoses in Rabbits in Multiple Doses.

Weight of rabbit in grammes.	No. of case of diphtheria.	No. of doses.	Total dose per kilogramme of body weight.	No. of days before death occurred.	No. of days before paralysis occurred.
1100	5	2	0·136 gramme	7	2
1970	5	2	0·153 ,,	11	6
970	6	3	0·157 ,,	10	7
1565	3	2	0·100 ,,	Killed in 24 days.	20
1200	6	2	0·083 ,,	Recovery in 54 days.	8

The doses were given, as a rule, on successive days; in one case on the same day. The first symptom noticed after the inoculation is fever, which in some cases is great and in some slight. In the first animal the fever lasted during the seven days it lived. This is the only instance of such an occurrence in any of the animals. In the second animal, in which the two doses were given on the same day, the fever lasted only during that day and was very slight. In the fifth animal the fever lasted about three days after the inoculation, and was moderate in degree. The effect on the body temperature is therefore a very varying one; but whether these animals have slight or great fever, they all show a more definite symptom—that is, a paresis of the muscles. In the first animal, for example, which had high fever, paresis of the left leg appeared on the second day; it was not used so much as the right leg in jumping. The paresis was more marked on the fourth day, both legs were affected on the fifth day, and on the seventh day there was paresis of all the limbs. There was no complete paralysis, for just before death the animal could still move when touched, although it only hobbled a few paces. The second animal showed paresis of the right foreleg on the sixth day, and on the ninth day this extended to the other foreleg. There was a general weakness of the muscles until death on the eleventh day. In the third animal, with a moderate degree of fever lasting six days, a general weakness of the animal appeared on the fifth day, and a definite paresis in the hind limbs on the seventh day. This increased till death. The fourth animal, also with moderate fever, but with a smaller dose than the three just mentioned, showed only a slight general weakness for twenty days. On the twentieth day the paresis was definite in the hind legs; the animal was indisposed to move, and could not jump vigorously; the respiration was extremely rapid. The animal, however, recovered from the respiratory symptoms, and was killed on the twenty-fourth day. The fifth animal showed a slight continued fever after the second dose, which passed off in five days. Weakness in the hind legs appeared on the second day. On the eighth day the hind legs were much weaker, especially the left one, which was held slightly abducted. It continued in this state till the nineteenth day, when almost suddenly it became much worse. Attempts at walking and jumping resulted in an irregular movement, which carried the animal some distance forwards, when it stopped with limbs outstretched. The breathing was extremely rapid, and there were occasionally slight convulsive movements of all the limbs, which were possibly of respiratory origin. This serious condition of the animal passed off, and it regained a great deal of power in its limbs. The condition just described as passing off in this animal, which had the smallest dose, is the mode in which the other animals, which had the larger doses, died. It is, so to speak, the culminating point of the paresis which, although more marked in certain limbs, is always general, affecting the trunk muscles as well

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as those of the limbs. When it comes on with the larger doses it usually lasts twenty-four hours before the animal dies. It is, as shown by the post-mortem examination, partly respiratory and partly cardiac in origin. From the injection, therefore, of the diphtheria albumoses a paresis of the muscles is produced which may be most marked in one limb, but is always general and progressive. It is associated with an affection of the respiration as shown in the rapidity, or in some cases slowness, of breathing during the attacks described, which may pass off if the dose be small enough. With this paresis there is no special wasting of the muscles; even when the limb of one side is more paretic than that of the other, it does not waste to a greater extent. As regards loss of sensation, I did not attempt to estimate it, as the animals were rabbits. No affection of the pupil was noted in any of the animals. With the large doses the knee-jerks were found diminished after some days, but they never completely disappeared. When one hind leg was more paretic than the other, the knee-jerk on that side was diminished.

Loss of weight.—Although the muscles do not specially waste, there is a general loss of weight, which is the more marked the larger the dose.

Table of Loss of Weight.

Original weight in grammes.	Weight at death.	Proportional loss of weight.	No. of days before death occurred.	Fever period.	Dose of albumoses per kilo.
1100	970	⅛	7	7 days	0·136
1970	1520	¼	11	1 „	0·153
970	530	½	10	6 „	0·157

It will be noticed that the larger the total dose the greater the wasting which is produced. With the largest dose given the wasting was enormous, being nearly one-half of the original body weight. This wasting is not proportional to the fever, as it goes on after the fever has subsided. This is seen in animals 2 and 3, in one of which, with fever lasting only one day, one-quarter of the body weight was lost; and in the other, with fever lasting six days, one-half of the body weight was lost. With the smaller doses given, although the paresis was well marked and the respiratory troubles very manifest, the loss of weight was much less than in the animals shown in the table. Thus the animal with the total dose of 0·100 gramme per kilogramme of body weight showed on the eleventh day a loss of one-tenth of its body weight, after which it rapidly increased in size until it was killed (on the twenty-fourth day), while the animal with the total dose of 0·083 gramme per kilogramme of body weight showed in eighteen days a loss of only one-sixtieth of its body weight, after which it rapidly surpassed its original weight by 100 grammes, and subsequently showed only slight fluctuations in its weight. In these cases also the loss of weight is proportional to the dose of albumoses, and not to the fever.

Diarrhœa.—This is a symptom noticed only with the largest doses, and may last several days. It is watery and non-sanguineous. One of the most striking features of the action of these albumoses is their prolonged effect. The fever may last a long time; the paresis produced may be rapid in onset, but is slow in progress, and the general wasting produced is slow and prolonged.

Post-mortem examination.—That the symptoms described are really due to the action of these diphtheritic albumoses is evidenced by the post-mortem examination. That the animals did not die from the accidental introduction of a pathogenous micro-organism is shown by the fact that neither a microscopical examination of the organs of the body nor cultivations of the blood and spleen on agar and gelatine showed the presence of any such micro-organisms. The liver, spleen, and kidneys were, to the naked eye and to microscopical examination, normal. The lungs, lymph glands, and supra-renals were normal. In only one instance was subcutaneous œdema found; that was in the first animal, in which there was a large amount of œdema over the abdomen. As this was absent in the other animals, it was looked upon as an accidental effect of the poison. The albumoses used in inoculation were free from micro-organisms; the mode of preparation ensures this, since, from their removal from the body until they are dried, they are always in contact with an excess of pure alcohol, and when dried they are not touched except with sterile instruments, and are preserved in a sterile bottle in a dry atmosphere. All instruments used in the experiments are also sterilised, so that the effect of bacteria in producing the symptoms described is definitely excluded. But that the albumoses were acting in the body while the animal was alive is shown by the condition of the blood after death. It has already been mentioned that the blood was slow in coagulating in the animal which died in three hours after a single dose. In the animal which had the largest dose of the albumoses in three doses the blood was found in a similar condition. The animal died during the night, and the blood drawn from the right ventricles at 10 A.M. was liquid and of a lighter red than venous blood. In twenty-five minutes, at the temperature of the laboratory, a small amount placed in the watch glass began to coagulate, and was completely set in two hours. This slow coagulability of the blood, which is a well-known feature of the action of albumoses on the blood, showed that the diphtheria albumoses were actually present in the circulation in this case ten days after inoculation. But even in the animal which was killed twenty-four days after inoculation the blood was found slow to coagulate, commencing to set in about fifteen minutes, when removed one hour after death. This condition, however, was not found in another animal which died in eleven days after the inoculation of two doses of 0·153 gramme per kilogramme of body weight; but in this instance the two doses were given on the same day, and this fact, together with a difference in the rate of excretion in different animals, may show that the albumoses were not in sufficient quantity in the blood to retard coagulation, but were present in sufficient amount to produce the other symptoms of diphtheria albumoses—viz., the paresis and loss of weight. The condition of the blood in these animals appears to me to be extremely important, as it helps to explain why diphtheritic paralysis in man can occur sometimes after the acute disease is past.

ABSTRACT OF THE

Milroy Lectures

ON THE

PHYSICAL AND MENTAL CONDITION OF SCHOOL CHILDREN.

Delivered at the Royal College of Physicians, London, March 8th, 10th, 15th, and 17th,

BY FRANCIS WARNER, M.D., F.R.C.P. LOND.,
PHYSICIAN TO THE LONDON HOSPITAL.

LECTURE III.

RESULTS OF INSPECTION OF 50,000 CHILDREN SEEN IN 106 SCHOOLS.

The classes and groups of children described.—The study of the principles and methods of procedure to be employed, and practice in making observations and in describing them, were so far advanced in 1888 that a committee was formed by the Psychological Section of the British Medical Association, and, in conjunction with Dr. Hack Tuke, Dr. Fletcher Beach, and Dr. Shuttleworth, Dr. Warner made observations on 5000 children in fourteen schools, and published a report.[1] It should here be said that the observations of 1888–9 are incorporated in the larger report of 1890–92. This first inquiry, and the subsequent arrangement of cases in groups, afforded valuable experience, and gave many useful hints as to how the work should be further extended, and also as to the best methods of keeping the records and the kind of results to be looked for. Following the publication of this first report, a special committee was appointed by the Charity Organisation Society, including representatives of the older committee, and a report has been prepared on 50,000 children seen: Boys, 26,884; girls, 23,143.

Group 1. Normal or average children.—Boys 21,315, girls 19,536. Percentages on numbers seen: boys 79·3, girls 84·5. Such children are the average as presenting no visible defects or abnormal nerve signs, and not being reported as dull at lessons.

Group 2. Children presenting some deviations from the

[1] Brit. Med. Jour., July 27th, 1889.

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normal, of whom notes were accordingly taken.—Boys 5579, girls 3607—total 9186 Percentage on numbers seen: boys 20·7, girls 15·5—total 18·3. Schedules were filled in for each of these cases; their varying conditions have been analysed, and they will now be presented in groups or classes.

Group 3. Children presenting no defects in development or abnormal nerve signs, but reported as dull by the teachers.—Boys 185, girls 134—total 319. Such cases present good physical development and a sound condition of brain as indicated by motor action. It appears that the brains of these children, though capable and healthy, had but little power for school work. It is important to differentiate such pupils from those with defective conditions.

Group 4. Children feeble minded, or exceptional in mental status.—Boys 124, girls 110. Of these cases, 2 were idiots, 46 imbeciles or definitely mentally wanting; 12 were mentally exceptional, wanting in moral faculty, or liable to mental attacks; 174 are entered as "feeble minded," or defective in mental capacity short of actual imbecility; probably many of them would on further examination be found imbecile, although some may be capable of great improvement.

Group 5. Epileptics, and children with history of fits during school life.—Boys 36, girls 18—total 54. These cases were inquired for in every school, and in some instances children not attending school were sent for by the teachers. Any case with a history or indications of fits during school life was recorded for what it may be worth; a list of these cases has been published.[2] It would appear that most epileptic children are absent from school. Of the cases given, 5 boys and 5 girls were mentally defective.

Group 6. Children crippled, paralysed, maimed, or deformed (not eye cases).—Boys 155, girls 84—total 239. These children varied greatly in brain power; some were mentally bright, others dull. They also varied in conditions of health. The conditions of disease causing crippling were in various stages, and many of these children were capable of work and play. Five boys and five girls were mentally defective. Cripples from congenital defect: Boys 7, girls 9—total 16. Cripples from disease or injury: Boys 88, girls 53—total 141. Cripples from paralysis: Boys 60, girls 22—total 82.

Group 7. Children deaf, or partially deaf.—Boys 34, girls 33. These numbers do not include 51 children seen in a special school, of whom an account was given in an early report. Tests for hearing were not commonly used, but a child found deaf was noted. There were some deaf and dumb in the day schools.

Group 8. Eye cases.—Boys 836, girls 637. Tests for vision and errors of refraction were not used, and ophthalmia was passed over, but when the eyes were looked at obvious defects were noted. Ophthalmia was seen in some day schools. There were of squint cases 807, some requiring operation, many temporary, but only 276 children in all used convex glasses; 48 used concave glasses. The group shows what a large amount of ophthalmic work is needed among children.

Group 9. Children pale, thin, delicate; nutrition low.—Boys 1030, girls 973. The most obvious fact concerning these children was that 733 of the boys and 726 of the girls presented some defects in development. No inquiries were made as to the feeding of these children, but it may be assumed that among the upper grade schools and in the resident schools food was sufficient; still the development cases were of low nutrition there also. Among the 50,000 cases the percentage of low nutrition was for boys 3·8, for girls 4·2, and among the development cases it was for boys 20·2, for girls 32·0.

Group 10. Children presenting defects in development.—Boys 3616, girls 2235. Conditions of mal-development form the largest class of visible defects observed, and as signs easily recognised and capable of description and classification they stand prominently forward as pathological conditions characterising portions of the child population. Analysis and comparison of cases show the developmental signs to be of different value and importance; to demonstrate this the correlation of each sign has been determined (see Interim Report published); from the point of view of estimating potential mental capacity these signs are of value only in as far as experience gained in observation shows their average correlation with cerebral or mental defects. The defectiveness in the make of a child is more strongly indicated when two mal-developments are present; this was noted in 1240 boys, 683 girls; their correlation was higher than for a single defect—with nerve signs 45, low nutrition 31, dulness 60 per cent.

Group 11. Cases presenting nerve signs.—Boys 3413, girls 2074. Abnormal nerve signs are largely correlated with defects in development—that is to say, some malproportion in the parts of the body is largely associated with a tendency to ill-balance among the nerve centres. The significance of these signs varies in two directions: some indicate an over-mobile nerve system, the centres tending to separate and spontaneous action, not well under control through the senses, of which finger-twitching is the type; and a second set which indicate low class brain development. These are mostly repeatitive uniform movements, athetoid in type, and represented by chronic over-action of the frontal muscles and repeated grinning.

Group 12. Cases of rickets.—Boys 157, girls 30—total 196. With nerve signs: Boys 54, girls 15—total 69. With low nutrition: Boys 32, girls 13—total 45. With mental dulness: Boys 64, girls 10—total 74. Probably more children were or had been rachitic than those registered; when the conditions seen in the bones left no doubt, the case was registered accordingly, but the body could not be examined in detail under the conditions of this inquiry. It seems that a great character about the conditions termed "rickets" is the malproportion of growth in the skeleton, especially about the cranium. It is shown that defects in development other than cranium and palate were found in 58 boys, 11 girls—total 69 cases. The pathological question might be raised whether a large proportion of the cases registered as "cranial bosses"—a sub-group of the cranial abnormalities amounting to boys 495, girls 127: total 622—were not really cases of rickets. These rachitic children are badly proportioned. Cranial abnormalities: Boys 143, girls 26—total 169. Palate defective: Boys 23, girls 8—total 31. Cranium and palate defective: Boys 21, girls 6—total 27. Small in growth: Boys 10, girls 5—total 15.

Group 13. A group of cases with defects in development: Abnormal nerve signs and low nutrition.—Boys 412, girls 381—total 793. With mental dulness: Boys 192, girls 157—total 349. This group appears, in fact, to present a special class of development cases, in which the inheritance has produced not only visible malproportions or proportioning in the body, but also a constitutional tendency to low nutrition, and a state of nerve centres ill balanced or badly acting. Such children may be said to be delicate, and 44 per cent. of these were reported by teachers as dull. These children when dull are included in the group that appears to need special care or training.

Group 14. Children reported by the teachers as dull in school.—In every case recorded the teachers' opinion concerning the child's mental capacity was asked for and taken down as evidence. The number of dull children was: boys 2216, girls 1463—total 3679. Their correlations are given in full in a table. Of these dull children, defects in development or abnormal nerve signs were found in 3266 cases.

Group 15. Children that appear to require special care and training.—It is not intended to imply that these children cannot be provided for in day schools; but they need to be provided for, and it might be well that they should be marked on the school register, and their attendance and progress noted by the managers. The group includes children feeble minded or mentally exceptional (Group 4); epileptic, cripples and "the development cases, with low nutrition and nerve signs, who were reported as dull mentally." The group as thus arranged, allowing for overlapping cases, contains 817 children (boys 473, girls 344), or 1·6 per cent. on the 50,000. Of the number given, 165 are included on physical grounds as not being mentally dull.

Group 16. Children presenting abnormal nerve signs without defects in development.—Boys 1438, girls 978—total 2416. In these cases there are no indications of defect in development to account for the nerve signs, and they appear to be due to other causes; they are slightly more frequent among the resident children and among the upper class children than in the average day schools, so that low feeding does not appear as a potent cause. It is probable that in this group we have the children of normal make who are ill-trained, neglected, and over-pressed by the stress of life. These seem to be the children most improvable by altered

[2] See Interim Report on Schools, Charity Organisation Society.

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conditions and appropriate training. Many are of ill balance and nervous; 39 per cent. of them were dull.

Group 17. Children presenting development defects with abnormal nerve signs.—Boys 1975, girls 1096—total 3071. With low nutrition: Boys 733, girls 726—total 1459. With mental dulness: Boys 835, girls 475—total 1310. These children appear as cases with malproportioning of the body and ill-balanced nerve centres. The percentage of dulness among them is higher than among either the "development cases" or the "nerve cases."

Group 18. Children presenting development defects without abnormal nerve signs.—Boys 1641, girls 1139—total 2780. These development cases, with a well-regulated nerve system, present less dulness than the last group, showing the importance of observing nerve signs. Of development cases with nerve signs, 43 per cent. dull. Of development cases without nerve signs, 35 per cent. dull. Comparing groups of schools, the percentages go against the residents as compared with day schools, except as to nutrition. Again, comparing schools of upper and lower grade, the conditions found are in favour of the lower class. Lastly, among the English children development defects are found in 10·8 per cent., among Jews 7·5 per cent., among the Irish 20 per cent.

The lecture was illustrated by tables and charts.

MICROCOCCUS PNEUMONIÆ CROUPOSÆ.

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Synonyms.—Microbe septicémique du salive (*Pasteur*), *Coccus lancéolé* (*Talamon*), *Micrococcus Pasteuri* (*Sternberg*), *"Pneumococcus of Fränkel," Diplococcus pneumoniæ* (*Weichselbaum*), *Bacillus salivarius septicus* (*Flügge*), *Streptococcus lanceolatus Pasteuri* (*Gamaleia*).

THE object of the present brief paper is to call attention to the earlier researches relating to the important pathogenic micrococcus to which it refers. This seems desirable at the present moment, inasmuch as the distinguished author of the Croonian lectures, recently published in THE LANCET, has given an account of the history of the micrococcus in question, in which he fails to recognise my priority in its discovery. He says:—"Its history is as follows. In 1881 M. Pasteur observed to his surprise, in inoculating a rabbit with the saliva of a child affected with hydrophobia, that the animal died rapidly of septicæmia. Subsequently, Dr. Sternberg[1] of Washington, having observed that the inoculation of pneumonic sputum induced in the rabbit symptoms similar to those observed by Pasteur,[2] repeated the experiment with his own saliva. As this animal also died of septicæmia, he was led to investigate the subject bacteriologically, and found that in all the animals inoculated the same microzyme occurred, and that it corresponds with Pasteur's description of the 'microbe septicémique du salive.'" Now, as a matter of fact, and of record, the present writer discovered the micrococcus in question in the blood of rabbits inoculated with his own saliva, in the city of New Orleans, in September, 1880, three months before Pasteur discovered it (December, 1880) in the blood of rabbits inoculated with the saliva of a child which died of hydrophobia in one of the hospitals of Paris. At the date referred to I was not able to follow up my experiments immediately, as I was engaged in another investigation. But they are recorded, with the date upon which they were made, in my special report to the National Board of Health on "Experimental Investigations relating to the Etiology of the Malarial Fevers," which was submitted some time before the publication of Pasteur's note referred to by Dr. Burdon-Sanderson, and was published in the National Board of Health Bulletin, vol. iii., Washington, 1881–82. Impressed with the surprising fact that my saliva contained a pathogenic micrococcus which quickly proved fatal to rabbits inoculated with the fluid containing it, I went to Philadelphia in January, 1881 (before the publication of Pasteur's first communication), for the express purpose of making further investigations with reference to this micrococcus in the laboratory of the medical department of the University of Philadelphia. "Here eleven inoculation experiments demonstrated (*a*) that the virulence noted was not due to season or locality, as the same result followed inoculations made in Philadelphia during the winter months as had been obtained by similar inoculations in New Orleans during the heat of summer; (*b*) that this virulence was not an individual peculiarity, inasmuch as eleven rabbits inoculated with the saliva of six different persons gave eight deaths and three negative results." In March, 1881 (still before the publication of Pasteur's first communication), I resumed my experiments in the biological laboratory of Johns Hopkins University, Baltimore, and, by the inoculation of pure cultures obtained from the blood of infected rabbits, proved that the fatal septicæmia induced in rabbits by inoculating them with my saliva was beyond question due to this particular micrococcus. I also determined many of its biological characters, accurately described its morphology, and made photo-micrographs showing it in the blood of an infected rabbit. The results of this investigation are published in my paper on "A Fatal Form of Septicæmia in the Rabbit, produced by the Subcutaneous Injection of Human Saliva"[3] The publication of this paper was considerably delayed after I had completed my research, and in the meantime Pasteur had published his "Note sur une Maladie nouvelle provoquée par la Salive," referred to by Dr. Burdon-Sanderson.

My earlier researches were followed by others, in which I used this micrococcus as a test of the comparative value of various disinfecting agents,[4] and in the course of which I determined various points relative to its biological characters. In January, 1885, I made a series of experiments with pneumonic sputum which led me to the identification of the oval coccus, usually in pairs, found in this material with the micrococcus previously isolated from my own saliva. In the paper in which I gave an account of these experiments[5] I named the micrococcus in question "Micrococcus Pasteuri," a name which has not been generally accepted, and for which I now propose to substitute the name placed at the head of this paper, "Micrococcus pneumoniæ crouposæ." In my paper last referred to, which was read before the Pathological Society of Philadelphia in April, 1885, and published in the *American Journal of the Medical Sciences* for July of the same year, I say: "It seems extremely probable that this micrococcus is concerned in the etiology of croupous pneumonia ..... But this cannot be considered as definitely settled by the experiments which have thus far been made upon the lower animals." Fränkel's first paper[6] relating to the presence of this micrococcus in pneumonic exudate was published shortly after my paper last referred to. Since the date last mentioned the extended researches of Fränkel,[7] Weichselbaum,[8] Netter,[9] Gamaleia,[10] G. and F. Kemperer,[11] and others have established the fact that this micrococcus is the usual cause of croupous pneumonia. Recognising this, we propose hereafter to designate it "micrococcus pneumoniæ crouposæ." This corresponds with the nomenclature adopted by Flügge in describing other pathogenic bacteria—e.g., micrococcus gonorrhœæ, bacillus typh. abdominalis, spirillum choleræ asiaticæ. The name "diplococcus pneumoniæ," which has been adopted by most German bacteriologists, and following them by many English and American authors, is objectionable, because this coccus is not truly a diplococcus, although commonly seen in pairs and preparations made from pneumonic exudate or from the blood of an infected rabbit. But it is also frequently seen in short chains of three or four elements, and in cultures upon nutrient agar it often forms long

[1] Sternberg: Der Mikrokok der Sputumseptikaemie. Deutsche Med. Woch., 1887, p. 44.

[2] Pasteur: Note sur une Maladie nouvelle provoquée par la Salive, &c. Bull. de l'Acad. de Médecine, 1881; quoted from THE LANCET of Nov. 28th, 1891, p. 1209.

[3] National Board of Health Bull., vol. ii., 1881; also Johns Hopkins University, Stud. Biol. Lab., Balt., vol. ii., 1882, pp. 183-200, 1 pl.

[4] Experiments with Disinfectants. Johns Hopkins University, Stud. Biol Lab., Balt, vol. ii., 1882, pp. 201-212. Induced Septicæmia in the Rabbit, Amer. Journ. Med. Sci., Philadel., 1882, pp 64-76 Germicide Value of Therapeutic Agents, Amer. Journ. Med. Sci., Philadel., 1883, pp. 321-343.

[5] Paper published in the Transactions of the Pathological Society of Philadelphia, vol. xii., 1885; and in the Amer. Jour. Med. Sciences, July, 1885.

[6] Bacteriologische Mittheilungen: Verhdlg. d. Vereins f. innere Med., July, 1885. [7] Zeitschr. f. Klin. Med., Bd. xi., 1886.

[8] Ibid., Bd. x., 1886.

[9] Comptes Rendus, Soc. de Biol., Paris, Nov. 4th, 1887.

[10] Ann. de l'Institut Pasteur, tome ii., 1888.

[11] Berl. Klin. Wochenschr., 1891, Nos. 34 and 35.

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chains. It is therefore more properly called a streptococcus. Gamaleia calls it "streptococcus lanceolatus Pasteuri." We prefer, however, the more general generic name "micrococcus," and do not consider it necessary that the name should be descriptive of the mode of grouping of the cocci. It may be questioned whether "diplococcus" as a generic name is entitled to a place in our nomenclature. It simply represents a form of association which is common to all micrococci, although more persistent in some than in others, and which results from their multiplication by binary division. Now some of the so-called diplococci multiply in one direction only, forming pairs, and longer or shorter chains, as in the case of the micrococcus under consideration; while others multiply in two directions, forming pairs and, by transverse division, groups of four—e.g., diplococcus citreus conglomeratus (Bumm) and diplococcus roseus (Bumm). Thus a most important generic character—division in one or two directions—is ignored by those bacteriologists who use the term "diplococcus" as a generic appellation. Again, some of the micrococci commonly described under the generic name "streptococcus" are seen, under certain circumstances, only or chiefly associated in pairs. We therefore object to the use of the term "diplococcus," as a generic name for micro organisms of this class, as being unscientific and misleading.

San Francisco.

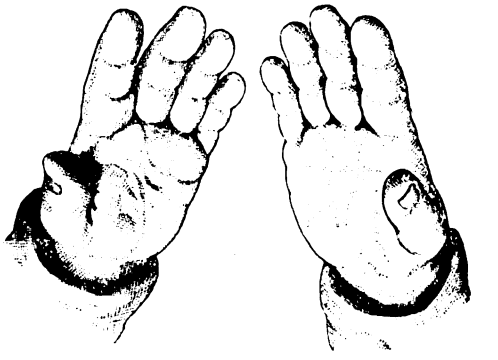
A CASE OF ACROMEGALY.

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THE patient, A. W——, aged twenty-eight, laundress, was born near Brough in East Yorkshire, but latterly has lived at Altofts, near Normanton. Her father died at the age of forty-three (cause unknown). Her mother is living and well. She is the only child of the marriage. In childhood she had scarlet fever and measles, and in March, 1891, she had influenza. Menstruation began when she was just over eleven years old, and was quite regular up to two years ago, since when there has been total amenorrhœa. The menstrual discharge was always scanty, and never lasted more than a day. During girlhood, although she was well grown and developed in every way, she was never strong. She was always more or less short of breath on exertion, and always had a pain in the left submammary region; still, up to four years ago, she did not consider herself to be the subject of any definite complaint. Four years ago she began to feel certain disturbances in her hands, which she describes as "nasty prickly sensations and a feeling of swelling," and there is no doubt that the hands, feet, and face were at this time getting larger. The feet also felt as though "asleep," and she frequently dropped what she was carrying through being unable to feel it, as it were. The limbs are described as feeling heavy and powerless, and are always worse after exertion—such as a day's washing. She frequently finds herself unable to fasten her clothes on account of the numbness and clumsiness of her hands, though her handwriting is as good as ever it was. On account of the increasing size of the fingers she is unable to get a thimble large enough; the thimble which four years ago she could use with ease is now not quite large enough for the little finger.

She may be described as a big woman of peculiarly cheerful disposition and good intelligence. She weighs 16 st. 2 lb., and her general figure is such as that weight would indicate. She is distinctly round-backed, so much so that her chin is carried almost on her chest. She has the use of all her limbs with the qualifications mentioned above. She is a little short of breath on exertion. Her complexion is striking, and, with the changes in the facial contour, gives her a countenance very much like that of a Chinaman of her size. The voice is husky and distinctly masculine in character. There is always profuse sweating of the palms and soles, and that of the latter is distinctly offensive. This did not exist before four years ago. The appetite is not increased. There has been absolute amenorrhœa for two years. The generative organs were not examined. The hands present in a marked degree all the characteristics of acromegaly as described by Souza-Leite,[1] and contrast strangely with the natural, or almost natural, appearances of the other parts of the upper limbs (see Fig. 1). The whole hand is enlarged without any or little departure from the natural model, and of all the parts of the member the fingers show the greatest increase in size. The digits, showing well the sausage-shape, and the nails, which look too small for the fingers, are broader than they are long, flat, and show a well-marked tendency to longitudinal striation. The skin of the hands has a sodden appearance from the excessive sweating to which she is subject; it is soft and supple, of a

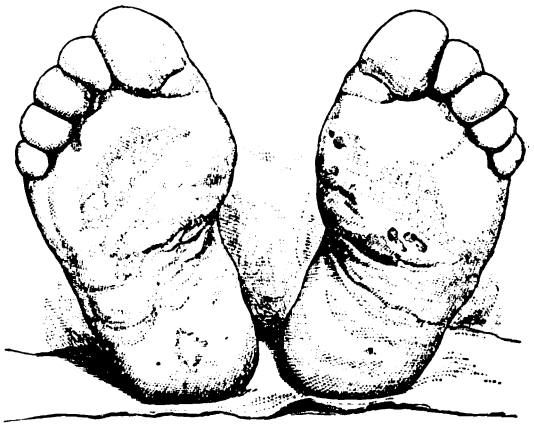
FIG. 1.



rather earthy tint, and shows a normal amount of folding about the joints. The enlargement clearly affects the bones as well as the soft parts; the latter, in the palm especially, are peculiarly abundant and loose.

The size of the nose, the heavy pointed chin, the broadening of the inter-malar measurement, and the eversion of the lower lip are very striking. She has a distinctly prognathous appearance in profile. The hair is very abundant and coarse. The ears are certainly large. There is no distinct change in the bony prominences of the cranium. The neck is short and thick. The skin is much folded about the angle of the jaw and behind the ear, and there are a number of small sebaceous cysts scattered

FIG. 2.



about the region in question. The feet also are characteristic, and present changes quite similar to those in the hands—that is to say, they are large, heavy, and thick, without much, if any, increase in their length. The soft parts of the sole are curiously redundant, giving rise to a marked exaggeration of the foldings natural to the part. The epidermis is here and there thickened, and apparently about to separate (see Fig. 2). The patella is much enlarged.

The following are selected from a large number of measurements made of the head and extremities: Height of patient, 167·5 c.m.; circumference of the neck between the

[1] De l'Acromégalie, Paris, 1890.

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hyoid bone and upper part of thyroid cartilage, 36·5 c.m.; circumference of head, 57·5 c.m.; breadth of head from mastoid process to mastoid process, 15·5 c.m.; length of nose, 6 c.m.; greatest distance between outer surfaces of malar bones, 14·5 c.m.; lower jaw, vertical measurement, from free border of gums to lower part of symphysis, 4·50 c.m.; greatest length of ears, 6·50 c.m.; greatest breadth of ears, 3·45 c.m.; length of forearm from the olecranon process to styloid process of ulna, 26 c.m.; circumference of forearm at middle, 25 c.m.; circumference of forearm at wrist, 19 c.m.; length of hand from wrist to tip of middle finger, 20 c.m.; length of middle finger from palmar fold to tip, 9·1 c.m.; circumference of middle finger, 7·8 c.m.; circumference of little finger, 6·7 c.m.; antero-posterior diameter of middle finger, 3 c.m.; lateral posterior diameter of middle finger, 3·7 c.m.; length of nail of middle finger, 1 c.m.; breadth of nail of middle finger, 1·5 c.m.; circumference of hand without thumb, 23 c.m.; circumference of hand in obstetric position, with thumb, 28·5 c.m.; breadth of hand at metacarpo-phalangeal joint, 10·5 c.m.; vertical diameter of patella, 6·75 c.m.; greatest circumference of calf, 39 c.m.; circumference of ankle just above tip of internal malleolus, 26·5 c.m.; greatest length of foot, 25 c.m.; circumference over heel and instep, 37 c.m.; greatest width of foot, 10·5 c.m.; circumference of great toe, 10·5 c.m.; length of great toe-nail, 2 c.m.; length of great toe from proximal joint to tip, 7·5 c.m.; length of second toe from proximal joint to tip, 6·25 c.m.

These measurements were made in accordance with those used by Dr. Ross (after Marie), in his case published in the *International Clinics*, vol. i., 1891, with which they may be compared. The thorax is normal in shape, and there is no substernal dulness. The thyroid region presents no peculiarity. The general musculature is wanting in tone, but otherwise shows no deviation from normal. The tendon reflexes are normal. The cardio-vascular mechanism is normal. The urine is normal in quantity, and contains neither albumen nor sugar. So far as subjective symptoms are concerned, in addition to the sensation of numbness and pins-and-needles in the hands and feet, there is a fairly constant headache of not very great intensity. This headache comes on in paroxysms, and occasionally causes vomiting. The special senses are not complained of. My colleague, Mr. Secker Walker, was good enough to examine the eyes for me, and found the visual field and the fundus quite normal. Compared with many cases the development of the typical limb changes of acromegaly in this instance has been unusually rapid, and in this respect it resembles two interesting examples recently recorded by Guéniot and Sarmont.[2] These cases are illustrated by most beautiful photogravures. Souza-Leite[3] has collected from English literature six cases which he regards as true examples of acromegaly. One of these, published by Dr. Tresilian[4] under the heading "A case of Myxœdema," appears to me to be correctly classed by its author, and not to be an example of the condition described by Marie. Mr. Hutchinson[5] records a case, and says in the same publication for 1890 that he saw three cases in 1889. Mr. Ruttle[6] has recorded a genuine example with good photographs. Dr. Ross's case, previously mentioned, terminated fatally, and so gave the only opportunity which has occurred in this country for a demonstration of the morbid anatomy of acromegaly. A short account of the post-mortem changes found in this case was published in THE LANCET[7] by Dr. Judson Bury. The changes consisted in "a large pulpy tumour at the base of the brain excavating the sella turcica and extending from the optic chiasma (which with the optic tracts was much compressed) to the cerebellum. Microscopically, it had the appearance of a glioma. Each lobe of the thyroid was enlarged and contained a cyst. Some pendant masses of tissue attached to the front of the pericardium, similar to pieces of a persistent thymus, showed only fat cells under the microscope." Dr. Berkeley[8] records the last case with which I am acquainted. It occurred in the person of a negress aged sixty, the first example, Dr. Berkeley says, of the disease in the negro race, and the forty-fifth case on record.

Leeds.

[2] Nouvelle Iconographie de la Salpêtrière, tome iii., Paris, 1890, pp. 147, 160.
[3] Op. cit., 1890.
[4] Brit. Med. Jour., March 24th, 1888, p. 642.
[5] Archives of Surgery, October, 1889.
[6] Brit. Med. Jour., March 28th, 1891.
[7] June 20th, 1891, p. 1383.
[8] Johns Hopkins Hospital Bulletin, No. 16, September, 1891.

LEPROSY IN MINNESOTA, U.S.A.[1]

BY CHR. GRONVALD, M.D.

NORWEGIANS began immigrating to America more than fifty years ago, most of them going to the North-Western States—Wisconsin, Iowa, and Minnesota,—where they and their descendants form a considerable part of the population. Some of these immigrants were from parts of Norway where leprosy is endemic, and among them were some lepers. Norwegian physicians, aware of this fact, followed, to study the disease on foreign ground. Among them was Dr. J. H. Holmboe, surgeon in charge of a leper hospital in Bergen. He came in 1864, and found twelve lepers, of whom two had the first symptoms after their arrival here. He thought their health better, probably, than it would have been had they remained in the old home. In 1869-70 Professor Wm. Boeck of Christiania, Norway (joint author with Dr. Danielsen of Bergen of "Traité de la Spedalskhed, ou Elephantiasis des Grecs, Paris, 1848," published by the Norwegian Government) published his conclusions in "Nordiske Medicin. Archiv," Band iii., No. 1. He found in the three States named eighteen cases of leprosy, of which nine had the first symptoms after their arrival in this country. All were proved to come from leprous families in the old country, except one, in which he suspected hereditary influence, although admitting the possibility of contagion. He ascribes all the cases to heredity, not believing the disease contagious. He thought lepers better off here in respect of their disease than they would have been in their own country. He says: "They have come away from the place where we see leprosy may originate spontaneously, and which certainly will favour its development when the disposition is inherited. They have settled on fertile lands, where they certainly have to work hard to make a living, but they generally undergo no hardships, as we in Norway understand the term. There is no work that can be compared with that done at the midwinter fisheries in open sea off the Finmack coast, or the hardships suffered while tending the cattle on the high mountain plateaux, which causes so often bring out the latent leprosy."

Since 1870, when the above was written, investigations have been continued in Minnesota as to the number of lepers, their condition, and that of their families. There are medical correspondents everywhere in the State, who report all suspected cases to the State Board of Health, which then makes particular inquiries through its standing committee on leprosy, composed, since 1872, of the writer and the Secretary of the Board. At this date (July 20th, 1891) there are eighteen lepers known to live in Minnesota, of whom ten have the anæsthetic and eight the tubercular form of the disease.

Anæsthetic cases.—In one the disease was first recognised at least five years ago; its duration in the other nine averages nineteen years. The two oldest of this class are, respectively, seventy and seventy-four years of age, and have had the disease more than twenty-three and seventeen years respectively; while two others, sixty and fifty years of age, have had the disease thirty and thirty-two years.

Tuberculous cases.—The average duration of the disease in these cases to date is eight years, while in one the disease was first recognised a year ago. The longest duration of the disease in these cases is sixteen and fourteen years, in persons forty and thirty-six years old. The experience in

[1] This communication has been forwarded by the courtesy of Dr. Charles N. Hewitt, Secretary and Executive Officer, State Board of Health, Minnesota, U.S.A., accompanied by the following explanatory remarks: "This Report by the Committee on Leprosy of the State Board of Health of Minnesota came too late for presentation to the late Congress. It relates in very conservative language the experience we have had for the last forty years with leprosy in Minnesota. In no other State that I know of are all known lepers registered and kept under observation, and all suspected cases carefully looked into. The history of these cases has been very thoroughly studied. No further isolation than the use of their own beds and utensils is required, and this their own good sense and that of their relatives, as a rule, secures. It must be understood that the State Board of Health and the local boards have abundant power to enforce the strictest isolation, if found needful; but up to date there has not been any occasion for the use of such power, as the disease is limited to the immigrants, and has never appeared in the descendants of lepers, nor in anyone born in the State. It is under constant and careful observation, and has been for the last eighteen years under the care of the State Board of Health. The facts here officially stated will interest the students of a disease about which a good deal more has been written than is actually known."

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this country has not been very long, although it already includes several generations. Such as it is, some of its results are:—1. In no children or descendants born in Minnesota of lepers—there are great-grandchildren—has there been any sign of the disease discovered, although under frequent observation. 2. Up to date no leper has been born in Minnesota. 3. In many cases the disease was not recognised for a long time after the arrival of the persons affected in this country—how long it is difficult to state, as the first symptoms are obscure, not noticed, or misunderstood; but in every single instance the leper has some time had his home in some place in the old country where the disease was endemic, while in but a single case has the possibility of infection been pointed out, and that came from a locality in the old country that has been for years a nest of leprosy. These facts, as far as they go, seem to suggest that the disease in this country is not so easily acquired as in some other countries. Looking for the cause, some points present themselves for consideration.

1. New houses with new furniture and furnishings in a new country harbour no sources of infection, and the better economical condition promotes the sense of need for cleanliness both for health and comfort,—a cleanliness which seems in leprosy to be the main reliance against contagion. 2. The commonly dry and always windy climate of this great inland plateau, with its great and sudden changes of temperature, open as it is towards the Gulf of Mexico and towards the North Pole, may perhaps make it more difficult for the *materia peccans* to fix itself on persons and things. The hot summer that opens up the pores of the skin and drains the system that way, and the cold stormy winters acting on the body somewhat differently, may have influence in that direction. That the climate must have some influence in preventing the spread of the disease seems yet more probable when we remember that the early settlers, often with a large family of children, lived for a long time in small, close, and badly ventilated log houses, closer even than they were accustomed to in their old homes. Even if they did not bring with them such sources of contagion as unclean houses and old furniture, they at least had for some time old clothes, so that it would be a wonder if old and young could have observed the cleanliness necessary to prevent contagion if the effect of climate had not been to make contagion more difficult. It seems certain that the disease, once established, runs its regular course here as elsewhere, perhaps a little slower. 3. The change in the physical constitution of people who have lived here some time, the effect of acclimatisation and of other influences, may make the individual less susceptible to contagion. In 1888 Dr. G. Armauer Hansen of Bergen, Norway, the discoverer of the bacillus leprae, came to this country to study leprosy in the immigrated Norwegians and their descendants. He had taken the position in 1874 that contagion is the only source at present of leprosy, and that the disease is not hereditary. He gives the results of his investigations.[2]

"I cannot here relate all my observations in detail. I will only tell what I have found in regard to the occurrence, or rather the disappearance, of lepra in America (N.W. States). Of about 160 lepers who have immigrated into the three States named (Wisconsin, Iowa, Minnesota), thirteen are alive, whom I have seen myself, and perhaps three or four more. All the others are dead. Of all the descendants of lepers (and that includes the great-grandchildren of some of them), not a single one has become leprous. This is, in short, the result of my investigations."

SOME RECENT MODIFICATIONS IN OUR VIEWS OF ENTERIC FEVER AND ITS TREATMENT.[1]

BY M. A. BOYD, M.D., F.R.C.S.I., M.R.C.P.I.,
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SINCE Murchison wrote his classic treatise on Enteric Fever we have scarcely added anything clinically to the accurate and scientific description he gave of the disease. He covered in that description almost the entire ground in connexion with the disease and its history, and in the closeness of his reasoning as to its etiology he foreshadowed all that bacteriology has since discovered regarding it. In fact, it is only in its bacteriological aspect that any additions have been made to the subject, and it is from this side alone that any additional knowledge is likely to come which can finally determine the mode of its origin. The additional bacteriological data, however, we now possess have considerably narrowed the issues and enabled us to regard the disease from the standpoint of being an acute infective disease, which heretofore it was not considered, in which, like phthisis and pneumonia, a special bacillus plays the important part. Since that bacillus was discovered by Koch and Eberth, and its peculiarities and mode of growth studied, more especially by the latter observer, our views as to the etiology of the disease have considerably changed, and the time has, I think, now come when, taking advantage of the experiments of various other bacteriologists in addition, we may form more definite ideas as to its mode of propagation, to its prevalence at particular seasons, and the causation of the symptoms present in its various stages, as well as to suggest some rational means for treating it.

I shall first refer to the typhoid bacillus and its discovery. In 1880 Koch and Eberth almost simultaneously discovered in the intestines, the mesenteric glands, and lymphatics, and especially in the spleen, of patients dying of enteric fever a bacillus which, though frequently found in the intestines as the common bacterium termo, assumed at particular seasons, or owing to some alteration in the normal vital resistance of the individual, an acutely infective process, infiltrating the adenoid tissue and lymphatics of the intestine, accompanied by the chain of febrile phenomena we designate typhoid or enteric fever. Owing to the difficulty of finding a suitable nutrient medium on which to grow it outside of the body, this bacillus could not be differentiated from other bacteria inhabiting the alimentary canal, until Koch succeeded in isolating and growing it on dry gelatine plates. Since then all pathologists are familiar with its appearance and mode of growth. So far all experiments have failed in producing the disease from these cultivations by inoculation; but bearing in mind that it grows both as an aerophyte and as an anaerophyte, it may be innocuous in the former condition and infectious in the latter when in the alimentary canal, when the vital resistance of the tissues in that situation may be from some reason altered. What may produce these alterations I shall allude to presently. Gaffky, in his observations on this bacillus, has given us some valuable information as to its situation and growth. It is one of the few bacilli found to develop freely in water, and it grows abundantly in milk. He also found it in the soil through which water percolates, and it grew freely in all albuminous media. He also found it more abundant in all these media in the autumn than at any other season—a fact of considerable significance. If, however, this bacillus is found so frequently in the food we eat, the water we drink, and in our intestines, how, we may ask, is it that it does not infect the intestinal glands when present and produce enteric fever in every case? For we must all take it in at some time or another, if it is not already present in our intestines. With this question I may link two others: Why is it we do not suffer from pneumonia constantly, when we always carry about with us the germs of the disease in Fraenkel's diplococci? Or why not frequently suffer from circumscribed or diffuse suppurations, when the micrococci that produce them are frequently present in our blood and tissues? Why we do not recent investigations in bacteriology have made clear. Bacilli or micrococci are in themselves harmless, either in the blood or tissues, until the vital resistance of some tissue is lowered, from either functional alteration or injury, when they readily find a suitable soil in it on which to grow and multiply. It is by this growth and the chemical products generated during it that the mischief is produced, and the poisoning of the tissues around that are most susceptible to its action afford a further field for the growth of these micro-organisms.

Let me take first the experiments of a distinguished physiologist, and secondly the course of a fatal disease which clinically we are only lately becoming familiar with, to illustrate my meaning. Professor Kocher of Berne, in making experiments on animals by destructive injury to tissues down even to the marrow of bones with a hot iron, could not produce septic inflammation as long as the animal experimented on was healthy, but if he lowered the vitality

[2] Virchow's Archiv, Band cxiv, 1888.

[1] Read before the Medical Section of the Academy of Medicine in Ireland, Dec. 18th, 1891.

of it by feeding it on putrid matters, permitting thereby septic micrococci to enter its blood, a septic inflammation was at once produced. The other disease I have alluded to in illustration—namely, septic or suppurative endocarditis—we know arises from either the staphylococcus or streptococcus when present in the blood from any accidental cause finding a nidus in an inflamed endocardium or damaged valve, and the chemical product of its growth is then wafted in the blood current to set up mischief in other situations, where, from anatomical causes or lowered vital resistance, the blood and tissues cannot overcome its invasion. The germs of typhoid fever, like all other septic germs, are now regarded as in themselves harmless as long as the tissues with which they are in contact are healthy, else how can we explain the immunity from the disease that exists in healthy individuals who constantly either receive them through food or drink into the alimentary canal, or have them as a normal and constant resident in that channel?

This brings me to the vexed question of the etiology of the disease. If we take it for granted that the bacillus of Eberth is by its infiltration of the glandular tissue of the intestine the cause of all the mischief (and apart from the absence of the inoculation evidence most pathologists are agreed that this is so), what are the conditions that favour or produce its acute infection of those glands? We have first the evidence that this bacillus is found growing most luxuriantly—and we must presume consequently more virulent, and more capable of making a vigorous battle for its existence—in the autumn. But it must find the tissues with which it comes in contact in a weakened condition to get the upper hand in the struggle. Are the intestines at this period of the year in a more weakly condition than at any other, and, if so, from what cause? I think we can answer that question in the affirmative. Most of us are familiar with the gastro-intestinal troubles that are characteristic of the early autumn months, the gastro-intestinal catarrh especially, the catarrhal or autumnal diarrhœa, and the frequency of so-called bilious attacks at this season. How these catarrhs are produced we have a ready explanation in the rapid fall of temperature in the evenings after perhaps a warm mid-day, when the action of the skin is suddenly checked, and no additional precautions as to clothing adopted. All hospital physicians are familiar with the sudden onset of bronchial catarrhs at this season, also from the same cause, and the rapid filling of hospital wards with cases of asthma, emphysema, and fresh broncho-pneumonia in patients the subjects of phthisis during the previous summer and spring. Now let us see if this gastro-enteric catarrh is a usual precursor of enteric fever. Murchison, with that acute power of observation which was characteristic of him, mentions it as a most usual symptom, preceding and accompanying the fever in its early stages; and he further adds that catarrhal diarrhœa was frequently present, preceding the fever, and that it was often difficult to say whether the disease would remain catarrhal diarrhœa or end in enteric fever. Now it seems to me that this catarrh, in addition to being brought about by atmospheric changes or food, may be produced also from the absorption of the chemical products of the typhoid bacilli growing on the intestinal contents, when present in large numbers, in either food or drink containing them; and that this ptomaine or toxine was only the weapon they used, as Professor Burdon-Sanderson expresses it, in their struggle for existence, to weaken the vital resistance of the tissues with which they were in contact, and make it fall an easy prey. Why, however, should the glandular tissue be the first overcome in this struggle? The reason seems to me obvious, looking at it from a pathological point of view. Adenoid tissue is endowed with a very poor vitality, and very little power of resistance, or of repair, when infiltrated or choked from any cause. We see this when it is attacked by a similar bacillus, the tubercular one, whose life history and the readiness with which it infiltrates and destroys glandular structures being somewhat similar to the typhoid one in many ways. The epithelial shedding and proliferation of the mucous membrane which take place must also weaken the defences against the bacillary invasion. The bacilli find the glandular tissue in a condition of derangement from the effects of this catarrh, and it becomes the centre of their habitation. That this invasion is sudden and followed by rapid changes in the glands there can be no doubt, Murchison having found infiltration and swelling of the glands in the case of a patient dying on the second day of the disease, and other observers bear similar testimony. The entire process in connexion with the gland so far as the typhoid bacillus is concerned, from the time of invasion to death or disablement of the gland, is over in fourteen days—the normal time of enteric fever from a pathological point of view. After this period, however, a new set of enemies appear on the scene in the shape of the suppurative micrococci, which, forming colonies on the injured or necrotic tissues around the glands, begin to generate their peculiar toxines, producing the hectic character of the symptoms and temperature with which we are all familiar after the first fortnight of the disease; so that we must regard enteric fever as the result of the growth in the intestines of two sets of micrococci. The so-called typhoid bacilli producing the symptoms during the first fortnight, and the suppurative micrococci producing the characteristic symptoms of its further stages. That other micrococci, as well as these latter, occasionally infect the patient from the intestinal canal there can be no doubt, and I have at present under my care in the Mater Misericordiæ Hospital a patient with a well-marked attack of erysipelas of the face in the fourth week of his enteric fever.

If recent bacteriological work has enabled us to grasp these facts with regard to the disease, we may ask ourselves what practical deductions can we draw from them so as to enable us to treat it. Looking at the disease as primarily a catarrhal one of the intestines, and secondarily as one of septic poisoning, our treatment resolves itself into suitable diet and antiseptics. We know already how all-important is the treatment of enteric fever by bland and unirritating diet, and such as will be mainly absorbed by the stomach and duodenum, leaving little to be dealt with by the lower part of the small intestine. The medicinal treatment of typhoid fever by antiseptics is now receiving that amount of attention which our more perfect knowledge of its bacteriological origin would suggest, and we see occasionally in the medical journals glowing accounts of the success of this method of treatment in the hands of some; while others confess it has not realised their expectations. As far as I am concerned, I have used this method of treatment for several years in both hospital and private practice, and have every reason to be satisfied with the results. I do not profess to believe that it will abort a case of typhoid fever when the characteristic fever has begun, but I do assert that it will prevent in the majority of cases the septicæmia—for it is nothing but septicæmia—which we have to deal with after the second week of the fever is passed. The typhoid bacillus has by this time done its work, so far as the intestinal glands are concerned, and hereafter we have only saprophytic bacteria and their effects to deal with. The characteristic hectic type of temperature during the third and subsequent weeks of enteric fever, such as we have in connexion with suppurating cavities in the lungs or elsewhere, shows this to be the case. In seeking for a suitable antiseptic for this purpose we must choose one which will fulfil the following objects. It must first exercise its effects in the intestinal canal, and not in the stomach. Its action must be thorough, antisepticising not alone the contents of the bowel, but it must permeate the intestinal wall as well, where septic micrococci may have already established themselves, and even enter the blood. To fulfil these conditions the form of antiseptic must be, in my opinion, a gaseous one. We know how readily the intestines absorb gases and pass them into the blood. The antiseptic I am in the habit of using is chlorine in an alkaline solution, as in this form it mingles best with the contents of the intestines, which in enteric fever exhibit a strongly alkaline reaction. This treatment is not original, as Murchison, who expresses himself in general as dissatisfied with antiseptics, speaks favourably of chlorine, and regarded it as an admirable method of treatment. He administered it in an acid solution, which in my experience is not so satisfactory. That this method of treatment produces a fall in the temperature and makes the type of the disease milder there can be no doubt, and in over a fourth of the cases when begun early brings the febrile process to an end about the fourteenth or sixteenth day. Murchison, in his careful statistics, found only seven cases out of 200 to terminate on the fourteenth day by the ordinary method of treatment, so the cessation of the fever by this method of treatment in such a large percentage must be more than a mere coincidence. I do not claim for it that it is the best form of intestinal antiseptic, as

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more extended experience may enable me to procure a more beneficial one, and I hope on some future occasion to bring before the profession the results of my experiments on this subject in conjunction with our bacteriologist at the Mater Misericordiæ Hospital. I have not in these notes entered the broader field of etiological theories by trying to explain how enteric fever arises through the medium of sewers, or sewer air, or why it is more prevalent among the wealthier classes than the poor, or whether it can arise as a miasma-producing infection through the air. These are matters that I did not intend should enter into the scope of my paper, as I have been content to regard the disease from the bacillary point of view alone, and to see in it sufficient explanation of all the group of phenomena which we call typhoid or enteric fever.

Dublin.

ATTEMPTED LITHOTRITY IN A BOY; SUPRA-PUBIC LITHOTOMY.

By W. T. CLEGG,

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R. P——, aged ten, but small for his age, was sent to me, suffering from stone in the bladder, in October, 1891. When seven weeks old the patient had retention of urine, which required catheterisation, and he has had urinary trouble more or less ever since. He walks bent forwards and cautiously. He has retracted testicles, a long foreskin, and a prolapsed rectum. His clothing has a urinous odour. The urine is fetid. On Oct. 7th I attempted to pass a No. 10 Weiss completely fenestrated lithotrite, to ascertain the size of the urethra and of the calculus. The meatus was freely incised, but it would not pass. I then passed a No. 6 Weiss fenestrated lithotrite, which was gripped by the urethra all along, and a large calculus was discovered. Although under chloroform, violent spasmodic straining, amounting to emprosthotonus, even involving the sterno-mastoids, accompanied every movement of the instruments. On Oct. 8th the boy was placed thoroughly under the influence of chloroform by Dr. Stevenson. Dr. Tisdall assisted me, and Drs. Barnes, German, and Price, dropping in as the operation proceeded, were also kind enough to help in various ways. About two ounces of boiled water were injected into the bladder, and a No. 8 Weiss fenestrated lithotrite was passed carefully, but with some force, especially when passing the triangular ligament. The instrument was such a tight fit for the urethra that when moved about the penis moved with it, and this greatly hampered me. The stone would not fall into the jaws of the instrument. I soon found out that it retained a position on the left side of the bladder, and was always to be found there. The only manœuvre that would enable me to grip it was with the lithotrite held vertically, its beak just inside the bladder and turned to my right. I seized the stone and carried it towards the centre of the bladder, locked the male blade, and screwed down upon some rather soft outer coating, coming to a stop as the hard stone was reached. I could trust the lithotrite, and so still screwed on with full force, when with a jolt the stone escaped. The length, weight, and shape of the stone and the small jaws of the instrument fully accounted for this. Three times this occurred. The phosphatic material that came away was mixed with offensive mucus; the urethra was small and in a state of spasm; the stone was large and hard, therefore I reluctantly gave up, thinking it more discreet to do supra-pubic lithotomy. We had no rectal bag, nor did I think one necessary. A light chair was inverted on the operating table, and the boy arranged along the back of it. His head only remained on the table, his knees were bent over the spindle joining the two back legs of the chair, and retained in that position by clove-hitch knots. A sponge was thrust into the rectum lest the contracted condition of the recti and bladder should prevent the viscera gravitating freely enough into the arch of the diaphragm to draw the bladder sufficiently out of the pelvis. This proved to be quite unnecessary. I cut down upon and into the bladder and extracted a stone two inches long and one and one-eighth inches broad, weighing 370 grains without the débris. On first putting the finger into the bladder the impression was that the stone lay in a pouch owing to the contraction of the bladder walls around it, but after its removal no pouch remained. The bladder opening was anchored to the opening left in the linea alba so as to shut off the bladder discharge from the neighbouring tissue. On Friday, Oct. 16th, the boy passed urine through the urethra, and about four weeks later the abdominal wound had healed. The boy is now attending school, and there is a wonderful change in his appearance. The anchoring of the bladder to the linea alba has not given rise to any symptoms.

Remarks.—Lithotrity has been for some years a hobby of mine; I am accustomed to handle the weapons; therefore it will be granted, I think, that there was good cause for abandoning the attempt, and this makes the case worth reporting. Strange to say, lithotrity is as yet the rule only with the few; yet it is almost always applicable to old and young, male and female. It is, in my opinion, the safer proceeding where the kidneys are damaged. An elderly gentleman with damaged kidneys was to have been submitted to me for lithotrity. Meanwhile, he was advised to go elsewhere, was cut, and died the same evening. During the past two years two other similar cases have come to my knowledge. Lithotrity could not have met with worse success in these cases. The completely fenestrated lithotrite is the only form required, and numbers 6, 8, 10, A, B, and C, form a series sufficient to meet every requirement. I much prefer the wheel and button action—the Weiss-Thompson form to Bigelow's form of handle. I have used both, and found the bruising of the palm about the same in each; but with the Bigelow pattern the fluted surface of the lock mechanism makes the skin over the ends of the right index finger and thumb very tender when in use for an hour or more. There is more lurching, too, in working this lock. The jamming of the male blade, to which Mr. Cadge refers in his recent lectures, occurred to me on one occasion whilst sliding the male blade backwards and forwards to ascertain whether it was free after withdrawal from the bladder. I sent it up in its jammed condition to Messrs. Weiss and Son, and they wrote complaining that the instrument had been very badly treated. This remark gave me the clue to the cause. A visitor had taken up the instrument previously to the operation, and had allowed the male blade to fall on the floor. It had bent slightly upwards out of the straight and a small hard fragment of stone had worked under the heel of the male blade preventing any further movement backwards or forwards. The simplest and most convenient of aspirators is the latest Bigelow pattern (Fig. 1950 of Weiss' Catalogue). I do not know of a single fault in it. It has no trap; none is needed. Fragments in the glass bulb are very little affected by the currents passing overhead, and blood or mucus obscures the contents of the glass bulb last. This aspirator can be completely and readily filled from a jug by removing the funnel from the supply-pipe and attaching a foot or two of rubber tubing. Eighteen months ago, in conjunction with Dr. Price, I crushed a stone in the bladder of a seafaring man. I used on that occasion an excellent aspirator, but it required to be immersed in a bucketful of water to fill it, and there was not that quantity of hot water in the house. The filling and replenishing occupied more time in this case than the lithotrity. The patient, a man aged thirty-six, returned to his ship on the third day after the operation, and resumed his occupation without permission and without injury. It is a good plan always to have a second aspirator fitting the catheters. It saves waiting for the refilling. A friend operating on one occasion in private, an unfortunate movement of the patient threw the aspirator on to the floor, smashing the glass bulb. The evacuation had to be finished by plugging the opening which should have been occupied by the glass bulb.

I will conclude by mentioning two points that have impressed themselves upon me. In the first place, the slight symptoms often present with a large calculus; the largest I have met with occurred in a man suffering from strictured urethra, and gave rise to no special symptoms. In the second place, that calculi, however hard, owing to lamination, burst asunder in the jaws of the lithotrite much more readily than might be supposed, and seem to try the instrument less than an equal amount of red sandstone.

Liverpool.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THE REACTION OF URINE WITH ETHER.

By ANDREW H. SMITH, M.D.,
PROFESSOR OF CLINICAL MEDICINE AT THE NEW YORK POST-GRADUATE MEDICAL SCHOOL; PHYSICIAN TO THE PRESBYTERIAN HOSPITAL.

If a specimen of urine, taken promiscuously, be thoroughly agitated in a test-tube with half its bulk of pure sulphuric ether, there will result in most instances an abundant white foam. If now the tube be corked and set aside, this foam rises to the surface and gradually condenses into a greyish gelatinous plug, so firm, it may be, that the tube can be turned upside down without disturbing its contents. In another smaller proportion of cases no foam will result from the agitation, and the ether will immediately separate from the urine and form a clear layer above it. In some instances a second prolonged agitation after the lapse of a few moments will produce the reaction described. In other cases it may be obtained by adding a few drops of acetic acid and shaking the tube again very thoroughly. It will always be noticed that when the reaction occurs the fluid begins to clear first at the bottom, and the clearing progresses upward. When the reaction does not take place the order is reversed, a clear layer of ether appearing first at the top. Pending a thorough chemical investigation as to the nature of the substance thus separated from the urine, I find that the reaction occurs in urine which does not respond to any of the tests for albumen or for peptones. It occurs also in urine from which the phosphates have been removed, and it cannot be obtained with simple solutions of urea or of the urates. It is most abundant in the urine of those who have a good appetite and good digestion, and is usually absent after long fasting, or when the diet is greatly restricted. From these facts it seems probable that it represents an excess of nutritive material taken into the blood and thrown off by the kidneys, and not a product of disassimilation. Albuminous urine responds to the test in the same way and under the same conditions as normal urine, but if the patient is on restricted diet and the urine does not react to the test, it can be made to do so by adding nitric acid and filtering out the resulting precipitate. A portion of the albumen is redissolved by the acid, and at the time so modified that it is acted upon by the ether. This is shown by the fact that if the albumen be removed by heat and filtration before the acid is added, the reaction cannot be produced; but if a drop or two of acid be placed upon the filter, the filtrate immediately responds to the test. The same effect may be produced by acid spontaneously generated in the urine, so that a specimen of albuminous urine which will not show the reaction while fresh may do so after the acid fermentation has progressed for twenty-four or forty-eight hours.

It is possible that the presence of this material in the urine, and its peculiar reaction with ether, may explain some cases of anuria after prolonged etherisation. The ether being eliminated by the kidneys and mixing intimately with the urine in the tubules, affords all the necessary conditions for plugging the latter with gelatinous material, too firm to be displaced, suspension of function necessarily following. Until we know more of the possible reactions of this substance, it will be well to receive with caution the results of some of the more "delicate" tests supposed to detect the presence of minute proportions of albumen.

New York.

TWO CASES, INTERESTING FROM THE WAY IN WHICH DEATH WAS BROUGHT ABOUT.

By H. D. ROLLESTON, M.A., M.D.CANTAB., M.R.C.P.,
PATHOLOGIST TO ST. GEORGE'S HOSPITAL.

CASE 1.—*Suicidal bullet wound; bullet compressing the right internal carotid; cerebral softening; death.*—J. C—— was admitted to St. George's Hospital under Mr. Rouse in an insensible condition with left hemiplegia, death occurring within twelve hours. Twenty-four hours before admission the man had shot himself in the mouth with a pistol. At the post-mortem examination there was no wound of the dura mater, and the sinuses were normal. There were ecchymoses on the under surface of the right frontal lobe. The lenticular and caudate nuclei and the optic thalamus on the right side were in an extreme state of white softening; this softening did not extend to the cortex. The left hemisphere of the cerebrum was normal. On removing the dura mater from the middle fossa there was found to be a fracture at the apex of the right petrous bone. There were some small fragments of bone and a little dry blood-clot. Lying in contact with, compressing but not having perforated, the internal carotid artery was a mass of lead three-eighths of an inch long and a quarter of an inch broad and deep. The bullet then had come to rest on the apex of the petrous bone of the right side, and had compressed the internal carotid artery, thus causing extensive softening of the right cerebral hemisphere and death.

CASE 2. *Sarcoma of the right testis; secondary growths in the lumbar glands; thrombosis of the inferior vena cava; embolism of the right pulmonary artery; sudden death.*—A. D——, a well-nourished man aged twenty-two years, was brought in dead into St. George's Hospital. The following history was obtained from his companion. He had been in Hyde Park, lying down on the grass; on getting up and walking a few yards he fell to the ground with a cry of pain, pressing his hands to the front of his chest; he became "black as jet" in the face, and died very speedily. At the post-mortem examination there was a congenital inguinal hernial sac on the right side which contained omentum, but which had evidently contained some coils of adherent small intestine at some former time. The right testis was enlarged to about three times its normal size, was knobby on the outside, and on section was seen to be occupied by a hæmorrhagic new growth, which microscopically was a sarcoma; the tunica vaginalis was not adherent. The glands around the inferior vena cava were greatly enlarged, from the presence of new growth like that in the testis. These glands infiltrated the wall of the inferior vena cava below the entrance of the right renal vein, and produced an adherent clot which narrowed but did not occlude the lumen of the vessel. Lungs: Left somewhat œdematous; no clot in the left pulmonary artery or its branches; right normal; the right pulmonary artery contained a firmly fixed but not adherent clot, which on section resembled that in the superior vena cava. Brain, heart, and other organs healthy. The points of interest are (1) the early sarcomatous disease of the testis, setting up considerable secondary growths; (2) the production of pulmonary embolism.

PERFORATION OF THE MASTOID FOR MIDDLE-EAR DISEASE.

By ALEX. BLACK, M.B., F.R.C.P. EDIN.,
SURGEON TO THE EYE, EAR, AND THROAT INFIRMARY OF EDINBURGH.

Of the methods employed in opening the mastoid, antrum, and middle ear for disease of these cavities, the most usual are those by means of the hammer and small chisel and gouge, and of the trephine. The objections to the first of these methods seem to be chiefly in the amount of concussion upon the interior structures of the cranium beneath the seat of operation, and in the danger of wounding the lateral sinus in the event of too much force being used, or of a splinter of bone being detached and penetrating it. The other usual method—that of the trephine—seems to have the usual objections of trephining operations—namely, constant adjustment of the cutting edge and the removal of the disc of bone. To obviate these objections it was suggested by Dr. Hunter Mackenzie in several recent cases to use the instruments designed by Mr. Watson, dental surgeon, for the purpose of boring into the antrum of Highmore through the alveolus of the superior maxilla. We acted on this suggestion, and as the results proved eminently satisfactory in all the cases, both as regards the ease and safety with which the operation was performed and the good after results from the free drainage established between the mastoid antrum and middle ear and the external auditory meatus, it occurred to us that the instruments might be found useful by others. They consist in a gimlet with a small point, and the diameter for children of the screw of about one-sixth of an

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inch. This is cautiously inserted into the bare bone, and slowly turned by the hand till the cavity is reached. When this occurs, use is made of a cone-shaped burr, in order to enlarge the opening. These instruments can be made of any size, so that any dimension of opening can be made. After an opening of sufficient size has been made, and a free drainage established through the external auditory meatus, a metal wire twisted into a close spiral is inserted into the bone, and kept till the discharge has almost disappeared. During and after the operation the parts are constantly irrigated with an antiseptic solution. In none of the patients was there any rise of temperature or untoward result after the operation. All the cases were instances of chronic suppurative inflammation of the middle ear with mastoid abscess, and of some months' duration. The ease and safety with which the operation is performed, and the good afterwards resulting, seem to us to widen the indication for its performance. The instruments are made by Mr. Young, Forest-road, Edinburgh.

Edinburgh.

CASE OF PUERPERAL ECLAMPSIA.

By JAMES GILROY, M.B., C.M.

ON March 7th, about 10 P.M., I was called to see Mrs. F——, a patient expecting her confinement about this date. She was over forty years of age, and a primipara. The patient was threatened with abortion in June last, but under opium and careful carrying out of instructions it was averted; and she had gone on, as she thought, perfectly well until three weeks ago, when her feet swelled a great deal, but nothing occurred to make her seek advice. This evening I found great cause for alarm. The patient was seized about 8 P.M. with severe pain in the head, blindness, and delirium. So far as I could elicit, these symptoms came on suddenly. When I arrived she wandered slightly in her talk, but was sufficiently conscious to tell me she had been very ill, but her head now felt greatly relieved, and although she could not see me distinctly she knew me quite well. Her attendants informed me she had two fits in close succession after her husband left to summon me about 8.30 P.M. Examining the pupils, I found them widely dilated and applying a candle closely produced no effect whatever. I examined per vaginam, and found the os a mere chink, totally undilated, and admitting the point of the examining finger very much as a thimble would. I procured a little of her urine, which had been scanty and voided at frequent intervals, and found it loaded with albumen. On heating it became a mass of jelly consistence at once. Her face had all the characteristics of kidney embarrassment, pale, waxy, and puffy eyelids, pulse moderate in fulness and strength, about 76 per minute. I decided to try chloral and bromide of potassium, having found it work well in a previous case where convulsions ensued after delivery. Accordingly I administered twenty grains of chloral hydrate with twenty grains of bromide of potassium, and after waiting some time, and being uncertain as to the advisability of inducing labour, I gave instructions that the patient should receive a similar dose six hours later, after which I would see her again; and in any case, if convulsions threatened or occurred, that I should be called.

I saw her again at 10.30 A.M. on March 8th. The nurse told me she had slept very little or not at all, but had had no more seizures since I left; so that the two she had before I saw her were all that had occurred so far as is known. I did not like the aspect of the patient that day. She was dusky in the face; pulse over 100; breathing rather hurried, approaching dyspnœa. There being every indication therefore of a serious issue, I resolved to induce labour, and with that view passed a gum elastic catheter into the uterus. After waiting about an hour and a half and no contractions occurring, and as the os was quite undilated, I tried cautiously to dilate it. The breathing of the patient discouraged me from using chloroform; and as she had vomited freely during the night I hoped to obtain a moderate degree of dilatation, and then administer a little chloroform, pass the instruments, and deliver. I had the aid of Dr. W. B. Crichton, which is a division of the anxiety one naturally feels in these terrible circumstances. I was proceeding, as I thought, fairly, and the os yielding moderately well, when, with lightning swiftness never to be forgotten, the patient, who all the morning had been conscious and cheerful although now and again slightly rambling in her talk, but greatly better than on the previous evening, stopped breathing. There were no clonic or tonic contractions visible. The lips did not alter much, if at all, but a bluish tinge was seen round the mouth. We tried to restore her by artificial respiration, and once or twice clung to the hope of being successful as she made one or two spasmodic efforts at breathing, but at length it became too apparent all was over with her. We immediately thought of the child, but the friends would not allow post-mortem operation. The case demonstrates the difficulties of deciding upon treatment, and the risks to which any line of treament is open. I did not deem the case one for bleeding.

Waterbeck, Dumfresshire.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collecta habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ST. GEORGE'S HOSPITAL.

CASE OF COMPOUND DISLOCATION, WITH VERSION, OF THE ASTRAGALUS; REMOVAL OF THE BONE; RECOVERY.

(Under the care of Mr. PICK.)

THE following case of dislocation of the astragalus from all its articulations, with version of the bone, seems worthy of being placed on record. As will be seen in the account of the case, the bone was so nearly severed from all its connexions that it required only the division of two small bands of ligamentous tissue to completely free it from all its attachments, and a very little extra force would have caused it to project from the wound and fall to the ground entirely detached from the foot. In this respect it nearly resembles the classical case referred to by Norris,[1] where the bone was found lying on the ground some distance from the patient. The account that the man was able to give of the accident did not show very clearly the exact mode of its causation; but, as Mr. Barwell has pointed out, it would appear that it is produced by violent twists of the foot when it is at right angles to the leg, and in a position neither of extreme flexion nor extension. For if the foot is acutely flexed, at the moment the force is applied dislocation backwards results; and, on the other hand, if the foot is hyper-extended, the result is dislocation forwards. Mr. Barwell has also very justly pointed out that there must be a certain relationship of strength between the ligaments of the ankle and those connecting the astragalus and os calcis. For if the latter be weak in proportion to the former, subastragaloid dislocation would alone occur, the ligaments of the ankle-joint, on account of their greater proportional strength, escaping rupture, and thus maintaining the ankle-joint intact. On the other hand, if the ligaments of the ankle-joint were the weaker, they would give way, and dislocation at this articulation alone result, the astragalo-calcanean joint escaping injury. We are indebted to Mr. L. Moysey, dresser of the case, for the following notes.

T. S——, painter, aged forty-five, was admitted into St. George's Hospital on Nov. 7th, 1891. He stated that shortly before admission, whilst standing on a scaffold painting a ceiling, the scaffold gave way, and he fell to the ground. In his fall his foot caught the end of a plank and twisted it. He states that he has always enjoyed good health, and has never had any illness, except ague, thirty years ago, in the West Indies. He has had no specific disease, and has always been a moderate drinker. His family history was good. When admitted he was faint and collapsed, with a small, weak, and running pulse and a pale face. The anterior part of the foot was turned inwards at the mid-tarsal joint, so that it was at about a right angle with the axis of the leg. On the outer side of the foot was a wound, extending from the front of the ankle-joint, just ex-

[1] American Journal of the Medical Sciences, 1837, p. 383. Case under the care of Dr. Barton, fatal from gangrene of limb and tetanus.

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ternal to the tendon of the extensor longus digitorum, obliquely downwards and outwards to just below and in front of the external malleolus; through this was protruding the head and neck of the astragalus. This bone was, therefore, rotated on a vertical axis drawn through the centre of the bone, so that the semilunar facet for the internal malleolus was directed forwards and the triangular facet for the external malleolus backwards, and the long axis of the superior saddle-shaped articular surface was directed from before backwards, instead of in a transverse direction. The bone was held in this position by a part of the external lateral ligament and a band of fibrous tissue on the inner side of the bone. These were divided, and then the bone was easily withdrawn with the fingers. The astragalus was intact with the exception of a slight graze on the head of the bone. There was no fracture of any other bone, and but slight bruising of the soft parts. The cavity left by the removal of the bone was thoroughly irrigated with a solution of corrosive sublimate, a drainage-tube inserted, and the wound closed and dressed with double cyanide gauze. The limb was placed on a back splint with a foot piece. The subsequent progress of the case requires no comment. There was a little quiet suppuration, which somewhat retarded recovery, but otherwise he went on well, and was eventually discharged with a sound and useful limb.

DEVONSHIRE HOSPITAL, BUXTON.

FRACTURE OF THE ANTERIOR INFERIOR SPINE OF THE ILIUM BY MUSCULAR ACTION.

(Under the care of Mr. SHIPTON.)

THE case which Mr. Gibson (to whom we are indebted for the notes of the case) describes is a most unusual one, and our works on surgery, general or special, contain no references to such an injury. Fracture of the anterior superior spine as a consequence of direct injury is not uncommon in our accident wards; and there are at least five recorded examples of separation of that process by muscular action. Fracture involving the anterior inferior spine, except as the consequence of gunshot injury or a severe crush of the ilium, is apparently unknown.

E. M——, aged thirty-five, bricklayer's labourer, was admitted into this hospital on Dec. 12th, having fallen from a scaffold sixty feet high. He was found to be in a semi-conscious condition. The right leg was more everted than the left one, the front part of the right thigh had lost its rounded outline and was a good deal flatter than the other. There was no fracture of any limb. A catheter was passed without difficulty and four ounces of clear urine drawn off. On grasping the ilia, no mobility or crepitus could be made out. On carefully examining the pelvis, a piece of the anterior edge of the right ilium, about one inch in length and three-quarters of an inch in breadth, comprising the anterior inferior spine with the origin of the short head of the rectus, was found to be detached from the ilium to the extent of about a quarter of an inch, and could be easily moved between the fingers. There was no redness or ecchymosis on the skin over the part, but a slight discolouration appeared three days later simultaneously with very marked ecchymosis around both eyes. The rectus was relaxed, and later on, when the patient had recovered consciousness, he was asked to flex the right thigh, which he did with difficulty and pain—situated at the seat of fracture,—but only raising the thigh a few inches from the bed; and the anterior inferior spine was found to be still further separated from the rest of the bone. No other injury was found. On obtaining the history of the accident from the patient, it was ascertained that whilst carrying a hod full of bricks over his left shoulder his foot slipped, and to prevent the bricks falling on him he threw the hod backwards, falling on "all-fours" into a quantity of soft shale, sixty feet below. This statement was corroborated by a fellow-workman who saw the accident. The patient made an uninterrupted recovery, a good deal of callus being thrown out around the fracture.

Remarks by Mr. GIBSON.—The case is of interest, as the fracture appears to have been caused by muscular action. I have come to this conclusion on consideration of the following facts: (1) The history of the case shows that the right rectus must have been suddenly and forcibly brought into action when the patient threw the hod over his left shoulder, so as to help to steady the pelvis, and so prevent him from falling backwards. The long head of the rectus was probably ruptured simultaneously. He fell on his hands and knees into a quantity of soft shale, which partially buried him, and therefore it is improbable that the injury was caused by the fall. 2. The absence of redness or bruising until the third day, when a little discolouration appeared over the part simultaneously with considerable ecchymosis around both eyes. 3. The anterior inferior spine is well protected from direct violence on all sides by muscle, and on the outer side, where it is most accessible to injury, it is shielded by the great trochanter as well. 4. Absence of evidence of any further fracture of the pelvis. Having never heard of a similar fracture by muscular action I venture to record the case.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Operative Treatment of Congenital Dislocation of the Hip.

AN ordinary meeting was held on March 22nd, the President, Mr. Timothy Holmes, in the chair.

Mr. BARWELL communicated a paper on the Operative Treatment of Congenital Dislocation of the Hip. The condition thus called was, as many anatomical investigations had shown, absence, more or less complete, of the acetabulum, usually combined with a certain truncation of the head of the femur. The well-known signs of the deformity were merely mentioned, and a symptom not hitherto noticed was described and illustrated by a sketch rapidly taken from a patient—namely, when she bowed forwards with straight knees till the back of the pelvis was nearly horizontal the great trochanters, or the trochanter in unilateral cases, projected upwards and outwards from the ossa innominata, and lay in some cases actually higher than those bones. Stress also was laid on a jolt which occurred when the limb was drawn down far enough to bring the head of the bone into its normal situation. Two prevalent methods of treatment were described: the one by division of the rotators and capsular muscles, originating with M. Guérin, and recommended by Mr. Brodhurst; the other by long-continued recumbency with extension, inaugurated by M. Pravaz, followed in America by Dr. Buckminster Brown, and in England by Mr. Adams. According to the last-named the recumbency must occupy two or two years and a half, and be followed by a year and a half of instrumental treatment and of go-cart and crutches. It must begin, in order to have chance of success, in infancy, or very little beyond that period. The writer stated that this deterrent period of treatment might be very much shortened, the chances of success greatly increased, and cases seen at a later age might be cured by the division of certain muscles. But he contended that the rotator and capsular muscles were valuable aids in keeping the head of the femur *in situ*, and must be left intact; while the muscles which ran from the pelvis to the femur, in a direction almost parallel to the axis of the latter bone, being those which, in the absence of an acetabulum, propelled its head upward on to the dorsum ilii, were those which should be divided. Indeed, the extension which Pravaz and his followers carried out for such lengthened periods could only avail by counteracting this action of those muscles, which might be much more surely, rapidly, and as safely overcome by division. Three cases were given, the oldest beginning treatment at eleven years of age, in which the author divided the adductors &c., and allowed the patients to get up in a few weeks, and which were completely successful. A letter from the first patient was given, describing her activity and power. The author showed one of the younger patients.

Mr. BRODHURST said that in one of the cases, though the result seemed to be exceptionally good, yet there appeared to be some doubt whether it had ever been one of congenital dislocation; the femur also in that instance was short, and he did not remember ever to have seen a shortened femur in association with this malady. The author had made a mistake with regard to Guérin's opera-

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tion; the latter only divided the tensor vaginæ femoris, the gluteus medius, and the anterior part of the gluteus maximus; a weight of five kilogrammes had then been attached to keep the bone in position. In 1865 he operated on a case of one-sided congenital dislocation of the femur. He divided the gluteus medius, the trochanteric attachment of the gluteus maximus, the psoas and iliacus, the gemelli, and the obturators; he then drew the bone down, and found that it remained in that position. It was then fixed on a splint for two months, after which all the movements of the limb could be effected perfectly. At the end of twelve months no apparatus was used, and there was no deformity at all. In other cases, where the age was more advanced, he had divided the abductor longus, but he had never resorted to division of the rectus femoris.

Mr. NOBLE SMITH had treated these cases at first with a raised shoe, and with this in many the deformity had not increased, though in some this had taken place. The cases treated by Pravaz's method had given interesting results, but it necessitated very prolonged rest and expensive instruments. In one case in which he had adopted the rest treatment without the instruments he got a good result. He preferred to apply a Liston's long splint with a perineal band, which was better than extension by weights, for the latter continued to pull down the limb beyond what might be required. He would advocate the treatment by prolonged rest in all cases except those in which there was contracture of the muscles.

Mr. MUIRHEAD LITTLE referred to a case under his care in which the patient was reclining on a long couch with cord extension. After a few weeks there was no difficulty in overcoming muscular action and keeping the trochanters in position. After nine months of this treatment it was found that the trochanters remained in position when the weights were removed, and he hoped for a good result.

Mr. GODLEE thought that in such a debate a word should be said regarding Professor König's operation of manufacturing a new acetabulum. He made a curved incision above the trochanter, and then with a chisel reflected a portion of the ilium downwards towards the capsule. One of the cases he had so treated died of diphtheria, and he found at the necropsy, performed some time later, that a very good acetabulum had been formed.

Mr. BARKER inquired what occurred to the dorsum ilii when the femur had been held in position against it for some time. He doubted if a proper acetabulum could be formed in the absence of irritation or movement.

Mr. BOWLBY asked if it were considered that this operation was necessary in all cases, many of which differed so much from each other. In some, where the head of the bone was forward, the patients walked well, but where the bone was displaced backwards there was more limping and greater sliding of the bone on the dorsum ilii. At a time when a child began to walk it was necessarily unstable in its gait, but later it had educated its muscles, and these facts should be taken into consideration in judging of the results of treatment at this early age. In the two younger cases that Mr. Barwell had operated on the procedure had been carried out at such an early age that it was quite impossible to guess what would have happened if they had been left alone.

Mr. HOLMES remembered the case which Mr. Brodhurst had related. The division of muscles which had been recommended was put forward as accessory to other treatment, with a view to hasten it, and he supported the view that a judicious subcutaneous section of muscles brought about a more rapid result than could be obtained by rest alone. Mr. Barwell, in addition, attempted to produce something in the way of an acetabulum after the manner of König. In spite of Mr. Bowlby's criticism, he held that in the greater number of cases of congenital dislocation the deformity might go on increasing until the patient could scarcely walk at all, and for these operation was advantageous. He added that a valuable appendix to the paper would be drawings or photographs of the cases before operation was undertaken.

Mr. BARWELL, in reply, said that the only object of his method was to expedite treatment, which was often otherwise most irksome. He had endeavoured to make a lip of bone above the femur to form some sort of resistance to the upward gliding of that bone. Many of these cases were not so easily treated as some of his critics seemed to think. He had not practised König's operation, which he considered to be too severe a measure. His first case was eleven years and a half old when he operated. He was not convinced of the advantage of dividing the anterior fibres of the gluteus maximus and the obturators.

CLINICAL SOCIETY OF LONDON.

Nerve grafting.—Abdominal Section in cases of Ruptured Spleen and Liver—Mediastinal and Pulmonary Carcinoma associated with Retraction of Chest Wall—Modes in which a Strangulated Loop of Bowel reacts to the Constricting Medium.

AN ordinary meeting of this Society was held on March 11th, the President, Sir Dyce Duckworth, in the chair.

Mr. DAMER HARRISSON read a paper on a case of Nerve-grafting. After recalling the excellent results which followed close apposition of the ends of divided nerves the author observed that the only satisfactory method of dealing with nerves the ends of which were too far apart to admit of their being sutured was by nerve-grafting. He referred in detail to the history of eight cases in which this operation had been performed at home and abroad, and then proceeded to narrate the following case under his own observation. A lad, aged thirteen, was admitted into the Liverpool Northern Hospital on June 4th, 1891, with the following history:—Eleven weeks before a glass cut of the front of the right wrist divided *inter alia* the median nerve and all the flexor tendons except the flexor carpi ulnaris. On admission the fingers were found to be immovably fixed in the flexed position, paralysis of both motion and sensation being complete, corresponding to the median nerve. Trophic changes were also present, the hand being blue and cold, the skin glossy, and the short muscles of the thumb much atrophied. Mr. Harrisson explored the site of the original injury and found the flexor tendons matted together and nearly two inches of the nerve had been destroyed, leaving a gap between the ends. After dealing with the tendons the nerve ends were freshened, thus increasing the separation to two inches, and a graft two inches and a quarter in length, taken from the sciatic nerve of a recently killed kitten, was fixed in a position by one fine catgut suture, at each end passing through the substance of the nerve. The limb was then put in a splint, with the hand flexed and the fingers straight. The wound healed by first intention. Sensibility began to return in the palm of the hand and over the first phalanx of the thumb at the end of forty-eight hours, and by the third day had extended to the first phalanges of the index and middle fingers and the terminal phalanx of the thumb, and eventually over the middle phalanges of the index and middle fingers. Sensation had not returned in the tips of the fingers. There was also transference of sensation, impressions from the first phalanx of the index finger being referred to the corresponding area of the middle finger. At the end of three months the nutrition of the hand also showed great improvement. Motion showed no signs of returning until the end of five months, when slight voluntary movement was observed in the short muscles of the thumb. Though still feeble, these movements were improving, and within the last three months the patient had been enabled to oppose the thumb to the index finger. The flexion of the fingers upon the palm was not perfect, doubtless on account of the destruction of the tendon of the flexor sublimis digitorum. In another case of the same kind an operation had still more recently been performed by Mr. Mitchell Banks of Liverpool upon the ulnar nerve at the elbow after excision of a neuromatous tumour, four inches being grafted from the sciatic nerve of a dog. Sensation was stated by the patient to have returned within thirty-six hours. Of the ten cases quoted by him three had been perfectly successful, six partially successful, only one proving a failure. He attributed the difference in the success attending primary and secondary grafting to the trophic disturbances which were present when grafting was resorted to as a secondary operation. Restoration of function took place readily enough after long periods of time in respect of sensory nerves, but the degeneration which took place forthwith in the distal portion of motor nerves rendered repair slow and the return of function very gradual.—The PRESIDENT asked the author if he could state what kind of graft formed the best material for a conducting medium.—Dr. SAVILL inquired what limit could be left between the divided ends of a nerve so that it could undertake its own repair without recourse to the introduction of

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extraneous material. He referred to a case in which he had excised half an inch of the right median nerve in a case of tetanus; afterwards neuromatous enlargements developed on the divided ends, necessitating further removal, so that a gap an inch and a half wide was left. He brought the ends together without the intervention of a graft, and, though recovery was much delayed, at the end of a year and a half or two years there was perfect restoration of all the functions of the limb.—Mr. HARRISSON, in reply, said that all the materials which had been hitherto employed seemed to be nearly equally successful. The earlier return of sensory functions was to be expected, because the sensory fibres in the distal portion did not degenerate. There was no evidence at present to show the rate at which the motor fibres grew downwards; in Dr. Savill's case it seemed to have taken at least eighteen months.

Mr. PAGE related three cases in which Abdominal Section had been performed for Ruptured Viscera, in one instance the spleen, and in two the liver, being the organs injured. These were cases of abdominal injury without external wound, in which general peritonitis began within a few hours of the accidents, and was due to the presence of large quantities of extravasated blood in the peritoneal cavity. The abdomen was opened in the case of ruptured spleen forty-six hours after the accident, and the complete washing out of blood from the peritoneum gave marked relief, lessened the evidences of peritonitis, and seemed to come very near indeed to saving the boy's life. The injury in the first case of ruptured liver was more severe, several ribs being broken, but here also the peritonitis was unquestionably reduced by peritoneal flushing twenty-seven hours after the accident. In the second case of ruptured liver the injury was complicated by slight laceration of one kidney, and the amount of hæmorrhage had been enormous. Operation gave no relief twenty-nine hours after the accident. Notwithstanding the results in these three cases the object of the writer in recording them was again to urge the advisability of early exploration, and especially whenever peritonitis followed an abdominal injury without external wound. The propriety of such a step had been well established in the case of ruptured intestine, but the surgeon might have to do with a lesion of one of the viscera, in itself of comparatively small moment. The real source of danger in such cases lay in the stagnant blood in the peritoneal cavity, and in abdominal exploration and peritoneal flushing there were the means of averting death from the general peritonitis which was almost certain to ensue.—Mr. LANE referred to some cases of uncomplicated rupture of the spleen which had come under his care. The first was a lad aged fifteen, who, when driving a doctor's brougham, fell off and was struck by the pole. Mr. Lane opened the abdomen at once, found the spleen pulpy, and removed it. A large quantity of blood was evacuated, and the boy lived for five hours after the operation. The second case was that of a child aged four, who had also received a blow over the abdomen from the pole of a carriage. The abdomen was opened as soon as possible, and the spleen, which was completely broken up, was removed. The patient survived for about five hours. In a third case in which the speaker had performed abdominal section he found a large rent in the liver. He could control the hæmorrhage from this by grasping the organ in his hand, but he found it impossible to suture the rent, as one side of it had been driven inwards by the traumatism. He therefore plugged the wound in the organ with several yards of iodoform gauze, and then, the patient having lost much blood, transfusion of saline fluid was resorted to, the basilic vein being selected as the site of introduction. But it was found that immediately the fluid was thrown into the vein the bleeding at the liver recommenced, so it had to be abandoned, and the patient died. He held that wherever there was evidence of damage to viscera the abdomen should be at once opened.—Dr. HANDFIELD JONES related the case of a girl who was suddenly seized with signs of peritoneal hæmorrhage. She died five days later, and at the necropsy forty-two ounces of blood-clot were found in the peritoneal cavity, yet there were no signs of peritonitis. In the right tube was a ruptured ectopic gestation of about six weeks' growth. Another similar case was recorded in the *Centralblat. f. Gynec.*, 1891, in which, on operation three days after the rupture, the peritoneum was found full of blood, and yet there was no trace of inflammation. In another case which had been under his care a tubal gestation of three months and a half ruptured first into the layers of the broad ligament, and afterwards into the general peritoneal cavity. Thirty hours afterwards acute peritonitis developed, but then liquor amnii as well as blood had been extravasated. He thought that it was the admixture of these impure products which excited the inflammation.—Dr. VOELCKER referred to the case of a child aged eight who was recently admitted into the Middlesex Hospital after having been run over by a cart. There was no external wound, but the symptoms were those of an intra-peritoneal extravasation of blood. The child lived for five days, and at the necropsy four ounces and a half of blood were found in the peritoneum. There was a laceration on the posterior border of the right hepatic lobe, which was partly sealed by blood-clot. The only evidence of peritonitis was an extremely small flake of lymph on the upper surface of the liver, the general peritoneal sac being unaffected.—Mr. BOWLBY had not observed peritonitis to arise in connexion with rupture of the spleen, but he had frequently seen it in association with rupture of the liver, and he attributed it then to the coincident extravasation of bile. It should be remembered that the injury which caused the rupture of the spleen might also so damage the peritoneum as to excite inflammation in that structure. He felt sure that the mere presence of blood in the peritoneal cavity did not inevitably or even usually set up peritonitis. If every case of suspected rupture of viscera were operated on, more patients would be killed than cured. He did not see what surgical measure could benefit in a case of rupture of the liver.—Mr. SILCOCK said that a child was brought into St. Mary's Hospital after a very violent injury to the abdomen. For some time all went well, and then marked peritonitis set in. He found, on examination, that the rectum was full, and so the bowel was emptied, and iodine rectal injections given. A few hours after the first injection a large quantity of fæces came away, and the temperature sank to normal, though abdominal distension and tenderness remained for some time. The severity of the injury was proved by the fact that a week after the accident the whole surface of the abdomen turned perfectly black from extravasated blood. In this case there was a large extravasation into the peritoneum, and the timely removal of the septic fæcal material in the bowel prevented the migration of microbes into the exuded material.—Mr. HERBERT ALLINGHAM said that he had been recently called to the Great Northern Hospital to see a child who had been run over by a heavy waggon. The symptoms induced him to open the abdomen, and he found the peritoneum full of blood. Having washed out the cavity he closed the wound and inserted a drainage-tube. The child died four days later of peritonitis; at the necropsy there was found a rupture of the posterior surface of the liver, and it was around this that the peritonitis had commenced.—Mr. PAGE, in reply, said that the weight of evidence seemed to be against the idea that the blood of itself could set up peritonitis. But it should be borne in mind that the condition usually present was that of a large collection of blood, which was only separated by the thinnest membrane from the septic intestinal canal; this of itself justified the washing out of the blood from the serous sac.

Dr. PERCY KIDD related a case of Mediastinal and Pulmonary Carcinoma, associated with Retraction of the Chest Wall. The patient, a butcher aged fifty-two, had suffered from cough, expectoration, dyspnœa, and wasting for three months. On admission there was retraction of the left side in front, with dulness over the whole lung, most marked at the upper lobe. The inspiratory murmur was very feeble throughout, expiration being faint and blowing at the apex. On the right side the physical signs were normal. The heart was not displaced. The temperature maintained a remittent character throughout, ranging from 101° at night to 99° in the morning. A troublesome cough with copious expectoration, which the patient voided with difficulty, and dyspnœa were the chief symptoms. The sputum was repeatedly examined for tubercle bacilli, with a negative result. Death occurred from exhaustion about eight weeks after admission. The case was regarded as one of chronic phthisis, with thickening and adhesions of the pleura. The necropsy disclosed a large carcinomatous growth in the fork of the trachea, extending into and infiltrating the upper lobe of the left lung, which was firmly adherent to the ribs, the lower lobe was partially collapsed, and the bronchi were dilated and filled out with pus. The whole was much reduced in size. There was no growth in the right lung, which was large, and contrasted strongly with the left. The left main bronchus was moderately narrowed from infiltration of its mucous lining. In conclusion, the exceptional occurrence of contraction and the diagnosis of such

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cases were briefly considered.—The PRESIDENT asked if there was any œdema of the chest wall or of the upper extremity, conditions which were frequently associated with malignant disease of the lung.—Dr. KIDD, in reply, said that there was no œdema, nor were the veins distended. Though the bronchus was narrowed, yet it seemed that the growth was more a pulmonary than a mediastinal one, and the retraction was probably produced by the simultaneous obstruction of a great number of the smaller bronchi.

Mr. ARBUTHNOT LANE read notes of a series of cases illustrating the Modes in which a Strangulated Loop of Bowel reacted to the Constricting Medium, and he illustrated it by two cases of strangulated hernia, on which he had recently operated. Both these cases were remarkable for the extreme sharpness of the constricting edge. In one, a congenital hernia occurring in adult life, the loop of bowel had passed, along with a piece of omentum, through a small aperture in a diaphragm-like structure. The portion of bowel in the sac was not much congested, and appeared as if it would at once perform its functions satisfactorily on being returned into the abdominal cavity. The distal portion of the loop was shielded from the very sharp constricting margin by the omentum, but more than three-quarters of the circumference of the proximal portion of the gut had been subject to its pressure. This piece of the bowel had by a process of ulceration been deprived of all but its peritoneal coat for a breadth of nearly an eighth of an inch. This coat appeared very thin and fragile, but was not perforated. Mr. Lane invaginated the damaged portion of the circumference of the bowel into that beyond and retained it with sutures. The man recovered and leads an active life. The second case was one of reduction *en masse*, in which the contricting medium was precisely similar in character to that in the preceding case, but in it both proximal and distal ends of the loop were so deeply ulcerated as to leave only the peritoneal coat along the line of constriction, and though there was no obvious perforation, the fluid in the sac and that in the abdominal cavity in the vicinity of the hernia emitted a strong odour of fæces. The loop was excised, and the ends of the bowel approximated by Senn's method. Symptoms of peritonitis, which were only local before the operation, soon became general, and death ensued on the following day. In this, as in the first case, the loop of bowel showed no material change, except at the point of constriction. It would have been impossible to have performed the operation at all owing to the very enfeebled state of the patient, but for the free intravenous injection of saline solution. With these two cases he contrasted the condition of bowel seen in strangulated hernia, when the constricting medium is broad and produces no local distinctive change in the gut. In such, the condition of the strangulated loop stimulates that resulting from the experimental ligature of a loop of bowel by a piece of broad tape or gauze, the bowel becoming intensely congested, thick, leathery, inelastic, and, for a longer or shorter time after the constriction has been removed, functionless. If it be subjected to the influence of the constriction for a sufficiently long time, gangrene took place at the convexity of the loop, commencing at a point most distant from the constriction. He pointed out that between these two extremes any number of intermediate conditions and combinations occurred, and he indicated their importance surgically. The freedom of the bowel from congestion in the two cases described he explained in this manner: When the loop first became strangulated it probably soon became more or less congested, but the very sharp constricting margin produced rapid destruction of the soft mucous and muscular coats of the bowel by its pressure, and their consequent disappearance enabled the veins which were orginally constricted to dilate, and to occupy the space filled originally by these bulky coats, so the back flow of blood from the bowel was carried on sactisfactorily, the loop recovering its normal appearance more or less completely and rapidly.

MEDICAL SOCIETY OF LONDON.

Operation on Injured Median Nerve.—Acute Epiphysitis of Humerus.—Senile Cutaneous Tuberculosis.—Nephrectomy.—Compound Fracture of Skull treated by Trephining and Replacement of Bone.—Partial Removal of Clavicle for Necrosis.—Spina Bifida Occulta.

A CLINICAL MEETING took place on March 21st, Professor William Rose, Vice-President, in the chair.

Mr. PICKERING PICK showed a patient in whom there had been Accidental Division of the Median Nerve, and in whom operation resulted in restoration of function. In January, 1889, a girl, aged five, was running along the street when she fell, a bottle which she was carrying was broken, and one of the fragments cut her arm. The medical man who attended her sutured the tendons, but he failed to find the distal end of the median nerve; he therefore closed the wound without bringing the severed ends of that structure together. In April, 1891, the case came under Mr. Pick's care. He made an incision, easily found the upper bulbous end of the median nerve, but he had great difficulty in discovering the attenuated lower end. It was separated by so great a distance from the upper portion that even after stretching the latter he could not bring them within an inch of each other. But he found lying beside the upper cut end some organising inflammatory material, and he dissected this from the side of the nerve, leaving it still attached to the lower end of the upper fragment, and turned it down and sutured it to the lower end of the nerve. By the eleventh day the wound had healed. On her return in October last sensation was found fairly good in the digits supplied by the nerve, glossy condition of the skin had disappeared, and the muscles of the thenar eminence were recovering.—Professor ROSE said that he had had several of these cases during the last few years, and many of them had not done satisfactorily. There was often much pain because of the stretching of the nerve in order to bring the ends together, as he had taken much pains to secure end-to-end union.—Mr. RIVINGTON asked if it were certain that the tissue which was reflected down was really cicatricial tissue, and he suggested that it might have been the severed end of the nerve which had become doubled backwards. He asked if any experiments on animals had been performed which confirmed the view that restoration of function would take place if the connecting medium were merely connective tissue.—Mr. PICK, in reply, said that he felt certain that the mass contained cicatricial tissue only, without nerve filaments.

Mr. EDMUND OWEN showed a female infant of nine months, who last January was admitted to the Children's Hospital with Acute Sub-deltoid Abscess. The infant looked extremely ill; axillary temperature 101°; pulse rapid and feeble. Under chloroform, the movements of the shoulder-joint were free; the humerus was thickened just below the tuberosities. The diagnosis made was acute septic inflammation—probably with necrosis—at the diaphysial aspect of the junction cartilage. On an incision being made down to the bone an abscess was evacuated, and a small opening was found leading into the humerus at the surgical neck. This opening was enlarged, two small sequestra were extracted, and a good deal of granulation tissue was scraped out of the expanded shell of bone. During this operation the epiphysis became detached. The cavity was washed out with a chloride of zinc solution and temporarily drained, the upper part of the incision being closed with sutures. The hand was then fixed across the opposite side of the chest, and the arm was secured in dry dressings and a bandage as if for separation of the epiphysis. The infant's temperature quickly dropped; the wound closed; the epiphysis once more became attached to the shaft, and the child has recovered with movable joint and a sound limb. Mr. Owen was of opinion that this case had been on the verge of becoming one of those which were described as acute arthritis of infants, and though he could not adopt the term as a separate pathological entity, he was well aware that arthritis did often follow the epiphysitis. He was in favour of early exploration of the bone in these cases.—Professor ROSE congratulated the exhibitor on the result of the case. He had often thought that the epiphysial cartilage acted as a barrier, preventing the extension of mischief into the joint.—Mr. PICK took exception to the title "acute epiphysitis," which had been used to describe the case. It was not a disease of the epiphysis, but of the growing end of the diaphysis, and not beginning in the cartilage or the epiphysis at all. He did not take a gloomy view as to the ultimate length of the arm, for often in these cases the growth of the cartilage was not interfered with, and shortening did not happen. In one case under his observation, where there was a similar lesion at the upper end of the femur, no shortening could afterwards be detected.—Mr. BATTLE concurred in the view that the disease occurred in the growing end of the diaphysis, and it was fatal because of the tendency there was for the affection

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to spread through the epiphysial cartilage into the joint rather than to point towards the surface. As for the after-result, they nearly all showed deformity about the joint, with shortening of the limb.—Mr. KEETLEY thought that this condition could rarely lead to shortening, because shortened limbs from this cause were so very rarely seen in after-life. Such an affection might, indeed, even lead to a lengthening of the bone, and he referred to an instance which illustrated this.—Mr. OWEN, in reply, accepted entirely the view that the disease began at the upper part of the diaphysis, near the cartilage; he did not like to call it a diaphysitis, however, as it did not involve the whole shaft. He thought that there were a good many of these shortened limbs about, and that many of them were put down to infantile paralysis. It was usually a chronic disease, and not an acute one, which produced lengthening of the bone.

Dr. COLCOTT FOX introduced a woman aged sixty-six who was the subject of Senile Tuberculosis of the Skin. For six or seven years she had had a lupous condition of the skin of the back of the hand, which had of late assumed a secondary papillomatous character. She had originally struck her hand and inflicted a wound at the time she was nursing her husband and daughter, both of whom died of phthisis. He referred to two other cases: one in a woman of seventy-two and the other in a man aged eighty-two, in both of whom the lesion was on the back of the hand. In two of the cases the parts examined microscopically presented all the characters of tuberculosis, except that bacilli were not found.—Mr. SHEILD said that he had twice seen a cutaneous tubercular lesion in an elderly woman associated with an encysted tubercular ascites. In an elderly man he had seen a localised cutaneous tubercular lesion followed by acute general tuberculosis.—Dr. PASTEUR asked if lupus in younger people could commonly be regarded as arising by inoculation.—Mr. OWEN referred to the case of a post-mortem room porter who had warts on the back of his hand of chronic character, and who eventually died of phthisis.—Dr. FOX, in reply, said that personally he held a strong belief that the large majority of cases of lupus were due to inoculation from an outside source. Laennec also suffered from post-mortem warts and died of phthisis.

Mr. LOCKWOOD showed a healthy-looking woman on whom he had performed Nephrectomy. She had suffered from renal symptoms for the last fifteen years, which had been bad for the last seven. She came under his care in November, 1891, with a loin tumour, pain on micturition, cystitis, and pain in the lumbar region. She was passing thirty to sixty ounces of urine per diem, which was acid and contained one-sixth pus. He cut down by a lumbar incision and found a pyo-nephritic kidney, which he removed. On opening it it was found to contain a large calculus, which could not be felt, and which was only discovered on making a section of the organ.—Professor ROSE agreed in the advisability of attacking these cases from the loin. The great quantity of urine passed was strongly in favour of the other kidney being healthy.

Mr. BATTLE exhibited a girl aged five who, on Feb. 6th, 1892, slipped off the pavement and became crushed between the wheel of a van and the kerb. On examination there was found an irregular fracture of the skull, with considerable depression of bone, the latter being comminuted and measuring 2 in. by 1 in. Trephining was performed, the depressed portions elevated, and the piece removed by the trephine replaced. The pericranium was united by silk sutures, and the wound completely closed, no drainage-tube being used. The patient made a good recovery, in spite of the fact that she also suffered from a green-stick fracture of the right clavicle, a compound comminuted fracture of the right tibia, a compound fracture of the right fibula, and an extravasation of blood into the right iliac fossa.—Professor ROSE had found replacing the disc of bone not to be altogether satisfactory, especially if the piece were large. In one instance he had to remove such a piece on account of the irritation it caused.—Mr. SHEILD thought that the result would be better in young growing children than in adults.—Mr. KEETLEY said that in cases of depressed fracture of the skull it was preferable to use the chisel and mallet rather than the trephine. The portion of bone which was depressed was usually engaged all round the edge of the fracture, and these edges, on being chiselled off, easily disengaged the bone. In a compound fracture where there was dirt in the fissure the chisel would readily clean the fissure as well as raise the fragment. The portion of bone he wished to replace he usually put in a pocket which he cut in the neighbouring skin, and it was kept warm and healthy there until he was ready to replace it.—Mr. WATSON CHEYNE said that he had three times put back crowns of trephine and all with a successful result; but they were all in children, where the bone was very thin and vascular. In two cases the discs were put back whole, and one he cut into small pieces; the latter proceeding he meant to adopt in a future case. He kept the discs of bone in warm boric acid solution until they were required.

Mr. BATTLE likewise showed a woman aged thirty-four who in 1888 underwent an operation for Necrosis of the Clavicle, and a great deal of the bone was removed. The disease was of syphilitic nature, and a large gummatous ulcer over the part healed under iodide of potassium. There was one-third of the clavicle wanting, and there was no attempt at new formation of bone, there being merely a strong fibrous union between the ends of the fragments. Notwithstanding this, it was surprising what good power over the upper extremity the patient possessed.

Mr. MARMADUKE SHEILD showed a case of Spina Bifida Occulta associated with Necrosis of the Foot and Talipes. The patient was a man aged twenty-three, who came under observation on Dec. 21st, 1891. He had lately been an inmate of the Orthopædic Hospital, under Mr. Fisher, and the latter gentleman had operated upon the "club-foot" (talipes equino-varus) with exceedingly good result. A photograph was shown of the feet before operation. When first seen by Mr. Sheild there was a typical perforating ulcer under the left fifth metatarso-phalangeal joint. The orifice was surrounded by thickened, callous corn-tissue, and the probe reached carious bone. A bad corn also existed in a similar position on the right foot. On examining the spine a depression could be seen and felt in the lower lumbar region, and here the arches of the vertebræ appeared to be absent, and there was a growth of dark hair upon the skin. The mother of the patient stated in a letter that the medical man noticed, and spoke of, this condition at birth. She also made the spontaneous statement that for many years the child had no control over the evacuations of the bowels, and it was an interesting point that even now the patient could not restrain his bowels when he had diarrhœa. The talipes was probably congenital, but had got rapidly worse in the last few years. In conclusion, Mr. Sheild referred to the cases of Virchow quoted by Sutton, and pointed out the similarity which existed between many of the cases quoted by Mr. Sutton and the present one. He had reason to believe that many of these cases were overlooked in practice.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

Mr. S. F. MURPHY, President, in the chair.

MONDAY, FEB. 15TH.

AFTER the transaction of ordinary business the President, in the name of the Society, presented to S. R. Lovett, medical officer of health of St. George's and St. Giles's, a silver tea service in recognition of his long and valuable services as treasurer.

Boric Acid in Foods.

C. F. CASSAL, F.C.S., then read a paper on the above subject. He was, he believed, the first to demonstrate the presence of boric acid in butter and cream, but it was now a matter of notoriety that, either alone or combined with borax, it was extensively used as such, or in the form of proprietary nostrums for the preservation of milk, cream, butter, meat juices, peptones, and similar preparations, caviar, &c; and also of fish and butcher's meat. It was not in any sense a food, was foreign to the animal organism, and was not necessary for the preservation of any of these articles, which could be effected by other and unimpeachable means. Foods so treated might be "of the substance," but were certainly not "of the nature and quality" expected by the purchaser. There was unfortunately little evidence as to the action of boric acid and the borates on health. In 1887 Dr. Dudfield and he had, at the request of the Vestry of Kensington, made some inquiries and sought the opinion of Sir A. Clark, Sir H. Thompson, and Dr. Lauder Brunton. Dr. Brunton referred to the investigations of Förster, who, from his experiments on dogs, had come to the conclusion that daily doses even of four grains checked

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digestion, and caused a considerable increase of the unassimilated albuminoids in the fæces, together with a tendency to diarrhœa; and Sir Henry Thompson considered that it could not but be injurious to infants, who would naturally consume the largest proportion of such milk. Förster found it to act injuriously on plant life, checking the formation of chlorophyll. The Local Government Board declined to express any opinion. Hehner did not find it to interfere with the peptonising of albumen conducted artificially, but the conditions of the alimentary canal and of glass vessels were not perfectly similar, and, so far as we knew, all antiseptics were more or less hurtful in normal states of the system. We must always bear in mind the different action of single large and of constantly repeated small doses. The proportions in which he had found it in foods were in butter, 0·5 to 1 per cent.; milk, 7 gr. to the pint; cream about double this; while meat and fish were packed in it or "pickled" in a solution.—Dr. OGILVIE said that last summer he and three friends out yachting had used boric acid for preserving their meat, which they took on board once or twice a week. They never boiled it, and must therefore have ingested about a quarter of a pound each of boric acid in the course of the month. They certainly felt no ill effects.—Mr. WYNTER BLYTH referred to its use in medicine, especially for thursh in infants, and was very doubtful as to any possible harm from it in moderation.—Dr. SYKES said that he had seen large consignments of rabbits imported from New Zealand in ice and boric acid. They were pressed flat, had a most uninviting aspect, and a peculiar "alkaline" odour quite unlike that of ordinary putrefaction. The flesh, he had observed, was remarkably friable. He demurred to Mr. Cassal's statements that germicides must necessarily be poisonous to man and other higher animals—a position formerly held, but now no longer tenable.—Dr. WILLOUGHBY referred to some recent experiments on the sterilisation of milk, an abstract of which he had published in the *International Journal of Medical Sciences*, from which it appeared that boric acid was but a feeble germicide, that borax, like carbonate of soda, neutralised the lactic acid, and that the general result was rather to conceal the changes that did take place than to prevent or even greatly retard them. The friability of the New Zealand rabbits seemed to indicate analogous conditions, and he maintained that the use of boric acid and the borates was to be deprecated, not so much on account of any assumed toxic action of the reagent as from the fact that it concealed incipient decomposition and rendered saleable food that would not be so otherwise, and could not be deemed wholesome. It was thus that the petty dealers carried over to the next day their surplus and stale milk, which they could not, like the larger houses, turn into butter. But in the case of fresh butter and cream it might, perhaps, be looked on as a *bond-fide* preservative.—A MEMBER mentioned that a fishmonger he knew had kept his shop perfectly free from flies all last summer by frequent waterings with a boric solution.—Professor CORFIELD deprecated departing from first principles and discussing probabilities or degrees of ill effects. Boric acid and borax were drugs, perhaps valuable as therapeutic agents, but they were not foods, nor constituents of the body, as salt, or even as the nitrates, phosphates, &c., of the alkalies; and while any doubt existed as to its innocence, boric acid should be prohibited in food.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

Brain of Ornithorhynchus Paradoxus.—Abnormal Condition of Shoulder-joint.—Myology of Rodents.—Abnormal Aorta.

A MEETING of the Society was held on Monday, Feb. 22nd, Sir William Turner, F.R.S., in the chair.

Sir W. TURNER communicated a paper on the Brain of Ornithorhynchus Paradoxus, comparing it with that of echidna, remarking on its lower grade of development and pointing out the great size of the olfactory bulb. Sir William described the brain as having an absolutely unconvoluted external surface, referring certain shallow sulci mainly to the presence of bloodvessels. He referred to certain points on the inner aspect, especially to the posterior connexions of the olfactory bulb and a possible spherical fissure.—Dr. ALEXANDER HILL had also studied the brain of ornithorhynchus, probably from an older subject. He found a well-marked division of frontal, temporo sphenoidal, and occipital lobes, but no convolutions or fissures, with the exception of the rhinal and hippocampal fissures. He remarked also the great size of the olfactory bulb, and described its connexions. The fissure on the inner aspect described by Sir William Turner was probably the homologue of the hippocampal.

Sir W. TURNER communicated for Mr. Hepburn a note on an Abnormal Condition of the Shoulder-joint. The joint was removed from a dissecting-room subject, the main peculiarities being an almost complete absence of the upper part of the capsular ligament, the remains attached to the glenoid cavity exhibiting a smooth rounded margin and atrophic changes in the humerus. The condition was symmetrical, and in addition there was an arthrodial connexion of the acromion process on the right side. A short discussion took place, in which Messrs. Thane, Anderson, Howes, and Curnow took part, the general opinion being expressed that the condition was pathological.

Mr. F. G. PARSONS read a note on Some Points in the Myology of Rodents. Mr. Parsons referred to the bilaminar arrangement of the panniculus carnosus in rodents, and to its supply by a large nerve corresponding to the internal anterior thoracic of man. The mingling of the fibres of the deep layers of the panniculus with the pectoralis major, a bundle actually passing between the abdominal and sternal portions of the latter muscle, suggests the possible origin of the pectorals as a specialisation of the deep layer of the panniculus. This would explain also the relation of the occasional sternalis and axillary arches to the pectoral muscles, all being developed from the same layer of the panniculus. The arrangement of the adductor magnus and semi-membranosus in the agouti suggests that the adductor magnus in man represents both the great adductor and a slip of the semi-membranosus, the latter segment being that internal to the adductor arterial canal and supplied by the sciatic nerve. The rectus capitis posticus major in the guinea-pig was found to consist of two distinct slips on three occasions; this arrangement had not been found in any other rodent.

Mr. F. C. ABBOTT showed two specimens of Abnormal Aorta, one a right arch, the branches arising in the following order: Left carotid, right carotid, right vertebra, right subclavian, left subclavian; the second, a left arch with the carotids arising by a common trunk, the right vertebral arising from the right carotid beyond the carotid trunk, the left vertebral, then the left subclavian, and lastly the right subclavian. Mr. Abbott also showed a Pulmonary Valve, with four cusps.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Section of State Medicine was held on Feb. 19th, Dr. Cosgrave, President, in the chair.

The Control of Inebriates.—Dr. COSGRAVE, having dealt with the varieties of inebriety and described the working of the Inebriates Act, suggested that certain improvements were required. Voluntary entrance into an inebriates' home should be made much easier. The necessity of appearing before two justices was especially odious. Delays and disappointments arising from this requirement kept many cases from treatment. It would, indeed, make the Act much more workable if entrance was still more simplified and no appearance before a magistrate was required. With all the safeguards for inspection and appeal that are in the present Acts, no harm could arise from entrance into a retreat being made comparatively easy. There should be power to send people to inebriate asylums, this power to be invoked by the person's family or friends or by the public authorities. Provision for poor cases is urgently needed. This would of course cost money, but if it led to the cure of inebriates it would lessen police court, workhouse, prison, and lunatic asylum charges. The cost need not fall on the general body of the ratepayers. The inmates should be required to work to help to meet the cost of their support. The Inebriates' Home of King's County, New York, gets 12 per cent. of the licence moneys, an example which might well be followed in this country. There are defects in the present Acts which unnecessarily added to the difficulties of the licensee. Thus a patient could

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easily escape if he chose, and the licensee had no right to use force to prevent him. The part of the liquor traffic which consists in encouragement of drunkenness should be suppressed. In Prince Edward's Island when proper notice in writing is given to any dealer in intoxicating liquor that a person is addicted to drink, he is not allowed to sell him any intoxicant. The penalty for the first offence is a fine of not less than £5; for subsequent offences a fine of between £5 and £10, and imprisonment for a period not exceeding thirty days. The author had brought the subject again before the Section, as he believed that in many cases inebriety was a disease closely allied to insanity and susceptible of successful treatment, if power was given to keep the patient from drink for a sufficiently long period, and that therefore the sooner the case was taken in hand the greater was the probability of cure.—Dr. DAVYS was of opinion that the only successful treatment or cure of the intermittent drinker was that the family physician should, with the approval of the family of the patient, employ a strong male attendant for the inebriate, and by physical force prevent him taking any alcohol, the patient to be kept in his house. Much greater privacy was thus observed than by sending him to a retreat, and having to bring him before a magistrate. The inebriate, when returning to his sober state, usually fully approved of the course adopted by his physician. Dr. EDGAR FLINN quite agreed that the difficulties in getting dipsomaniacs into retreats under the Habitual Drunkards Act were made too stringent. It was a pity that the Habitual Drunkards Act was not applied to Ireland, for it certainly was required, and would act most beneficially. Persons addicted to drink were a class very difficult to treat by drugs; the radical cure, no doubt, was to remove them to some place where they would be prevented from obtaining drink; in fact, in some instances, they might with propriety be placed in asylums.—Dr. J. W. MOORE instanced three cases of intermittent inebriety which had come under his observation, and expressed the opinion that physical restraint was a much more reliable means of treatment than any medicinal remedies. The whole question of the control of inebriates was well worthy of the Legislature of the country.—Dr. J. DONNELLY agreed with the previous speakers as to the value of physical restraint in the treatment of inebriates and the necessity which existed for greater power in using it.—Dr. COSGRAVE, in reply, said that intermittent inebriety was undoubtedly the most interesting form from a scientific point of view. Dr. Davys' treatment of restraint by a stalwart attendant was good, if the patient would submit to it; but there was no power to compel him to do so. Easy admittance into an asylum for inebriates for a short period exactly met the requirements of such cases, and afforded a chance of tiding over attacks. Inebriety often caused neuroses in the descendants, sometimes whole families being affected with hysteria, epilepsy, inebriety, &c. In one case he (Dr. Cosgrave) had seen inebriety once in three generations. A lady, aged nearly seventy, suffered from intermittent attacks, her daughter died of delirium tremens at about thirty, and the granddaughter was seen under the influence of drink when only fifteen years old.

Pollution of the South-eastern Foreshore of Dublin.—Dr. EDGAR FLINN read a paper on the pollution of the south-eastern foreshore of Dublin. He pointed out that the pollution at Dublin, extending from Merrion to Kingstown and Sandycove, not only existed but was increasing, and that, although several partial attempts had been made to remedy the state of affairs, nothing radical had been effected. Eight main sewers and thirty minor ones at present discharged into the sea at this locality. He advocated a deep-sea outlet. In addition, he recommended an intercepting sewer, in which the sewage was to be collected and then discharged at about 600 feet from the shore, at a depth of 30 feet below the level of sea water. He concluded his paper by a criticism of the present methods of disinfecting sewage, and referred to that of Messrs. Adeney and Parry, known as the oxygen process, which had the advantage of precipitating the solid matter of sewage without the addition of precipitative chemicals.—Dr. DONNELLY remarked that, as precipitation has been so successful in many places, it could be adopted at the Salthill outfall, and avoid polluting the sea so close to the best bathing-place near Dublin.—Dr. COSGRAVE strongly urged the importance of not carrying out new drainage into the sea, but of substituting precipitation as used so successful at Drumcondra, and as about to be introduced in Dublin.

BRADFORD MEDICO-CHIRURGICAL SOCIETY

TUESDAY, MARCH 1ST.

ROBT. MERCER, M.R.C.S., President, in the chair.

Aortic Aneurysm.—Dr. MAJOR showed a mechanic, aged thirty-six, the subject of Aneurysm of the first part of the Aorta. Trouble began with sudden paroxysmal pains in the right side and arm about nine months previously; untreated syphilis eighteen years before. A large pulsatile tumour presented between the second and fourth ribs on the right sternal margin; there was systolic and loud diastolic bruit, heard loudest over the tumour, also down the sternum and at the back; heart hypertrophied. Pupils unequal, but no other pressure symptome. Treatment consisted of rest, morphia, large doses of iodides, little fluid, but otherwise unrestricted diet. The patient was very much improved.

Peripheral Neuritis.—Mr. PETTITT showed a clerk, aged thirty-three, who had resided some time at Lagos, West Africa. Illness began acutely with vomiting after dining with a friend, who suffered similarly, but quickly recovered. Patient next day found he could not stand, and nine months after the onset was brought to England and carried to the infirmary. He supposed himself suffering from sasswood poisoning, which is said to produce a rapid paraplegia, loss of use of arms, and death. He had suffered from ague, rheumatic fever, gleet, and alcoholic excess; was profoundly anæmic; could hardly stand; little power in limbs; double wrist- and foot-drop; no knee-jerks; atrophy of interossei and muscles of the thumb; tenderness on squeezing calf muscles; reaction of degeneration in muscles of thumb and extensors of legs; no lead line; no mental peculiarities; urine contained a trace of albumen, and lead was detected in it.—Dr. MAJOR said that whatever the cause, the case was undoubtedly one of peripheral neuritis, and iodides were given and massage regularly applied, and this last had probably done most to get him well again.—Mr. OFFORD said poisoning by sasswood or sassywood was usually fatal on the second or third day, and resembled tetanus somewhat in symptoms.

Melanotic Sarcoma of Brain.—Mr. PETTITT read notes of a case in which a man aged forty-three had his eye removed some months after a severe blow. On admission to hospital seven months later he was totally deaf and blind, knee-jerks gone, and face paralysed. He had a tetanic spasm about ten days before death. Post mortem numerous inky black growths were found over the brain.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MARCH 4TH.

Mr. ROBERTS, President, in the chair.

Radical Cure of Prostatic Enlargement by the Galvano-cautery.—Mr. BRUCE CLARKE read a paper on the above subject. After alluding in general terms to prostatic enlargement, he pointed out that, though obvious enough when the prostate was of considerable size, the disease was not easy to diagnose in its slighter varieties, which, as the result of post-mortem examinations showed, formed a large proportion of the cases as a whole. He had seen a good number of cases in which the patient had died from the results of cystitis, set up by prostatic enlargement, in which the actual obstructing piece of prostate was but small and seemed to come down like a little valve and block the urethra during the act of micturition. Of late years the prostate had been removed by the supra-pubic method when enormously increased in size. In such cases the galvano-cautery was absolutely useless, but in the slighter degrees of enlargement he had found it most useful. He described the method of using the instrument, and also of illuminating the interior of the bladder.—Dr. LEWIS JONES described the accumulators for heating the galvano-cautery and their construction at some length.

Dr. FULLERTON, for Mr. Poland, showed a young woman with a small tumour on the outer side of the right leg, three inches below the knee. It had been noticed for three months, and was as large as a small walnut. It disappeared under chloroform anæsthesia, but returned, and was evidently a localised spasm of the muscles.

Dr. ERNEST CLARKE showed the brain of a man admitted

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into the Miller Hospital in a comatose condition, the result of a fall downstairs. He had incised a large swelling over the occiput with the intention of trephining in case depressed fracture was found. No fracture was discovered, and the man died three hours later. Post-mortem examination revealed extensive fracture of the base with laceration of the brain and hæmorrhage.

Reviews and Notices of Books.

The Comparative Anatomy of the Domesticated Animals. By A. CHAUVEAU, M.D., LL.D. Translated and Edited by GEORGE FLEMING, C.B., LL.D., F.R.C.V.S. Second Edition. London: J. and A. Churchill. 1891.

THE second edition of this standard text-book of veterinary anatomy will be welcomed not only by veterinary students but by all who have occasion to require a thorough and accurate description of the following animals: dog, cat, rabbit, pig, horse, ass, mule, ox, sheep, goat, common fowl, guinea fowl, turkey, pigeon, goose, and duck. The work contains 1084 pages, which are divided into nine sections or books, each treating a special system. The plan adopted is to take a type, which is most commonly the horse, and to describe each part accurately and thoroughly. This description is then compared at some length with the corresponding region in man, and then more briefly with the other animals on the list. The first book is devoted to the Locomotory Apparatus, and altogether gives the reader an accurate and clear idea of the osteology and myology of the animals treated. But here our attention is drawn to a defect that runs all through the book: the writer, in deciding on what names he shall give the various parts, does not always consider whether these names are used for the same parts in modern human and comparative anatomy. As an example of what we mean we will quote the description of the horse's skull. Here the foramen lacerum basis cranii is said to be divided by a ligament into an anterior and posterior foramen lacerum; but human and comparative anatomists generally recognise three lacerated foramina in the skull—anterior, middle, and posterior,—the anterior being also called the sphenoidal fissure and the posterior the jugular foramen. A student, therefore, accustomed to the use of modern anatomical nomenclature would run the risk of understanding that in the horse the sphenoidal fissure and jugular foramen were confluent.

The second book treats of the digestive apparatus, the third of the respiratory, the fourth of the urinary, the fifth of the circulatory, the sixth of the nervous, the seventh of the skin and sensory organs, and the eighth of the organs of generation. The ninth book is devoted to embryology, and gives a very complete and lucid statement of the changes that occur in the development of the fœtus. The work contains 585 illustrations, which are gathered from a great variety of sources, and of course are not all of equal value; 270 are Dr. Chauveau's, and these strike us as being the most valuable, and as showing the main features of the parts pictured most clearly. Most of the human osteological figures are borrowed from Wilson, while the descriptions of human neurology are accompanied by Hirschfeld's and Léveillé's illustrations; in addition to these Heath, Quain, Gray, and Holden have been borrowed from for the human anatomy, and Carpenter, Krause, Kölliker, Bowman, and Ecker for general histology. About sixty of the illustrations are original, and among them are some valuable sections showing that the modern tendency towards topographical teaching in anatomy is duly appreciated. The only drawback to these last named is the fact that the parts are numbered with almost microscopic figures, which are often placed upon the drawing and among the shading in such a manner as to make them very difficult to trace without the best possible light and eyesight. The embryological portion of the work is illustrated in a very copious and judicious manner, so as to materially assist the student who is trying to grapple with this most difficult portion of anatomy. The pictures are largely borrowed from Balfour and Kölliker. At the end of the work is a very comprehensive index, which greatly adds to its value. We heartily welcome the translation, not only as a standard work for English veterinary surgeons, but as a valuable book of reference for comparative anatomists.

Differences in the Nervous Organisation of Man and Woman. By HARRY CAMPBELL, M.D. London: H. K. Lewis.

IN the preface to this work it is stated that it was intended to discuss the subject with particular reference to the pathological aspects of the question, but the necessity, in order to make the work in any way satisfactory, of tracing the origin of physiological differences, and of discussing their bearings upon pathological problems, has resulted in a larger work than was intended. The book is one of nearly 400 pp., and it is divided into three main parts. The first deals with the evolution of sex, and the most important pages are those in which the views of Geddes and Thomson, with reference to the morphological differences between the sexes, and their explanation, are subjected to a searching criticism. While not denying that most people will probably grant that anabolism and katabolism are the characteristics of the female and male sexes respectively, Dr. Campbell, in a few pages of closely reasoned and logical writing, clearly shows that this characteristic of the sexes and of the sexual elements is not adequate to explain sexual variations. The second part of the book is devoted to explaining the variable incidence of different forms of nervous disease on the assumption that anabolism and katabolism are characteristic of the sexes, but there is a tendency to make too free a use of those qualities and to minimise the effects which the differences in the modes of life of the two sexes and the greater incidence of syphilis upon males are likely to produce. An interesting and suggestive chapter is that in which the sexual instinct in man is compared with that in woman, and the definite conclusion is reached that this instinct is much less strong in the woman than in the man. The chapter discussing a menstrual rhythm in the male is crude and unsatisfactory. The third and last part of the book is almost purely psychological, and deals with various problems ranging from the origin of sensations to freedom of will. Here the individuality of the author is more evident than anywhere else in the book, and the manner in which the different questions are discussed shows his intimate acquaintance with the various views which have been held on the subject. In the fascination of the subject itself, the psychological differences as manifested in the sexes have not been so prominently kept in view as we should have anticipated.

The book as a whole is to be regarded more as a series of papers, highly interesting and suggestive undoubtedly, rather than as a work with any very definite result; and from the nature of the questions discussed, this was to be expected. But this character causes the work to lack cohesion, which is to be regretted, and which will make its influence less than if it had been more condensed.

Transactions of the Seventh International Congress of Hygiene and Demography. Edited by C. E. SHELLY, M.D. Vol. XII.: Municipal Hygiene. Royal octavo, pp. 183. London: Eyre and Spottiswoode.

THE Transactions, of which this is the first volume to appear, are being published in thirteen volumes, the number of each volume being the same as the number of the Section

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to which it is devoted. Hence it follows that vol. xii., in which there are no discussions to be reported, is the first to be issued. The origin and objects of the present volume are tersely given in a short introductory note which bears the signature of Dr. Poore, the secretary-general, and is to the following effect:—"To the Corporation of Dundee is due the credit of originating a suggestion made during the earlier part of the year, in response to which a number of municipal bodies supplied the honorary secretary-general of the Congress with brief reports relating to their vital statistics and corporate history, and embodying the results of local sanitation. These communications—which were obviously unsuited, and were not intended, to form a subject of discussion by the Congress—are collected in the present volume, and, in order to facilitate reference, have been arranged in alphabetical order under the names of the cities and towns to which they severally refer. They thus present, in a compact and accessible form, a considerable mass of information, which can scarcely fail to prove valuable as well as interesting. For, dealing as they do more or less fully with all the great questions of modern sanitation, they indicate some of the many ways in which these problems have arisen, the causes which have operated to make them urgent, and the methods by which they are being successfully solved by communities varying within wide limits of population and of very different rates of growth, existing under a diversity of social conditions, and occupying areas that differ greatly in extent, in configuration, and in climate." The volume contains reports from thirty-five municipalities and sanitary authorities—viz., Aberdeen, Andover, Belfast, Birmingham, Blackpool, Bournemouth, Brighton, Cardiff, Croydon, Dundee, Ealing, Edinburgh, Glasgow, Gloucester, Hanley, Huddersfield, Lancaster, Leeds, Liverpool, Morecambe, Newcastle-upon-Tyne, Paignton, Preston, Richmond, Ryde, St. Helens, Salford, Wallingford, Wolverhampton, Ahmedabad, Bombay, Calcutta, Rangoon, Auckland, N.Z., and the colony of South Australia. Each body was left free to choose its facts and to arrange them as seemed best, and the result is that the reader has the advantage of studying a great variety of practical sanitary measures, which should have considerable interest for all those who are engaged in official sanitary work. Many of the papers are illustrated by maps and plans, which, although not showing much detail, are sufficient to give an idea of the situation and lay of the locality dealt with. All who are interested in municipal hygiene may obtain the volume by sending the price (2*s.* 10*d.* post free) to the publishers, the Committee of the Congress having wisely determined to sell each volume separately, and for a uniform price. To members of the Congress this, as well as the other volumes, will be supplied gratuitously when all are completed.

OUR LIBRARY TABLE.

The Simulation of Hysteria by Organic Disease of the Nervous System. By THOMAS BUZZARD, M.D. Lond. London: J. & A. Churchill.—We referred some time ago to Dr. Buzzard's interesting presidential address to the Neurological Society. This work has that address as a backbone, but a considerable amount of fresh material has been added, rendering the little book as complete and concise as is to be expected under the circumstances. Dr. Buzzard has undoubtedly done a great service to practical men by bringing so forcibly under their notice the characteristics of a large and important class of cases in which the diagnosis offers much difficulty, and in which mistakes are productive not only of disappointment and chagrin to the practitioner, but also of grave injustice to the patient. The work, as we have said, is as complete as its nature requires, and is well worthy of careful study.

Manipulation of the Microscope. By EDWARD BAUSCH. Illustrated. Bausch and Lomb Optical Company, Rochester, New York, and W. P. Collins, London. 1891.—We have before us a copy of the tenth thousand of Edward Bausch's little book on the microscope. As one would expect from the accuracy of his formulæ, the results of which are seen in his objectives, the work is thoroughly practical, and anyone who carefully reads through this book will have an amount of knowledge of technical detail and of the method of working with the microscope that can be obtained from no other book of the same size. The hints on "How to select a Microscope" are very valuable, though they refer, of course, to Bausch and Lomb's special catalogue and to high-class microscopes, rather than to those within the reach of the student. We can recommend this little work both to those who wish to obtain information about the microscope and to those who wish to have, in handy form, the more important data useful to the microscopist.

"Hors de Combat"; or, Three Weeks in a Hospital. Founded on Facts. By GERTRUDE and ETHEL ARMITAGE SOUTHAM. Illustrated. London, Paris, and Melbourne: Cassell and Co.—This handsome quarto is probably intended to give an idea of the way in which hospital routine strikes a casual patient, who, by the way, is in this instance a baronet. It sets forth in enthusiastic terms the qualities of Sister Agnes and Nurse Graham during the three weeks of the baronet's stay in the institution. The accident, a broken arm and a scalp wound, has rendered the patient unable to shoot grouse on the Scottish moors—placed him, so to speak, "hors de combat." The literary style abounds with tropes and figures, some of them correct and others fantastical. Gruesome cases of double amputation, of delirium tremens, and suicide are detailed in as racy and circumstantial a manner as the subjects will permit of. Regarding the nurse, due prominence is given to the "picturesque white cap tied becomingly under the chin," to her ingenuity, and her unfailing good temper. The book is handsomely got up by the printer, and is embellished with excellent illustrations, which are a credit to the various artists who photographed them and prepared them for the press. In these respects we have nothing but praise for it. Our difficulty has been in discovering any good reason why a baronet with a broken arm, having been taken to an institution of this kind, should have been kept there for twenty-one days at the rate of three guineas a week, when he might have been sent home and the bed occupied by a necessitous patient. It appears that he was made so comfortable in his hospital quarters that on getting home again he "wished to goodness he was back at the hospital." As a matter of fact, he did return on the first opportunity, and was conducted through the whole institution. The tale finishes somewhat abruptly by the secretary receiving from the grateful baronet a cheque for £1000, as a kind of conscience money.

Higiene de la Vista y Causas de la Ceguera. Por el Dr. JUAN GELPI Y JOFRE, Profesor Libre de Oftalmologia. Barcelona: Tipografia, *La Academia.*—This work on the Hygiene of the Sight and the Causes of Blindness is not intended to teach medical students ophthalmology, but to give the public, and perhaps especially persons in authority and those having charge of children, some idea of the most common forms of eye diseases and to show them how they may be guarded against. A number of statistics—somewhat out of date, it is true—and a map are given showing the proportion of blind to the general population in the different provinces of Spain. From these we see that the worst province is Almeria, where the percentage of blind is 0·379; in Madrid it is 0·2294. The province where there are fewest blind is Tarragona, where the percentage is only 0·0524.

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The Journal of Anatomy and Physiology. Conducted by Sir GEORGE HUMPHRY, Sir WM. TURNER, and J. G. MCKENDRICK. Vol. XXVI., Part II. January, 1892. Williams and Norgate.—The following are the more important papers contained in this number:—1. David Hepburn: The Comparative Anatomy of the Muscles and Nerves of the Superior and Inferior Extremities of the Anthropoid Apes, with a plate. 2. D. M. Greig: Congenital and Symmetrical Perforation of both Parietal Bones. 3. A. E. Wright: A Suggestion as to the Possible Cause of the Corona observed in certain After-images. He attributes it very sensibly to changes in the accommodation during fixation. 4. A. A. Kanthack: Complete Cervical Fistulæ. 5. R. Shufeldt: Concerning the Taxonomy of the North American Pygopodes, based upon their Osteology. The pygopodes, he thinks, are restricted to the Loons and Grebers. 6. Vaughan Harley: Experimental Pathological Evidence, proving the existence of Pancreatic Diabetes. 7. A. N. McGregor: The Repair of Bone, with special reference to Transplantation, with a plate. 8. T. P. Anderson Stuart and Alexander McCormic: The Position of the Epiglottis in Swallowing. 9. James Musgrove: Bifurcation of the Femoral Artery, with subsequent reunion, with a plate. 10. James Musgrove: The Bloodvessels of the Retina, with a Method of Preparation for Lanthorn Demonstration, with a plate. 11. Louis Robinson: On a Possible Obsolete Function of the Axillary and Pubic Hair-tufts in Man. He thinks these tufts may be the traces of the tufts by which young apes hang beneath the body of the mother. 12. Sir William Turner: Notes on some of the Viscera of Risso's Dolphin. 13. The Minute Anatomy of the Central Nervous System according to Golgi's method, translated from several foreign journals by William Aldren Turner.

A Winter Cruise in Summer Seas: "How I Found Health." By CHARLES C. ATCHISON. London: Sampson Low, Marston, & Co.—This book consists of a diary of two months' voyage in the R.M.S.P. Co.'s ss. *Clyde*, from Southampton, through the Brazils, to Buenos Ayres and back, at a cost of £100. The volume has at least three merits—the superiority of its typography; the excellence and abundance of its illustrations, some of which are not without a considerable spice of humour; and the gossipy and entertaining style of the narrative. It is a book eminently calculated to help to while away an idle hour. It will also be useful to any who may need guidance in the selection of a desirable method of avoiding part at least of the trying winter climate of the British Isles.

Analytical Records.

MALTED GERM BREAD.

(JOHN BATES, SOUTH NORWOOD.

"MADE from the entire grain, free from bran, and containing a small quantity of malt flour" are the statements made, and to which, according to our examination, we can take no exception in regard to this excellent specimen of bread. Analysis showed unusual richness in nitrogenous constituents, as well as in valuable soluble phosphate, the gluten calculated on the nitrogen found amounting to 6·96 per cent., and the ash to 0·94 per cent. Moisture amounted to 43·35 per cent. Barley starch was recognised under the microscope. The bread was characterised by a marked nutty and agreeable flavour, and its value as a food is doubtless enhanced by the commendable plan of selecting only the choicest materials for its preparation.

AMPLOSIA—PURE UNFERMENTED JUICE OF THE GRAPE.

(AMPLOSIA KELLEREI, H. KAUL, LANDAU, RHENISH PRUSSIA.)

There is now a particle of evidence, judging from taste and chemical analysis, that this is not, as stated, the pure unfermented juice of the grape. It is perfectly free from alcohol, and yields on analysis 21·11 per cent. extract and 0·28 per cent. mineral matter. Unfortunately the presence of some antiseptic is absolutely necessary to preserve the liquid from fermentation or decomposition. We had no difficulty in extracting a crystalline substance, which readily sublimed on heating, and yielded when neutralised a buff-coloured precipitate with perchloride of iron. Amplosia forms a very palatable drink, especially when mixed with soda water; but the presence of an antiseptic may afford ground in the opinion of many for objection to its constant use.

THE PURE BEEF COMPANY'S PREPARATIONS.

(OLD TRINITY HOUSE, 5, WATER-LANE, GREAT TOWER-STREET, E.C.)

The varieties of food stuffs prepared by this company are not few, as, in addition to ordinary concentrated beef extract, essence, and tea, certain other useful meat preparations have been submitted to us. Clear and thick household stocks for thickening soups, concentrated beef *à la mode* for the quick preparation of a hot tasty dish, and meat lozenges as a portable form of nourishment, may be selected as examples. The essence of beef is a clear, thin, amber-coloured jelly, which on analysis gave the following results: Moisture, 88·43 per cent.; mineral matter (chiefly phosphate), 1·15 per cent.; organic matter rich in nitrogen, 10·42 per cent. Extractum carnis is a solid extract intended to increase the nourishing and stimulating qualities of soups or gravies, and to lend them a rich meaty flavour. It is soluble to a nearly clear solution, and an analysis gives the following results: Moisture, 29·08 per cent.; mineral matter (8·56 per cent. (consisting chiefly of phosphate); organic matter (containing nine parts of nitrogen), 62·36 per cent. The composition of the concentrated beef-tea is excellent. Both microscopical and chemical examination showed it to contain all the valuable principles of good beef-tea—that is, stimulating extractives as well as nutritive fibrine and albumen. Submitted to quantitative analysis the concentrated beef-tea gave the following factors: Moisture, 22·80 per cent.; mineral matter, 9·02 per cent.; organic matter (containing nearly ten parts nitrogen), 67·18 per cent. It is needless to point out that preparations of this character will serve many useful purposes.

REED & CARNRICK'S PREPARATIONS.

(REED & CARNRICK, NEW YORK; AND J. M. RICHARDS, 46, HOLBORN-VIADUCT.

SOME years ago we had occasion to report favourably upon certain admirable products of this firm, and recently we have had submitted to us further interesting and new preparations, the results of the examination of which are well worthy of record. Liquid pancrobilin, as its name indicates, contains the agents which prepare food for assimilation in the duodenum. It is a clear, syrupy, brown fluid, slightly alkaline to test-paper, and sweet at first to the taste and then persistently bitter. After acidulation with sulphuric acid, ether extracted a body which gave the well-known bile reaction with strong sulphuric acid and syrup (Petenkofer's test). Emulsion of starch was readily liquefied, and slowly though distinctly converted. According to other reactions the preparation contains glycerine and spirit. On suitable treatment the pancrobilin pills gave reactions confirmatory of the presence of both constituents—ox bile and pancreatin; while from the compound pancrobilin pills—into the composition of which nux vomica, damiana, extract of colocynth and quinine enter—the alkaloids of nux vomica and quinine were successfully extracted and identified. Lacto-preparata is described as artificially prepared human milk and sterilised, in which the tough character of the caseine is so modified that it will no longer coagulate into hard curds. It has probably therefore been malted or partly digested with diastase, for under the microscope a few cells of barley starch were

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recognised. On analysis lacto-preparata gave the following results:—Moisture, 1·7 per cent.; fat, 0·6 per cent.; mineral matter, 5·2 per cent. (mainly phosphate of potassium); sugars and albuminoids, 92·5 per cent. Lacto-cereal food is a somewhat complex mixture, and consists of partly digested milk powder, starch, dextrin, malted barley, desiccated bananas, cacao butter, and manna. It is characterised by a very agreeable flavour, and evidently contains a rich proportion of nourishing and probably easily digestible materials. Still more novel are the kumysgen tablets made by this firm, which, when dissolved in water, yield a kind of effervescing kumyss (koumiss). The tablets consist of small cylinders which slowly dissolve in water with effervescence, and by putting twelve in a bottle of water provided with a screw stopper, an effervescent milk may be obtained. The liquid so prepared is sweet and resembles fresh milk. The greater part of the caseine is apparently in solution, as on addition of acid, clots at once separate. These preparations furnish unmistakable evidence of the desire on the part of the manufacturers to place in the market products of a highly scientific kind, and this being so, we may confidently recommend them to the notice of the profession.

MENTHOL AND EUCALYPTUS COMPOUND.

(THOMAS CHRISTY AND CO., 25, LIME-STREET, E.C.)

This is an interesting preparation, occurring in beautiful colourless, needle-shaped crystals, and obtained from menthol and eucalyptus. Soluble in spirit and insoluble in water, it melts at a low temperature, and the menthol may be sublimed and partly separated. It gives off a fragrant and stimulating smell when placed in hot water, and the vapour so obtained may prove of value in the treatment of disease by inhalation.

THE "MORSTADT" CACHET APPARATUS.

(THOMAS CHRISTY AND CO., 25, LIME-STREET, E.C.)

We have received from the above firm a very useful and simple device known as the "Morstadt" apparatus for the ready preparation of cachets containing an exact quantity of any drug. It consists essentially of two bright metal plates fitted with a hinge, and closing like a book. Each plate contains twelve perforations, which are situated exactly over one another when the plates are closed. The plate that folds over is charged with empty cachets, while the other plate is charged with cachets filled carefully with a definite weight of medicament. A third plate, attached by a hinge, serves to cover the cachets when charging. After the cachets are filled, the empty ones in the right hand plate are moistened by means of a wet roller. The right hand plate and the middle plate are then brought together, and the cachet containing the drug, now securely sealed, may be taken out, and is then ready for use. We have examined the material of which the cachets are composed It consists of the purest rice paper, and is readily soluble and quite neutral to the taste. Those who look upon this method of administration with favour may now enclose medicaments by this simple contrivance in cachets for themselves, and thereby secure the exact dose of a given medicament, of the purity of which, moreover, they can be more certain. These are obvious advantages which not a few practitioners may desire to obtain.

KEFEER.

(THE CIRCASSIAN KEFEER FACTORY, 71, SWANSCOMBE-ROAD, CHISWICK, W.)

Kefeer is the interesting product obtained when cow's milk is fermented. It contains less caseine and milk sugar than fresh cow's milk, while alcohol (from 1 to 1·5 per cent.), lactic acid, hemi-albumen, lacto-syntonin, and peptones are found as the result of fermentation. As fermentation proceeds more of the caseine is digested, presumably by the lactic acid, and the conversion of the sugar of milk into alcohol, carbonic acid, and lactic acid continues. The remaining casein is precipitated in fine flakes, the size of which is not increased by the action of the gastric juice. The preparation above gave on analysis the following results: Total solids, 8·42 per cent.; fat, 1·30 per cent.; ash, 0·57 per cent. The sample has evidently been prepared with care, and it may be used with confidence in those ailments for which koumiss is esteemed valuable. Kefeer is somewhat thick, but of uniform consistence and free from lumps; it has a sour though not disagreeable taste. It is believed to fulfil an important indication in infant feeding—namely, the breaking up of the curd of cow's milk without introducing indigestible matter into the infant's stomach. Like koumiss, it has been observed to exert either a diaphoretic or a diuretic action, and to be specially useful in cases of general defective nutrition.

New Inventions.

THE GODALMING FLEECY HOSIERY.

SOME time ago we received specimens of their fleecy goods from Messrs. Nevill and Co. of Godalming. The various articles supplied—abdominal belts, shirts, hose, &c.—are made with the backs or plain parts of cotton, for the sake of cheapness, and also to hold the wool firmer. The wool itself is specially prepared by hand, to secure greater elasticity than would be obtained after the use of machinery. The wool is selected so that from its nature it may remain soft and elastic as long as possible. For this reason no chemicals are used in its preparation. The abdominal belts are manufactured of a natural-coloured wool and a natural all-wool webbing, so that the front also forms a soft and warm support to the abdomen. The shirts, vests, pants, socks, and knee-caps are kept in stock, of the usual sizes, and any, from the smallest to the largest sizes, can be procured on application. The fleecy webbing is also supplied by the yard, and can then be easily adapted by a needlewoman. We have made prolonged trials of examples of this hosiery. Certainly in cases of rheumatism, rheumatoid arthritis, lumbago, sciatica, coldness of the lower extremities, &c., it gives great comfort to the wearer. Old people find it of great use, and sufferers from lumbago speak very strongly in its praise.

NOISELESS COAL VASE.

THIS will be found to be most useful if not absolutely necessary in many sick-rooms. There is nothing more painful or distracting to a patient whose nervous system is enfeebled and rendered excitable by disease than the banging of coal-vase lids or the dropping of pieces of coal when the sick-room fire has to be replenished. Messrs. Treggon and Co., of 19, Jewin-street, E.C., have, by a simple modification of the ordinary coal vase, succeeded in doing away with the distracting noises which often accompany the use of the ordinary coal vase. It is so arranged that it can without noise be opened and shut and wheeled about the room, and the coals can be lifted out of it and placed on the fire without the least sound being heard. The improvement is undoubtedly one which medical men can recommend and which will be appreciated by both nurses and patients. In the case of students also and authors, say of the temperament of the late Thomas Carlyle, it is impossible to exaggerate the amount of mental acerbity which will be spared by the employment of this simple and elegant novelty.

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THE LANCET.

LONDON: SATURDAY, MARCH 26, 1892.

WE cannot but feel gratified at Mr. PARTRIDGE'S persistence in appealing to one Court after another for judgment against the Medical Council with regard to its action under the Dentists Act in erasing his name from the Dentists' Register. By such persistence he has brought into clearer form and expression the nature of his offence and the real powers of the Medical Council, as "a domestic forum"—a "domestic tribunal" (using the language of the Master of the Rolls), to purge the dental profession of sins that would discredit it, and lower its character in the estimation of the public. The facts of Mr. PARTRIDGE'S case are very simple. He was on the Dentists' Register in virtue of a dental diploma from the Royal College of Surgeons of Ireland, 1878. On obtaining this diploma he undertook to his College not to attract business by advertising or any other unbecoming practice. Nevertheless he did so, and continued to do so after the remonstrance and repeated warnings of his firm but merciful College. In 1885, for this behaviour of Mr. PARTRIDGE, the College withdrew or cancelled his diploma. In June, 1886, the General Medical Council ordered the erasure of his name and qualifications in consequence of his name having been removed from the list of licentiates of the Royal College of Surgeons of Ireland. In June, 1887, the High Court of Justice granted a *mandamus* to restore his name to the Register, on the ground that the Council had not, before removing the name, investigated the case for itself, as required by the Dentists Act, but had simply acted on the procedure of the Irish College, duly reported to them. This decision of the High Court of Justice left intact the right, and even the duty, of the Council to form its own opinion of Mr. PARTRIDGE'S conduct in the light of Section 13 of the Dentists Act, and to act accordingly. In the November following, the Council, on the report of the case by its Dental Committee, proceeded to a consideration of it. Mr. PARTRIDGE had been summoned, but did not appear either in person or by any representative. The Council resolved that he had committed the offence charged of wilfully violating the declaration not to attract business by advertising, that in the opinion of the Council this is disgraceful conduct in a professional respect, and that the registrar be instructed to erase the name from the Dentists' Register.

The trial on which we are commenting before the Court of Appeal is the last of several attempts to put Mr. PARTRIDGE'S conduct in a different light, and to have the judgment of the Medical Council set aside. No lawyer will disparage the strength of a Court composed of the Master of the Rolls, Lord Justice FRY, and Lord Justice LOPES. Their judgment is exceedingly clear, and involves not only the complete failure of every contention set up by Mr. PARTRIDGE'S counsel, but a strong expression of approval of the course pursued by the Council. The Master of the Rolls ended his judgment by these significant words: "I cannot part with this case without saying that so far from doubting as to whether they (the Council) were right or wrong, I am perfectly certain they were right." Mr. PARTRIDGE'S counsel tried to show that the Council had not properly exercised its powers, that it had acted without sufficient evidence, that even barristers were known to advertise or do something like it (a statement which seemed very much to surprise the eminent judges), that Mr. MACNAMARA, as representative of the College of Surgeons on the Council, was both accuser and judge, and that from all these facts an inference of malice might be drawn. The Court took an entirely different view, and, as we have said, fully justified the methods and the conclusion of the Medical Council.

It is of course true that the decision of the Court of Appeal in this case only applies to the case of a dentist advertising after he has solemnly undertaken not to do so. But all the judges let fall expressions which signified pretty plainly that in their opinion advertising by dentists is a grave offence, to be censured and punished as much as in medical men or in barristers, and decidedly to be punished in these. The Master of the Rolls struck the right note when he said, "No one need become a member of the dental profession unless he desires it. I say the authorities—this domestic tribunal—have a right to determine if it is within reason whether the conduct is or is not disgraceful professional conduct." A man enters a profession for the advantage and respectability implied in the conditions and discipline of its membership. A diploma is the honourable alternative of advertisement. It is the *testamur* of judges as distinguished from personal boasting, in which no real value resides. If a man resolves on the latter method of appealing to the public, he should in justice abandon the former, and he should do it willingly. The public, too, must make up its mind to elect between legitimate practitioners and quacks. It is altogether unreasonable, as we have lately said, that a man should wish for the incompatible advantages of being in a profession and acting as if he were entirely superior to its rules and laws. These rules and laws are made in the interest of the public. And unless they are to be enforced on barristers, solicitors medical men, and dentists, frauds and deception of the most cruel kind will be practised. We maintain that such domestic discipline of professions is eminently needed, and that the Royal College of Surgeons of Ireland and the Medical Council have in this case merited the approval of the entire medical profession, as they have earned that of the Court of Appeal.

LAST week we gave some account of the health administration of the last London County Council, and we referred more particularly to the work which had been undertaken under the Housing of the Working Classes Act. We propose here to discuss briefly the position of the Council in respect of health administration generally, and in doing so it is necessary to point out that until the Public Health (London) Act of 1891 came into force at the beginning of the present year, the Council has had very little, if any, statutory relation with the work of disease prevention in London.

The Local Government Act of 1888, which brought the Council into existence, enabled sanitary authorities within

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the administrative county to reappoint their medical officers of health under conditions that required the Council to contribute one-half of the salaries of these officers, and these contributions on the part of the Council were the occasion of empowering the Local Government Board to control the appointment and removal of the officers. A certain number of the sanitary authorities availed themselves of this opportunity of reducing local expenditure, but others held aloof; and even those which circumstances required to make new appointments did not always think it desirable to surrender their full control over their officers. One indeed (Shoreditch) thought it well to attach an altogether inadequate salary to a very responsible office, and to pay this trifling salary itself, and thus to escape the protest which both the Local Government Board and the County Council might have made against an arrangement which showed how completely the Shoreditch vestry failed to recognise its responsibilities. Under these circumstances it is very much to the credit of the medical officers of health of the London districts that they have cordially coöperated with the Council's medical officer in regard to the work of observation which the latter has undertaken. Notable instances of this coöperation became known to us during the late Council's tenure of office, and we may cite the speedy suppression of an outbreak of typhus fever, which threatened to assume serious proportions, in south-east London, and the investigation of typhus fever prevalence in London, concerning which the medical officer of the Council recently presented a report to his authorities, as evidence of this coöperation, on which we commented at the time.

The Council's first duty was to communicate to Mr. RITCHIE the amendments of the London Public Health law which it thought to be necessary, and, as evidence of the nature of the Council's work in this matter we may recall to mind the testimony of Mr. RITCHIE when he introduced his Bill into the House of Commons. Thanks to this statesman, a very useful measure has been made operative in London. By the Public Health (London) Act the Council has been put in touch with sanitary administration in all parts of the metropolis. It is impossible for sanitary authorities to make new appointments either of medical officers of health or sanitary inspectors without receiving from the Council one-half of the salaries which they pay. The Commissioners of Sewers have already re-elected their officers, and the Council will therefore in future pay one-half of their salaries. By degrees therefore the influence of the Council is being extended into all parts of the metropolis, and we may assume that in a very short time London, for health purposes, will be united. The Council, moreover, from the beginning of the present year will receive from medical officers of health, not only copies of their annual reports, but of special reports relating to outbreaks of infectious diseases in the several districts, and it may be expected that this knowledge which the Council will possess will prove of considerable value to the metropolis. The Council, too, is empowered to make by-laws for the prevention of nuisances which will enable it to render useful service to the metropolis in making life more comfortable and the conditions of London more wholesome.

But the chief powers which the Council possesses are to be found in two sections of the Act. It is authorised by these to undertake itself any duty which devolves upon sanitary authorities under the Act, and in respect of other matters it may make representation to the Local Government Board, and may be empowered by that Board to exercise any function which primarily is vested in sanitary authorities. It is evidently intended that the Council should watch over all the details of the administration of sanitary authorities, should call attention to any deficiency which may be detrimental to the public, and ensure that lax administration shall no longer continue. Upon the Council and upon its medical officer, therefore, is thrown a great responsibility; but, judged by the work which has already been done, there is no reason to believe the requirements of London will not be fully met.

For the purposes of a complete health administration further legislation is still needed. We noted the other day the demand of the Metropolitan Asylums Board to be created a sanitary authority. Whatever might have been the possibility of endowing the Managers with these powers some years ago, this has become altogether impossible since the Public Health (London) Act was passed. It cannot indeed be long before some of the more important functions of the Managers are transferred to the Council, and we shall gladly see the Council recognising to the full its new responsibilities, so that it may be ready to undertake at a fitting time the larger duties which must devolve upon it.

The London County Council, in respect of the health administration of London, has an immense future before it. It is evidently preparing itself for the proper performance of its duties. It has created a new Health Department, with the medical officer at its head, and it may be expected that the next three years will not pass without leaving its impress upon the sanitation of the metropolis.

THE case of "HANBURY *v.* HANBURY," in which the plea of insanity was put forward as a defence in a divorce suit, is of exceptional interest, in so far as this plea had not previously been urged during the more than thirty years that the Divorce Court had been established. The case was tried before the President (Sir C. BUTT) and a special jury, and the hearing occupied several days before the decision was arrived at on the 17th inst. The circumstances under which the petition was brought were briefly the following. The respondent was a partner in a brewery business, and was married to the petitioner in 1875. They cohabited until 1886, and six children were born of the marriage. They had for some time lived happily together, but by 1883 Mr. HANBURY had taken to indulgence in drink, with the result that he had not only used personal violence, but even threatened to shoot his wife. In 1883 he became a voluntary inmate of an asylum for inebriates on at least two occasions. In 1884 he was placed in a private asylum, under certificates, suffering from acute mania, with delusions. In the same year a petition for separation was compromised, and Mrs. HANBURY'S allowance was raised from £500 to £800 a year; and it may be taken that no question of pecuniary motives entered into the case, as Mrs. HANBURY, on the one hand, not unnaturally sought that due provision should be made for herself and the children; while, on the other, it appeared

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that Mr. HANBURY had shown every disposition to do what was proper in this respect. In 1886 Mr. HANBURY was again placed in a private asylum, but was discharged after a short time. His wife then finally separated from him. Since that date Mr. HANBURY had been from time to time under restraint as a lunatic, and a brother of the petitioner, who said that in 1880 he first noticed that the respondent had taken to drink, alleged, in cross-examination, that from 1886 to 1889 he had not seen him thoroughly sober during the whole time. Several medical men, including experts in lunacy, who had been consulted or who had had him under their care, gave evidence as to the respondent's mental condition. There is no room to doubt, from this evidence, that he was subject to attacks of recurrent mania accompanied by delusions, and more or less associated with excessive indulgence in drink. These attacks occurred at irregular intervals, and they had the effect of causing Mr. HANBURY to become in turn depressed, wild, excited, abusive, threatening, cruel, and dangerous. The medical testimony was to the effect that the indulgence in drink was the result, or at any rate the concomitant, and not the cause of the insanity—a point which we regard as not by any means clearly established as to the drink question prior to 1883, when the respondent first voluntarily placed himself under control. This reservation is not unimportant when we bear in mind the varying opinions held on this subject in individual cases, and the risks and evils that are apt to result from confused notions as to the respective positions that should be assigned to drink and to insanity in relation to the question of responsibility. At all events, in the case under consideration the outcome of the trial was, in the first instance, to establish the existence of insanity in the respondent, who pleaded that if the acts of cruelty and adultery alleged were committed, he was a lunatic at the time, and not responsible for his actions. It was shown, however, that the insanity was of the recurrent form, with intervening periods of sanity; that he was very intemperate in his habits, and had suffered from delirium tremens; and, further, that when not under the influence of drink he was of a kindly and affectionate nature.

The President, after referring to the painful nature of the case and the amount of sympathy that had been invoked on both sides, went on to say that really the matter must not be one of sympathy one way or the other. There were certain facts to be determined, and a grave and difficult question in this case was as to the effect of insanity as a defence to a suit for dissolution. That, broadly stated in that way, so far as the learned judge was aware, had never been decided in this country, and he did not know whether in its broad aspect it ever would be decided in this country, because there was insanity and insanity, and he could well conceive that there might be cases in which insanity might be a defence to an action for dissolution of the marriage. Having dealt with the evidence as to the cruelty and adultery, which his lordship said was abundant to entitle the wife to the relief she sought, he then came to the plea of insanity. His view on this point was that it must be a lasting and abiding insanity, something distinct from recurrent insanity, and he was not at all satisfied that the plea was a good one. The main object of the Divorce Act, in his opinion, was not so much punishment or retribution for marital offences as protection to the party. His lordship went on to say that, assuming that the acts of violence committed by the respondent were not brought about by intemperance, but were the result of hereditary disease (which, we may remark, was maintained by the medical witnesses), he should still be disposed to hold that acts of cruelty committed in these fits of mania entitled the wife to relief. But in this case, if the wife proceeded under the criminal law against her husband for violence and cruelty, she would be able to get relief from her husband on the plea of insanity by his being dealt with as a criminal lunatic; and, on the footing here urged by the learned judge, it is difficult to see why the plea of insanity (involving irresponsibility) should be operative in one case and not in the other.

His lordship asked the jury to find whether the mania resulted from drink, or whether the drinking resulted from the disease. There was abundant evidence that this man drank heavily and constantly, and it was said that if the drink could not form the excuse, then the disease was hereditary; but no evidence whatever had been offered that any of the ancestors of Mr. HANBURY suffered in the manner which was suggested, while the respondent himself had not elected to give evidence, because it was said it would be dangerous to his health if he did so. This absence of the respondent from the court is one of the weakest and least satisfactory portions of the case, and it testifies to the incomplete, not to say illusory, character of the evidence which may be produced in cases of the sort. For if Mr. HANBURY at the time of the trial was in one of his lucid and happier intervals, his appearance would not support the allegation of insanity; if he were then in a state of mania he might not be in a fit state to do himself justice and to refute charges—possibly unfounded—made against him, or to give any evidence (if he had it) exculpatory of his own conduct under circumstances that were merely suspicious and not proof positive as to guilt. There is no reason for implying that in the HANBURY case all was not carried out in a legitimate and proper manner; but it is sufficient to illustrate the evils and difficulties that arise, or could be made to take effect, where from motives that were either unworthy or not straightforward the question of insanity comes to be mixed up in divorce suits. It is not difficult to conceive of a husband or wife contriving to neglect an insane spouse and bring about adulterous intercourse, and then, in the unavoidable absence of the respondent's evidence, gaining a decree *nisi*. It is to be hoped, therefore, that the plea of insanity will not come to be urged frequently in cases of this sort, as the variations from the normal healthy mental condition of an individual in the direction of eccentricity, drunkenness, and insanity, and in relation to immorality and cruelty, are too ill-defined and too much a matter of individual opinion for any satisfactory general rule to be laid down. We are bound to say that upon the evidence in the case of "HANBURY *v.* HANBURY" we are not surprised that the jury arrived at the verdict that the respondent had committed the acts of cruelty and adultery charged, and that at the time he was capable of appre-

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ciating their nature and consequences. His lordship pronounced a decree *nisi* for the dissolution of the marriage with costs, and custody of the children; and on application he granted access to the children on behalf of the respondent, subject to arrangement.

IT says much for the widespread interest taken in the deeper problems of pathology that so recondite and difficult a subject as that of the manner in which the organism is rendered insusceptible to the action of specific virus should have attracted such large audiences at the Pathological Society, and that the debate, extending over three sittings, should have been so well sustained. Certainly, the interest in the question was heightened by the quasi-romantic character of the doctrine of phagocytosis, wherein the process of protection resolves itself into an active defence by the living cells of the body against the assaults of the bacterial host; and the knowledge that this doctrine would be as warmly opposed by one section of pathologists as it would be supported by the other doubtless quickened the anxiety to hear both sides of the question set forth. Now that this debate is over, and the advocates of phagocytosis and of chemical protection have expounded their views, it is natural to inquire where we stand. It would be impertinent and cynical to dismiss the question as if nothing at all had been gained by its discussion; or as if all the labour which has been expended in attempts to solve it had left us in as much ignorance with regard to the real problem as before. This is not the fact; but we think it may safely be said that the whole problem has by no means been solved, and that probably Dr. SIMS WOODHEAD is right in his belief that the eventual solution will be found between the two sets of doctrines that have been so skilfully advocated.

Sir GEORGE HUMPHRY, in the remarks with which he closed the debate, did excellent service to the cause of pathological inquiry by pointing out that the matters about which there has been so much debate involve questions which at the present time are practically insoluble; and in illustration thereof he alluded to the known clinical facts of the history of specific fevers, and the lack of explanation—other than the discarded theory of "exhaustion"—of the phenomenon of their sudden subsidence after going through a definite cycle of evolution. Some profound change must have taken place in the organism to produce this self-limitation of the disease, but no experimentalist has been able to prove in what that change consists. So is it with this question of "immunity"; for although Dr. SIDNEY MARTIN urged that by experiment the investigator is in a better position to control circumstances than by the clinical observation of disease, yet between the artificial immunity—or, as Dr. RUFFER more aptly termed it, "resistance"—induced by the experimenter and the natural protection which experience teaches is produced by one attack of a specific fever there is at present no very close relation. Dr. SIMS WOODHEAD, at the commencement of his reply, emphasised this difference by speaking of the animal which had been artificially protected as in no way comparable to one naturally resistant to infection. It is well to bear this in mind in attempting to gauge the importance of researches upon "immunity," and in endeavouring to determine in what manner the resistance to viruses is brought about. But it is also well to recognise that the special question contained in the latter problem is not capable of a limited or narrow treatment. Indeed, from the wealth of facts furnished by the numerous speakers in this debate, it is clear that the subject is beset on all sides with matters which require the profoundest study. To attempt anything like an adequate analysis of this discussion would far transcend the limits now at our disposal, and we must perforce be content to discuss only the main issues at stake, although fully conscious of the imperfections of such a mode of regarding the matter. Thus, then, we have on the one hand an explanation of the resistance opposed to infective disease—or, more strictly speaking, to pathogenic microbes—in the active antagonism of the amœboid cells of the body, the transference of the normal property of phagocytosis, which plays so useful and necessary a part in nutrition, to the special property of active destruction of microbes. On the other hand, it is contended that this bactericidal property is an attribute of the fluids of the body as distinguished from the cells; and the presence of bacteria within cells is explained either as being in accordance with the ordinary functions of leucocytes, such as their ingestion of any foreign particles, or as evidence that the bacteria themselves are the aggressive parties, and that it is they which consume the phagocytes and not the converse.

When, however, we regard the question as one between the operation of the living cells and of the fluids of the body, we cannot but agree with Sir G. HUMPHRY and Dr. W. HUNTER that the distinction is more artificial than real. The day has passed for maintaining a strictly humoral as opposed to a solidist theory of pathology. Physiology teaches that cells and fluids in the living body are essentially interdependent, and that ultimately cell-protoplasm is the centre whence all the vital and chemical actions of the organism flow. Nor can we suppose that this is gainsaid by any who take what has been called the "humoral" side in the present controversy, only they seem to imply that certain constituents of the blood, or, more correctly speaking, certain materials which can be extracted from the blood (and of which there is no proof that they exist as such in the living body), possesses the power of antagonising the action of bacteria or of neutralising their virulent products. Animals which are not naturally insusceptible to such external viruses, it is averred, may become so artificially by the introduction into the blood of "antitoxines"—products, it may be, of the self-same bacteria formed in the process of their cultivation in suitable media. This is, we are aware, but a bald statement of the substance of the "humoral" position, which has received so much support from fact and argument at the hands of numberless investigators both in this country and abroad. During the recent debate these arguments were concisely stated by Drs. KANTHACK and MARTIN and Mr. HANKIN. On the other hand, phagocytosis, apart from the microscopical evidence adduced in its favour, has the merit of being a more tangible and material doctrine; and there is something singu-

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larly attractive about the details of the process in respect to the question of protection and insusceptibility, whether natural or artificial, that may bias the mind in its favour. It is the outcome of a series of observations which abound in interest, and which bring into close connexion normal and pathological processes with a deftness that is to be admired. The action of certain substances in attracting amœboid cells and that of others in repelling them, as shown by a series of beautiful experiments, has been drawn into the subject, although the crucial difficulty alluded to by Professor BURDON-SANDERSON in the matter is that it entails the acceptance of some specific powers not possessed by the leucocyte in its ordinary state. The remarks of Drs. WRIGHT and ADAMI, as well as those of Dr. HUNTER and Dr. SIMS WOODHEAD, seem to imply that it is possible to accept the essential principles of both views of the production of "immunity," chemical or humoral changes being then considered as supplying the phagocytes with the specific power of resisting the inroads of specific organisms. In Dr. RUFFER'S exposition we have the doctrine of phagocytosis in respect to this question clearly enunciated, and those who read his paper will be fortified with the strongest reasons for accepting it, so far as it is intended to be accepted, in place of a more subtle doctrine of chemical protection.

The debate, it will have been noticed, was mainly in the hands of the experimental school of pathology, a school, which, as the President pointed out, has done much in this country in spite of disadvantageous circumstances. But the question could not have been fully considered had there been no reference to clinical knowledge, and the contribution of Dr. BRISTOWE as well as the remarks of Sir G. HUMPHRY were especially interesting in this regard. Viewed from this aspect, it is apparent that there are several matters in the history of specific diseases that require elucidation at the hands of the bacteriologist; these are of almost equal importance with the more obscure question of "immunity"; such, for instance, as the affinity of certain viruses for special tissues of the body, the varying types of fever that accompany the diseases, the singular fact of critical defervescence in several of these affections, and the possibility of aborting specific fevers by treatment. These and similar topics need to be studied anew in the light of modern research. Therapeutically, the doctrine of phagocytosis may be thought to receive support in the fact that the most efficacious way of meeting the inroads of infective disease is by using every means to fortify the vital powers of resistance against the invader.

THE Medical Society of the State of New York received, on Feb. 3rd last, a report from a special committee, consisting of Dr. A. JACOBI, Dr. W. C. WEY, and Dr. B. F. SHERMAN, on capital punishment. There can be little doubt that the Society has been led, however imperceptibly, to the production of this report by what has lately been enacted near them in carrying out the extreme sentence of the law. But this is not the subject labour of the committee; the committee appears to have laid itself out to study, from the medical side alone, the question of capital punishment. All reference to metaphysical questions is avoided. The members of the committee felt that to ventilate the question of capital punishment, its perpetuation or abolition, and the subjects connected therewith—viz., the nature of crime, of responsibility or irresponsibility, of the cerebral functions called judgment and will, the existence or non-existence of a free will and its limitations, from any other than an anatomical and physiological point of view—that is, a strictly scientific point of view—would not be the correct method for them to follow. Most wisely, therefore, they confined themselves to the consideration of a subject in which trained thinkers on questions medical would feel the deepest interest, and in which they as trained thinkers would be most useful in advising and guiding a nation at large.

From this standpoint the reporters deliver their judgment. "Crime is an evil impulse that ought to be controlled. The controlling powers are the cerebral functions of judgment and will." This is the only general proposition they offer. They proceed thence on physical argument. "Whoever is held responsible for his aberrations and his wrongdoings is termed and punished as a criminal." But "Whoever is considered irresponsible is no longer a criminal to be punished, but a lunatic against whose vagaries society takes pains to protect itself." So amongst civilised peoples both the punishment of the criminal and the incarceration of the hopelessly insane are, or ought to be, but different modes of self-preservation. By truly civilised men they say "the theory of revenge or retaliation has been given up long ago. Their minds are more bent upon the preservation of the physical and moral health of the community than on the spiteful annihilation of the rebel against the common welfare."

The reporters proceed to argue with great skill that the boundary lines between responsibility and irresponsibility are uncertain boundary lines, and they point out that many of the physical changes which lead, or can lead, to criminality may be preventable, and may be due to no fault of the criminal in so far as their first starting forth is concerned. The servant girl who lets a baby fall may maim it for life, or may so affect its brain as to change the current of its thoughts and feelings into criminality. The development of a syphilitic infant into either a healthy man or an invalid, or the development of the luckless possessor of a cerebral endarteritis or gumma, with their physical or moral consequences, into a healthy man or an invalid, may depend on the diagnostic knowledge and therapeutical skill of a practitioner of medicine. The injudicious use of forceps—to which might well and wisely be added the judicious and skilful but necessary use of the same instruments, or the injudicious avoidance of their use in some cases of prolonged labour from contracted pelvis; the influence of disease and conditions of the heart and circulation on the brain and the cerebral functions; the diffuse affections of the brain from various physical causes; and, above all, that inanition of brain which springs from overwork and anxiety, are adduced as common causes of aberrations with which medical men are conversant from their daily observations of mankind, and which account for very much of what the ordinary and even the judicial mind designates as crime and visits with punishment, sometimes, it would seem, on the principle of retalia-

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tion. The reporters add, "the symptoms of most of these conditions may resemble each other very much; delirium, mania of all kinds—mainly persecution mania—puerility, irascibility, diffidence, misanthropy, are just so many symptoms of acute, subacute, and chronic forms of disease. Epilepsy is a frequent cause of outbreaks of excessive violence. At this moment a negro is on trial for murder. He is known to have severe attacks of epilepsy. Experts have sworn he is a criminal. Experts have sworn he is diseased and not responsible. What does it teach? It teaches that there is surely reason for a doubt as to the causation of the criminal act. It should also teach that society, as represented by the jury, and as represented by the humane spirit of the times, ought to keep a sharp look-out on its own dignity. A man may blunder, but society cannot afford to be brutally mistaken where it is at the same time accuser, judge, jury, and executioner."

The concluding part of the report to which we have thus directed attention is as follows: "This Medical Society of the State of New York, having the advantage of physiological knowledge, and being aware of the difficulties of being always correct, and of the absolute impossibility of making a positively safe diagnosis in every case of alleged crime or presumable cerebral disease or anomaly, expresses its opposition to the perpetuation of capital punishment and its hope that means will be found to protect the community by less uncertain and less inhumane methods."

Whilst by no means prepared to express our own concurrence with the above forcibly propounded opinion that capital punishment should be abolished, we cannot withhold our admiration of the humane impulses which have prompted and the scientific spirit which has directed the Medical Society of the State of New York in their report on a matter of supreme interest and importance to the people and the Government of every civilised community.

Annotations.

"Ne quid nimis."

THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

THE announcement that Dr. Buchanan, F.R.S., has intimated his intention to resign the post of medical officer to the Local Government Board at the end of the present month will be received with some surprise by those who, knowing the unremitting attention he has bestowed on his official duties up to the last moment, are able to appreciate the exceptional abilities which he renders and has all along devoted to the public service. His career, first as a London physician who devoted himself particularly to the study of the continued fevers, next as a temporary inspector under the Privy Council, and finally as medical head of the Public Health Department of the State, has been throughout one of great distinction; and we have only to refer to the able contributions which he made to Sir John Simon's former reports to the Privy Council, and next to his own annual reports to the Local Government Board, to recall a series of public health literature which we believe to be unique in value and importance whether in the English or other tongues. Dr. Buchanan received the Fellowship of the Royal Society many years ago, he is now sitting on the Royal Commission on Tuberculosis and the Nomenclature Committee of the Royal College of Physicians, he is also a member of the Senate of the University of London; and he therefore lacks no means for bringing his matured experience and advice to bear upon those branches of science in which he has so long taken, and still takes, such active interest. His loss will, we are sure, be much felt by his colleagues in the Medical Department, who have always considered that in their chief they had a staunch friend and counsellor.

THE LOADING OF MERCHANT SHIPS.

A BILL to amend the law relating to the loading and provisioning of merchant ships has been introduced into Parliament, and is influentially supported not only within the House, but also without, since it is strongly advocated by Mr. Plimsoll. With its aims most people will sympathise, especially when it is borne in mind that, so far as loading is concerned, the existing provisions of the law have proved wholly inadequate. The Cardiff magistrate recently, when inflicting the maximum fine in three cases of overloading, took occasion to remark that such fines as he could inflict were no punishment, because in many overloading cases the freights earned by excessive loading were greater than the fines, so that when these latter had been paid there remained a balance to the credit of the overloading. The present Bill proposes to deal with this difficulty, not by the imposition of a larger fine, but by the simple expedient of authorising the Customs officer, or "other prescribed authority," to withhold the clearance papers of the overloaded ship until the necessary lightening is effected. This remedy, if proper officers are employed in the discharge of the duty and due vigilance is exercised, will be much more satisfactory in every way than the present system, and will have the double advantage of being milder in form and more effective in operation. The other subject dealt with in the Bill is the inspection of food stores, and substantially the proposal is to dispense with the complaint by the crew now necessary to give jurisdiction to the officers authorised to inspect, and to provide for systematic inspection by a "prescribed officer" of all ship's stores of food before clearance. It is very difficult to form any notion how such a change in procedure would work. It might result, as it is intended to result, in a more effective supervision than is at present exercised. On the other hand, it might relegate the whole subject to a region of routine in which systematic inspection would mean an inspection systematically bad. The importance of securing fit and sufficient supplies of food for the sailor cannot be overstated, and we wish the highest success to those who have interested themselves in the most excellent objects to which this Bill is directed.

TOBACCO AND DEPOPULATION.

THOUGHTFUL Frenchmen, it is well known, are coming to regard with some uneasiness the signs of stagnation, if not of actual decrease, in the population of their country. Malthusian doctrines, however attractive in point of economy, do not now appear to exercise that fascination which once was theirs, and which we cannot doubt has much to do with the reduction of reproductive energy. We are reminded, however, by the author of a paper on this subject recently published, that other causes may have contributed somewhat to the same result. Under the heading of "Le Tabac et la Depopulation de la France" M. E. Decroix, who is the founder of a Society intended to check the abuse of tobacco, assures us that, among such, a prominent place must be assigned to the influence of tobacco. The arguments by

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which he seeks to fortify this opinion are by no means void of ingenuity, and are supported by the evidence of investigations and information contributed by various medical men, and of the vital statistics afforded by different departments of the country. Among the former there seems to be a consensus of opinion that tobacco consumed in excess exhibits in various degrees a constant sedative influence upon the reproductive system. A series of experiments by Dr. Depierras are quoted in order to show that the same rule holds good among the lower animals. In this case the offspring of cocks and male rabbits exposed to the fumes of tobacco are said to have proved feebler and shorter-lived than those born under natural conditions. The conclusions founded upon statistical testimony are very emphatic, more so, indeed, than we should consider to be justified by the accuracy of the method pursued in this inquiry. After comparing ten departments in which a greater, with ten others in which a less, amount of tobacco is consumed, M. Decroix, by summing up their collective disparities, has no difficulty in showing that in the former there is a marked excess of deaths, of stillbirths, of divorces, of illegitimacy, which he takes to be a mark of morbid vitality, and a falling off in the size of families. When, however, we compare the departments with each other separately, we frequently miss that evident connexion between cause and effect which the author's views on tobacco would lead us to expect, and it is clear that we must in many cases allow for the action of other influences in producing the result for which it is blamed. Under the circumstances we cannot agree with all the propositions advanced in this paper. At the same time it cannot be denied that the excessive use of "the fragrant weed" is to be numbered among the forces opposed to a continuance of healthy life.

THE INSANITARY CONDITION OF BARRACKS.

IT was not to be expected that Lord Wolseley's recent statement strongly condemnatory of the condition of many barracks in England and Ireland would pass unnoticed, and Mr. Hanbury called attention to it in the House last Monday. His lordship is reported to have said that he could point to many barracks which were a crying disgrace to the nation; but they were used year after year, although they were known to be abominable habitations for human beings. Notwithstanding that the fact had been reported for the last fifty years, nothing had been done except by the present Government, who had done a little. Mr. Hanbury wanted to know from the Secretary for War whether he could specify, or would call upon Lord Wolseley to specify, the particular barracks referred to, and whether this state of things would be entirely removed by the large amount now being expended on barracks, and if so, within what period of time. Mr. Stanhope replied that, as regards barracks generally, he had given full information to the House, both as to the urgent cases requiring attention and the work being done, but the sum at his disposal would not suffice to rebuild all the barracks; and, in further reply to Mr. Hanbury, he said that the barracks which were admitted to be insanitary were being put into repair, and that troops would not be put into them until this was done. It must be admitted, we think, by anyone who will compare the buildings, whether barracks or hospitals, that have been erected of late years with those which were in existence fifty years ago that there has been an immense change for the better, and every year more attention seems to be devoted to providing for the health and comfort of the soldier. But this does not really touch the question as to whether there are not many old barracks of such a character and construction that they are quite behind the sanitary requirements of the age in which we live. Attempts have been made from time to time to improve them, but it is questionable whether in some instances these attempts have been, or are likely to be, successful or worth the outlay. The most satisfactory and successful efforts will be made in another direction—viz., in the provision of new barracks as a substitute for buildings of an old and radically bad construction. This takes time, no doubt, but it is, nevertheless, the direction in which army sanitarians should move.

THE TEETH OF SCHOOL CHILDREN.

THE first report of the committee appointed by the representative board of the British Dental Association to conduct a collective investigation as to the condition of the teeth of school children was presented at the last meeting of that Society, some comments upon which appeared in our columns. The committee was convinced "that if more attention were paid to the teeth of children the general sum of public health and well-being would be materially increased, inasmuch as the disastrous effects frequently produced, even in early adult life, by the decay and loss of teeth may, in a very large majority of cases, be traced to disease of those organs in childhood." A further contribution on this subject is a paper by Mr. Denison Pedley and Mr. Sydney Spokes, after an examination of over 900 children at the Hanwell district school, in which they state their opinion that the lamentable state of the teeth from caries ought to be combated by systematic treatment by a qualified dental surgeon appointed to such institutions, and in their report they bring forward many sound suggestions. With regard to the temporary teeth, it is popularly believed that they are not deserving of any particular attention, as in the natural course of events they must give place to others of the permanent set. Whilst there may be some ground for this view, it is nevertheless true that much misery to children, as well as detriment to health, can be avoided by intelligently watching and treating temporary teeth. Between the age of six and seven the first permanent molars appear, and are only too often mistaken as belonging to the temporary set, and these most important teeth are allowed to decay without any effort to save them. Irregularity, which is one of the great predisposing causes of decay, can often be remedied by the removal of certain teeth or by the application of some mechanical apparatus.

DEATH BY FALLING.

OF late years a considerable, and perhaps a disproportionate, amount of attention has been devoted to the scientific explanation of the state of unconsciousness. The public, as well as the professional, mind has been treated *ad nauseam* to discussions on hypnotism. The relations of trance and sleep to each other and to various phases of disease have elicited their share of logical ingenuity and of research. Quite lately again an allied condition—that of the numbed sensation consequent upon shock, such as that experienced in falling from a height—has attracted attention, though beyond the assurances of some who have survived this experience that dread and pain are alike absent we have no certain proof of the existence or the essential character of this merciful torpor. According to Professor Heim of Zurich, who has devoted much time and thought to the investigation of the subject, the sensations at such a time of the sufferer, if so he can be termed, resemble somewhat those of drowning persons. In place of pain there is a process of rapid and involuntary mental activity, succeeded by stupor; series of old memories fly past the mind like scenes in some rapid vision, and life is revised, as it were, on the threshold of death. One is naturally tempted to inquire what is the explanation of this extraordinary state, in which

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the final catastrophe appears to be lost in the dream-slumber preceding it. The preoccupation of rapid cerebration, a species of shock in itself, might furnish a clue to the mystery—at all events, as regards the abolition of pain and fear. We cannot help thinking, however, that other causes must be operating along with this, which at first presents itself as the most obvious. The analogy afforded by drowning is, to our mind, especially suggestive. We may remark that here we have to do with a highly probable alterative of normal brain function in the stimulant-sedative influence of a disturbed circulation. The advent of asphyxia implies the turgescence of all venous channels and capillaries, and the increasing accumulation in these of carbonic acid. It appears to us that the same process must occur in falling. As a rule the fall takes place with head downwards. At the same time there is exerted upon the respiratory passages the suction force of the outer air in rapid transit, acting, we may conclude, in much the same manner as water in a large tube which draws into its own volume the fluid contents of any small communicating channel. Thus it would seem at least a reasonable hypothesis that the coma of death in the circumstances referred to, like the same condition in various forms of disease, is essentially a process of deoxidation of tissue with accumulation of carbonic acid.

THE CASE OF SURGEON-MAJOR W. H. BRIGGS.

IT is a source of sincere gratification to us that attention was called in the House of Commons on the 22nd inst. to the case of this medical officer. Dr. Farquharson asked the Secretary of War whether he had further considered the case with a view to Surgeon-Major Briggs being reinstated in the position which he would now occupy in the service if he had not left it; and Mr. Stanhope, in very handsome terms, replied that Surgeon-Major Briggs would be restored to the seniority he held before retirement. It is well known that this officer rendered excellent service in the department, that he did good and skilful professional work in the field, and that he acted, under very trying circumstances, in a chivalric and honourable way. We heartily congratulate him on the result But what we want to know is, who was responsible for the action that was taken in the matter Why was he called upon to resign in the first instance, and how did it happen that his restoration to the service was coupled with conditions that he could not accept, and which, it seems evident from the War Minister's statement, should not have been made?

HEREDITARY SPASTIC PARAPLEGIA.

IN the last number of the St. Bartholomew's Hospital Reports Dr. Howard H. Tooth puts on record four cases which he thinks come into this category. The name is that given by Dr. Gee a few years ago to three cases of spastic paraplegia in members of the same family—viz., father, son, and daughter—which he observed and recorded. Of Dr. Tooth's cases two occurred in one family and two in another. In the first pair of brothers the onset of symptoms took place at the age of fifteen, and in one it was preceded by an injury to one hand. The history of the advance of the disease was similar in the two—viz., weakness of the back, stiffness of the legs, speech stammering at first, latterly becoming inebriate in character, extensor rigidity in both legs, with exaggerated knee-jerks and an absence of pains, ocular symptoms and ataxy. In one case there was slight incontinence of urine, and in the other a marked condition of pes cavus. Of the second two brothers the history differs in no important point, except that the onset of the symptoms was earlier, and there seemed to be more general weakness. The cases, as Dr. Tooth points out, present the clinical picture of lateral sclerosis. This was not secondary to cortical disease, as was evidenced by the absence of convulsion and of mental deficiency, and by the fact that the patients were not affected from birth, but were in two of the cases healthy up to fifteen years of age. Nor can the symptoms be accounted for by a local transverse lesion; because, apart from the improbability of such a condition appearing in two members of the same family at the same age, there is no evidence of disturbed sensibility. It certainly seems, as Dr. Tooth says, that those cases exhibit a clinical condition very closely analogous to Friedreich's ataxy, but differing in some important respects. In those cases the bulk of the degeneration, so far as we are able to judge of pathological anatomy from clinical phenomena, appears to fall upon the lateral columns, instead of, as in Friedreich's disease, on the posterior; and so, instead of ataxy with absent knee-jerks, we find rigidity with exaggerated reflexes. The two classes resemble each other in showing an absence of pupil symptoms; for in Friedreich's disease the pupil seldom, if ever, shows the absence of light reaction, which is so frequent in ordinary tabes.

ENDOWMENT OF ORIGINAL RESEARCH.

A GENTLEMAN has, we are informed, established a scholarship of £100, tenable for one year, for the encouragement of original research. The scholar will be selected by a committee composed of Dr. George Thin, Surgeon-General Cornish, and Professor A. Wynter Blyth. The conditions of the scholarship are that the research shall be in a subject requiring for its elucidation both chemical and bacteriological methods, and the subject will be selected by the committee of selection with the concurrence of the scholar. The work is to be done in the laboratories of the College of State Medicine, 101, Great Russell-street, W.C., and the scholar will have to devote his whole time to the work. Applications should be made by letter addressed to Surgeon-General Cornish, College of State Medicine, 101, Great Russell-street, W.C., on or before April 18th, 1892.

EXPERIMENTS WITH CELLULOID.

A CORRESPONDENT recently forwarded us three varieties of articles made from the material known as celluloid—viz., an imitation ivory dice-box, an imitation tortoiseshell hairpin, and a variegated pattern of a toy bouncing ball. In view of the possible dangers arising from the use of buttons, hairpins, &c., made of this material, we have submitted the above to experiment, and the results are perhaps of sufficient interest to justify record. The articles were, without exception, highly inflammable. On applying a light they burst instantly into a brilliant smoky flame like that produced when camphor is ignited. It was not difficult to blow the flame out, but dense fumes continued to be given off which were quite as inflammable as coal gas, and, on placing a light in the stream of smoke at a distance of six inches above the material, a bright flame instantly ran down and re-ignited the article. Portions of the three articles were next placed on paper at a distance of eighteen inches, in front of a red-hot fire, where the temperature was ascertained to be 100° C. (212° F.). Beyond the softening of all the pieces, and a slight swelling of the tortoiseshell and toy ball sections, no signs of ignition could be observed. The paper on which the articles were resting was then placed at about twelve inches from the fire, where the thermometer showed a constant temperature of 110° C. (230° F.)—i.e., ten degrees above boiling point. In ten minutes the pieces of thin celluloid, of which the ball was composed, swelled out, emitted dense fumes of camphor, and charred, without, however, showing any sign of flame, while the paper was only blackened and scorched. In fifteen minutes precisely a similar occurrence happened

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to the hairpin, the imitation ivory being as yet unchanged. Another hairpin and a fresh piece of the toy ball were then placed along with the yet unfired ivory specimen within six inches of the fire. The piece of toy consumed rapidly away in little over a minute, apparently without flame, and the hairpin followed suit in about three minutes. The paper upon which they lay was charred only, not actually ignited. The imitation ivory showed slight swelling under these conditions, but not until the temperature was raised to 145° C. did it puff up and give off abundant smoky fumes of camphor, as in the previous experiments. In no case could it be said that the combustion was accompanied by flame, nor was the paper upon which the articles were resting actually ignited; it was only scorched and charred. The difference exhibited by the ivory specimen in susceptibility to the influence of heat may possibly be accounted for by the fact that, first, it is more dense, and, secondly, it contains a fair amount of zinc salt. On ignition the ash was found to consist almost entirely of zinc oxide. The addition of this metallic salt serves probably to make transparent celluloid opaque and to give it the appearance of ivory. The tortoiseshell pins contained no zinc, and yielded very little ash at all; and while in the toy ball, which was of a variegated pattern, the white opaque spots contained the metal, none was found in the clear portion of the material. All the specimens emitted a strong odour of camphor on rubbing, and more especially the tortoiseshell and transparent variety. Ether also dissolved out camphor from each of the specimens. It would appear from these experiments that celluloid is, generally speaking, not so dangerous as might be supposed, although, in view of the testimony recently furnished by Professor Boys, F.R.S., of the inflammability of buttons made of this material, there are exceptions; but probably these exceptions depend upon a variation in the composition of the celluloid, some preparations, perhaps, containing more pyroxylin, and accordingly less camphor, than others. The manufacturers of celluloid would in any case do well to give their attention to this matter, and by adopting a process which will secure greater certainty in the composition and character of this beautiful material, or by incorporating with it some substance which will render it practically non-inflammable, rid it of the one quality which at present would seem to render its general use not quite safe.

DEATHS UNDER CHLOROFORM.

A DEATH under chloroform occurred at University College Hospital on Wednesday, March 9th. The patient, a young man of twenty-two, suffered from old-standing jaw mischief, and it was proposed to remove some dead bone. Chloroform was carefully given upon lint, and no unusual symptoms occurred until, as the operation was being commenced, the gouge being placed in the carious bone, respiration and the heart's action stopped. The operation was discontinued; the tongue was drawn out of the mouth, and artificial respiration was at once commenced and maintained for a considerable time. Several natural respirations occurred, and care was taken to synchronise the artificial with the natural breathings, but no pulse or heart's movements could be detected. There was free entry of air into the lungs all along, and no delay occurred before restorative measures were commenced. Various efforts to restore the heart's action were made—Nélaton's inversion, nitrite of amyl inhalation, ice in rectum, and stimulation of precordial area, &c.,—but to no purpose. The post-mortem examination showed that the lungs were a little emphysematous, and some old adhesions existed. The heart was hypertrophied, with rather marked thickening of the coronary valves, but no vegetations, and the columnæ carneæ were hypertrophied. In this case careful note was taken throughout, and it was strikingly manifest that no respiratory or cardiac weakening occurred before the final and absolutely sudden extinction of life. There was no overdose in the ordinary sense of the term; indeed, no chloroform was being given at the moment, and yet there was, on the other hand, complete narcosis. The pathological condition of the organs was insufficient to throw any light upon the death, so the eye-witnesses were compelled to accept the fatality as an instance of cardiac syncope due to the action of chloroform. Some of the chloroform employed had been used for other patients without any ill effects having occurred. Another death occurred from chloroform on March 14th at the General Hospital, Birmingham. The patient, a man aged thirty-eight, suffered from an "internal gathering." He was chloroformed by a senior student with a view to operation—the second, he having passed successfully through one some time before. After four minutes breathing ceased and was not restored, although remedial measures were at once adopted. Ether was not given in this case because the bronchial tubes were slightly affected. The coroner's jury found that the deceased died from heart failure. We have not sufficient evidence before us to comment at length upon the case, but it cannot but strike the reader that if ether were really contraindicated by the state of the patient's lungs, it was a pity the anæsthetist did not use the A.C.E. mixture—certainly a safer anæsthetic than chloroform.

INFLUENZA IN LONDON.

CASES of influenza are still occurring in the metropolis, and indeed during the past week there was a slight increase in the number of deaths attributed to it over those recorded in the preceding week. Thus the Registrar-General reports that the deaths "primarily attributed to influenza, which had been 61, 34, and 30 in the preceding three weeks, were 35 last week," and the cases in which influenza was noted as a secondary cause rose from 5 to 9.

THE OPIUM TRAFFIC: FOR AND AGAINST.

THE responsibility of the Indian Government for the evils associated with the consumption of opium in the East has never been—and, indeed, under present conditions, cannot be—entirely repudiated. It would be remarkable, nevertheless, if the monopoly which it possesses in the production and sale of this drug were wholly incapable of defensive argument. We need not be surprised, therefore, to find that it can rely upon the support of not a few experienced advocates, men of intelligence and judgment, for its justification in this matter. In the opinion of these gentlemen, among whom we may number a recent correspondent, the dangers and the degradation of moderate opium-taking have been exaggerated by anti-opium agitators. Its beneficial qualities as a sedative of the vaso-motor system and a febrifuge, it is argued, have, on the other hand, been ignored, whereas they should at least suffice to justify its moderate and common use, which is as excusable as that of alcohol. We have already discussed these arguments, and it was but very recently (March 5th) that we protested against the view that the therapeutic value of this purely medicinal agent should be accepted as excusing its regular and practically unguarded consumption. Whatever may be said in favour of this practice, opium still remains essentially a poison, and a powerful one. As such, it should not be openly committed to the hands of any or everyone. Its regular use, however moderate, is altogether unnatural. We are unable to see how, even amid the conditions of tropical life, this can ever be justified, except in the treatment of disease and under medical supervision. It con-

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stitutes no valid excuse for the opium habit to say that the same freedom should be allowed for its indulgence as in the case of alcohol. The position of the two agents is by no means identical. Alcohol doubtless is in its pure state a poison. As commonly sold it is quite a different substance. Disastrous as its effects have often proved—and we would not for a moment defend its abuse—it still remains the less potent drug and the lesser of two evils. As matters now stand, its privilege of sale is already too freely allowed, and an argument founded on comparison should, in our opinion, rather claim its restriction than the liberation of the rival narcotic. It has been asserted that if opium-taking be suppressed in the East the trade in liquor will grow in proportion. We do not believe that this result is inevitable. It is not probable that either evil, if resolutely met, will be found impossible of regulation.

LEGISLATION AND HABITUAL DRUNKARDS.

THE Lord Chancellor on Monday night, in reply to Lord Herschell, said that the Secretary of State was about to proceed immediately with the appointment of a departmental committee to inquire into the best mode of dealing with habitual drunkards. The subject is one of immense importance, and its importance is only equalled by its difficulty. The present legislation inspires no respect, and is practically ineffective. It requires the consent of the drunkard to his compulsory detention in a retreat—a consent which is not likely to be forthcoming in the most fit cases. We do not advocate legislation that would favour the premature interference of law and its representatives with drunkards. It is always right to leave the natural friends and guardians of an habitual drunkard to exhaust their endeavours to save him before invoking any such interference. But there are thousands of cases in which power of interference should be given. In some instances the friends of such patients are driven to foreign lands where the law is more effective.

BURIAL REFORM AND PATENT COFFINS.

WE have been favoured with a view of a specimen of the new coffin patented by the Patent Enclosed Sanitary Coffin Company, of 40, Great Tower-street, E.C. It certainly possesses some advantages, being of oblong form, with square-shaped ends and sides, thus differing from the ordinary shape of coffins in common use, which is supposed to be repulsive to many persons. To these the new shape will commend itself, though we fear that to many others the new shape will be equally, if not more, repulsive. Inside the coffin are four pieces of wood fitted, so as to enclose a space, of the usual coffin shape, to receive the body, leaving at the head and feet four spaces for disinfectants or flowers. The bottom is covered with laths, leaving interstices for charcoal or other disinfectant, and it is claimed for these coffins that they supply all the purposes of burial reform at a greatly decreased cost. It is ungracious to criticise well-meaning reforms, but truth compels us to say that this, like other coffins, has the demerit of dealing only, so far as the sanitary aspect is concerned, with the question of disinfectants. If disinfectants are required at all—and they will be very frequently required if burial be deferred, as it generally is, till the third, fourth, or even fifth day after death—charcoal must be employed abundantly both above and beneath. There must be a substantial bed of the disinfectant below as well as a complete layer of it all over the upper surface of the body, or the object for which the charcoal or other disinfectant is used will not be gained. Medical practitioners will remember cases even in this country where it has been advisable to place the body in the coffin within a very few hours after death, and its closure within twenty-four hours or even earlier has been imperative. It is obvious that in such cases only a most liberal amount of disinfectant will have any effect. This new coffin is one of several which have been proposed. Mr. Seymour Haden proposed wicker coffins, which, however, have not found much favour. The earth-to-earth coffins of the London Necropolis have much to recommend them, especially if, when the patent has expired, their cost should be less. It is very satisfactory to see that so much is being done with reference to this matter of the coffin, which is, indeed, now the real feature of burial reform. We may remind all who labour in this cause that even all through the long period which elapsed while bodies were buried under churches, in vaults, catacombs, bricked graves, &c., burial reform was quietly practised in many an English village. There the burials were few, numbering twenty or less each year, the undertaker was the village joiner, the coffin a few boards nailed together, and the grave a hole dug in the churchyard. The results have been that though these ancient burial places have been used for centuries, there is still unbroken ground left, while the ground already used will continue to receive with all safety fresh tenants. What is required now is to make our cemeteries as similar as is possible to our old churchyards. Mr. Seymour Haden has shown that wood is undesirable as a material for coffins, being not sufficiently perishable in our English soils. He has been amply confirmed by other observers, and, as has been frequently pointed out, the burial service makes no mention of a coffin, but uses the word "corpse" or "body." Instead of the twenty bodies buried in the village churchyard we have to find burial space for, it may be, seven thousand bodies in a cemetery. Hence the importance of the most perishable coffin and the most suitable soil. For our own part, we should not object to see the sailor's "hammock" brought into use on shore, seeing what a neat and perfectly satisfactory coffin it makes at sea. Till that is done we must confess to a preference for that form of coffin which is most perishable—i.e., the coffins of compressed pulp as used in the Necropolis of Woking.

MUSCULAR DYSTROPHY.

To the opening numbers of the new *Deutsche Zeitschrift für Nervenheilkunde* Erb contributes the most exhaustive monograph that has yet appeared upon this subject.[1] The clinical types of dystrophies generally recognised are, first, the "juvenile" form of Erb, beginning in youth, occurring in families, affecting primarily the muscles of the shoulder and upper arm, and often associated with true or false hypertrophy; secondly, the ordinary pseudo-hypertrophy; thirdly, the "infantile" facio-scapulo-humeral type of Duchenne, recently described by Landouzy and Dejérine; and, lastly, the "hereditary" form of Leyden, beginning usually in the legs. Erb has collected nearly ninety cases, and a number of necropsies and reports of examination of excised muscles. He maintains the essential unity of these four forms. In the juvenile and infantile forms there is often pseudo-hypertrophy; in pseudo-hypertrophy there is often atrophy of the shoulder muscles; in both forms the face may be subsequently involved. All forms may be hereditary, and in the hereditary form the shoulder muscles may be involved. All forms agree in the characteristic attitude of the patient, the affection of certain muscles, the occurrence of hypertrophy and pseudo-hypertrophy, the absence of fibrillary twitchings, and the simple quantitative diminution of electrical irritability. One or two cases are reported in which there was reaction of degeneration, but Erb himself has never seen it. Furthermore, transition forms are not uncommon; in the juvenile form the face may be subsequently involved, as it may in pseudo-hypertrophy; the

[1] Abstract in the Boston Medical and Surgical Journal, Jan. 28th, 1892

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infantile form may show "juvenile" localisation or pseudo-hypertrophy; pseudo-hypertrophy may have later a juvenile localisation, and all may be hereditary. Finally, forms may occur which cannot easily be assigned to any one of these four types. Another argument in favour of unity is that in one and the same family several of these types may be found. From the harmony in all the essential clinical features and from the occurrence of transition forms in the same family, Erb concludes that clinically these four forms are essentially one. On the pathological side Erb has collected the records of eighteen necropsies and twenty-three examinations of excised muscles. He finds the following characteristic changes: Hypertrophy of the muscular fibre, present in post-mortem examinations as well as in the excised portions, and therefore not due, as Oppenheim and Siemerling have claimed, to the results of excision; atrophy of fibres; alteration in the shape of the fibre, which loses its angles and becomes rounded; an increase of nuclei, with the presence of nuclei in the centre of fibres; a fissuring and division of the fibres and the formation of vacuoles. These changes occur in various combinations, but it is impossible to make any anatomical distinction between the four forms. In all, for instance, hypertrophy and fissuring may be rare or frequent, and the fibres may be equal or may vary greatly in size. The interstitial tissue is usually increased in amount, and a deposit of fat is common in it. In general, this proliferation of connective tissue and fatty infiltration are pronounced in pseudo-hypertrophy; but it is also observed in the other forms, and some of the muscles in pseudo-hypertrophy show it only in a slight degree. The complete necropsies show, as a rule, that the nervous system is intact. The muscular changes are the same in these cases as are found in the excised muscles. Erb concludes, therefore, that we do not find in the different forms of muscular dystrophy any essential and comprehensive distinction in the histological changes in the muscles, and that these types form one morbid entity—dystrophia muscularis progressiva.

ROYAL COMMISSION ON VACCINATION.

WE understand that the Royal Commission on Vaccination have been considering the terms of an *ad interim* report, which has been drawn up by Lord Herschell. The statements that have been made public as to the supposed tenour of this report are, we are informed, unauthorised and inaccurate.

CRUEL USAGE OF A BRITISH PRACTITIONER IN CHINA.

IT is not often that we have to notice an instance of such wilful, unprovoked, and methodical barbarity as that recorded in the following narrative, which is taken from the letter of an agent of the British and Foreign Bible Society. Dr. Greig, a medical man connected with the Society's mission in North China, while sleeping at an inn was suddenly seized by soldiers, insulted, kicked, and severely beaten. His hands were then tied together behind his back, and he was slung up by them to a beam till he fainted. He was afterwards imprisoned for four days in a miserable hovel, gazed at and abused by the rabble of the place. When at last his release was accomplished at the request of the British Consul he was reduced to a mere wreck of his former self. The alleged reason for this extraordinary treatment is that Dr. Greig was accused, on the evidence of several children, of kidnapping these latter. The charge, which the mere presence of the children must have sufficed to disprove, was of course a baseless one. It is not difficult, indeed, to see that it was a piece of wilful mendacity, probably concocted by some enemy, on purpose to injure an innocent man. Dr. Greig's hard experience does not encourage a belief in Chinese justice. Here we have a man who, as is clearly shown in the letter quoted, has well earned the gratitude and esteem of the Chinese population by his professional skill and kindness. By way of return he is shamefully maltreated on a false accusation of the most trumpery character. It is worth noting also that his chief tormentors were soldiers, and that they are said to have acted under instructions from the local military commandant. These facts, if capable, as we cannot doubt that they are, of legal proof, must reduce considerably the area of responsibility for the abominable treatment he experienced. The onus of blame rests upon official shoulders and the case is evidently one where all possible satisfaction should be exacted by our consular representative.

POLLUTION OF THE THAMES.

IN the annual report of the medical officer of health to the Local Government Board, which has been issued within the last few days, a most important article by Dr. Blaxall on the Sanitary Condition and Administration of the Rural Sanitary District of Staines occupies an important place. In 1887 we published a report by our Sanitary Commissioners on the Thames as a Water-supply for London, and in it we commented somewhat strongly on the sanitary condition of Staines and on the probability that its sewage contaminated the Thames at no great distance above the intake of the water companies near Hampton. Dr. Blaxall has given a much more alarming description of the danger to London from this cause than we ventured upon. Some of our own strong suspicions were suppressed, as we had no wish that injury should be unfairly inflicted upon vested interests. But Dr. Blaxall, armed with the powers of a Government inspector, gives an account of the way in which the cesspools of Staines drain into the river, the sewage sometimes passing down through the foul and porous subsoil as far as Sunbury before it is discharged, which will give unpleasant thoughts to those who still maintain that the Thames between Hampton and Sunbury affords a proper water-supply to London. The subject is too large to be discussed in detail here, but we commend Dr. Blaxall's report earnestly to our readers.

TREPHINING FOR RELIEF OF INTRACRANIAL PRESSURE.

THAT in cases in which an intracranial growth is present much relief is at times given by trephining is now well known, but the number of cases as yet reported is too small to allow of its being recognised as a certain, and at the same time a safe, means of treatment. Such treatment, of course, is only applicable to cases in which either the new growth is too large for removal, or its locality cannot be definitely diagnosed. As regards growths in the cerebellum, clinical observation is still at fault. While in some cases it may enable us to say with a fair amount of definiteness that there is a cerebellar tumour, in very few can it be predicted on which side of the cerebellum the growth lies. Every recorded case, therefore, is of extreme importance, as enabling a judgment to be formed of the difficulties and drawbacks which follow such an operation, as well as of the relief experienced and the nature of the cases in which the operation may be expected to have a favourable result. In the last number of the *Journal of Nervous and Mental Diseases* Dr. Knapp of Boston reports a case in which diagnosis was very difficult, and in which an operation was undertaken chiefly for the purpose of relieving symptoms resulting from increased intracranial pressure. The patient had been fairly well till October, 1889. He then began to suffer from occasional severe headaches, and at times dimness of sight. He was seen at this

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time to have double optic neuritis. He lost the sense of smell early in the illness, and became totally blind in August, 1890; but on one occasion, after a severe attack of vomiting, he is said to have had a temporary return of vision. He was seen by Dr. Knapp in October, 1890, and then he had for three weeks complained of failure of hearing in the left ear, had experienced some difficulty in swallowing, and there was a profuse flow of saliva. He had also had on two occasions attacks in which he cried out, fell down, and frothed at the mouth. He likewise had sensations of numbness of the face and hands, but tactile sensibility was fairly good. He suffered from headaches, and was restless and slept badly. There was pain on pressure on a spot in the right temple. Sometimes neither knee-jerk could be obtained; at other times only the right was present. Trephining was advised, and was performed on Jan. 18th, 1891. Bone was removed in the right parietal region, just behind the anterior end of the fissure of Sylvius. There was bulging at the opening; but no tumour was felt or seen even after the opening had been considerably enlarged. After the operation he was more comfortable, although not quite free from headache, and at his own request he returned home on Jan. 28th. He returned a few days later, apparently suffering from left hemiplegia and hemianæsthesia, and he remained in a very somnolent condition for some days. There was oozing of blood from the posterior end of the incision, which had apparently broken down, and later on some brain substance came away. On Feb. 14th he became almost comatose, but a profuse watery discharge from the wound set in, and he began to improve. There was no change in the condition of the hemiplegia, or any sign of returning vision, but his mind was much clearer. The hernia, however, continued to slough, and on March 7th he suddenly became worse, and died on the 9th. At the necropsy there were found signs of meningitis around the trephine opening, and a large tubercular tumour in the left lateral lobe of the cerebellum. Of course, in such a case operation was a forlorn hope, for there was little probability that even vision could have been to any extent restored, and it was also a misfortune that breaking down of the scar should have occurred with the consequent hernia cerebri; but the temporary relief from pain, although brief, is significant.

THE PORT OF LONDON.

IN his report to the Port Sanitary Committee of London for the half-year ending December last, Dr. Collingridge lays stress on the need for some amendment of the regulations which allow so small an amount as seventy-two cubic feet per seaman in the mercantile marine. In fact, the whole subject of the existing regulations is carefully discussed so as to indicate the directions in which health requirements demand some modification in the arrangements in force, and the report is especially worthy of study by all who are concerned in port sanitary administration. In considering the various infectious diseases which have had to be dealt with by isolation and disinfection, Dr. Collingridge points out the difficulties in which he is placed with regard to the isolation of small-pox. Admirable as is the port hospital in most respects, the site is, we fear, much too restricted to admit of anything like a small-pox pavilion, except it be constructed so as to consume all out-going air; otherwise patients in other pavilions can hardly fail to run risks to which they should not properly be subjected. Evidently Dr. Collingridge feels this, for he points to the need of either increase of site or selection of a separate one by referring to the vacant land in the possession of the Corporation. The question of the disposal of the metropolitan sewage is rather left in abeyance because the scheme in operation is not completed; but it is alleged that at the present moment, and pending such completion, the state of affairs is unsatisfactory. No less than 7733 vessels were inspected in the half-year, the result being to confer great benefit on seafaring men and a considerable measure of safety from infection to London and the kingdom generally.

IS FARNHAM HEALTHY?

WE should have thought but little of the details of Mr. Sloman's report on the health of Farnham during the past year had it not been for the significant attitude of some members of the local board towards it. Like many other towns, Farnham had an increase in mortality during the influenza epidemic, but there was no special increase of the zymotic rate. The water-supply is not very satisfactory; but amendments are in progress, and some cases of diphtheria were shown to have occurred in connexion with ill-ventilated soil-pipes and other sanitary defects. But it was pleaded at a recent meeting that if the annual report was read in public it must "blacken" the credit of the place, and it is hardly likely that such statements would be made unless the authority knew there were defective conditions the exposure of which they feared. By their attitude they have succeeded in drawing attention to the place, and many will wonder what it is that Farnham is so anxious to hide from the knowledge of the public.

ETIOLOGY OF ACUTE PLEURISY.

IN a paper on the above subject in the *Boston Medical and Surgical Journal* of Feb. 25th, 1892, Dr. G. G. Sears draws attention to the frequency with which phthisis follows an attack of acute pleurisy. He has collected the reports of 451 cases from various observers, of which 176, or 39 per cent., developed phthisis or other well-marked tubercular affection. Constan and Dubrulle, from their army experience, say that soldiers who have suffered from pleurisy are no longer fit for military duty, and that a majority die later of phthisis. An exactly opposite opinion is held by Blachez, who mentions an epidemic of pleurisy which occurred several years ago without the subsequent development of pulmonary disease in a single case. Westbrook, Vickery, and others have reported cases which were followed by phthisis; and from a review of the recent literature there seems to be an increasing tendency to ascribe to the tubercle bacillus a more and more important *rôle* in the causation of pleural effusions; but as the pendulum of medical opinion is proverbial for the length of its vibrations, it is fair to ask if in the present instance it is not tending to swing too far in this direction. The frequent occurrence of pleurisy as a complication of pneumonia, rheumatism, measles, and other infectious diseases where no doubt exists that it is the same in origin, suggests the question if so-called idiopathic pleurisy may not at times be due to the same causes, which for some reason affect only the pleura—a question which the discovery of the pneumococcus in pleural effusions not secondary to pneumonia goes far towards answering, while the reported curative effect of salicylic acid in many cases suggests its being at times a local manifestation of rheumatism. From any series of cases similar to that given above a certain number must be deducted for those who have developed phthisis in the natural order of events without the incidence of a previous pleurisy, while the part which a latent tuberculosis of the bronchial lymph glands may take in the subsequent onset of a more general process must also be considered. In concluding his paper Dr. Sears says that we may consider a very fair proportion of cases of acute apparently idiopathic pleurisy with effusion are followed by phthisis. In some of

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such cases the pleurisy is doubtless of tubercular origin, and is its earliest expression, just as hæmorrhage may be the first symptom and not the occasion of pulmonary tuberculosis, while of the cases which remain permanently well, in view of the spontaneous recovery of tubercle in other situations, it is fair to assume that a certain number are due to the same cause, the process *remaining* local. In others, though itself benign, pleurisy may be the cause of grave disease, by dislodging the bacilli from their comparatively harmless position in the bronchial glands, or favouring the development of phthisis by crippling the movements of the lung.

THE COST OF POSTAGE OF NOTIFICATIONS.

ON the question of the right of the notifier to send his notifications through the post *unpaid*, or to receive from the sanitary authority the cost of postage, we have received the following opinion, which we are given to understand cannot be disputed. Notifications are not very numerous or bulky, in spite of the loud complaints of a few boards that are surprised at having to pay a medical man for troublesome and responsible duties. They could often be sent by hand :—

"It is not the fact that 'medical men notifying cases are entitled to the full fee without deduction for postage,' for a medical practitioner is not entitled to send his notification by post unpaid, and if he does so the authority is entitled to deduct the surcharge made by the Post Office. This is made quite clear by the Interpretation Act, 1889, Section 26, which provides that when an Act authorises a document to be sent by post, it must be 'properly addressed, *prepaid* and posted.' The Board have frequently pointed out that the Notification Act, in allowing the notification to be sent by post, implies the necessity for prepayment of the postage. The case of Chisholm *v.* Radcliffe Local Board did not raise this question, because the Local Board, despite the advice of the Local Government Board, refused to take in the unpaid notifications, and this they had no right to do. But they might have paid the postage and deducted the money from the fee paid."

THE USE OF ALUMINIUM IN THE MANUFACTURE OF FOOD-CONTAINING VESSELS.

NOW that aluminium is being obtained more cheaply and abundantly from the earths that contain it—clay and cryolite—we may soon expect to meet with a great variety of useful articles made exclusively of this beautiful metal. Aluminium is nearly a third the weight of iron, is both ductile and malleable, and its natural lustre is but little affected by either damp or dry air. The statements, however, that it is not acted upon by even weak acids must, according to recent observations, be received with some amount of reserve. The metal has always been looked upon as possessing properties which would be likely to render it eminently serviceable in the arts and manufactures. Surgical instruments and culinary vessels have already been made of it, and on account of its extreme lightness and portability it has recently been proposed to use this material in the German army for soldiers' mess-tins and water-bottles. In view of this proposal being very generally carried out, several chemists have been led to investigate the action of various liquids and food preparations upon the metal. Some months ago Messrs. Lübbert and Roscher, in a paper on the behaviour of aluminium toward a number of liquids with which that metal might come into contact when made into canteens, cooking vessels, surgical instruments, &c., arrived at conclusions which were considered to be detrimental to the application of aluminium to any use in which it may come into contact with liquids intended to pass into the human body. Professor Lunge, however, was not satisfied with the methods pursued by these investigators, and he accordingly instituted a number of experiments on his own account. The conclusions he came to were as follows: The action of coffee, tea, and beer is *nil* or practically so; *that of brandy is also extremely slight;* the action of acids and acid liquids (wine, sour milk, fruit juices) is more pronounced, but even in this case, he says, far too slight to cause any alarm whatever. Taking the worst case, that of acetic acid, he found a maximum attack of less than five milligrammes per 100 square centimetres in six days, and a canteen holding a litre, and having an inner surface of about 600 square centimetres and an aluminium weight of about 200 grammes, would, he says, in the very worst case lose five milligrammes in a day, or one gramme in 200 days, even if it were always full. At this rate, only in fifty-five years would it be reduced to half its weight. This, he holds, is certainly too trifling an action to be considered; there is not the slightest danger of any injurious action upon the human body by such traces of aluminium compounds, and they are not poisonous, he affirms, in the ordinary sense as compared with compounds of arsenic, mercury, lead, and copper, and, before they can act injuriously, quantities a hundred times larger than those he found to be regularly entering into the human stomach would have to be ingested. Finally, he adds, aluminium may without any fear be employed for canteens or any other vessels used to hold articles of food, at least at ordinary temperatures. These conclusions of Professor Lunge are, however, not by any means confirmed by a report recently to hand through Reuter. It appears that a soldier belonging to an infantry regiment stationed near Nuremburg had his bottle partly filled with cognac. After several sips he was taken ill and vomited. On hearing the particulars the medical attendant decided to send the bottle and its contents to an analyst, who discovered in the bottle some brownish-black spots, round in shape, which under analysis were found to contain large proportions of aluminium and iron. The cognac had become muddy, and the analyst declared that it had caused strong corrosion of the metal. It is quite possible that in this instance the evidently strong action of the cognac on the metal was caused by the presence of the iron, as it is well known that, although the pure metal is frequently unacted upon, yet when it is in contact with another metal galvanic action is oftentimes set up, and consequently corrosion of the metal takes place. The subject is obviously of sufficient importance to demand at once further careful investigation. We should not be at all surprised, however, to learn that aluminium is found to be easily acted upon, seeing how readily it dissolves, with production of hydrogen, both in alkalies and acids. Aluminium is, in fact, one of the three metals of common occurrence which decompose water at a red heat.

OPERATION FOR SPASMODIC TORTICOLLIS.

SOME advance appears to have been made in the surgical treatment of this most distressing affection; but until its pathology is more clearly ascertained, we cannot hope that the results of treatment will be anything like uniformly successful. One point that lies on the surface is the variations met with in different cases. In one patient the sterno-mastoid muscle may be the only one affected, in another it will not be implicated at all, and similar variations are met with in the case of the other muscles which rotate the head. It is, therefore, difficult in some cases to determine exactly what muscles are implicated and to what nerves treatment must be directed. Difficulty also arises from the depth at which some of the muscles and the nerves supplying them are placed, so that any operation on these nerves involves a very deep dissection. Nerve-stretching, even when very thoroughly carried out, has not been attended with success, and simple division of the nerves has not given better results. Surgeons are now dealing with these cases by the free excision of the nerves supplying the affected muscles, removing the nerves as near to their

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central ends as possible. Last year M. Petit recorded twenty-six cases in which he had excised the spinal accessory nerve. Of these, in thirteen a successful result was obtained, seven were much improved, two were slightly better, and three enjoyed temporary benefit only, while one patient died from phlegmonous erysipelas. The operation in question is a comparatively simple measure. The more difficult cases are those in which the posterior muscles are involved. Early last year Dr. W. W. Keen recorded a case in which he had excised muscular branches of the posterior divisions of the first, second, and third cervical nerves with marked benefit, but not complete success. Soon after Mr. Noble Smith recorded a case in which he had performed the same operation on the second, third, and fourth cervical nerves. Dr. Powers has now related a third instance of this operation, in which he exactly followed Dr. Keen's procedure. The last two patients were greatly benefited by the operation. Dr. Keen makes a transverse incision carried down through the complexus. Mr. Smith employed a vertical incision. The results thus obtained are well worthy of the attention of surgeons, although the treatment is only empirical.

HEALTH OFFICER FOR SUFFOLK.

THE Suffolk County Council are considering the expediency of appointing a county health officer, the question having arisen on the occasion of the receipt of the annual reports of the district medical officers of health. These reports can only be properly examined and dealt with by an expert in public health, and it is noteworthy that the most useful action taken by county councils, by way of bringing local default to the fore and of securing amendment in sanitary administration, has been effected by councils which have elected their own health officers instead of paying a fee to a mere examiner of reports, whose duties end when he has sent in his summary, together with such advice as he may see fit to tender.

CHEAPER TRAVELLING TO THE CONTINENT.

PATIENTS wintering on the Riviera will realise considerable economy in their travelling expenses if they defer their return till after April 1st. The French railway companies pay a tax of 12½ per cent. to the Government on passenger and parcel traffic, on dogs, &c. But, after the war, on Sept. 17th, 1871, a war tax of 10 per cent. extra was imposed. Thus, for nearly twenty-one years the railway companies have had to give 22½ per cent. of their receipts to the Government. The time has at last arrived, however, when the Government can afford to dispense with the war tax; but, before making this remission of taxation, the railway companies were called upon to make similar concessions. It was pointed out that national welfare depended to a great extent on facilities for travelling, and both the companies and the Government adopted this broad view of the subject. Consequently, on and after April 1st a reduction will be made on all French railways which will be equal to 10 per cent. on all first-class single tickets; of 18 per cent. on all second-class single tickets, and of 27 per cent. on all third-class single tickets. It is, however, on return tickets that the first- and second-class travellers will derive the greatest benefits, for these are to be reduced 25 per cent. The third-class return tickets will only be lowered 20 per cent.; but it must be borne in mind that return tickets were already sold at a reduction. As a practical illustration of this new tariff, the first-class return ticket from London to Nice, available for forty-five days, will cost £10 8*s.* 6*d.*, instead of, as at present, £13. Again, the first-class return ticket from Victoria to Paris and back will be £4 6*s* 9*d.*, instead of, as at present, £4 18*s.* 3*d*; and the second-class return will be £3 6*s.* 3*d.*, instead of £3 18*s.* 3*d.* The greatest advantage will be reserved for the third-class travellers. The cheap and slow night service available for fourteen days only is to be abolished, and in its stead a great reduction will be effected in the charge for the third-class which has quite recently been added to the night mail. The third-class night mail return ticket from Victoria to Paris, which now costs £2 13*s.* 2*d.*, will be issued for £2. The Chatham and Dover line also proposed to give £2 return third-class tickets by the morning mail, which starts at 8.30 A.M., and reaches Paris at 5 50 P.M., but the proposition met with some opposition. The directors were, however, able to secure the issuing of such tickets at least during the tourist season; so that in the summer it will be possible to go, third-class return, to Paris for one month by the shortest sea route and by day for £2. We need scarcely insist upon the advantage of these reductions. If they only affected pleasure-seekers we should not be so much concerned, but we are daily learning to recognise how great are the benefits to health to be derived from a change of climate, scenery, and surrounding circumstances. The cost of travelling is, however, a great obstacle, particularly as invalids ought not to travel alone. Where, as is often the case, a family party determine to winter in the South because one among them is in a state of delicate health, the expense of the journey thus multiplied by the number of the party becomes a very serious consideration. On the other hand, if the patient goes alone, the solitude, the sense of being exiled from friends and home, may do more injury than the change of climate does good. There is no doubt, therefore, that lessening the cost of travelling will be an indirect adjuvant in the climatic treatment of disease.

THE DRAINAGE OF WOKING.

THE prospective drainage of the district about Woking railway station has now entered on a second stage. One site for the disposal of the sewage was refused by the Local Government Board last year, great local opposition having been raised to it. Now another site has been selected, and application for a formal inquiry as to its acquisition will probably be made. We move but slowly in such matters, and local opponents often find but little difficulty in causing needless delays. Any such delays should, if possible, be avoided in this case, for the large population now pouring all its liquid filth into cesspools in close proximity to dwellings in this locality can hardly fail to suffer if the present state of affairs is continued much longer.

UNQUALIFIED PRACTICE, "COVERING," AND "FALSE CERTIFICATE" OF DEATH.

AN inquest was held on the 22nd inst., at the Coroner's Court, chapel of ease grounds, by Dr. Danford Thomas, on the body of Susannah Elizabeth Waller, aged seven months. The inquiry was held in consequence of the certificate of death being signed, and apparently filled up, by a qualified medical man, he not having seen the case either before or after the death had taken place. It appeared from the evidence of the parents, living in Palmerston-road, Holloway, both respectable people, to whom no blame could possibly be attached, that, the child being taken ill about three weeks since, the father went off in search of a medical man, and calling at a "dispensary" near to his house in Poole's Park, N., went in and asked to see the doctor. A gentleman appeared, accepted the message, and called later, seeing the child and prescribing for her, and gave medical directions as to treatment. The parents were under the impression they were dealing with a properly qualified medical man, and permitted the attendance to continue until the child's death on the 18th inst. On asking for a certificate the "doctor"

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stated that he would send one in, and did so, the certificate being signed by Mr. Dyte. As the parents did not know the name of the person who had attended during the illness all would probably have gone off well had it not been for a neighbour, who, believing that the child had been treated by an unqualified practitioner, requested her own medical man to call at the house. On arriving there he found that the child was dead. Certain inquiries were then instituted, which resulted in the district registrar refusing the certificate which had been brought to him, and referring the matter to the coroner. Mr. Smyth, the person who took charge of the child and attended it medically, was called into court, and gave evidence that Mr. Dyte had never seen the child alive, that the certificate was signed by him (Mr. Dyte), and that he (Mr. Smyth) had been his assistant for fifteen years, and that he was unqualified. The parents also identified Mr. Smyth as the man to whom they, thinking he was a "real doctor," had entrusted the case, and swore that they had never seen or heard of Mr. Dyte, and that no other person than Mr. Smyth had attended the case. There was no dispute as to the facts adduced above. Mr. Dyte was not present, although the coroner pointed out that he had received notice that an inquiry would be held. After the coroner had pointed out the grave nature of the case, the jury returned a verdict of "Death from natural causes," and added a rider "that the attention of the Registrar-General be called to the case, as a false certificate had without doubt been issued."

EMIGRATION OF LEUCOCYTES FROM THE TONSILS.

DR. POLYAK finds that most of the leucocytes which in a normal condition of the tonsil migrate through its epithelium into the buccal cavity are lymphatic corpuscles (lymphocytes)—that is to say, young elements generated by karyokinesis of the cells of the adenoid tissue. There are, however, in addition, a considerable number of leucocytes with polymorphic nuclei which migrate from the superficial capillaries and capillary veins. The emigration of these multi-nuclear leucocytes is also observed in places where there is fibrous connective tissue beneath the epithelium. The emigration of large numbers of lymphocytes is accompanied by well-marked destruction of epithelium close to the free surface, but the emigration of the multi-nuclear leucocytes only appears to give rise to increased exfoliation of the superficial epithelial cells. When acute inflammation of the mucous membrane was induced by irritation with chemicals, the emigration through the many layers of flattened epithelium was mainly confined to multi-nuclear leucocytes.

LEEDS INFIRMARY EXTENSION.

THE new buildings added to the Leeds Infirmary, which have been constructed at an outlay of £35,000, are now completed. They comprise four separate blocks—namely, (1) ward pavilion, (2) out-patients' department, (3) pathological department, and (4) isolation wards. These form a very handsome and much needed addition to the infirmary, which already held a high place amongst buildings of its class. We note, however, that some discussion has taken place in the local press regarding the allocation of the new wards in the first-named block. These wards, of which there are two on each of the three floors, one containing ten beds and the other sixteen beds, are divided by the staircase and corridor, in which is placed a small special ward and the nurse's room. The main wards are thus assigned: on the ground floor they are both given up to ophthalmic and aural cases; on the first floor, the smaller ward is devoted to the same class, and the larger to the gynæcological cases; whilst on the third floor, where the arched roof adds some feet to the height of each ward, the larger is devoted to diseases of children (medical), and the smaller to cases of burns, gangrene, &c., which it is thus intended to draft off from the general surgical ward. It is this latter plan to which objection has been taken, and with some force, for, although the ward in question is on the top floor, the class of cases intended to be lodged in it are peculiarly offensive, and the near proximity of the gynæcological ward, where operation cases of a grave nature are likely to be found, makes the alteration one which cannot be commended. It seems a pity that, with the resources at the command of the authorities, some more fitting plan for the isolation of these cases, which ought to be separated from general surgical cases, could not have been devised than one which may entail risk to the safety of other patients contained in the same block.

SMALL-POX AND FOOTBALL.

A GOOD deal of ill-feeling has been created in the urban districts round about Dewsbury, and within the Dewsbury Union, because certain football clubs have refused to go to such places as Batley, Heckmondwike, and Dewsbury to play matches. We have no hesitation in saying that the refusals have been most proper; and we would further add that a certificate, published by the Batley inspector of nuisances, to the effect that Batley may be visited "without any danger," is perfectly worthless in the face of the well-known story of Batley's long-maintained prevalence of small-pox. Football players have generally reached an age when the protection of primary infantile vaccination is wearing off, and very recent revaccination is not the best preliminary to the physical struggles which are involved in a football contest. Persons desirous of visiting any of these Dewsbury towns, which have been, and still are, infected with small-pox, had better avoid all large assemblies there until the medical officers of health have certified that the risk is past, and this is hardly likely to be so until we have something better to record than a persistent attitude of opposition to vaccination (a prophylactic which could bring the epidemic to a speedy end), a hurried concentration of small-pox patients in local hospitals, and the existence of some eighty fresh cases this year in a single one of these towns, the heaviest incidence of all being during the last fortnight of February and the beginning of March.

INTERNATIONAL CONGRESS OF HYGIENE AND DEMOGRAPHY.

THE members of the recent Congress are entitled to receive, free of charge, the whole of the Transactions. The whole of the thirteen volumes cannot be ready for some months. The records of certain sections are, however, now nearly ready, and can be obtained by members, if desired, as soon as issued by forwarding to the publishers, Messrs. Eyre and Spottiswoode, the sum of 4*d.* per part, or 4*s.* for the whole series, to cover the necessary expense of wrapping and postage. A further sum of 9*d.* must be remitted if the member wishes to receive the Transactions bound in cloth. To non-members a single copy will be sent on payment of 2*s.* 6*d.* (or 2*s.* 10*d.* post free), or the whole series of thirteen volumes will be forwarded for £1 16*s.* 6*d.*, post free. The copies can also be obtained bound in cloth at a charge of 4*s.*, post free.

THE HEALTH OFFICER FOR SOUTHWARK.

WE have noticed with considerable regret the attitude which has been adopted by the Vestry of St. George-the-Martyr, Southwark, towards Dr. Waterworth, who for many years has acted as medical officer of health for the district. He voluntarily resigned his post a short time ago

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in order to enable the vestry to re elect him, so that the new appointment might carry with it repayment of a moiety of the salary by the County Council. Some irregularity having occurred in the terms of the new appointment it was not sanctioned, and now some members of the vestry, availing themselves of the fact that there is technically a vacancy, have induced their colleagues to advertise for an officer to give his whole time to the duties for £500 a year. We do not discuss the sanitary wants of Southwark in connexion with such whole-time service, but it will be well for intending candidates to ascertain the details which have led up to this extraordinary behaviour towards Dr. Waterworth—behaviour which, at the vestry meeting itself, was described by one of its members as "disgraceful."

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. B. Küssner, Extraordinary Professor of Medicine in the University of Halle.—Dr. Karavaeff, Emeritus Professor of Surgery in the University of Kieff.

THE Ingleby Lectures will be delivered by Dr. Arthur Foxwell, in the Medicine Theatre of Queen's College, Birmingham, on March 29th and April 5th and 12th, at 4 P.M. The subject will be "The Condition and Treatment of the Vascular System in Chlorosis and other Debilitated States."

ACCORDING to the special correspondent of *The Times*, upwards of 200 ocean vessels have been infected with yellow fever, including those in the ports of Brazil, whose crews are either dead or have fled.

THE Local Government Board have finally agreed to the pension of £210 to Dr. Collie, who recently resigned his appointment as medical superintendent of the Eastern Fever Hospital.

DR. THOMAS CLIFFORD ALLBUTT, F.R.S., Regius Professor of Physic in the University of Cambridge, has been elected to a Fellowship at Gonville and Caius College.

DR. ALFRED H. CARTER, F.R.C.P., has been elected to the chair of Therapeutics in Queen's College, Birmingham.

WELLINGTON COLLEGE SORE-THROAT.

BY J. G. BARFORD.

(*Continued from page 275.*)

TWO distinct forms of sore-throat occur among the residents at Wellington College. The one is a simple, non-infectious malady, such as may be seen elsewhere, and is apparently dependent on sudden changes of the weather or any other cause giving rise to a chill; the other is an infectious malady, analogous to, if not identical with, a form of sore-throat very prevalent in the past in ill-ventilated and overcrowded hospitals, now happily of rare occurrence, and best known as "hospital sore-throat." During the time I was dresser and house surgeon at St. Bartholomew's Hospital, now more than thirty years ago, I noticed that "hospital sore-throat" was a common precursor of erysipelas among the patients in the surgical wards. Subsequent experience in private practice, and the comparison of that experience with the special opportunities afforded by attendance for twenty-four years on the boys at Wellington College, led me to the conclusion that from some cause or other the throat affections at Wellington College often differed very materially from those I saw among my private patients elsewhere. As an example of what occurred at Wellington College I may relate the following interesting cases. In the year 1861 two boys were taken ill, with feverishness and sore-throat. This was in the second year of the existence of the College. They developed an ambiguous rash, now recognised as no uncommon accompaniment of both diphtheria and septicæmia. They were seen by four medical men, one of whom thought the affection might be suppressed scarlatina, another leaned to the view that it was more in the nature of diphtheria, but all agreed that it was very ambiguous and grave. I had seen nothing of the kind either at the Children's Hospital in Great Ormond-street, or at St. Bartholomew's Hospital, or at the Hôtel Dieu in Paris. These cases made me feel grossly ignorant of my profession, but I had some comfort in seeing that other men of large experience and high repute seemed to know no more about it than I did. The cases did well in the end, and we comforted ourselves with the feeling that "all's well that ends well." Seen by the light of subsequent illness at the College, I have no doubt that they were cases of pure septicæmia arising from some infective process in the locality, and connected in one way or another with the decomposing organic matter with which this district abounds. It could scarcely at that time have been sewage contamination, for the College had only recently been opened, and the district was previously uninhabited, being, as the article in *The Times* described it, "a bleak inhospitable moor." These were not isolated cases of curiosity. One morning I was breakfasting with the head master, the present Archbishop of Canterbury, as I commonly did in those days in order to talk over school affairs, for I was at that time very much in the head master's confidence, as indeed were all his subordinates; for just as in proportion we had confidence in him (and this was unbounded), so he trusted us. There was a common aim among us to make Wellington College the best and the healthiest public school in the world. Two hours after breakfast I received an urgent message to go and see Mrs. Benson. I found her with a patch of diphtheria on her throat and very indisposed. At the breakfast table she had appeared to me perfectly well, chatty and charming as usual. The district at that time was free from diphtheria. Then the question arose, Whence the source of this attack? Such cases reopen to some the two rival theories of "spontaneous generation and development from pre-existing germs." But other cases arose quite as remarkable, and as it will be interesting to link experience in the past head master's house with that in the present head master's house, this will settle the point that both past and present head masters knew of the occurrence of diphtheria at Wellington College, for both had had it in their own families; the one in quite the early days of the College, the other in the middle period of its existence. These facts, taken into consideration with the subsequent and recent outbreaks, may give some clue to the cause, at present in obscurity. I was asked by Mr. Wickham to go and see some members of his household. I found Mrs. Wickham, the housekeeper, and one of the maids with a diphtheritic sore-throats; the other members of the family were free from it. The architect and sanitary adviser of the College was sent for; he could find nothing wrong with the sanitation of the house. I could trace no introduction of the disease from without. I persisted that there was something wrong within the house, for two out of the three had not been outside within the usual period of incubation. I got each patient to relate to me everything they had done during the past week. I found that Mrs. Wickham and the maid were in the habit of going to the housekeeper's room, and this was the only place where the three affected persons could be said to have been exposed to a common cause. Mrs. Wickham sat in a chair in a corner of the room to receive pence, I think, from poor children for a little bank she kept going for them twice a week. The housekeeper sat there at other times; the maid was in the habit of going to the same corner. I advised Mr. Wickham to have that spot searched both within and without the walls. Here the mischief was found. A stack-pipe drain had become blocked, and the soil saturated with damp. Here, again, the question arises, Where had the germs been, and how did they get there?

It should not be supposed that the development of these throat affections and their complications, going on in one case to diphtheria and in another to erysipelas or pneumonia, or exhibiting true toxic symptoms, are confined to Wellington College delta, to the exclusion of other low-lying portions

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of the neighbourhood. The low-lying districts of Camberley, of Frimley, and Blackwater, where the Staff and Royal Military Colleges are, have gained an unenviable notoriety by the repeated outbreaks of diphtheria, outbreaks so fatal as to call for public investigations. At the last annual inspection of the cadets by the Duke of Cambridge, his Royal Highness congratulated them on their appearance of healthiness and vigour, yet within a stone's throw of where his Royal Highness spoke there was diphtheria. Here, then, in the midst of general good health, diphtheria crops up as if of spontaneous origin, or from the sudden bursting into vigour of some phase of dormant germ life. But why thus so long dormant and then suddenly active? Bacteriologists fail to explain. Nor are these occurrences confined to the more populous districts, as the following cases will illustrate. A mother and her daughter spent a September afternoon picnicking in one of these marshy valleys. Next day both were indisposed, and the following evening had well-marked symptoms of severe diphtheria, which proved fatal in both cases in a few days. The amount of deposit of diphtheritic membrane on the throat was *not* in proportion to the severity of the constitutional symptoms, and death took place from toxæmia. The house they occupied was an isolated one free from insanitation, placed on the brow of a hill, and raised some hundred feet above the marsh valley. They did not doubt themselves, nor do I doubt, that they caught the disease on the afternoon they spent picnicking in the marsh. But diphtheria is not the only disease these marsh lands are capable of generating.

Septicæmia, like diphtheria, has also prevailed at Wellington College, and not there alone in the district, as the following cases will illustrate. A few weeks anterior to the two cases of diphtheria above related, a young lady home from school spent an afternoon playing in the valley visited by these diphtheritic patients. The following day she was generally indisposed, and when I saw her I found her with some slight tenderness of the knee-joints; a tender line could be found running up on the inside of each thigh, and there was some tenderness and distension of the abdomen. My experience among the boys of Wellington College, where I had seen septicæmia over and over again, had taught me the grave significance of these symptoms when associated with such a history. Within forty-eight hours all the graver indications of septic infection displayed themselves, giving rise to peritonitis, pneumonia, pleurisy, pericarditis, endocarditis, and, lastly, cerebral effusion. The child hovered for a fortnight between life and death, for as the inflammatory action in one organ yielded a little to treatment it lit up in another. The parents, who are more than ordinarily intelligent people, lost all hope under the exhibition of such desperate symptoms, but I had seen boys recover at Wellington College, and I was hopeful that this girl might, which she ultimately did.

As my personal experience, extending over a period of thirty years in private practice, had taught me that these grave cases of septicæmia were mainly confined to the low-lying marsh valleys of the Blackwater river, which divides Berkshire from Hampshire, or the marsh valleys adjacent to it, one of which forms the delta of Wellington College, I have during that period been able to come to no other conclusion than that the abundance of putrescent organic matter with which these valleys abound plays an important part in the production of both diphtheria and septicæmia. Just as these sand and marsh districts are prolific in most forms of fungus life in autumn, it is not unreasonable to infer that they would be equally favourable to the germination of pathogenic micro-organisms which bacteriologists believe are closely allied to fungi in their origin, nature, and method of propagation. As far as my observation goes, sewage contamination of soil has little or nothing to do with their production. Certainly diphtheria and septicæmia do occur where no indication whatever exists of the influence of sewage contamination, as the following case will illustrate. A young man was riding his bicycle through the valley of the Blackwater in the evening, when he met with an accident, he supposed, and was thrown, and lay by the roadside for some hours without assistance. There was no residence near, and he, as far as could be told, had had either concussion, or had fainted. I think the latter. There were no external marks of injury, but the following day he had pain in his joints, followed by sickness and the significant tenderness of the knee-joints and the tenderness up the inside of the thighs mentioned in the preceding case of septicæmia. His mind was perfectly clear, and remained so, but peritonitis, pneumonia, pleurisy, and such cerebral effusion as to produce total blindness, so that he could not even distinguish a candle when brought near to him, yet with perfect clearness of intellect, left no doubt that the cerebral serous membrane, like that of the joints and the pleura and the peritoneum, had become affected. Such is the nature of septicæmia that serous membranes are the most susceptible to its influence. Nor is this the only case in which I have seen total blindness produced. In one of the fatal cases of septicæmia at Wellington College the poor boy lost for a time all power of vision, yet his mind remained clear. During the progress of his illness vision returned, and disappeared again, and returned again, and at last he died of pyæmia, to which all cases of septicæmia tend if the patient lives long enough for the more acute inflammatory symptoms to subside and pus to be formed.

All the cases of septicæmia or blood poisoning I have seen begin with the apparently simple sore-throat so well known among the boys at Wellington College, just as the diphtheria does. The throat "opens the door" for the introduction of the poison, for if the sore-throat is adequately dealt with when it first arises, the graver diseases are not elaborated or developed. It is for the bacteriologist to decide by experimental investigation whether the poison in both diphtheria and septicæmia as they occur at Wellington College and the adjacent districts consists of varieties of the same species of micro-organism cultivated from non-pathogenic forms into pathogenic phases of existence by the quality of the soil in which they fructify, or whether they are at all times disease-producing species only waiting their opportunity to permeate the system and to accomplish their deadly work. Viewed from the clinical standpoint, my inclination is to regard both the diphtheria and septicæmia, as seen at Wellington College and thereabouts, to be phases of disease having a common cause, and that cause to be in the nature of the soil of the locality, which all the sanitation there adopted has been so far powerless to eradicate. The soil must be "sterilised," and until it is, diphtheria and septicæmia will recur at Wellington College, and bring the school into more unenviable notoriety than it now possesses.

METEOROLOGY ON BEN NEVIS.

THE establishment of an observatory on Ben Nevis was one of the most substantial advances ever made in this country in the study of *meteorology*. The observations there recorded have already proved of immense service in promoting our knowledge of the new-born, but already vigorous, science of weather, and no doubt we may look to the same source for much valuable information in the future. The situation of Ben Nevis is not all that could be desired for a national meteorological observatory, among its defects being its liability to fog, but it possesses some considerable advantages, such as elevation and command of the westerly air currents from the Atlantic. To those who have given the subject little attention some of the recorded facts will seem surprising. Thus, we learn that during four days in January, 1891, Ben Nevis, along with the north-west of Scotland, "was enveloped in a warm damp current of air, with the thermometer standing from 25° to 30° higher than over the south of England." This will, however, not seem strange to those who have practically studied the meteorology of these islands and who understand how much more temperature with us depends upon longitude than upon latitude, our climate being much less influenced by our geographical position than by the warm air and fluid currents from the Atlantic. Thus, to take two extremes, Monach in the Hebrides and Penzance in Cornwall possess two of the mildest and most equable winter climates in Great Britain.

One of the most curious of meteorological phenomena has lately been studied with great care on Ben Nevis. We allude to the phenomenon known as "silver thaw," a paper upon which by Mr. R. C. Mossman appears in the recent issue of the Journal of the Scottish Meteorological Society. By silver thaw is meant rain falling when the air is below freezing point and congealing as it falls. The phenomenon "points to an inversion of temperature at the time,

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the temperature on the hill-top being considerably lower than at higher altitudes." During the six years 1885-90 inclusive, 198 cases of silver thaw were observed, lasting in the aggregate 873 hours, or a mean duration of four hours and a half for each case. In December, January, and February the average duration of each case was six hours, whereas during the other months of the year it did not continue more than three hours. The phenomenon was found to be practically confined to the winter months, being rare from April to October, and no case having been hitherto recorded in the month of July.

Careful observations have been made with the view of determining the conditions of pressure prevailing at the time of the occurrence of silver thaw. It has been found that "for the 198 days on which the cases were observed on 137 the distribution of pressure was cyclonic, and on sixty-one anti-cyclonic. Almost without exception it was found that "in the anti-cyclonic conditions there was a cyclone central off the north-west coast of Norway, while the centre of the anti-cyclone was over the south of England and Ireland; while in the cyclonic cases Ben Nevis was within the area of low pressure, the centre of which was off the north-west coast of Norway, while the anti-cyclone was over the Iberian peninsula." The lowest temperature at which silver thaw occurred was 18°, and it was of rare occurrence below 27°. Fully 90 per cent. of the cases occurred between 28° and 31·9°. Hence the greater number of cases occurred just before a thaw.

Some interesting facts have been collected regarding the condition of the wind at the time of silver thaw. "The mean velocity of the wind under cyclonic conditions was twenty-one miles per hour; under non-cyclonic seventeen miles per hour. As these were comparatively light winds for that exposed situation, gradients in the vicinity of Ben Nevis were slight. It rarely occurred that the wind attained the strength of a gale during silver thaw. Fully 90 per cent. of the cases were observed when the wind was below Force 4 on the Ben Nevis scale, 0—12 corresponding to a velocity of thirty miles per hour. On the other hand, calms were rare during the phenomenon."

As regards the thermometric and barometric variations about the time of silver thaw, "in cyclonic cases of silver thaw temperature began to rise fifteen hours before the phenomenon commenced, and continued rising during the occurrence, then fell until the sixth hour after it had ceased, when it rose again. The barometer was falling steadily till the phenomenon set in, rose during the thaw, and until nine hours after it had ceased, when it began to fall again, this fall coinciding with a distinct backing of the wind and rise of temperature. In anti-cyclonic cases temperature was rising for eighteen hours before, and continued rising till three hours after the phenomenon, and then fell steadily. The barometer was rising till the fall of silver thaw commenced, and thereafter continued falling steadily during and after the phenomenon."

As regards the distribution of cloud on these occasions, it was found that "the most common type of cloud which preceded both cyclonic and anti-cyclonic cases of silver thaw was cirro-cumulus, frequently accompanied by cirrus and cirro-stratus. These began to form many hours before cumulo-stratus, the prevailing low-level clouds observed during the phenomenon; thus showing that the higher strata of the atmosphere came first under the influence of the moist current, which took from three to eight hours to descend to the height at which cumulo-stratus forms. Shortly after this cloud appeared it descended and enveloped the summit in mist. During the occurrence of silver thaw, and indeed for some time before and after it, the hill-top was wrapped in cloud."

It has been found that the occurrence of silver thaw has some relation to the prevalence of storms. Thus "73 per cent. of the cyclonic, and 63 per cent. of the anti-cyclonic, cases of silver thaw were followed or preceded by gales at some of the twenty-seven selected stations on the northern and north-western coasts of Scotland." This fact is to be noted in connexion with the other fact already adverted to, that high winds were rare at the observatory itself on the occasion of silver thaw. The occurrence of silver thaw preceded the setting in of gales in about 75 per cent. of cases, the further north lighthouses showing the greatest number of storms. The depressions which brought about the phenomenon of silver thaw on Ben Nevis almost invariably travelled in a north-east direction.

The general result of the observations taken renders it probable that "the part of the atmosphere in which silver thaw occurs is of considerable horizontal, but small vertical, extent." Such observations as those recorded by Mr. Mossman are very interesting, as showing the advance of meteorology as a science. They are also very encouraging to climatologists, as proving the rapid accumulation of trustworthy data, available for working out the very abstruse, but most interesting and important, problems relating to the influence of climate upon health, racial vigour, and longevity.

POOR RELIEF.

THE very difficult question of providing relief for the necessities of the poor which shall not involve the somewhat vague reproach of pauperism has elicited among other attempts at its solution a brace of Bills, endorsed by Mr. Bartley, for dealing in the one case with relief during the working period of life, and in the other with the support of old age. The principle of these two Bills is that relief is to be accorded in proportion to the measure of self-help for which the recipient can claim credit. Thus the "Out-door Provident Relief Bill," as it is entitled, is intended to deal with the cases of such paupers as are rendered destitute by temporary or permanent illness or by widowhood, and it proposes to empower the guardians of the poor to grant out-door relief to such applicants to an extent proportioned to that in which they have out of their own savings maintained themselves during the period of distress. Thus a poor man destitute through illness, and still ill when the sick benefit of his friendly society or club is exhausted, may receive from the guardians out-door relief of the same amount, and extending over the same period of time, as that which he has already received as the fruit of his own providence. Similarly, in a case of chronic illness, he may receive permanent out-door relief if he has maintained himself during the illness for a prescribed period of time, varying with the applicant's age, of from six to eighteen months. The case of a widow is dealt with in an analogous way. Again, in the case of the Pensions Bill the benefit is to be extended to three classes of recipients—(1) persons who have never previously received poor relief; (2) those who have made some provision, though partial, for themselves; and (3) those whom exceptional illness or losses commend to the special consideration of the local authorities charged with payment of the pensions. In all cases a conviction of crime or drunkenness, if within the terms of fifteen and ten years respectively, is to operate as a disqualification. Such in brief is the scheme put forward in these Bills, and it may at once be admitted that, as compared with some other schemes that have attained to greater publicity, it has the advantages of superior moderation and economy. In adopting it we should not be so utterly at sea as to its probable consequences as in adopting, for example, Mr. Chamberlain's or Mr. Chas. Booth's projects. The author of the present scheme is even sanguine enough to speculate that its adoption would result in a diminution of the Poor-rate, but here he will hardly convince his audience. The principal cause of pauperism is not sickness and not extravagance, but irregularity of employment; and while this grievous disadvantage besets the condition of the labouring classes, pauperism must and will continue in our midst. The most meritorious scheme for rescuing the poor from the Poor-law which omits to take account of this fact will necessarily fail, and this is the main reason why we cannot look hopefully upon Mr. Bartley's scheme. But it has other and practical faults of very serious import. By making crime, drunkenness, and pauperism disqualifications for the benefits to be conferred, it casts upon the authorities who must administer the Act if passed a burden of investigation which must prove unmanageably great. By what process of inquisition are they to discover whether an applicant who puts forward a claim has incurred during a period of ten or fifteen years any of the disqualifications enumerated? The comparatively simple inquiry as to a pauper's settlement proved under the old law so onerous and expensive that the Legislature was constrained to cut down the scope of the inquiry and confer a settlement upon a three years' residence. How the much more elaborate inquiries involved in the present project are to be carried out does not at all appear, and we

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much suspect that the author of the scheme has obtained his peace of mind upon this point by the simple expedient of shutting his eyes to the difficulty. But the defect is one that would be fatal even to a larger and more promising project, and we must confess that we do not find in the two Bills now under notice much help towards the solution of the problem to which they are directed.

LUNATIC ASYLUM REPORTS FOR 1891.

Barnwood House Hospital for the Insane, near Gloucester.—The medical superintendent reports that there were 67 male and 87 female residents in the institution on Dec. 31st last. The recoveries during the year were at the rate of 43·4 per cent. of all the admissions. This rate for the last fifteen years averaged 46·8 per cent., and for the last five years 57·2 per cent. We quite agree with Dr. Needham in the remark that these percentages of recoveries warrant him in making. "When it is remembered," he says, "that patients are received here practically without selection, and in the order of their application, and having in view the obviously incurable character of many of the cases on admission, there would seem to be no justification for the statement that this and other hospitals and asylums for the insane are not as successfully combating disease as other institutions which have as their object the cure of diseases which are more entirely physical in their nature." The four deaths during the year were all from ordinary causes, and gave a proportion of 2·5 per cent. to the average number of patients resident. A considerable proportion of the inmates and of the staff were attacked by the influenza. The outbreak was characterised by a great tendency to relapse, and a curious occasional increase of temperature for some time after apparent convalescence had been reached. In the general management of the asylum the continuous effort has been made to preserve its domestic character, and conduct it less like an institution than a large private house of good type, to make it as little an asylum and as much as possible a hospital and a home. The working party of gentlemen has continued its operations, and a new and fascinating occupation has been found for the ladies in ornamental basket work, which has become very popular. The governors record their great appreciation of Dr. Needham's services. These services will, we are sure, be as successfully devoted by Dr. Needham to his new office and work as a Commissioner in Lunacy. No one grudges him his well-merited and well-earned promotion, while his accession to the board will bring to its councils all the weight of a matured and practical experience in lunacy work.

Glamorgan County Asylum.—The superintendent reports that on Dec 31st, 1891, the numbers were 472 males, 468 females, total 940, showing an increase of 15 males and 13 females. The male admissions were more numerous than in any previous year since the opening of the asylum, and the limited accommodation points to the necessity for new buildings. Dr. Pringle says: "In this, as in former years, I have had to deplore the admission of epileptics, who had been so from childhood, and yet had married and become parents. One woman lately told me she got married because 'everybody' told her if she did so the fits would leave her. I have seldom an opportunity of testing the mental capacity of the partners of such people, as I generally find on inquiry that they have gone to America, or some other distant place as far away as possible from their unhappy mates, and have left their miserable offspring to be maintained by others; and I do not wonder much, since to be tied for life to one of these unhappy creatures is more than can be expected from any average mortal. The deplorable ignorance and recklessness displayed by such marriages, and the grave consequences to the children born of them and the ratepayers, to whom many of them become permanent burdens, make me often think that the schoolmaster is abroad to little purpose, and that it ought to be made a criminal offence to enter into such marriages, or for anyone to celebrate or register them." The discharges of the year give a percentage of recoveries on admissions of 28·8 for males and 30·1 for females. Of the 73 cases recovered 15 were discharged under three months' residence, 20 under six months, 17 under twelve, and 10 from one year to two years; after periods varying from two to five years 9 got well, and from five to ten years 2 got well. The deaths numbered 110, or about 11 per cent. on the average number resident. Eleven of the deaths were from influenza and its sequelæ. Dr. Pringle tells us that "the malady occurred at both our asylums, but was most severe at Parc Gwyllt, which stands about 300 feet higher than Angelton, and has its wards heated at a uniform temperature of sixty-two degrees, whereas at Angelton the wards are chiefly heated by open fires, and in very cold weather cannot possibly be warmed so well or uniformly. Warmth, therefore, seemed to increase the virulence and fatality of the disease." We are scarcely prepared to accept this as the true solution of the difference, as it is so contrary to general experience in dealing with this malady. Additional laundry machinery has enabled the patients to have two changes of underlinen weekly, and the efficiency of the kitchen department of the Angelton asylum has been greatly increased by the substitution of a new cooking apparatus for the old worn-out one. The commissioners in their report intimate their strong desire for some more special supervision and training for the idiot children. "We must urge (as we have so often done in other asylums) the committee to consider whether they cannot join with other counties in setting aside a block, as is done at the Northampton asylum, especially for the idiot children, with special attendants able not only to look after but to instruct and train them. The initial expense is of course greater than their present cost, but no child here is in existing circumstances ever likely to do anything but end his days in the asylum, and be for ever a charge upon the ratepayers, whilst with a little training not a few may be able hereafter to earn their own living; and so upon economical as well as humanitarian grounds we urge this step upon the committee."

THE ROYAL BRITISH NURSES' ASSOCIATION.

THE Right Hon. David Evans, the Lord Mayor, accompanied by the Lady Mayoress, presided over a meeting held in support of this Association at the Mansion House on Friday last. The President, Princess Christian, who has taken a deep interest in this scheme for ameliorating the condition of nurses generally, was announced to be present, but owing to recent family bereavements was prevented from attending.

The LORD MAYOR announced the objects of the meeting. To a commercial mind it seemed that these objects were just, and that the public should have in the time of sickness a list of competent nurses to choose from, and to know that in doing so they were selecting persons who had been properly certified as nurses. He failed to see what objections could be urged against the granting of the Charter sought for by the Association. The Association was seeking to place its nurses on a par with other professions—the medical profession, for instance—as to proficiency in their particular calling.

Sir WM. SAVORY moved: "That this meeting is of opinion that the Royal British Nurses' Association, which already includes one-fifth of the whole number of trained nurses estimated to be at work in this country, is eminently worthy of public support and of incorporation by Royal Charter, and this meeting considers that the Association is well qualified to carry out the system of registration of trained nurses which it has commenced as a voluntary measure, and that, when fully carried out, this system will fully protect the sick against untrained and untrustworthy workers, to be of great assistance to medical men, and be most beneficial to trained nurses by furnishing easily obtainable information as to the education and experience which each registered nurse has received." He said that nurses were now in a position to claim the power of coöperating for mutual help and general advancement, and the public should insist upon a charter being granted for such purposes and for their own security. He knew of no objections to it which did not resolve themselves into misrepresentation or jealousy. The question, however, was a larger one and belonged to the people.

Sir JAMES CRICHTON BROWNE, in seconding the resolution, referred to the valuable lives that good nursing had saved during the recent epidemic of influenza as a reason,

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why the nurses themselves should secure the benefits of their federation. These benefits must accrue if the public had facilities for distinguishing between efficient and skilled nurses and those who were nurses only in name and perhaps in uniform, but who had no practical or intelligent acquaintance with the technique of the sick room.

Mr. BRUDENELL CARTER said that the resolution before the meeting asked them to affirm that when fully carried out the system of registration would protect the sick against untrustworthy nurses. These words had been inserted after grave deliberation on the part of the Council. They expressed the conviction that in existing circumstances the sick were liable to have foisted upon them the services of people who, whatever might be their good intentions, were from sheer ignorance absolutely untrustworthy as nurses, and committed the gravest errors in the discharge of the duties which they ventured to undertake. The knowledge of the small proportion of their own earnings which went into the pockets of many nurses first excited his interest in this Association. It had become public information, in consequence of the evidence before Lord Sandhurst's Committee, that at least one of the hospitals in London had been making a profit by sending out imperfectly trained and unskilled women in the name of nurses, and so long as the authorities of any hospital were found to do that, one could hardly wonder that private speculators should endeavour to surpass them at their own game. The publication of the Register provided a real protection against a very real danger.

Dr. BEZLY THORNE explained the nature of the Register, and traversed in detail the objections which had been urged against it. Good nursing, he said, meant the unlearning of habits of half a lifetime and the acquirement of other habits which should be deeply ingrained for the rest of life—habits of order, method, kindness, gentleness, refinement, patience, self-abnegation, and powers of observation; but, above all, the faculty to exercise a wise though limited discretion. These habits could not be acquired by forcing, and consequently the Association required evidence of three years' training before admission to the register could be obtained.

The motion was then put to the meeting by the LORD MAYOR and carried unanimously.

On the motion of Sir DYCE DUCKWORTH, seconded by Dr. PAVY, a resolution was passed tendering the grateful thanks of the meeting to her Royal Highness the Princess Christian "for her great and steadfast exertions to bring about reforms in the nursing profession."

Sir HENRY THOMPSON proposed a vote of thanks to the Lord Mayor for presiding. It was no mean advantage to obtain the aid and advocacy of the head of this great city for a movement of this kind, and the meeting offered him their grateful thanks for his kindness.

The vote, having been seconded by Dr. PRIESTLEY, was agreed to, and the meeting terminated.

THE IRISH MEDICAL SCHOOLS' AND GRADUATES' ASSOCIATION.

THE annual general meeting of this Association was held at 11, Chandos-street, W., on March 17th. In the absence of the president the chair was taken by Dr. Macnaughton Jones. The annual report was read, and, with the balance-sheet, unanimously adopted. The officers for the ensuing year were elected. The annual dinner of the Association afterwards took place in the large room at the Holborn Restaurant. Director-General Dick, C.B., R.N., the new president, was in the chair, and eighty-nine members and guests attended, including several ladies. The Association guests were Sir George Stokes, F.R.S., and Rear-Admiral Colomb. The proceedings were enlivened by an excellent programme of music.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6136 births and 4848 deaths were registered during the week ending March 19th. The annual rate of mortality in these towns, which had been 20·5 and 22·9 per 1000 in the preceding two weeks, further rose last week to 24·8. In London the rate was 24·3 per 1000, while it averaged 25·2 in the thirty-two provincial towns. The lowest rates in these towns were 13·8 in Croydon, 15·6 in West Ham, 15·7 in Brighton, and 17·4 in Newcastle-upon-Tyne; the highest rates were 32·5 in Wolverhampton, 32·7 in Bolton, 33·2 in Salford, 33·1 in Liverpool, and 33·4 in Oldham and in Burnley. The 4848 deaths included 477 which were referred to the principal zymotic diseases, against 390 and 406 in the preceding two weeks; of these, 196 resulted from whooping-cough, 146 from measles, 51 from diphtheria, 36 from diarrhœa, 24 from "fever" (principally enteric), 22 from scarlet fever, and 2 from small-pox. The lowest death-rates from these diseases were recorded in West Ham, Norwich, Portsmouth, and Plymouth, while they caused the highest rates in Sheffield, Salford, Birkenhead, Liverpool, and Wolverhampton. The greatest mortality from measles occurred in Huddersfield, Birmingham, Halifax, Birkenhead, Liverpool, and Wolverhampton; from whooping-cough in Sheffield, Salford, Derby, Bristol, Bolton, and Wolverhampton; and from diarrhœa in Blackburn. The mortality from scarlet fever and from "fever" showed no marked excess in any of the thirty-three large towns. The 51 deaths from diphtheria included 31 in London, 5 in Manchester, 2 in Leeds, 2 in Sheffield, and 2 in Hull. Small-pox caused 2 deaths last week in London, but not one in any of the provincial towns; 16 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and 1 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of last week was 1230, against 1190 and 1202 on the preceding two Saturdays; 146 new cases were admitted during the week, against 96 and 117 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 379 and 454 in the preceding two weeks, further rose last week to 523, but were 10 below the average. The causes of 115, or 2·4 per cent., of the deaths in the thirty-three towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Bristol, Preston, Sunderland, and in six other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Halifax, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·5 and 22·6 per 1000 in the preceding two weeks, further rose to 24·2 during the week ending March 19th, but was 0·6 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 14·1 in Dundee and 15·5 in Perth to 23·9 in Greenock and 28·8 in Glasgow. The 675 deaths in these towns included 28 which were referred to whooping-cough, 15 to measles, 12 to diarrhœa, 7 to scarlet fever, 5 to diphtheria, 4 to "fever," and not one to small-pox. In all, 71 deaths resulted from these principal zymotic diseases, against numbers increasing from 62 to 70 in the preceding three weeks. These 71 deaths were equal to an annual rate of 2·6 per 1000, which slightly exceeded the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 19 and 29 in the preceding two weeks, were 28 last week, of which 15 occurred in Glasgow, 4 in Edinburgh, and 4 in Aberdeen. The 15 deaths from measles were within one of the number in the previous week, and included 13 in Glasgow and 2 in Edinburgh. The 12 fatal cases of diarrhœa showed a further increase upon recent weekly numbers; 6 occurred in Edinburgh and 4 in Glasgow. The deaths from scarlet fever, which had been 4 and 3 in the preceding two weeks, rose again to 7 last week, of which 5 occurred in Glasgow, where 3 of the 5 deaths from diphtheria were also recorded. The deaths referred to diseases of the respiratory organs in these towns, which had been 155 and 154 in the preceding two weeks, increased last week to 183, but were 11 below the number in the corresponding week of last year. The causes of 73, or nearly 11 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 32·7 and 35·5 per 1000 in the preceding two weeks, further rose

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to 36·8 during the week ending March 19th. During the past eleven weeks of the current quarter the death-rate in the city averaged 38·3 per 1000, the rate for the same period being 29·4 in London and 19·9 in Edinburgh. The 247 deaths in Dublin during the week under notice showed an increase of 9 upon the number in the preceding week, and included 12 which were referred to measles, 5 to whooping-cough, 3 to "fever," 2 to scarlet fever, 2 to diarrhœa, but not one either to small-pox or diphtheria. In all, 24 deaths resulted from these principal zymotic diseases, equal to an annual rate of 3·6 per 1000, the zymotic death-rate during the same period being 2·9 in London and 2·8 in Edinburgh. The fatal cases of measles, which had been 7 and 12 in the preceding two weeks, were again 12 last week. The deaths referred to whooping-cough, which had been 8 and 6 in the previous two weeks, further declined to 5 last week. The 2 fatal cases of diarrhœa corresponded with the number in each of the preceding three weeks. The 247 deaths in Dublin last week included 34 of infants under one year of age, and 63 of persons aged upwards of sixty years; the deaths of infants corresponded with those recorded in the previous week, while those of elderly persons showed a slight decline. Four inquest cases and 3 deaths from violence were registered; and 79, or nearly a third, of the deaths occurred in public institutions. The causes of 19, or nearly 8 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

THE death is announced *from Bombay* of Staff-Surgeon John Mackie, aged forty-two, of H.M.S. *Boadicea*. His death was considered to be mainly due to the severe strain he had recently undergone owing to the large amount of sickness that had prevailed on board the flagship. The deceased served on board the *Briton* during the Soudan Expedition of 1884–85, obtaining the Egyptian medal for his services.

Surgeon-Major T. J. Gallwey has been selected by the Commander-in-Chief for employment with the Khedive's Army, and he has been ordered to leave for Egypt at once.

Surgeon-Lieutenant-Colonel A. S. Lethbridge, M.D., C.S.I., Inspector-General of Gaols, Bengal, succeeds Colonel Henderson as General Superintendent of Operations for the suppression of Thuggi and Dacoity.

Surgeon-Captain W. G. A. Bedford has been appointed Adjutant of the depôt and training school Medical Staff Corps, Aldershot, from the 9th inst., vice Surgeon-Captain G. E. Twiss, who has embarked for service at Malta.

ARMY MEDICAL STAFF.—Brigade-Surgeon-Lieutenant-Colonel W. D. Wilson, in medical charge of the Station Hospital at Colaba, has been transferred to the charge of the Station Hospital at Kurrachee, vice Brigade-Surgeon-Lieutenant-Colonel J. M'D. O'Farrell, tour expired.—Surgeon-Lieutenant-Colonel F. Lyons is to take charge of the Hospital at Colaba.—Surgeon-Major R. H. Quill has handed over the charge of the Station Hospital, *Deolali*, to Surgeon-Lieutenant-Colonel J. D. Edge, on transfer to general duty in the Bombay District.—Surgeon-Major A. L. Browne, Bombay command, has been appointed to the medical charge of the Station Hospital, Mhow.—Surgeon-Captain J. D. Moir has been appointed to the Brigade of Foot Guards for duty.—Surgeon-Lieutenant-Colonel J. G. Williamson has been struck off the strength of the Straits Settlement command on returning to England, tour expired.—Surgeon-Major-General William Arthur Thomson, M.B., is placed on retired pay (dated March 10th, 1892).—The undermentioned Surgeon-Captains to be Surgeon-Majors (dated March 6th, 1892):—Frederick Rowland Barker, M.B.; Alfred Keogh, M.D.; Charles Birnie Hill; James Richardson Andrew Clark, F.R.C.S. Edin.; Henry James Michael; Thomas Dorman, M.D.; Arthur Walter Patrick Inman, M.B.; Thos. Martin Corker, M.D.; Edmond Henry Myles, M.B.; Thomas Beattie Moffitt; Chas. Alfred Webb; Henry Martin, M.B.; Arthur England Johnson Croly, F.R.C.S.I.; Robert Oriel Cusack; Ernest Frederic Smith; William Daniel Amherst Cowen; Robert Hall Forman, M.B.; Samuel James Flood, F.R.C.S. Edin.; Geo. Winsor Robinson; John Watson, M.D.; Octavius Todd, M.B.; Alfred Osmond Geoghegan, M.D.; James Dunne Day, M.B., F.F.P.S. Glasg.; Arthur Maher Kavanagh; John Gasson Harwood, F.R.C.S. Edin.; Robert Dickie Donaldson, M.D.; Henry Lawrence Esmonde White; Arthur Hyde Barlton; Edward North, F.R.C.S. Edin.; George Frederick Poynder; George Frederick Alexander Smythe, F.R.C.S. Edin.; Henry Lewis Battersby; Augustus Hewett, F.R.C.S. Edin.; Peter Mulvany; James Edward Nicholson; William Owen Wolseley; Thomas Frederick MacNeece; Benjamin Thomas M'Creery, M.B., F.R.C.S.I.; Arthur Patrick O'Connor, F.R.C.S.I.; James M'Mullen Bolster, F.R.C.S.I.; Douglas Wardrop, M.B.; Geo. Taylor Goggin; John Matthew Jones; Fausset Maher Baker, M.B.; Alfred Asbury, F.R.C.S.I.; Patrick Maurice Carleton, M.D.; Fitzroy Beresford Maclean; Raglan Wykeham Barnes; and Patrick Halion Fox, F.R.C.S.I.

ARMY MEDICAL RESERVE OF OFFICERS.—Surgeon-Lieutenant-Colonel Charles Arthur Patten, 2nd Volunteer Battalion, the Duke of Cambridge's Own (Middlesex Regiment), to be Surgeon-Lieutenant-Colonel (dated March 23rd, 1892).

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Surgeons: A. G. W. Bowen, B.A., M.B., to Plymouth Hospital (dated March 23rd, 1892); Richard L. Price, M.B., to the *Pembroke*, and Montague L. B. Rodd, to the *Vivid*, additional, for disposal (both dated March 29th, 1892); Herbert L. Penny, to the *Excellent*, additional, for disposal (dated April 8th, 1892); and Arthur E. Kelsey, B.A., M.B., to the *Pembroke*, additional, for disposal (dated April 1st, 1892).

VOLUNTEER CORPS.—*Light Horse:* 1st Roxburgh (Border) Mounted Rifle: Surgeon-Lieutenant-Colonel P. Kynoch (Brigade-Surgeon-Lieutenant-Colonel) resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Corps on his retirement.—*Artillery:* 1st Renfrew and Dumbarton: Surgeon-Major J. W. Taylor, M.D., to be Surgeon-Lieutenant-Colonel (dated March 23rd, 1892).—*Rifle:* 1st Volunteer Battalion, the East Yorkshire Regiment: Surgeon-Captain R. Hagyard resigns his commission (dated March 19th, 1892).—2nd (Hertfordshire) Volunteer Battalion, the Bedfordshire Regiment: The undermentioned Honorary Assistant Surgeons resign their commissions:—S. B. Farr and F. R. Webster (both dated March 19th, 1892).—5th Volunteer Battalion, the Cheshire Regiment: Surgeon-Captain W. R. Dambrill-Davies to be Surgeon-Major (dated March 19th, 1892).—1st (Pembrokeshire) Volunteer Battalion, the Welsh Regiment: Surgeon-Major E. P. Phillips to be Surgeon-Lieutenant-Colonel who resigns his commission; and to be permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated March 19th, 1892).—1st (Hallamshire) Volunteer Battalion, the York and Lancaster Regiment: Surgeon-Major A. Hallam resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated March 19th, 1892).

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—The annual meeting of governors was held in the Bell Medical Library and Institute on Tuesday, the 8th inst. The total number of patients treated during the year was 16,133. The number of in-patients has been 2168. Of these, 895 were medical and 1273 were surgical cases; 1531, as accidents or urgent cases, were admitted without tickets. The total number of out-patients has been 13 965, showing an increase of 936 as compared with the previous year. Of these, 6636 were treated without tickets, being accidents or urgent cases. The income for the past year amounted to £7465 19*s.* 2*d.*, being a decrease of £88 3*s.* as compared with the previous year. The donations show a decrease of £234 5*s.* 1*d.*; but it is very gratifying to find an increase in the Hospital Saturday collections of £173 15*s.* 5*d.* The total expenditure for the past year has amounted to £7751 6*s.* 8*d.*, showing an increase of £159 16*s.* 2*d.* On the suggestion of the Hospital Saturday committee it has been decided to purchase a horse ambulance and a manual ambulance, which will always be in readiness at the hospital for the conveyance of accidents from any part of the town or district to the institution. The want of increased sanitary accommodation in connexion with the female wards, and also additional rooms for the nurses, having occupied the careful attention of the board for some years past, plans were obtained for building an additional storey over the out-patient department, and the work, which is nearly completed, will provide five additional rooms, besides three bath rooms, lavatories, and necessary offices.

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Correspondence.

"Audi alteram partem."

COMPARATIVE ACTION OF THE DIFFERENT BRANDS OF CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—The above research was prompted by the records in recent medical journals of deaths during anæsthesia. We believed that differently manufactured chloroform, although conforming to the tests required by the British Pharmacopœia, might have different actions, and that possibly some of the dangers were due to the use of impure chloroform. We determined to test this assumption by administering chloroform to guinea-pigs. The same animals were put under the influence of the brands (subsequently referred to) on different days, as only in this way, we considered, could a careful comparative estimate of their action in each case be satisfactorily ascertained. We therefore obtained samples of: (1) Pictet's chloroform medicinale; (2) Duncan, Flockhart, and Company's, made from pure alcohol; (3) Macfarlan and Company's chloroform. pur., prepared with rectified spirit; (4) Macfarlan and Company's chloroform. pur.; (5) Duncan, Flockhart, and Company's "blue brand"; (6) Warrington Chemical Company's chloroform. The usual method of administering the vapour on a piece of blotting-paper under a bell jar was followed, the quantity in each case being thirty minims. We then noted (1) what difference there was in regard to the time of inducing anæsthesia; (2) the time when respiration ceased; (3) the time of recovery after artificial respiration—i.e., when the animal was able to move about easily; (4) any other differences.

The following average results were obtained:—

—	Anæsthesia.	Respiration ceased.	Recovery.	Remarks.
	M. S.	M. S.	M. S.	
1. Pictet's Chloroform Medicinale	4 20·0	1 36·6	7 40	No tremors
2. Duncan, Flockhart, and Co.'s, from pure alcohol	4 21·6	1 13·33	8 50	No tremors
3. Macfarlan and Co.'s Chloroform. Pur., prepared with rectified spirit	5 8·0	1 50·0	12 36	Rhythmic tremors distinct
4. Macfarlan and Co.'s Chloroform. Pur...	4 57·0	1 26·0	11 48	Rhythmic tremors distinct
5. Duncan, Flockhart, & Co.'s Blue Brand	3 59·3	4 43·3	18 20	Rhythmic tremors pronounced
6. Warrington Chem. Co.'s Chloroform..	3 55·0	2 0·0	13 20	Rhythmic tremors pronounced

The conclusions from this research, so far as it goes, show that there is a very evident difference of action exhibited by chloroforms of different manufacture. Thus, with the first two brands (Pictet's and Duncan, Flockhart, and Co.'s) recovery was quicker than with the other four; and further, during recovery no rhythmic tremors were observed. We may therefore assume that these latter brands contain some substance or substances extraneous to pure chloroform. What the nature of this substance or these substances may be we cannot at present determine. At our suggestion Mr. Tatlock, City Analyst for Glasgow, has kindly undertaken to make an exhaustive chemical examination of the different brands. On the completion of the inquiry we shall give the results. The research is by no means completed, but we deem it advisable to place before the profession the results of this preliminary inquiry. At as early a date as possible we shall make a fuller statement, and give details of the experiments and the action of different brands of chloroform. It may be mentioned that our observations are entirely in correspondence with those of the recent Hyderabad Commission—viz., that the heart continues to beat after respiration has ceased.—We are, Sirs, yours truly,

M. CHARTERIS, M.D.,
Prof. Mat. Med. and Therapeutics, Glasgow Univ.;
WM. MACLENNAN, M.B.,
Assistant to Prof. Mat. Med. and Therapeutics, Glasgow.
The University, Glasgow, March 19th, 1892.

THE SPREAD OF LEPROSY.

To the Editors of THE LANCET.

SIRS,—Since reading the valuable paper by Dr. Thin "On the Origin and Spread of Leprosy &c.," which appears in THE LANCET of Jan. 16th, I have on several occasions thought that the following account of an instance which occurred in my experience might not be uninteresting. Some twelve years ago, whilst I was resident surgeon of the Colonial Hospital in Georgetown, British Guiana, the females and children of the Mahaica Leper Asylum were transferred to a building some distance from the hospital. The house in which these lepers were placed was situated—an unavoidable condition owing to circumstances—about thirty yards to the windward side of a house occupied by one of the married attendants of the institution. This man had a family of five children, all of whom I knew, and can answer for the fact that they were healthy children at that time, ranging from five to fifteen years. The lepers remained there whilst other quarters were being prepared for them—for several years in all. Notwithstanding every precaution there was a certain amount of covert intercourse between the children of the parties above referred to, and now one of the children of the attendant has developed for some years past the disease. As regards the parents of this child, they are both immigrants of the colony, without any symptoms of leprosy; the father a white man from Madeira, the mother an Englishwoman. To what, then, must we attribute this development of the disease—contagion or coincidence? Whatever convictions resulting from experience may be held by other persons, I must say that the case I now record is, in my opinion, very strong evidence of there having been some contagious influence at work, and it supports me in what I tried to make understood when I had any dealings with lepers—that it is a disease which is slowly contagious under certain conditions of environment and individual idiosyncrasy. It is contagious not in the same way as we understand this expression when applied to such diseases as the exanthemata, but slowly, in such manner as it is now held that phthisis pulmonalis is contagious. Such a case as that which I have recorded above could, I know, be swamped by instances of persons who, through long exposure to, and intimate relationship with, leprotic influences and persons, had remained unaffected; yet such would only be negative evidence, and, indeed, might be pointed to in any disease—markedly phthisis. Yet I doubt if any medical man maintains that this latter disease is incapable of being bestowed in course of time by the diseased on those who may not actually be consumptive, but who are in a condition of "physiological misery" rendering them hotbeds for the germination of the provoking cause of such disease. Similarly I believe in an individual idiosyncrasy as a very potent factor assisting the contagium of leprosy, for we often notice that only one or two members of a family develop the disease whereof all were subjected to the same morbific influence, and it is this individual vulnerability which gives the disease a foothold, as it were, in such suscepts constitution when exposed for any length of time to leprous influences. Such influences can undoubtedly be combated by sanitary and hygienic improvements, as may all the diseases which flesh is heir to; but it would be a somewhat ideal condition of things which would render such baneful influences inoperative, and till such condition is reached it is imprudent that the two classes, the leprous and the non-leprous, should be permitted to co-mingle for any length of time.

I am, Sirs, yours faithfully,

London, March 10th, 1892. C. E. MACNAMARA.

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POST-MORTEM APPEARANCES OF THE BRAIN IN INFLUENZA PATIENTS.

To the Editors of THE LANCET.

SIRS,—As the above subject is now being discussed in THE LANCET, perhaps I may be allowed to say a few words, having, with my colleagues, during the first two months of this year had exceptional opportunities for examining the brains of those dying from the complications following influenza, for I am sorry to say we lost a large number of our very old patients from secondary pneumonia. On referring to the notes made at the time, I find that in a large number of the cases there was marked congestion of the pia mater recorded both by Dr. Ewart and myself. This was to an extent unusual, as seen in the brain of the insane. The engorgement of the vessels was most marked at the upper surface and sides, and in many instances it was very slight at the base. This condition existed in 55 per cent. of our cases. Usually only the larger vessels were distended, but in one of my cases there was intense injection of the minute capillaries over the surface of the convolutions, especially at the upper part of the cerebrum, and comparatively little at the base. The congested state of the pia mater extended down over the medulla and spinal cord, but in no other of my cases was this so. In this case also there existed a deeply congested false dura mater, which in places could be easily peeled off the under surface of the true one, whilst in others it was firmly adherent. The vessels in the dura mater, contrary to what was usually found, were in this case much congested; in only one other of mine was this noticed. In another brain, the vessels over one cerebral hemisphere only were engorged with blood; on the other, the right, they were empty and the brain was anæmic. In this case, however, the right vertebral artery was extremely small.

Dr. Ewart, who kindly allows me to mention his cases, states that in one of them the venous sinuses at the base were much engorged. In another, "the vessels, especially the veins of the pia mater, were loaded with blood, the dura mater vascular, and a clot existed on its outer surface, the diplocic tissue was engorged": and in a third case "after removal of the pia mater (which was congested) the convolutions of the upper surface were seen punctated with vascular points. There was no abnormal appearance of the membranes or vessels at the base." In very few of our cases was the engorgment of the vessels at the base noticed to the extent referred to by Dr. Althaus, and beyond what has been stated, there was no other morbid condition present that could in any way be said to be dependent on either influenza or pneumonia. Other lesions of the brain invariably existed, but were such as are common to those dying in lunatic asylums. In not one of our cases was there any actual inflammation of the membranes present. I am inclined to agree with Dr. Goodall that the majority of the cases first brought forward showed lesions probably unassociated with influenza; but whether the hyperæmia of the pia mater, so often found, is dependent on the secondary pneumonia, or owes its origin to the primary disease, is not easy to prove, although I do not believe there is any doubt that simple pneumonia may give rise to a congested state of the membranes. My colleague, Mr. R. Rouse, however, informs me that in a certain number of the brains of male patients examined by him he found, in addition to an intense congestion of the membranes, an actual deposit of recent lymph on the pio arachnoid, which could be stripped off with ease. This existed in three out of about eight cases examined. He has, moreover, seen actual purulent cerebro-spinal fluid present in a patient who died from influenza, and he is firmly convinced himself that a cerebro-spinal meningitis existed in these cases, and perhaps is always present with influenza. This may be said to be evidence in favour of Dr. Althaus' view of the nature of the so-called influenza.

I am, Sirs, yours faithfully,

CECIL F. BEADLES,
Assistant Medical Officer.

Colney Hatch Asylum, March 15th, 1892.

To the Editors of THE LANCET.

SIRS,—In concluding my share in the communications made in THE LANCET upon this subject, I should like to correct an accidental misrepresentation made by Dr. Althaus in his somewhat limited advocacy of the significance of the cases quoted by him. It is stated that I suggest that hæmorrhage into and softening of the cerebellum in a healthy patient aged twenty-five might be due to sneezing and coughing. I need only remark that at the time I wrote there was no means of knowing the patient's state of health or age, since neither was mentioned in Dr. Althaus' communication. This "startling suggestion" cannot, therefore, be attributed to me.—I am, Sirs, yours faithfully,

EDWIN GOODALL, M.D. Lond.

West Riding Asylum, March 20th, 1892.

THE ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—I fully endorse all that Mr. Jabez Hogg has said regarding the unwavering support which THE LANCET has always given to all efforts in the direction of reform at the College of Surgeons. With regard to his allusion to the difference of opinion which has existed as to the advisability of the legal proceedings now terminated, I should like to draw attention to a point which has not received sufficient notice. The Members have been agitating for the acquisition of certain changes in their relations to the government of the College, which they believed would be of advantage, not to themselves as individuals, but to the corporation as a whole. During the course of their agitation they were advised by the counsel who represented them in their application to the Privy Council, in opposition to the new Charter, and who therefore presumably had special knowledge of the subject, that they had already certain legal rights which had fallen into abeyance, but which could be revived by being exercised. Upon this advice the committee had obviously no alternative but to obtain a legal decision, when the attempt to exercise one of these alleged rights was forcibly resisted. I am bound to add, however, that the majority of the committee would have been much better pleased if the action could, by arrangement with the Council, have been made a "friendly" one.

I am, Sirs, yours faithfully,

Southfields, S.W., March 21st, 1892. W. G. DICKINSON.

MEDICAL AND LEGAL CORONERS.

To the Editors of THE LANCET.

SIRS,—Allow me to thank you for your favourable notice of my paper, and to point out two errors into which I have inadvertently fallen. The first is on page 8, in which I have led it to be inferred that Mr. Oliver Pemberton, the coroner for Birmingham, is debarred from practice. This is not correct. The other is in a footnote on the same page. Instead of the "Coroners Act, 1887," it should be the "Municipal Corporations Act." A very slight alteration in this latter would enable any physician or surgeon to act as deputy coroner as well as coroner in any municipal corporation or city, and I live in hopes that this will be effected.

I have posted copies of my paper to every English and Welsh medical coroner, but have received only two acknowledgments of their receipt. Should any have miscarried, I will send another.—I am, Sirs, yours faithfully,

Liverpool, March 19th, 1892. FRED. W. LOWNDES.

P.S.—A physician or surgeon can be deputy to a county coroner.

*** We inadvertently omitted to give the name of the publishers of Mr. Lowndes' pamphlet—Messrs. Churchill, New Burlington-street.—ED. L.

To the Editors of THE LANCET.

SIRS,—I was much interested in reading the leading article in the last issue of THE LANCET concerning the office of coroner, and who are the best persons to hold the post. I wish to draw the attention of the medical profession to the fact that the Bill that was read a first time in the House of Commons a few weeks ago to amend the Coroners Act of 1887 does not propose to alter the clause relating to the appointment of "deputy coroner." With regard to large towns such as Bristol, the Act of 1887 says "that the office of coroner may be held by any fit and proper person &c." And the

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same Act goes on to say that "the coroner may appoint a deputy &c.," but that such person must be either a "barrister or solicitor." I conclude from this that in the large cities the "coroner" may be a medical man, but that the "deputy coroner" may not. It is clear from this that when the office of coroner becomes vacant only barristers or solicitors can claim to have acted as deputy, and they are therefore usually elected to the coronership. I think that if our profession wish to see more medical men holding the office of coroner in large towns, we ought to get the clause relating to the appointment of the coroner's deputy altered, and now is the time to do it.

I am, Sirs, yours truly,

J. PAUL BUSH,
Surgeon to the Bristol Royal Infirmary and Bristol Police Force.

Clifton, Bristol, March 22nd, 1892.

*** We would call the attention of Mr. Bush to the postscript of Mr. Lowndes' letter.—ED. L.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

An Incorrigible Young Criminal.

AT the last assizes two boys, aged respectively nine and eight, were tried for the wilful murder of a boy about the same age. A leading article appeared in THE LANCET of Jan. 2nd last dealing exhaustively with the main feature of the case—the responsibility of such young criminals. The jury found a verdict of guilty, but with a rider to their verdict which caused the learned judge (Justice Lawrance) to order the immediate discharge of both prisoners. Subsequently the Rev. Father Nugent, the well-known philanthropist, offered to receive the boys, who are Roman Catholics, into his Boys' Refuge. While it is very satisfactory to be able to state that one of the boys is behaving admirably in his new home, it is equally sad to note that his companion has again appeared before the stipendiary magistrate. A policeman found him lying in a water-closet at an early hour of the morning, and locked him up. The governor of the Boys' Refuge described the prisoner as unmanageable, and that he had absconded four times. He was remanded.

An Intramural Cemetery.

St. James's Cemetery is situated almost in the centre of the city, and close to the streets where many of the local faculty reside. It was first opened in 1829, on the site of a stone quarry, and most of the ground used for interment is at a very considerable depth below the level of the adjoining streets. The enclosed space comprises 44,000 square yards of land, which is mostly red sandstone, dry, and suitable for burial purposes; though it is stated that in some parts the graves are full of water. Some years ago an inquiry was held by the late Mr. Holland; this was subsequent to the year 1854, when most intramural burial grounds were closed by Order in Council, though this cemetery was not closed. At this inquiry it was shown that the burials in public graves were not conducted satisfactorily, and these were prohibited by Order in Council on Mr. Holland's report. Since then the burials have been mostly of the bodies of those belonging to the upper and middle classes of society, averaging in recent years 500 annually. Some of those who reside near hoped that the recent death of the Rev. William Banister, who had been resident chaplain since 1851, would have led to the closing of the cemetery; but a reverend gentleman has been appointed to succeed him, and the cemetery is still used, not only by those who are the owners of graves and vaults, but fresh ground, of which there still remains a very considerable portion, is still broken. A discussion is going on in a daily paper as to the propriety of continuing this burying-place in the midst of a large centre of population. Much can be said both in favour of and against its being closed. It is greatly to be wished that an inquiry will be ordered by the Home Secretary, so that both sides may be heard, and that a just decision may be made.

The Rainhill Tragedies

There was never a better illustration of the old saying that truth is stranger than fiction than the recent tragic discovery at Rainhill. Even with the proximity of a large county asylum and of a railway station at which many trains stop and more pass through, Rainhill has the appearance of a peaceful English village of the most model type, and it is hard to realise that such atrocious deeds could have been permitted in its midst. Some surprise has been expressed in medical circles that Mr. Brighouse, the county coroner, did not avail himself of the services of the lecturer on Medical Jurisprudence at the Liverpool University College, Mr. Paul having now acquired a considerable reputation in forensic medicine, and having given evidence in many important trials. It is only just, however, to the medical gentlemen called, Drs. MacLennan and Hutchinson, of Widnes, to say that the examinations of the bodies were made in a very complete and satisfactory manner, and that the evidence was given with great clearness.

An Epidemic of Violence.

From time to time crimes of violence, often taking the form of assaults upon the police, assume an epidemic form, and it is significant that Saturday and Sunday are the days specially selected for these displays. On Monday last the local stipendiary magistrate, Mr. W. J. Stewart, had a batch of five such cases, two being assaults on the police. The magistrate had noticed an increase of late in assaults on the police, and intimated plainly that he should punish severely such violence.

March 22nd.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Tyne Port Sanitary Authority.

THE report of our able medical officer of health, Dr. H. E. Armstrong, has been presented to the Tyne sanitary authority, and shows that the total number of vessels inspected during the year was 11,513. Of these, 8702 were British. There were 9513 passed as in good sanitary condition, 1209 being passable, and 811 defective. The inspectors had visited 199,719 crews of vessels, passengers, and emigrants arriving in the Tyne. With the exception of three, all the vessels were found in good condition. Large consignments of herrings and other fish continued to come from Norway. No case of overcrowding passengers or crews had come under notice. The report is a record of an immense amount of work done and of good effected, and is creditable to all concerned in the inspection.

Carlisle: Silloth Convalescent Institution.

The twenty-ninth annual meeting of the Cumberland and Westmoreland Convalescent Institution at Silloth has been held at Carlisle, the mayor presiding. The results of the year's working had been most satisfactory; 641 patients had participated in the benefits of the institution, of whom 518 had gained weight during their stay. The financial statement was satisfactory, and a balance on the year's working was carried to the building account.

Sunderland Provident Dispensary.

The annual meeting of the Sunderland Provident Dispensary has been held, and the report records a very large amount of work, which is shown by the statement that 24,500 prescriptions had been dispensed, while the number of visits paid by the medical officers to patients at their own houses was 13,000. No less than 18,000 consultations had been given at the dispensary or at the medical officers' own houses. The financial statement was satisfactory, showing that, after paying the medical officer £600, a balance had been carried to the reserve or contingent funds. The committee is hopeful of obtaining within the next few years new and more commodious premises, centrally situated, to enable the Sunderland Dispensary to take its proper position amongst the public institutions of the town.

Sudden Death of Mr. John Davis, M.R.C.S.

The death of Mr. John Davis, surgeon, of Sunderland, is announced, which took place at his residence early on Saturday morning last. Mr. Davis, who was in his sixty-fourth year, leaves a grown-up family. He was much respected as a practitioner and a citizen, and filled many public offices at the time of his death. Mr. Davis was chairman of the board of guardians, and on the evening preceding his death attended a meeting of the house committee. He was, if I mistake not, a member of a well-known medical

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family of that name, of Workington, near Gateshead, and of Low Fell. Mr. Davis's father was in his time the only surgeon in practice in the wide district between Gateshead and Durham city.

Bacteriological Laboratory.

In the course of his lecture last week on "Human Parasites" Mr. Page mentioned to the very large audience "that it was due to an eminent citizen of Newcastle, Mr. Clement Stephenson, and his investigations into the relationship of animals to man, that the College of Medicine at Newcastle had been recently able to establish within its walls a laboratory thoroughly equipped with the most modern appliances for the investigation of the many interesting problems constantly arising in this department of study." In addition to Mr. Stephenson's pecuniary aid it should not be forgotten, however, that Dr. Heath also gave powerful assistance and impetus to the establishment of a bacteriological laboratory in the Newcastle College of Medicine. I hope in some future notes to give you a fuller account of this department.

A Coroner and Jury on "Viewing the Body."

At Jarrow the other day, at the conclusion of an inquest, the foreman wished to express the feelings of the jury on the objectionable and useless rule of "viewing the body," and asked, on the part of the jury, to be allowed to sign a petition against it. The coroner, however, suggested it would be better to petition in favour of a Bill, now before the Legislature, dealing with the question of "viewing the body," and this suggestion was carried out.

Professor George Hare Philipson, M.D., D.C.L., F.R.C.P., has been elected President of the University of Durham College of Medicine, Newcastle.

I hear that measles are so prevalent at Blackhill, in the county of Durham, that it has been requisite to close the Benfieldside Board schools. St. Mary's Roman Catholic schools have been closed for some time owing to the same cause.

Dr. Jeaffreson has announced a course of lectures on "Diseases of the Eye" during the ensuing session at the Eye Infirmary; also two special lectures on the ocular defects of children, open to school masters and school mistresses and others having the charge of children. A course of sanitary lectures is also announced, under the auspices of the Sanitary Institute and the Corporation of Newcastle. At the close of these lectures an examination for inspectors will be held.

Newcastle-on-Tyne, March 23rd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Dinner to Professor Haycraft.

ON Thursday of last week Professor Haycraft was entertained to dinner by a number of his friends in Edinburgh. Dr. James occupied the chair, and Mr. Cathcart, F.R.C.S., was croupier. About forty sat down to dinner. Dr. James, in proposing the health of their guest, referred in well-chosen and appreciative terms to the important work he had performed as a teacher of advanced physiology in the University, and to the value of his original researches, and said that the reason of their meeting that evening was to express their appreciation and admiration for Professor Haycraft and their regret at the severance of his connexion with the Edinburgh School of Medicine. The toast was received with great enthusiasm. Dr. Haycraft, after acknowledging it and thanking his friends for their kindness to him, spoke of the spirit in which scientific work ought to be prosecuted, and animadverted on the commercial spirit which tended to pervade both teachers and taught. Dr. Haycraft was presented with a gold watch as a memento of the occasion.

Health of Edinburgh.

The mortality last week was 107, making the death-rate 21 per 1000. Diseases of the chest accounted for 47 deaths, and zymotic diseases for 7, of which 4 were due to whooping-cough. The intimations for the week were: typhus fever, 2; typhoid fever, 1; diphtheria, 4; scarlatina, 24; and measles, 58.

Aberdeen City Hospital.

The Public Health Committee of the Town Council are understood to have completed arrangements for the removal of patients suffering from infectious diseases and the proper disposal of infected clothing. Some time ago the committee purchased a new ambulance in which patients could be carried with the least possible inconvenience; and the old ambulance, which was unsuitable for the purpose of conveying patients to and from the hospital, is now being used for the removal of infected clothing to the hospital for disinfection.

Health of Aberdeen.

During the past week the following cases of zymotic diseases were notified to the medical officer of health:—Scarlet fever, 9; typhoid fever, 4; diphtheria, 2; whooping-cough, 51; erpsipelas, 6. Three deaths from influenza were recorded by the registrars during the week. In his report for February, Dr. Hay, medical officer of health for the city, says that during the month 14 deaths were attributed to influenza, as against 41 in January, 21 in December, and 3 in November. In the fatal cases the duration of the disease was from three weeks to one or two months. The epidemic of scarlet fever continues to decline. Whooping-cough is still very prevalent; during the month 222 cases, with 21 deaths, were recorded. In January there were 239 cases, with 22 deaths. There were 7 cases of typhus fever, and they nearly all came from a single tenement in an east-end street.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Abolition of Visiting Physicians to Irish Lunatic Asylums.

THE governors of the Cork District Asylum have forwarded to his Excellency the Lord-Lieutenant a resolution protesting against the proposal to remove the visiting physicians of Irish lunatic asylums, and it is probable that other boards of asylums will follow the same course.

Sir P. Dun's Hospital.

A ball in aid of the funds of this valuable charity will be given under the patronage of her Excellency the Countess of Zetland and other distinguished ladies, in the Leinster Hall, on the 30th inst.

University of Dublin Tercentenary.

The following is the programme of the Tercentenary Celebration which has been adopted by the Tercentenary committee:—Tuesday, July 5th, at 10 A.M., reception of guests and delegates by the provost in the Examination Hall; 11.30 A.M., commemoration service in St. Patrick's Cathedral, guests and delegates to attend in academic robes or official costume; 4 P.M., garden party in the Fellows' Garden; 9 P.M., performance of Tercentenary Ode by University Choral Society; 10 P.M., reception and ball in the Mansion House. Wednesday, July 6th, 12 noon, conferring of honorary degrees in the Examination Hall, Trinity College; 3 P.M., inauguration of the Graduates' Memorial; 7.30 P.M., Tercentenary Banquet in the Leinster Hall. Thursday, July 7th, 11 A.M., procession in academic costume from the Examination Hall to the Leinster Hall; 11.30 A.M., presentation of addresses by the delegates, Leinster Hall; 8 P.M., dramatic performance in the Gaiety Theatre, at which Sheridan's "Rivals" and a farce written for the occasion will be performed. Friday July 8th, 11 A.M., addresses to the students by certain of the University guests in the Examination Hall; 12.30, College races; 10 P.M., University ball, Leinster Hall.

March 23rd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Toxic Dyspnœa in Cardiac Affections.

AT a meeting of the Société Médicale des Hôpitaux, held on the 4th inst., M. Huchard read a paper on a Form of Dyspnœa—toxic dyspnœa—occurring in cardiac cases, which is scarcely alluded to by any author. It often happens that a patient affected with disease of the aortic valves is seized with a form of dyspnœa distinct from the mechanical difficulty of breathing ordinarily met with in cardiac disease, and characterised by its intensity and its paroxysmal nature, the attacks being provoked by the least effort, and

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also occurring spontaneously in the night. Physical examination of the heart and lungs fails to account for these attacks, and the urine is free from albumen. M. Huchard ascribes the paroxysms to renal insufficiency, the kidneys being incapable of completely eliminating the toxines introduced into the system through the alimentary canal. This renal insufficiency is, according to this authority, an early and nearly constant symptom in arterial cardiopathies, even in the absence of albuminuria. In support of this etiological hypothesis M. Huchard adduces two proofs, one of a therapeutical and another of an experimental order. The exclusion from the diet of all articles yielding a supply of toxines—soups, meat, fish, preserved meats, rich cheeses, &c.—suffices to bring about the disappearance of the attacks, and they no longer recur if a rigid milk regimen be instituted. The urine of these patients (taken before any treatment had been commenced) injected into the veins of animals was found to have a urotoxic coefficient ranging from 0·273 to 0·370, a coefficient markedly inferior to the normal, which is 0·464 (Bouchard). In certain instances, however, when hepatic insufficiency complicates the case, the urine may become hypertoxic, the toxines normally destroyed by the (healthy) liver, passing through the kidneys. After a certain time this hypertoxicity irritates the renal tissue and induces albuminuria. The nocturnal character of the dyspnœa in this class of cases is explained by the fact that the elimination of poisons is more active at night than during the day. The treatment found effectual by M. Huchard is the institution of an exclusively milk diet or a period of from one to three days, the diet to be then modified by the addition of eggs, vegetables, and overcooked meat, all articles of food containing toxines to be rigidly prohibited. It will often be necessary to prescribe, in addition, intestinal disinfectants, such as salol, betol, naphthol, salicylate of bismuth, and, above all, benzo-naphthol. Hydrochloric acid benefits these patients. In the interval of the attacks, iodide of potassium—or, preferably, iodide of sodium—should be prescribed. M. Huchard states that his experience of the employment of bromide of potassium for the relief of the early toxic dyspnœa is a disappointing one, that drug failing to relieve it in the least.

Death from Rupture of the Thoracic Aorta in a Man of twenty years.

The rarity of this accident in so young a man entitles the details as given by M. Vibert[1] to the honour of a record in your columns. The patient was a medical student who at the age of one year had suffered from convulsions, and four years later had gone through an exceptionally severe attack of typhoid fever. Since that period of his existence his health had been apparently good, no suspicion of heart disease having ever been entertained. On Feb. 8th he returned to his lodgings well and cheerfully disposed. In the course of the night, however, he was seized with a very sharp pain over the liver, which was only partially relieved by bilious vomiting which supervened in the morning. At 6 P.M. on Feb. 9th the sharp pain reappeared, and one hour later the patient uttered two loud cries and fell back dead. Post mortem the two pleural cavities were found to contain blood, as much as 1800 grammes being collected from the right cavity. The pericardium contained a little clear fluid; no trace of tuberculosis was discovered in the lungs. The aorta was enclosed in a mass of coagulated blood, the removal of which brought to light two transverse tears in the walls of the vessel. The middle coat in the neighbourhood of the tears was in a state of degeneration. MM. Vibert and Brouardel are inclined to ascribe this structural change to the attack of enteric fever undergone fifteen years previously.

March 23rd.

[1] Soc. de Méd. Légale, March 14th, 1892.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Fourteenth Balneologists' Congress.

THE first sitting of the Fourteenth Balneologists' Congress was held here on Friday, the 11th instant, Professor Liebreich in the chair. Dr. Weissenberg of Kolberg spoke on the treatment of nervous diseases of the stomach, and Dr. Boas and Professor Ewald commented on his remarks. Dr. Lassar of Berlin discussed the treatment of eczema by baths. Dr. Mayer of Karlsbad treated the question, "What standpoint must we now take in the light of experience in the treatment of diabetes mellitus?" In the discussion Dr. Gaus of Karlsbad referred to the dietetic treatment of Külz of Marburg. The second sitting was held on the 12th, Dr. Thilenius in the chair. Dr. Römpler of Görbersdorf spoke on the treatment of phthisis and Koch's method, severely criticising the latter. Dr. Goldschmidt of Reichenhall treated the initial symptoms of nervous asthma; Dr. Lindemann of Heligoland, the effect of sea water; and Dr. Groedel of Nauheim, the introduction of uniform rules for reporting analyses of spring water. The last sitting was held on the 13th, Professor Liebreich in the chair. Dr. Posner of Berlin spoke on the internal treatment of stone, Dr. Frey of Baden-Baden on the watering places of the Black Forest, Dr. Joseph of Landeck on the etiology of neurasthenia, and on the American viburnum. Dr. Saalfeld of Berlin discussed the treatment of skin diseases by baths, and Dr. Schubert of Reinerz, bloodletting in chlorosis, which he warmly recommended, emphatically contradicting the objection that the cures he had effected were due to other causes. The Congress was closed by a banquet.

Professor Credé.

Professor Carl Credé of Leipsic, who died last week, was a great benefactor of mankind, for it was he who introduced the simple method now universally practised of preventing blennorrhœa in new-born infants. He was also the inventor of a manipulation in delivery which bears his name (der Credésche Handgriff) The more important of his writings are "De Omphali Proptosi," "Clinical Lectures on Midwifery," "The Prussian Midwives and their Relation to the State and to Obstetrics," "The Prevention of Inflammation of the Eyes in New-born Infants," "Manual of Midwifery," and "Healthy and Sick Lying in Women." Along with Speigelberg and Gusserow, he edited the "Contributions to Midwifery." He was born in Berlin in 1819, was appointed professor in Leipsic in 1856, and taught there till 1887.

Death of Professor Küssner.

Professor Küssner of Halle died last week, aged only thirty-nine. The themes of his writings are the accidental cardiac murmurs, scarlatinal nephritis, tuberculosis of the tongue and of the soft palate, tuberculosis due to inoculation, leucocythæmia, congenital constriction of the aorta, cirrhosis of the liver, disseminated acute myelitis, aphasia and athetosis, wandering pneumonia, the affection of the vagus in tabes dorsalis, local dropsy of uncertain origin, &c. His only book, the "Manual of Acute Infectious Diseases," was written by him conjointly with Richard Pott.

New Medical Publications.

"The Causes of Disease and How to Combat Them," by Dr. Krocker; "Man, or How our Bodies are Framed and How our Organs Work," by Dr. Ebenhoech; "Man in Health and in Sickness," by Professor Bock (fifteenth, much enlarged, edition); "The Hygiene of the Internal Organs," by Paul Montegazza; "The Comfort of the Patient," by Dr. Martin Mendelsohn (second edition); "Two Hundred Eye-Benefactions in Words and Pictures," by Dr. Katz, oculist (second edition); "A Short Compendium of the Diseases of Children and their Treatment;" "The Influenza Epidemic of 1889-1892," by Dr. Jacob Wolff. "Women's Work in War," by R. Behrends-Wirth; "The Quarantine Station, El Tor," by Dr. Paul Kaufmann; "The Penetration of Steam into Objects to be Disinfected," by H. Duncker.

The private lecturer, Dr. Thierfelder, has been appointed to succeed Professor Erwin von Esmarch as keeper of the Hygienic Museum here. The title of Sanitätsrath (Sanitary Councillor) has been conferred on Dr. Arthur Hartmann, and on Drs. Schwerin, Karl Kniger, and Julius Lazarus.

March 22nd.

FOOTBALL CASUALTIES.—Whilst playing a match on Saturday, at Bath, a young man fractured his clavicle. During a match on the 17th instant, at Worksop, between Kiveton Park and North Staveley, in the semi-final Sheffield Minor Cup, a Kiveton forward met with a severe accident, and on medical examination it was found he had "fractured his jaw."

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Obituary.

THEOPHILUS REDWOOD, Ph.D., F.C.S.

THE death of Dr. Theophilus Redwood removes from amongst us one whose fruitful labours have exerted an abiding influence on the progress of pharmaceutical science during the present century. He was born in the year 1806 in Boverton, in Glamorganshire. Somewhat prematurely he was placed as assistant in an apothecary's shop in Cardiff, where for a period of three years he had the advantage of a practical, though rough and ready, introduction to pharmacy—of a kind, however, which was not congenial to his tastes. The school of pharmacy whence he obtained his early scientific knowledge was in the shop of John Bell and Co., in Oxford-street, to whom by chance he received a letter of introduction in 1823 He was then seventeen years of age, and he proceeded through every stage of pharmacy with admirable prudence until he reached the position of head dispenser in that firm. In 1830 he started on his own account in Crawford-street. In 1841 Jacob Bell commenced the organisation of the Pharmaceutical Society, and found in Mr. Redwood a thoughtful, painstaking, wise, and unobtrusive supporter of the enterprise. Mr. Redwood became Professor of Pharmacy when the Society was formed in the year 1842. In 1844 Professor Redwood was made director of the chemical laboratories, and two years afterwards was appointed to the amalgamated chair of Chemistry and Pharmacy. He held the office of secretary to the Chemical Society in conjunction with Sir Benjamin Brodie, and afterwards with Professor Odling. He became treasurer in 1870. Regarding his literary career it is only necessary to recall that when, in 1854, the Royal College of Physicians applied to the Council of the Pharmaceutical Society for assistance in remodelling the London Pharmacopœia, and a committee was appointed to this end, Professor Redwood was chosen as honorary secretary. In the autumn of 1859 the work was transferred and put into the hands of the Medical Council, when not only the London, but the united Pharmacopœia of London, Edinburgh, and Dublin was ordered to be produced, under the name of the British Pharmacopœia. In 1865 Professor Redwood was appointed by the Medical Council to edit a new edition of the British Pharmacopœia, which appeared in 1867; the edition with addenda which appeared in 1874, and again the edition of 1885. We possess, therefore, an official work, issued under joint medical and pharmaceutical authority, simple in its mode of construction and free from the confusion incident to the occurrence of formulæ of varied strength but of identical nomenclature.

In 1840 Professor Redwood was joint editor with Dr. Mohr of Coblentz of a Manual of Practical Pharmacy founded on the German text. The first edition appeared in 1847, the second in 1848, and the last in 1857. In 1872 he abridged Pereira's classical work on Materia Medica. He acted also as sub-editor to the *Pharmaceutical Journal*. For some time he was a contributor to the columns of THE LANCET of valuable papers on the mode of preparation and the qualities of various pharmaceutical products, a specially noteworthy communication being that on Nitrous Acid. He was engaged by the Government in 1856 on the subject of fermentation with Professor Graham and Professor Hofmann. He was public analyst for the county of Middlesex, for the districts of Holborn and St. Giles, and for the borough of Luton. Professor Redwood was one who had lived long and brought much profit by his experience and observation to the branch of medical knowledge with which he chiefly occupied himself. By his colleagues he was much esteemed for his sagacity, quickness of apprehension, and cordiality, by authors and editors for his literary ability, and by the medical profession he will always be remembered as one of the pioneers of the progress which medical science has made between the periods of his birth in 1806 and of his death in 1892. Marvellous has that progress been, but incapable of restraint, because the active promoters of it were not dreamers only, but men ready for action when the advantage of their profession demanded it. No pains did they spare, no obstacle or opposition daunted them. Dr. Theophilus Redwood was among them a worker well worthy to be named.

F. G. REED, M.D. ST. AND., &c.

WE regret to announce the death, in his seventy-fifth year, of Dr. F. G. Reed, at his residence in Hertford-street, Mayfair. Dr. Reed was an articled pupil of the late Mr. Luke (three times President of the Royal College of Surgeons), and received his medical education at the London Hospital. He originally intended to pursue the career of a consulting surgeon, but subsequently settled at Hertford, where for many years he had a very extensive practice among the leading county families and all classes, and attained a social position rarely equalled by a member of the profession in those days. From 1843 to 1856 he was physician to the Hertfordshire County Infirmary, and on his retirement the governors and residents in the neighbourhood presented him with a handsome testimonial in token of their personal esteem and of their appreciation of his services. In 1847 he obtained the Fellowship of the Royal College of Surgeons by examination, and in 1849 the degree of M.D. St. Andrews. In 1857 Dr. Reed became M.R.C.P., and removed to Hertford-street by the advice of his intimate friends, Sir Benjamin Brodie and Sir Wm. Fergusson. Here his professional skill, cheerful, sympathetic manner, and geniality secured him a wide but select connexion, until ill-health compelled him to retire about fifteen years ago. Dr. Reed was for many years a member of the Athenæum and Union Clubs and a Fellow of the Royal Medical and Chirurgical Society. He had been in failing health for some years, but his last illness was of very short duration. In 1866 he married, and he leaves a widow, as well as a daughter, a son, and an only sister, whose grief will be shared by all who knew him. Dr. Reed had the satisfaction of knowing that his son, in whom he took an intense interest, had, after a distinguished career at Harrow, recently obtained a Science Exhibition and a Science Scholarship at Trinity College, Cambridge, and a First-class in the Natural Science Tripos of last year, when he took his degree of B.A.

MEDICAL TRIAL.

COURT OF APPEAL.

PARTRIDGE *v.* THE GENERAL MEDICAL COUNCIL.

(Before the Master of the Rolls, Lord Justice Fry, and Lord Justice Lopes.)

AN application was made by the plaintiff, H. F. Partridge, for judgment, or for a new trial on appeal, from the judgment of Mr. Justice Denman, who entered judgment for the defendants at the trial before him with a special jury without taking the opinion of the jury. The action was for a *mandamus* to compel the General Medical Council to restore the name of the plaintiff to the Dental Register, from which it had been removed for infamous conduct in a professional respect in the year 1886. Mr. Justice Matthew and Mr. Justice A. L. Smith had in the year 1887 granted a *mandamus*. The name was, however, again removed in November, 1887. It is in respect of this erasure that the present action was brought. Mr. Willis, Q.C., and Mr. A. Beddall appeared for the appellant, and submitted that there was evidence to go to a jury to show that the Council had not properly exercised their powers under the Act. Mr. R. T. Reid, Q.C., and Mr. Muir Mackenzie, for the respondents, were not called upon.

The Court dismissed the appeal.

The Master of the Rolls, in giving judgment, said:—

In this case a person, whom I shall call a professional man, has been summoned to appear before a body of which he has become a member. An Act of Parliament has authorised him to be put upon a certain register, and thereby he obtains certain position and benefits. This Act says that if this body, who are a domestic forum, should find him guilty of any infamous or disgraceful conduct in a professional respect, they have a right to strike him off the register. They have done this here. Some time ago the plaintiff brought an action against this body for maliciously striking off his name, and he failed. Now he brings an action partly for a *mandamus* and partly for damages. The greater part of the argument has been directed to the first part of that claim. There is really no evidence on which anyone can say these gentlemen were actuated by anything like malice. As to the action for a *mandamus*, all we have to see is whether the body against whom the *mandamus* is asked had jurisdiction to do what they have done. It has been alleged

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there was no evidence before them which would give them jurisdiction. The Council were acting under Section 13 of the Dentists Act, 1878. The plaintiff had, on obtaining his diploma in Ireland, promised not to advertise while holding that diploma. That body considered that they should act fairly by each other, and ought not to advertise. Just as in our profession, where all are rivals against each other, a barrister is not allowed to advertise his superior talents or that he will do his advocacy cheaper. I think if he did so I should consider it such disgraceful conduct that he ought to be immediately disbarred. No one need become a member of the dental profession unless he desires it. I say the authorities—this domestic tribunal—have a right to determine if it is within reason whether the conduct is or is not disgraceful professional conduct. In Ireland the defendant had promised not to advertise, and, having given that promise, according to his own evidence, he had spent more than £10,000 in advertising. This is his admission, and he continued to advertise after he had received a warning from the college in Dublin. This must be evidence of disgraceful conduct in a professional respect, and ample evidence upon which the Council might exercise jurisdiction. A *mandamus* cannot therefore go to them; they are not a court, and no rules are binding on them. Under Section 15 a committee is appointed. Fault cannot be found with them unless you can show that what they have done is contrary to natural justice. I agree it is contrary to natural justice to impose a penalty without letting a man know the accusation and without giving him an opportunity to meet it. It is said the Council did not give the plaintiff notice; but this is frivolous in this case, for a letter was written to the plaintiff telling him that his case would be considered on a particular day, and asking him to send any written defence he might desire or to attend in person, or both. He declines to attend, and we are told his reason was that there was no dispute as to the facts. Another point has been taken. It is said there was one person who was accuser and judge; it is against natural justice that an accuser should be also the judge. He must be both accuser and judge, and it has been argued that Mr. Macnamara was both these in the present case. When you look at the facts no one can truly say he was the accuser. The rule of law is well laid down in "Leeson *v.* General Medical Council" (43 Ch. D., at p. 384), as follows: "It must be in all cases a question of substance and of fact whether one of the judges has in truth also been an accuser." That is to distinguish it from mere technicalities. There is no evidence here that in fact Mr. Macnamara authorised or directed that this accusation should be brought. He received a letter from the secretary to the Council in England, and the inference is he handed it to the persons who acted upon it. As to being a judge, it is not shown that he was present at the Council at the time the report of the committee was dealt with. Something was also said about his being interested. Even if he acted in Ireland when the College decided to withdraw the diploma, and also in England, even on the same evidence this would not show that he was interested. As Mr. Justice Denman has pointed out, the judge who tried a case might also sit and hear the case in the Exchequer Chamber, and afterwards, perhaps, also in the House of Lords. On no one possible ground can the objections taken be maintained. This Court cannot interfere even if they thought the Council had come to the wrong conclusion. I cannot part with this case without saying that, so far from doubting as to whether they were right or wrong, I am perfectly certain they were right. The appeal must be dismissed with costs.

Lord Justice Fry and Lord Justice Lopes concurred.

Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed in the respective subjects:—

Surgery.—A. D. Bensusan and W. T. B. Donelly, King's College Hospital; H. J. Forster, Westminster Hospital; R. T. Gilmour, N. F. Roth, and E. J. Steegmann, St. Mary's Hospital; J. D. Hessey, Middlesex Hospital; F. V. H. Mossman, Owens College; S. A. L. Sodipo, Newcastle-on-Tyne; R. S. Whitford, Charing-cross Hospital; J. Wood, St. Thomas's Hospital.

Medicine, Forensic Medicine, and Midwifery.—P. Goold, Cork; G. B. Hillman, Yorkshire College, Leeds; F. V. H. Mossman, Owens College.

Medicine and Forensic Medicine.—W. D. Akers, St. Mary's Hospital.

Medicine and Midwifery.—V. H. Barr and W. K. Steele, Guy's Hospital; J. Kyffin, London Hospital.

Medicine.—C. A. Davies, Owens College; E. E. Frazer, Guy's Hospital; G. Grace, Bristol.

Forensic Medicine and Midwifery.—C. O'Sullivan, London Hospital; W. A. Ward, Middlesex Hospital.

Midwifery.—J. Dulberg, Owens College; H. F. Ealand, St. Mary's Hospital; A. C. Fenn, St. Bartholomew's Hospital; W. Fowler, Durham University; W. M. Palmer, Charing-cross Hospital; R. A. Smith, Edinburgh.

The diploma of the Society, entitling the candidates to practise Medicine, Surgery, and Midwifery, has been granted to the following gentlemen:—

Messrs. Barr, Bensusan, Donelly, Dulberg, Forster, Goold, Hessey, Mossman, O'Sullivan, Palmer, Steegmann, and Ward.

The results of the examination in Arts qualifying for registration as medical student, held in the Hall of the Society on March 4th and 5th, have just been published. There were 75 candidates, and from the pass list it appears that 2 were placed in the first class and 15 in the second class, and 21 were certified as having passed in some subjects, thus completing for registration. The next examination will be held on June 3rd and 4th, and again on Sept. 2nd and 3rd, 1892.

CHELMSFORD UNION.—At a recent meeting of the guardians it was unanimously resolved to recommend the council to reappoint Dr. Thresh to tabulate the reports of medical officers, at the same salary as before—viz., £100 a year—his term of office having just about expired. The chairman held that the appointment of Dr. Thresh was one of the best things they had ever brought about.

LITERARY INTELLIGENCE.—Messrs. W. Lewis and Son send us a copy of the *édition de luxe* issued in celebration of the centenary of the *Bath Herald*, which occurred on March 5th. The history of the newspaper during the century of its existence is given in the sheet, which is prefaced by a coloured figure of a herald, and which is an excellent specimen of typography.

FEVER EPIDEMIC AT NEW GUINEA.—Reports have been received of a serious loss of life at German New Guinea through an epidemic of fever which had broken out there, the victims including the entire crews of two English vessels. The malady manifested itself chiefly at the port of Frederickshaven. It was thought that the fever was caused by the quantity of rotten coral and undergrowth which was brought to the surface when the land was being cultivated.

YELLOW FEVER.—The captain of the steamer *Colombo*, which arrived at Genoa a few days ago, from Rio de Janeiro, reported that forty-four cases of yellow fever occurred on board during the voyage, fifteen of which had terminated fatally. The vessel was consequently ordered to the quarantine station at the island of Asinara.—The Liverpool steamer *Umbria*, which arrived at Queenstown from Rio and St. Lucia on the 18th inst., had two of the crew fatally attacked with the fever during the voyage.

THE DUFFERIN FUND.—The Viceroy, Lord Lansdowne, presided at the seventh annual meeting of the Countess of Dufferin Fund, held on the 4th ult., at the Town Hall, Calcutta, and, in the absence, from indisposition, of Lady Lansdowne, performed the ceremony of unveiling the portrait of Lady Dufferin. Appropriate tributes were paid by several speakers to her ladyship's beneficent work in India. The annual report was very satisfactory, and was adopted. The number of patients treated during the past year by the Dufferin Institutions amounted to 466,000. Pupils under medical tuition now number 222. As regards finance, the total invested funds altogether reached fourteen and a half lakhs.

LADY ROBERTS' FUND.—But for this important fund not a single lady nurse would be attached to any British soldiers' hospital in India, and the army in India owes a deep debt of gratitude to Lady Roberts, who for the last six years has laboured most earnestly to establish "Homes in the Hills" for lady nurses to recuperate during the hot weather in the plains. Lady Roberts appeals for additional funds to enable the work to be completed when the time comes for her to leave India. The Maharaja of Bettiah has already given a donation of Rs. 5000 towards this end. Lady Roberts is anxious to invest a sufficiently large sum of money to adequately maintain these Homes and Officers' Hospitals when she leaves India. She has already invested Rs. 130,000, but Rs. 250,000 are necessary to enable her to leave the work independent. To complete the work Lady Roberts would like to establish a Home and Officers' Hospital at Naini Tal or Ranikhet.

ROYAL METEOROLOGICAL SOCIETY.—Dr. C. Theodore Williams, the president, delivered an able and interesting address on the "Value of Meteorological Instruments in the Selection of Health Resorts" at a meeting of the Society held last week. He drew attention to thermometers, maximum and minimum, as the foundation stone on which medical climatology rests, and instanced effects of extreme cold, or of heat, on the human organism. He stated that many health resorts owe their reputation almost solely to their shelter from cold winds, and pointed out the advantage of climate in various foreign localities. He referred to the weak points of the South of France climate, but summed up the Riviera winter climate as being, as a whole, clear, bright, and dry, with fog and mist practically unknown. After the delivery of this address the meeting was adjourned in order to allow the Fellows and their friends an opportunity to inspect the exhibition of instruments relating to climatology, which had been arranged at the Institution of Civil Engineers, in Great George-street.

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EYE INFIRMARY, BATH.—This institution is nearly the oldest of the medical charities in Bath, and has continued for eighty years to bestow its benefits on the needy citizen and on the adjacent population. More cases were treated during the past than the preceding year. In no previous year has the number of in-patients been exceeded. The out-patients numbered 1733 a slight increase on 1890. The invested funds amounted to £4343 12*s.* 11*d.*

THE METROPOLITAN WATER-SUPPLY.—On Wednesday the first meeting of the Royal Commissioners appointed to consider the question of the water-supply for the metropolis was held at the office of the Board of Trade. Lord Balfour of Burleigh (the chairman) presided, the other Commissioners present being Sir George Barclay Bruce, C.E., Professor James Dewar, F.R.S., Mr. Henry Hill, Mr. James Mansergh, and Dr. William Ogle, with Mr. Francis Gaskell, secretary. The preliminary procedure was discussed, and the Commission adjourned until Wednesday next.

ST. MARY'S HOSPITAL, PADDINGTON.—The report for 1891 is in most respects satisfactory. The number of in-patients and of maternity patients had again increased. The former were 44 and the latter 206, higher than in any previous year. The year's ordinary expenditure shows an excess of £451. The Prince and Princess of Wales, it was stated, would lay the foundation stone of the new wing in October, which will be called, by permission, the "Clarence Wing." For the first time for many years the charity is greatly in debt to the bankers.

DEATH FROM ANTHRAX.—A case of death from anthrax having some interest from a causal point of view recently occurred at Greenwich. At the Guarantee Manure Works a labourer who was employed in lifting bags of manure met with a slight abrasion of his arm. The limb began to swell, and the patient died on the fourth day after the accident, in the Seamen's Hospital. At the inquest evidence of anthrax was given, and the coroner's jury returned a verdict of "Death from anthrax from working in a manure factory."

THE REDDITCH NURSING ASSOCIATION: PROPOSED COTTAGE HOSPITAL.—The annual meeting of this Association was held on the 17th inst. The financial position was satisfactory, and the report was adopted. Mrs. Kenrick, of Birmingham, delivered an interesting address upon the objects and scope of the Association, and Councillor S. Allcock, in moving a vote of thanks to Mrs. Kenrick, urged the desirability of calling a public meeting to consider the question of erecting a cottage hospital for the town. He had already offered £500, if it was decided to build such a hospital, and would give a further sum of £500 towards its endowment. The meeting was also reminded that Mrs. Thomas Bartleet had promised £500 towards the proposed institution.

SANITARY INSPECTORS' ASSOCIATION.—The ninth annual dinner of this Association took place on Saturday at the First Avenue Hotel, Holborn. Dr. B. W. Richardson presided. In proposing the toast of the evening, he stated that there were many preventable diseases which were caused by ignorance and perversity, bad manners, bad social customs, and by negligence. Towards these diseases the Association turned its attention. He congratulated the Association on having obtained a charter of incorporation. They must have a school connected with the Association—a school of health, in which the laws of health and of all that conduced to make their labours useful would be taught.

GENERAL HOSPITAL, BIRMINGHAM.—The report for the past year, so far as the ordinary work of the hospital was concerned, was very satisfactory. The number, both of in- and out-patients, showed an increase on the two preceding years, a result which had only been possible from the accommodation afforded by the Jaffray Branch Hospital in treating some of the cases, and which had proved a valuable auxiliary to the older institution. The musical festival had contributed to the funds £5516. The year's total expenditure was £14,500; no less than £12,000 was disbursed in aiding free cases received into the hospital, without tickets. The plans for the new hospital had been selected, the amount raised for the new building being £88,917.

CITY OF LONDON SCHOOL.—Last week, at a meeting of the Court of Common Council, held at the Guildhall, the Town Clerk laid before the Court notice of a legacy of £300 from the late Dr. H. E. Price of Hove, to found a prize in the City of London School (in which he was formerly educated), under the name of "The Price Prize."

DISEASED MEAT.—A jobbing butcher and a dealer, both of Toftwood, East Dereham, Norfolk, were last week fined at the Guildhall Police court, London, £100, or in default three months' imprisonment, and £20, or a month's imprisonment, respectively, for exposing for sale in the Central Meat Market the carcases of four sheep which were unfit for human food. This was the first case under the new Act, which gives additional powers to the magistrates.

LOUGHBOROUGH GENERAL HOSPITAL AND DISPENSARY.—The annual report for 1891 states that the returns for the year exhibit a great similarity to those of the previous twelve months. Although there was a slight decrease in the number of patients admitted, the average for the two years was practically identical. The expenditure had again exceeded the income, and additional financial support was urgently needed. The St. John Ambulance Association had established itself in the town, and had applied to the committee for assistance in the purchase of their ambulance litter. The litter was now in the hospital, and available in cases of accident.

NORFOLK AND NORWICH HOSPITAL.—The annual report for 1891, just circulated, states that the total amount received during the year (exclusive of legacies and special items) was £7326 8*s.* 8*d*, while the ordinary expenditure (exclusive of special items) was £8771 8*s.*, an excess of £1445. Fees for nurses' services amounted to £287 11*s.* There were 137 more in-patients than the previous year, and also a considerable addition to the number of out-patients. The building of the convalescent home, so munificently offered by Mr. R. E. Fletcher as a gift to the hospital, and which the president, the Earl of Leicester, has generously offered to endow, is making satisfactory progress, and will, it is hoped, be ready for occupation during the present year.

CHILDREN'S HOSPITAL, SHEFFIELD.—The full average extent of work done in this institution during the past year was well maintained. The expenditure had exceeded the income by a comparatively small amount. But the capital account was increased by £324. During the year twenty-six cots had been supported by endowments, or cot subscriptions. There was accommodation for thirty-two cots in all. The board had been considering a scheme for the establishment of a branch hospital at the east end of the town. A Sheffield gentleman, who did not wish his name to be mentioned, had intimated his intention to settle a large amount upon certain trusts for the purpose of establishing such a branch. The property would produce £1000 per annum. The necessary legal transfer to the trustees appointed was completed in October last, but the gift cannot by law take legal effect until twelve months after that date.

GENERAL PRACTITIONERS' ALLIANCE.—At a meeting of the Council of this Society, held on Monday last, the subject of the proposed Gresham University was discussed, and the following resolution was unanimously carried and the President instructed to forward a copy of the same to the Lord President of the Privy Council:—"That the Council of the General Practitioners' Alliance have heard with pleasure that Her Majesty's Government have determined to refer the Draft Charter of the Gresham University to a Royal Commission, and would respectfully urge upon the Lord President of the Privy Council the importance of nominating one or more medical men in general practice to serve on the said Commission, in order that the 22,000 general practitioners in the United Kingdom whose interests will be vitally affected by the proposed measure may be directly represented." The proposed Royal Charter to the Royal British Nurses' Association was laid before the Council, and after due consideration it was resolved to hold a general meeting of members of the Alliance on April 12th next, for the purpose of discussing what action, if any, shall be taken by the Alliance in the matter.

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ST. JOHN AMBULANCE ASSOCIATION.—At a special military class held at the Portsmouth centre of the St. John Ambulance Association, the lecturer being Surgeon-Captain C. R. Kilkelly, Medical Staff, and the Examiner Fleet Surgeon H. C. Woods, R.N., of the Royal Yacht, fifty-three candidates came up for examination and fifty-one were awarded certificates.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL. This charity has again made satisfactory progress during the past year; 301 patients were admitted, and 1776 out-patients were attended at the dispensary. The year's expenditure was slightly less than the previous year, and the receipts £128 3*s.* 10*d.* more. The erection of the new buildings, to form the new wing, had been much delayed by unexpected difficulties in laying the foundations, but the buildings are now being actively pressed forward. The Duke of Devonshire has been elected president in succession to his father, the late Duke.

INSANITARY PEABODY DWELLINGS.—Last week the Peabody Trustees were summoned at the Westminster Police Court, at the instance of the Vestry of St. Margaret and St. John, Westminster, for failing to comply with a requisition to remove existing inlets to a dust-shoot. The dust-shoot ran through the building from top to basement. From these inlets, when used, objectionable particles and effluvia were blown about the building. A letter was read from the trustees offering to make substantial alterations to meet the objection. The magistrate said the difficulty was obviously due to an inherent defect in building, and adjourned the case, pending a satisfactory arrangement being made.

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Mr. Charles Ravenhill, of Bushey House, Streatham Hill, bequeathed £1000 each to the London Hospital, St. Bartholomew's Hospital, Brompton Hospital for Consumption, and the Samaritan Free Hospital.—Mr. Samuel F. Harrison, late of Wakefield, bequeathed £500 to the Convalescent Home at Lupset. The residue of the deceased's estate is for the benefit of the Clayton Hospital, Wakefield.—"A Lady" has sent a donation of 100 guineas to the British Home for Incurables (Offices, Cheapside, London).—Mrs. Katharine Bright, late of Stocks House, Tring, bequeathed £1000 to the West Herts Infirmary.—The late Mr. Joseph Johnstone, of Carlisle-place, Manningham, bequeathed (free of legacy duty) £500 to the Bradford Infirmary, and £250 each to the Eye and Ear Hospital and the Bradford Children's Hospital.—Mrs. Emma M. Evans, late of Lyndhurst-gardens, Hampstead, bequeathed £200 to the Royal Hospital for Incurables.—The late Mr. James Graham, of Holland Park, Kensington, bequeathed (free of legacy duty) £3000 to the London Hospital, Whitechapel-road, £2000 each to the West London Hospital, Hammersmith-road, St. Mary's Hospital, Paddington, and the Glasgow Royal Infirmary, and £1000 to the National Hospital for the Paralysed and Epileptic, Bloomsbury. The Goldsmiths' Livery Company has made a grant of £1000 to the London Hospital.

MEDICAL NOTES IN PARLIAMENT.

Sanitary Order at Gibraltar.

IN the House of Commons, on Friday, the 18th inst., in answer to Mr. Causton, Baron H. de Worms said: By the Sanitary Order Amendment Order (Gibraltar), 1891, the number of members of the Board of Sanitary Commissioners of Gibraltar representing the rate-payers and inhabitants has been diminished from eight to four. The order was put in force without notice; but the reasons which rendered the measure necessary have since been published in Gibraltar, and it is not proposed to withdraw the order.

The Gresham University.

On Monday Lord A. Hill, Comptroller of the Household, brought up the answer of Her Majesty the Queen to the Address of the House with respect to the proposed Charter. Her Majesty intimated that she would, for the present, withhold her consent to the scheme, in accordance with the desire of the House.

The Sanitary Condition of Santos.

Mr. J. W. Lowther, in reply to Mr. Duff, said that instructions were sent to Her Majesty's Minister at Rio in October and in February to bring this matter to the attention of the Brazilian Government, which was accordingly done. Mr. Wyndham was further instructed on the 9th inst. to press the matter upon their attention. The insanitary condition of the port of Santos has been made known to the shipping community by the Board of Trade, by notices in the *Board of Trade Journal*, by means of a notice posted in all the shipping offices, and in other ways.

Insanitary Barracks.

Mr. E. Stanhope informed the House that the amount now being expended on barracks, both out of loan funds and out of annual estimates, though it would not suffice to rebuild all the barracks, would practically remove the evils specially brought to his notice.

Fatal Vaccinations.

Mr. Ritchie, answering Mr. Channing, said his attention had been called to an inquest in the case of the child said to have died from the result of vaccination. The Local Government Board had informed the Royal Commission of the certificate which had been received. He learned that the Commissioners had no knowledge of the case until after the inquest had been held, and it was impossible to have a medical examination of the body. They were, however, otherwise inquiring into the case.

The Case of Surgeon-Major Briggs.

In the House of Commons, on Tuesday, the 22nd inst., Dr. Farquharson asked the Secretary of State for War whether he had further considered the case of Surgeon-Major Briggs, of the Army Medical Staff, with the view of his being reinstated in the position which he would now occupy in the service if he had not retired.—Mr. E. Stanhope: Yes, sir; I have further considered the case, and I am of opinion that Surgeon-Major Briggs should not suffer any loss as regards position or promotion in consequence of an act which any gentleman was bound to perform, and which he performed under pressure which no one could have resisted. Dr. Briggs will therefore be restored to the seniority he held before retirement.

Protection against Accidents at the London Docks.

In answer to Mr. Johnston, Sir M. Hicks-Beach said: I directed Captain Pitman (my chief superintendent at Poplar) to place himself in communication with the dock authorities, and I am happy to say that they willingly agreed to erect stanchions and chains at a number of places agreed upon. Captain Pitman has now reported to me that the directors have made every effort to provide for the safety of the public by adopting all reasonable precautions. I understand that the London and India Docks Joint Committee alone have ordered no less than seven miles and a half of chains and standards.

The Treatment of City Refuse.

On Thursday, the 24th inst., in the House of Commons, Mr. Ritchie, answering a question by Mr. Pickersgill, said that the Local Government Board had no information as to the intention of the Strand District Board to erect a destructor on the Surrey side of the river, near Waterloo Bridge. The matter was not one in which the Local Government Board had any jurisdiction. He might say that a clause was inserted in the Public Health Act of last year to meet the case of a local authority which used premises for the treatment or disposal of refuse in such a way as to be a nuisance or a danger, or injurious to health.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on March 22nd, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	194*	55	..	20	..	269	442
North-Western Hospital	191	56	..	10	2	259	411
Western ,,	104	27	..	3	2	136	224
South-Western ,,	194	37	..	12	..	243	350
South-Eastern ,,	206*	12	..	22	3	243	424
Northern ,,	319	19	..	8	...	346	480
Totals	1208	206	..	75	7	1496	2331

* Infant with mother.

SMALL-POX.—*Atlas* hospital ship, 25.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDREW, A., L.R.C.P., L.M. Irel., has been appointed Medical Officer for the Glossop Sanitary District.

BERKELEY, G. H. A. C., M.R.C.S., L.R.C.P., has been appointed House Physician to the Middlesex Hospital.

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munity by the Board of Trade, by notices in the *Board of Trade* by means of a notice posted in all the shipping offices, and in other ways.

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Medical Diary for the ensuing Week.

Monday, March 28.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8 30 P.M. Dr. Amand Routh: Rapid Dilatation of the Uterus for Diagnosis and Treatment in cases of Uterine Hæmorrhage (with cases).

Tuesday, March 29.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor V. Horsley: The Brain.

THE QUEEN'S COLLEGE, BIRMINGHAM.—4 P.M. Dr. Arthur Foxwell: The Condition and Treatment of the Vascular System in Chlorosis and other Debilitated States. (Ingleby Lecture)

ROYAL COLLEGE OF PHYSICIANS (Examination Hall, Victoria Embankment).—5 P.M. Dr. Sidney Martin: Chemical Pathology of Diphtheria compared with that of Anthrax, Infective Endocarditis, and Tetanus. (Third Goulstonian Lecture.)

Wednesday, March 30.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

Thursday, March 31.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1 30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

ROYAL INSTITUTION.—3 P.M. Dr. B. A. Whitelegge: Epidemic Waves.

CHELSEA HOSPITAL FOR WOMEN.—5 P.M. Dr. F. F. Schacht: Minor Manipulations of Gynæcology.

ROYAL COLLEGE OF PHYSICIANS (Examination Hall, Victoria Embankment).—5 P.M. Dr. Pye-Smith: Certain Points in the Etiology of Disease. (First Lumleian Lecture.)

Friday, April 1.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

WEST KENT MEDICO-CHIRURGICAL SOCIETY (Royal Kent Dispensary, Greenwich).—8 P.M. Discussion on Influenza, to be opened by Dr. Geo. Newton Pitt.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Pathological Specimens by Dr. Ball and Mr. Dunn.—Dr. W. P. Herringham: Lumbago and Sciatica.—Dr. Symons Eccles: Sciatica.

ROYAL INSTITUTION.—9 P.M. Prof. Oliver Lodge: The Motion of the Ether near the Earth.

Saturday, April 2.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

ROYAL INSTITUTION.—3 P.M. Prof. J. F. Bridge: Dramatic Music.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, March 24th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Mar. 18	30·36	S.E.	49	47	101	63	46	—	Bright
,, 19	30·25	E.	44	42	93	57	40	—	Bright
,, 20	30·19	N.E.	45	41	94	52	37	..	Bright
,, 21	30 36	E.	36	35	79	54	34	..	Hazy
,, 22	30·37	N.E.	41	40	52	43	35	·15	Raining
,, 23	30·51	E.	41	39	67	50	35	·10	Overcast
,, 24	30·32	E.	42	41	52	45	40	·03	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

CHAPPED HANDS.

Mr. Edgar Duke (St. Leonards) recommends for this affection the application of equal parts of glycerine, sulphurous acid, and rose-water several times a day. It will be found, he says, that the "chaps" will soon heal; and, as an additional aid, "Penton" might, if necessary, advise his patient to wear white kid gloves at night after using the liniment.

Dr. Thursfield recommends one part of the glycerole of subacetate of lead with seven of glycerine, to be used with indiarubber gloves, so as to keep up free moisture of the skin.

F. R. C. (Dublin) writes: "If 'Penton' has not yet used it, he might try 'luna-creolin.' Its name indicates its composition. I have had it from Messrs. Burroughs, Wellcome, and Co. It may be used freely, especially in the evening, and chamois-leather gloves should be worn at night."

Cyclops suggests that "Penton" should try the following:—Liquor plumbi diacetatis, ʒi.; creta præparata et ol. olivæ, q.s. of each to make an ounce of the consistence of an ointment. The hands to be well smeared with this each night, and a pair of soft gloves worn. If tried, will "Penton" communicate results?

A correspondent writes that "Penton" might find holding the chapped hands over the fumes of sulphur twice daily of use. Our correspondent has known it to answer well in obstinate cases.

A QUESTION OF ETHICS.

To the Editors of THE LANCET.

SIRS,—On opening my daily paper on Friday, March 18th, I noticed nearly a column was occupied with an extract from one of your medical contemporaries concerning a person of unhappy notoriety. I was not surprised at this; but I was astonished to see details given on the authority of the medical attendants in the case. That there should be no room for mistake, the names and addresses of these medical men are published in full. Now, this constitutes a breach of confidence, and when I was in active practice would have been considered professional conduct the reverse of graceful. Has the code of honour been revised?

I am, Sirs, yours obediently,

March 21st, 1892. ONE OF THE OLDEN TIME.

REFUSAL TO PAY NOTIFICATION FEES.

Dr. J. L. Kerr.—Under the Notification Act we apprehend that the local authority is bound to pay the fee for notifying the specified diseases in every case, and could be compelled to do so at law. The medical officer of health has no authority as a taxing master.

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THE DUBLIN CIVIL SERVICE MEDICAL AID ASSOCIATION.

Mr. J. J. Murphy has kindly forwarded to us a letter correcting our allusion to the terms of membership of the Association, and showing that the married members' subscriptions are at the rate of £1 a year and those of unmarried members at the rate of 10*s*. Our mistake was in regarding quarterly subscriptions as annual ones. We still think the terms low; £1 a year for attendance on a member of the civil service, on his wife (barring midwifery) and children, and any other relatives permanently residing in such member's house, together with their domestic servants, is, or strikes us as, very inadequate remuneration. We have no doubt the civil servants in Dublin get good medical treatment, but we deny that the pay for it is "reasonable." We are much obliged to Mr. Murphy for his note, and to the secretary for a copy of the rules.

Scapula.—The services are so peculiar and exceptional that we have a difficulty in appraising them. Our correspondent will do that best himself. His actual charge is not too much, but it looks high. And the service to his patient is withal so delicate that he would do well, while maintaining its reasonableness, to be ready to argue the sum. Fees for such duties should always be a matter of understanding beforehand. For ourselves, we should be very unwilling to undertake such duties until the law shall enable them to be discharged within the bounds of the United Kingdom.

E.L.—We have no reason to suppose that injury would result from the use of such a writing implement.

PERFECT COMBUSTION AND SMOKE PREVENTION.

To the Editors of THE LANCET.

SIRS,—I have been much interested in reading the article in THE LANCET on the subject of perfect combustion and smoke prevention. If an Act could be passed under which all new stoves would be required to pass a certain standard of smoke combustion, it would soon lead to further inventions and improvements, and the old stoves now in use in London would be to a great extent replaced, more especially when the saving in cost is brought home to the minds of the householders. A good combustion stove would be a literal godsend to scores of large buildings where the flues draw badly, and can only be imperfectly swept from the top. It would be difficult to enumerate all the advantages likely to arise from even a partial consumption of smoke. It is highly probable that we suffer from a far more dangerous evil than that of smoke brought down by the fog—viz., the foul air proceeding from the innumerable ventilation pipes from house drainage; and in connexion with this it has been suggested that the climax in the late scourge of influenza was reached at the time of the late fogs, and that the horrible atmosphere we then breathed was tainted by the gases proceeding from the ventilation pipes. These ventilation pipes are, of course, essential under the present system; but the time, I think, will, and must, come when the entire system of sewers will be ventilated by tall shafts and furnaces in central positions, through which the foul air will be drawn, and its deadly properties, including microbes &c., be consumed.

I am, Sirs, yours faithfully,

Bedford street, W.C., March 8th, 1892. JOHN T. WOODARD.

A GRIEVANCE OF TITLE.

New L.S.A.—We are constantly receiving letters from the new class of L.S.A. complaining of the inadequacy of the title Apothecary, and demanding one that expresses the fact of their full qualification in Medicine, Surgery, and Midwifery. We entirely sympathise with this feeling. The nature of the education and examination for the L.S.A. has been altered and enlarged by the Act of 1886, and there should be a corresponding alteration and enlargement of title. But it will never be procured unless the Society and its Licentiates bestir themselves. Let a committee be organised to press the grievance till it is removed.

Mr. Woodcock.—The production of the Clausen stove has been delayed by the somewhat sudden death of the inventor. It is to be hoped that so useful and economical an appliance will before long be generally introduced.

Mr. T. Johnston.—We think it desirable to wait for the reply to our correspondent's complaint, which seems a very reasonable one.

A QUERY.

To the Editors of THE LANCET.

SIRS,—Can any of your readers inform me whether there is any institution where a little boy three years old, who has lost both arms, can be educated, and taught how to use his feet?

I am, Sirs, yours faithfully,

March 17th, 1892. HOUSE SURGEON.

THE OPENING OF PAROCHIAL HOSPITALS TO STUDENTS.

DR. CAMPBELL BLACK, in the *Glasgow Herald*, advocates the opening of parochial hospitals to students, and the much wider distribution in the profession of hospital appointments.

PROFESSIONAL FEES AMONG THE ISRAELITES.

ON this subject there is a curious document, of which the Hebrew original is lost. It is the "Ecclesiasticus" of the Son of Sirach, Jesus by name, a book not accepted by Jews or Protestants as part of the Bible, but included in the so-called "Apocrypha." Another Jesus, grandson of the above-named, has left a Greek version of it, and St. Jerome, who says he saw it in its original Hebrew, has translated it into Latin. The Talmud contains some fragments of that original. The opening words are in the Vulgate as follows: "Honora medicum, propter necessitatem; etenim illum creavit altissimus." (Honour the physician, because thou hast need of him; for he was created by the Most High.) In this passage "honorare," it has been remarked, means not only to "respect," but to "give *honoraria*" (fees). In this sense the Greek of the Septuagint corresponds with the Latin. The passage proceeds: "A Deo est enim omnis medela et a rege accipiet donationem." (From God indeed comes all healing, and the king will crown it with presents.) Again: "Disciplina medici exaltabit caput illius et in conspectu magnatorum collaudabitur." (The culture of the physician will exalt his head, and in the presence of princes he will be praised.) Yet again: "Altissimus creavit de terrâ medicamenta, et vir prudens non abhorrebit illa." (The Most High has made medicines to spring from the earth, and the wise man will not abhor them.) After a eulogy of the virtues of these medicines, especially as prepared by the apothecary, the passage resumes: "Etenim Dominus creavit illum [medicum] et non discidat a te, quia opera ejus sunt necessaria." (For the Lord has created him [the physician], and let him not abandon thee, for his works are necessary to thee.) The English version from the Greek of the Septuagint is substantially the same as the above rendering from the Vulgate. See "Archéologie Médicale de l'Égypte et de la Judée," par le Dr. Beugnies-Corbeau (Liége, 1891).

F.R.C.S. (Belfast) writes: "'Baffled' will find by reference to THE LANCET, Dec. 6th, 1884, p. 996, that dysmenorrhœa and several other neuroses are at once relieved by applying a blister 3 × 2 in. for six hours over the region of the fourth and fifth dorsal vertebræ—in this case a week before the monthly period."

L.R.C.P.Lond., M.R.C.S.—Application should be made at the Office of the Crown Agents for the Colonies, Downing-street, London, S.W.

Scrutator.—No; there is no evidence to justify the conclusion mentioned by our correspondent.

Etiquette.—The subject is treated in another column of our present issue.

WOOD PAVEMENT.

To the Editors of THE LANCET.

SIRS,—Adverting to the annotation in your issue of the 19th inst. respecting the cleansing of wood pavements so commonly used in many large towns throughout England, I take the liberty of directing your attention to "Tuson's Fluid," by the use of which the evils referred to in your article may be entirely prevented. This fluid, as you are aware, consists of a solution of chloride of zinc saturated with sulphurous acid gas, and acts not only by deodorising malodours arising from the droppings of animals, but also as a powerful germicide, in addition to which it is useful, when properly diluted and used in the ordinary watering cart, in allaying dust. In the City of London and in some of the large sanitary districts of the metropolis a 3-per-cent. solution of Tuson's fluid, used in this manner, has been found of signal service after the roadways have been swept by the scavengers at night (so as to prevent unnecessary interference with the traffic). During the recent epidemic of influenza it was employed extensively in large buildings, notably Gresham College, justice rooms, and other places.

I am, Sirs, yours faithfully,

March 23rd, 1892. AMBULATOR.

SALE OF LIQUOR TO CHILDREN.

A PUBLIC meeting has been held in Liverpool to form a league to prohibit the sale of drink to children. Mr. Thomas Pegrim presided. We heartily wish success to such an effort. It is monstrous that children should be allowed to enter public-houses. This is an evil which the police might greatly lessen if they were required to report on it in every case.

Erlangensis.—The question is one we cannot decide, and should be referred to a medical bookseller.

Coroner will see that the matter is referred to in our correspondence columns.

TREATMENT OF CRACKED LIPS.

To the Editors of THE LANCET.

SIRS,—Can any of the readers of THE LANCET oblige me with hints as to the treatment of cracked lower lip in a boy aged fourteen years, who is in good health in every other respect?

I am, Sirs, yours faithfully,

March 22nd, 1892. MEDICUS.

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COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. J. M. Atkinson, Hong Kong; Mr. Barford, Wokingham; Messrs. Boulton and Paul, Norwich; Mr. Bagshawe, St. Leonards; Messrs. Brady and Martin, Newcastle-on-Tyne; Dr. Black, Edinburgh; Messrs. Blake and Co., London; Mr. Brooke, Walsall; Mr. C. Barry; Messrs. Barker and Son, London; Mr. Bour, Highgate; Mr. Baillie, London; Dr. D. Burns, London; Mr. J. P. Bush, Clifton; Surgeon-General Cornish, London; Dr. Charteris, Glasgow; Dr. Cruise, Dublin; Messrs. Cama and Co., London; Dr. E. Clarke, Blackheath; Messrs. Coleman and Co., Norwich; Mr. Clark, Wolverhampton; Messrs. Coxeter and Son, London; Mr. J. Carter, London; Mr. Clegg, Liverpool; Mr. De Fraine, Aylesbury; Mr. Davies, Bristol; Mr. Darke, London; Mr. E. Duke, St. Leonards; Mr. Dickinson, London; Mr. A. Duke, Dublin; Dr. Davies, Wrexham; Dr. Dale, Old Barford; Dr. Foxwell, Birmingham; Mr. Ferguson, Glasgow; Dr. Firth, Bradford; Messrs. Ford and Parr, London; Mr. Fiske, Yorks; Mr. Fox, Manchester; Mr. A. Frost, London; Mr. Gibson, London; Mr. Gurner, London; Dr. J. H. Glenn, Dublin; Dr. Grimsdale, Liverpool; Dr. Gilroy, Waterbeck; Dr. Goodall, London; Mr. Goldspink, London; Messrs. Griffin and Co., London; Dr. Hamil, Manchester; Mr. T. C. Horsfall, Swanscoe Park; Mr. Helbing, London; Mr. Hubbard, Hastings; Mr. Hodgson, Bloomsbury; Mr. Hornibrook, London; Mr. Jerram, Cornwall; Mr. V. Jackson, Wolverhampton; Mr. Johnston; Mr. W. Johnson, Manchester; Dr. Knott, Middlesbrough; Dr. Kerr; Messrs. Kutnow and Co., London; Mr. Keely, Nottingham; Dr. Little, London; Mr. H. K. Lewis, London; Mr. Lund, Newcastle-on-Tyne; Mr. W. A. Lane, London; Dr. G. Lyon, London; Mr. T. Leeds, London; Mr. Lamb, London; Dr. P. A. McCarthy, Kempsey; Messrs. Montgomery and Plumbe, Maidenhead; Mr. Maconochie, London; Messrs. Maythorn and Son, Biggleswade; Dr. MacAdam, Edinburgh; Dr. Mackenzie, Surbiton; Dr. Sidney Martin, London; Mr. McWatters, Armagh; Mr. Newnes, Putney; Mrs. Newdigg; Messrs. Newton, Chambers, and Co., Thorncliffe; Dr. Newman, Detroit, U.S.A.; Dr. Orr, Sittingbourne; Mr. O'Reilly, London; Messrs. Oppenheimer and Co., London; Mr. Provand, London; Mr. Pridmore, London; Mr. Pollard, Wakefield; Dr. Ruffer, London; Dr. Ralfe, London; Messrs. Rowntree and Co.; Dr. Rey-Pailhade, Toulouse; Messrs. Reinhardt and Co., London; Dr. Rolleston, London; Mr. Startin, London; Mr. M. Sheild, London; Dr. Santini, Rome; Mr. Slater, Sheffield; Dr. C. S. Symonds, London; Mr. Schultzers-Young, London; Messrs. S. Smith and Co., Bow; Mr. Sturges, London; Mr. Storey, Boston; Mr. R. Steele, Bedford; Mr. P. Thornton, Canterbury; Dr. Thompson, Ulverstone; Dr. Thursfield, Bridgnorth; Mr. Vickers, London; Messrs. Vagliano, London; Mr. S. D. Willard, London; Messrs. Whitworth and Stuart, Manchester; Mr. Wells, Hull; Messrs. Woodland and Cooper, London; Dr. Whitmarsh, London; Messrs. West, Newman, and Co., London; Messrs. Wright and Co., Bristol; Mr. P. W. Young, London; Mrs. K., Kent; Widow, London; Beta, London; Empire Telephone Co., London; L. S. C., London; M.B., C.M.; One of the Olden Time; House Surgeon; Sister; Scapula; Secretary, Chelsea Hospital for Women; Hydropathy, London; Secretary, Lowestoft Hospital; Erlangensis; M.R.C.P.I.

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NEWSPAPERS.—*Birmingham Daily Mail, Bombay Gazette, Sussex Daily News, Le Temps (Paris), Manchester Guardian, Leeds Mercury, Law Journal, Sheffield Independent, Scotsman, Western Daily Press, Bath Gazette, Methodist Times, National Reformer, Bristol Mercury, Liverpool Daily Post, Scottish Leader, Windsor and Eton Gazette, North British Daily Mail, Insurance Record, Weekly Free Press and Aberdeen Herald, Yorkshire Post, Reading Mercury, Surrey Advertiser, City Press, Windsor and Eton Express, Hertfordshire Mercury, Mining Journal, Cape Times, Pioneer Mail, Builder, Tasmanian Mail, Surrey Mirror, Local Government Chronicle, Architect, Australasian, Glasgow Herald, Ratepayers' Chronicle, Times of India, Guy's Hospital Gazette, Batley Reporter, Rochdale Observer, Oban Times, Derby Mercury, Levant Herald, Hampshire Advertiser, County Council Times, Toronto Globe, Sydney Mail, Winter's Weekly, Irish Times, Hastings and St. Leonards Observer, Peterborough Express, Cumberland Advertiser, The Hairdressers' Weekly Journal, Technics, The Corpuscle, &c.*, have been received.

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Goulstonian Lectures

ON THE

CHEMICAL PATHOLOGY OF DIPHTHERIA COMPARED WITH THAT OF ANTHRAX, INFECTIVE ENDOCARDITIS, AND TETANUS.

By SIDNEY MARTIN, M.D., F.R.C.P.,

ASSISTANT PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL AND TO THE HOSPITAL FOR CONSUMPTION, BROMPTON; LATE PATHOLOGIST TO THE MIDDLESEX HOSPITAL.

LECTURE II.

Examination of the nervous system.—All parts of the nervous system were examined. The motor nerves were cut out with a piece of muscle attached, so as to admit of the examination of the intra-muscular branches. The only method which is of value in the study of peripheral nerve degeneration is staining the fresh nerve with osmic acid, so that the white substance of Schwann is stained black, and counterstaining with carmine to bring out the nuclei and axis cylinder. In all the animals the same changes were found in the nerves, and the following description of the pathological condition refers to specimens taken from the animals as illustrating the points to be referred to.

Motor nerves.—After the motor nerve with the piece of muscle attached has been stained in osmic acid, it is separated from the muscle with its intra-muscular branches as far as possible. When a small intra-muscular nerve is mounted whole as a specimen it is seen that the nerve is stained black with osmic acid, except at certain points just before it divides into branches. At these points the nerve is attenuated and degenerated. This serves as a type of the degeneration in the nerves, and its microscopic characters showed that all the parts near the origin of the nerve were quite normal. When the nerve is teased with needles from the normal part to the end of the small branches, it is found that at the upper part the fibres are normal; a little lower down they show a breaking up of the white substance of Schwann, which is becoming thin and is but little stained by the osmic acid, while lower down still the white substance disappears altogether. This is at the portion of the nerve unstained by osmic acid. Beyond this the white substance again appears, but it is very pale, granular, and broken up; lower down still it regains its dark colour. The primitive sheath of the nerve is intact throughout; the axis cylinder may be intact down to the spot at which the white substance completely disappears, and even through this part, so that here the majority of nerve fibres consist only of axis cylinder and the primitive sheath. Below the point at which the white substance has disappeared the axis cylinder is in many instances broken. When the axis cylinder is ruptured the upper end is often seen bulbous, and both peripheral and central parts become wavy. After such rupture of the axis cylinder the nerve fibre undergoes below the rupture the Wallerian degeneration, the features of which are well known, and consist of a breaking up of the white substance along the whole course of the fibre, the axis cylinder also degenerating, portions becoming isolated. Many of the fibres, however, below the segment of degeneration do not undergo degeneration, showing that the axis cylinder is intact. Another branch of the nerve may show a less degree of change, and a third branch may show the earliest stage of the degeneration, of which I shall speak later. It will be seen that the degeneration affects primarily a portion of the nerve. It is a degeneration of the nerve fibre itself. There is no interstitial change, no increase of nuclei, which, in fact, themselves undergo an atrophy in the most advanced part. The part of the nerve fibre primarily affected is the white substance of Schwann, which breaks up and finally disappears. The axis cylinder itself may be unruptured when the white substance has completely disappeared; but it often becomes ruptured lower down the nerve fibre, which then undergoes below the rupture the Wallerian degeneration. The different branches of the motor nerve itself are affected to a varying degree, so that in an individual motor nerve there are many fibres which can still innervate the muscle, owing to the integrity of the axis cylinder. This is one reason why the condition observed during life is a paresis, and not a paralysis. In the nerve we have just been considering the degeneration is seen right across the nerve; but in many nerves the change affects only a few fibres lying side by side, or a single bunch of fibres. This is well seen in many specimens of the phrenic nerve from these animals, and also in the anterior roots of the spinal nerves. The earliest stage of this change in the motor nerve is the breaking up of the white substance in a portion of the nerve, while the axis cylinder may still be unaffected; so that, in this early degeneration, it is not uncommon to find that the nerve above and below the affected portion is quite normal. In some instances, however, this early segmentation of the white substance is associated with rupture of the axis cylinder. The attenuation of the white substance which follows its breaking up may occur in the middle of an internode; it may also occur near the node. The more minute changes in the nerve fibres may be observed in many specimens, in which the white substance is seen granular and becoming attenuated from without inwards, while the axis cylinder can be traced as a straight line in the centre of the nerve fibre. In the nerve fibres lying by the side of such a fibre the white substance shows similar appearances, but the axis cylinder is wavy and may become attenuated.

Multiple interrupted degeneration.—There may be more than one portion of the nerve affected by the degeneration, and when this is so the whole nerve is liable to degenerate towards the periphery, and presents to the naked eye a nodular or interrupted appearance, the nodules being between the portions of the nerve which were first degenerated. In such a nerve in which there are from three to five degenerated segments, the later stages of the degeneration may be seen. In most of the fibres only a primitive sheath and nuclei are to be seen with a few badly stained droplets of white substance, and here and there a trace of the degenerated axis cylinder. Such is the change in the motor nerves. The muscles to which the nerves go are also degenerated, this degeneration being proportional to the degree of nerve change. If the nerve is completely degenerated, the muscle fibres show an advanced fatty degeneration in minute granules, staining black with osmic acid. When the degeneration is less, fatty fibres are found mixed with normal ones, or only parts of fibres may be fatty, and when the nerve change is only slight there may be only longitudinal striation of a few fibres, or, indeed, the muscle may appear normal. The very partial fatty degeneration of the muscle is evidently dependent on the fact that the axis cylinders are in many instances intact. The heart muscle is, however, in all these cases in an advanced degree of fatty degeneration. On what this cardiac degeneration depends it is difficult to say. I have not found any degeneration in the vagus nerve. It possibly depends on the altered condition of the blood which has been already described, or, indeed, the diphtheria albumoses may have a special action on the heart.

Sensory nerves.—The sensory nerves are affected in a manner similar to the motor. Sensory nerves in any part of the body may show one or more degenerated portions. In one case the long saphenous nerve near the knee showed five degenerated portions, which give the nerve a nodular appearance.

Sympathetic nerves.—In one instance the trunk of the cervical sympathetic just above the third ganglion showed a degeneration which went right across the nerve and was of the same character as in the motor nerve, except that here, of course, the axis cylinders are more profoundly affected than in the medullated nerve fibres. On each side of the degenerated portion there was an increase in the number of nuclei. Above it the nerve was normal, below many fibres were degenerated. From the facts just recorded it is evident that the paresis observed is due to degeneration of the nerves themselves, and that any of the nerve fibres of the body, whether medullated or non-medullated, may be affected. The spinal ganglia, spinal cord, medulla, and brain were in all cases found normal. The distribution of the nerve change may be seen by a description of what was found in one of the animals. In one leg all the motor nerves investigated showed a greater or less degree of degeneration. The change was most marked in the nerves of the sartorius, the vastus, semi-tendinosus, le...

marked in those to the semi-membranosus, biceps, gastrocnemius, and soleus. In the long saphenous nerve, a sensory one, there was well-marked degeneration. Transverse sections of the sciatic at the upper part showed that the nerve trunk was normal. At the lower part the whole nerve was teased and was found normal. The fact is clear, therefore, that the degeneration affects the terminals of the motor branches, and not the main trunk. There may be one or two degenerating fibres in the sciatic nerve if the spinal nerve roots supplying it are affected, but in this particular instance the sciatic nerve was normal. Passing to the trunk, still in the same animal, one of the large branches to the psoas muscle showed well-marked degeneration. A cutaneous nerve of the abdomen was found normal, and of three pairs of spinal roots examined, one in the cervical, one in the dorsal, and one in the lumbar region, degeneration was found in only one anterior root in the dorsal region, the remainder of the anterior roots and all the posterior roots being normal; the spinal ganglia were also normal. In the arm nerves the branches of the musculo-spiral to the triceps and to the flexor muscles of the forearm showed well-marked degeneration, while the branches of the brachial plexus to the pectoralis and to the biceps showed an early stage of the degeneration. The musculo-spiral examined just above the origin of the branches to the triceps was normal. The phrenic showed degeneration; the recurrent laryngeal also, but the trunk of the vagus in the neck was normal. The cervical sympathetic showed well-marked degeneration at the lower part; while above, it was normal; and branches of the third nerve to the eye muscles showed well-marked degeneration. From this it is seen how widespread is the change in the peripheral nerves, whether cerebral, spinal, or visceral, as the result of the injection into the circulation of so small a dose as 0·1565 gramme (in two doses) in a rabbit weighing 1565 grammes, which is a dose of about two grains and a half in a rabbit weighing 3½ lb.

Microscopical examination of the nerves after single doses of the albumoses.—It has already been stated that in rabbits which have a single large dose, although they show fever for a few days, there is no paralysis. One animal which received 0·084 gramme per kilogramme subcutaneously was killed in 115 days; and another, which had a dose of 0·117 gramme per kilogramme intravenously, was killed in ninety-four days. When killed both were fat and well nourished. On microscopical examination, it was found that in both animals the phrenic nerves and the small branches of the motor nerves showed well-marked degeneration with rupture of a few axis cylinders, but no well-marked Wallerian degeneration below the degenerated segment. The heart was fattily degenerated. A single dose of the poison, therefore, although its effects had apparently passed off during life, was found after death to have left a definite nerve lesion which had not been repaired. These two experiments, with the others previously mentioned, show most clearly that the diphtheria albumoses, although fever producers, are nerve poisons, selecting the peripheral nerves for its action, just as strychnine selects the motor cells of the cord for its action. I take it that with these single doses the injury to the nerves had been effected, and the degeneration was not progressing when the animals were killed; whereas the successive introduction of small doses into the circulation keeps up the action on the nerves, so that a visible affection of motility results. In a case of diphtheria that proved fatal I found in the small branches of the phrenic portions of the nerve degenerated, thus demonstrating what has been known before, that nerve degeneration may be present during the acute disease.

Relation of the nerve degeneration to the changes in the nervous system in diphtheritic palsy in man.—Since Dejérine's[1] work on the subject it has been recognised that the paralysis following diphtheria is due to a parenchymatous degeneration in the peripheral nerves. But both before this period (1878) and after, many observers have described changes in the cells of the anterior cornua of the spinal cord, and some have gone so far as to ascribe all the symptoms to a mild polio-myelitis. The symptoms, however, are not those of an affection of the anterior cornua of the spinal cord, as there is an absence of any special wasting of the affected muscles and of the reaction of degeneration. The changes that have been described as occurring in the cells of the anterior horns (such as fatty degeneration, vacuolation, pigmentation, atrophy) are probably only phenomena added to the change in the peripheral nerves, and the poison which produces a change in these nerves and fatty degeneration of the heart may after a time affect the nutrition of the nerve centres, causing first fatty degeneration, then atrophy of the cells. The great argument in favour of the change being essentially peripheral is the fact that sensation is affected and no changes have been described in the posterior cornua of the cords or in the sensory ganglia. In my experiments the cord and spinal ganglia were quite normal. The nature of the nerve change observed in the experiments with the diphtheria albumoses was first described by Gombault[2] as the result of chronic poisoning by lead in guinea-pigs. He called the change "*névrite segmentaire péri-axile*," or a neuritis affecting the nerve fibre around the axis cylinder. His animals showed no paralysis, and he left them alive six months or longer; so that, as his figures show, he had the appearances both of degeneration and of restoration in the nerve fibres. It is clear, from the changes observed in the nerves following the injection of diphtheria albumoses, that the condition is one of simple degeneration, affecting first of all the white substance of Schwann, which breaks up and finally disappears; then the axis cylinder, which is attenuated, and finally ruptured in some fibres, so that below this ruptured axis cylinder the fibre undergoes the Wallerian degeneration and the muscle fibre becomes fatty. Many of the fibres which show a degenerated white substance of Schwann do not show a ruptured axis; and this, combined with the fact that the small branches of the motor nerve are affected to a varying degree, and that the motor nerves of the body are not all in the same degree of degeneration at the same period, demonstrates why diphtheritic palsy is not a complete, but only a partial paralysis. In the degenerated nerves in human diphtheritic palsy an increase of nuclei of the nerve fibres has been described, and also nodular swellings on the nerves formed by cellular elements.[3] These changes probably only indicate an attempt at repair of the nerve; they are not met with in the cases of simple nerve degeneration seen in the artificially produced diphtheritic palsy. Meyer, who very thoroughly examined a case of diphtheritic palsy in man, gives figures which show quite clearly that the change in the peripheral nerves is of the same nature as that which I have described as occurring in the experimental rabbits. He discusses the nature of this change and refers to Gombault's work, but laid a great deal too much stress on the nodules which occur on the nerves, and which are, as I have shown, the intervals between the degenerated portions.

Action of the organic acid.—When the organic acid found in diphtheria is injected in watery solution into the circulation of rabbits, it produces a moderate degree of fever, which may last one or three days, or may be extremely slight, but nothing further happens to the animal. It may waste a little, but it does not get paralysed, even after a single dose of 0·155 gramme per kilogramme of body weight. Similarly two successive doses equal to 0·095 gramme per kilogramme produce only slight fever on the days of inoculation, but otherwise no effect; no paralysis in twenty-four days. This is a dose of the albumoses sufficient to produce a definite palsy. The animal was killed on the twenty-fourth day. The heart's blood coagulated in a normal manner, and all the internal organs of the body were normal in appearance. On a microscopical examination, however, it was found that the heart showed well-marked fatty degeneration, although not to such a great extent as in the experiments with the diphtheria albumoses. There were a few fatty fibres in the diaphragm, but the parts of the vastus, semi-membranosus, and gastrocnemius examined were quite normal. The phrenic nerve was examined in its upper half and found normal, while the nerves to the semi-membranosus, the vastus, and the gastrocnemius all showed the different stages of the characteristic degeneration already described. The organic acid, therefore, found in the bodies of diphtheria patients is, like the albumoses, a nerve poison, capable of producing the same anatomical change in the nerves. One animal which received a single dose of the organic acid equal to 0·043 gramme per kilogramme of body weight showed well-marked fever, but no paralysis. It was killed in 119 days. It was fat and well nourished,

[1] Sur la Paralysie Diphthéritique: Archives de Physiologie, 1878.

[2] Archives de Neurologie, 1880–1881, p. 11.

[3] Meyer: Virchow's Archiv, vol. lxxxv., 1881, p. 181, &c.

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but showed early fatty degeneration of the heart and diaphragm, and well-marked degeneration in the phrenic nerve. One animal received intravenously a very large dose of the acid on two successive days, the total dose being equal to 0·32 gramme per kilogramme of body weight. No fever, paralysis, or loss of weight ensued; and as the dose given was more than twice the fatal dose of the albumoses, the experiment shows what slightly poisonous properties are possessed by the organic acid. Although, therefore, this organic acid is not nearly so toxic as the albumoses, it has the same action in producing a nerve degeneration. It is not surprising that both the toxic bodies found in a specific disorder should have a similar action; it would, indeed, be more surprising if their physiological effects were different. Having considered the chemistry and physiological action of the toxic bodies present in the bodies of patients dead of diphtheria, we will now discuss the chemical composition of the diphtheritic membrane.

Diphtheritic membrane.—The chemical examination of the diphtheritic membrane presented some difficulty, owing to the small quantity of material obtainable. Membrane removed during life with clean forceps, or a cast of the trachea coughed up after tracheotomy, was placed directly into absolute alcohol, partly to preserve it and partly to kill any micro-organisms present. It was, after a varying time, removed from the alcohol and extracted with sterile 10 per cent. NaCl solution. The membrane formed a gelatinous, mucoid-looking mass in the salt solution, and as this would not filter it was largely diluted and passed through a Chamberland's filter. The filtrate was dialysed till all the salt was removed, concentrated at a low temperature, and precipitated by alcohol. The precipitate, which consisted only of proteid matter, was used for experiment. Without going into the chemical details, the membrane consists of the following proteids. One almost insoluble in saline solutions at the ordinary temperature, which is the fibrin of the membrane; others extracted with saline solution, and consisting of a large quantity of hetero-albumose, which is precipitated by dialysis; and two other albumoses in traces—namely, proto- and deutero albumose. The presence of these bodies shows that the membrane is in process of digestion, hetero-albumose being the first product from the fibrin, proto- and deutero-albumose the final products. Practically, nothing is extracted from the membrane by alcohol; the acid body found in the tissues is present, but only in minute quantities.

Physiological action.—The extract of the membrane which was used for inoculation was whitish yellow, not quite soluble in distilled water, and slightly alkaline. It consisted solely of proteid, a mere trace of hetero-albumose, with traces of proto- and deutero-albumose. Thirty milligrammes were injected into a rabbit weighing 560 grammes, which is equal to a dose of 53 milligrammes per kilogramme of body weight. The first result of the injection was fever, high on the first day, less on the second day, but present also on the fifth day, after which the temperature was normal. Weakness of the hind legs appeared on the first day; on the second day the right hind leg was more paretic than the left; on the third day it was the same, and had lost 30 grammes in weight; on the fourth day the left hind leg was more paretic than the right, and on the fifth day this condition was increased, the leg being held in slight abduction. From this time onward the animal did not jump except on rare occasions, but dragged one leg after the other. The condition remained practically the same till the thirteenth day, when it became ill in a manner similar to that described in the previous animals. The hind legs, although kept extended, were not completely paralysed; flexion was still possible if the legs were mechanically semi-flexed. The fore legs were paretic; the breathing was extremely rapid, and the temperature varied between 96·2° and 96·8°. The animal died during the night. The post-mortem examination showed the blood coagulated in some parts; but when the uncoagulated blood was removed it was found slow in coagulating. As regards the rest of the post-mortem examination, the results were precisely similar to the condition described in the other animals. Micro-organisms were absent from the body, and there was the same degeneration of the peripheral nerves, of the skeletal muscles and of the heart, and the same integrity of the central nervous system as has been already fully described. This result is important, as it shows that in the diphtheritic membrane there exists a poison associated with the proteid and precipitated by alcohol, which produces exactly the same result as the albumoses found in the blood and spleen of diphtheria patients. But it is a poison much more virulent, since a single small dose produces a result which only multiple doses of the albumoses can effect. A single small dose of the albumoses will not produce the progressive paresis observed in this case. For example, a dose of 0·123 gramme of diphtheria albumoses in a rabbit weighing 1050 grammes, which is twice the dose per kilogramme in the animal under consideration, produced only moderate fever, and nothing else. Also, at the same time that this experiment with the extract of diphtheritic membrane was done, an animal was injected with three times the dose of albumoses on three successive occasions—namely, 0·157 gramme per kilogramme in all; and yet the nerve lesions were as well marked in the animal which had the diphtheritic membrane extract as in that which had the albumoses, and death occurred in about the same time—viz., fourteen days. Similarly one of the animals that had nearly twice the dose—namely, 0·83 gramme of albumoses in two successive doses,—although it became paralysed, recovered to a great extent, and lived over ten weeks. The toxic effect of the extract of the diphtheritic membrane cannot, therefore, be ascribed to the mere presence of a small amount of albumoses. There is something else which is in all probability of a ferment nature. This dialysed saline extract of diphtheritic membrane also possesses a different local action from that of the albumoses. It may produce simply œdema which will pass off, but in one instance 12 milligrammes injected under the skin of a guinea-pig weighing 710 grammes produced a fever during the first two days of the experiment; the fever subsided on the third day and death occurred on the sixth day. Nothing was found in the body except, at the site of inoculation, a greyish-yellow sloughy-looking area containing no pus, and about half an inch long. The poison had produced a local necrosis of the tissue. These results bring my own work into touch with what has already been done on the chemical products of the bacillus diphtheriæ, or the so-called "Klebs-Löffler bacillus."

Bacillus diphtheriæ.—I do not intend to go fully into the history of the diphtheria bacillus. Suffice it to say it was first recognised by Klebs, first isolated in pure growth by Löffler, and that Roux and Yersin were the first to show that when introduced into the circulation of a rabbit this bacillus produced a paralysis which is progressive and which is, from the description given, of the same nature as that I have already brought before you. Roux and Yersin's results were confirmed by Brieger and Fraenkel. All observers are agreed that the bacillus diphtheriæ is limited to the superficial layers of the membrane, and does not distribute itself over the body. It is not found in the blood or in any of the organs. Similarly, even when subcutaneously inoculated, although it kills the animal, yet its growth is limited to the site of inoculation. This fact, taken with that established by the brilliant researches of Roux and Yersin—namely, that the bacillus produces paralysis—is a very powerful argument that the bacillus diphtheriæ is the *vera causa*, the living contagion, or, as I prefer to call it, the primary infective agent in diphtheria.

Chemical poison isolated by Roux and Yersin.—The chemical poison isolated by Roux and Yersin was of a very virulent nature. They grew the bacillus in veal peptone broth—that is, using peptone as a food for the organism. Such a culture medium is unsuitable for obtaining the products of a pathogenous organism, because it is unlike any liquid medium that exists in the body, and the proteid bodies which are produced by pathogenous organisms are of the same chemical nature as the peptic albumoses which are used in preparing the culture medium. These facts, however, by no means vitiate Roux and Yersin's results. They found that the broth culture, when freed from bacilli, will kill rabbits after producing paralysis, chiefly affecting the hind legs and the respiration. This poison was precipitated by alcohol and by phosphate of lime, and may be dried, and they calculated that as little as 0·0004 gramme was capable of killing eight guinea-pigs of 400 grammes each, or two rabbits of 3 kilogrammes each. Roux and Yersin's conclusions were that this poison was a ferment (diastase), not only from its acting in such small doses, which had a prolonged effect on the body lasting over days, but also from the fact that heating attenuated the poison and boiling destroyed it. At the end of one of their papers they conclude that: "L'infection n'est produite par un microbe envahissant les tissus, mais par la diffusion dans

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l'organisme d'une substance toxique, *préparée à la surface d'une muqueuse, pour ainsi dire en dehors du corps.*" Brieger and Fraenkel repeated Roux and Yersin's experiments and confirmed them. They attempted to determine accurately the chemistry of the diphtheria product, which they called "toxalbumen"; but their chemical analyses and reactions are quite vitiated by the fact that they had peptone in their culture medium. They found, like Roux and Yersin, that the proteid or mixture of proteid precipitated from the culture medium by alcohol acted in very small doses, such as from 5 to 20 milligrammes, when injected into the circulation of an animal; but they made the hasty conclusion that a poison like this diphtheritic product existed in all infectious diseases. I have obtained the products of the bacillus diphtheriæ[1] by using as a culture medium a from 1 to 2 per cent. solution of alkali-albumen in broth prepared from beef, without the addition of peptone. After from twenty-two to thirty-two days it is found that the bacillus has transformed the alkali-albumen into albumoses, which give the reactions of proto- and deutero-albumoses. Small quantities of the organic acid were also obtained. A single large dose of these albumoses, equal to 0·115 gramme per kilogramme of body weight, produced a weakness of the hind limbs on the first day, and to a less extent of the whole body; this passed off, but the rabbit lost weight for ten days or more. It afterwards regained its weight, and when killed on the hundredth day it was fat and well nourished. The microscopical examination revealed the same changes as have been described as following the injection of a single dose of the albumose found in patients dead of diphtheria. The heart showed advanced fatty degeneration, and there was well-marked degeneration of the phrenic nerve and the nerve to the vastus muscle; the only two nerves examined.

Physiological action of multiple doses of the albumoses formed by the bacillus diphtheriæ.—One rabbit received intravenously three doses of the albumoses, equal to 0·111 gramme per kilogramme of body weight. There was well-marked fever, which subsided after the last dose; but beyond this there were no symptoms. The animal was killed on the thirtieth day. The heart, diaphragm, and triceps brachii were found fattily degenerated; while portions of the vastus internus, semi-membranosus, semi-tendinosus, and gastrocnemius were found normal. The phrenic and the nerves to the muscles mentioned (with the exception of that to the semi-tendinosus) show a degeneration precisely similar to that which has been described as following the intravenous injection of the albumoses found in the tissues of diphtheria patients. One or more branches of each of the motor nerves mentioned were found degenerated, but there were only a few ruptured axis cylinders, and no well marked Wallerian degeneration, explaining why no paralysis was observed in the animals during life. A larger dose than the one under consideration produces the same symptoms that follow the injection of the albumoses from diphtheria patients. Thus, an adult rabbit received three doses of the albumoses of the bacillus diphtheriæ (on successive days), equal in all to a dose of 0·169 gramme per kilogramme of body weight. After the first two doses there was high fever; but after the third a slight depression of temperature occurred which lasted two days. Severe watery diarrhœa set in, and lasted until the ninth day. The wasting was very rapid until the twelfth day, when the animal had lost a quarter of its original weight. It afterwards gained slightly in weight. A general weakness of the muscles was present on the fourth day, but no definite paralysis until the eleventh or twelfth day, when the hind legs were distinctly affected, and the animal dragged one leg after the other. The paralysis progressed, but the animal is still alive. The tendon reflexes were normal up to the ninth day, when they began to diminish, and on the seventeenth day they could scarcely be obtained. From these experiments it is clear that—(1) the bacillus diphtheriæ forms, from proteids, products of the same chemical nature as those found in the bodies of patients dead of diphtheria—viz., albumoses and an organic acid; (2) the albumoses formed by the bacillus in artificial cultivations have, in single and multiple doses, the same physiological action as those found in cases of diphtheria in man—this action is the production of fever, of diarrhœa, and of loss of body weight, and of a progressive paralysis of the muscles dependent on a degeneration, of the peripheral nerves; (3) the bacillus diphtheriæ is therefore the primary infective agent in diphtheria. The relation of Roux and Yersin's poison to those I have described as present in the bodies of patients suffering from diphtheria is made clear from the fact that a much more virulent poison exists in the diphtheritic membrane than in the body of patients suffering from diphtheria; so that we can bring into a table the chemical pathology of diphtheria into the same line as that of anthrax, and head all the changes by the term "Diphtheria digestion."

[1] Cultures of which were given to me by Dr. Klein.

Diphtheria Digestion.

Primary infective agent.	Secondary infective agent.	Digestive products.	—
Bacillus diphtheriæ	Diphtheria ferment (Roux and Yersin's poison) in membrane	Hetero-albumose, Proto-albumose, Deutero-albumose, Organic acid	In membrane. In body.

It is evident that the primary infective agent in diphtheria is the bacillus diphtheriæ; that this liberates in the membrane a ferment which, when absorbed, digests the proteids of the body forming albumoses and an organic acid. These digested products are the agents in producing death, in causing fever, the depression and the paralysis which follow diphtheria. It is clear from the cases of diphtheria which have been described that the diphtheria products found in the body do not all come direct from the membrane. In Case 1, for example, only small flecks of membrane were found in the larynx, and yet in the body a large quantity of the diphtheria products were discovered. The large amount of albumoses and organic acid found in the spleen also shows that something more than absorption of albumoses is going on. There is no reason to suppose that these albumoses merely accumulate in the spleen, and their specific physiological action shows that they are foreign to the organism. It is more probable that the ferment absorbed from the membrane digests the more or less stagnating proteids in that organ, and we know indeed that the spleen contains a proportionately larger quantity than the blood of bodies formed from proteids, such as uric acid, xanthin, &c.

ABSTRACT OF THE

Milroy Lectures

ON THE

PHYSICAL AND MENTAL CONDITION OF SCHOOL CHILDREN.

Delivered at the Royal College of Physicians, London, March 8th, 10th, 15th, and 17th,

BY FRANCIS WARNER, M.D., F.R.C.P. LOND.,
PHYSICIAN TO THE LONDON HOSPITAL.

LECTURE IV.

The bearing of this inquiry on State medicine, education, and the care of children.—The State becomes heavily burdened by the defectively made portion of the population, which probably tends to accumulate under extensive emigration, which leaves with us the weak, tending to pauperism, starvation, vagrancy, and crime, a large body of "unemployed," and others capable of earning only small and varying wages; the field for recruiting the services is also limited. Were this lower stratum improved, it would pave the way for social amelioration, higher education, better and more valued wage-earning, and less social failure. It must be remembered that these feebly gifted children are confined to no social class, and appear more numerous in the upper grades. The nation collectively is but the aggregate of its components. These observations show the harm that probably arises from exempting the feebly gifted and defective children from all education,

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The bearing of this inquiry on State medicine, education, and the care of children.—The State becomes burdened by the defectively made portion of the population, which probably tends to accumulate under certain conditions, which leaves with us the weak, feeble, and "unemployed," and others capable of earning only low and varying wages; the field for recruiting the service is so limited. Were this lower stratum improved, it would pave the way for social amelioration, higher education, better and more valued wage-earning, and less pauperism and failure. It must be remembered that these feebly gifted children are confined to no social class, and appear as numerous in the upper grades. The nation collectively is the aggregate of its components. These observations

because they are unfitted to compete, even in school, with the average and the normal. It is, then, as important concerning a certain locality or sanitary area to know the average condition of the children as the rate of mortality. Mal-development has been shown, as far as the facts go, to be a potent factor in predisposing to both mental dulness and low nutrition, two evils worth combating. It is not solely for the purpose of attaining a condition of the people with a smaller percentage of badly made heads, palates, ears, noses, or other bodily defects that a strong effort is called for, but that in removing the causes of such defects we may lessen the average of mental feebleness and low nutrition coattendant. The ends which it is desired to attain through State medicine are to improve the average development, nutrition, and potentiality for mental faculty, and thus to lessen crime, pauperism, and social failure by removing causes leading to degeneration among the population.

Correlation, or the relations of physical and nerve signs to low nutrition and mental dulness.—In a table given the number of cases presenting each sign has been shown, and in the more important instances, where the number of cases in which the sign was observed was large enough, or when the intrinsic value or interest of the sign seemed to call for it, the correlation has been added, showing the number of cases presenting the sign who were also registered as presenting "low nutrition," "abnormal nerve signs," "mal-developments," or "mental dulness" respectively. These correlations have been put into the form of percentages in a table. It is not wished to represent the percentages as having an absolute value of correlation to the sign which may be applied to an individual child. The correlation for some signs is probably of little value on account of the small number of cases observed; but it is given as illustrating that each physical or nerve sign has a correlation average with mental dulness, nutrition, &c. When the correlation is on a small number of cases the need of further observations in this direction is indicated. The percentage form is useful, as indicating that some generalisations drawn from large groups of cases apply equally to the individual signs characterising the group. Thus defects in development have a higher correlation with abnormal nerve signs in boys than in girls, but as to nutrition and mental dulness the girls suffer most. As a contribution towards the etiology of defective development I arranged the 3704 development cases seen among 34,991 children according to their distribution in twenty districts; this is shown in Table 6 of the interim report. The percentage of these development cases taken upon the number of children seen in each district respectively is very unequal, being high in the western district of Kensington and Chelsea (12·6 per cent.) and lower in the poorer schools of Islington (7·4 per cent.). This table also gives the percentage distribution of the principal defects registered, taken in two ways: (1) Upon the number of children seen; (2) upon the number of development cases. If such observations are confirmed by further experience, this method of arranging the facts may afford evidence upon the causes in the district tending to produce defects in development, and, possibly, for determining the particular kind of defect most prevalent. Observations of the 1363 development cases in Poor-law schools, which are drawn from certain areas, are similarly given in Table 8, and a table has been prepared for comparison showing conditions of the children in day schools for areas corresponding to the unions. In certain districts the ratio of boys and girls presenting some conditions is not the average. As a preliminary to try to determine the means that may be used to lessen the physical causes of mental dulness I have given a table of the conditions and groups of conditions accompanying it; and have determined, as far as the present work goes, the correlative value of each sign in development and nerve action observed, as well as the distribution of these signs in certain areas or districts and in certain classes of schools, and in the nationalities. The percentage of mental dulness rises from 35 for development cases without nerve signs to 43 when both are present, reaching 44 when the mal-development is accompanied by low nutrition and abnormal nerve signs.

Development cases considered in relation to sex and residence.—If we take 100 boys and 100 girls with defects in development from among the 50,000 children seen, we shall find many of them with abnormal nerve signs, low nutrition, and mentally dull. Following the experience gained, the following estimate may be given, showing the probable results of placing them first in a day school and then in a resident school.

IN THE DAY SCHOOL.

100 boys and 100 girls, with defects in development.

Boys' Side.		Girls' Side.	
Nerve cases	50	Nerve cases	47
Nutrition low	23	Nutrition low	38
Reported dull	38	Reported dull	40
Total	111	Total	125

IN THE RESIDENT SCHOOL.

100 boys and 100 girls, with defects in development.

Boys' Side.		Girls' Side.	
Nerve cases	62	Nerve cases	52
Nutrition low	16	Nutrition low	20
Reported dull	40	Reported dull	44
Total	118	Total	116

It is thus obvious that residence, contrasted with home life and day school, produces marked effects, different among boys and girls. On both sides of the resident school nutrition becomes higher, more markedly with the girls. Nerve signs increase with residence, especially with boys. Mental dulness increases with residence slightly, more so among the girls. The loss and gain from putting 100 boys and 100 girls with defects in development in resident schools may be represented thus: Fewer cases of low nutrition by seven boys, eighteen girls; more cases of abnormal nerve signs by twelve boys, five girls; more cases of mental dulness by two boys, four girls.

Assessment of results of intellectual and physical training in a school, with allowance for the physical condition of the children.—Having obtained a report on the physical condition of the children in a school, we may proceed to estimate the number of dull children and the number with nerve signs to be expected, upon allowance for the material in a school; the estimate is founded upon the conditions seen and the average experience of 50,000 children, the allowance being made upon the development cases and nerve cases, an allowance for low nutrition could be added. There are two results of physical training which characterise it as satisfactory: (1) In cases of defective development to remove or prevent abnormal nerve signs; (2) in children of normal development to prevent, or at least not to produce, nerve signs. Thus, taking the development cases in a school, a high percentage of abnormal nerve signs among them is against the effects of the training; and a high percentage of nerve cases without defects in development suggests that the training is not good. So also in each case a high percentage of mental dulness shows want of adaptation of methods of teaching to the special requirements of the children. A form is given (see report) upon which the principal facts observed in a school may be recorded; from these estimates may be made. We may estimate as dull children: Of development cases with nerve signs—boys 43 per cent., girls 43 per cent; without nerve signs—boys 33 per cent., girls 39 per cent.; of nerve cases without development defects—boys 37 per cent., girls 41 per cent. We may estimate as the average number of cases with nerve signs: Of the development cases—boys 55 per cent., girls 49 per cent.; as presenting nerve signs without defects in development of the total number of children seen—boys 5 per cent., girls 4 per cent. The work that has already been done, and the report from which extracts are given, afford a considerable amount of evidence to the following propositions: *A.* It is practicable to inspect, report upon, and classify the children seen in a school by means of facts seen and the teacher's report. Evidence of scientific value is thus obtainable of importance to the State, to education, and to philanthropic efforts. *B.* The average child material in a school or district may be determined. The conditions of development and the nerve signs vary much in different schools; as to the latter, observation suggests that adapted methods of training may remove them. *C.* The correlation of visible signs with low nutrition and mental dulness has in many cases been demonstrated. *D.* Ill-made and feeble children tend to gravitate to the Poor-law and certified industrial schools and to the lower standards of day schools. The want of due provision for feeble children in day schools, and in many cases their exemption on medical certificates, tend to throw such cases upon the care of the State, and many become degraded. *E.* Feebly gifted children, the paralysed, and in some cases the epileptic, may in many cases and in limited numbers be educated in day schools if better provision for them is not afforded.

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PULSATIONS AND MURMURS IN THE GREAT VEINS OF THE NECK:

THEIR PHYSIOLOGICAL AND CLINICAL SIGNIFICANCE.

By SYDNEY RINGER, M.D., F.R.S.,
AND
HARRINGTON SAINSBURY, M.D., M.R.C.P.

ON the importance of considering separately the two phenomena pulsations and murmurs we have already insisted in a recent paper in THE LANCET.[1] In the same paper we discussed at length the subject of venous pulsation. Stated very briefly, we pointed out that pulsation in the great veins at the root of the neck was a normal occurrence in animals, as demonstrated by physiologists; that it was of probable occurrence as a normal event in man, though for the most part not visible through the integuments in quiet states of the circulation; that, however, in most cases of marked anæmia, especially in women, venous pulsation was very evident at the root of the neck, particularly in the recumbent posture; that such venous pulsation (of anæmia) must be regarded as physiological rather than pathological, since it had not the significance of a distended right side of the heart; that important time relations distinguished the venous pulsation of health and of anæmia from the venous pulsation attending intra-thoracic disease with distended *right* heart, the former being characterised by its main pulsation being presystolic, the collapse of the vein being systolic, the latter, by the coincidence of its main pulsation, with the ventricular systole. We showed at the same time that intermediate cases must arise in which the determination of the time relations of the pulsations would be difficult, if not impossible, such cases standing on the borderland between health and disease; but we urged that these indeterminable cases did not make it any the less imperative that in each case of venous pulsation we should attempt to discover whether it was a physiological or pathological sign.

We have now to discuss the question of murmurs in the veins of the neck. Without entering at all fully into the subject of venous murmurs in general we may set down a few points of importance. First, venous bruits are to be sought in the larger venous trunks, since the blood currents gathered together in these from extensive tributary areas will be flowing in greater volume and swiftness. Next, such venous trunks being, with few exceptions, contiguous to arterial trunks,[2] we must bear in mind the possibility that a given murmur heard over the course of a vein may really be of arterial origin or that the murmur or murmurs may be both venous and arterial. This last involves the necessity that we should know how to distinguish a venous bruit from an arterial bruit. The following points will help us to do this. The venous bruit has the character variously described by the terms, "rumbling," "purring," "humming," "cooing," or even "whistling," and it is more or less continuous, occupying the greater part or the whole of the cardiac cycle. The arterial bruit, as heard in the vessels of the neck, is a much higher pitched sound, and more of the nature of a whiff or bellows sound, and it is essentially intermittent.[3] This intermittence depends upon the jerky arterial flow, just as the relative continuous character of the venous bruit depends upon its even flow.[4] The venous bruit, especially in the neck, gives the impression of greater superficiality, and in listening for it we should employ comparatively light pressure. It is best to begin with very light pressure, and to increase this gradually till the murmur appears. The vibrations causing the venous bruit are in many cases so superficial and so coarse that the finger laid very lightly on the skin detects them as a thrill. The arterial bruit requires deeper pressure for its detection. These facts accord with the anatomically deeper position of the artery in the neck and the higher tension within this vessel, necessitating more forcible compression. If a murmur at the root of the neck appear on deep pressure only, its arterial origin becomes more probable.

The venous bruit is in general controlled or wholly abolished by distal compression of the vein—i.e., anywhere along the course of the vein above the point of auscultation: The force needful for this is in general light and wholly inadequate to compress the artery. In this procedure we have a means, as Hope says, "of convincing the most sceptical that the seat of the murmur is really in the vein" (p. 105). Listening over the bulb the internal jugular may be compressed in any part of its course above, provided that we obliterate the vessel. Hope has given very fully the precautions requisite in investigating venous bruits, and in particular he has drawn attention to what may be described as the fickleness of the bruit—e.g., at one moment it is heard well, at another it has altered or nearly disappeared. It is probable that this fickleness depends very greatly on slight variations in pressure on the veins as by the stethoscope, or even by the stretch of the skin or muscles due to an altered position of the head and neck.[5] Further, various bruits possess the character, frequently observed, of gradually increasing or swelling during auscultation. Thus when first listened to the bruit may be ill heard, but it gradually gains in loudness; soon, however, reaching a maximum, which it maintains so long as the conditions of pressure and stretching of the vein are maintained. Hope's explanation of this phenomenon is undoubtedly the correct one—viz., that it results from a gathering congestion in the veins distally to the site of compression by the stethoscope.[6] We have very occasionally observed the same thing when attempting to arrest the bruit by pressing with the fingers distally on the vein of the same side of the neck; and we have been forced to conclude that, the pressure not having been quite properly placed, we had narrowed but not obliterated the vein, and so had caused congestion above the seat of pressure. Such congestion would of course mean an increased head of pressure. Certainly such an explanation must account for another and frequent observation which we have made—viz., that pressure on the opposite side of the neck, say the left, in the region of the internal jugular, will cause a gradual swelling out of the bruit heard on the right side. This came out repeatedly and unexpectedly whilst timing the phases of the venous bruit by taking the pulse in the carotid of the opposite side of the neck. Compression of one internal jugular must cause congestion in the veins of the head and neck, and cause the blood to be hurried through the still patent jugular of the opposite side; but the congestion does not reach its maximum at first, and hence the swell in the bruit. We have once or twice had confirmation of this by observing that pressure on one internal jugular would cause the veins of the opposite side of the neck and their pulsations to become more manifest. Lastly, in connexion with this point, it will be noticed that after the breath has been held for a short time the venous bruits receive a sudden increment with the first respirations taken—i.e., with the unloading of the veins congested during the cessation of breathing; this, however, is hardly an example of the swelling of the sound.

We have said that the venous bruit will arise most frequently in the large venous trunks; we may go further, and say that practically it does not arise in the smaller veins, and that any bruit heard peripherally—e.g., in hand or foot or elsewhere away from large trunks—will be arterial, and not venous.[7] The veins in which bruits are audible, are, according to Walshe, the external and internal jugulars on both sides or on one side only, in the latter case most frequently on the right side; the subclavian veins, the femoral, the axillary, the superior cava, and the innominate veins; certain abdominal veins; the pulmonary veins and the superior longitudinal sinus, in particular at its termination in the torcular Herophili.[8] This arrangement is

[1] Nov. 28th and Dec. 5th, 1891.

[2] The exceptions to the contiguity of venous and arterial trunks are to be found in the intra-cranial venous sinuses. No artery accompanies these, and, accordingly, where in such sinuses a bruit is heard, we have the proof of the sole origin of the murmur in the vein. These sinuses, moreover, are incompressible by the stethoscope, and hence we get the further demonstration that the bruit may be a natural phenomenon, independent of any compression of the vessel in which it is heard.

[3] See Hope: Diseases of the Heart, fourth edition, pp. 125 and 103.

[4] We shall see, however, that intermission or remission becomes a character of venous bruits in veins near the heart.

[5] Even so slight an act as that of swallowing influences, and may momentarily suspend, the bruit; cf. Hope, op. cit., p. 103, and more recently Murray, THE LANCET, vol. ii. 1887, p. 204.

[6] P. 106.

[7] Cf. the bruit heard in anæmia over the palmar arch or over the radial artery, or the bruits met with occasionally in these situations, and elsewhere in aortic regurgitation. These bruits possess markedly the intermittent and whiffing characters of arterial bruits.

[8] Walshe, Diseases of the Heart and Great Vessels, fourth edition, p. 141. Pathologically, continuous murmurs may be heard over the thyroid gland in Graves' disease; they will be venous. Op. cit., p. 443.

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in the order of frequency of occurrence of the phenomenon, and it will be observed that the external and internal jugulars of the right side stand first. Of all sites of the venous bruit the right internal jugular at its lower end is the most favoured; this is universally conceded. Certain anatomical facts give the explanation—viz., the dilatation of the lower end of the vein to form the bulb, the continuance by the right innominate of the same course (approximately) as that of the internal jugular, the attachment of certain fasciæ to the vein which prevents the complete collapse of the vein: every treatise on the subject insists on these points. Stated precisely, the best position for listening to the bruit will be found to be just between the two heads of attachment of the sterno mastoid to sternum and clavicle, or, a little outside this, more directly over the clavicular attachment.[9] Is the venous bruit heard in health, and what is the comparative frequency of its occurrence in health and in disease? We do not propose to discuss these questions, for we think the general verdict is fairly definite—viz., that both as to frequency of happening and intensity of degree the venous bruit belongs especially to anæmia, however this anæmia may have been brought about.

(To be concluded.)

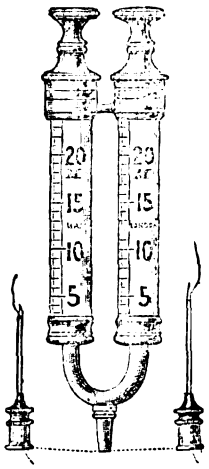
TREATMENT OF GOITRE BY IODINE, MERCURY, AND POTASH INJECTIONS, AND RADICAL CURE BY OPERATION.

BY GEO. J. O'REILLY, M.K. & Q.C.P.I., L.R.C.S.I., &c.

FOR some years I have been using iodine, mercury, and potash injections for reducing glandular swellings with much success. Amongst them were cases of goitre, and in not one has there been trouble of any kind caused by the injections. The case I am about to report is one of a goitre of an enormous size, estimated to weigh some six pounds or more. The tumour was of thirty-six years' growth, as the patient remembers an enlargement of her neck since she was six years old; she is now in her forty-second year. It gave her much trouble for years, producing great difficulty of breathing, especially when she lay down at night (almost suffocating her), and of late entailing the necessity of having means ready to obtain boiling water, to inhale steam, so that she might get her breath at all; in fact, her life was a misery. She consulted me in September of last year to know if anything could be done to relieve her, when she gave me the above short history, with the addition that for four years she had consulted no one about it, as she was then advised never to have it interfered with in any way, as it would be most dangerous, and that very likely it was a cancerous growth; and that as all previous external remedies had failed, it was better and safer to leave well alone. I examined the growth very carefully, and came to the conclusion that it was an ordinary cystic tumour of the thyroid gland, which was very much enlarged, and I saw nothing to make me think it was of a cancerous nature. I explained to her the treatment she would have to undergo, and expressed myself hopefully that it would give her much relief and make her future condition considerably easier. She willingly consented to put herself in my hands and submit to the treatment I proposed—viz., the injections of certain drugs such as I had used in other similar cases. On Oct. 3rd I made the first injection of a solution of the perchloride of mercury, using a glass syringe with asbestos piston and the finest needle, made for me by Messrs Maw, Son, and Thompson. (See Fig. 1.) On this occasion I injected in three places where I felt cysts; this I repeated for six days in succession. After that there was a decided improvement in her breathing; she could sleep comfortably without coughing (which before had been incessant and most irritating), nor had she any other discomfort. After this I made injections only twice a week, Tuesdays and Fridays, alternating the mercury solution with one of iodine, a re-sublimated solution, and one of permanganate of potash (specially prepared for me by Messrs. Corbyn and Stacey of Holborn), sometimes injecting two of the solutions in different places on the one occasion. In all, I made some seventy injections, and, with two or three exceptions, there was not even discolouration of the skin. This treatment continued until the end of November, when the tumour was reduced to about one-third of its original size; during this time the patient was in excellent health, and doing with comfort her household duties.

The question now arose as to the radical cure by removing the entire tumour, which was now very consolidated and hard. I explained to her that it was a dangerous operation, as the growth was of such long standing, and as there were sure to be adhesions to all the deep structures of the neck. She evidently was anxious that I should undertake it, and I readily acquiesced with her wishes. I made all my arrangements, and on Dec. 3rd I operated, and removed the entire right lobe of the thyroid gland in its capsule, which weighed over two pounds. The steps of the operation were as follows: I made an incision about six inches and a half in length, reaching from the under jaw to the clavicle, and over the central part of the growth, and carefully dissected back the integuments and adipose tissue, and cut through the platysma and the anterior border of the sterno-mastoid muscle. I then laid bare the anterior surface of the tumour; but finding the wound was not large enough to separate the posterior surface from its deep attachments, I enlarged it obliquely towards the right ear, and this gave

FIG. 1.



The "double-barreled" syringe, as represented by the woodcut, is so designed that by one insertion of the needle two purposes are effected. If the tumour is cystic, a quantity of the contained fluid can be withdrawn for examination; the other barrel, having been previously filled with the solution for injection, can then be used without removing the needle. I have found in many cases where the cyst was very much distended, that it was advisable, and even necessary, to withdraw some of its contents before introducing the solution, as by so doing there is no pain or fear of producing any inflammatory condition. In cases of suppurating glands it is of supreme importance, as they are gradually emptied, and in consequence no unsightly marks are left.

me ample space to grasp the tumour in my hand; then with the handle of an ordinary scalpel I was enabled to tear through its attachments. It lay right on the internal carotid artery and jugular vein. There was considerable hæmorrhage from large vessels that had to be torn through; these I torsioned, and where necessary tied with gut. The isthmus was secured and tied in two places, and then divided with blunt-pointed scissors without any loss of blood. The inferior thyroid artery gave me some trouble, as it was so deep down in the supra-clavicular fossa. In order to avoid including the recurrent laryngeal nerve in the ligature, an attempt was made to separate the artery from the other structures attached to the inferior angle of the tumour. In doing so a large vein was torn across. The bleeding for a moment was very great, but the vessel was almost immediately secured. The artery was then tied, cut through, and the tumour removed in its entirety. No bleeding of any moment took place. All oozing points were nipped in a torsion forceps, and the wound swabbed out for some minutes with iodine water, and left open so as to allow the cold air to act as a natural hæmostatic. When all oozing had ceased I brought the parts together, leaving a drainage-tube (about No. 12 catheter size) at the bottom of the cavity.

The operation was done under fairly good antiseptic measures, and the wound dressed with antiseptic (mercurial) gauze and iodoform wool pads. The wound healed up without any trouble. There was slight sanguineous discharge from the drainage-tube, which I removed on the third or fourth day. There was no formation of pus, and I believe the wound would have healed up by first intention had I left out the drainage-tube altogether. The operation from

[9] Parrot (Archives Générales de Médecine, 1867, p. 654): The stethoscope must be moved outwards or inwards till the exact spot has been found.

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the first incision until the dressings were completed lasted one hour and twenty minutes. The patient remained under the anæsthetic for two hours after the operation; when she awoke she was slightly sick, but it did not disturb the dressings or cause any bleeding. When I again visited her in the evening she said she was quite comfortable and not in much pain, and she was well able to take the liquid nourishment ordered. The temperature reached 99·6° on the evening of the second day after the operation; it then became normal, and remained so throughout the convalescence. She was able to sit up in bed on the fifth day, and was up on the ninth day. All the stitches were removed on the seventh day, when the wound was practically healed up. With the exception of some opening pills on two occasions, she had no medicine either before or after the operation. She has made a perfect recovery. The wound is now only some two inches and a half long, and there is nothing unsightly to be seen. She is able to perform her usual avocations with greater comfort and in better health than she ever remembers to have enjoyed. I therefore consider that the injections are of immense value in reducing the size of the tumour, and, consequently, in giving much relief at once; and, again, of infinite value in consolidating the growth, so that, in case of operation, it can be easily detached from the surrounding tissues by the fact of the operator being able to grasp it firmly in the hand while separating it from the deeper parts. I may add that the left lobe of the gland was enlarged to about six times its usual size; this was injected several times, and also shared in the general reduction that took place before the operation. It appeared very large after the other portion was removed, but it is now its normal size. The strengths of the solutions of iodine, mercury, and potassium that I used in this, as in all my other cases, vary from 1 in 10,000 to 1 in 500. In no case where I have used them in glandular swellings of the neck or elsewhere have they caused suppuration or left an unseemly mark, not even in very strumous children.

The engravings are taken from photographs. Fig. 2 represents the patient before the injections were used, Fig. 3 after two months' treatment by injection and four days before the operation, and Fig. 4 is from a photograph taken some weeks ago. The marks of the sutures have now entirely gone, and a cicatrix some two inches long is only apparent. I append the pathological notes made for me by Mr. Targett, curator of the Pathological Museum of the Royal College of Surgeons, who has also kindly prepared the tumour as a specimen for that museum.

FIG. 2.



"*Description of specimen of tumour of thyroid.*—The tumour consists of the right lobe of the thyroid body, with the attachment of the isthmus. When fresh it weighed thirty-three ounces. Its external surface is marked by a deep longitudinal groove, due to the sterno mastoid muscle. It is covered by a tough fibrous capsule, which is permeated with numerous widely dilated veins. After preservation in spirit the tumour measures six inches and a half from above downwards, and four inches and a half from side to side, while its greatest thickness is three inches. On section it is seen to be made up of a collection of large cysts, together with a small amount of intervening solid material, and two or three encapsuled adenomata. Of these adenomata the largest is about the size of a Tangerine orange, and the section shows that

FIG. 3.



it has undergone colloid degeneration. Occupying the centre of the preparation is an oval cyst, two inches in its longest diameter, the wall of which has become partly calcified. The remaining cysts are of various sizes, but all smaller than the above. The septa between them are in places so thin that they have become perforated, and thus intercommunication has been established. The cysts contained altogether five ounces of blood-stained fluid. Histological examination of the solid material between the cysts

FIG. 4.



shows the normal structure of the thyroid body somewhat denser than usual, and without colloid change. The walls of the cysts are composed of very dense fibrous tissue, and are devoid of lining membrane. The cysts are probably due to dilatation of follicles, and the layer of cubical epithelium by which they were originally lined has been completely destroyed."

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THE TREATMENT OF TRICHIASIS AND ENTROPION.

BY W. A. McKEOWN, M.D., M.CH.,
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THE unsatisfactory nature of the treatment of these affections may be judged by the large number of operative procedures of one sort or other which the writers of handbooks of diseases of the eye think it necessary to detail. There can be no question about the ingenuity displayed, but as a rule it is not directed to simplicity of method. I find in Swanzy's excellent handbook no less than eight chief operations for trichiasis and organic entropion and four for spastic entropion. In Meyer's book there are about a score of operations described and more mentioned. These books purport to be written chiefly for students and general practitioners, but even to one familiar with ophthalmic surgery it requires attentive reading to grasp all the technicalities. The operations referred to may be objected to on one or more grounds. First, unnecessary destruction of tissue; secondly, complexity and difficulty in execution; and, thirdly, uncertainty. I will not discuss or even name these different operations, but proceed to describe a method which I have practised extensively, and which I think will supplant all other methods. The operation is as follows. First stage: If the upper lid is to be operated on, introduce the smooth handle of a dessertspoon under the lid, to protect the eyeball and support the lid; let the assistant hold it whilst the surgeon steadies the lid on the handle with the left hand, and with the right hand introduces a Graefe's cataract knife at the margin of the lid between the eyelashes and the Meibomian glands, either close to the punctum or at the outer canthus; then push the knife beneath the skin about as far as the orbital margin, and by to-and-fro motion cut along the whole of the lid margin until he has the lid split into two layers, the outer layer containing the skin and eyelashes, the inner layer the cartilage, Meibomian glands, &c. If the skin and hairs can be moved freely upwards, the section has been properly made; if not, blunt-pointed scissors should be passed into the section, and any tissue preventing free motion cut. Second stage: The skin and eyelashes are glided upwards so as to expose about two lines of the cartilage, and are to be secured in their new position as follows. A curved needle with a strong silk iodoformed thread is to be passed through the skin at the middle of the lid about two lines from the eyelashes, then through the cartilage, emerging on to the conjunctival surface about four lines from the margin, and then the needle is to be passed back again through the cartilage and skin, coming out a line or so from the original point of entry on the same horizontal line. A thread is then passed in the same way near the outer and inner canthus respectively. The skin layer and the cartilaginous layer of the lid are now secured by three loops of thread in such a way that the lashes must be displaced upwards far from the eye. Each thread is tied with moderate tightness over a tiny roll of lint or cotton-wool. Adhesion of the two layers in the new position quickly takes place. It is evident that at the outer and inner corners of the section the hairs will not be so much deviated as at the centre, and if the surgeon should think there was any special tendency to a turning in of the hairs at these parts he should make a small vertical incision through the skin, and by a suture at each corner elevate the eyelashes to the desired extent. Third stage (grafting): At one time I followed von Milligen's method by taking a graft from the mucous membrane of the lip, but I found that the taking of such a graft was not a very expeditious procedure. I have for a considerable time taken the graft from the back of the ear, and for ease of performance and perfection in result I do not think it could be surpassed. I expose the back surface of the ear, pass a Graefe's knife under the skin for about an inch, then cut out on one side, and separate the attached side by fine scissors. I place the graft on the back of my left hand, and with fine scissors remove all subcutaneous tissue (this can be done quickly); remove any blood with lint soaked in warm boracic acid lotion, and immediately apply the graft to the exposed surface of the tarsal cartilage, previously cleared of all clots, and likewise cleansed with boracic lotion. I may remark that I think solution of perchloride of mercury not desirable in grafting operations because of its coagulating power. I adjust carefully the graft by a probe, and do not proceed to the dressing until it seems to be pretty adherent. Fourth stage (the dressing): Apply a little strip of lint, saturated with warm iodoform and vaseline ointment, over the graft, and on the top of that a piece of lint to cover the whole eyelid, similarly saturated, then dry lint and bandage. Both eyes are bandaged. The patient is put to bed and not disturbed for four days. At the lapse of that time the stitches are removed, but the eye operated on is bandaged for three or four days more. It may be observed that I couple trichiasis and entropion, and write of them as if to be treated by one operation. If the cartilage be thickened or distorted, it is obvious that with such a free exposure of the cartilage the surgeon can do anything with it; he may groove it or pare &c. as surgeons have recommended, but the grooving, paring, &c., would be only a small incident in the general operation, and hardly worth naming as a separate or modified method.

The features of this operation are: 1. That no skin or other tissue is destroyed or removed, save in thickening or distortion of the cartilage. 2. Expedition in performance. 3. Certainty of immediate result, and no liability to relapse. 4. Its applicability to all sorts of trichiasis and organic entropion. I have not described the operation for trichiasis of the lower lid, as there is but slight variation. As to what is called "spastic entropion" of the lower lid in old persons, arising chiefly from relaxation of the skin, I see in the text-books, old and new, several operations described. The trouble, however, may be sufficiently relieved without any operation at all. All that is necessary is to put a little pressure on the lower lid, and that may be conveniently done by a spectacle-frame of such a form as to press on the lower lid, or, if that cannot be found, by putting a ledge on the lower edge of a frame. For this suggestion I am indebted to my brother, Dr. McKeown of Manchester, who has already put it in practice. Patients prefer this simple and effectual method to any operation. When only a few hairs are deviated I see in some books of repute that it is recommended to excise the hairs with the skin. I have never done this, but I have seen cases in which it was done with disastrous results. Even when a few hairs are faulty it is commonly better to operate on the whole lid, as I have described. It seems a more formidable operation, but in the matter of personal appearance it is far superior to the seemingly simple excision. Should I wish to get rid of a few hairs and not to do the complete lid-splitting, I introduce the knife between the faulty hairs and the Meibomian glands, bring the point out through the skin two or three lines from the margin, then cut on till I have passed all the hairs to be dealt with, and cut out on the skin surface. I thus have a little flap which I can evert. I snip out the roots of the faulty hairs, then replace the little flap, and secure it by suture. Neither skin nor margin of the lid is injured.

Belfast, Ireland.

ATTEMPTED POISONING BY CARBOLIC ACID.

BY E. C. KINGSFORD, L.R.C.P.LOND., M R.C.S.

THE following case of attempted poisoning by carbolic acid is, perhaps, of even greater interest than that reported by Dr. Greenway in THE LANCET of Aug. 29th, 1891, p. 485, in that the acid was not diluted, and that no treatment was attempted till more than seven hours after the "accident."

J. G——, aged thirty-six, was admitted to the Bolton Infirmary at 2 P.M. on Aug. 22nd, 1889, under the care of Mr. G. A. Patrick, with a report that he had poisoned himself with carbolic acid. He was quite unconscious, but rolling about as if in great agony, and breathing in an irregular and spasmodic manner, each expiratory effort being accompanied by a loud bellowing noise; his extremities and surface were cold and bathed in a clammy perspiration, and the pulse could scarcely be felt anywhere. The tongue and inside of the mouth were covered with a thick white slough, and the skin from the right corner of the mouth to the chin was excoriated where some of the fluid had trickled down. Ineffectual attempts were made to force him to swallow

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oil &c., and, after a hypodermic injection of apomorphia had failed to act, a soft œsophageal tube was passed in order to empty the stomach; this, however, could not be effected on account of the openings in the tube becoming plugged. About fifteen minutes after the exhibition of the apomorphia, and while the tube was being manipulated, the patient vomited, bringing up about a pint and a half of light-brown, curdy, tenacious material containing lumps of apparently partially digested food. This at the time was supposed to be the remains of a recent meal, and unfortunately was not preserved. Great difficulty was found in soothing the patient and in overcoming the effects of shock; but he eventually made a good recovery, and was able to leave the hospital thirteen days after his admission. The mouth was still somewhat sore, but he could swallow without difficulty. Two months later, when seen at the Quarter Sessions, he was apparently quite free from the effects of the poison. On account of his mental condition he was handed over to the care of his friends, and, as the police have not heard anything of him since, it is to be presumed that he has had no further trouble. The history of the attempt on his life, as received from the man himself and from others, is as follows:—He had been out of work for some time, and for several months had suffered from mental depression and hallucinations, imagining that his dead wife frequently appeared to him, upbraiding him for previous cruelty, although, according to the account of his neighbours, he had always been a good husband. Four months previously to this date he determined to do away with himself, and for this purpose procured three ounces of strong carbolic acid; but, changing his mind, he carefully put it aside for future use. On Aug. 21st, his hallucinations having become more persistent, he decided to take the poison. After a light meal of bread and tea at about 5.30 P.M., he spent the evening and greater part of the night in removing his few belongings, piecemeal, to a friend's house at some distance from his own. This had to be done very warily, on account of the police, who, as he remarked, "might have asked questions." At 5 A.M., having completed this job, he knocked up a friend in order to bid him good-bye. This friend, knowing the man to be a "bit strange in his head," talked soothingly to him, and, having advised him "not to do anything foolish," regaled him with a cup of tea and a slice of bread-and-butter, and, on starting for his work at 5.45 A.M., left him asleep in a chair. Shortly after 6 A.M. the patient awakened and went back to his own house, where he finished his preparations by placing the bottle of poison on a chair, rolling up his coat to act as a cushion, and putting it against the wall close by, and writing his last instructions on a piece of paper which he pinned to his waistcoat. Then, seating himself on the floor so that he could lean against the coat, he "took the cork out of the bottle, put the neck well into his mouth, so as not to burn his lips, and took a good swig." He says he became unconscious almost immediately, but he evidently had time to re-cork the bottle and replace it on the chair, for there it was subsequently found. All this must have occurred at about 6.30 A.M., and the man was not discovered till 1.30 P.M. From inquiries made there is every reason to believe that the bottle originally contained three ounces of the acid, and afterwards there was found in it just short of two ounces. None of it had been spilled on the floor, chair, or on the patient's clothes. The fluid was of the colour of light port wine, quite clear, and of sp. gr. 1065; and I was assured by Dr. Stevenson of Guy's Hospital, who kindly examined it for me, that it consisted of the strong liquefied acid.

In this case it seems to be quite possible—nay, probable—that while the man was making his elaborate destructive preparations the stomach, by reflex action, was equally employed on a protective process—viz., pouring out a large supply of mucus, on which, when ingested, the acid chiefly acted. If this were not so, how can the thick, tenacious contents of the stomach be accounted for? Both the patient and his friend agreed that he had eaten only one slice of bread-and-butter in the morning, and the last food he had had before this was some bread twelve hours previously.

Surbiton.

THE MAGISTRACY (IRELAND).—On the recommendation of the Lord-Lieutenant of the county the Right Hon. the Lord Chancellor has appointed W. Langford Symes, Esq., L.R.C.P. &c., of Kiltegan, to the Commission of the Peace for the county of Wicklow.

A CASE OF STRANGULATED FEMORAL AND OBTURATOR HERNIÆ.

BY A. R. ANDERSON, F.R.C.S.,
SURGEON TO THE GENERAL HOSPITAL, NOTTINGHAM.

JANE S——, aged seventy-five, was admitted into the Nottingham General Hospital on Oct. 3rd, 1891, for a strangulated hernia in the left groin. She stated that for many years she had noticed a small lump, the size of a nut, in the groin, which had given her no trouble until two days before admission, when it had suddenly got much larger, and she thereupon began to complain of pain in the part, accompanied by vomiting and constipation. There had been no action of the bowels since the descent took place, but she said that she had been able to pass flatus. On examination of the left groin a lump the size of an orange was seen, which had evidently come through the saphenous opening. It was rounded in outline, firm, and very tender on manipulation. There was no impulse on coughing, and dulness on percussion. She was admitted at 6 P.M., and at 7.30 I saw her and operated, after failure of the taxis, under chloroform. On opening the sac a lump of omentum was found projecting through the saphenous opening, the neck of which was very tightly constricted at Gimbernat's ligament. This was notched, and the omentum drawn down and examined. It did not appear to be much damaged, and was reduced. No bowel was found. I then passed a finger through the inner ring and felt around it, satisfying myself that all was clear. The wound was closed with horsehair sutures and a dressing of mercurial wool applied. The operation lasted only a few minutes. The next morning (Oct. 4th) she had passed a fairly good night, and seemed decidedly better. She had been sick twice shortly after the operation, the vomited matter consisting simply of the contents of the stomach. I attributed the vomiting to the chloroform. An enema was then ordered, which was followed by an evacuation of fæces. On the following morning, however, she became rather suddenly worse and began rapidly to go down hill, unmistakable fæcal vomiting appeared, and on seeing her some hours later she presented the aspect of a person in the later stages of an unrelieved strangulated hernia. At this time she passed another motion. As it now appeared evident from the presence of these symptoms that there must be some unrelieved obstruction, I decided to explore further. Nothing could be discovered on examination of the groin, and being satisfied that there was nothing in the femoral canal, and failing to find a hernia elsewhere, I decided to open the abdomen. A median incision three inches and a half long was made in the linea alba below the umbilicus, and on introducing the hand I found that a knuckle of small intestine (ileum) had passed through the left obturator foramen and was there strangulated. The portion of bowel included was very tightly nipped by the sharp edge of the obturator membrane, beneath which the edge of a hernia knife was passed after considerable difficulty, and the membrane notched in a downward direction. The bowel was gangrenous, and gave way on being withdrawn. An examination of the parts outside the abdomen showed that the whole of the circumference of the bowel had not been included, and that the gangrene had involved a portion of the intestine, measuring two inches in length, but implicating only two-thirds of its circumference. A pair of Makins' clamps were at once applied, which effectually prevented any escape of the intestinal contents, the length of gangrenous bowel excised, and the divided ends joined together by means of Lembert sutures. On removal of the clamps the intestinal contents flowed freely past the line of suture and demonstrated its security. The abdominal wound was closed in the usual way. The patient, who was in a very unsatisfactory state at the time of the operation, did not rally, and died some hours afterwards. On a subsequent examination of the parts there was no leakage whatever from the sutured bowel, the opening in the obturator membrane admitted the forefinger, the femoral canal was empty, and there was nothing wrong with the lump of omentum which had been reduced. The obturator vessels and nerve passed through the foramen above and external to the sac.

This case appears to be worth recording on account of its clinical importance, as well as of the extreme rarity of the

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simultaneous occurrence of these two herniæ, and a critical examination of the symptoms presented may be of interest. They were: sudden and great increase in size of a small irreducible hernia in the left groin, followed at once by pain in the part, vomiting, and constipation. 1. With respect to the swelling, this entirely disappeared after the reduction of the femoral epiplocele. At the time of the second operation the parts about the saphenous opening were carefully inspected, and no swelling of any kind existed at or about the situation in which an obturator hernia is known to protrude; indeed, as was afterwards shown, the knuckle of gut involved in the obturator foramen was too small to produce this sign. 2. The question as to whether the special pain existed along the course of the obturator nerve that is usually met with in these cases must remain doubtful. No inquiry was made as to such pain (the disease not being suspected), and no complaint was made of it. It is reasonable to suppose, however, that, if present, it was not severe, as she complained greatly on admission of pain referred to the region of the groin and nowhere else, and the morning after the first operation expressed herself as being free from pain. 3. With regard to the vomiting, no accurate information could be obtained about this symptom prior to admission beyond the fact that it had occurred, and the patient was not sick in the interval which elapsed between her admission into the hospital and the time of the first operation. It should also be noted that the vomiting which occurred twice after this operation, and which I attributed to the effects of the anæsthetic, was absolutely non-feculent in character, consisting simply of the contents of the stomach, feculent vomiting appearing suddenly on the second day after operation. 4. The constipation, it will be remembered, was not absolute. Although there had not been any movement of the bowels for forty-eight hours previous to admission, yet she had during that time passed flatus, and continued to do so on the day after operation. At this time her bowels were well moved after an enema, and there was another slight motion on the following day. All these anomalous symptoms, which made me doubt at the time that there was anything more than the severely constricted epiplocele to account for them, were probably caused by the fact that a portion of the calibre of the intestine had escaped strangulation and had allowed flatus and some liquid fæces to pass. Death resulted in this case from the inability of an aged and feeble person to bear the shock of the second operation; excepting for this, no reason was disclosed at the post-mortem examination why she should not have recovered. The fact that obturator herniæ usually occur in elderly persons, especially females, together with the difficulties in diagnosis, even when the case is not complicated, and the frequent delay in operating that consequently ensues, no doubt accounts for the very high mortality that has hitherto prevailed in such cases.

Nottingham.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CHOREA FOLLOWING INFLUENZA IN A WOMAN AGED SIXTY-FIVE.

By P. A. McCARTHY, M.D., M.Ch., M.A.O. (R.U.I.), &c.

ON Jan. 26th I was called in to see Mrs. A. C——, aged sixty-five. She had been feeling unwell for some time previously, but had taken to bed only the day before. The usual symptoms of influenza were present, together with a slight cough. Temperature 101° F. In a few days the cough had gone and the temperature fallen to normal, but the prostration was very great and anorexia almost complete. It was with difficulty she could be persuaded to take nourishment of any kind; she "felt that she did not want it," and "everything had the same salty taste." She complained also of nausea and a burning pain in the pit of the stomach, and suffered a good deal from flatulence. To relieve these symptoms pepsine was given, effervescing draughts, ice, and mixtures containing soda, bismuth, hydrocyanic acid, &c., followed by quinine, strychnine, bark, dialysed iron, brandy, and champagne, but with very little benefit. For two weeks she continued in much the same condition, now showing slight improvement, again relapsing, but making no decided progress towards recovery. On Feb. 23rd choreic movements began in the fingers of the right hand, and three days later all the muscles of the arm and face had become involved. The arm was jerked about so violently that it was found necessary to secure it, the skin being broken in places. Her speech was much impaired, and she had to be fed from a feeding cup. Liquor arsenicalis was given, and she was put on milk, liquor carnis, peptonoids, peptonised cocoa and milk, brandy, and port wine. On the morning of March 6th the movements had entirely ceased, leaving the patient in a very exhausted condition, from which she never rallied; she grew gradually weaker, and died on March 11th. In her youth she had an attack of diphtheria, followed by paralysis of the right arm, lasting some months.

Kempsey, Worcester.

PHLEGMASIA DOLENS FOLLOWING INFLUENZA.

By C. ALEX. DUCKET, M.R.C.S.

ALTHOUGH phlegmasia dolens is a disease which occurs chiefly in the puerperal state, I have seen it lately in three cases of influenza, all of which bore striking resemblance to each other. Instead of the temperature going down, as is usual in an uncomplicated case, it kept up. There was great pain in the groin and upper part of the thigh, quickly followed by swelling, which extended over the whole limb. This rapidly increased, so that in two days the limb was twice as large as the non-affected one. The swelling was of a very solid nature, and did not pit upon pressure. There was not the least alteration by raising the leg. This state of things lasted for ten days, under the usual treatment, when the pain grew less, the limb softer, and the temperature fell to 99·8°. All three patients were affected in the left lower extremity, and were very restless. The obstructed vessels could be easily felt as hard cords. I may mention that the above patients were not subject to varicose veins, and, although married women with families, were never before troubled with their legs. The frequency of phlegmasia dolens in the lying-in period is attributed to the combination of slowness of the circulation with a varicose condition of the veins *plus* an extra amount of fibrin in the blood. May we not have exactly such a state of things during influenza?

Lavenham, Suffolk.

SOME CASES OF ABNORMAL SWEATING.

By L. FRAZER-NASH, L.R.C.P. & S.Ed.

CASE 1.—Amongst the patients who were attending the Hyderabad Dispensary in 1888 was a Hindu boy, upon whose skin was a crystalline deposit, more or less generally distributed, which suggested the idea that the boy had bathed in a saturated solution of some salt that had been allowed to dry on him. The crystals were glistening and amorphous to the naked eye, and required some friction to be removed dry. The family history was unimportant. The boy, who was ten years old, had suffered more or less since babyhood from malaria, and for four or five years his mother had noticed these white sweats, which, she said, occurred while he slept. I never found his skin other than dry, although he attended the dispensary for debility during some of the hottest months. The efflorescence was most marked on the legs, and notably over the shins; the crystals were also largely deposited on the back. About the head the crystals were coarser than elsewhere. The boy was thin, with flabby muscles, and his back was covered with rather long downy hair. The heart and lungs were apparently healthy. The urine, which I examined on one occasion only when the efflorescence was fully marked, was acid, sp. gr. 1008; no change on boiling. The microscope showed the usual phosphates. I tried to examine the skin deposit under the microscope, but failed to get more than epithelial scales and amorphous crystals. I regret to say I did not test the latter chemically, and, owing to press of work, was not able to take notes as fully as I could have wished. After a

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course of tonics the white deposit on the skin became less and less marked, and in two or three months it had practically disappeared.

CASE 2.—This patient was sister to the above, a healthy child, about seven years of age. The deposit was well marked under her chin, and less so about her back. The mother said she always had it in the hot months.

CASE 3.—A Mohammedan boy aged thirteen had white efflorescence on his chest, back, forehead, and thighs. For two or three days he had had very slight bronchitis, and since then only had noticed the white sweats. I saw him only once or twice.

CASE 4.—A Mohammedan boy aged eight, suffering from sores on his abdomen, the result of contact with mango juice. Since he had had these abrasions only had the white sweats been noticed. The deposit was well marked on his face, chest, and back. He had no cough. I saw him only on that one occasion.

After this I noticed several cases at intervals, with a slightly marked efflorescence, generally in boys, always in natives. There was no irritation noticeable from the salts deposited on the skin, no sign of prickly heat or erythema. There was nothing abnormal about the quantity of urine passed. The food usually taken was milk, fruit, coarse bread, and water. The clothing worn is very slight, and a large surface of the body was exposed to the sun and air.

Haverstock-hill, N.W.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

METROPOLITAN HOSPITAL.

CASE OF ENTERIC FEVER, WITH PULMONARY COMPLICATIONS, FOLLOWED BY LARYNGEAL DIPHTHERIA; TRACHEOTOMY; DEATH; NECROPSY.

(Under the care of Dr. HOWARD TOOTH.)

THERE are very good grounds for presuming that this is one of the rare cases in which a membranous or diphtheritic laryngitis complicates enteric fever. The aspect of the patient, character of the temperature chart, enlargement of the spleen, the papular exanthem and characteristic diarrhœa rendered the diagnosis of typhoid fever almost certain during life, while the ulceration in the cæcum and the enlargement of Peyer's patches and of the mesenteric glands (found post mortem) confirmed it. The diagnosis of diphtheria could not be made with certainty during life, though the albuminous urine and the enlargement of the glands in the neck, which came on after tracheotomy, rendered it probable. The membrane found post mortem was indistinguishable from that of diphtheritic laryngitis. For the notes of the case we are indebted to Mr. R. F. Standage, house physician.

T. T——, aged five, was admitted on Dec. 21st, 1891, with high fever and pain in the abdomen. For three days before admission he had been restless, had shivered, lost his appetite, and had been sleepless. There had been no diarrhœa. On admission his face was flushed, the skin hot and dry. Temperature 101·8°; pulse 120; respiration 20. There was slight tenderness in the right iliac fossa on gentle pressure. No tympanites. No spots on the abdomen. Spleen not palpable; dulness not increased. Tongue moist; furred down the centre, red at the tip and the edges. Heart and lungs normal.

Dec. 22nd.—Signs the same. Morning temperature 101·2°, normal in the evening. Has passed one rather light-coloured, formed motion. The patient is treated as a case of enteric fever; is on liquid diet. Quinine (two grains) and salol (five grains) powders thrice daily, and three minims of liquor sodæ chlorinatæ also three times a day.

23rd.—Gurgling and pain in right iliac fossa. Some papular rose-coloured spots on abdomen. Morning temperature 100°, evening 103·8°. Passed a liquid, light-coloured stool not containing any shreds or blood.

25th.—Morning temperature 101·4°, evening 104°. Sponging (tepid) ordered when the temperature reaches 104°. Pulse 132, regular, markedly dicrotic. Abdominal pain more marked. Spleen distinctly felt. No fresh spots. Passed two liquid "yellow-ochre" stools. Tongue furred in centre; moist. Breath of a sweetish offensive odour (? result of salol).

26th.—Morning temperature 103·2°, evening 103°; pulse 132 (dicrotic). Tenderness in epigastrium and right hypochondrium. Snoring rhonchi heard at both bases behind. Crepitant râles over the front of the chest.

28th.—Motions still loose and light coloured. No hæmorrhage. Rhonchi and bubbling and crackling râles over the whole of the chest. Heart sounds distinct. Morning temperature 101°, evening 105·4°.

29th.—Considerable diarrhœa. No hæmorrhage. Sick during the night. Delirious. Bronchial breathing at the right base behind. Respiration 40 (shallow). Urine: sp. gr. 1020, no albumen.

31st.—Spots on abdomen faded. Dulness at the base of the right lung behind. Loud bronchial breathing. The child continued in much the same condition till Jan. 4th, when the note says: "Better. Temperature 99·2°. Signs in chest improved. Less crackling and rhonchus."

Jan. 4th, 1892.—No bronchial breathing. Note impaired; not dull at right base.

5th.—Developed laryngeal cough, stridor, and aphonia.

7th.—Has been treated for laryngitis with a steam-kettle and tent; fomentations to the neck. Also, later, leeches were applied, but without improvement. During last night the stridor became very marked, cyanosis supervened, and there was marked recession of the chest walls. Urine: cloud of albumen. No membrane on the fauces. No enlargement of glands at the angle of the jaw. Air does not enter well at the bases of the lungs. 3 P.M.: Stridor and recession increased. Emetics administered. No improvement. 7.30 P.M.: Colour waxy pale. Very little air entering the lungs. 7.45 P.M: Tracheotomy performed below the isthmus. No membrane coughed or feathered up. Very little bleeding. Symptoms almost immediately relieved.

8th.—Slept well. Fed by nasal tube. Breathes easily. Coughs occasionally, but has not coughed up any membrane. Temperature 100·6°.

9th.—Troubled with cough in the night. No membrane brought up. Considerable swelling of glands in the neck. Urine albuminous.

10th.—Bad attack of dyspnœa at 6.30 A.M. Several small pieces of membrane removed by feathering, apparently from low down in the trachea. Pulse 160. 5 P.M.: Earthy colour. Pulse 180. 10 P.M.: Colour worse. Temperature 104°; pulse 180; respiration 68.

11th.—Tube left out at 10.45 A.M. Can breathe through larynx, but not completely. Patient got rapidly more collapsed, rallied in the evening, but, again collapsing, died at midnight.

At the post-mortem examination, made by Dr. C. F. Marshall, the larynx and trachea were found to be lined with diphtheritic membrane. No ulceration of the laryngeal mucous membrane, or necrosis of cartilages. The right lung was completely consolidated with old bronchopneumonia, the left being collapsed and somewhat congested. In the cæcum, close to the ileo-cæcal valve, was a congested Peyer's patch, slightly ulcerated at one spot. Several similarly congested Peyer's patches were found along the ileum, but none of them ulcerated. The mesenteric glands were enlarged, especially those in the mesentery attached to the cæcum. Spleen enlarged to about twice the natural size.

BRADFORD INFIRMARY, YORKS.

A CASE OF ACROMEGALY.

(Under the care of Mr. APPLEYARD.)

IN the following case some of the characteristic signs and symptoms of acromegaly, as described by M. Pierre Marie and others, are wanting. Of these the most noticeable is the absence of enlargement of the lower jaw and of the tongue, and of limitation of the fields of vision. But in nearly all other particulars the case appears to us to resemble very closely other cases of acromegaly. The accompanying engravings, taken from photographs, give a fair representation of this patient's appearance. For the

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At the post-mortem examination, made by Dr. Marshall, the larynx and trachea were found to be with diphtheritic membrane. No ulceration laryngeal mucous membrane, or necrosis of cartilage. right lung was completely consolidated with acute pneumonia, the left being collapsed and somewhat congested. In the cæcum, close to the ileo-cæcal valve, Several similarly congested Peyer's patches were found along the ileum, but none of them ulcerated. mesenteric glands were enlarged, especially those mesentery attached to the cæcum. Spleen enlarged about twice the natural size.

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A CASE OF ACROMEGALY.

(Under the care of Mr. APPLETON.)

In the following case some of the characteristic symptoms of acromegaly, as described by M. Pierre and others, are wanting. Of these the most striking is the absence of enlargement of the lower jaw or tongue, and of limitation of the fields of vision; nearly all other particulars the case appears to resemble very closely. The accompanying engravings, taken from photographs, represent two of this patient's appearance; notes of the case we are indebted to Dr. J. Lacy Firth, house surgeon.

H. L——, an unmarried weaver, aged forty-two, presented herself in the out-patient department of the Bradford Infirmary on Oct. 31st, 1891. She complained of pain in both ankles, rendering walking difficult, and of cessation of menstruation. She has had the pains in the ankles, which are of an aching character, for twelve months. They are always worse at the end of a day's work; so that, although she is able to walk to the mill in the morning, at night when her work is done she has to take the tram to her home, which is five minutes' walk distant. She ceased to menstruate twenty years ago, and during the whole of that period has only had catamenial discharge once—viz., ten or twelve years ago,—and on that occasion the discharge lasted only for one day and was inconsiderable in quantity. When menstruation ceased she began to suffer from severe headache. At first this was frontal. She had it almost every day. It was not associated with vomiting, and in all other ways she felt quite well at this time. The headache was always more severe at the menstrual epochs, and at those times she also felt heavy and drowsy. After the lapse of four or five years the headaches ceased to be frontal and became occipital, and about this time she became an out-patient at the Bradford Infirmary. She attended for twelve months, and the headaches gradually ceased, and she has not suffered from them since. At this time she had no abnormal sensations in the hands or feet, and she did not think anything of their size, which was less than at the present time. The patient first noticed the increase in size of her hands and feet about ten years ago. Her attention was drawn to the size of her feet because she was unable to obtain ready-made boots large enough to fit them, and since she has always had to get boots made to measure. About the same time she discovered that she could not obtain gloves large enough for her hands, and for this reason has not worn any since. Seven or eight years ago she gave up all sewing because she could not procure a thimble large enough. About this time also (seven or eight years ago) she suffered a good deal from pain in the right shoulder-blade, brought on by her work, and a little later the back began to grow out, and the curvature has gone on increasing since. The patient's face has been altering in appearance during this period. She thinks her nose has become larger and the lower lip, and has noticed the face becoming puffy and swollen. She has had a cough summer and winter for four years, and it has been specially severe the last two winters. Her appetite has been fair and never extraordinary. She has never passed more urine than natural. She has not been troubled with sweating, general or local. She has not suffered from cold extremities. For the last seven or eight years she has not cared to go out at all, because people "looked at her so." She has during the same period noticed alteration in her voice. She has difficulty in pronouncing her words distinctly. The patient never remembers being laid up with illness, excepting when she had measles as a child. Her mother is alive and healthy; her father died at the age of forty-seven in a decline. The patient has lost nine brothers and sisters. All died between three and four years of age, with the exception of one sister, who died of dropsy at thirty-one years of age. No relative was ever affected, to patient's knowledge, with large hands or feet.

Dec. 19th, 1891.—Patient is very pale and old looking. She is 5 ft. ½ in. in height. The conjunctivæ are very pale. She is thin, and the skin on the trunk and limbs is soft, supple, and loose, and there is very little subcutaneous fat, which is especially wanting on the limbs. The temperature varied from 98° to 98·4° F.; once or twice only it reached 99°. Head and face: The skin on the face is natural and fair, except on the nose, where it is coarse, the sebaceous glands being unduly conspicuous, and comedones present. The face is striking from the large size of the nose and the projection of the lower lip. The latter is large and loose, and hangs forwards and downwards. The dry mucous membrane of the lower lip is unduly conspicuous, and is of a ruby-red colour. The eyelids are markedly puffy in appearance, reminding one of Bright's disease, but there is no transparency of the swollen tissue, and it never alters. The face may be described as of rectangular form in the upper two-thirds, the lower third being triangular, owing to the shape of the chin, which is rather pointed. The nose is of large size; it measures from tip to forehead 2⅞ in., and from the cheek to the tip 2 in. There is asymmetry of the face, the nose having a deflection to the right side, the chin to the left. The forehead is wrinkled, and the naso-labial folds are marked. The cheeks are flabby. The circumference of the head at the level of the root of the nose and external occipital protuberance is 23⅝ in. The external ears are natural, with the exception, perhaps, that the tragus projects outwards more than usual. The zygomatic arches are rather conspicuous, and the malar bones. The right temporal region is somewhat bulged. The ocular conjunctiva is sallow. Arcus senilis is slightly marked. The tongue is but slightly, if at all, enlarged. The neck is short; it measures 13½ in. circumferentially in its middle. It is directed forwards. There is no enlargement of the thyroid gland. The thyroid and tracheal cartilages are easily felt, and show no enlargement. The hands are large. The fingers are of cylindrical shape and do not taper. The wrists are obviously enlarged. The circumference of the right hand at the knuckles is 9 in., of the left 8¾ in. The circumference of the forefinger at the second joint is 2⅝ in., at the proximal joint 3¼ in. The skin is very thin and loose, and free from fat on the dorsum of

FIG. 1.



the hand; thicker on the fingers behind. The skin of the palms is loose and thick, and on the ulnar border a mass of skin and subcutaneous tissue can be easily raised from and moved freely upon the subjacent metacarpal bone. When the hand is held straight out with the finger extended the terminal phalanges are invariably found to be slightly flexed. The patient can only fully extend the terminal joint of the left forefinger. She can over-extend the proximal phalangeal and the metacarpo-phalangeal joints. The nails are short and broad, and striated, especially those of the thumbs. The articular extremities of all the phalangeal bones are slightly larger than natural, and the joints are looser. The same remarks apply to the knuckles, and in the latter soft crackling is elicited when free passive movements are made. She can close the hands, bringing the fingers upon the palm fully and naturally. The lower ends of the radii feel large, and, to a less degree, the ulnæ. The skin of the palms is dry. The veins upon the back of the hands and in the lower parts of the forearms are noticeably enlarged. The olecranon processes are somewhat large, and also the condyles, and the latter are more easily felt than ordinarily, owing to the softness of the tissues around. The head of the humerus seems natural. There is a lipoma-like tumour, about the size of a hen's egg, between the spine of the scapula and the

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clavicle on the left side. The clavicles upon inspection appear longer than natural; the length is 5½ in. from the sternal to the acromial articulations. Power of grasp in the hands is moderate. Sensation to touch and pain is perfect in the hands and forearms. Lower limbs: The feet are very large. Lying along the outer borders of the feet and upon the inferior and posterior surfaces of the os calcis there are pads of somewhat firm tissue. When the patient is standing this tissue is displaced outwards, and increases the breadth of the soles. The skin on the dorsa is thin and free from deposit. There is marked hallux-valgum in both feet, and the affected joints are larger than natural. There is a tendency to over-extension of the metatarso-phalangeal joints and to unnatural flexion of the distal phalangeal joints. The malleoli are natural and the upper extremities of the tibiæ and fibulæ seem natural in size. The patellæ seem large. The right one measures 3½ in. across its widest part and the left one 3¼ in. Owing to the softness of the muscles the condyles of the femora can be very easily felt. There is slight lipping of the edges of the trochlear and condylar articular surfaces; there is soft crepitus in the knees on movement. Patient is seen when standing to have genu varum. There is slight varicosity of the internal saphenous veins in the legs. The nails are transversely and longi-

FIG. 2.



tudinally striated. The feet are sometimes found bedewed with sweat, at other times dry. Back and chest: There is very marked kyphosis of the upper two-thirds of the dorsal region of the spine, and it is continued into the lower cervical region. There is slight lumbar lordosis and slight lateral curvature to the right in the upper two-thirds of the dorsal region. The right half of the back is very prominent. The shoulders are thrown forwards somewhat. The sternum is deflected to the right of the middle line. The ensiform cartilage is easily felt, and is perhaps rather longer than natural; it is not prominent. The second intercostal cartilages are very prominent, and especially so at the line of junction with the ribs. The costal cartilages are all prominent at the line of junction with the ribs. The ribs lie posterior in level to the cartilages at the junctions. The elevations formed as above are very similar to rickety beading. The girth of the chest is 34 in. at the level of the axillary folds. The heart sounds and apex beat are normal in character. Pulse 85 to 95, regular. The radial arteries are slightbly thickened, and the temporals just visible and slightly tortuous. Respiratory movement of the chest is deficient, and is rather of the nature of a jerk upwards than a true expansion. Percussion reveals hyper-resonance in front, except in the cardiac area, and behind normal resonance, except over the prominence of the right side. The breath sounds are harsh in both subclavicular regions and weak at the bases. There are sonorous rhonchi heard over both sides of the back and a few muffled râles at the bases. The patient's voice is thick and husky always, and monotonous. Abdomen and digestive system: The lower two-thirds of the abdomen are full and prominent, and marked off from the upper third by a transverse furrow, which crosses one inch above the level of the umbilicus. Resonance exists in all parts. No viscus palpable. Liver dulness exists in the sixth and seventh intercostal spaces in the nipple line. Patient's appetite is natural, and the bowels are regular. Genito-urinary system: The urine has been repeatedly examined, and in each instance was normal in character; its specific gravity varies between 1017 and 1020, the colour orange or amber, and it is clear. It yields no reaction with Fehling's solution, and contains no albumen. The quantity passed in the twenty four hours varied within the limits of eighteen and forty-two ounces, minimum and maximum, and was measured nearly every day for three weeks. The external genitalia are normal, and vaginal examination reveals a small cervix with nulliparous os and no abnormality. The distance between the anterior superior iliac spines is 10¼ in., and across the iliac crests, at the widest part, 13½ in. The patient is always in good spirits, and is of a contented disposition. The knee-jerks and plantar reflexes are normal. Her power of hearing is equally good on the two sides, but is much less than natural. She ceases to hear a watch at a distance of eight inches, which other persons hear at a distance of from two to three feet. Vision is unimpaired. There is no trace of optic neuritis. The fields of vision, tested with the finger, reveal no limitation. Perimeter not used.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

Rapid Dilatation of Uterus for Hæmorrhage.

AN ordinary meeting was held on March 28th, Dr. De Havilland Hall, Vice-President, in the chair.

Dr. AMAND ROUTH read a paper on Rapid Dilatation of the Uterus for Diagnosis and Treatment in cases of Uterine Hæmorrhage. After discussing the preliminary treatment of cases of uterine hæmorrhage, the importance of exploratory dilatation of the uterus for those cases where no obvious cause existed was urged. Out of the fifty-two cases related, forty-two, or 81 per cent., were found to have a removable intra-uterine condition accounting for the hæmorrhage. As regarded Apostoli's treatment, he considered that, where permitted by the patient, and otherwise practicable, the cervix should be first dilated and the uterine cavity explored. The same proceeding should be also adopted before the alternative operation of oöphorectomy or hysterectomy was entertained, and it was shown that fourteen out of the sixteen fibroid uteri (88 per cent.) were found, after dilatation, to have a removable intra-uterine condition, such as polypus or fungous endometritis, as the immediate cause of the hæmorrhage. If a series of cases set apart for Apostoli's treatment could first have their uteri dilated, and be then tabulated according to whether the fibroids were intramural, submucous, or polypoid, or whether fungous endometritis were present, and the results recorded after the proposed treatment, the class of cases where electricity would do good would soon be known, and the previous dilatation would at the same time enable the operator to ascertain the spot were the current could be applied most advantageously. The details of the dilatation by long-handled metallic bougies were then given, rigid antisepsis being all essential. The fifty-two cases described consisted of 13 placental or membranous retentions, 5 polypi, 2 polypi and fungous endometritis, 2 fibroids without fungous endometritis, 7 fibroids with fungous endometritis, 5 granular endometritis, 5 malignant disease, and in 5 no intra-uterine cause was found. The following conclusions were considered to be proved:—1. That where there was profuse menorrhagia, and more especially where metrorrhagia was also present, without obvious cause, the cavity of the uterus should be explored. 2. That the best way to explore the uterine cavity was to rapidly

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Rapid Dilatation of Uterus for Hæmorrhage.

AN ordinary meeting was held on March 28th, Havilland Hall, Vice-President, in the chair.

DR. AMAND ROUTH read a paper on Rapid Dilatation of the Uterus for Diagnosis and Treatment in cases of Hæmorrhage. After discussing the preliminary treatment of cases of uterine hæmorrhage, the importance of which is generally recognised, he said that dilatation of the uterus for those cases in which no obvious cause existed was urged. Out of the 100 cases related, forty-two, or 81 per cent., were found to have a removable intra-uterine condition accounting for the hæmorrhage. As regarded Apostoli's treatment, he considered that, where permitted by the patient, curettage was practicable, the cervix should be first dilated and the uterine cavity explored. The same proceeding should be adopted before the alternative operations of hysterectomy or removal of the appendages were entertained, and in that fourteen out of the sixteen fibroids (87 per cent.) were found, after dilatation, to have a removable intra-uterine condition, such as polypus or endometritis, as the immediate cause of the hæmorrhage. If a series of cases were kept for a time, treatment could first have their uterine cavities explored, tabulated according to whether the fibroids were intra-mural, submucous, or polypoid, or whether hæmorrhagic metritis were present, and the results would be known. The proposed treatment, the class of cases which would do good would soon be known, and at the same time dilatation would at the same time enable the operator to ascertain the spot where the current could be most advantageously. The details of the dilatation, by handled metallic bougies were then given, the latter being all essential. The fifty-two cases consisted of 13 placental or membranous retention, 3 polypi, and fungous endometritis, 2 fibroids with fungous endometritis, 7 fibroids with fungous granular endometritis, 5 malignant disease, and 22 intra-uterine cause was found. The following were considered to be proved:—1. That after profuse menorrhagia, and more especially when metrhagia was also present, without abnormal pain, dilatation of the uterus should be explored, and before the uterine cavity was

dilated the cervix with graduated bougies under anæsthesia. 3. That with rigid antisepsis there was practically no risk, and very rarely any subsequent pyrexia, unless malignant disease or salpingitis were present. 4. That even where tubal disease was present or suspected, exploratory dilatation of the cervix, for metrorrhagia of apparently intra-uterine origin, was not necessarily contra-indicated, salpingitis being often secondary to and aggravated by intra-uterine disease. Here again antisepsis was all-important. 5. That where fibroids of the uterus were evidently present, the immediate cause of the hæmorrhage might be a removable one, such as a coexisting polypus or a fungous endometritis, and that therefore the uterine cavity should be, when practicable, explored, before removal of the appendages or hysterectomy was entertained. 6. That in some cases dilatation alone sufficed to greatly relieve both the hæmorrhage and the pain. 7. That if an exploratory dilatation were more often adopted prior to the employment of Apostoli's treatment, it would tend to a more exact knowledge of its applicability, and put its use on a more scientific basis.

Mr. DORAN said that the first thing to be satisfied of was the presence or absence of endometritis; but the precise nature of the latter affection was not quite known. The diseases of the tubes were fairly understood, as were also those of the ovaries, except cirrhosis, which latter seemed to correspond somewhat to baldness or whitening of the hair. The difficulty with the uterus was that there was something of its membrane cast from it every month, but precisely how much no one knew, and on that account it was very difficult to say what was morbid and what was not. The danger of endometritis was its extension to the tubes and peritoneum, and the great advantage of dilatation and diagnosis was that many diseases to which women were liable could be, by suitable treatment, thus nipped in the bud.

Mr. KNOWSLEY THORNTON agreed with the first and second of the author's conclusions, and he was also sure of the value of antisepsis. He never passed a sound but he followed it with a probe, on which was twisted a bit of cotton-wool dipped in iodine, and he left this in the uterus for a few seconds; he had not found pyrexia follow dilatation, even in malignant cases. He did not see why antiseptics were all important in pyo-salpinx cases, because in those it was quite impossible to protect the woman from sepsis. In many cases of uterine fibroid it was quite impossible to explore and to render the uterine cavity aseptic; it was far better to proceed with the major operation at once. He had found hæmorrhage and pain relieved by operation, sometimes in a way not easy to explain. He thought that a debate on this subject would prove useful to the profession at large, for there was still much ignorance on this subject, and he quoted, in conclusion, a case of fungous endometritis in which, for want of dilatation, carcinoma of the uterus had been diagnosed. Hysterectomy had been proposed, and, but for an independent opinion, would probably have been carried out.

Dr. HAYES agreed with the author's general conclusions, which accorded with his own experience. Long ago he came to the conclusion that dilatation by tents was dangerous, because it led to cellulitis and sepsis, and he had therefore adopted Hegar's bougies, which he had made with a more rounded extremity. He had found fixation of the uterus by vulsellum unnecessary, for where it was done it incommoded the further passage of bougies into the uterus. Before removing tumours he preferred, after rapid dilatation, to use a tent, as under the influence of the latter the uterus became softer. The only case in which he had met with accident in rapid dilatation was the following:—A woman past the climacteric was suffering from profuse and watery discharge. As he dilated, the uterus ruptured, both at the side and at the fundus, although no force was used. At the post-mortem examination there was found fatty degeneration of the liver and of the heart; the uterus itself was very soft, and apparently fatty also. He would hesitate to dilate if acute salpingitis were present.

Dr. WILLIAM DUNCAN thought that in all cases rapid dilatation should be resorted to in preference to gradual, there being far greater risk with the latter. The only exception he would make would be in the case of malignant disease of the fundus. He held that the uterus should be fixed with a vulsellum, as a case had been recorded in which the organ had been torn from its connexions where dilators alone had been used. Where the cervix could not be easily gripped he usually made a small bilateral slit and then passed one blade inside the cervix and one out. In fibroids the operation of hysterectomy or of removal of the appendix should be preceded by dilatation of the cervix. He related two cases in which, having neglected to previously dilate the cervix, he removed the appendages for fibroid, without checking the bleeding. One of the patients subsequently returned. He then on dilatation found a pedunculated fibroid as large as an orange, which he removed with the écraseur, with the result that the hæmorrhage almost entirely stopped, though some intra-mural fibroids still remained. Slight lacerations of the cervix were of no moment and healed up rapidly; they were obviated in the virgin uterus by lateral incision. He had found that dilatation could be carried out without the aid of an anæsthetic in many cases in multiparæ. He agreed cordially in the advantage of thorough asepsis. After dilating he introduced iodised phenol and placed an iodoform bougie in the canal, which was kept in place with a plug of glycerine.

Dr. JOHN WILLIAMS did not know why Hegar's dilators were considered to be so good, and why tents were so depreciated. The latter had, till comparatively lately, been constantly used with very few bad results, if the patients were kept in bed and on their backs. Rapid dilatation by bougies was better when pregnancy had recently occurred, but in women who had not been pregnant for a long time the risk was very great. To dilate a uterus so that the forefinger could be introduced as far as the fundus meant that the cervix must be lacerated in every case, and the tear began at the internal orifice and extended downwards; therefore he could not see why incising the external os should stop it. Such a laceration would leave a scar which might give rise to trouble afterwards. It was not necessary to dilate a uterus for diagnosis so that a forefinger could be passed into it—endometritis, for instance, could be easily told by the way in which a sound passed gently over the surface of the mucous membrane produced hæmorrhage. For the treatment of that condition rapid dilatation was most valuable, the canal being dilated up to the size of a No. 18 English, and the curette then being freely used. In cases of hæmorrhage the cavity of the uterus should not be explored until the case had failed to be controlled by medicine. The risk of rapid dilatation was slight, but in one case, about six days afterwards, what appeared to be a hæmatocele developed, but the patient did quite well. He had dilated safely in instances in which there were lateral swellings on each side of the uterus. If hæmorrhage were present in association with tubal disease, its occurrence was probably accidental. He admitted the advantage of dilating in many cases of fibroids; at any rate, if this were done more frequently, a large number of women might have their ovaries saved.

Dr. HEYWOOD SMITH agreed that in many cases it was not necessary to go beyond a No. 18 in dilating, and the operator himself should certainly hold the uterus in order to estimate the amount of resistance. He advocated the employment of Bell's dredge curette, which he held to be more efficient than most in use. Any plugging that was necessary should be accomplished by means of gauze in strips. He referred to a case of pyo-salpinx in which the whole tubeful of pus emptied itself into the uterus during the catamenial discharge, and perhaps dilating and curetting in these cases might be of value in promoting this.

Dr. HORROCKS said that from a consideration of the structure of the cervix he could not see how laceration could be avoided in rapid dilatation. Tents did not lacerate to the same extent, because the process was a more physiological one. He had never had any serious results from the use of the bougies, though at Guy's Hospital a Hegar's dilator had been pushed through the uterus into the peritoneal cavity without untoward result. The patient died four months later of another lesion, and the scar in the uterus was then distinctly visible. He held that there were cases in which dilatation of any kind was injudicious, and in others, such as those in which the patient had not been pregnant for a considerable time, it was better to use laminaria tents which had been soaking in absolute alcohol containing corroive sublimate.

Dr. CHAMPNEYS said that he thought that too much had been made of the idea that Hegar's method was the only antiseptic one. It could never be certain that the cases were aseptic to start with, and either a bougie or a tent might bring in septic pus with it. With care a laminaria tent could be made not only harmless of itself, but it could be used as the vehicle for the introduction of a certain amount

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of powerful antiseptic to the benefit of the patient. A tent not well prepared might become foul, but if carefully applied and the vagina well packed with antiseptic behind it, it could be kept sweet for hours or even days. Hegar's method was especially useful where the cervix was moist with secretion, for it was then in such a temper as to yield readily. The cases of rigid dry cervix should be prepared with a tent before using the bougies.

Dr. LEWERS said that reference had been made to his paper on Rapid Dilatation of the Cervix read before the Harveian Society some five years ago. Many then present who were opposed to the method had since become strong supporters of it. He himself now considered that rapid dilatation was not a method to be universally applied in all cases, but that it was of special value where dilatation was required at no long time after a confinement or miscarriage, or in cases of molar pregnancy. For such cases it was a perfect method. On the other hand, in cases altogether apart from pregnancy, or in those who had never been pregnant, rapid dilatation often meant laceration, and for such cases dilatation by means of laminaria tents, rendered aseptic and antiseptic by prolonged immersion in a 1 per cent. solution of corrosive sublimate in absolute alcohol, was the best method.

Dr. AMAND ROUTH briefly replied, remarking that he did not consider it safe to hurry too rapidly over the smaller sizes at the beginning of the process. He agreed that most cases could be diagnosed when the size of No. 15 Hegar was reached, and he only dilated further if operative measures had to be adopted.

CLINICAL SOCIETY OF LONDON.

Compound Ganglion of Wrist.—Thiersch's Method of Skin Grafting.—Leucocythæmia.—Unusual Cutaneous Eruption. — Transposition of Viscera. — Thyrotomy for Malignant Disease of Larynx.—Peculiar Lesion of Soft Palate.—Congenital Malformation of Thyroid Cartilage.—Cardiac Asthenia following Influenza.—A Renal Affection resembling Raynaud's Disease.

A CLINICAL MEETING of this Society took place on March 25th, Mr. H. G. Howse, Vice-President, in the chair.

Mr. STANLEY BOYD showed a man aged fifty-two, who had been affected with Tubercular Arthritis of the Wrist and Compound Ganglion, the latter being secondary to the former. The wrist was excised and the ganglion laid open, the tendons, so far as they were affected, being thoroughly scraped. A very good recovery had resulted, though the muscles of the thenar eminence had become wasted. There was found to be an enlargement of the median nerve, which, though it abutted on the ganglion, was independent of it.

Mr. FREDERIC EVE and Mr. J. A. LAWRENCE showed two cases, a woman and a man, who had been the subjects of Rodent Ulcer extending over the bridge of the nose. The growths were freely removed, and the surface left cleansed with a 1 in 2000 mercuric chloride solution, the mercury being washed away with sterilised salt solution. The surface of the skin used for grafting was similarly cleansed, and the raw surfaces completely covered. The grafts had taken, and the patients were shown with the surfaces covered with healthy skin.

Dr. ORD exhibited two cases of Leucocythæmia. The first occurred in an Italian aged thirty-six, who presented no history of malarial disease. He had had rheumatic fever some time previously. Six months before admission the abdomen commenced to increase in size, due to enlargement of the spleen. Later, anasarca and ascites developed. There was no febrility; and the urine contained one-third of albumen, with free blood and epithelium and with hyaline and epithelial casts. The blood showed a large increase of white corpuscles with a diminution of red discs and of hæmoglobin. There were feathery hæmorrhages into the retinæ. He was treated at first for dropsy, which disappeared, and then was given arsenic, under which the spleen diminished rapidly in size, the urine contained hardly a trace of albumen, and the blood was normal. The second case was that of a schoolmaster aged forty, who eight months ago noticed swelling of the abdomen, and four days before admission was attacked with severe and painful diarrhœa. On examination there was a very large spleen; the blood was loaded with leucocytes, which, as in the previous case, were large, granular, and showed but little amœboid movement. The diarrhœa was controlled by bismuth and opium, and then under arsenic the spleen diminished rapidly. He thought that the fluctuations under treatment were larger than usual in leucocythæmia, and in both cases he considered the rapid improvement due to removal of causes of irritation, rather than to cure by drugs in the ordinary way.

Dr. ORD likewise introduced a man aged twenty-nine who presented an unusual Eruption on his Chest. It much resembled acne in appearance, there being red elevations and comedones. It ran round the body in a band, but differed from herpes in that it did not follow the course of the nerves. There was no history of the application of a plaster.

Dr. ARTHUR DAVIES showed a boy eight years of age with complete Transposition of Viscera associated with morbus cœruleus.

Dr. SEMON first showed a case in which he had performed thyrotomy for Malignant Growth of the Left Ventricular Band and Ventricle of Morgagni, in a gentleman aged thirty-eight, on June 2nd of last year. The growth was a squamous-celled carcinoma. The patient had recovered without any incident whatsoever. There was no trace of recurrence, and the result was excellent so far as phonation was concerned. Although all the soft parts on the left side of the larynx, including the left vocal cord, had been removed, the patient's voice was practically normal. The situation of the former growth was occupied by a smooth cicatrix, with a prominent ridge corresponding to where the left vocal cord had been, and the right vocal cord on phonation to some extent crossed the middle line and almost touched this ridge.

Dr. SEMON next exhibited a case of an Obscure Affection of the Soft Palate. The patient was a married woman aged twenty-two, who complained of soreness in the throat and swelling of the glands since August last. The affection began with a cold, followed by swelling of the gums, and when this subsided the throat became bad, and the glands in the neck swelled. The tongue had never been affected. She married two years ago; her husband was consumptive, and came from a consumptive family. She had had no children, and no miscarriage. There was a good deal of dysmenorrhœa, but there was no history and no other evidence of syphilitic disease. On examination of the throat when the patient first came to the hospital it looked very much like a case of commencing tuberculosis of the palate, and local treatment by lactic acid was therefore commenced, but without success. The disease, on the contrary, spread over almost the whole of the soft palate, and in parts came to resemble the margins of the condylomata of secondary syphilis. Energetic specific treatment had been resorted to, but neither various mercurial preparations nor iodide of potassium had had the slightest influence upon it. The infiltrated part was very tender to the touch, as were also the considerably enlarged cervical lymphatics underneath the angles of the jaw on both sides. The case was brought forward for suggestions as to diagnosis and treatment. The opinion had been expressed that the disease of the palate was analogous to the so-called "geographical tongue"; but, apart from the fact that he knew of no such affection ever having been observed on the palate, the intensity of the pain, the occurrence of actual ulceration, and the swelling of the glands seemed to differentiate it even clinically from that affection. He himself inclined to the belief that it was of a parasitic nature. He intended to examine scrapings both microscopically and bacteriologically. For comparison's sake a genuine case of tuberculosis of the palate, occurring in a woman of about the same age, was shown which had already been considerably benefited by scraping and local applications of lactic acid.

Dr. SEMON lastly exhibited a case of Congenital Malformation of the Larynx and Trachea, with a Diverticulum of the Œsophagus. The patient, a single woman aged twenty-six, came to the throat department of St. Thomas's Hospital in the beginning of this year, complaining of "thickness in the throat" and occasional regurgitation of undigested food an hour or more after meals. The pharynx and œsophagus, so far as visible, were perfectly normal, and bougies were passed easily into the stomach without encountering any obstacle. The thyroid cartilage was more prominent than usual and the larynx seemed to stand much lower in the neck than under normal circumstances. The

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two halves of the thyroid were not united in front by firm cartilage, but merely by a thin ligamentous connexion, and the finger-nail could be easily introduced into the fissure thus resulting. The right half of the thyroid also distinctly overlapped the left one. Laryngoscopically, the right half of the larynx was seen to stand somewhat higher than the left, and one could look right down into the right ventricle of Morgagni, the right vocal cord being visible along its entire breadth. The cords moved well in respiration and completely touched one another in phonation. There was, in addition, an apparent displacement of the trachea, for which, on examination of the neck and chest, no explanation could be found. As to the œsophageal affection, the probabilities were in favour of a diverticulum. There was no family history of congenital malformation.

Dr. BURNEY YEO read a paper on Cardiac Asthenia following Influenza. The author called attention to the frequency with which cases of notable cardiac asthenia had been observed to follow attacks of epidemic influenza. The circumstances under which these cases occurred and the symptoms which characterised them were then detailed. Two instances of aortic regurgitant murmurs developing after influenza attacks were briefly quoted, and the author then gave the details of a more remarkable case which had been under his care in King's College Hospital. A dark-looking well-built man aged thirty-eight, an oil presser, had always had good health until suddenly attacked with dyspnœa and palpitation about three months before admission. His chief symptoms were very great irregularity of pulse and heart beat, anasarca of the lower extremities, albuminuria (which completely disappeared after two or three days' rest in bed), great enlargement of the liver, a large effusion into the right and a smaller effusion into the left pleura. Notwithstanding all this the patient's general condition was good. He had no pain, no fever, no rise of temperature, his tongue was perfectly clean, his appetite good, his bowels regular, his head clear. A careful clinical analysis of his symptoms traced them all to a rapidly produced acute cardiac asthenia with dilatation. There was no evidence of any valvular disease. The rarity of such a condition was pointed out, and it was urged that the only possible way of accounting for it must be the preceding occurrence of some infective disease, the original symptoms of which were so slight and casual as to escape observation. Such a disease we had had in the recent influenza epidemic. On further scrutiny into his previous history it was ascertained that during the epidemic of last spring he had been laid up for three days with pain in his back, but he had paid very little attention to the attack. Different views as to the nature of these cases of post-grippal cardiac asthenia were referred to, and the possibility of their origination in sclerosing arteritis of the coronary vessels, the result of bacillary influenza, was mentioned. Some observations by Huchard and his views on this subject were referred to, especially as to the dependence of these phenomena on lesions of innervation. Some remarks on the most appropriate treatment of these cases concluded the paper.—Dr. FRANCIS TAYLEUR said that no doubt the heart was affected in a peculiar manner by the poison. In the post-febrile condition he had seen the pulse reduced to 50 or lower, and he quoted a case in illustration of this. The fact that they recovered pointed strongly to the neurotic causation of this condition.—Dr. LONGHURST inquired of the author what his views were as to the exhibition of alcoholic stimulants.—Dr. GOODMAN had observed extreme pulsation of the abdominal aorta as a result of influenza. It was associated with marked exaggeration of the aortic second sound, and no change of pulse.—Dr. PERCY WIGHTWICK asked what was the prognosis in these cases. He had met with marked acceleration of pulse in a man of seventy, who bore digitalis badly; his pulse did not return to the normal till six months afterwards.—Dr. YEO, in reply, said he was averse to excessive alcoholic stimulation in these cases. He had found that a grain each of quinine and phenacetin every hour had proved useful in a case associated with hyperpyrexia. The prognosis was good if a proper period of rest were secured to the patient, but this he believed in some cases required to be measured by years rather than by weeks or months.

Mr. HOWARD MARSH read notes of a case in which an affection of the kidney presented points of resemblance to the phenomena observed in Raynaud's disease. The patient, an unmarried woman aged twenty-five, was originally admitted into St. Bartholomew's Hospital in June, 1886, with symptoms of a stone in the left kidney. There were all the usual symptoms of renal calculus, and the urine contained pus and blood. He cut down upon the kidney to explore, making the incision in the mid-axillary line in order to gain more room. He found nothing, and as the symptoms continued, he subsequently cut down in the middle line of the abdomen. He then discovered that it was freely mobile, and was withdrawn out of reach when the deeper parts of the wound were retracted. No stone, however, was found, but as the kidney was atrophied and useless, it was removed. The patient made a good recovery, and was discharged in September, 1886. After removal the kidney was found to contain three small calculi. It was remarkable that the kidney should have undergone atrophy on this account, for the size of the calculi was such that they might have passed without difficulty. A month later the patient was readmitted with pain in the right kidney. There was typical renal colic, with almost total suppression of urine. In January the right kidney was explored, but nothing was found. The symptoms, however, subsided, and the patient went on well until the following December. During this time, however, she had occasional attacks, and on Jan. 29th she was admitted again after an attack of unusual severity. For some days after this she had partial suppression of urine and occasional attacks of severe suffering, and these recurred at intervals until July, when the kidney was again exposed by an incision through the right linea semilunaris. The kidney seemed healthy and moderately hypertrophied. No dilatation of the ureter. Matters then went on as before, with occasional attacks, until in February, 1888, the kidney was again explored, the ureter was opened two inches below the pelvis of the kidney, and a long probe passed down it. No obstruction, however, was found. The substance of the kidney was then incised so that the pelvis and calyces could be explored with the finger, but still nothing was found. The patient gradually sank, and died on the 17th. At the necropsy an opening was found in the cæcum due to ulceration of the vermiform appendix. The right ureter was a little dilated and bound down by fibrous bands to the cæcum. The mischief in the appendix had probably occurred in the previous November, when there were symptoms of appendicitis. The author discussed the symptoms: he pointed out that the condition of the left kidney seemed to account for the symptoms on that side, but on the right side there was no mechanical condition to account for them; and the symptoms were presumably due to some profound vasomotor disturbance similar to that associated with Raynaud's disease. He pointed out that Raynaud's disease was by no means constantly symmetrical nor confined to distal parts, such as the fingers and toes; but might, on the contrary, affect various districts of the circulation. At the same time the author was not prepared to assert that this case had the same pathology as Raynaud's disease. He insisted only on the fact that the symptoms were those usually taken to indicate calculus with obstruction, but the case evidently belonged to a group of cases in which severe paroxysmal pain and various symptoms referable to the kidney might be present, but of which no adequate explanation could be given.

Mr. MANSELL MOULLIN referred to a case, particulars of which he had communicated to the Society earlier in the session. He desired help in the differential diagnosis of the colic of renal calculus from other forms of renal colic not associated with stone.

Reviews and Notices of Books.

Traité de l'Hygiène Publique, d'après ses Applications en France, Angleterre, Belgique, Allemagne, Autriche, Suède, et Finlande. PAR DR. ALBERT PALMBERG, President de la Société d'Hygiène de Finlande. Translated from the Swedish into French by M. A. HAMON. Paris: Octave Doin. 1891.

THAT the preservation of public health is an international question is forcibly illustrated by the admirable and comprehensive work which Dr. Palmberg has already published in two languages. No greater mistake could be committed than to believe that the nations which have made the most progress in sanitation have nothing to learn from countries which are in the rear rather

than in the van of progress. In every country some good points may be found, and this truth is rendered evident by even a mere glance at Dr. Palmberg's studious record. Thus, in spite of the vaunted sanitation of England, and though we are acknowledged to have led the way in modern sanitary reform, it is in the united kingdoms of Norway and Sweden that the lowest death-rate has been secured. This was only 17·2 per 1000 compared with 19·0 per 1000 for England during the year 1887, 20·5 for Belgium, 21·0 for Finland in 1888, 22·0 for France in 1887, 26·6 for Germany during the same year, 29·4 for Austria in 1888, and 34·6 for St. Petersburg in 1888. Dr. Palmberg attributes the low death-rate of Norway and Sweden as much to the high degree of civilisation and the morality of the people as to the excellence of their hygienic laws and institutions. The sanitary laws of Sweden comprise, among other rigorous enactments, measures for the construction of isolation hospitals, the compulsory removal of patients suffering from infectious diseases to these hospitals (unless they possess sufficient means of isolating themselves), and the obligatory disinfection of rooms, furniture, and wearing apparel. Vaccination has been enforced in Sweden since 1853, and the law insists that all towns shall have a good supply of pure drinking water. But we cannot here analyse the sanitary legislation of Sweden, and have only mentioned one or two points to show that this country is well abreast of other nations. England occupies the first and largest portion of the book. There is a chapter on our sanitary administration, two lengthy chapters on our sanitary legislation, and then we have two chapters on London. After this there are chapters on Scotch sanitary legislation and on Edinburgh. But Dr. Palmberg not only deals with the laws; he also gives very full descriptions of the practice of hygiene. With the aid of more than two hundred illustrations he describes the notable inventions, the methods of draining, of ventilating, and of warming, which in each country seemed to him most remarkable. We have therefore before us a very useful book of reference, that will render great service to every international sanitary reformer. There are seven chapters devoted to Great Britain, three to Belgium, three to France, and three to Germany; Austria, Sweden, and Finland have two chapters each. But the information given is all arranged on the same principle: first the law, then the practical application of the law, and finally an account of ingenious inventions, devices, and contrivances for the maintenance or improvement of sanitary conditions. Thus, for instance, we have drawings of the different disinfecting stoves, portable and fixed, used in various countries, with accompanying letterpress descriptions. The methods of house drainage employed in each country are similarly illustrated. While thus giving a vast amount of useful information, Dr. Palmberg is very reserved in the expression of any opinion. He is nevertheless loud in his praise of England, which, he declares, possesses the most complete and precise sanitary code in the civilised world. On all sides the "marvellous effect" produced by these good laws may be observed. France, on the other hand, meets with but a small measure of praise. Since the great revolutionary epoch, since the laws of Nov. 14th, 1789, Aug. 16th and 24th, 1790, and Sept. 28th, 1791, little or nothing has been done in France by the Legislature. Dr. Palmberg might have added that, instead of progress, these laws, which are now a century old, have been to some extent rendered inoperative by the more modern and very injurious law of April 13th, 1850. These same laws, with the exception of the latter, still govern Belgium, where they were imported by the French Republican armies. They give to each commune very extensive powers; and it is by the use of this local autonomy that Brussels has become a model town in Europe. But in France these powers are curtailed by the much-abused law of April, 1850. Dr. Brouardel, the dean of the Paris Faculty of Medicine, in a gracefully written preface, introduces the French translation of Dr. Palmberg's book, and notices that the author is somewhat severe in respect to the backwardness of French sanitary legislation. But Dr. Brouardel acknowledges the truth of the criticism, urging, however, that it is no use making laws before public opinion is ripe for them, and then compliments the English on the practical sense they have shown in sacrificing the privileges of individual liberty for the preservation of public health. In conclusion, it should be observed that Dr. Palmberg has attended all the more recent international congresses of hygiene, and the volume he has produced is a striking proof of the great utility of such gatherings.

Saturn's Kingdom; or, Fable and Fact. By CHARLES MOORE JESSOP. London: Kegan Paul and Co. 1891.

THIS book is rather a collection of essays than a continuous work, though it commences with the consideration of such broad subjects as time and distance, the solar system, and the early history of the world, continues with the history of the development of life and the phylogeny of man, and ends with a discussion on primitive religion. Mr. Jessop (who, by the way, is a member of the medical profession) has collected a large number of interesting facts, which he has arranged under separate headings. Thus, speaking of distance, he quotes the astronomer Herschel, to the effect that the sun advances through space with a velocity of 154 million miles per annum. But, he says, the seven figures which represent one million convey to the mind no idea of the magnitude of one million. But if we take a tape, as suggested by Mr. Croll, of 83 ft. 4 in. long and divide it into tenths of an inch, each tenth representing one hundred years, this tape extended will convey some idea of the enormous amount expressed by the word million. Mr. Nasmyth's method of bringing home to the mind the same number is also ingenious. For he shows that sixty columns of the ordinary type of *The Times* newspaper represents about one million letters. Mr. Jessop states that he recently constructed such a sheet, and that, oddly enough, when the sheet was completed, there was a blank space of about twelve inches at the end of a column, which would correspond very nearly with the amount of type required to express the age of the world as ascertained from history. A chapter is devoted to the subject of the sun's heat, and the author endeavours to show that the radiant energy of the sun is not derived from combustion, since that could only last for a brief period; nor from the falling of meteorites upon the surface of the sun, though it can be proved by calculation that the weight of 1 lb. on the earth is equal to 28 lb. on the sun's surface, and as the sun's radius is 426,292 miles, the energy of 1 lb. of matter falling into the sun from infinite space would equal that of a 28 lb. weight descending upon earth from 426,292 miles: supposing the force of gravity to be as great at that elevation as it is at the earth's surface, it would amount to upwards of 63,000,000 foot-pounds. But even this would not be a sufficient source for the continuous heat radiated from the sun. There is, however, another theory of the origin of the sun's heat, that, namely, of the contraction of its mass, and by calculation it appears that with the present magnitude of the sun its whole diameter need contract but 220 feet per annum to produce all the heat it now radiates. This contraction will amount to four miles in a century. It is not impossible that the heat of the sun may be the result of the collision and fusion of two bodies moving in space towards each other at the speed of 476 miles per second, which is not beyond that of other stellar bodies. In such case the heat promptly generated would equal fifty million years of the present intensity. In a similar interesting though speculative manner he dis-

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cusses the age of the habitable earth from the thickness of the sedimentary rocks, the denudation from rain and rivers, and other data. The Falls of Niagara, estimating their recession at one yard in one year, have existed 12,000 years. The inundation of the Nile raises the land of Egypt four inches and a half in a century. Interesting chapters are devoted to the antiquity of man, the gradual development of the faculties, and primitive religion. Some of the author's statements seem to us to be open to discussion. Thus, in one place he remarks that in man sight is not impeded by a long muzzle, *therefore* (the italics are ours) the sense of smell is unnecessary to sight. Is not this a *non sequitur?* Again, Mr. Jessop remarks that up to 1900 years ago a considerable section of the Hebrews did not believe in the immortality of the soul. Hence, the idea of a soul living for ever is a notion of yesterday compared with the duration of man upon earth. Again, we think a *non sequitur*. Other nations may, and probably did, hold the doctrine of the immortality of the soul. There is much else that deserves perusal, and we can recommend Mr. Jessop's book as one which may well prove a welcome companion after a hard day's work.

A Practical Guide to Meat Inspection. By Thomas Walley, M.R.C.V.S. Second Edition, Revised and Enlarged, with Forty-seven Coloured Illustrations. Edinburgh and London: Young J. Pentland. 1891.

That a second edition of Professor Walley's "Practical Guide to Meat Inspection" has been called for so soon after the appearance of the first is ample evidence that such a work was needed. There can be no doubt that the publication of the first edition opened the eyes, not only of medical officers of health and market inspectors, but also to some extent of the general public, to the importance of this subject. We are still far behind continental authorities in this matter, and, as an example of this, Professor Walley points to the meagre staff of any of our large abattoirs as compared with those of a place like Berlin, where at the central abattoir no fewer than 250 persons, including a director, nineteen veterinary surgeons, and six assistant veterinary surgeons, are engaged in inspecting, classifying, and stamping the meat from carcases slaughtered there; whilst about fifteen veterinary surgeons are engaged in the inspection of carcases slaughtered elsewhere, and brought into the city.

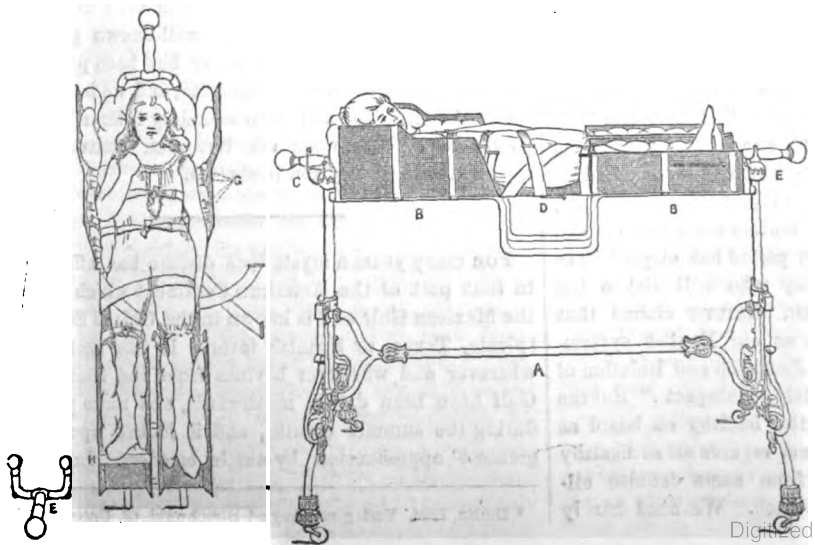
Professor Walley takes up in order the following questions:—The substitution of the flesh of animals not generally used for human food for the flesh of those so used; marketable and unmarketable flesh; rules to be observed in the inspection of meat; examination of the carcase for the purpose of detecting abnormal conditions, such as those due to violence or disease. He then takes up *seriatim* the various diseases that may cause changes in the meat, giving prominence to the cachectic conditions, diseases due to animal parasites and those due to vegetable parasites, and amongst these latter especially to tuberculosis. The work finishes with a chapter on refrigeration, frozen, salted, preserved, and tinned meats and fish, in connexion with the latter of which he is strongly of the opinion that "all fish in which evidence of putrefactive change exists should be unhesitatingly condemned for the purposes of human food." The chapter on legislation in reference to the consumption of animal flesh, fish, &c., will be useful to medical officers of health. The illustrations, coloured and uncoloured, at the end of the work should prove valuable to those who have to study this question of meat inspection; they are taken from actual specimens, and may therefore be used for comparison with specimens that come under observation. In this edition many corrections, additions, and improvements have been made. The book well illustrates the results of the work of a practical man of wide experience carried out in a thoroughly scientific fashion.

New Inventions.

NEW FEEDING CUP.

Miss Mina Forrest, nursing sister at the Herbert Hospital, Woolwich, has submitted to us a specimen of a new feeding cup which she has designed, and for which she claims the following advantages:—(1) The initial cost is trifling; (2) being made of bright metal it is practically unbreakable; (3) the mouth-piece, which is removable, is easily cleaned and kept sweet; (4) the cup, being furnished with a hinged lid, is capable of being completely covered, and the contents thus preserved from dust and other atmospheric impurities; (5) the interior of the vessel being graduated, the exact quantity of nourishment given can be accurately measured; (6) the handles, of which there are three—one at each side and a third at the back—are conveniently placed for holding by either patient or nurse. The cup, which is manufactured by Messrs. Evans and Wormull, is likely to be as useful as it is certainly elegant.

BEDSTEAD FOR USE IN HIP DISEASE.



Our attention has been directed to the difficulty likely to be felt by some of our readers in the endeavour to gain, by a mere verbal description, a clear conception of the nature of the apparatus mentioned by Mr. Stanmore Bishop in his paper on Morbus Coxæ published in our columns on March 12th. We therefore supply a pictorial representation of the cradle designed for use in such cases, and which, as already stated, is manufactured by Mr. John Carter of New Cavendish-street, London, W.

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THE LANCET.

LONDON: SATURDAY, APRIL 2, 1892.

IN his presidential address to the British Guiana branch of the British Medical Association, Dr. ROBERT GRIEVE, well known in England in connexion with the office he formerly held under the Metropolitan Asylums Board, dealt with the question of quarantine, and the burden of his paper was to show grounds why he differed from our English views in so far as their application to his colony is concerned. For reasons which we will refer to we see no ground for dissenting from him on this point. But there are one or two passages in the address which need some comment. He says that after careful search he has failed to discover what the quarantine is to which so much objection is taken by English writers, and he adds: "Isolation and disinfection, as ordinary sanitary precautions, are admissible; but call them by the name of quarantine and they thereupon change their character and become something to be reprobated by all laying claim to be fully civilised." If, as a matter of fact, Dr. GRIEVE, who says he has followed the discussions on this subject with close attention, does not understand the elementary difference between that which in England goes by the name of "medical inspection," which aims at isolation and disinfection, and that which constitutes quarantine as understood and practised abroad, it may be that others also do not clearly perceive the distinction. And since at this moment the subject is matter of discussion between the principal Governments of Europe, it may be well to explain that the essential difference lies in the fact that under the English system only those who are found to be actually suffering from the disease to be controlled, or who are so ailing that they are suspected to be so suffering, can be detained; whereas the remainder of the crews and passengers are allowed to travel to their destinations subject to notice of their impending arrival being given to the authorities at those destinations. In short, the healthy are not detained. Under the quarantine system the healthy are detained, as well as the sick and the truly suspect, and the system, as hitherto practised in most parts of Europe and in the Red Sea, has been carried out in such a way as to expose the healthy to a risk of contracting the disease which it is proposed to check far beyond any which they had run before; the consequence being that the detention has to be renewed again and again until a sufficient period has elapsed since the last of the hitherto healthy who will sicken has succumbed to the disease. Dr. GRIEVE claims that quarantine does much the same as our English system because it, too, only aims at "detention and isolation of sick persons, and also, but separately, of suspects." But the quarantine system regards all the healthy on board as suspect, whereas the English system regards all as healthy who are not actually suffering from some definite ailment, and it deals with them as such. We need hardly point out that the difference is a vital one. Again and again we have been told that our fears as to the consequences to the healthy are imaginary. Here in England it is essentially cholera with which we are concerned, and the glorious climate of El Tor in the Red Sea, and the careful arrangements, including the grouping of the healthy into classes so as to avoid risk, are constantly dangled before our eyes as something to be grateful for. We always knew the facts were diametrically opposed to the professions made, but we are glad to have before us at this moment Dr. PAUL KAUFMANN'S "Die Quarantäne Station El Tor,"[1] for in it the tale, which gives the facts up to date, is told by one who cannot be suspected of English bias. We should advise all who wish fully to apprehend the bearings of this question to procure the book and read it; and in the meantime we would only refer to the description given in it of the water-supply, which, after so long a term of years, is available in this noted sanatorium, for a wholesome water-supply will be admitted by all to be a first requisite in the case of a cholera quarantine station. Dr. KAUFMANN, who is gifted with a vein of humour, recalls the fact that near El Tor were the bitter waters of Mara, the taste of which led to the Israelitish murmurings against MOSES; and he then states that if the Israelites had had such stuff offered them as obtains at the El Tor sanatorium they would not have contented themselves with murmurs, but they would certainly have stoned their leader.

But, as we said at first, we have no wish to dispute Dr. GRIEVE'S contention in so far as Guiana is concerned, for he frankly admits that what he claims for that colony would not be properly applicable to England or to any European country; and we are at one with him that, theoretically at least, quarantine can control and restrain infection. He desires to deal by quarantine with most infectious diseases, and he explains that the colony consists of a population scattered over a wilderness, without any sanitary supervision, and where vaccination is all but unknown. Should infectious disease be landed under such circumstances, the first intimation of it that would be received would be "a widespread outbreak of disease which it would be a hopeless task to check." In a country where there is no profession even of a sanitary administration, and where the well-known prophylactic against small-pox is not and never has been practised, we can understand the attitude adopted, and we have no desire to cavil at it. The address was mainly interesting to us in so far as it bore upon the European attitude towards quarantine in its relation to cholera.

FOR many years a mysterious disease has affected cattle in that part of the American Continent which borders on the Mexican Gulf and is known in the United States as the splenic, Texas, or Spanish fever. It has been observed wherever and whenever bovines from the States on that Gulf have been driven northwards, and more particularly during the summer months, and is looked upon with the greatest apprehension by cattle breeders. In 1868, for

[1] Berlin, 1892. Verlag von August Hirschwald, 68, Unter den Linden.

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instance, the destruction it wrought among the northern herds with which the travelling Texan droves came in contact, directly or indirectly, and the obscurity that prevailed with regard to the nature of the disease, caused a serious panic, and nearly led to the total suppression of the traffic in cattle between the Gulf States (which are almost entirely cattle-rearing countries) and the Northern States. At that time Professor GAMGEE was in America, and the United States Government availed itself of his services in making an investigation of the malady. The report of the Commission was published in 1871, and did not throw much light either on the nature of this Texas fever, as it is now generally designated, or its etiology; indeed the latter remained in as great obscurity as ever. The tendency was to regard it as a kind of anthrax or splenic fever, due to the animals becoming affected by something in the soil or water; "their systems became charged with poisonous principles that accumulated in the bodies of acclimatised animals, which enjoyed immunity from the disorder." It was ascertained that these southern cattle might be taken great distances, and improve in condition while doing so, and yet for some weeks, and probably for as long as three months, they would "continue to excrete the deleterious principles which poison the cattle of the States through which the herds are driven on their way north or west." The report also stated that all breeds of cattle in States north of those of the Gulf coast, without regard to age or sex, if they fed on grass contaminated by southern droves, were attacked by the fever; that it occurred chiefly during the hot months of summer and autumn; and that infected pastures were rendered free from danger by frosts, and remained so until fresh droves of Texan or Florida cattle were again driven over them.

This apparent freedom of the exotic southern cattle from disease, and their capability, notwithstanding, of disseminating such a fatal infection among native bovines, was an altogether unusual feature in epizoötology, and could not be accounted for. It is true that the redoubtable cattle plague, or rinderpest, does not so severely affect the cattle of southern Russia as it does those in western countries; yet it kills a good percentage of them, and greatly impairs the condition of those which do not succumb. But here were animals in evidently excellent health carrying destruction everywhere they went.

The principal symptoms in those infected are a somewhat rapid rise of temperature from 101° or 102° to 106° and 107°, at which it remains from four to fifteen days in fatal cases; this condition is soon accompanied by intense debility, that persists until death takes place. A few days before the fatal termination the urine becomes more or less deeply tinged with hæmoglobin, and the destruction of red blood-corpuscles causing this altered tint of the urine can be demonstrated by examining the blood obtained from an incision in the skin. In acute cases, a day previous to death the number of these corpuscles has been found reduced to about one million in a cubic centimetre of blood, the normal number being something like five millions and a half. In one case, which recovered, the corpuscles fell to nearly one-half their ordinary number, and a week later they had not increased to three millions. This enormous decrease in the red corpuscles gives the blood an exceedingly thin and watery appearance; after death it coagulates rapidly, and forms clots of unusual firmness.

The lesions noted in making a necropsy are chiefly the following: The spleen is very much enlarged, and when incised the tense capsule retracts, and exposes a dark-red and more or less disorganised pulp that sometimes pours out as a semi-fluid mass; this engorgement is due chiefly to the presence of an immense number of red corpuscles. The liver is much affected; it is yellowish-brown in colour, the tissue is deeply bile-stained, and the smallest canaliculi are often plugged with inspissated bile, that fluid in the gall-bladder being also so thick that it scarcely flows, owing to the presence of solids in the form of minute yellow flakes. The kidneys are tinged with hæmoglobin, the connective tissue around them being distended with reddish serum. The other organs are often more or less stained in the same manner, but seldom exhibit any other character.

The heavy losses caused every year by this peculiar fever have compelled the United States Government to take special notice of it, and with the view of thoroughly investigating its pathology, experimental stations have been established at points where it could be best observed. The result of this measure has been very satisfactory. These investigations began in 1889, and attention was more especially directed to the blood. No bacteria were discovered, but there were found, instead, peculiar bodies lodged in the red corpuscles. In the fresh splenic pulp these appeared as round or oval, almost colourless spots, from one-half to nearly two micro-millimetres—from $\frac{1}{3000}$ to $\frac{1}{1200}$ inch—in diameter on the disc of the red corpuscles, and always somewhat excentrically placed. Sometimes there was only one but quite commonly there were two, and very rarely three or four, in the same corpuscle. In organs kept in the cold for nearly two weeks these bodies were still visible, though faintly so, owing to the diffusion of the hæmoglobin around, and perhaps into them. They stained with aniline dyes as readily as nuclei and bacteria, and retained the stain as tenaciously; they then appeared like deeply stained cocci, about one-half to one micromillimetre in diameter, situated within the unstained circle of the corpuscle. Besides the spherical forms, ovoid bodies are not uncommon, and these usually occur in pairs within the red corpuscle; while a still rarer pear-shaped form is met with in stained preparations of the blood, this being rounded at one pole and constricted or filamentous at the other. These almost invariably occurred in pairs, which occupied one corpuscle, and were considered as the result of division of the single body. Another abnormal form was found in the blood. When dried cover-glass preparations were stained with LÖFFLER'S alkaline methylene blue, a few corpuscles appeared as if their surface had been dusted over with minute specks of colouring matter; but whether these were due to the anæmia, or whether they belonged to the cycle of the micro-organism, could not be determined. Very few of these bodies were found in the circulating blood, though in one instance a number were detected in that fluid the day before death. Blood from the right ventricle of the heart contained them in enormous numbers in pairs within the red corpuscles. They seemed to be filtered out by the spleen and liver, for they might be numerous in one or both of these organs, and rare in blood from the

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right heart. They appeared to be more abundant in the spleen than in the liver. In perhaps half the number of cases examined, they were so few in the spleen that they easily escaped the attention of an observer searching for bacteria. In one instance they were so scarce that a number of fields had to be scanned before any were detected, and here the spleen was completely disintegrated; while the urine, which contained much hæmoglobin several days before death, was almost normal in colour at the necropsy, as if the animal had overcome the parasites, but perished from the havoc caused by them.

It had *long* been suspected by cattle owners that the appearance of this fever in northern cattle was in some way connected with the ticks (*Ixodes Americanus*, Lat.; *I. bovis*, Riley) distributed by southern cattle, though this notion was generally scouted by scientific men. However, as every other possible cause of the scourge had evaded detection, it seemed worthy of investigation, and the result now is that indisputable evidence has been obtained that the fever is produced by these ectozoa. Ticks taken from the bodies of southern cattle, and placed upon pastures which could have been contaminated in no other way, so infected these grounds that susceptible bovines placed upon them contracted the malady in the same period of time, and were as seriously affected, as were other susceptible cattle allowed to consort with those from Texas. Again, young ticks that were hatched from the eggs of adult ticks picked from southern cattle were placed on the skins of northern animals, and induced the disease.

There are, consequently, two factors in the production of Texas fever—ixodes, and the protozoal micro-organism which is located in, and destroys the red corpuscles of, the blood in the affected animal. Whence the insect obtains the protozoon is not yet known, but that the latter can be transmitted from one generation of ticks to another, through the ova, has been demonstrated. It is important to know how many generations of ticks these germs can be communicated to without losing their virulence, and whether there is any other means by which they gain access to the blood of cattle than by the punctures made by these vermin. There are evidently ticks which do not bear the micro-organisms, as cattle which are susceptible to Texas fever are often badly infested with them without showing any marked signs of bad health. On the other hand, there may be means by which the protozoon gains access to the blood of cattle independently of the agency of ticks; but it appears from the investigations just reported, that in the great majority of cases cattle are infected by means of the skin parasites. The adult ticks drop from the southern cattle, and deposit their ova upon the pastures; these ova are hatched, and the young ticks get on susceptible beasts and engender the disease in them. The young ticks are hatched within from fifteen to thirty days after the eggs are laid, and at once get on the cattle, where they become mature within from twenty to thirty days; they then fall off lay their eggs, and die. This process goes on continuously until the cold weather sets in.

The experiments by which these interesting and important results were arrived at, were numerous and conclusive as to the part the ectozoa play in the production of the malady, so that it might be said, No ticks, no Texas fever. Is it not possible that the Tse-tse fly of Central and South Africa causes the death of certain mammalia by acting as the intermediate bearer of a noxious micro-organism, as the mosquito does with regard to the filaria sanguinis hominis? In no other way, it would seem, can its deadly action be accounted for.

DOES the tendency, increasing, we are told, in continental schools, to minimise the study of pharmacy in medical qualification receive any warrant from the best periods of medical practice? We think not; and Dr. BERENDES, in his recent "History of Pharmacy," gives exhaustive grounds for an answer in the negative. CELSUS, in a memorable passage of the introduction to his "De Medicina," says of the Alexandrian school that it had split up the healing art into three branches—the dietetic, the pharmaceutical, and the surgical. From his statement historians have concluded that this tripartite division of medicine involved a complete separation of each section from the other; that the practitioner who relied on dietetics had nothing to do with drugs; that his contemporary who based his practice on drugs ignored diet; and that, while neither paid any heed to surgery, the surgeon held both of them at arm's length. HALLER is one of the upholders of this view. "About the time of HEROPHILUS and ERASISTRATUS," he says, "surgery and pharmacy broke away from dietetics. This was a gain to botany, for the pharmaceutist threw himself with undivided energy into the study of plants; but, on the other hand, medicine proper was the loser, as the leading consultants neglected the vegetable kingdom, and administered remedial agents sold by quacks." SPRENGEL, another learned historian of the healing art, expresses himself in almost the same terms. Medicine, he says, as CELSUS assures us, was so modified by the Alexandrian school that its practitioners separated themselves completely from surgery on the one hand, and from the knowledge and preparation of drugs on the other. While the learned *dilettanti* of the profession were too proud or too lazy to meddle with arts which in their eyes were beneath their dignity, the old "rhizotomy" (medical botany) revived, and, in conjunction with pharmacy, was worked up into a *métier* by individuals. These interpretations, as Dr. BERENDES has shown, are, both of them, unwarranted. CELSUS, when he speaks of combating disease by pharmaceutical means, is not thinking of the knowledge and preparation of drugs. He is simply opposing to that school of practitioners who had chiefly faith in diet that other school who relied most on active remedial agents. This is clearly his purpose, as may further be proved from the preface to the fifth book of the "De Medicina." Diet and drugs, he says—indeed, all parts of the healing art,—are so closely interdependent that neither can be separated from the other. GALEN, about 130 years later, is of precisely the same opinion. "Pharmacy," he maintains, "heals, with medicaments only, internal and external lesions." That it had an independent existence, in the modern sense of the term, or, as SPRENGEL would have it, as a mere auxiliary of the physician, is, as Dr. BERENDES justly remarks, a totally false assumption. SPRENGEL'S further contention that it took the place of an effete "rhizotomy" is equally un-

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tenable. Rhizotomy was still in great vogue immediately before and long after the rise of the Alexandrian school. Indeed, GALEN, even in his time, repeatedly praises the rhizotomist ANTONIUS for his knowledge of healing plants; and makes mention of another of the fraternity, PHARNAKES by name, as having taught him a wonderful remedy in hepatic diseases. The preparation of medicines was, as GALEN expressly lays down, "a privilege of the physician," to be exercised only with the best materials that could be procured. PLINY the Elder, a century and more before GALEN, even goes so far as to specify the best quality of stone which the physician should employ for his mortar. HALLER'S attempt to show that the Alexandrine practitioners who combated disease with drugs were in the narrow sense "pharmacopolæ" rests on a passage of PLINY which has really no bearing on the question. PLINY is denouncing the indolence of Roman consultants who, having neglected to qualify themselves for the composition of the drugs they prescribe, rely on the quack vendors of these, who hawk them ready made. Then, as in much later times, there were perfunctory practitioners who liked to have everything done for them, and who, as PLINY says of the stipendiaries of the Alexandrian University, found it far more to their taste to sit on benches and philosophise than acquaint themselves with the remedial virtues of the vegetable kingdom. Dr. BERENDES points out that in modern schools there is a tendency not dissimilar to that in the Egyptian *alma mater*, and that a neglect of pharmacy on its practical side would fain justify itself by an appeal to historical precedent. No such precedent, at least in the sounder phases of the healing art, can be adduced—certainly not from the precept or practice of the "fathers of medicine." There is no "royal road" for the physician any more than for the geometer; and specialism could assume no more objectionable form than the disparagement in medical qualification of that practical familiarity with drugs, their composition and their preparation, which has hitherto been insisted on as an integral and not the least important part of the practitioner's training.

THE pathology of pneumonia is one of the *quæstiones vexatæ* of medicine. The disease has so many points of resemblance, on the one hand, to the specific fevers, and, on the other, to acute pulmonary affections, that the determination of its true pathological relations is a most difficult and complex problem. The question at issue becomes still more interesting when we remember that, not only has pneumonia been a puzzle to the pathologist, but its treatment has been one of the great controversies of therapeutics. We naturally turn for light on these subjects to such a work as the exhaustive "Treatise on Diseases of the Lungs and Pleura," by the late Dr. WILSON FOX. "Two opposite theories," the author informs us, "have been advanced regarding the origin of pneumonia, both of which are supported by certain facts and opposed by others—(1) That pneumonia is a 'specific' fever, of which the disease in the lungs is only a local effect; and (2) that it is a purely local disease, of which the pyrexial and other phenomena observed are only the immediate consequences." In favour of the first view are the following facts—(*a*) negatively, the absence in a large proportion of cases of any discoverable cause likely to excite inflammation of the lungs, and (*b*) positively, the suddenness of the onset of the disease, its well-defined course, its occasional epidemic and contagious character, the presence of bacteria in the blood, and the frequent appearance of a cutaneous affection (herpes), possibly analogous to the rash of the exanthemata. A point corroborative of the above is the well-known want of synchronism between the clinical progress of the case and the pulmonary condition. Thus, it is very common for the temperature to fall to normal and all the symptoms to abate, while the physical signs of pulmonary consolidation remain practically unchanged. Less frequently, but still not very rarely, the consolidation may show signs of resolution before there has been any abatement of the clinical symptoms.

The above evidence seems strong, and if we confined our attention to it we might conclude with some confidence that pneumonia must take its place among the "specific" diseases. But, unfortunately, there are some points of great weight that tell against this view. Thus pneumonia is only very exceptionally epidemic, and its contagiousness, although held by some good observers, is still doubtful. Again, the influence of season is very apparent. The preponderance of pneumonia falling in the months from January to May. It might be urged, in reply to this, that just as pneumonia shows a preference for the late winter and early spring, so typhoid fever inclines to occur as an autumnal disease. But it seems impossible to resist the evidence that the frequency of pneumonia is much influenced not only by season, but by weather, cold winds, and sudden changes of temperature predisposing to it. In this regard, pneumonia shows an affinity with pulmonary disease and other affections that are admittedly due to "chill." Then, again, while there is often a want of synchronism between the physical signs and the symptoms of pneumonia, we have to recognise, on the other hand, such a fact as the greatly increased mortality which attends bilateral, as opposed to unilateral, pneumonia.

In so far as treatment throws any light on this subject there are facts on both sides. The general stimulant treatment of pneumonia, now almost universally adopted, hardly differs essentially from the treatment of the continued fevers, and is obviously adapted rather to the theory that pneumonia is a "specific" disease than to the belief that it is a local inflammation. On the other hand, local applications to the chest in the form of poultices, icebags, &c., have enjoyed much favour, and have been believed by some authorities to influence the progress of the disease. Stimulating expectorants, again, generally play a considerable part in the therapeutics of pneumonia. Summing up the subject, WILSON FOX wrote: "The theory of a 'specific' cause can scarcely be maintained for pneumonia in the same sense as that in which the term is employed for the contagious pyrexial diseases. The causes of pneumonia are manifold, and the disease may originate under such diverse conditions that it seems impossible to attribute it to any single blood poison. On the other hand, the most probable hypothesis to explain its origin is that of an altered composition of, or the existence of some morbid material in, the blood, which, from its special qualities, may affect a particular organ, or, as is more probable, may,

under local predisposing causes, excite inflammation in that part of the system which in any given individual is the most liable to suffer, as a *locus minoris resistentiæ*." We have no knowledge of the nature of the changes in the blood that predispose to pneumonia. The excess of fibrine that has been described has been shown by VIRCHOW to be the consequence, rather than the cause, of the pulmonary inflammation. In some cases, no doubt, pneumonia is due to septicæmia, but this is not at all probable of the typical acute disease.

It is rather a curious circumstance that while theoretical considerations and clinical evidence seem at present inadequate to fix definitely the pathological relations of pneumonia, the response of pathology and bacteriology is also somewhat equivocal. It is true that the researches of the bacteriologist of late years have considerably advanced our knowledge of this part of the subject. From them we learn that the microbe most constantly present in pneumonic exudation, and in that of the inflammatory affections with which pneumonia is often complicated, is the diplococcus discovered by FRAENKEL and WEICHSELBAUM; whereas FRIEDLÄNDER'S bacillus, like some other microbes occasionally found in pneumonia, is of exceptional occurrence. Nor must the remarkable investigation of the two KLEMPERERS upon the toxines of the first-named organism be lost sight of, as affording additional proof of the specificity of the disease. Nevertheless, when all these contributions to knowledge are collated, it would still seem that much remains to be done before we are in a position to conclude that bacteriology has said its last word regarding pneumonia.

According to WILSON FOX, "the disorder which, on a lesser scale, presents the greatest analogy with acute pneumonia is perhaps acute tonsillitis, where we have the same short initial stage, a similar intensity of rigor and prostration, a similar sudden invasion of pyrexia, and a similar rapid decline of this before the local inflammation has shown any signs of abatement. In tonsillitis, also, we have frequently an equal difficulty with pneumonia in verifying a distinct cause, and a certain amount of evidence at least exists in the case of the so-called 'hospital sore-throat,' that it may also be produced by other poisons than those originating within the system from the impeded exercise of the function of the skin." It will thus be seen that the pathology of pneumonia remains a question *sub judice*, but that the best authorities incline more and more to the specific theory of its origin.

THE statement which has recently been presented to the Scottish Universities Commissioners by the Edinburgh Association for the Promotion of Reform in Medical Education in the University of Edinburgh must necessarily lead to great changes in the methods of medical education in that University. The number of medical students in 1889–90 was 2003; the number of professors in the medical faculty is twelve. Evidently in order to keep pace with modern requirements in the teaching of medicine, the number of lecturers, assistants, and demonstrators has been greatly increased, and to these gentlemen the arrangement and control of the practical classes, which demand the utmost attention and the greatest amount of work, have been virtually assigned. It is stated that at the present time even these are insufficient in number to attend to the wants of the students. Instead of meeting the necessary differentiation in teaching involved in the increased range of medical study, it is urged that at Edinburgh practical and tutorial classes are arranged under professors who may have no knowledge of these new departures, and yet exercise full control over the assistants and demonstrators by whom the teaching is conducted, and that in many cases the majority of students are not properly instructed in the more modern methods of investigation and research. To such a pitch of conservatism has the education of medical students reached that we are told in a memorandum that this differentiation "is largely unprovided for, and certainly so to an extent greater than is the case in many small English schools, in the unendowed extra-mural school of Edinburgh, and even in the smaller foreign universities." The great burden of complaint is, in the first place, that the teaching is insufficient and its rewards are in too few hands. As we have said, the University works its medical school of 2033 students by means of twelve professors (seven of whom are also engaged in private practice), five lecturers (of whom four are also in private practice), and about thirty assistants, who do the main part of the practical work. It is obvious that the growing demands in medical teaching during the past twenty years should have been met by a proper increase in the professoriate, and not by handing over such duties to a junior, and an insufficiently remunerated, staff controlled by the respective professors. The class fees paid to the professors in 1889–90 amounted to £23,000, and in 1886–87 the average net income of each was £1620. We know that in many instances it has exceeded this amount, and in addition to the net income the Scotch professor is assured of a handsome retiring allowance. Under these circumstances it is clear that unless the prestige of Scotch University education in Edinburgh, so far as medicine especially is concerned, is to be allowed seriously to deteriorate, a few important reforms are urgent. These are: that the whole teaching staff should be paid directly by the University Court; that all teaching appliances and collections in the museum and laboratories should be the property of the University, and be maintained at its expense; that extra professorships should be established in many subjects; and that a revision and readjustment of the fees should be made, so as to secure a fair remuneration, with a due proportion of the class fees—not determined by the professor, but by the University Court—for the junior workers, viz., the assistants and demonstrators, on whom is really placed the practical work of the University. The system of lecturing to huge classes is in these days really an anomaly; personal supervision of the practical and clinical work of each medical student has now to a great extent superseded the ancient plan, and will still further replace it in the future. A reform in the incidence of the fees must follow this change in medical education, however distasteful this may be to the Scotch professoriate.

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Annotations.

"Ne quid nimis."

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE recent action of the Council of the Royal College of Surgeons in appointing a committee to consider what further advantages should be extended to the Fellows of the College has had its natural effect in stimulating the zeal of the committee of the Association of Fellows. The announcement was considered by the officials of the latter body of so much importance that a meeting of the committee was summoned about ten days ago to take the subject into consideration and to determine the future action of the Association. As a result of this summons the members of the committee mustered in strong force on Wednesday last, the 30th ult., at 5 P.M., at the residence of the President, Mr. Pollock. After the minutes of the last meeting had been read and confirmed, the discussion was formally opened by Mr. Holmes, Vice-President of the Association, who had drawn up a digest of the points which the Association has from time to time urged at general meetings of the College. This digest was put into the form of a resolution, proposed by Mr. Holmes and seconded by Mr. Lawson Tait, and was carried by acclamation. It was to the following effect:—"The following points are those which the Association of Fellows regards as essential to the well-being of the College in its relation with its Fellows. We arrange them in the order of their importance, in our opinion: 1. No organic changes in the constitution or relations of the College ought to be decided on without having first been approved by the Fellows of the College. 2. At the annual meeting of the Fellows the President ought to be elected by the votes of the Fellows present. 3. The Fellows ought to have the right to meet at the College separately from the Members. 4. A separate room in the College ought to be set apart for the use of the Fellows. In urging these points we express no opinion on the rights of the Members in any of these respects, seeing that our Association is formed solely for the purpose of advocating the claims of the Fellows." It was further considered desirable that the honorary secretary of the Association should communicate with the President of the College, and state that the committee of the Association would be glad to be allowed to send a deputation to the Council. The discussion of the foregoing subjects occupied the committee for a considerable time, and some other important business, including the consideration of a draft account of the proceedings of the Association of Fellows, which has been drawn up by a subcommittee specially appointed for the purpose, had to be postponed to a subsequent meeting. One other resolution, however, which we have sincere pleasure in recording was unanimously adopted—viz., "That this committee invites Mr. John Tweedy to allow himself to be put in nomination for the Council at the next election." We shall recur to this matter at an early date.

THE RETIREMENT OF DR. HAYCRAFT FROM EDINBURGH UNIVERSITY.

IT is naturally with some reluctance, but not without hope that good may come of it, that we call attention to the unhappy state of affairs at present and lately existing in the University of Edinburgh in connexion with the relations between the holder of one of the most important professorships in the medical faculty and the gentlemen who have lately been assisting him in his work. We will not recal the extremely unpleasant circumstances under which a few years ago the professor parted with his then assistant. Acting on the advice of his friends, the professor took a prolonged rest, and it was earnestly hoped that in the future there might be no recurrences of similar differences. Unfortunately such has not been the case. In the *Scotsman* of March 18th Dr. Berry Haycraft gives a narrative of his relations with Professor Rutherford and the causes of his dismissal. The facts as set forth by Dr. Haycraft are briefly these: In March, 1887, Professor Rutherford wrote to Dr. Haycraft, then occupying a chair in the Mason Science College and the Queen's College Medical School, Birmingham, asking him to be his substitute at Edinburgh during the prolonged absence which his state of health required. Dr. Haycraft was unable to consent, as it would take him away from his office for so long a period; but subsequent correspondence and interviews took place, in the course of which Professor Rutherford appears to have offered him a permanent post as his colleague, and it was understood that he would apply for Dr. Haycraft's appointment as assistant professor when he (Professor Rutherford) returned to Edinburgh. At Professor Rutherford's instance, and with no misgivings, considering their mutual relations, Dr. Haycraft signed an agreement which contained a clause binding the parties mutually for three years, and requiring at least a year's notice if either wished to retire from it. Dr. Haycraft accordingly resigned his Birmingham chair, and took up what he thought to be a permanent office in Edinburgh. About the time of expiry of the three years' agreement, and shortly after Professor Rutherford had assured his colleague of his continued confidence in him and need of his help, a serious change is alleged to have occurred in the attitude of the senior towards the junior professor. Apparently this was excited by the fact that Dr. Haycraft had communicated a paper to the International Congress at Berlin, upon a subject in which Professor Rutherford was also much interested—viz., the structure of striped muscle. The latter gentleman, moreover, is stated to have attempted to sever his connexion with Dr. Haycraft in the middle of the session by reference to the above-mentioned clause in the agreement, but omitting the one year's notice. Dr. Haycraft seems besides to have good reason to complain that owing to various circumstances no steps were taken by Professor Rutherford to obtain for him the status of assistant professor until after the Berlin incident. Pending the action of the Universities' Commission, the Senate declined to make the appointment, and now Dr. Haycraft finds himself severed from his *alma mater*, to which he had been invited on the urgent appeal of his former master. In view of all the facts we feel strongly that it is the bounden duty of the University to make full inquiry into the matter. Whichever way the subject is viewed it is impossible to avoid sympathising with Dr. Haycraft, who, by his own action, and in all good faith, has placed himself beyond the power of obtaining legal redress.

MEDICAL PRESCRIPTIONS AND DRUGGISTS.

THIS perennial subject has lately been discussed in letters in the *Pharmaceutical Journal*. The medical writers complain that old prescriptions are redispensed by chemists over and over again, often when the condition and case of the patient make it very unsuitable and even dangerous. The chemists recommend as a remedy for this that the medical practitioner who wishes to cease dispensing should retain a particular chemist, and have an understanding with him not to dispense particular prescriptions more than once and without special authorisation. This is an arrangement that may be worked honourably on both sides. But it is not so satisfactory as one in which the practitioner is independent

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of all chemists and the patient pays for the prescription. After all, if the patient uses a prescription on another occasion than that on which it was prescribed, he does so at his own risk. But it is undeniable that a prescription given to the patient for a fee is his property, to be used by him at his discretion. To think that Parliament, as is suggested, could be got to pass an Act to stop this practice is to have much more faith in Parliament than seems to be warranted. Speaking candidly, these letters are not very practical. There is one evil which they entirely ignore, and which is of far graver import than those complained of—viz., the assumption of an air of medical knowledge and learning by druggists in cases that would puzzle medical men themselves; and the use to which they put their familiarity with prescriptions—viz., repeating them for others and prescribing them. Some druggists—we should be sorry to think more than a few,—by a system of inquiry learn the general nature of the cases for which prescriptions are written, and then apply them to what they regard as similar cases. If general practitioners and chemists are to come to better relations, there must be a more perfect and delicate understanding on such practices.

THE MEDICAL REGISTERS FOR 1892.

THE Medical, the Dental, and the Medical Students' Registers, printed for the General Medical Council at Her Majesty's Stationery Office, are now ready. The election of direct representatives necessitated the revision of the Register with more than ordinary care. The number of practitioners registered during 1891 has somewhat increased, being 1345, as against 1266 in 1890. Deducting those names which have been removed from the Register owing to death or from other causes, the number of names added to the Register is 392. The total number is 29,555, as against 29,163 in the previous year. Of the new registrations, 683 were effected in England, 502 in Scotland, and 160 in Ireland. The registration of colonial practitioners under Part II. of the Medical Act, 1886, now includes 10 names. The Dentists' Register for 1892 will be found to contain 79 persons more than that for 1891, making a total of 4896, of whom 1179 practitioners, or 24·07 per cent., possess the qualification of Licentiate in Dental Surgery; while 3698, or 75·55 per cent., are registered as "in practice before July 22nd, 1878." This shows a marked diminution continuously going on from the percentage 90·87 of those who were so registered in the year 1879. The number of foreign dentists now registered is 19, or nearly 0·4 per cent. The Medical Students' Register shows that 2405 students registered in 1891. This is the maximum hitherto recorded, being 559 more than in 1890. This may be accounted for, no doubt, by the new regulations with regard to the five years' curriculum that came into operation on January 1st, 1892. Following the practice adopted for many years past, statistics are given showing the respective preliminary examinations that these students passed and the various medical schools or other "places of study" at which they commenced their professional career.

MEDICAL LEGISLATION IN NEW SOUTH WALES.

THE Sydney papers, in leading articles and letters, continue to discuss the Medical Bill and its fitness to secure the chief ends of medical legislation—the clear differentiation of the qualified from the unqualified. The *Sydney Morning Herald* objects that, while special arrangements are made for the registration of persons who have been practising without qualification, men who have passed through a curriculum and who hold qualifications or degrees may be left out or remain unregistered. There is some ground for the first objection. When medical legislation was first introduced it was reasonable to admit to the Register persons actually in practice and without diplomas. But that can hardly be held now, when for many years, in most civilised communities, men have been required to show proof, in the shape of diplomas, of being qualified to practise. At any rate, if there is still to be a clause of grace in favour of men without diplomas, it should provide that they shall be registered under a separate head, not on the score of possessing a diploma, but on giving satisfactory proof of having been for many years in practice. To make clear such a distinction is only fair to men who have taken diplomas at great cost of time and money, and fair also to the public. The *Herald* also objects, apparently, to registered men being disfranchised or taken off the Register on the ground of their diploma being taken away by the body that gave it on the score of mere "misconduct" or a breach of professional etiquette. Our contemporary would surely admit two things. First, that "conduct" is an essential element in the worth, and even the qualification, of a medical man. If a man dissociates himself from the obligations of his profession and its methods, he has no right to complain if his profession disowns him. It is in the public interest that he should be disowned. Medicine is a calling in which public deception and fraud can easily be practised if once the honourable and ethical side of it be disregarded. The second point is that no persons are so fit to judge in such a matter, and so likely to judge mercifully, as those composing the body from which the diploma proceeds. By all means let the Medical Council be required to deal directly with charges of misconduct, and to judge for itself; but in any case the judgment of a man's *alma mater* should count for much, and its disciplinary powers should be upheld. It is true, as our Sydney contemporary points out, that the Universities which should be most exemplary in the use of their disciplinary powers cease to have any after graduation. This is a monstrous state of matters, from which it results that graduates of ancient and honourable Universities occasionally bring their *alma mater* into great discredit with impunity. But that is a reason for giving to all bodies which grant diplomas full disciplinary powers, not for withdrawing them from those which already possess them. It is noticeable, as pointed out by a correspondent in the *Sydney Daily Telegraph*, that the judicial powers of examining bodies are only contemned by those who fear the exercise of them.

THE USE OF COCAINE IN SURGERY.

AT the Islington Medical Society recently Dr. Woodroffe read a paper on the Use of Cocaine in Surgery. He wondered how general practitioners got on formerly without it. He specified the following cases in which he had used it with satisfactory results—nasal polypi, adenoma of the naso-pharynx, excision of the tonsils, cystic growths of the scalp, tarsal cysts, scraping out of tubercular abscesses and sinuses in the neck, small false aneurysm in the palm, villous growth in the female urethra, internal hæmorrhoids, fistula in ano, tenotomy of anterior and posterior tibial muscles, also of the ligamentous sternal insertion of the sterno-mastoid in wryneck, fissure in ano, and abscesses of various kinds. Dr. Woodroffe would never use a general anæsthetic for internal piles save at the direct request of the patient. The expulsive power is saved by cocaine, and is a great advantage to the surgeon. He injects separately into the base of each pile. He has never used more than one grain, generally half that quantity. He had had two cases of poisonous effect, and had come to the conclusion that such a result depends far more on idiosyncrasy than on the quantity of the drug used. In one the quantity injected was half a grain; in the other only a quarter. The first was a woman, the second a girl about fifteen. Such cases have led him to be cautious in

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using the drug for women, and especially those of a neurotic type. These symptoms appear immediately after injection. He never injects more than half a grain, and waits two or three minutes before repeating the injection in cases where a large dose is required. In this way he has used two grains without bad symptoms; indeed, he had never seen any symptom supervene which did not show itself on administering the first dose. Of the poisonous symptoms, the most evident were pallor of the face, dilatation of the pupils, sense of impending death, with great restlessness, orthopnœa, very rapid cardiac action; the pulse, however, being less compressible, and the second cardiac sound being more marked than in a syncopal attack. These symptoms were followed by perspirations, and in the case of the girl by rambling, incoherent talk for some hours. The treatment adopted was the inhalation of ether and ammonia, with repeated doses of hot brandy-and-water. Dr. Woodroffe has not found it effective in ear operations or in avulsion of the toe-nail. For the latter he adheres to the use of ether spray. He also praised the use of cocaine (about two grains of the salt in cocoa butter as a flat suppository), coupled with doses of chloral, in the rigid os of primiparæ. It can easily be slipped inside the os and retained there till dissolved.

A HEAVY SENTENCE FOR BABY FARMING.

To whatever cause we may attribute the fact, it is satisfactory to note that, notwithstanding the increased vigilance of the authorities, we have lately heard but little of the evil of baby farming. That it still maintains a surreptitious, though less vigorous, life is unhappily certain, and this, as the report of the following case will show, has lost none of its familiar accompaniments of neglect and cruelty. The later surviving child of two entrusted to the keeping of Alice Hockley, who was recently convicted of manslaughter at Exeter Assizes, was indeed a pitiable wreck when at last released from his sufferings by death. At sixteen months he weighed 11 lb. 2 oz. Both arms and a thigh were broken. His allowance of one pint of milk was shared by four other persons. He had, of course, no medical attendance. Here the responsibility for maltreatment does not appear to have rested on his parent, who allowed four shillings weekly for his maintenance, and who seems to have done what she could for his welfare. In such a case, which is hardly distinguishable from actual murder, the penalty inflicted—twelve years' penal servitude—was well deserved. It should serve to caution any persons who may undertake the care of nurse children that the Act which regulates their conduct will be strictly enforced. It should also remind the agents of local authorities, of the Society for the Prevention of Cruelty to Children, and all others directly interested in the working of the Act, that the wickedness which it combats is by no means extinct, and can only be held in check by their own repressive energy.

TEMPERATURE EXPERIMENTS.

COMING so soon after the honour bestowed on Professor Cannizzaro by the Royal Society, the selection of Professor Mosso of Turin to deliver a lecture before the same learned body has given much gratification to our Italian contemporaries. They note the fact that it is "la prima volta che uno scienziato Italiano viene chiamato a questo onore" (the first time an Italian *savant* has ever been invested with the honour). Having referred to the distinguished audience assembled on the occasion, they summarise Professor Mosso's remarks on the phenomena, psychical as well as physical, associated with the temperature of the brain. In his observations Professor Mosso used exceedingly delicate mercurial thermometers, so that a change of not more than 0·002° C. could be easily measured, and the temperature of the brain was compared with that of the arterial blood, the muscles, the rectum, and the uterus. The subjects of the observations were animals under various narcotics or anæsthetics and also man. He found that, as a rule, the temperature of the brain is lower than that of the rectum, but that intense psychical processes or the action of exciting chemical substances may cause the temperature of the brain to remain 0·2° or 0·3° C. higher than that of the rectum. An ordinary interrupted current causes a rise in the temperature, which is observed earlier in the brain than elsewhere, and in a dog placed under the influence of curare the temperature of the brain remained fairly high while that of the muscles and blood fell. This difference in temperature was always distinct, and Professor Mosso calls attention to the fact which this seems to signify—viz., that muscle is not the only thermogenic tissue of the body. Observations made on an animal when awake seem to show that the development of heat due to cerebral metabolism is considerable, and that the mere maintenance of consciousness belonging to the wakeful state, apart from all intense psychical activity, involves very considerable chemical action and consequent change in temperature. But the variations of temperature as a result of attention, or of pain, or other sensations, are very small; and when an animal is conscious, no change of consciousness, no psychical activity, however brought about experimentally, produces more than a slight effect on the temperature of the brain. Experiments were also made to show the elective action of narcotics on the brain. Thus, if a dog be rendered completely insensible by an anæsthetic, no rise of temperature is obtained upon stimulating the cortex electrically. Again, if an animal be fully under the influence of chloral, and if a muscle be made to contract, the temperature of the muscle rises, but falls rapidly as soon as the stimulation ceases; yet a similar stimulus to a brain under the same conditions will cause a rise in temperature which may continue to increase for several minutes after the cessation of the stimulation. The injection of cocaine also produces a rise in the temperature of the brain without any accompanying change in the muscles, yet when these are rendered inert by curare, the rise in the temperature of the brain after the injection of cocaine is very much greater, as much as 4° C. The observations are, it will be seen, very interesting and suggestive.

DENHOLM v. TAIT.

IN this action Mr. Lawson Tait was the defendant, and the plaintiff was Dr. Denholm of Manchester. As it was not allowed to proceed to the usual termination—a verdict—we need scarcely trouble our readers with the particulars. Speaking very generally, it was a case of myoma in the practice of Dr. Denholm. Dr. Denholm had attended the patient for ten or twelve years, and eleven years ago found her to be suffering from fibroid tumour. This was occasionally inconvenient from its size. Mr. Whitehead and Dr. Lloyd Roberts were both consulted, and the Apostoli treatment by electrolysis was tried, but ineffectually. On one of the occasions on which this treatment was tried an accident occurred which caused a fistula. Finally Mr. Tait was consulted, and recommended an operation, with much promise of success. On Jan. 28th he removed the tumour, which weighed 12 lb. The patient died in forty-four hours. Mr. Tait, in a letter, attributed the untoward result to hæmorrhage, a result of sloughing from the electrical treatment. Dr. Denholm took this letter as a reflection on his treatment, and commenced the action, though clearly he was not responsible for the electrical treatment so much as the consultants who recommended and carried it out. A post-mortem examination was made, to which, unfortunately, Mr. Tait was not invited, as he should have been, and death was shown to have resulted

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not from hæmorrhage, but from peritonitis. Mr. Tait at the trial still spoke as if he believed that a hæmatocele existed, and might have been found if looked for. After Mr. Tait's evidence lunch time had arrived, and all the parties concerned came to an understanding to withdraw the case, if not the imputations on which the case rested. We cannot say that this course is satisfactory. It leaves questions of great scientific and personal interest unsettled, and must leave on the public mind a painful impression of uncertainty. Such cases must occur, and every practitioner concerned should magnanimously bear his share of the responsibility, knowing that he is doing his best, and giving credit to others for having done the same. Courts of law are rough places for the settlement of such disputes; but, if once appealed to, all the facts should be thrashed out and a verdict taken.

THE MEDICAL OFFICERSHIP OF HEALTH, ISLINGTON.

THE action of the Islington Vestry in suspending its own by-law against appointing actual or recent members to paid offices in favour of Dr. Wynn Westcott has excited general surprise and disapproval. The vacancy was not even advertised. This is a mode of procedure which is altogether out of date. In the House of Commons on Thursday Dr. Farquharson asked the President of the Local Government Board "if he was aware that the Islington Vestry had, contrary to its own by-law, appointed Dr. Wynn Westcott to the office of medical officer of health for Islington, Dr. Westcott having been until March 2nd a member of the Vestry and of the Public Health Committee; whether this appointment was made without previous advertisement, and against the votes of many members of the Board, including the chairman of the Public Health Committee." Mr. Ritchie's reply was in the main affirmative of all the points in the question, but he explained that the appointment was of a temporary nature, and that Dr. Westcott had ceased to be a member of the Vestry and of the Public Health Committee on Feb. 20th. The President gave further particulars with regard to the appointment, but for these we must refer our readers to our Parliamentary report.

METALLIC HYDROSULPHIDES.

QUITE new lines of chemical and physical research are opened in some papers which appear in the February number of the journal of the Chemical Society. The authors, Messrs. S. E. Linder and Harold Picton, of University College, London, who were encouraged and assisted by Professors Ramsay, Carey Foster, and Schäfer, started from an observation in regard to precipitated antimony sulphide. As their papers occupy nearly sixty pages of the journal, it is obviously impossible to present anything but the barest summary. They describe their experiments as still incomplete, but some of the chief conclusions already reached may be stated in a few words. In the first place, it was found that many metallic sulphides, notably those of copper and mercury, were capable of forming hydrosulphides which were soluble, or apparently soluble, in water. In some cases these compounds appear to have definite constitutions with high molecular weights, and we are presented with such curious formulæ as $7CuS,H_2S$; $22CuS,H_2S$; $31HgS,H_2S$; and $62HgS,H_2S$. Such formulæ must evidently be taken as provisional, although there is already fair evidence for some of them. Then followed some very interesting researches on the solutions or pseudo-solutions of these new compounds. In solutions that were apparently clear a beam of light showed the presence of solid particles which settled only with the most extreme slowness. We are reminded here of the experiments made so many years ago by Faraday on the separation of gold from solutions. Although these solutions appeared clear and had a bright-green colour, a cone of light rays showed the presence of suspended solid matter even after years of rest. In some cases these suspended particles were comparatively large, but in others they were so minute as to simulate the phenomena of liquid diffusion. A still more remarkable discovery followed. Using a microscope with an immersion lens capable of magnifying about 1000 diameters, the particles in many cases became visible, and were seen to be in rapid Brownian movement. It is probable that they would have been altogether invisible, but for the short free path produced by their great numbers. In other preparations the particles were far more minute, and it appears that no line of transition can be drawn between a liquid with actively moving solid particles and a true solution. The light which such researches are likely to throw on the complex problem of solution is evident, and scientific men will look forward with great interest to further discoveries.

DEATH OF DR. TOMKINS OF LEICESTER.

WE regret to announce the death on Sunday last of Dr. Henry Tomkins, who for many years held the post of medical officer of health for the town of Leicester. He was educated at Owens College, Manchester, and at Queen's College, Belfast, and afterwards studied at the hospitals of Dublin and Paris. He graduated as M.D. of the Royal University of Ireland in 1877, and in the same year he became a Member of the Royal College of Surgeons of England. Besides his appointment as officer of health he held the position of superintendent of the Fever Hospital, and was also the borough analyst. His yearly reports on the health of Leicester from 1885 were considered models of their kind. THE LANCET was indebted to his pen for several valuable contributions.

EFFECTS OF CRUSHING THE PELVIS TRANSVERSELY.

A SPANISH surgeon, Dr. Arcilza, has made a study of the effects of violent pressure excited in a transverse direction on the pelvis, such as occurs occasionally when a man is caught between the buffers of railway carriages. For the experimental part of his investigations he had constructed a screw-press suited to the shape of the pelvis and fitted with a dynamometer. In this a pelvis with or without the soft parts could be subjected to any required degree of pressure. It was found that the common form of straightening was produced by a pressure varying from 100 to 300 kilogrammes. With less than this the two pubes were pushed forward in a symmetrical manner, but after more than 100 kilogrammes of pressure one of these remained in its position, the increasing deformity being entirely due to the other. At first the bones began to part at the symphysis, and then there came a fracture at the junction of the pubes with the ischium, with complete separation at the symphysis; lastly, the sacro-iliac synchondrosis gave way. Another, though less common, type of injury was fracture of the ileo-pubic and ischio-pubic junctions. A third type consisted of an ischio-pubic fracture with internal displacement of the fractured ends. The most important of the lesions produced in the soft parts were those occurring in the urethra, which is always affected in its membranous portion. Very severe wounds of this were sometimes caused by fragments or splinters of bone. The most usual injury, however, was due to the stretching of the triangular ligament, and consisted of ecchymosis and minute lacerations of some of the coats, but very rarely amounted to complete perforation. This lesion can be recognised by hæmorrhage from the meatus and by the subsequent occurrence of a stricture at the site of the

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injury. The gravity of urethral ruptures caused by pelvic pressure is due to their producing intra-pelvic extravasation of urine, the only proper treatment for which is hypogastric section. Dr. Areilza details several cases which he has had the opportunity of observing clinically or post mortem, and which correspond with the results arrived at by experiments on the dead subject. In order to understand the mechanism of urethral lesions a special experiment was made on a pelvis from which some of the soft parts had been removed, the perineum, the external genitals, the urethra, the bladder, and the anal extremity of the rectum remaining. The bladder was injected with about eight ounces of water, and the penis tied to prevent its escape. A crushing force was then applied at the level of the acetabula. At 150 kilogrammes the symphysis began to part, and on one side there was lengthening to the extent of 1·5 centimetre. A sound was with difficulty passed into the bladder. At 250 kilogrammes there was overriding of the pubic bones, the lengthening amounting to 3 centimetres, the introduction of an instrument was impossible, though the urethra was sufficiently permeable to allow the water to run out when the bladder was compressed. With a force of 300 kilogrammes there was complete obstruction. The pelvis was now on the point of expressing the bladder from its cavity, and the tissues near the symphysis were infiltrated with venous blood. After the crushing force was removed it was possible, with difficulty, to get an instrument into the bladder, and the fluid could be expressed from it. Experiments were then made with the broken pelvis. These showed that when the displacement was great and the overriding complete the triangular ligament was torn; but the urethra, which is much more elastic, was not ruptured, unless the displacement of the bones was very great. A chromo-lithograph of the urethra is given showing the effect produced by a force of 300 kilogrammes. There was no rupture, though the peri-urethral tissues were lacerated. Several small hæmorrhagic foci appeared in the mucous membrane of the membranous portion and about the veru montanum; hæmorrhagic spots were also found on the bulb.

DR. YARROW AND THE HOLBORN GUARDIANS.

WE remarked some weeks ago on what seemed to us very uncalled-for reflections by certain members of the Holborn Guardians on Dr. Yarrow, who for twenty years has filled the office of medical officer of the City-road Workhouse with much credit and without complaint. Happily these reflections were referred to the Local Government Board. The Board has intimated to the guardians that, after carefully considering all the facts, it has come to the conclusion that Dr. Yarrow is not deserving of blame for his proceedings in the case in question. It is painful to see a public body make such mistakes in the treatment of a respected officer.

COAL-DUST EXPLOSIONS.

THE experiment shown very successfully before the Fellows of the Chemical Society, at the meeting on the 17th ult., by Professor Thorpe, although intended merely as a lecture experiment to illustrate the phenomena of coal-dust explosions, was highly instructive and, in view of the recent colliery disasters, singularly opportune. According to this experiment, coal dust *per se* must be considered beyond question to give rise to explosions of no mean intensity in coal mines. The disastrous effects produced by the enormous force of the impact travelling along all the ramifications of a mine are probably the result of explosions of this class; and the fact that explosions of this character are of rare occurrence in damp mines would seem to bear out this conclusion. Once ignited, the coal dust explodes with great violence, and this violence gathers in intensity as it proceeds. The explosion of coal dust may arise from some local ignition of fire-damp, or from the explosion of a faulty blasting cartridge, especially if the charge is gunpowder. In a box 12 ft. by 6 ft., constructed of oak, and cruciform in shape, an explosion of coal dust was shown, and also one of lycopodium powder; and the path of the explosion, it was pointed out, could be traced by placing pegs on the floor of the chamber, where the quantity of dust gathered on the faces of these pegs could be observed. The farther the pegs are from the initial point of explosion the more dust is observed on them, showing the increased intensity of the explosion as it proceeds. An ingenious apparatus, devised by Mr. Living, a late pupil of the Royal College of Science, for determining the amount of fire-damp in the air of coal mines, was also exhibited to the Fellows. It consists of a small magneto-electric machine, containing two very thin pieces of platinum wire, through which the current is made to pass. One of the wires is fixed in a glass tube containing simply pure air, and the other in a tube through which the air of the mine is drawn. The fire-damp causes the platinum wire to glow more brightly in the latter than in the former. The light is thrown on a paper screen, and by means of a simple device the difference in intensity may be measured and the actual amount of fire-damp deduced. In the interesting discussion that followed Mr. David Howard referred to two cases of "dust" explosions which came within his experience; one had occurred in a mill in which cinchona bark—a by no means inflammable substance—was ground, and in the other case soot produced by the burning of camphor had exploded after the fire had been put out.

ATAXIC PARAMYOTONE.

IN the February number of the *Centralblatt für Nervenheilkunde und Psychiatrie* Dr. Gowers has recorded a curious case under the above title. The patient was a man of forty-one, who had enjoyed good health until a year and a half before he was seen. He had suffered from syphilis eleven years previously—a fact which is probably of some significance. His symptoms first manifested themselves in his legs and later in his arms. When first seen he looked healthy and well nourished, his limbs were large, and his muscles well developed. They showed a peculiar hardness, however, the result of a true tonic spasm, which restricted voluntary movements and rendered them slow and difficult. Both flexors and extensors in arms and legs were affected. The patient would rise slowly and with difficulty from a chair, and would move about with a peculiarly stiff and deliberate gait. He easily fell if he met with any obstacle, and a slight push was sufficient to remove him from the erect position. There was also muscular weakness. But in addition to these symptoms there was also a considerable degree of incoördination of the hands, which made it difficult for him to button his coat and to carry out similar actions. Neither could he tell the position of his limbs, and he could not distinguish different weights. The knee-jerk, and other so-called tendon reflexes, could not be elicited, but this may have been due to the considerable rigidity which was present. There was blunting of sensibility on the palm, as high as the wrist, and slight delay in the conduction of painful impressions, but no disturbance of the temperature sense. The action of the sphincters was not disturbed, and there were no symptoms of psychical derangement. The case, it will be seen, offers some resemblance to one of Thomsen's disease, but differs in that the spasm in the case under notice was persistent, while in Thomsen's disease it is characteristically transitory; but, as Dr. Gowers points out, its importance lies chiefly in the fact that the character of

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the symptoms makes it certain that the spinal cord is diseased, although, of course, such a view does not exclude a concomitant morbid condition of the peripheral nerves and of the muscles. The existence of a lasting alteration in the function of muscle, depending ultimately on some nutritional derangement, is shown by a change in the electrical and mechanical irritability, as well as by the experimental facts adduced by Drs. Ringer and Sainsbury, showing that even after the nerve terminations are paralysed by curara, a condition of muscles similar to that which occurs in Thomsen's disease may be produced by certain drugs. But, on the other hand, the symptoms in the case point to an alteration in the action of the motor cells of the cord. It must be remembered that these cells, even when the muscles are at rest, are still active, as the tone and the adjustment of the muscles must still be provided for. When the call to voluntary activity comes from the brain, this voluntary excitation subdues, as it were, this more or less automatic activity of cells, but in conditions like Thomsen's disease it may be supposed that this automatic activity persists temporarily, in spite of the will, yielding after a time; yet in the case described in this paper, the will was unable, even after a time, effectively to counteract the condition. The persistent condition of the muscles, the hardness and tenseness may conceivably be the result of prolonged disturbance of the action of nerve-cells, a view which receives support from the fact that Thomsen's disease sometimes shows itself in adults, and in most cases is slowly developed.'

NEW SYNTHESIS OF TARTARIC ACID.

SOME light on the natural formation of tartaric acid is afforded by the recent discovery of a simple way in which this acid may be synthesised. A French chemist, M. Genresse, starts with glyoxalic acid—an acid found in gooseberries, grapes, and other fruits—and acting upon it with nascent hydrogen liberated from a mixture of zinc dust and acetic acid obtains eventually tartaric acid, or rather the optically inactive form of it known as racemic acid, equal molecules of the dextro and lævo varieties being apparently produced. The explanation of the action is very simple. Two molecules of glyoxalic acid are merely brought together by two hydrogen atoms. Glyoxalic acid is $C_2H_2O_3$, while tartaric acid is $C_4H_6O_6$, a formula which, as will be readily seen, contains two molecules of the former acid joined together by two atoms of hydrogen. It is well known that oxalic acid, $C_2H_2O_4$, is formed most readily in vegetable tissues, and is closely related to glyoxalic acid. Having regard, therefore, to the reducing tendencies which are known to characterise chlorophyll, it is not improbable that the natural building up of tartaric acid may be thus explained.

COMPULSORY VACCINATION IN BOMBAY.

WE have already had occasion to notice the creditable tone of the discussion on the second reading of the Bill for securing compulsory vaccination in the Bombay Presidency, as it has long been secured in Bombay itself. The only difference which arose was on the part of those who think that some great risk lurks in arm-to-arm vaccination as involving the transmission of objectionable diseases. They objected to the clause which gives authority to the Governor-General in urgent circumstances, and, where animal lymph cannot be obtained without dangerous delay, to authorise the use of human lymph. The chief exponent of this objection was the Hon. Mr. Javerilal W. Yajnik. He was well answered by the Hon. Mr. J. R. Naylor and others, who declared that there had been no complaint of the action of human lymph. Mr. Naylor, in particular, said that in thirty years' experience of litigation and complaints of all sorts in the Mofussil no complaint of this kind had come within his knowledge. The Governor, however, and his colleagues had no difficulty in suggesting a modification of the clause, common to this Bill and the Bill of 1878, for Bombay itself, authorising the governor to sanction the use of human lymph with which Mr. Javerilal W. Yajnik expressed himself as quite satisfied. It had reference to the provision of regulations as to the source from which the lymph is to be obtained, and the means by which its purity is to be maintained. This little difference being adjusted, the adoption of this beneficent Bill was practically settled, and a lesson was given in reasonableness to less enlightened opponents of such legislation at home. While we are confident that the dangers of arm-to-arm vaccination are greatly exaggerated, it is interesting to note that in Bombay for fourteen or fifteen years it has been found practicable to conduct public compulsory vaccination with calf lymph alone.

THE DANGER OF COUNTER-IRRITATION IN LOCALISED TUBERCULOSIS.

ACCORDING to Parrachia Anacleto, counter-irritation in localised tuberculosis is attended with great danger. Miliary tuberculosis spreads so rapidly from one organ to another by way of the veins and lymphatics that any irritation set up at the seat of the primary mischief cannot fail to increase the tendency of the disease to become general. Four cases which have recently come under his notice show this in a remarkable degree. Tuberculosis progresses slowly, but it allows of no violent remedies, and, he thinks, until some method of treatment more successful than either the injection of tuberculin, or cantharidate of potash, or the application of blisters has been discovered, the danger of causing general infection by their adoption will still remain.

THE DOUBLE CYANIDE OF ZINC AND MERCURY.

PROFESSOR DUNSTAN has already shown that when a solution of zinc sulphate is added to a solution of mercuric potassic cyanide, or when mercuric chloride is added to a solution of zincic potassium cyanide, a white precipitate is formed, which does not consist, as stated, of a double cyanide of zinc and mercury of the formula $ZnHg(CN)_4$. Further experiments, an account of which was given by Prof. Dunstan at the meeting of the Chemical Society on the 17th ult., indicate that this precipitate is in many respects a remarkable substance. The quantity of mercuric cyanide retained is dependent on the amount of water present during precipitation, as well as on the proportion in which the salts interact; the maximum quantity retained is 38·5 per cent. Zinc cyanide, having this percentage of mercuric cyanide attached to it in such a form that it cannot be removed by ordinary washing with cold water, is precipitated when cold saturated solutions of the two salts are mixed in equimolecular proportions. A series of experiments, in which the masses of the interacting salts were varied, proved that a compound of the two cyanides is formed, and suffers decomposition to a greater or less extent, depending on the relative amount of water present. Examination led subsequently to the inference that the composition of the double salt is expressed by the formula $Zn_4Hg(CN)_{10}$. Such a salt contains 40·6 per cent. of mercuric cyanide. It cannot be obtained pure, since it is decomposed by water, and it can only be produced by precipitation of aqueous solutions. All attempts to prepare the double cyanide by methods other than that of precipitation have failed. There was no forthcoming evidence of the existence of any other compound of the two cyanides than that described, nor could any similar compound of zinc cyanide with other metallic cyanides than that of mercury be obtained. It is

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widely known now that this tetra-zincic monomercuridecacyanide has been found to be an admirable surgical antiseptic. Sir Joseph Lister, its introducer, who was present at the meeting, and at whose suggestion the inquiry was undertaken, said that the great value of the salt arose from the circumstance that, while equally effective as an antiseptic, it had none of the irritant qualities of mercuric cyanide, and its slight solubility was an advantage. When mercuric chloride was used it was liable, on the one hand, to be washed away by the discharges of a wound, and, on the other, to accumulate until a solution was formed which was so concentrated that it caused great irritation. He was glad that Professor Dunstan had come to the conclusion that it is a definite chemical compound, because he had not been satisfied from its behaviour that it could be a simple mixture.

STATE SURVEILLANCE OF FOOD IN ITALY.

WE have from time to time remarked on the energy and effect with which Italians are improving their public health laws in respect to which the sale and consumption of deleterious foods and drinks used to be quite a scandalous feature. Under the new sanitary code the risk to the consumer of such dangerous ingesta is becoming rapidly minimised, a fact which cannot but be reassuring to the travelling public, who pass so many of the winter and spring months in the peninsula. Of late years Milanese butter, justly valued for its purity and flavour, has offered a peculiarly tempting field to the adulterator. According to an official statement now before us, the public health officers, for some time on the watch for such malefactors, have come upon the source of an enormous supply of "burro falsificato," sold as genuine Milanese butter at home and abroad. Specimens of this, examined under the microscope with polarised light, have revealed the presence of margarine, whose characteristic crystalline structure was, even in the minutest quantities, put in evidence by this detective means, and this only. A notoriously common and at the same time subtle form of adulteration is thus placed within the immediate cognisance of the public analyst, and the Milanese journals are already congratulating themselves on a discovery which bids fair to rehabilitate the character of one of the chief Lombard industries which was fast becoming fatally compromised. It is to French, not to Italian, initiative, however, that this addition to the public health officer's armoury is due. It was M. Pennetier, of the Chemical Laboratory at Rouen, who devised the method of detecting margarised butter under the microscope by polarised light. But, be its origin what it may, the method has been promptly utilised by the health officers of Italy, to be followed up, we hope, by other and not less efficacious means of food protection in the interests of her own people and of the stranger within her gates.

ELIMINATION OF TOXINES IN ENTERIC FEVER.

MM. ROQUE and WEILL[1] have made some experiments for the purpose of studying the elimination of toxines in enteric fever. The toxic power of the urine is shown by its ability to kill animals when injected subcutaneously. The average quantity which is necessary to kill a rabbit of a given weight determines the normal uro-toxic coefficient. These observers, in their preliminary experiment, allowed a patient suffering from typhoid fever to remain entirely without treatment; they then found that the uro-toxic coefficient was doubled. This they considered to represent the unaided efforts of nature to expel the poison of this disease. That the quantity, however, is insufficient is shown by the fact that the toxicity of the urine remains above the normal for four or five weeks after the fever has abated. When patients are treated by the cold bath method the uro-toxic coefficient becomes greatly increased, attaining an amount equal to five or six times the normal. This increase lessens as the temperature falls and the general symptoms improve, and it falls to the normal at the same time as the fever. This would seem to indicate that the cold bath is a satisfactory treatment, producing elimination of the toxic products, and this agrees with the clinical observation of the success of this treatment in practice. Antipyrin, on the other hand, produces an opposite effect, and when it is employed the uro-toxic coefficient is diminished almost to that observed in health. Several explanations may be given of this action. The antipyrin may act as a direct antidote, preventing the formation of toxines, or it may prevent their excretion or postpone their formation. After the use of this drug the discharge of toxines is found to be enormously increased during the first week of convalescence. Further investigations will be necessary before it can be shown how far each of the above contingencies results from the use of the antipyrin. Teissier has made similar experiments to determine the action of naphthol, and his investigations show that this substance is a true antiseptic, preventing the production of toxic bodies both during disease and convalescence.

[1] La Gazette Médicale de Montreal, Dec. 1891.

NEURASTHENIA AND HYPER-ACIDITY.

THE *Medicinisch-Chirurgische Rundschau* reviews an article by A. Pfannenstill of Stockholm in the *Nordiskt Med. Ark.* on the connexion between the above-named two conditions. Neurasthenia and nervous dyspepsia are, according to the writer, as frequently seen in Sweden as in other parts of the world. A valuable addition to the etiology of these complaints is that all the cases observed by Pfannenstill belonged to the working classes, so that neurasthenia is certainly not confined to the upper classes of society, who are most exposed to the excitement of modern life. Of both complaints a primary and secondary form can be distinguished; but the latter, which is merely a symptom of other affections, especially hysteria, is much the more frequent. Hysteria is more often observed in connexion with a general neurasthenia, in which the functions of the secreting nerves are always disturbed, and we may find in consequence hyper-acidity and hyper-secretion, or subnormal acidity, or even an entire absence of acid. The hyper-acidity is entirely due to an increase of hydrochloric acid. Pfannenstill considers that this hyper-acidity is the result of an increase in the quantity of the gastric juice, and not merely of the hydrochloric acid, and that there is no decrease in the power of absorption. Increased secretion of gastric juice is probably the source of hyper-acidity in other affections of the stomach, and the reverse is probably equally true.

THE SECRETION OF UROBILIN IN CERTAIN DISEASES.

G. HOPPE-SEYLER, assistant in the medical clinic of Professor Quincke at Kiel, publishes in Virchow's *Archiv* some observations on the secretion of urobilin. If urobilin is dissolved in a solution of caustic soda and a small quantity of calomel added, the yellow solution assumes a beautiful rose-red colour. If the solution is then filtered to remove the oxide of mercury, and, after the addition of hydrochloric acid, shaken up with amyl-alcohol, a solution of the red pigment is obtained, which has the same chemical reaction as a solution of urorosein, described some time ago by Nencki and Sieber. Hoppe-Seyler concludes from this fact that urorosein is produced in the same way by the oxidation of urobilin in the system. After a series of analytical experiments he finds that an increase of urobilin in the urine takes place in retention of bile with plentiful diuresis

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or when bile still finds its way into the intestine, as in polycholia. The same increase takes place in constipation affecting the large bowel, but not in the case of the small. It is also found in hæmorrhage into internal organs. A fairly normal quantity was found in cases of pernicious anæmia, leukæmia, and pseudo-leukæmia, but a decrease was observed in various cachexiæ, general debility, and in some cases of anæmia as well as in congestion of the liver with arrest of biliary secretion and an absence of diuresis.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—It has been announced that Professor Krause of Göttingen has been appointed to the chair of Pathological Anatomy, but there appears to be some doubt about this appointment. Dr. Karl Moell, Director of the Asylum at Dalldorf, has been granted the position of Extraordinary Professor.

Berne.—Professor Drechsel of Leipsic has been offered the chair of Medical Chemistry, vacated by Professor Nencki, who is going to St. Petersburg.

Gratz.—For the chair of Dermatology the three names sent up by the Professorial Senate are (1) Professor Jarisch of Innsbruck and (2) Drs. Finger and Riehl (who obtained an equal number of votes), both of Vienna.

Vienna.—Professor Kahler has been obliged to obtain leave of absence on account of his health.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Anton Karsch, Professor of Natural History in the Academy of Münster. He was the author of works on zoology, insects, the flora of Germany and of Westphalia, and of numerous pamphlets on educational questions viewed from a political point.—Professor Karl Saur, who contributed largely to the scientific education of dentists in Berlin, having written on surgery, with special reference to the teeth and jaws, and taught until some four years ago in the Dental Institute.—Dr. Steenberg, Professor of Mental Diseases in Copenhagen.—Dr. Armand de Fleury, Professor of Therapeutics in Bordeaux.—Dr. Barthélemy, Director of the Naval Medical Service at Toulon.—Dr. Victor von Ivanchich, formerly a distinguished operator, at the age of eighty, at Vienna.

PALERMO will be the seat of the next Congresso della Federazione delle Società Italiane di Igiene, which will be held from the 16th to the 20th of May. The organising committee have announced the following special subjects in the programme:—1. On prostitution in relation to existing regulations. 2. On the drainage of seaports. 3. On the hygiene of sulphur mines. 4. On the sanitary inspection of schools.

DR. B. W. RICHARDSON, F.R.C.P., F.R.S., has been appointed physician to the London Temperance Hospital, in the room of Dr. James Edmunds, resigned. The Board at the same time appointed Dr. John Fletcher Little, M.R.C.P., an assistant physician.

THOMAS HUGH DICKSON, M.A., M.B., B.C. Cantab., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Medical Inspector in Her Majesty's Customs, vice Walter Dickson, M.D., R.N., retired by seniority.

GENERAL PRACTITIONERS' ALLIANCE.—We are informed that the meeting of the members of the General Practitioners' Alliance, to consider the draft charter of the Royal British Nurses' Association, will be held at Exeter Hall on Tuesday next, April 5th, at 4 P.M., and not on the 12th, as previously announced.

Pharmacology and Therapeutics.

PARACRESOL AS A DISINFECTANT.

PARACRESOL obtained by Quiriny from wood tar is a more powerful disinfectant than either bromine, chlorine, or cresol. It is soluble in all proportions in water, giving clear, neutral, and almost inodorous solutions. As an antiseptic it is more energetic than carbolic acid, a 5 per cent. solution killing the bacteria of anthrax in ten minutes. An aqueous solution, with a small quantity of glycerine, makes a good wash for the skin in measles and scarlatina, and is especially recommended for use among midwives.

VESICATION BY MEANS OF A SOLUTION OF CORROSIVE SUBLIMATE.

M. Aubert of Lyons publishes an account of a new method of producing vesication. A compress of lint soaked in a solution of sublimate of the strength of 1 to 100 and applied to the skin produces in six or seven hours a blister similar to that produced by cantharides. This blister is of the exact size and shape of the compress, and the serum is said to be aseptic. In applying this method the neighbouring skin must be protected by strapping, and the compress held in its place by a bandage. M. Aubert has made use of this form of blistering in syphilitic acne with good results.

ATROPINE AS A HÆMOSTATIC.

In two cases of profuse metrorrhagia A. N. Dimitrieff has obtained good results by the subcutaneous injection of atropine in doses of 0·0003 gramme. In the first case the hæmorrhage stopped after four injections; in the second after three. Atropine is sometimes of service when other hæmostatics have failed. Dr. Dimitrieff is unable to explain the action of atropine, but it is certain it affects the blood pressure; but whether by acting on the vaso-motor nerves or on the vessels themselves, or on the vaso-motor centre, is, he considers, doubtful.

THE USE OF CORNUTIN IN HÆMORRHAGE FROM THE GENITO URINARY ORGANS.

A. Meisels, after satisfying himself as to the truth of Kobert's assertions that ergotinic and sclerotinic acids possess vaso-dilator properties, and that sphacelinic acid and cornutin cause contraction of muscular tissue, has treated urethral, vesical, and uterine hæmorrhage with pure cornutin; 0·01 gramme was given daily in divided doses. The results were very satisfactory.

SALOPHENE.

Salophene occurs in small white flakes almost insoluble in water, very soluble in alkaline solutions, in alcohol and ether. Its solution in alcohol is turned violet by perchloride of iron, and gives a bulky white precipitate with bromine water. It is quite tasteless and inodorous, and melts at 187° to 188° C. Alkalies break it up into salicylic acid and acetylparamidophenol. The same change takes place in the body when it comes into contact with the pancreatic or intestinal fluid. It passes unchanged through the stomach. According to the researches of W. Siebel, 88 per cent. is decomposed if given in doses of 2 grammes, but only 69 per cent. if given in doses of from 5 to 6 grammes; thus there is no advantage to be gained by giving more than 5 or 6 grammes during the day. The salophene not decomposed is eliminated by the bowel. The acetylamido-paraphenol is partly excreted by the kidneys, and the salicylic acid can be found in the urine fifty hours after the administration of the drug. Salophene is much less poisonous than salol, the lethal dose for a rabbit being from 7 to 8 grammes, death being caused by the presence of salicylic acid. Siebel comes to the conclusion that salophene is superior to salol, both on account of its want of taste and smell, as well as from its less poisonous properties.

THE EMPLOYMENT OF SICCATIVE LINIMENTS IN SKIN DISEASE.

The *Prager Medicinische Wochenschrift* publishes a communication from Professor Pick of Prague on the use of these liniments. He complains that in the usual formulæ the remedy does not come sufficiently into contact with the skin. To obviate this defect he has made use of bassorin, a constituent of gum tragacanth, prepared in the following manner:—Gum tragacanth, 5 parts; glycerine, 2 parts; water,

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two exceptions the methods and apparatus employed are very imperfect. In France, where disinfection is not obligatory, where it is often neglected, it will be found that, on the rare occasions when it is employed, it is managed in a more scientific and thorough manner than is generally the practice in England. For instance, while in England many sanitary authorities are content to expose contaminated bedding and clothes in a clumsy sort of stove where dry heat only is produced, and this rarely to more than 220° F., all the disinfecting stoves in France are filled with superheated steam under pressure, and great care is taken that the intensity of heat is equal in every part of the apparatus. Under such circumstances disinfection is much more reliable, and can be more rapidly applied. It was the improved methods of disinfection which the French delegates submitted to the Venice Conference, and these improvements rendered what seemed at first an impracticable suggestion comparatively easy to carry out.

Ships coming through the Suez Canal will be, we are told, classified in three categories. There will be, first of all, ships about which nothing can be said, no shadow of suspicion resting upon them. Such ships will pass through the canal without let or hindrance. The second category will consist of ships that have sailed from a port where cholera is known to prevail, even though there may not be any case of cholera for seven days previously to the departure of the ship. This category is to be qualified as that of the "suspects." These suspected vessels, which, according to the old methods, would have been placed in quarantine, will simply be disinfected. Very powerful and large disinfecting stoves are to be established, and bedding and personal apparel will be promptly purified by exposure to superheated steam under pressure. The English delegates suggested as an amendment to this proposal that mail ships, if they carried on board disinfecting stoves, should be exempted. This amendment was accepted on the double condition that the disinfecting stove carried on board must be of an approved pattern, and that the ship's surgeon must be appointed by Government. The surgeon would have to guarantee the perfect salubrity of the ship, or else supervise the thorough disinfection of all that was on board and likely to be contaminated. These conditions were accepted, and it was even suggested that other vessels besides the mail ships might be allowed to pass straight through the canal if there was good reason to believe that the doctor in each case would cause everything to be properly disinfected before reaching Suez. The English delegates made one more stipulation—namely, that in the case of troopships, only that portion of the ship occupied by troops coming from a contaminated port should be disinfected. The third category consists of contaminated ships—namely, ships on which cases of cholera have occurred during the voyage. In that case the disinfection practised will be much more rigorous, and will require longer time. Still the delay is never to exceed five days, and generally it will be less than this. Such possible delay of five days may seem somewhat alarming; but if the future may be judged by the past, it is not likely to make any practical difference with regard to the rapidity of our communications or the facilities of our commerce. According to a calculation made at the conference, it was found that during the last seven years only three English ships would have been placed in the third category. The French delegates thereupon were able to urge with much success that it was better to stop for a short time one ship every two years than to run the risk of contaminating the Mediterranean with so fearful and dangerous a scourge as that of cholera.

To carry out all these regulations it was proposed to establish a Sanitary Department at Suez, and to modify the Sanitary Council of Alexandria. Four medical men will be permanently on duty at Suez. They will constitute the executive of the Alexandria Committee, and will decide whether the ships arriving at Suez have fulfilled the above stipulations and can be allowed to pass through the canal. The Sanitary Committee is to be reduced from twenty to seventeen members; but, on the other hand, there will be an increased expenditure for the maintenance of the medical men at Suez, for the disinfecting services, &c. This is to be met by a tax of 10*d.* on each passenger going through the canal, but soldiers and functionaries are to be exempted. Then there will be a very slight increase on the tonnage dues for ships going through; and finally, there is a surplus balance resulting from the tax raised for the maintenance of the lighthouses. All these sources of income will amply suffice to produce the £6400 per annum which it is estimated the new services will cost.

The French delegates to the Venice Conference are unanimous in recognising the readiness with which the English representatives took in hand the French proposals and studied them in a manner which conclusively proved how strong was their desire to come to a common understanding. The *Journal des Debats* and other important organs of public opinion in France have expressed much satisfaction with the Venice Conference. If all international negotiations were dominated by the same spirit as that which prevailed among the sanitary reformers who met at Venice, it would be very difficult indeed for any international misunderstanding or quarrel to arise. It is urged, therefore, that the Venice Conference should be taken as a model; and we are not a little gratified to find that medical men have succeeded in giving so good an example to the diplomates of all countries.

On one or two points the English delegates found themselves in a very small minority. There were fourteen powers represented at the Venice Conference. The English proposed that even contaminated vessels should be allowed to pass through the Suez Canal on condition that they displayed the quarantine flag, that they had no communication whatsoever with the shore, and that they were bound direct to an English port. This proposal was defeated by ten votes against four, the representatives of the Triple Alliance alone voting for the English proposal. The English delegates were also opposed to the reduction in the number of members of the Alexandria Sanitary Committee. This reduction from twenty-two to seventeen members was to be effected by nominating only four instead of nine Egyptian Commissioners; but, as the Egyptian Commissioners are in reality appointed by the English, the proposed alteration will practically result in imparting to the Alexandria Sanitary Committee a more international character. This international character was marred by the exaggerated predominance of English influence. To these arguments the English delegates refused to assent, and, the matter being brought to a division, twelve nationalities voted in favour of the proposal and two against. The German representatives alone voted with the English. Consequently, the Alexandria Sanitary Committee is to be reduced from twenty-two to seventeen members by curtailing the number of Egyptian representatives from nine to four. Out of the fourteen nationalities represented the delegates of ten nationalities at once signed the agreement, but the delegates of England, Denmark, Belgium, and Turkey desired to refer the matter to their respective Governments. Since then Denmark and Belgium have sent in their approval; the signatures of England and Turkey alone are wanting.

There is one point on which the attitude of the French is somewhat inconsistent. Dr. Proust and Dr. Brouardel showed that they were imbued with modern ideas, and proclaimed their faith in sanitary measures and disinfection instead of quarantines. But in France the only statute that exists on this subject is the statute or *règlement* of 1876, which most emphatically establishes quarantines. The French sanitary authorities, acting under the enlightened guidance of Dr. Proust and Dr. Brouardel, may not apply these old regulations, but still they exist; and it would make the French position stronger with regard to Suez Canal negotiations if they were abolished. An English ship may satisfy the sanitary authorities at Suez, and yet find itself placed in quarantine on reaching Marseilles. Have we a sufficient guarantee that the methods of protection approved by the French sanitary authorities as applicable at Suez would be also applied at Marseilles? This is, of course, quite a secondary question. Our great interest is with the Suez Canal and not with the French ports. Nor are the French alone inconsistent in this matter. Other nations would resort to quarantine in their own waters, though they seemed quite satisfied with disinfection and medical inspection at the Suez Canal. The fact that at the great international sanitary station of Suez more enlightened views are to be enforced will serve as an object lesson to all countries, and doubtless the French and other nations will soon follow this example. The decisions of the Venice Conference are undoubtedly a very great advance on the opinions entertained by most continental Powers with respect to quarantines, and as such should be heartily welcome.

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national negotiations were dominated by the same
as that which prevailed among the sanitary reformers
met at Venice, it would be very difficult indeed for
international misunderstanding or quarrel to arise.
urged, therefore, that the Venice Conference should
taken as a model; and we are not a little gratified
that medical men have succeeded in giving a good
example to the diplomates of all countries.

On one or two points the English delegates found
selves in a very small minority. There were two
powers represented at the Venice Conference. The Italian
proposed that even contaminated vessels should be allowed
to pass through the Suez Canal on condition that they
played the quarantine flag, that they had no communication
whatsoever with the shore, and that they were towed direct
to an English port. This proposal was defeated by
votes against four, the representatives of the Triple
Alliance alone voting for the English proposal.
English delegates were also opposed to the reduction
in the number of members of the Alexandria Sanitary
Committee. This reduction from twenty-two to seventeen
members was to be effected by nominating only four out
of nine Egyptian Commissioners; but, as the Egyptian
Commissioners are in reality appointed by the English
proposed alteration will practically result in increasing
the Alexandria Sanitary Committee a more international
character. This international character was marred by the
exaggerated predominance of English influence. In the
arguments the English delegates refused to assent, the
matter being brought to a division, twelve nationalities
voted in favour of the proposal and two against it.
German representatives alone voted with the English.
Consequently, the Alexandria Sanitary Committee will
be reduced from twenty-two to seventeen members,
curtailing the number of Egyptian representatives from
nine to four. Out of the fourteen nationalities represented
the delegates of ten nationalities at once signed the agreement,
but the delegates of England, Denmark, Belgium,
Turkey desired to refer the matter to their respective
Governments. Since then Denmark and Belgium
Governments. Since then Denmark and England
sent in their approval; the signatures of England
Turkey alone are wanting.

There is one point on which the attitude of the English
somewhat inconsistent. Dr. Proust and Dr. Brouardel
showed that they were imbued with modern ideas,
proclaimed their faith in sanitary measures and declared
instead of quarantines. But in France the only sanitary
that exists on this subject is the statute or regulation
1876, which most emphatically establishes quarantine.
The French sanitary authorities, acting under the
lightened guidance of Dr. Proust and Dr. Brouardel,
not apply these old regulations, but still they exist, and
would make the French position stronger with regard
Suez Canal negotiations if they were abolished. As the
ship may satisfy the sanitary authorities at Suez that
find itself placed in quarantine on reaching Marseilles.
Have we a sufficient guarantee that the methods of
tection approved by the French sanitary authorities
applicable at Suez would be also applied at Marseilles?
This is, of course, quite a secondary question. The
interest is with the Suez Canal and not with the French ports.
Nor are the French alone inconsistent in this matter. Other
nations would resort to quarantine in their own ports
though they seemed quite satisfied with dispensing with
medical inspection at the Suez Canal. The first thing a
great international sanitary station of Suez must organise
views are to be enforced will serve as an object lesson to
countries, and doubtless the French and other powers
soon follow this example. The decisions of the Venice
Conference are undoubtedly a very great advance on the
opinions entertained by most continental Powers
to quarantines, and as such should be hailed

POISONOUS CIGARETTES.

INTELLIGENCE of a startling kind not unfrequently comes from the United States, and that recently to hand will no doubt create some amount of alarm in the now wide circle of cigarette smokers. It appears that the Congress of the States is being urged to suppress the cigarette by taxing it at the rate of 10 dols. per 1000. The promoters of the measure state that cuttings taken from the newspapers throughout the States show that during the past year there have been about 100 deaths of young men, mostly under sixteen years of age, from the effects of smoking paper-wrapped cigarettes. In some cases, it is averred, an analysis of the contents of the stomach has been made, and in most instances there have been found phosphorus and arsenic, the latter being a substance, it is said, largely used in the manufacture of cigarette paper. About a hundred men, the report further goes on to say, have been consigned to "insane (*sic*) asylums" from the same cause. Meanwhile the Legislature of Ontario has just read a second time a Bill introduced by the Premier, prohibiting the use of cigarettes by anyone under the age of eighteen. Under this Act the penalty for smoking will be a fine of from one dollar to five dollars, while those who sell cigarettes to persons under eighteen will be fined from ten to fifty dollars. Whether it be a matter for legislation or not, it will be generally conceded that the growth of the habit of smoking amongst mere juveniles is a thing to be deplored. It is a matter of everyday observation now that boys of from even twelve to, say, eighteen years of age indulge in what is rightly regarded as a habit decidedly injurious to those who have not reached maturity. We are, however, strongly inclined to doubt whether the paper of the cigarettes referred to above contained any arsenic or phosphorus. Such a paper, if it contained phosphorus in the elementary condition, and in quantity to be injurious, would impart a twang to the palate of the smoker which we imagine would hardly be relished. Moreover, phosphorus is a very unstable body, and in contact with air would rapidly change into oxidised products, which are highly deliquescent, considerably less poisonous, and if present in large quantity would render the paper quite wet. Why arsenic should be required in the preparation of cigarette paper we are equally at a loss to imagine. The very best material for this purpose need consist of nothing but the purest rice paper. A few years ago stories were in circulation in this country in regard to the noxious effects produced by the smoking of Egyptian cigarettes said to contain foreign substances, and the matter was considered sufficiently important to merit experimental inquiry. This was undertaken by our Analytical Sanitary Commission, the report of which is to be found in THE LANCET of Oct. 20th, 1888, p. 785. Summing up the results of our investigation, we reported as follows:—"The cigarettes which we examined were made from genuine tobacco. No foreign substance, and particularly no opium or other alkaloid, was added. The paper and the cement were pure, the only possible objection being the trace of copper found in the ash, which is probably due to the metallic lettering." The several samples then selected, though Egyptian, were regarded as fairly representative. If it be true that the paper used as wrappers for cigarettes in the United States are treated with, and contain, phosphorus and arsenic, the remedy is an easy one. Such procedure in the preparation of cigarettes should of course be prohibited; and just as articles of food are condemned in this country if they contain substances injurious to health, so should cigarettes containing any substance of a foreign nature be not only condemned, but seized and destroyed. The detection of both arsenic and phosphorus is a simple matter, which every analyst can perform; indeed, free phosphorus could be detected by anybody, since the cigarette paper containing it would glow in the dark. But we must confess an inclination to doubt whether either of these substances has actually been found in the articles in question. Should any members of the profession have occasion to suspect cigarettes to contain objectionable substances like those indicated, we should be glad to submit them to our analytical staff for examination, and, as on a previous occasion, to duly report the results in our columns.

THE MANUFACTURE OF BLEACHING POWDER AND WHITE LEAD.

THE SUFFERINGS OF WORKERS ENGAGED THEREIN.

THE task of the recently constituted Labour Commission is a heavy one, and it is to be hoped that it will be crowned by results which will materially assist in not only improving the condition of the labour market, but also in reducing the hardships and trials of many an honest labourer. Not the least important result of the inquiry must be an awakening of the community at large to the fact that in many trades the conditions under which the men work are far from healthy, and in many instances positively injurious, tending to shorten the life of the unfortunate *employés*. Already many startling statements have been made by witnesses in the Miscellaneous Trades Section, under the presidency of Mr. Mundella. The secretary of the National Amalgamated Society of Coopers, Newcastle-on-Tyne, for instance, gave evidence on March 18th concerning the conditions of labour in various chemical works. Respecting the manufacture of bleaching powder, he said that the conditions of work in factories where the heading-up of casks of bleaching powder is carried on are very unsatisfactory. This work is done in large chambers, and after the cask is filled with material the end has to be put in and fixed so that the bleaching powder shall retain as much gas as possible. In order to avoid the injurious effect of the gas given off by the powder the men have to wear a flannel muzzle. The muzzle, it was stated, is put over a man's mouth and nostrils and tied tight round; it was used by the chemical workers themselves as well as by the coopers. The men dropped down in these packing chambers, even with the muzzles on, overcome by the deadly gas. They were able, when wearing the muzzle, to breathe a little through the nostrils, but they were supposed to breathe through the folds of flannel to avoid the gas as much as possible. The nostrils had to be saturated with oil, and the oil was put on round their eyes and eyelashes and other exposed parts. They worked an hour at a time, and then came out to get fresh air. In their Society was one man who was suffering through inhaling gas under these conditions, and he (the witness) did not know whether he was alive at the present moment. The men got 6*d.* a ton for this work; so that, if a cask held 5 cwt., they would have to head up four to earn 6*d.* They worked fifty-three hours a week, and were often called upon in the night. The detrimental effect of the gas shows itself in the respiration of the men. A man has sometimes been noticed to scarcely breathe, and if anyone has been indulging in smoking the witness has seen them compelled to hold their handkerchiefs over their mouths; they are afraid to inhale any tobacco smoke, because it gives them a severe fit of coughing. In many places he had never seen an inspector, though he had heard of an inspector visiting them. They always knew when an inspector was coming, because the factory was always cleaned up, which indicated that notice of his visit had been given. In the bleaching-powder factories the lime for the powder was laid down about five inches thick in a large chamber. The doors were then sealed up and the chlorine-gas was put into the room, which were left sealed until such time as the lime absorbed the chlorine. Then the men, wearing muzzles such as had been described, went into the chambers and put the bleaching powder down through the shoots underneath, where there were casks to receive it. In addition to this muzzle they had to wear goggles over their eyes, and then on any portion of the skin that was exposed they had to put tallow or grease. Most of these men could not eat any food until they took a stimulant, such as whisky or rum. The men in all the yards were liable to be "gased." As an instance of this, there were two works in St. Helens—one known as the Sutton Lodge and the other as Kurtz's. Sutton Lodge was about 500 yards distant from Kurtz's, but the men in Kurtz's had had to run for their lives when the gas came over in large volumes from Sutton Lodge as the chamber doors were opened. One of them had seen a horse fall down in consequence of getting "gased" in Kurtz's yard. The works were divided into a bleaching-powder department, a vitriol department, a black-ash department, a salt-cake department, a caustic department, and a chlorate department.

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The bleaching department was the most dangerous. The men at the salt-cake department had to keep what they call a rag in their mouths, through which they breathe, and the teeth of these men are generally black and worn down to the gums. Every man inside a chemical works is likely to get gased—in fact, those living outside a works get afflicted more readily with bronchitis than people living in other districts, owing to the proximity of the factory. The men employed in this industry suffered more generally from disease than men in other industries, and he did not believe they lived so long.

The men in the white-lead factories were subject to the poisonous effects of the lead. They had to head-up casks in a way similar to that adopted in the bleaching factories. While they were knocking in the covering of the cask they were involved in white-lead dust, which they inhaled. He had known some of the members of their Society suffer from twisted joints from the action of the lead in the system. Lead poisoning was quite a common occurrence with the workers, and with young people especially. He had seen comparatively young women with their hands so that they could not take the pay when it has been put upon the table—they could not pick it up, and they had to wipe it off the table; they had not the power to pick anything up. He thought greater precaution might be taken than was at present done, and that it would be well if the inspector would not notify the employers when he was coming, so that he could see the operatives working under ordinary conditions. It might be possible to have a shoot in the "ovens," and the white lead might be put into the shoot, and so come direct into the cask. If that were done, it would remove nine-tenths of the difficulty that was caused now.

These are a few facts culled from the enormous mass of evidence which lies at the disposal of the members of the Commission, and we can only express the hope that instances of even a worse kind will not be forthcoming.

HUMPHREYS' PATENT IRON HOSPITALS AND OTHER BUILDINGS.

IT is probable that our readers are already acquainted with these structures, but in case they are not we desire to call attention to them, because the system admits of their being furnished of all sizes and capable of fulfilling a variety of purposes and requirements in everyday life. The designs are for iron churches, chapels, schools, hospitals, cottages, bungalows, offices, barracks, canteens, station buildings, workshops, &c. The buildings are of corrugated galvanised iron, lined with match-board, with a padding of felt between the two, and the construction admits of their enlargment when necessary. They are stated to be warm in winter and cool in summer, and are consequently adapted to all kinds of climates. The windows and doors can be supplied according to requirements, together with such an amount of ridge and other ventilation as may be deemed necessary. The wall framings are constructed of timber, morticed and tenoned, not spiked, so as to be easily taken down and re-erected. The interior is supplied throughout with match-boarding. The flooring is of planed boards one inch thick. The whole of the roofs, gables, and walls are lined throughout with felt, allowing an air space between match-boarding, purlins, and iron. The foundation required is of about two- to four-course brickwork, a ground plan of which is supplied to the local bricklayer. These buildings can be very quickly put up, and, as we have said, are of almost any size and character, and are said to last thirty or forty years. They can of course be fitted as required with stoves for warming, hot-water apparatus, bath and lavatory, and other offices. We think them well adapted for small hospitals for the isolation of infectious and other diseases, as well as for numerous other purposes that may be easily imagined, and they have the merit of being cheap. We would counsel anyone requiring any structure of the kind to visit the works at Knightsbridge and inspect some of those on view and the plans of buildings of various kinds.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Torquay Urban District.—Mr. Karkeek has before pointed out that increase of population in Torquay can hardly be expected; its area is limited, it is becoming more and more reserved for business purposes, whilst residences are being erected in the outside suburbs. Indeed, the population has only increased by 757 during the past decennium. The death-rate on over 25,000 people was 13·8 per 1000 last year, and it included some diphtheria deaths. This disease is believed to have been absent from Torquay for many years, and it certainly has not existed there in a fatal form; but under meteorological conditions involving much dampness and depression of vital powers the disease prevailed off and on, causing eleven attacks spread over the greater part of the year. Improvement is going on as to the housing of the working classes, and houses that are found unfit for human habitation are being closed.

Millom Urban District.—The death-rate for this district was 14·6 per 1000 during 1891, and Mr. Butler Stoney shows that little of the mortality was due to zymotic causes. The general health of the district is stated to show improvement, and this change is going hand-in-hand with the substitution of waterclosets for the old midden privies. The work in this direction is, however, by no means finished, for it is reported that no less than 8169 middens were emptied during the year. So long as those structures which cause nuisance and tend to ill-health are, in the first instance, dealt with, the local authority will probably find enough to do, and the effect will be one beneficial to the individual occupiers and to the district generally.

Caxton and St. Neots Districts.—The water-supply question for the villages is difficult of solution; the existing arrangements are bad, and it is feared that such amendment as would really be satisfactory would involve an expenditure that could not well be borne. The town of St. Neots suffers in a similar way, and unless the authority soon get a proper supply from the East Huntingdon Waterworks Company, they should proceed with another scheme. In the three districts combined the death-rate for 1891 is calculated by Mr. Poyntz Wright as high as 17·9 per 1000; but this was largely due to pulmonary diseases. The need for an isolation hospital is again put forward in the report, which contains an excellent statistical appendix.

Maldon Rural District.—Dr. Thresh has issued a very complete report on the sanitary circumstances of this district. It includes a reference to its shortcomings, but, on the other hand, it tells of substantial progress, such as an attempt to get better water for Southminster, the preparation of plans for the sewerage of Tolleshunt D'Arcy, and systematic inquiry into the condition of the dwellings of the poorer classes. One evil referred to as regards the latter is the damp brick flooring on which children crawl about, to the danger of their lives from pulmonary and other diseases. To a large extent the district is supplied with privies, and elsewhere hand-flushed closets are in use. These latter are found to be objectionable, and it may turn out that where sewers are available automatically flushed sink-waterclosets may meet the difficulty. Dr. Thresh has more than once referred to a connexion between London manure and diphtheria, and he gives further information in this report as to the same apparent connexion in the case of an outbreak at Tolleshunt D'Arcy. The death-rate from all causes was 15·1 per 1000 for 1881-90, and it was 16·3 last year.

Stretford Urban District.—According to the last census, the death-rate during 1891 was 17·5 per 1000 living, and the zymotic rate 2·0 per 1000 Under the notification system 81 cases were reported, 41 being scarlet fever, 21 enteric fever, and 15 diphtheria. Isolation is carried out, and in the case of houses under £20 rental per annum no charge is made for the use of the fever hospital. This, it may be hoped, is a first step towards free admission into a building purchased and maintained at the cost of all the ratepayers, whether living in cheap or more expensive houses. Mr. W. Healop gives a general account of the different sanitary circumstances of the district, and of the action taken during the year. He regrets the delay in re-sewering the district,

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Public Health and Poor La

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and he gives details as to a number of amendments which have been carried out.

Sutton Coldfield Urban District.—In dealing with zymotic diseases in this district, Dr. Bostock Hill refers to an outbreak of scarlet fever which was associated with the use of a special milk-supply. The case has already been brought before the Society of Medical Officers of Health, and we need only here refer to it in connexion with the proof afforded of the relationship between the disease and the milk, and of a relationship of the occurrence with a diseased condition in one of the milch cows in the dairy in question. Eruption and sore on the udder, coat rough and staring, raised temperature of body, hairless patches, &c., recall to mind the condition of cows in the Hendon case, as also does the veterinary certificate, to the effect that the cows were healthy. This latter is dealt with by Dr. Hill, who maintains that judgment as to healthiness in a cow should not be formed on the question whether they "eat well and milk well." Many a convalescing case of scarlet fever in a mother might come under the same description and yet be highly infectious. The report also deals fully with the sanitary state and requirements of the district; and the general death-rate for 1892 is given as 18·60 per 1000, the chief cause of the excessive mortality being the influenza epidemic.

West Hartlepool Urban District.—Dr. S. Gourley appends to his report a very useful chart indicating the localities in which cases of the various infectious fevers have occurred; the zymotic rate was 2·0, most of the fatality being due to diseases especially affecting childhood, such as whooping-cough and diarrhœa, and in this connexion it is pointed out that half the total deaths occurring at all ages were in children who had not yet reached five years of age, a matter calling loudly for immediate measures of prevention. Some substantial but much-needed repair of sewers has been carried out. The scavenging is fairly done, but would, as in most cases, be more efficient if done by the authority rather than by a contractor, and the water-supply is good. The general death-rate for 1891 was 17·2 per 1000.

Hartlepool Rural District.—Here Dr. Gourley reports a death-rate of 18·0 per 1000 living, but the zymotic rate was only 1·3. Notification favoured the prevention of scarlet-fever and diphtheria by facilitating early measures of isolation and school closure. Care is taken to look after the cow-byres, but although improvements have been effected, further measures are still called for. One important requirement, so often prominent in rural districts, calls for attention. It relates to the need of rain-spouting, a matter to which Dr. Gourley rightly calls attention; for the absence of it leads to saturation of subsoil and foundations with wet, and is often associated with the excessive incidence of pulmonary consumption.

Scarborough Rural District.—This district had a general death-rate of 15·9 per 1000 last year, and in referring to this Dr. Cuff discusses the question of influenza and its effect on the death-rate. His experience is that the period of incubation varies from a very brief one to five or six days, and that the disease is infectious during the first twenty-four hours. The infectious diseases that prevailed are considered in connexion with their causation, and a description is given of the general sanitary circumstances of the district. Water-supply is especially referred to, and it is satisfactory to note that services from extraneous sources are being delivered to villages and populous places. The houses of the working classes are also looked to, and instances are given in which overcrowding has been abated.

Hastings Urban District.—This seaside resort had a population of 52,223 at the last census, and the death-rate last year was 16·9 per 1000, the increase over the mean being due to pulmonary diseases following on influenza and severe weather. The increase in diphtheria fatality is very serious. The average number of deaths per annum during the previous ten years from this cause was 4·8, but no less than 23 such deaths occurred last year, and, so far as cause is concerned, the report merely says that most cases were apparently due to defects in domestic sanitation, an experience which by no means clears up the real point at issue. Indeed, the whole subject of this serious fatality is, after reference to some previous report, dismissed in a few lines. Improvements are stated by Dr. Scarlyn Wilson to have been carried out at the iron isolation hospital, where fifty persons were isolated; and it is added that, out of 210 cases of scarlet fever received into the hospital during the past four years, no single case has terminated fatally.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 5995 births and 4348 deaths were registered during the week ending March 26th. The annual rate of mortality in these towns, which had increased in the preceding three weeks from 20·5 to 24·8 per 1000, declined to 22·3 last week. In London the rate was 28·3 per 1000, while it averaged 22·9 in the thirty-two provincial towns. The lowest rates in these towns were 9·9 in Brighton, 12·8 in Croydon, 13·6 in Derby, and 16·3 in Hull; the highest rates were 29·6 in Preston, 31·0 in Halifax, 35·0 in Oldham, and 37·2 in Huddersfield. The 4348 deaths included 435 which were referred to the principal zymotic diseases, against numbers increasing from 390 to 477 in the preceding three weeks; of these, 192 resulted from whooping-cough, 120 from measles, 48 from diphtheria, 32 from diarrhœa, 27 from scarlet fever, 16 from "fever" (principally enteric), and not one from small-pox. No fatal case of any of these diseases was registered in Plymouth; in the other towns they caused the lowest rates in Brighton, Croydon, and Preston, and the highest rates in Norwich, Salford, Sheffield, Bolton, and Wolverhampton. The greatest mortality from measles occurred in Liverpool, Sheffield, and Birkenhead; from scarlet fever in Cardiff; and from whooping-cough in Burnley, Sheffield, Bristol, Blackburn, Wolverhampton, and Bolton. The mortality from "fever" showed no marked excess in any of the thirty-three large towns. The 48 deaths from diphtheria included 30 in London, 3 in Manchester, 3 in Sheffield, and 2 each in West Ham, Birmingham, and Salford. No death from small-pox was registered either in London or in any other of the thirty-three towns; 35 cases of this disease were, however, under treatment in the Metropolitan Asylum Hospitals on Saturday last (of which 21 were admitted during the week), and 7 in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1226, against 1202 and 1230 on the preceding two Saturdays; 126 new cases were admitted during the week, against 96, 117, and 146 in the previous three weeks. The deaths referred to diseases of the respiratory organs in London, which had risen in the preceding three weeks from 379 to 523, declined again last week to 466, and were 35 below the corrected average. The causes of 86, or 2·0 per cent., of the deaths in the thirty-three towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Brighton, Norwich, Sunderland, and in four other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Nottingham, Salford, and Blackburn.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had increased in the preceding three weeks from 22·5 to 24·2 per 1000, declined to 23·4 during the week ending March 26th, but was 1·1 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 19·1 in Dundee and 19·6 in Edinburgh to 24·8 in Greenock and 26·2 in Glasgow. The 650 deaths in these towns included 34 which were referred to whooping-cough, 12 to measles, 9 to diarrhœa, 8 to diphtheria, 5 to "fever," 1 to scarlet fever, and not one to small-pox. In all, 69 deaths resulted from these principal zymotic diseases, against numbers increasing from 62 to 71 in the preceding four weeks. These 69 deaths were equal to an annual rate of 2·5 per 1000, which slightly exceeded the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 29 and 28 in the preceding two weeks, rose again last week to 34, of which 21 occurred in Glasgow, 3 in Edinburgh, 3 in Aberdeen, and 3 in Leith. The deaths referred to measles, which had been 16 and 15 in the previous two weeks, further declined to 12 last week, all of which were recorded in Glasgow. The 8 fatal cases of diphtheria exceeded by 3 the number in the preceding week, and included 3 in Glasgow, 2 in Dundee, and 2 in Aberdeen. The deaths referred to different forms of "fever," which had declined from 8 to 4 in the preceding three weeks, were 5 last week, of which 3 occurred in Glasgow and 2 in Dundee. The deaths referred to diseases of the respiratory organs in these towns, which had been 154

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and 183 in the preceding two weeks, were 181 last week, and exceeded by 15 the number in the corresponding week of last year. The causes of 57, or nearly 9 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased in the preceding three weeks from 32·7 to 36·8 per 1000, further rose to 40·1 during the week ending March 26th. During the past twelve weeks of the current quarter the death-rate in the city averaged 38·5 per 1000, the rate for the same period being 28·7 in London and 19·9 in Edinburgh. The 269 deaths in Dublin during the week under notice showed an increase of 22 upon the number in the preceding week, and included 22 which were referred to measles, 5 to whooping-cough, 3 to diarrhœa, 1 to "fever," and not one either to small-pox, scarlet fever, or diphtheria. In all, 31 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·6 per 1000, the zymotic death-rate during the same period being 2·7 in London and 1·2 in Edinburgh. The fatal cases of measles, which had been 12 in each of the preceding two weeks, rose last week to 22, and exceeded the number recorded in any week since August, 1887. The deaths referred to whooping-cough, which had declined from 8 to 5 in the previous three weeks, were again 5 last week. The 3 fatal cases of diarrhœa exceeded the number in any recent week. The 269 deaths in Dublin last week included 32 of infants under one year of age, and 97 of persons aged upwards of sixty years; the deaths of infants showed a slight decline, while those of elderly persons considerably exceeded those recorded in any recent week. Seven inquest cases and 3 deaths from violence were registered; and 94, or more than a third, of the deaths occurred in public institutions. The causes of 24, or nearly 9 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

THE farewell banquet to Surgeon-Major-General J. Sinclair by the officers of the Medical Staff quartered in Ireland took place at the Shelbourne Hotel, Dublin, on Thursday, March 31st, when a large assembly of guests was present. Surgeon-Major-General Sinclair has earned deserved popularity with the officers of his department during the time he has filled the position of Principal Medical Officer in Ireland, and his retirement, although compulsory on completion of sixty years of age, is much regretted. Surgeon-Colonel W. Collis, now Principal Medical Officer, Cork, will, as previously announced, succeed Surgeon-Major-General Sinclair.

The death is announced of Brigade-Surgeon William Jobson on March 21st at Edinburgh.

ARMY MEDICAL STAFF.—Surgeon-Colonel Alexander Frederick Bradshaw, C.B., to be Surgeon-Major-General, vice W. Thomson, M.B., retired; Brigade-Surgeon-Lieutenant-Colonel Charles Henry Young Godwin to be Surgeon-Colonel, vice A. F. Bradshaw, C.B.; and Surgeon-Lieutenant-Colonel Philip Lefeuvre Kilroy to be Brigade-Surgeon-Lieutenant-Colonel, vice C. H. Y. Godwin (all dated March 10th, 1892); Surgeon-Captain Richard Hugh Penton is seconded for service with the Egyptian Army (dated Feb. 12th, 1892).

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Staff Surgeon Robert W. Biddulph to the *Sirius* (undated); Surgeon Robert W. Senior to the *Sirius* (dated April 5th, 1892).

HOSPITAL AND DISPENSARY, SCARBOROUGH.—During the past year substantial progress appears to have been made towards providing a new hospital, the erection of which was determined upon at the last annual meeting. A site in Westgate has been obtained, on which the new building is being erected. The honorary treasurer's statement of accounts showed a balance in hand of £91 2*s.* 7*d.* The report concludes with a sympathetic reference to the loss the hospital has sustained by the death of the late Dr. John W. Taylor, who for twenty-one years had rendered the institution continuous valuable services in several important official posts.

Correspondence.

"Audi alteram partem."

THE OPIUM QUESTION.

To the Editors of THE LANCET.

SIRS,—As you have given your adhesion to the anti-opium agitation, and as 5000 medical men have signed a declaration to the same effect, the opportunity seems a favourable one for clearing up some difficulties which surround this controversy. We have had a good deal of declamation, many dogmatic statements, and much sentiment of a highly respectable kind; but the solid foundation of fact on which this fabric should be built lacks stability, if indeed it can be said to exist at all. It is obvious that unless satisfactory proof can be given of the disastrous effects of the opium habit on the human constitution, England must be allowed to leave the court without a stain on her character. I have long been trying to get this information, but until now I have completely failed. But observing among the names of those who have memorialised the Government on the anti-opium side professors of materia medica, of pathology, and of medicine, physicians and surgeons to large hospitals, and others of our professional leaders, I invite them to step out and enlighten our darkness. They can hardly have lent the weight of their authority without full knowledge and consideration and an ample sense of the responsibilities attached to their position.

It is surely not too much, therefore, to ask them to justify the faith that is in them by supplying information on the following points:—1. Does the opium habit directly shorten life? 2. Has any death been certified as due to opium eating or smoking? 3. What are the symptoms observed by competent medical observers? 4. Give some pathological detail of the tissue degenerations noted. 5. Admitting that morphia is not volatilised by heat, but is largely if not entirely destroyed by the heat of the pipe, which constituent of opium causes the alleged ill effects? 6. Is it not the case that the Sikhs and the Rajpoots, the finest and the most warlike races of India, take opium regularly and thrive on it? 7. Is it not equally the fact that large numbers of the educated Chinese also take opium regularly without bad results? Some answer to these queries, couched in good set scientific phraseology, and backed up with statistical detail, will be of great service to the cause of truth. I am, Sirs, yours faithfully,

Reform Club, March 28th, 1892. ROBERT FARQUHARSON.

To the Editors of THE LANCET.

SIRS,—I thank you for the consideration which you have given to the contentions of the side I take on the opium question; but I do not allow your argument to be conclusive. The habit of opium smoking is not more unnatural than the majority of popular indulgences; and every indulgence is justified by a certain amount of therapeutic or tonic effect which it produces. More than 15,000 Chinese coolies, the greater part of whom smoked opium, passed through the hospitals of which I had superintendence, and I decidedly hold that the popular use of alcohol does more harm than the use of opium. I asked you to compare the Hindoo who takes alcohol with the Chinaman who takes opium, and have no doubt that the Chinaman will be found the less deteriorated of the two. So much for the question as to which is the greater evil. The task you now set before us is to make the Chinaman moral and temperate by restricting his alcohol and limiting his opium smoking. It is a hopeless task. India supplies the best opium under elaborate safeguards. Stop its production in India, and you will very much harm the cultivators and cripple the resources of the Government, while you will not benefit the Chinaman. Large amounts of opium are readily procured from South-west China, although, on account of its inferior quality, it does not sell in competition with the Indian article, but abundance of opium can always be got. When it is shown to be possible to efficiently regulate the sale of all luxuries which may be noxious by unrestrained use, it is time for Government to interfere. But even in England a way has not been found to limit the sale of alcohol and opium to purely therapeutic purposes. We

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Correspondence.

"Audi alteram partem."

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have not stopped the abuse of alcohol at home any more than we can stop the use of opium in China. But the Indian Government exerts itself to minimise the injurious use of the drug. It is not in the power of the authorities to extirpate a national habit. Indian opium is much more expensive than native Chinese, and in consequence less used by the poorer classes than by the well-to-do. It is an important consideration that probably the composition of Indian and Chinese opium is different, and that the proportion of the alkaloids varies. I believe that the finer quality of Indian opium is less injurious and causes less ultimate mischief than the other coarser varieties. Until it is absolutely guaranteed that alterations in the present system of production will not cause additional harm, by the extension of the use of alcohol or otherwise, it is well to remember the motto, "*Quieta non movere.*" The practical question is not really affected by the fact that a single overdose of opium is much more serious than a single overdose of alcohol. It is a consideration regarding habitual use which is before us. I see no reason to alter my previous conclusions:—1. The habitual use of opium is not so dangerous nor so degrading as the "anti-opium party" represents. 2. The importance of forbidding the export of opium from India with a view to lessening its consumption in China has been exaggerated. 3. To place restrictions under present circumstances on opium consumption is likely to cause harm by stimulating the use of other more dangerous forms of indulgence.

I am, Sirs, yours faithfully,
March 29th, 1892. W. D. S.

P.S.—I may add that I sympathise with all efforts to decrease vice and lessen misery, especially of semi-civilised races. The introduction of the "fire-water" to the races unaccustomed to it is a story of disgrace. On the other hand, I am convinced that the present endeavour to raise a crusade against opium is an example of misguided zeal.

To the Editors of THE LANCET.

SIRS,—At a very crowded meeting at the Society of Arts on Thursday, March 24th, a paper was read by G. Batten, Esq., late of the Bengal Civil Service, with Sir John Strachey, K.C.S.I., formerly Lieut.-Governor of the North-West Provinces and Oudh, in the chair, on "The Opium Question." The reading of this paper was preceded by a remarkable article in *The Times* of March 21st, of two and a half columns, on this subject, the main object of which seemed to be to show that, apart from the question of economic revenue, "the legitimate use of opium in India is determined by two sets of causes—by geographical or climatic necessities, and by needs arising out of the prohibitions of religions, or the temperament of races"; or, in other words, the issues were limited to purely medical and moral lines. The latter we can surely dismiss with the remark that, if there is any force left in the precept to do to others as we would be done by, the obligation devolving on a professedly Christian nation to supply its subjects with an inducement to self-indulgence in lieu of another prohibited by their religious enactments, or to minister to a temperament—alas! already admittedly sensual—by means of a drug, whatever may be said to the contrary, largely taken for sensual purposes, is as baseless as it is immoral.

The medical aspect of the question, however, is one which must be carefully and scientifically discussed; for, if it can be satisfactorily proved that "the general and moderate use of opium" under any conditions imparts to the poor cultivator of India what the writer in *The Times* describes as "an unconscious safeguard" against the endemic diseases of any locality, by far the chief of which is fever (I purposely do not limit the locality to the population of deltaic tracts of land), then the opium question must be discussed apart from all considerations other than those which will enable the peoples of India to resist most successfully that disease (fevers of varied types) which annually carries off numbers out of all proportion to all other diseases put together. For instance, in a population of 44,000,000 in the North-West Provinces and Oudh, the deaths from fevers in 1886 numbered 250,995 This, therefore, is the point round which the battle must now rage, as the withdrawal of the drug said to produce this "unconscious safeguard" is declared by the writer in *The Times* to be "morally indefensible." Opium, therefore, must be viewed, and treated, either as a necessity for health or a luxury for wealth; and perhaps there never was a better opportunity, outside of a purely professional arena, such as that in which I led the discussion at the meeting of the British Medical Association at Bournemouth last year, than was presented at the Society of Arts last Thursday. There were medical men in that splendid hall capable, from the greatest and most varied experience, of discussing the subject to the full, and there were civil administrators in sufficient numbers to witness the combat and test the results; but clearly, quite unexpectedly to all, this crucial point of the question was never even touched upon in the discussion, if we except a few remarks from Sir Lepel Griffin. I must, however, in justice to Sir George Birdwood, state that, owing to the impossibility of giving the numerous applicants to speak an opportunity of being heard, he most generously, on behalf of the Society, undertook to record in the pages of the Society's journal the remarks of those who would have spoken had there been time We must, therefore, wait till the journal appears to read the views of those present. In the meantime, I feel all must admit the difficulty which the chairman undoubtedly experienced in limiting the time of the speakers; but, as I have said, Sir George Birdwood has done his best to supply any deficiency which might have been complained of from this cause.—Yours truly,

ROBERT PRINGLE, M D,
Blackheath, S.E., March 26th, 1892. Brigade Surgeon.

*** Other communications on the above subject are unavoidably held over till next week.—ED. L.

PYRAMIDAL CATARACT.

To the Editors of THE LANCET.

SIRS,—In an abstract of a paper read by Mr. Treacher Collins before the Ophthalmological Society, which appeared in THE LANCET of March 19th, there are a few points upon which I, perhaps, may be permitted to touch, all the more as Mr. Collins has quoted from a paper of mine on the same subject in the last volume of the Ophthalmological Society's reports. It is a great regret to me that I was unable to be present at the reading of Mr. Collins's paper, nor have I the context, but the abstract is a full one. Mr. Collins's work and communication deserve great consideration. He has collected a unique series of cases and presented them with skill. His conclusions are, in the main, similar to those drawn by previous observers in cases of pyramidal cataract following corneal perforation, and, with the exception of his hypothesis in reference to the formation of new capsule, confirm (so far as my memory serves me, for I have mislaid the paper) the observations of Professor Schweigger on a case of pyramidal cataract submitted to him by Dr. Samelson. So far, then, his cases, admirable as they are, give no new insight into this affection; but Mr. Collins touches very debateable ground when he divides his cases arbitrarily into groups and selects the one suited to establish a particular view. This is equally open to other observers, and the chaos that must ensue is obvious. In referring to a paragraph in my paper, "that pyramidal cataracts are found in a majority of cases associated with clear corneæ," Mr. Collins is not logical in challenging the statement on the ground "that a large number of eyes with opaque corneæ have not been examined," because my paper obviously refers to cataracts *in esse*, and not to those *in posse*. I join issue with any observer who demurs to the presence of pyramidal cataracts with clear corneæ, assuming that he accepts, as I do, the usually received examples of anterior polar capsular opacity with prominence more or less marked, for within the last three months I have removed by suction two zonular cataracts with pyramids on the centre of each capsule, both corneæ being cloudless. In each the pyramid, which certainly lay outside the capsule, was carefully detached experimentally before rupturing the capsule, and it sank, a thickened, chalky flake, to the bottom of the anterior chamber—a typical example of dead pupillary membrane.

I am, Sirs, yours truly,
P. H. MULES,
March 28th, 1892. Surg., Mid-Cheshire District Eye Hosp.

TUBERCULIN.

A la Direction du LANCET.

TRES-HONORÉS COLLÈGUES,—Je vous prie d'avoir la complaisance d'insérer dans votre journal ce qui suit:

Dans la *Allgemeine Medicinische Central Zeitung* de 20 février nous lisons: "Un médecin suédois, Dr. O. Torstensson à Gothebourg, a reçu à une demande qu'il

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avait faite au Professeur Koch, de l'assistent de celui-ci, du Docteur A. Libbertz, la réponse suivante:—'Je suis fâché de n'être pas à même de vous envoyer la soi-disante tuberculine améliorée dont on a parlé dans les journaux. A la vérité, le Professeur Koch s'occupe continuellement à perfectionner son remède, et il croit de ces jours être plus près de son but. Cependant, il est d'avis de ne pas publier la préparation avant qu'elle ait été soumise à une épreuve brillante dans des maladies tuberculeuses. C'est pourquoi il n'est pas permis de s'en servir hors des cliniques du Professeur Koch.'" Le même journal nous mentionne, sous date 12 mars: "Dans les baraques de maladies contagieuses sous la direction du Professeur Koch soixante hommes, trente six femmes, et six enfants peuvent être admis. A présent environ soixante-dix personnes y sont traitées de la tuberculine améliorée." Nous voyons que M. le Professeur Koch s'occupe encore toujours de recherches pour améliorer, purifier, et perfectionner son soi-disant remède. Donc, il a été de sa part un fait sans doute un peu précipité et prématuré d'avoir préconisé, il y a un an et demi, son procédé comme capable de guérir la tuberculose. Il me semble, cependant, plus à propos d'arrêter d'abord l'existence de ces microbes que de chercher à perfectionner un remède jusqu'ici inutile, sans valeur, et même dangereux, basé sur les qualités de prétendus microbes dont je dois nier l'existence. Qu'il nous montre les bacilles tuberculeux dans ces endroits où jusqu'ici il manque de nous les montrer, et où il doit nous les faire voir en premier lieu—c'est à dire, dans des tubercules en développement, dans des tubercules tout à fait développés, encore frais, crûs, et dans des cavernules qui ne sont pas encore en rapport avec les bronchioles, et de plus dans une disposition et une agrégation conformes à la nature et à l'arrangement des parasites dans des affections vraiment parasitaires—s'il veut que nous ajoutions foi à l'existence de ces microbes et à leur rapport étiologique avec la tuberculose. Car, si les bacilles tuberculeux n'existent pas, comme je prétends, il ne peut pas être question d'un extrait ou d'un produit de ces microbes illusoires.

Agréez, Messieurs, l'assurance de mes sentiments distingués et mes salutations sinceres.

Groningue, 23 mars, 1892. H. W. MIDDENDORP.

MEDICO-LEGAL CORONERS.

To the Editors of THE LANCET.

SIRS,—The leading article in THE LANCET of March 19th raises the question "How are suitable medical candidates to be obtained?" To secure this object I would suggest that the appointment as coroner should be competed for, after a course of special training in the various medical and legal subjects required. Competitive examination would be the surest means of securing the best men for such an important post. Coroners' inquests should be presided over and conducted by gentlemen well qualified in law as well as medicine. The course of study should therefore include practical and theoretical training in the requisite subjects appertaining to both professions. A medical coroner without legal knowledge is at a great disadvantage, but a legal coroner without knowledge of medical science is much worse. That coroners' courts should be presided over by gentlemen specially qualified for the purpose would be an extreme source of satisfaction to the medical profession and an additional security to the public. Inquiry into the cause of death is a purely medical investigation, but in the conduct of it legal points arise which a medico-legal coroner would be prepared for. As matters stand at present, verdicts are frequently returned as to the "cause of death" where no medical evidence has been called, and where both coroner and jury make most egregious mistakes. In these cases the jury are, to be sure, entirely dependent on the coroner, and therefore not so much to blame. I have frequently known of verdicts of "Natural causes" &c. being returned where medical evidence was dispensed with, which would have undoubtedly proved that the causes were decidedly "unnatural." Country jurors, as a rule, are not capable of grasping the salient points in medico-legal investigations; it is therefore most important that scientific questions, when they arise, should be explained to them in a concise and lucid form. I think coroners' courts require complete reformation. It seems absurd to expect twelve men, "good and true" as they may be, whose mental development has decidedly suffered from their station in life, to deliberate on scientific matters of which they must be totally ignorant. I do not purpose discussing the mode of reformation, but I think medical facts can only be properly judged of by medical minds.—I am, Sirs, yours truly,

March 23rd, 1892. M.R.C.P.I.

*** Our contention has always been that the amount of knowledge of law governing the coroner's functions may easily be acquired by a medical man, whereas, on the other hand, the medical knowledge requisite to conduct an inquiry into the cause of death can only be possessed by one who has received a competent medical training.—ED. L.

FATAL CASE OF INHALATION OF ROBURITE FUMES.

To the Editors of THE LANCET.

SIRS,—I was present at the inquest noted in THE LANCET of March 19th by Dr. Hatton, and venture to think we cannot accept the *ipse dixit* of a coroner's court upon a scientific question. For many years I have had a large number of cases under my care, of both acute and chronic cases of nitro-benzol poisoning, and the symptoms described by Dr. Hatton do not in the least tally with my experience; neither do the post-mortem appearances. In over two hundred cases I have never observed nystagmus, but we are all aware that it is common, irrespective of poisoning, amongst colliers. Indistinctness of vision only occurs in prolonged and very chronic cases. Temperature I have never found over 100°. Cyanosis is common during life, and by German observers said to exist after death, but in the fatal case which I had, paleness of the mucous membranes and body generally was one of the most marked characteristics. The reflexes are usually much enfeebled, and in acute cases lost. Meningitis and encephalitis are not, so far as I have observed, produced by the absorption or inhalation of this vapour; and Professor Paul, in his cross-examination, said that he was unaware that nitro-benzol could produce inflammation of the brain. I have seen men inhale a concentrated atmosphere of nitro- and di-nitro-benzol vapour fifteen minutes at a time, and only suffer temporary inconvenience in consequence. Therefore it seems to me improbable that a fatal case should occur in a healthy man from breathing an atmosphere so slightly tainted with nitro-benzol as the evidence of the court amply proved. I was also present at most of the underground experiments by Professor Dixon and Messrs. Mounsey and Hannah, with the ventilation absolutely stopped during the explosion of roburite cartridges for from twenty to thirty minutes, and felt no inconvenience. It seems to me advisable for medical men to be very careful before attributing fatal results to the use of any explosive used in mines, especially one which, theoretically, is so innocuous in the fumes which it gives rise to, and one which on all occasions, when practically and scientifically tested, has been shown to be harmless.

I am, Sirs, very faithfully yours,

R PROSSER WHITE, M.D., M.R.C.S.,
Hon. Surgeon, Royal Albert Edward Infirmary, Wigan.

March 29th, 1892.

SUBPERITONEAL HYSTERECTOMY.

To the Editors of THE LANCET.

SIRS,—Dr. Heywood Smith, in his interesting article on subperitoneal hysterectomy in THE LANCET of Feb. 20th, 1892, refers to a paper of mine on the same subject. He mentions the chief points of my method—viz., the raising of peritoneal flaps, the separate ligature of the uterine arteries, and the avoidance of the ureters &c.; but he has not, I think, quite grasped their importance, in that he regards them as subsequent in time to the removal of the tumour.

The steps of my method in their order are—(1) abdominal section; (2) separation of adhesions, if present; (3) ligature and division of both broad ligaments; (4) formation of anterior and posterior peritoneal flaps, each incision starting in the lower angle of the peritoneal wound formed by the division of the broad ligament on the one side and ending at the same point on the other; (5) separation of the peritoneal flaps from the uterus on all sides down to the insertion of the cervix uteri into the vagina; (6) seizure and division of the main trunk of the uterine artery of either side, as it lies in the superficial tissues of the exposed cervix uteri; (7) the removal of the tumour and uterus by section of the cervix above the point of ligature of the uterine arteries; (8) suture of peritoneal flaps; (9) complete closure of abdo-

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R PROSSER WHITE, M.D., M.R.C.S.
Hon. Surgeon, Royal Albert Edward Infirmary, ...

March 29th, 1892.

SUBPERITONEAL HYSTERECTOMY.

To the Editors of THE LANCET.

... his interesting case ... Feb. 3rd ...

minal wound. The advantages claimed for the method are—(1) after division of the broad ligaments, and until the suture of the peritoneal flaps, all operative procedures are outside the peritoneum, and away from all sources of danger; (2) the operation is practically bloodless; (3) the peritoneal cavity is left closed and clean; (4) the stump is left unbruised by the application of any elastic ligature.

I note that in all three of Dr. Heywood Smith's cases an elastic tourniquet was used, that in two cases he had suppuration, and in the third a hæmatocele, all of which, owing to the excellence of his suture, were extra-peritoneal. In all surgical procedures I take it the first aim is to diminish, as far as possible, the introduction into the wound of noxious elements, be they germs, germ products, or germicides; the second is to injure as little as possible the tissues left behind, for in these tissues the healing process, with its extraordinary tendency to degenerate into inflammation, has to take place. The application of a tourniquet in an amputation of an extremity is attended with but little risk, partly from the facility with which it is properly applied, partly from the strong resisting power of the skin and subcutaneous tissue, and partly from the distance between the point of application and the tissues which have to heal. In the application of a tourniquet to the uterus the exactly opposite obtains, and I think the results will be rendered more perfect and the operation more bloodless by the ligature of the main trunks of the uterine arteries before removing the tumour.

I am, Sirs, yours faithfully,

Cairo, Feb. 28th, 1892. HERBERT MILTON.

WINTER COUGH AND NOSE OBSTRUCTION.

To the Editors of THE LANCET.

SIRS,—The frequency of chronic winter cough, laryngeal catarrh, and cold in the head is unfortunately, in this country, Europe, and America, notorious. I have recently shown from the examination of over 1000 living and 5000 dried skulls that some irregularity of the nasal septum, causing more or less obstruction to nasal respiration, is a constant feature of nine out of every ten persons living in those countries. Facts are steadily accumulating, and the conviction is becoming established with many who are competent to judge "that chronic winter cough, laryngeal catarrh, and post-nasal catarrh, with all their consequences, are in the majority of cases the direct result of breathing unfiltered, cold, and dry air that has not passed through the proper respiratory gate." This proposition can only be refuted by evidence to the contrary, and established by showing that every person suffering from winter cough or laryngeal catarrh, or a great majority of these, has some marked obstruction in the nose. This investigation is now proceeding at several centres, and it is with the object of still further directing attention to the subject that I write this letter, and subscribe myself

Your faithful servant,

MAYO COLLIER, M.S. Lond., F.R.C.S. Eng.

New Cavendish-street, W., March 24th, 1892.

MR. BARFORD AND WELLINGTON COLLEGE.

To the Editors of THE LANCET.

SIRS,—Mr. Barford appeals to me in your columns with respect to three cases of sore-throat which occurred some years ago in my own family, and which were attended by him in the course of private practice. Will you allow me to answer his appeal by one question? If he considered them at the time to be cases of diphtheria, as he now thinks that he did, why did he not advise any quarantine or measures of disinfection? There were three young children in the house, and boys of the school were constantly in and out of it.

I am, Sirs, your obedient servant,

Malvern, March 28th, 1892. E. C. WICKHAM.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The Queen's Hospital.

THE fifty-first annual meeting of this institution was held on the 28th ult., the president, Lord Leigh, in the chair. It was stated that the report was both gratifying and encouraging. There had been a large increase of patients, the sanitary condition of the hospital was eminently satisfactory, while the nursing scheme had proved to be very valuable and useful. The report further stated that the average residence of in-patients was 21·1 days, while the death-rate was exceptionally low, and the management very complete and well organised. The usual votes of thanks were passed, and the Earl of Dudley was elected president for the ensuing year.

The Ingleby Lectures.

Dr. Foxwell, the Ingleby lecturer for the year, gave the first of a series of lectures at Queen's College on the 29th ult. The subject taken was "The Condition and Treatment of the Vascular System in Chlorosis and other Debilitated States." After sketching the life of the founder and the origin of the lectures, Dr. Foxwell delivered an interesting lecture to an appreciative audience. The practice of living at a pressure beyond the strength of the individual capacity was dwelt upon and the evils pointed out. The errors of pressure in child life, before development is complete, received attention, and condemnation was expressed at the common practice of returning to work too quickly after a severe illness. Two more lectures will complete the series.

The Medical Institute.

The annual report has just been issued and is considered to be satisfactory. The register established last year for the registration of locum tenens, dispensers, and nurses has not been a success owing to the small number of names sent in. The financial statement shows a deficit of £29 8*s.*; £12 more than last year has been expended in books, and in the course of the year 1216 volumes were issued to 125 borrowers.

Assize Cases.

Two cases of some importance to the public were tried at the local assizes recently, both of which have had considerable local interest. At the Staffordshire assizes John Goodall was sentenced to two years' imprisonment with hard labour for indecently assaulting Mrs. Siddalls in a railway carriage near Tamworth. The points emphasised were the want of separate compartments for ladies travelling alone, of adequate means of communication with the guard in cases of necessity, and of communication with the adjoining compartment. Two medical students who were travelling in the next compartment when the victim fell from the foot-board were the principal witnesses for the prosecution. The second case is still a mystery. A boy was sent with his father's breakfast, never returned, and his body was found, stripped of clothes, in the canal. The two prisoners escaped the more serious charge, but pleaded guilty to stealing the boy's clothes, which they say they fished out of the canal. How the boy came to be without his clothes and how he got into the canal are questions which remain undecided.

March 30th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Strikes and their Effects.

THE effects of the present unfortunate strike of engineers, which has now gone on about seven weeks, are now being very severely felt in Newcastle and district. In Newcastle and Gateshead alone the *Newcastle Chronicle* computes that not fewer than 2000 people are actively engaged in the alleviation of poverty, and the amount contributed for its relief has now reached £200 a day. This does not take into account private benefactions and an immense amount of aid in many ways which is not published. At South Hetton, and many other colliery villages, the people are suffering from a scarcity of water which, it is feared, may lead to much illness before long. This scarcity may be termed entirely artificial—that is, there is abundant water, but the strike leaders refuse to allow any of the hands to work the pumps at the collieries whence the water is supplied; hence, as regards water, their families may be said to be starving in the midst of plenty from this self-imposed "famine." Another matter affecting the sanitary condition of many of the Durham colliery villages is the neglected state of the ashpits and privies. It appears that all cleansing operations are in abeyance owing to the withdrawal of the horses and carters, so that the usual receptacles for dirt and rubbish

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are filled and overflowing. This is bad enough in itself, but when taken in conjunction with a scarcity of water is certain ere long to lead to disease. The Weardale Lead Mines have been closed owing to the Durham strike, and the cessation of work is reported to have already caused intense suffering, as many of the inhabitants are already without coals, and are solely dependent on their neighbours for what peats can be obtained. The lead miners of Weardale are a very hard-working class, and at the best of times earn very low wages. The weather, too, in the mountain districts of Durham has become very severe.

Ambulance Work in the North.

The annual meeting and concert of the Elswick Collieries Ambulance Association has been held in Newcastle. Among the miners and others employed at the collieries the greatest interest has been taken in ambulance work, and the men and their families were present in large numbers, requiring one of the largest chapels in Newcastle to accommodate them. The chairman, in the course of his remarks, said that the death-rate in mining was smaller than in many other industries, but in collieries there were a great many minor accidents which it was impossible to avoid. Ambulance students could do a great deal of good by attending to such cases, and at Elswick their success had been very marked. Mr. May, the colliery surgeon, had also been their kind and successful ambulance instructor. Dr. Jack of Rothbury will recommence his course of ambulance instruction shortly. Dr. Robson last week gave a *résumé* of his course, dwelling principally on the circulation of the blood &c. He was at the same time the recipient of a testimonial and presentation from his class.

Anti-Cremation in Darlington.

A meeting in opposition to cremation has been held in Darlington in the Central Hall, and it is reported as being well attended. The usual arguments against cremation were advanced.

Sanitary Lectures.

The first of the course of sanitary lectures under the auspices of the Sanitary Institute and the Newcastle Corporation was given last Saturday in the Guildhall, on Ventilation, Heating, and Lighting, by Dr. Louis C. Parkes. The Sheriff of Newcastle occupied the chair, and there was a numerous attendance, including various members of the Corporation. The course will extend to June next.

Dr. B. W. Richardson in Newcastle.

Dr. B. W. Richardson of London has been lecturing in Newcastle, and on Monday last he gave a special address to medical men of the town and district. Mr. and Mrs. T. H. Bainbridge of Holwood Jesmond provided a breakfast for all medical comers in the Lovaine Hall, and the proceedings were very interesting. Whatever may be thought of Dr. Richardson's views on the alcoholic question, and he did not put them at all in an unreasonable way (from a medical point of view), we all respect him for his work as a physiologist and as a sincere social reformer. The hearty welcome that he received in Newcastle could leave no doubt that we were all glad to see him.

Mr. Thomas Ironsides of Kibblesworth Farm, near Gateshead, who will be 101 years of age on April 12th, recorded his vote for the recent County Council election, and is in good health.

Newcastle-on-Tyne, March 30th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Aberdeen University.

THE medical "professional" examinations will terminate on Thursday, and the graduation ceremony will take place on Monday. Admission to the graduation hall is on this occasion to be by ticket. There are seventy-eight candidates for the final examination. The University Extension Fund continues to make very satisfactory progress, and the success of the scheme is now ensured by the announcement that the Government will this year vote a grant of £5000 as a first instalment of £40,000. Where and how the buildings are to be extended is still a vexed question. In Monday's *Free Press* Professor Trail begins a long article on the subject by saying: "Three weeks since, through your columns, I ventured to state that no extension of the buildings of the University of Aberdeen at either of the present sites would prove permanently satisfactory; that to render the University what it ought to be in future, and, indeed, must be if its reputation is to be retained, it should be removed to a new site; and that the best possible site would be secured could an exchange be effected of Marischal College for Gordon's College."

Health of Aberdeen.

During the past week the following cases of zymotic diseases were notified to the medical officer of health:—Scarlet fever, 9; diphtheria, 2; typhoid fever, 2; typhus fever, 5; whooping-cough, 55; erysipelas, 1. One death from influenza was recorded during the week.

District Nursing for the Poor.

A public meeting was held on Friday, March 26th, in the Aberdeen Music Hall Buildings, to promote the formation of a District Nursing Association for the poor at their own homes. Lord Provost Stewart was in the chair. It was unanimously "agreed to form an association, to be called the 'Aberdeen District Nursing Association,' and to make application to the Scottish Council for the services of a Queen's nurse and for affiliation" with the Edinburgh Association.

March 30th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Measles in Dublin.

THIS disease has become almost epidemic in Dublin, and the deaths have been very numerous for the past few weeks. Every effort is made to induce the parents of children who contract this disease to allow them to be brought into hospital; for it is a remarkable fact that not one of the cases of measles treated in hospital in the year 1891 died. Of course this recommendation only applies to the poorer classes. Sir C. A. Cameron, medical officer of health, has prepared a sanitary circular for distribution among the dwellers in tenement houses, which points out what should be done when measles appears, and shows the necessity of having the patients brought to hospital.

Health of Ireland for December Quarter of 1891.

During the December quarter the births numbered 24,681, and the deaths 21,460. The birth-rate was 0·4 under the average rate for the corresponding quarter, and the death-rate 1·9 above the average. The returns of pauperism show a decrease of 564, or 1·3 per cent., in the average number of workhouse inmates on Saturdays during the quarter as compared with the previous year, and a decrease of 1574 in the average number of persons on out-door relief. The increase in the death-rate was due to the widespread prevalence of influenza and inflammatory diseases of the respiratory system. The aged and debilitated were the chief sufferers, as is demonstrated by the extent of the mortality among persons aged sixty years and upwards, the number of deaths (9300) from all causes at that age period during the quarter being 14 per cent. in excess of the average (8152) for the December quarter of the five years 1886-90. Enteric fever was prevalent in Dublin and to a less extent in Belfast, and whooping-cough caused a rather large number of deaths in those cities and in a few other districts, but the rate represented by the aggregate number of deaths from the principal zymotic diseases was below the average for the December quarter, the mortality from some of the diseases in that group having been remarkably low.

The Proposed Abolition of Visiting Physicians of Irish Lunatic Asylums.

The Council of the Irish Medical Association has addressed a letter to the Lord-Lieutenant, submitting that it is very undesirable that an Order of Council should be carried out, which is to the effect that "When any vacancy shall happen in the office of consulting and visiting physician or apothecary in any district asylum, no person shall henceforth be appointed to fill the same." This order, it seems, was founded on the recommendation of the Lunacy Administration Commission, 1891, in favour of the abolition of the visiting physiciancy as relieving the resident medical superintendents of asylums of responsibility, while not affording the assistance which consultants offer to general practitioners, who take the advice of a surgeon, physician, or obstetrician, according to the nature of the case.

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of the buildings of the University of Aberdeen and the present sites would prove permanently unsatisfactory that to render the University what it ought to be in this and, indeed, must be if its reputation is to be maintained should be removed to a new site; and that the King's College site would be secured could an exchange be effected with Marischal College for Gordon's College."

Health of Aberdeen.

During the past week the following cases of infectious diseases were notified to the medical officer of health: Scarlet fever, 9; diphtheria, 2; typhoid fever, 1; relapsing fever, 5; whooping-cough, 35; erysipelas, 1. There was also from influenza was recorded during the week.

District Nursing for the Poor.

A public meeting was held on Friday, March 4th, in the Aberdeen Music Hall Buildings, to promote the formation of a District Nursing Association for the poor in their own homes. Lord Provost Stewart was in the chair. It was unanimously "agreed to form an association, to be known as 'Aberdeen District Nursing Association,' and to make application to the Scottish Council for the services of a trained nurse and for affiliation" with the Edinburgh Institution.

March 5th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

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THIS disease has become almost epidemic in Dublin. The deaths have been very numerous for the past few weeks. Every effort is made to induce the parents of children to contract this disease to allow them to be sent to the hospital; for it is a remarkable fact that not one of the cases of measles treated in hospital in the year 1891 died. Of course this recommendation only applies to the poorer classes. Sir C. A. Cameron, medical officer of health, has prepared a sanitary circular for distribution among the dwellers in tenement houses, which points out what should be done when measles appears, and shows the necessity of having the patients brought to hospital.

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the uterus, of a series of hard movable nodules, resembling cancerous masses. A re-examination under the microscope of the tumour removed showed that it was a pure fibromyoma. The patient remained in much the same condition for two months, when one day she passed per rectum a gauze compress enveloped in a hard fæcal mass. All the unpleasant symptoms very soon subsided, and the woman has remained well since that event. This curious occurrence demonstrates the importance of counting sponges and compresses used in such operations, and furnishes one more proof of the harmlessness of foreign bodies which have been rendered thoroughly aseptic. The course of events must have been as follows:—The compress, after having lain encysted, must have excited an attack of peritonitis, with perforation of the intestine. That the occurrence of such a *contretemps* is not altogether unknown in the practice of the most careful surgeons is well attested. One operator now uses in abdominal sections fifteen compresses, hemmed in red, the enumeration of which is carefully made on the completion of the operation. A well-known surgeon once left a forci-pressure forceps in the abdominal cavity. The instrument remained in the cavity for eight months, and was then eliminated through an abscess which formed in the umbilical region. Another relates how he once left a sponge in the abdomen, the patient dying of peritonitis three days after the operation. He no longer employs sponges.

March 30th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Reform of German Anatomical Nomenclature.

PROFESSOR WILHELM KRAUSE, who has resigned his professorship at Göttingen, is coming to Berlin to create a uniform anatomical nomenclature. He has undertaken this task at the instance of the Anatomical Society, which has busied itself for five years past with the question, How the confusion in anatomical nomenclature is to be remedied? This question was thoroughly discussed at the third assembly of that Society in 1889. Professor His of Leipsic showed on that occasion how the present multiform anatomical nomenclature had arisen, and how it could be simplified. It was determined that, in the creation of a new nomenclature, regard must be paid not only to descriptive, but also to general and comparative anatomy and to embryology, and that the reform must be based on a complete list of the technical expressions of anatomy, in which all the changes of meaning which each expression has undergone are stated. It was further decided that all that is good in the present nomenclature should be retained, and that expressions containing proper names should not be dropped. Professor His uttered a warning against going too far in the Germanisation of words derived from the Greek and Latin, on the ground that such a change would render mutual understanding between German and foreign anatomists more difficult. A committee was appointed to arrange for and superintend the work, and it was resolved that the work itself should be entrusted to an anatomist of reputation. The members of the committee elected in 1889 are Kölliker, Oskar Hartwig, His, Kollmann, Merkel, Schwalbe, Toldt, Waldeyer, and Karl Bardeleben; and their number was augmented in the following year by the election of Cunningham of Dublin, Lebouc of Ghent, and Romiti of Pisa, in order that due regard may be paid to the necessities of foreign anatomists. The work was entrusted to Professor Wilhelm Krause, who will have to devote several years to it. The expenses will be defrayed by the Anatomical Society and the Universities of Berlin, Vienna, Munich, and Leipsic.

Statistics.

In the week which ended on March 12th 2 persons died in Berlin from typhus fever, 3 from syphilis, 3 from influenza, 4 from puerperal fever, 5 from erysipelas, 5 from scarlatina, 6 from measles, 9 from diarrhœa with vomiting, 11 from whooping-cough, 12 from gastro-intestinal catarrh, 15 from diarrhœa, 24 from senile decrepitude, 29 from cerebral apoplexy, 53 from pneumonia, and 101 from pulmonary phthisis. There were 18 violent deaths, including 10 cases of suicide. Three persons poisoned themselves, and 1 died from delirium tremens. In the same week the death-rate of Dresden was 20·2, of Berlin 20·5, of Hamburg 20·7, of Frankfort-on-the Main 22·4, of Breslau 24·5, and of Munich 29·7. Of the German cities with more than 100,000 inhabitants, Elberfeld had the lowest death-rate (17·4), and Aix-la Chapelle the highest (34·9).

The eminent clinical teacher, Professor Rosbach of Jena, has resigned his professorship.

Professor Albert von Kölliker of Würzburg, the Nestor of German anatomists, celebrated the fiftieth anniversary of his graduation as doctor of medicine last Saturday. His age is seventy-five, but his health and strength are excellent.

March 28th.

THE UNITED STATES OF AMERICA.

(FROM OUR OWN CORRESPONDENTS.)

Protective Legislation for Miners.

DURING the past few years there has been a great loss of life among miners, due to various forms of accident, such as explosions, caving-in of mines, &c. The Pennsylvania Legislature has taken action, and passed a very elaborate and detailed law for the proper management and working of coal mines. The coal-fields are divided into inspection districts, and one inspector is appointed for each by a board of miners and mining engineers. Mine owners are to provide at the collieries an ambulance with stretchers for the purpose of conveying to his home or to a hospital any injured person. No boy under fourteen is allowed to work in a coal mine, and no woman or girl of any age. Boys under twelve cannot be employed in the outside workings. Ventilating currents must be forced along the face of the workings in sufficient volume to sweep away smoke and noxious gases. Inlet and outlet passages are to be separate. Doors must open automatically, and main doors must have an attendant. In mines generating explosive gases all working places must be examined every morning to see if they are safe. Perhaps the most important provision is that requiring two openings from each vein or seam of coal for safe and distinct means of ingress and egress.

Mortality from Influenza.

The New York State Board of Health reports that, of a total mortality of 123,878 during the year 1891, it is estimated that 10,000 deaths are attributable to influenza. These deaths were distributed over the entire State.

A Homicidal Epidemic.

Two or three months since a man called at the office of a wealthy citizen, carrying a grip-sack. He was urgent to see the gentleman, who finally came out to the waiting-room to see his visitor. The stranger gave him a paper to read, which contained a demand for an immense sum of money, under a threat to blow up the building instantly with ten pounds of dynamite, which he alleged to have in his sack. The gentleman attempted to pacify him, meantime withdrawing to his inner office. The visitor followed, threatening, and, as his victim passed through a door, threw the satchel against the wall. A terrific explosion followed. The unknown man was himself blown against a wall, and nothing was left of him but his head, by which he was afterwards identified as an erratic person from Boston. One clerk was blown out of a window into the street, and instantly killed. The gentleman who was assaulted was but slightly affected, though several others in the building were injured. Within a week another gentleman was confronted with a similar demand by a crank who entered his office, and, on refusing, was shot, but not fatally. Soon after one of the most popular clergymen of the city was fired at three times one Sunday as he was entering his house after the morning service, his assailant being a tramp whom he had often befriended. This event was followed by an attempt of an armed crank to gain entrance to the residence of one of the wealthiest men of the city, whose brains, he alleged, he wished to secure that he might also obtain wealth. Another tramp made an attempt on the life of a citizen whose money he demanded, but was arrested before he could do harm. Finally, a popular Jewish rabbi was quite recently shot in the abdomen in his own house by a poor wretch whom he had often aided, because he refused to give him a large sum of money. Fortunately the ball glanced, and did not penetrate the cavity of the peritoneum. These wandering homicides have all proved to be persons who have either previously been in insane asylums or who have been regarded as of unsound mind.

Leprosy in Honolulu.

The chief of the Bureau of Medicine and Surgery of the

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(From our own Correspondents)

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Leprosy in Honolulu.

The Bureau of Medicine and Surgery of the

Navy has issued a report on the treatment of leprosy in Honolulu, Sandwich Islands, of some importance. The report is based on the investigations of Dr. Lutz of Brazil, an associate of Unna of Hamburg, who was an experienced dermatologist. Salol was his chief remedy. According to his observations leprosy was associated with inflammatory conditions and with febrile excitement always, and salol, acting as an antiphlogistic and febrifuge, stayed the morbid processes. Creasote and guaiacol, its active principles, were given in cases where the lungs were affected, with satisfactory results. Antipyrin gave great satisfaction in cases where there was neuralgia. Arsenious acid did not act favourably, contrary to common experience, and antisyphilitic remedies were not clearly beneficial in uncomplicated cases. In external use chrysarobin, or chrysophanic acid, was used, and acted favourably in causing the absorption of tubercles and the disappearance of maculo-nervous and psoriasis-like eruptions. It also improved extensive areas of paræsthesia. Chrysarobin was employed in from 5 to 10 per cent. ointments, or in solution with benzene or chloroform, or similar solvents, covered with elastic collodium. Pyrogallic acid was found to act like chrysarobin, but more slowly, and was only employed on the face and hands to avoid toxic symptoms. Ichthyol is praised as combating inflammatory symptoms, and was used both externally and internally. Creasalol is mentioned as a substitute for salol.

Hospital Sunday Fund at New York.

The collections for hospitals on the Sunday set apart for that purpose have gradually increased, until they now reach the respectable figure of $1000. The basis of distribution is the number of free hospital days in each institution. Thirty-one hospitals received from the Fund, representing 545,855 free hospital days.

Bichloride of Gold Cure for Inebriety.

This method of curing inebriety is gaining in popular favour, notwithstanding the many proofs that it is useless and possibly dangerous. New institutes are being created, to which the wealthy inebriates flock in great numbers. After being subjected to a course of hypodermic injections of the gold, being kept meantime from all intoxicants and liberally fed, they are pronounced permanently cured. Some have been so thoroughly convinced of their immunity that they have maintained a stout resistance to temptation for a considerable period. But such large numbers have entirely failed and have returned to their former habits that it has been demonstrated that there is no virtue in the remedy. Some distrust as to its safety has been created by several sudden deaths in these institutes where the patients are under treatment.

Professor Roberts Bartholow.

Professor Bartholow has recently been committed to an insane asylum. The evidences of mental aberration have been of slow development, and for a considerable period he continued to lecture and write with great vigour. At length the faculty of the medical college was obliged to request his resignation in the midst of his course of lectures. He declined, and was compelled forcibly to leave the college. He subsequently published very interesting papers, which showed no mental decline or aberration. His malady, however, progressed, and his condition became such that his friends had no alternative but to place him in an asylum. Professor Bartholow was an active surgeon in the Civil War, and on his retirement located in Cincinnati in connexion with a medical college. He gained a wide reputation as a writer, especially on therapeutics. He was soon called to the Jefferson Medical College, Philadelphia, where he long occupied the first position in the profession. He was a tireless worker, and is believed to have brought on his trouble by overwork.

New Buildings for the Jefferson Medical College of Philadelphia.

The Board of Trustees and the Faculty of the Jefferson Medical College have just completed the purchase of two large lots on Broad-street, giving them a frontage of about 300 ft. and a depth of 150 ft., upon which they will proceed to erect at once a handsome hospital, lecture hall, and laboratory building. The estimated cost of the buildings is 500,000 dols. The hospital will be built not only as a suitable building in which to care for the sick and injured, but will also be provided with a large amphitheatre for clinical lectures. The basement of the hospital will be given over to the various dispensaries, each of which will be provided with large waiting and physicians' rooms, as well as rooms for direct teaching of students. The buildings will be absolutely fireproof, and provided with patent sprinklers in case their contents catch fire. By the erection of three commodious buildings, the laboratory, where delicate work with the microscope or apparatus is carried on, will be separated from the college hall, where didactic lectures are given, and so will be free from any jarring produced by the movements of large classes. With the hospital on one side affording clinical facilities, and the laboratory on the other side of the college hall for scientific research and training, the college will be most favourably situated for giving thorough instruction in medicine. Further than this, immediately across the street is the Howard Hospital, and on the adjoining corner the Ridgway branch of the Philadelphia Free Library, which contains all the scientific works belonging to this wealthy corporation. The new site is even more favourably situated in regard to the centre of the city than the old one at Tenth and Sansom streets.

March 18th.

[*Corrigendum.*—In the last paragraph of the letter of our New York correspondent, which appeared on the 19th ult., the name "Willand" should have been printed *Willard.*]

Obituary.

SIR WILLIAM BOWMAN, BART., F.R.S.

The unexpected death of Sir William Bowman, Bart., has removed from the scene a distinguished histologist and physiologist, and a most able surgeon. In the earlier years of his life he was one of the most laborious and careful scientific workers in the profession, and, rising on his merits, became at a later period one of the most successful practitioners in London, commanding for some considerable time an income that was equal to, if it did not surpass, that of any of his compeers. Of slender build and pallid complexion, with delicately cut features, he has shown himself, even at the ripe age to which he attained, to be equal to the strain of a busy life in the metropolis, and can scarcely be said to have quite relinquished practice, though his visits to London were restricted to one or two days a week. He died on Tuesday morning, March 29th, at his residence, Joldwynds, near Dorking. He had been ill only about a week, having caught a chill whilst removing his books and manuscripts from his professional residence in Clifford-street. Congestion of the bases of both lungs was followed by pneumonic patches, and led to gradual exhaustion, from which he died. He was born at Nantwich on July 20th, 1816, and was therefore in his seventy-sixth year. His father, Mr. John Eddowes Bowman, was a distinguished naturalist, and a brother of the same name as the father was for some years a demonstrator in chemistry at King's College, and wrote two most useful works on practical analysis. Sir Wm. Bowman, after his early education at Hazlewood School, Birmingham, became a pupil at the Birmingham General Hospital. He entered the medical department of King's College in October, 1837, and obtained the membership of the Royal College of Surgeons in 1839. He was appointed demonstrator of anatomy in 1839, being junior to Sir John Simon, who is now the only King's College medical teacher of that period now living. He was also the curator of the museum, and it was at this time that he became so pre-eminent as a microscopical observer.

The first important addition he made to scientific knowledge was a paper he communicated to the Royal Society, which appeared in the Philosophical Transactions for 1840, on the Structure of Voluntary Muscle, and this was followed two years later by a second and equally valuable article on the Structure and Use of the Malpighian Bodies of the Kidney, in which he showed clearly the precise relations between these bodies and the uriniferous tubules, a description entirely opposed to Müller's, which was then taught, and he gave a most lucid and exact account of the circulation through that organ. Both papers attracted great attention, partly on account of the novelty and interest of the facts which he detailed and also for the direct bearing that they had on pathology. The best evidence of the excellence of the work they contained

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is afforded by the fact that after the lapse of fifty years and the application of many various methods of cutting, injecting, staining, and mounting specimens, very few points of importance have been added to his account either of muscle or of the kidney, and none of his observations have been disproved, though added to by subsequent observers. Both accounts of these organs have become classical, and will constitute the foundation of all future advances. In 1841 he was elected a Fellow of the Royal Society, and in 1842 he was awarded one of the Royal medals. In 1848 he was appointed a professor of physiology at King's College, having in the previous year published the first volume, in conjunction with Dr. Todd, of a work on the Physiological Anatomy and Physiology of Man. The first volume, containing "The Histology of the Tissues: the Muscular and Nervous Systems, with Senses of Touch and Taste," was completed in two years; but the second volume, containing "The Eye and Ear, Digestion, Absorption, Circulation, Respiration, Animal Heat, Voice, and Generation," lingered for eleven years, and would probably never have been finished had the editors not been assisted for the final chapters by Drs. Lionel Beale and Hyde Salter. The work was a great success. It was throughout well and carefully written, and contained a very large quantity of original matter chiefly from the pen of Bowman. It was, moreover, admirably illustrated. He resigned his professorship in 1855. In Todd's Cyclopædia of Anatomy and Physiology, which was produced at intervals between 1836 and 1859, he contributed the articles on Mucous Membrane, Pacinian Bodies, and Muscle, and these are marked by the like thoroughness which characterised his earlier work. At this period of his life (1840) he was elected with Sir John Simon assistant surgeon to King's College Hospital, but he did not obtain the full surgeoncy until 1856. Here he was noted for his diagnostic skill and for the excellence of his operations. He was, it is said, very indisposed to quit the field of general surgery for the more limited subject of ophthalmology, and he would, it is probable, have continued to combine the two had it not been for the remarkable operative ability displayed by his colleague, Sir William Fergusson, and for the great success that attended his own ophthalmic work, which, after the death of Dalrymple, led to almost the whole of the consulting practice of London falling into his hands. And, indeed, he deserved his position, for, carrying into the domain of ophthalmology the skill that he had previously exhibited in physiology and histology, he applied himself to the study of the eye, and gave the fruits of his inquiries to the profession in his "Lectures on the Parts concerned in the Operations of the Eye and on the Structure of the Retina and Vitreous Humour," which was published in 1849. The book, though small in bulk, contained the results of much careful research, and is still read by every man who pretends to know anything of the literature of this department of the profession. In this, as well as in his other works, his literary style was as good as the intrinsic merit was pronounced; whilst concise, it was always clear. It is not to be regretted that he shunned the labour of writing a complete treatise on diseases of the eye, since his minor papers deal with several of the most difficult and obscure parts of ophthalmic surgery. For example, we find a clear and precise account of the ciliary muscle (tensor choroideæ, Brücke); the structure attachments and functions Bowman accurately described for the first time. These lectures are models of brevity and clearness of detail. In 1851 he read a paper before the Medico-Chirurgical Society, in which he suggested a new method of treatment for cases of epiphora, which was a great improvement on the older plans. It has since become classical, and Bowman's method of slitting up the canaliculus has been performed by every ophthalmic surgeon in these troublesome and obstinate cases. Though not invariably successful, it is certain that in a large proportion of cases the results are good; and even if the simple longitudinal division of the canaliculus is not followed by the free passage of tears into the nose, it yet enables subsequent proceedings to be undertaken with good chance of success. Writing in 1857, six years subsequently, he says, in a paper on Lacrymal Obstructions published in the Ophthalmic Hospital Reports, he had found it possible to treat the greater number of cases mechanically, through the upper or lower canaliculus thus opened at the punctum, by passing probes of suitable size downwards into the nose, thus commanding the entire length of the passages, and not being limited, as by the old method, to occlusion of the nasal duct. He thus avoided the inconveniences of the opening in the skin, then universally practised, and established at the very commencement of the treatment a permanent opening, unseen, and attended by no inconvenience, through which the use of the treatment by probes could at any time be at once resumed in the event of relapse. The method, though widely adopted, has the disadvantage of disturbing or destroying the physiological conditions for the descent of tears into the nose, and the field is still open to the careful student of disease. In 1865 he suggested a modification of the ordinary method of extraction of a cataractous lens adopted at that date, in which iridectomy was performed and the lens lifted out with a spoon or traction instrument; and he also discussed the removal of capsular obstructions, in the course of which he recommended a very serviceable innovation in the treatment, consisting of the introduction of two needles. He also paid great attention to the treatment of detached retina, proposing to relieve or cure the disease by the introduction of needles through the sclerotic—a method which, in his hands, proved in some instances very successful. In yet another paper he discussed the symptoms and treatment of malformed, misplaced, and dislocated lenses, his attention being directed to the point in consequence of the intermittent symptoms of glaucoma that occurred in some of the cases. He contributed to the second volume of the Ophthalmic Hospital Reports another paper on Conical Cornea, a subject of exceptional interest on account of the obscurity attending its etiology and appropriate treatment. He records several cases which were benefited by the operation, that had then been just introduced by the late Mr. Critchett, of Adelaide. Subsequently Sir W. Bowman adopted the plan of trephining the apex of the cone. In the paper above referred to is the first observation on the shadow appearing in cases of conical cornea, which has recently developed into the method named "retinoscopy," employed to determine the refraction of the eye.

One of the latest if not the very last literary work he executed was a singularly appreciative and affectionate sketch of the life of Donders, with whom he had long been on terms of intimacy, written as an obituary notice for the Fellows of the Royal Society, and some of our readers will have received with this notice the fine mezzotint which rendered so well the features of the great ophthalmologist of Utrecht. He was elected an honorary Fellow of King's College in 1855, and has served with unvarying regularity on its Council since 1877. He took a lively interest in the institution of the Ophthalmological Society of the United Kingdom, showing his recognition of its importance and value by becoming the first President, and supporting it by liberal contributions every year. Quite recently a testimonial of a portrait of himself by Ouless was presented to him by a large circle of admiring friends, from which a beautiful engraving was taken, and given by himself to those who subscribed for the original painting. At the same time it was determined to issue an edition of his collected works, which we believe is just ready to be issued, having been placed in the hands of Professor Burdon Sanderson.

Few men have equalled, fewer still have exceeded, Bowman's manipulative dexterity. With thin, delicate, artistic fingers, absolutely destitute of nervous tremor, and with perfect knowledge of the anatomy of the parts with which he was dealing, he obtained good results where good results were possible; and when failure occurred, as unfortunately happens even with the most dexterous, it was rare indeed that he could reflect on his own method of procedure. Yet he could fully appreciate the difficulties of an operation and enjoy the pleasure of overcoming them, and would speak with undisguised satisfaction of his success in any case of an exceptional nature.

Sir William Bowman was one of those who immediately recognised the value of the ophthalmoscope, and was amongst the very earliest to make himself familiar with the use of this most valuable instrument. His mind was always on the alert to avail himself of advances in any part of his subject. No one more quickly understood and followed out in practice the important conclusions of Donders in regard to errors of refraction and the application of glasses for their rectification. No one adopted earlier the suggestions of v. Graefe for the performance of iridectomy in glaucoma, or was more willing to discard it for eserine in appropriate cases when that remedy was discovered. No one took more interest in the question of colour-blindness when that curious subject attracted far less attention than at the present time. His wide knowledge of general surgery and large experience in ophthalmic diseases made his opinion

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on a difficult case of the highest value, and it was accordingly sought, not only by his own countrymen, but by many foreigners, by whom it was held in not less esteem.

Medical News.

UNIVERSITY OF OXFORD.—The Regius Professor of Medicine has given notice that the final examination for the degree of Bachelor of Medicine will commence on Monday, June 6th, at 10 A.M., in the examination schools. The examination for the degree of Master in Surgery will take place on Thursday, June 16th, and the first examination for the degree of Bachelor of Medicine on Thursday, June 23rd, at 10 A.M.

FACTORY LABOUR.—The French Senate has decided that the time of daily labour for women and children in factories shall not exceed eleven hours.

MISSION TO DEEP-SEA FISHERMEN.—The Princess Louise has consented to be present at the annual meeting of the mission in Exeter Hall on the evening of May 16th. Her Royal Highness will distribute the certificates of the St. John Ambulance Association for first aid to the injured to several of the skippers and mates of the society's medical mission smacks.

THE METROPOLITAN WATER-SUPPLY COMMISSION. A meeting of the Royal Commission on Metropolitan Water-supply was held on Wednesday at the offices of the Board of Trade. There were present Lord Balfour of Burleigh (chairman), Sir G. B. Bruce, Professor James Dewar, Mr. G. H. Hill, Mr. J. Mansergh, Dr. W. Ogle, and the secretary, Mr. F. Gaskell. The question of procedure was further considered, and the means to be adopted for obtaining the information necessary for the purposes of the inquiry. The Commission will meet again next Wednesday.

HOSPITAL FOR EPILEPSY AND PARALYSIS.—Mr. E. Boulnois, M.P., in presiding at the annual meeting of this charity in Regent's Park, held on March 24th, said that from statistics for 1890 which the secretary had placed in his hands he found that the London hospitals supplied 8094 beds, of which 6143 were in daily occupation, and 7800 in- and 1,158,000 out-patients had been treated, at a cost of £606,000. Yet the receipts of the hospitals had only reached £522,000. Mr. Pearce Gould, one of the surgeons, said that a new building, sooner or later, was an absolute necessity, and that the committee should lose no time in raising the £20,000 required as a building and furnishing fund, whether the occupancy of the present premises was to end in nine or ten years or not.

NORTH LONDON CONSUMPTION HOSPITAL.—This institution continues to make steady progress. The annual report for 1891 states that the income for the year was quite up to the average. The in-patients during the year had been 381; the out-patients numbered 2310, of whom 745 were treated at Hampstead and the remainder at the out-patients' department. The committee had succeeded in securing premises in Fitzroy-square for an out-patients' department and offices, the need of which had long been felt. The extension of the building at Hampstead was now being carried out. Sufficient funds were forthcoming to warrant the committee in commencing the erection of the central block of the building, which would provide for thirty extra patients and other necessary accommodation.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.—Last week the Lord Chancellor occupied the chair at the annual festival, held at the Hôtel Métropole. A large and influential company attended. Lord Halsbury, in proposing the toast "Prosperity to the Hospital for Sick Children," stated that it was the fortieth anniversary of the institution. In the past year 1247 in- and 20,112 out-patients had been treated. It was imperatively necessary that the wards should be enlarged, and the new building which was projected would be of the utmost service to the suffering poor. Its progress hitherto had suffered by what he would term the discussions between capital and labour. They only wanted £10,000, and he hoped it was not too much to expect that in such a cause the amount would be readily subscribed. The secretary announced subscriptions and donations to the amount of £4500.

PRESENTATION.—Mr. G. H. Butler, L.R.C.P.Irel., L.R.C.S. Edin., of Whitechurch, Hampshire, has been presented, on his leaving, after a residence of nearly seven years, by the inhabitants of the town and neighbourhood, with a testimonial, which consists of an illuminated address accompanied by a purse containing £60.

PREVENTION OF CRUELTY TO CHILDREN.—The Marchioness of Salisbury opened last week a new wing of Shelter at Harpur-street, Bloomsbury, in connexion with the work carried on by the National Society for the Prevention of Cruelty to Children. There are now three houses in that street occupied for the work, one house being utilised for offices and the other two for the accommodation of children, fifty of whom live on the premises.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.—At a meeting of the Council held at their rooms, 3, Bolt court, Fleet-street, on March 29th, it was resolved that a communication be addressed to Sir Walter Foster, M.P., and Dr. Farquharson, M.P., asking for their assistance to obtain an insertion of a clause in the "Coroners Act Amendment Bill" now before Parliament, declaring that workhouses are not meant to be included in medical institutions referred to in Clause 22, Subsection 2, of the Coroners Act, 1887.

UNIVERSITY COLLEGE HOSPITAL.—Dr. C. J. Hare presided at the annual meeting held last week. The chairman remarked that, though the expenses had not been covered, the report on the whole was satisfactory. The influenza epidemic had severely taxed the resources of the hospital. The increase in the number of in-patients was 512, and of out-patients and casualties, 3099. Referring to the need of rebuilding and enlarging the hospital, the report stated that a fund already existed for that purpose, and amounted to £13,000 towards the £30,000, the estimated outlay. The receipts for the year were £20,219 4s., while the expenses amounted to £23,344. The report was adopted.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on March 29th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	200*	57	—	20	..	277	442
North-Western Hospital	183	49	—	11	3	246	411
Western ,,	104	20	—	3	2	129	224
South-Western ,,	194	39	—	11	..	244	350
South-Eastern ,,	203*	15	—	23	2	243	424
Northern ,,	301	25	..	7	...	333	480
Totals	1185	205	..	75	7	1472	2331

* Infant and mother.

SMALL-POX.—*Atlas* hospital ship, 40.

MEDICAL NOTES IN PARLIAMENT.

The Influenza and School Attendance.

IN the House of Commons, on Thursday last, in answer to Sir J. M'Kenna, Mr. Jackson said: As I stated, in reply to the hon. and learned member for North Longford on February 26th, the Commissioners of National Education in Ireland invariably allow in all cases in which the school attendance is reduced owing to severe weather, prevalence of epidemic, or other exceptional cause, a reasonable time for the re-establishment of the normal average before proceeding to cancel the grant for an assistant.

Destructors in London.

Mr. Ritchie, answering Mr. Pickersgill, said that a clause was included in the Public Health (London) Act of last Session to provide a remedy in cases where premises are used by a sanitary authority for the treatment or disposal of house refuse in such a way as to be a nuisance or dangerous or injurious to health. In any such case proceedings for ensuring the abatement of the nuisance might be instituted by the County Council or any sanitary authority or person aggrieved.

Dublin Barracks Improvement Bill.

On Friday this Bill was read a second time, and referred to a Select Committee.

Alleged Medical Irregularity.

In the House of Commons on Tuesday, March 29th, Mr. Maden asked the Secretary of State for the Home Department whether his attention

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had been called to an inquest, held on March 22nd, 1892, at the Islington coroner's court by Dr. G. Danford Thomas, on the body of Susannah Elizabeth Waller, aged seven months, the daughter of Herbert Waller, greengrocer, of 100, Palmerston-road, Finsbury-park; and whether he was aware that a certificate of death was given, signed by D. H. Dyte, L.R.C.P. Lond., M.R.C.S. Eng., and L.S.A. Lond., of 43, Poole's-park, who, it was proved, had not seen the deceased before her death; if so, what course of action the right hon. gentleman proposed to take.—Mr. Matthews: Yes, sir, I have received a report on this case from the coroner. The facts are correctly stated in the question. The coroner informs me that he has communicated with the Registrar-General in order that such legal action may be taken by that official as under the circumstances he may deem advisable. I may add that I have received a letter from Mr. Dyte, admitting that he had not personally seen the deceased, and expressing his deep regret for what had happened; but explaining that the child had been regularly attended by his assistant, who reported to him from time to time, and that he was only prevented from attending personally by severe injuries under which he was suffering at the time.

Water Bills in Parliament.

The Board of Trade have published their report on the Birmingham Corporation Water Bill, expressing the opinion that insufficient provision is made in the measure for the protection of the fishery interests of the river Wye. They purpose that the Bill should be amended in that and in some other respects. The Board also show themselves hostile to the works proposed in connexion with the Swansea Corporation Water Bill.

Coroners in Boroughs.

Sir A. Rollit obtained leave on Wednesday last to bring in a Bill to amend the law in relation to the appointment of coroners in boroughs, and it was read a first time.

Metropolitan Smoke Nuisance.

In the House of Lords, on Thursday, March 31st, on the motion to go into Committee on the Smoke Nuisance (Metropolis) Bill, Viscount Middleton thought the machinery would not work smoothly. The Marquis of Salisbury did not oppose the motion. The evil was great, and it would be an extreme step to ask the House to refuse a Committee stage. The motion was agreed to, and the Bill was considered in Committee.

University Education in London.

In the House of Commons on Thursday Mr. Bartley and Sir Albert Rollit addressed questions to the First Lord of the Treasury with reference to the proposed Royal Commission on University Education in London.—Mr. Balfour asked his hon. friends to repeat their questions on Monday, when he hoped to be able to give a full and complete statement on the subject.

Enteric Fever at St. John's Wood Barracks.

Mr. William Lowther asked the Secretary of State for War whether there had been any cases of typhoid fever amongst the officers at the St. John's Wood Barracks within the last three weeks.—Mr. Stanhope, in reply, said he regretted that Second Lieutenant Lord Sudley was reported on March 12th as sick of enteric fever. There did not appear to be any evidence that it was contracted in the barracks, and he was glad to say that the case was progressing favourably. These barracks had been recently carefully examined, and no insanitary conditions had been found.

Cork District Lunatic Asylum.

Dr. Tanner asked the Chief Secretary to the Lord-Lieutenant of Ireland if he would explain why the Board of Control in Dublin had objected to medical students visiting the Eglinton or Cork District Lunatic Asylum for the purpose of obtaining clinical instruction?—Mr. Jackson replied that neither the Board of Control nor the Board of Governors had interfered in any way with the visits of the medical students to the Cork District Lunatic Asylum. He had received information from the Resident Medical Superintendent of the Asylum, who said that no action had been taken to prevent students visiting the asylum. In fact, he said, he had only just finished his three months' course of instruction to the students.

Infectious Disease on Board Ships.

In reply to Dr. Tanner, who asked whether any, and, if so, what, regulations were in force with regard to cases of infectious disease rejected and sent ashore from emigrant and passenger vessels, after the inspection by the Medical Inspectors to the Board of Trade, of passengers by outward bound ships, Sir Michael Hicks Beach said that the matter was one rather for the local sanitary authorities under the Public Health Act, 1875, than for the Board of Trade. The Board's medical inspectors reported to the local authorities whenever (as in London, for instance) these authorities asked them to coöperate by doing so, and he had directed that they should in future report, whether requested or not. He understood that no complaint had in recent years reached the Board of Trade of any outbreaks of disease having occurred under the circumstances stated by the honourable member.

The Islington Health Officership.

Dr. Farquharson asked the President of the Local Government Board whether he was aware that the Islington Vestry had, contrary to its own by-law, appointed Dr. Wynn Westcott to the office of medical officer of health, Dr. Westcott having been, until March 2nd, a member of the vestry and of the public health committee; whether this appointment was made without previous advertisement, and against the votes of many members of the Board, including the chairman of the public health committee; and whether he will cause inquiry to be made before confirming the appointment.—Mr. Ritchie said he understood that the Vestry of the Parish of Islington had appointed Dr. Westcott as medical officer of health as a temporary arrangement for six months, and that he was a member of the vestry and of the public health committee of the parish until the 20th of February last, when he sent in his resignation. The by-laws of the vestry provided that no person should be eligible for election to any paid office under the vestry who was a vestryman within six months next before the election; but this by-law, it appeared, was suspended under another by-law, which allowed of such suspension if two-thirds of the vestrymen present voted for it. The appointment was made without previous advertisement, and forty-five members voted in favour of it and twenty-two (including the chairman of the public health committee) against it. He was in communication with the vestry in reference to the proposal to make an appointment for six months.

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SMITH, ELDER, & Co., London.
A Practical Treatise on Fractures and Dislocations. Hamilton, A.B., A.M., M.D., LL.D. Edited by ... Stephen Smith, A.M., M.D. Illustrated. ... pp. xiv.
Transactions of the Pathological Society of London. Comprising the Report of the Proceedings ... 1890-91. pp. 430.

SWAN SONNENSCHEIN & Co., London.
Diseases of the ... and the Influence of Sea-voyages ... Lethaby well, M.D. With Maps and Diagrams. ...

WOOD & COMPANY, New York.
Practical Midwifery: a Handbook of ... Reynolds, M.D. Illustrated. 1892. pp. ...

Willing's (Gale Mayo) British and Irish Press Guide ... annual issue (J. Willing, jun., 162, Piccadilly, London; ...
Abdominal and Uterine Tolerance in Peritonitis ... Harris, A.M., M.D., Philadelphia (Wm. J. Dornan, ...
1892.—Transactions of the American Otological ... fourth annual meeting, Washington, September ... Part I. (Mercury Publishing Company, New Bedford, ...
Lessons from Fields and Lanes: a Field Companion ... Student; by G. A. Grierson, F.L.S. (W. Rowlands & Co., ... York, 1892): price 1s.—Resultados Experimentales ... Presiones Transversales de la Pelvis; por el Dr. ... (Madrid, 1891.—De las Fracturas del Cráneo ... por el Dr. D. E. de Arteta (Barcelona, ...
upon the late Joseph Leidy, M.D., LL.D. ... Pennsylvania; by William Hunt, M.D. ... Philadelphia, 1892).—A Portrait Gallery of ... Vol. IV., Part II., 1892 (Simpson Low, Marston, ... price 2s. 6d.—The History of the "Bath Herald" ... Centenary, 1892 (W. & E. Lewis, Bath).—Sunday ... Explained; by Joseph Darby. Part I. (Sunday ... London): price 1s.—Premiers Secours en ... Maladies a Invasion Subite; par Dr. A. ... Bordeaux, 1892): prix 1fr.—How to Use the ... E. Whymper (J. Murray, London, 1892).—Rock ... London; by Professor Colwell (Eric Nicholl, ... Great Yarmouth): price 6d.—Fifty-two ... Jerusalem (London Society for Promoting ... Jews, Lincoln's-inn-fields, London).—Income ... Revenue; by J. G. Alexander, LL.B. Second ... Son, Westminster, S.W., 1892): price ... affecting British Commerce with China; by ... J.P. (P. S. King & Son, Westminster, S.W.) ...
Études concernant les Bacilles Tuberculeux ... (J. B. Baillière et Fils, Paris, 1891.—Le Bacille ... contre la Tuberculose; par Dr. H. W. ... Fils, Paris, 1891.—Recherches Expérimentales ... Dr. J. de Rey-Pailhade (G. Masson, Paris, ...
dans l'Absorption du Soufre ... Dr. J. de Rey-Pailhade (G. Masson, Paris, ...
Magazine, Vol. II., January, 1892 (Kimberly & ... York, U.S.A.).—The Mutter Lectures ... Roswell Park, A.M., M.D.; reprint of ... 1892.)—The Barbadoes Medical Annual and ... by T. Law Gaskin, L.R.C.P. Edin., M.R.C.S. ... M.B., C.M. (Weseldan Publishing Company, ...
1891): price 5s.—Shelley & Co.'s Complete ... Sixth Edition (Shelley & Co., Grace-church-street, ...
Transactions of the Medical and ... Maryland; ninety-third annual session, ... 1891 (Griffin, Curley, & Co., Baltimore, ...
to find out; by J. Spottiswoode ... Jackson, Leeds, and Simpkin, Marshall, & ...
1s.—Aphasia; by Chas. K. Mills, M.D. ... Souvenir of Shakespeare's Historical ... ("Black and White" Publishing Company, ...
April: Sunday at Home, Leisure Hour, ... Games and Recreations (Religious Tract Society).

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

BEESLEY, A. J., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of the Infirmary, West Derby Union.

BEHRENDT, M. R. J., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Scunthorpe Urban Sanitary District.

BENNETT, VIVIAN BOASE, M.B. (Lond. Univ.), has been appointed Assistant Medical Officer to the Walton Workhouse Hospital.

BINGLEYS, ERNEST HORSFORD, L.S.A. Lond., has been appointed House Surgeon to the Chichester Infirmary, vice S. B. De Butts, resigned.

CHALLENOR, H. S., M.R.C.S., has been appointed Medical Officer for the Second and Fourth Sanitary Districts of the Abingdon Union, vice Dixon, resigned.

COLLIE, ROBERT J., M.D., C.M. Aberd., has been appointed Divisional Surgeon to the New Station of the P Division of the Metropolitan Police at Catford.

CONNOR, F. G., M.B., C.M. Edin., has been appointed Medical Officer to the Lismore Hospital, New South Wales.

CRUISE, J. E. W., M.B., B.Ch. Irel., has been appointed Resident Medical Officer of the Grafton-street Hospital, Liverpool.

DEAN, H. P., F.R.C.S., has been appointed Assistant Surgeon to the London Hospital, Whitechapel.

D'EVELYN, ALEX. MCN., B.A., M.D. Univ. Dub., has been appointed Certifying Factory Surgeon for the Ballymena District, vice Abraham Kidd, M.D., deceased.

EDGINTON, R. W., M.D. Brux., M.R.C.S., has been appointed a Certifying Surgeon under the Factories Act, vice Carter, resigned.

ELLIOTT, R. H., M.B., B.Ch. Irel., has been appointed Resident Medical Officer of the Netherfield-road Hospital, Liverpool.

FORBES, ARMITAGE, L.R.C.P. Edin., L.R.C.S. Irel., has been appointed Government Medical Officer and Vaccinator for the District of Wardell, New South Wales.

GLOVER, L. G., M.B., B.C. Cantab., has been appointed House Physician to the Royal Hospital for Diseases of the Chest, City-road.

GOODALL, J. K., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer of Health for the Whittington Urban Sanitary District.

GRANT, DUNDAS, M.A., M.D., F.R.C.S. Eng., has been appointed Surgeon for the Throat and Ear to the West-End Hospital for Nervous Diseases.

HOLT, H. M., L.S.A., has been appointed Medical Officer for the Leavening Sanitary District of the Malton Union.

JAMES, W. E., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer of Health to the Newport Union Sanitary Authority.

JAMESON, G. B., M.B., C.M. Edin., has been appointed House Surgeon to the Central London Ophthalmic Hospital, Gray's-inn-road.

JENKINS, E. J., M.D. Oxon., M.R.C.P. Lond., M.R.C.S., has been appointed Honorary Medical Officer of the Sydney Hospital, New South Wales, vice Pickburn, resigned.

MELLER, CHAS. BOOTH, L.R.C.P., M.R.C.S., L.S.A., L.M., has been reappointed Medical Officer of Health for the Eastern District of the Bridgend and Cowbridge Rural Sanitary Authority, and District Medical Officer and Public Vaccinator for the Bonvilstone District of the Cardiff Union.

MILLS, Y. HUBERT, F.R.C.S., M.B., has been appointed Surgical Registrar to the London Hospital, Whitechapel, vice H. P. Dean.

MITCHELL, J. T., M.D., C.M. Aberd., M.R.C.S., has been appointed Honorary Medical Officer to the Local Benevolent Asylum, Victoria, South Australia, vice Usher, resigned.

MORRISON, ALEX. THOMSON, M.B., B.Ch., B.A.O. (R.U.I.), has been appointed Medical Officer and Public Vaccinator for the Waddesdon District of the Aylesbury Union.

MURRAY, H. B., L.A.H. Dubl., has been appointed Medical Officer of the Parkes Hospital, Sydney, New South Wales.

NICOLSON, JOHN, M.D. Edin., M.R.C.S., has been appointed Public Analyst for the Shire of Benalla, Victoria, South Australia.

NOYES, A. W. F., L.R.C.P. Lond., M.R.C.S., has been appointed Specialist for Diseases of the Skin at the Alfred Hospital, Victoria, South Australia.

POULTON, BENJAMIN, M.R.C.S., has been appointed Lecturer on Surgery at the University of Adelaide, South Australia.

RICHARDS, J. S., M.D., B.S., has been appointed Resident Medical Officer to the Royal Hospital for Children and Women, Waterloo-bridge-road, vice J. M. Thorne, M.R.C.S., resigned.

SIMPSON, ALEXANDER, M.A., M.B., C.M. Aberd., has been appointed Second Assistant Medical Officer to the Lancashire County Asylum, Whittingham, Preston.

SINCLAIR, WALTER W., M.B., C.M. Aberd., has been appointed Junior House Surgeon to the Birmingham and Midland Eye Hospital, Birmingham.

SYMPSON, E. MANSEL, M.D., B.C. Cantab., M.R.C.S., has been appointed Surgeon to the Lincoln County Hospital.

WALLIS, F. C., M.B., B.S. Cantab., F.R.C.S. Eng., has been appointed Assistant Surgeon to the Metropolitan Hospital.

WESTCOTT, W. W., M.B. Lond., M.R.C.S., has been appointed, *pro tem.*, Medical Officer of Health for Islington, vice Tidy, deceased.

Vacancies.

For further information regarding each vacancy references should be made to the advertisement.

ASTON UNION.—Resident Medical Officer at the Workhouse, Erdington, near Birmingham. Salary £100 per annum, with furnished apartments, rations, washing, &c. (Apply at the Union Offices, Vauxhall-road, Birmingham.)

BIRMINGHAM CITY ASYLUM, Rubery-hill, Bromsgrove. — Clinical Assistant. Board, lodging, and washing provided.

BOARD OF WORKS, St. Giles' District.—Analyst. Salary £100 a year, including all expenses. (Apply to Mr. Jones, Offices, 197, High Holborn, W.C.)

BOURNEMOUTH FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Junior Medical Officer (out-door). (Apply to Secretary, 59, Old Christchurch-road, Bournemouth.)

CAPE COPPER COMPANY.—Chief Surgeon for the works at the Cape of Good Hope. Salary £400, free residence (not rations), free passage. (Apply, by letter only, to the Secretary, Cape Copper Company, 9, Queen street-place, E.C.)

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY, Wakefield.—House Surgeon (Senior). Salary £90 per annum, with board, lodging, and washing.

CUMBERLAND INFIRMARY, Carlisle.—House Surgeon for one year. Salary £70 per annum, with board, lodging, and washing.

DERBYSHIRE ROYAL INFIRMARY.—Resident Assistant House Surgeon for six months. Salary £10 for the six months. Separate apartments, board, and washing provided.

GENERAL DISPENSARY, Nottingham. — Resident Clinical Assistant. Salary £60 for six months, with rooms and attendance.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL, Hastings — House Surgeon. Salary £75 per annum, with board and residence in the hospital.

HAVERSTOCK-HILL AND MALDEN-ROAD PROVIDENT DISPENSARY, 132, Malden-road, N.W.—Medical Officer.

HULME DISPENSARY, Manchester.—House Surgeon. Salary £140 per annum, with apartments, attendance, coal, and gas.

MANCHESTER ROYAL INFIRMARY, DISPENSARY, AND LUNATIC HOSPITAL OR ASYLUM.—Honorary Assistant Physician.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon. Honorarium at the rate of £75 per annum.

METROPOLITAN HOSPITAL, Kingsland-road.—House Physician, House Surgeon, and Assistant House Surgeon, for six months. In addition to board and laundry expenses, the House Physician and House Surgeon will each receive a salary at the rate of £60 per annum.

NORTH RIDING ASYLUM, Clifton, York.—Second Assistant Medical Officer. Salary £100 a year. Board, apartments, washing, and attendance.

NOTTINGHAM BOROUGH ASYLUM.—Assistant Medical Officer. Salary £125 per annum, with apartments, board, and washing.

PADDINGTON GREEN CHILDREN'S HOSPITAL, London.—House Surgeon for six months. Salary at the rate of £55 5s. per annum, with board and residence.

ROTHERHAM HOSPITAL.—Assistant House Surgeon for six months. Rooms, commons (exclusive of alcoholic drinks), and washing will be provided.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—Visiting Physician for the Branch Hospital in the Royal Victoria and Albert Docks.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—Visiting Ophthalmic Surgeon.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, Plymouth.—Honorary Assistant House Surgeon.

SUSSEX COUNTY ASYLUM, Hayward's-heath.—Junior Assistant Medical Officer. Salary £100 a year, with board, lodging, and washing.

TEIGNMOUTH, DAWLISH, AND NEWTON INFIRMARY, DISPENSARY, AND CONVALESCENT HOME.—House Surgeon (to act also as Secretary). Salary £40, with board, lodging, and washing.

THE RETREAT, York.—Junior Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing.

WANDSWORTH AND CLAPHAM UNION.—Assistant Medical Officer at the Infirmary of the Union. Salary £120 per annum, with apartments, board, and washing. (Apply at the Union Offices, New Wandsworth.)

WEST BROMWICH DISTRICT HOSPITAL.—Assistant House Surgeon. Terms: board, residence, and washing.

Births, Marriages, and Deaths.

BIRTHS.

BALLANCE.—On March 26th, at Harley-street, W., the wife of Charles A. Ballance, M.S., F.R.C.S., of twin daughters.

MATHESON.—On March 28th, at Gibson-square, N., the wife of John Matheson, M.A., M.D., of a son.

MARRIAGES.

BAIRD—BROWN.—On March 23rd, at St. John's Church, Devonport, Andrew Baird, Surgeon-Captain Medical Staff, to Florence Anna, widow of the late Charles J. Brown, of Brentwood, Essex.

HINGSTON—SMITH.—On March 23rd, at Grampound Church, by the Rev. R. Blackmoor, Vicar of Merther, and the Rev. C. H. Vivian, Rector of Creed, Richard Hingston, M.R.C.S. Eng., L.R.C.P. Lond., only son of Andrew Hingston, Surgeon, Liskeard, to Sarah Elizabeth (Bessie), elder daughter of Mr. G. W. Smith, Ventonwyn, Grampound.

SHAW—SPALDING.—On March 29th, at Argyle-square Church, King's-cross, Lauriston Elgie Shaw, M.D., of St. Thomas's-street, S.E., youngest son of Dr. Archibald Shaw, of St. Leonards, to May Howard, the eldest daughter of J. Howard Spalding, Esq., of Ealing.

DEATHS.

ALEXANDER.—On March 21st, at the residence of his son, Bethune-road, Stoke Newington, David Alexander, L.R.C.S. Edin., late of Lochee, Dundee, aged 81.

BOWES.—On March 23rd, at Pau, John Bowes, M.R.C.S., of Richmond, Yorkshire, aged 78.

CLARK.—On March 25th, at Blair Lodge, Minehead, Somerset, Dr. Thomas Clark, aged 53.

MINNS.—On March 25th, at White Hart-street, Thetford, Emily, beloved wife of Allan Minns, L.R.C.P. Lond., aged 32 years.

TOMKINS.—On March 27th, at West Leigh, Leicester, after influenza and pneumonia, Henry Tomkins, M.D. No cards.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, April 4.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq., W.C.).—8 P.M. Mr. C. S. Tomes: Studies on the Growth of the Jaws. Casual Communications:—Mr. S. J. Hutchinson: A case of Necrosis and Fracture of the Lower Jaw.—Mr. M. Y. Woolf: A Tooth forced into the Antrum, and tolerated in that position for three years.—Mr. A. W. Barrett: The Electric Illumination of the Mouth for suspected Antral Disease.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. J. Knowsley Thornton: Further cases illustrative of Hepatic Surgery.

Tuesday, April 5.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor V. Horsley: The Brain.

THE QUEEN'S COLLEGE, BIRMINGHAM.—4 P.M. Dr. Arthur Foxwell: The Condition and Treatment of the Vascular System in Chlorosis and other Debilitated States. (Ingleby Lecture.)

ROYAL COLLEGE OF PHYSICIANS (Examination Hall, Victoria Embankment).—5 P.M. Dr. Pye-Smith: Certain Points in the Etiology of Disease. (Second Lumleian Lecture.)

PATHOLOGICAL SOCIETY OF LONDON.—Mr. F. C. Abbott: Series of Congenital Dislocations of the Radius (four generations).—Mr. J. J. Clarke: (1) Litter of Kittens affected with Talipes and other Congenital Malformations; (2) Human Monster.—Dr. J. Adams: Ileo-colic Intussusception from Inverted Meckel's Diverticulum.—Mr. C. B. Lockwood: Polypus of Small Intestine associated with Intussusception.—Dr. G. Barling: Acute Double Tubercular Disease of Testes.—Dr. P. H. Pye Smith: Unusual Distribution of Secondary Cancer.—Mr. E. W. Willett: (1) Aneurysm of the Aorta in a Child; (2) Diphtheritic Membrane on the Stomach of a Child.—Dr. W. Edmunds: Cystic Disease of Kidney.

Wednesday, April 6.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Leith Napier. Adjourned Discussion on papers on Cæsarean Section by Drs. Leith Napier, John Shaw, and Cullingworth.—Dr. Lewers: Six cases of Craniotomy, with Remarks on the Relative Position of Craniotomy and Cæsarean Section.

Thursday, April 7.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

ROYAL INSTITUTION.—3 P.M. Dr. B. A. Whitelegge: Epidemic Waves.

CHELSEA HOSPITAL FOR WOMEN.—5 P.M. Dr. A. D. Leith Napier: Certain Clinical Relations of Gynæcology to Obstetrics.

ROYAL COLLEGE OF PHYSICIANS (Examination Hall, Victoria Embankment).—5 P.M. Dr. Pye-Smith: Certain Points in the Etiology of Disease. (Third Lumleian Lecture.)

HARVEIAN SOCIETY (Stafford Rooms).—8.30 P.M. Mr. F. W. Parsons: Notes of a case of Chronic Tubercular Phthisis.—Dr. T. Edward Squire: Pulmonary Affections which may lead to Phthisis.

Friday, April 8.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Washbourn and Mr Arbuthnot Lane: Floating Kidney: New Mode of Nephrorrhaphy.—Mr. Littlewood: A case of Traumatic Cyst of the Pancreas successfully treated by Stitching the Cyst Wall to the Abdominal Parietes and Drainage, with an Analysis of the Pancreatic Fluid subsequently collected.—Dr. Hector Mackenzie: A case of Hydatid of Lung which proved fatal by rupture into a bronchus nine hours after Treatment by aspiration.—Mr. Stephen Paget: A case of Abdominal Section followed by Parotitis; recovery.

ROYAL INSTITUTION.—9 P.M. Prof. W. E. Ayrton: Electric Meters, Motors, and Money Matters.

Saturday, April 9.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

ROYAL INSTITUTION.—3 P.M. Prof. J. F. Bridge: Dramatic Music.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Stevenard's Instruments.)

THE LANCET Office, March 31st, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rain-fall.	Remarks at 8.30 A.M.
Mar. 25	30·07	E.	39	38	67	50	37	—	Overcast
,, 26	29·99	S.	43	42	81	60	38		Overcast
,, 27	29·71	N.E.	47	45	64	48	43	·11	Overcast
,, 28	29·87	N.E.	35	34	61	40	33	·16	Cloudy
,, 29	30·40	N.E.	35	33	78	42	27	..	Cloudy
,, 30	30·55	N.E.	39	36	87	52	32	..	Bright
,, 31	30·57	N.E.	41	36	80	54	35	..	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and address of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

"THE ETHICS OF TRUTH IN MEDICINE."

An Honest Doctor.—There is nothing in law or "ethics of truth" to prevent our correspondent adopting any opinions that commend themselves to his own judgment after due consideration. His conclusions may seem so unreasonable to others, who may think it impossible or undesirable to coöperate with him professionally, but there need be no loss of respect on either side. We have to express regret for delay in this reply.

H. G. D.—New River water is usually of excellent quality, and is seldom benefited by domestic filtration. A good filter should remove suspended matter, and above all should secure at the same time intimate contact of the water with an excess of air. Spongy iron, manganous carbon, pure animal charcoal, and kieselguhr are excellent filtering media. As we have often pointed out, coke is one of the best materials, but it requires long and continuous washing.

P. P.—It is something very like it. It is certainly not the ordinary case, condemned and punished repeatedly by the General Medical Council; but it is an approach to it that should not be practised by a registered practitioner.

F. H. R.—Zeitschrift für Hygiene.

EFFECT OF DISEASE ON THE EYELASHES.

To the Editors of THE LANCET.

SIRS,—I have a case in which the eyelashes of the inner half of the upper eyelid have become quite white. The lady having black hair, the effect is very conspicuous. She has not suffered from neuralgia, nor is there any assignable cause. I should be glad if someone having had experience of similar cases will suggest a remedy. I have painted the lashes with nitrate of silver, but without success.

I am, Sirs, yours faithfully,

March 23rd, 1892. A SUBSCRIBER.

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"TOUTING" IN HALIFAX.

To the Editors of THE LANCET.

SIRS,—In your issue of March 5th you have a paragraph entitled "Touting with High Sanctions at Cambridge" (p. 365). I should like to draw your attention to a similar but worse example of "touting," but not with what can be considered as "high sanctions," at Halifax. I enclose you a handbill of the Halifax Provident Dispensary, such as is being left at the houses of patients of other medical men. At Cambridge they have at least a wage limit, which, as things go, is a pretty fair one; but at Halifax, as you will see, there is absolutely no wage limit at all. I may add that originally—i.e., at its inception—there were ten medical officers selected to act on the Dispensary staff, but seven of these resigned on the refusal of the committee to adopt a wage limit. The remuneration of the medical gentlemen is about one halfpenny per week per patient—a much smaller rate than a costermonger would expect to receive for his toffee at a stand in the street. A benevolent man giving gratuitous advice to a charitable institution, or relieving the suffering poor without fee or reward, is noble in the extreme; but when a member of our profession offers his services at such a low rate to an object which no one can call a charitable one, it is time that the Colleges interfered to prevent such modes of practice. The hard-working practitioner will then have a chance to make a living and uphold our once noble profession with all due decorum.

I am, Sirs, yours faithfully,

March, 1892. FAIR PLAY.

*** The following is the scale of charges, and this, be it understood without a wage limit. We cannot defend such a system.—ED. L.

Scale of Payments.

	Per week.	Entrance fee.
For any person under 14 years of age ..	½*d.*	0*s.* 6*d.*
For any person over 14 years of age	1*d.*	0*s.* 0*d.*
For an adult and one child under 14 ..	1½*d.*	1*s.* 3*d.*
For an adult and two children under 14 ..	2*d.*	1*s.* 6*d.*
For an adult and three children under 14 ..	2½*d.*	1*s.* 9*d.*
For a man and his wife	2*d.*	1*s.* 6*d.*
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DIABETES FOLLOWING INFLUENZA.

To the Editors of THE LANCET.

SIRS,—As an exceptional sequel of influenza, perhaps you will consider this letter of sufficient interest to publish in your valuable journal.

A young, robust corporal in the Royal Artillery was admitted to hospital on Dec 9th, 1891, suffering from influenza, from which he recovered. But on the eighth day after admission he reported that he passed a large quantity of urine at frequent intervals. The urine was therefore kept by the orderly, and it was discovered that he passed fourteen pints and a half in twenty-four hours, with a specific gravity of 1031. The patient was immediately placed upon a physiological dietary, and ordered pills containing codeia and asafœtida; he was also extra warmly clothed in flannel. At one period of the disease he passed seventeen pints of urine in twenty-four hours, and the specific gravity reached 1038. He gradually improved and gained weight, and was finally discharged from hospital convalescent on March 10th, 1892. He had been taking ordinary diet for a fortnight before he was discharged, and all medicine had been stopped. The etiology of this temporary derangement is obscure. No doubt congestion of both kidneys and hepatic organ simultaneously, due to chill or some subtle poison affecting the nervous system, and so perverting the normal excretions.

I am, Sirs, yours faithfully,

Dover, March 21st, 1892. J. HOYSTED.

CHEAP NOTIFICATION.

To the Editors of THE LANCET.

SIRS,—The Huddersfield Corporation allows only 1*s.* for certificates of infectious disease. This is according to by-laws of the Corporation passed before the Compulsory Notification Act. This, after paying the postage, leaves only 11*d.* for the certificate. Is it in the power of the Corporation to make a by-law to comp edical men to accept 1*s.* when 2*s.* d is the usual fee? If so, could Corporation exact the same service for a still smaller sum? am, Sirs, yours truly,

Huddersfield, March 17th, 1892. J. W. DRAPER.

*** The medical men should protest, and would have a good case with the fulcrum of the Compulsory Notification Act, which, however, we understand to be not in force in Huddersfield.—ED. L.

ORIGINAL WORK AND GENERAL PRACTICE.

To the Editors of THE LANCET.

SIRS,—Confessedly, there is much room for original work in our profession. Many general practitioners recognising this, with time at their disposal, would be very pleased to enter upon such work, but feel themselves handicapped by their inaccessibility to hospitals where, for most subjects, scientific methods can only be adopted and material for investigation found. A little guidance in the choice of work most suited to men so situated would, I feel sure, be welcomed by many, and to have your suggestions would be very helpful to others and

Yours truly,

Watford, Herts, March 28th, 1892. A MEDICAL PRACTITIONER.

"THE SPREAD OF SMALL-POX."

AN American correspondent questions the accuracy of the statements in the *Echo*, on which we lately commented, as to the spread of small-pox in Philadelphia being due to the landing of an immigrant in 1872. Our correspondent alleges that he lived in Philadelphia at the time, that there had been sporadic cases in the winter of 1869–70, and that there was an epidemic in 1870-71 and 1871-72. We cannot vouch for the statements which our contemporary quoted from the Consular Report of 1890, and which were too consistent with human experience elsewhere. We are obliged to our correspondent—Dr. George H. Clark.

F.R.C.P. (St. Leonards).—The question is not easily answered. There is no body whose duty it is to decide on the comparative conditions of membership of the respective Colleges, and we are not prepared with a short reply to so important a question. Theoretically there should be no territorial distinction between corresponding qualifications.

R. N. will see in THE LANCET of last week an answer to his first question. The reason for the action of the General Council in the case mentioned was fully set out in THE LANCET of Nov. 20th, 1886, p. 992.

Dr. Dockrell.—Our general rule is to follow the wishes of the contributor, so that the information referred to is inserted if supplied in the communication submitted to us, but not otherwise.

Mr. Geo. T. Wilkinson.—Dr. L. Phillips, Medical Institute, Edmund-street, Birmingham.

SMALL-POX AND FOOTBALL.

To the Editors of THE LANCET.

SIRS,—In last week's issue of your valuable journal, at page 775, there appeared an annotation under the above heading. It is therein stated that a certificate was published by the sanitary inspector for this borough to the effect that Batley might be visited without danger of infection. This does not truthfully state the facts. Our inspector was applied to, and he granted a certificate to the secretary of the Batley Football, Cricket, and Athletic Club. This certificate may have been published, but it certainly was not done with the sanction or knowledge of our inspector. The certificate, when it stated that Batley was free from infection, stated the truth; and at the date it was written there was only one infected house in the borough. The adverse criticisms on this certificate which have appeared in your columns and in the public press have been most damaging to the industries of this town. In all conscience we have had a serious epidemic, and as a consequence trade in all branches has severely suffered. But we are now free practically.—I am, Sirs, yours faithfully,

JOHN STEWART, M.B., C.M.

March 28th, 1892. (M.O.H. *pro tem.*)

"A QUESTION OF ETHICS."

To the Editors of THE LANCET.

SIRS,—In reply to "One of the Olden Time," it is only necessary to say that the communications of the medical attendants in the case in question were published in the interests of the patient, and with the full knowledge and approval of those nearest to her and entitled to act for her. Your correspondent has left out of his view the principle of "medical ethics" which forbids bearing false testimony against his brethren, whom he so unjustly accuses in this case of a breach of confidence. I am, Sirs, yours obediently,

March 28th, 1892. ONE OF THE MEDICAL ATTENDANTS.

*** We are certainly of opinion that it is contrary to medical ethics that details of a case should be published in the lay press, with the names and addresses of the medical attendants, even when quoted from a medical journal; but on the occasion referred to we do not see that the medical attendants in question were to blame.—ED. L.

"TREATMENT OF CRACKED LIPS."

To the Editors of THE LANCET.

SIRS,—Ordinary cases of cracked lips may be effectually dealt with by keeping them constantly smeared with "lip salve." The salve best for this purpose is made rather stiff, and without the red colouring matter usually added. The patient must carry a small box always with him, so that the application may be renewed as soon as the lips begin to dry. If there are deep cracks bordered by thickened epithelium, it is sometimes good practice to pare down the hard margins. As a dental surgeon I have seen a vast number of cases, and I can recall few which have not yielded to these simple measures.

I am, Sirs, yours faithfully,

March 26th, 1892. H. S.

To the Editors of THE LANCET.

SIRS,—In reply to "Medicus" in your issue of the 26th ult., I should suggest that, assuming he has tried all the ordinary methods of treatment, he should have recourse to excision of the "crack." This simple operation speedily effects the cure of this often troublesome complaint, and if care is taken not to remove too much of the surrounding tissue, no disfigurement results. The edges of the wound may be brought together by fine horsehair sutures, or, if the operator prefers, a small hare-lip pin may be used.—I am, Sirs, yours faithfully,

March, 1892. M.R.C.S. ENG.

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PANCREATIC DIABETES.

ON this subject an important monograph has just been presented to the Accademia dei Lincei of Rome. Its author is Prof. Capparelli, and its title is "Studi sulla Funzione del Pancreas e sul Diabete Pancreatico." A committee of the Academy has been appointed to report upon it.

Mr. W. H. Waterfield.—The question is a legal one, but unless there is something in the contract authorising such a bold procedure on the part of the patient his chance of recovering such charges would, we imagine, be very slight. On the other hand, it seems an untenable rule that messages must be sent before 10 A.M. This could not be enforced in reference to an illness occurring later in the day.

F.R.C.S. would do well to defer settling in the place till after the deceased's practice has been disposed of, and not to compete with the successor by purchase for any of the appointments.

Mr. S. Paget.—Very soon.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

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Goulstonian Lectures

ON THE

CHEMICAL PATHOLOGY OF DIPHTHERIA COMPARED WITH THAT OF ANTHRAX, INFECTIVE ENDOCARDITIS, AND TETANUS.

By SIDNEY MARTIN, M.D., F.R.C.P.,

ASSISTANT PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL AND TO THE HOSPITAL FOR CONSUMPTION, BROMPTON; LATE PATHOLOGIST TO THE MIDDLESEX HOSPITAL.

LECTURE III.

THE specific action of the diphtheria products is brought into greater prominence when it is contrasted in parallel experiments with the chemical bodies found in anthrax and in infective endocarditis.

Infective endocarditis.—The case of infective endocarditis examined was under the care of Dr. Cayley at the Middlesex Hospital, and I performed the post-mortem examination when I was pathologist to that hospital. The history of the case may be briefly stated. The patient was a young unmarried woman, aged twenty-one years. The illness began eight weeks before death with pain in the left breast, and was characterised by wasting and intermittent fever during the six weeks' stay in the hospital. The temperature rose to 103° or 104°F. every day, and only once did shivering occur. The cardiac signs were those of double mitral disease. Four weeks before death the right brachial artery became plugged by an embolus, and three weeks before death the left femoral. Albuminuria occurred four weeks before death. At the post-mortem examination, twelve hours after death, there was chronic disease of the mitral valve, with fungating vegetation spreading over the endocardium of the left auricle, and ulcerated on the surface. The blood was imperfectly coagulated, and was lakey in colour. There was a recent embolus in the left middle cerebral artery, and older emboli (surrounded by organising thrombus) in the right brachial and left femoral arteries, while at the origin of the superior mesenteric artery there was a softening embolus. The right kidney showed two scars of old infarcts, and there were two caseated infarcts in the spleen. The spleen was greatly enlarged, dark, and congested. The liver was fatty, the kidneys fibro-fatty, and the lungs œdematous. This was, then, a case of ulcerative endocarditis not associated with abscesses or pyæmia. The mitral valve was examined microscopically and the blood and spleen chemically, while cultivations were made from the blood and from the vegetations on the mitral valve. Microscopically the mitral valve showed the fibrous thickening of chronic disease with recent vegetations capped by fibrin. A section of the free edge of the vegetations showed the fibrils of fibrin capping the thickened connective tissue containing collections of round cells. Along the free edge of the fibrin was a fringe of micrococci, very thick and invading the fibrin. Outlying clusters of the cocci were also present, and in some parts the micro-organisms were seen in groups in the tissue of the valve itself. In some parts of the valve the cocci were present in the valve tissue itself in the form of clusters. In this case, then, the micro-organism has for its culture medium the fibrin capping the vegetations.

Bacteriological examination.—No micro-organisms were found by making cultivations of the blood of the right ventricle. From the vegetations, with proper precautions, a pure cultivation was at once obtained of cocci with the same microscopical appearances as those seen in the valves—viz., they were cluster or staphylo-cocci, and not streptococci. Only one culture out of the five made showed any contamination; four were pure, and showed only the growth of the staphylococci. Without going further into the bacteriological procedure, this organism may be described as growing on agar in bluish-white opaque circular colonies, and on gelatine in a similar manner, but rapidly liquefying the medium. Microscopically it is a staphylococcus, forming clusters and not chains.

Pathological action.—This coccus does not produce pus when introduced under the skin of a guinea-pig or into the circulation of a rabbit. In a guinea-pig it produces a febrile disorder lasting over eleven weeks, accompanied by extreme wasting and ending in death. When injected into the circulation only a slight illness results, from which the animal recovers. When killed, no micro-organisms were discovered in the blood. The pathological effects of this micro-organism have yet to be completely worked out. I contented myself as a commencement in determining what sort of illness it produced in animals and whether it formed abscesses. The kind of illness produced, and the absence of abscesses when subcutaneously introduced, showed that it had the characteristics of the coccus found in the valves of the heart. Each case of infective endocarditis must be studied by itself, for the disease is by no means an entity. Some cases of ulcerated cardiac vegetations occur as part of a pyæmia proceeding from pelvic or other abscesses, where the primary infective agent appears to be the staphylococcus or streptococcus pyogenes. In others, again, no primary pus focus is found, but there are multiple abscesses due to infective emboli from the ulcerated valves. Other organisms, such as Friedländer's pneumococcus, may also possibly play a part in the disease. In the case under consideration, however, there was only one micro-organism, and that one not a pus former.

Chemical examination.—A chemical examination was made of the blood and spleen by the same methods I have already described. The result showed that the same two classes of products are present in the blood and spleen as in anthrax and diphtheria—viz., digested proteids or albumoses, and a non-proteid product, which when first separated and purified is strongly acid. The albumoses are proto- and deutero-albumose, chiefly the latter, indistinguishable by chemical reactions from the similar bodies we have already discussed. The final product is separated by alcohol and purified by precipitation with ether and treating with chloroform. It is an amorphous, yellowish-brown body, with a strongly acid reaction. The amount of the products is seen in the following table:—

In Infective Endocarditis.

	Albumoses.	Alcoholic Extract.
From blood	0·236 gramme	Trace
From spleen	6·705 grammes	1·29
Total	6·941 grammes.	

The large amount of albumoses and alcoholic extract present in the spleen is remarkable. Here, again, as in diphtheria and anthrax, the spleen is the repository and manufactory of the chemical poison.

Physiological action of the albumoses.—The physiological action of the albumoses was tested side by side with that of anthrax albumoses while the experiments on diphtheria were progressing, so that the animals could be compared. The albumoses of infective endocarditis are producers of fever and retard the coagulation of the blood. The effect of the intravenous injection of a dose of 0·122 gramme per kilogramme of body weight is with the anthrax albumoses a great rise of temperature, lasting for three days; with the infective endocarditis albumoses the fever produced is much less marked. With a larger dose (0·2 gramme per kilogramme of body weight) the fever in the case of the anthrax albumoses is not so well marked; while in the case of the albumoses of infective endocarditis it is more marked than with the smaller dose. With a still larger dose (0·3 gramme) the anthrax albumoses cause only a slight rise of temperature, succeeded by a fall and death in two hours; while the albumoses of infective endocarditis cause a moderate rise of temperature, which is continued for two days. The anthrax albumoses, therefore, are much more toxic than those from infective endocarditis. The fever produced by them is well marked with a small dose, but with larger doses it is less, and with a lethal dose it is very slight indeed. In the experiments just described there is no paralysis produced, but wasting is observed in some of the animals.

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Alteration in Weight.

Dose per kilogrm. of body weight.	Anthrax albumoses.			Albumoses of infective endocardits.		
	Gain.	Loss.	Time after inoculation.	Gain.	Loss.	Time after inoculation.
0·122 grm.	200 grm.	—	28 days	—	90 grm.	16 days
—	—	—	—	80 grm.	—	28 days
0·2 grm.	—	530 grm.	12 days	100 grm.	—	11 days
—	—	80 grm.	102 days	652 grm.	—	102 days
0·3 grm.	Death in 2 hours			70 grm.	—	10 days
0·153 grm. (in 3 doses)	—	—	—	85 grm.	—	100 days
0·122 grm. (in 3 doses)	—	130 grm.	4 days	210 grm.	—	4 days
—	—	1020 grm.	42 days	—	—	—

These figures show that the anthrax albumoses produce a greater effect on nutrition than those of infective endocarditis. When multiple doses of these products are given, fever is produced but no paralysis, contrasting greatly with diphtheria products. The effect on the temperature of three doses of anthrax albumoses on successive days = 0·122 gramme per kilogramme of body weight, and of the albumoses of ulcerative endocarditis, also in three doses, = 0·153 gramme per kilogramme of body weight. A rise of temperature each day followed the injection, which was continued for one day after the last inoculation. The anthrax animal died in forty-two days, having lost two-fifths of its body weight, while the ulcerative endocarditis animal showed no loss of weight, and was killed on the fifty-third day. This last was an adult animal; a young animal injected with the same dose of endocarditis albumoses died on the third day after the last injection.

Post-mortem examination.—The post-mortem examination of the animals that died or were killed showed the absence of any pathogenous micro-organisms. A microscopical examination of the phrenic nerves and of the motor nerves was made, and revealed no morbid condition, no nerve degeneration such as was observed in the case of the diphtheria products. The contrast with diphtheria is therefore well marked. Fatty degeneration of the heart was found in some of the animals, especially those which had been inoculated with the anthrax albumoses, and the animal which had the largest single dose of the albumoses from infective endocarditis. This fact helps to explain the fatty degeneration of the heart following the injection of the diphtheria products. Occurring in the animals inoculated with anthrax and ulcerative endocarditis albumoses, it tends to show that the fatty degeneration is due to an effect on the nutrition of the heart by the albumoses circulating in the blood stream.

Tetanus.—The case of tetanus examined was under the care of Mr. Hulke at the Middlesex Hospital. It was a typical case of acute tetanus following a penetrating wound of the sole of the foot caused by a nail. The symptoms began the week after the accident, and death, which occurred ten days after the accident, was preceded by frequently repeated tetanic spasms. The post-mortem examination showed nothing definite. A chemical examination of the blood was made, and 0·5972 gramme of albumoses (chiefly deutero-albumose) was obtained with a small quantity of a body soluble in alcohol and precipitated by ether. The albumoses, when injected into the circulation of a rabbit in the dose of 0·143 gramme per kilogramme of body weight, produced, not a rise, but a fall of temperature on the day of experiment. For two or three days the animal was quite well, but it then began to waste, so that on the twelfth day it had lost one-sixth of its body weight. It died on the twenty-first day, having lost nearly one-half of its original weight. This progressive wasting brings the tetanus albumoses into relation with those found in diphtheria. The completion of this subject I must leave for the present.

GENERAL CONSIDERATIONS.

Having now brought forward the facts in the chemical pathology of the infective disorders—diphtheria, anthrax, and ulcerative endocarditis—chosen for investigation, it is necessary to consider generally the bearing of the results. In summing up the effect on the body of the introduction into it or upon it of a primary infective agent, the symptoms may be referred to two causes—(1) mechanical, (2) chemical. The mechanical effects are illustrated by the fact that the infective agent may, as in diphtheria, produce a membrane which spreads down the air passage and endangers life. The effect of this mechanical obstruction—which is to some extent relieved by intubation or tracheotomy—is well recognised as a danger in diphtheria. Another example of mechanical effect is seen in infective endocarditis, in which not only do the fungating vegetations interfere with the proper action of the heart, but the emboli broken off from them, by plugging large vessels, cut off or diminish the blood-supply to a part, and so lead to grave results. Although such mechanical effects may be looked upon as merely pathological accidents, their consequences have to be considered in dealing with the pathology of these diseases. They sink, however, into comparative insignificance when the *rôle* of the chemical products of the primary infective agent is elucidated. What has been made clear to me during the course of the research, and what I have attempted to bring before you, is that these chemical products are specific in their action; that inasmuch as the bacillus anthracis is separable from other pathogenous micro-organisms as producing a definite disease (anthrax), so are the chemical products of the bacillus separable to a certain extent chemically, to a greater extent physiologically, from those formed by other pathogenous micro-organisms. Similarly with diphtheria, the bacillus diphtheriæ produces products differing in their physiological action from those found in anthrax and in infective endocarditis. The specific primary infective agent produces, therefore, specific chemical products by means of which it acts. It is evident from this that we have another basis for the study of infective disorders, in addition to the purely bacteriological one which is the study of the primary infective agent. The following now well-known bacteriological rules are recognised to prove that a particular micro-organism is the cause of a disease: (1) It must be found always associated with the disease; (2) it must be separated from the diseased tissues in pure culture; (3) it must be injected into susceptible animals, and reproduce the disease; (4) it must be again obtained from this experimentally produced disease. To this I would add another—viz., that the chemical poison must be obtained from the tissues in the natural disease, and products with a similar physiological action proved to be formed by the primary infective agent when grown outside the body. This will no doubt aid progress in pathology; because in some instances, as in cholera and leprosy, animals susceptible to the disease are not forthcoming. If, for example, it be definitely proved that certain chemical poisons with a specific action are present in the bodies or evacuations of cholera patients, and if the vibrio choleræ asiaticæ produces the same products, then we must look upon this micro-organism as the cause of the disease. It is possible that in some infective disorders, such as measles, scarlet fever, and small-pox, in which the primary infective agent is as yet unknown, a chemical examination of the tissues on the lines laid down may aid in the discovery of the living contagion. In this way, too, it will be possible to decide whether such a disease as has been described as membranous croup of the larynx really exists. There is no evidence at present that there is any disease other than diphtheria which can produce a false membrane in the larynx. And now that it is definitely known that diphtheria is a disease caused by the bacillus diphtheriæ, and that the chemical substances found in it are readily recognisable by the fact of their producing a definite nerve lesion, it will be possible for any observer who has a case of membranous croup under observation to separate the chemical substances from the "croupous" membrane, or from the body after death, and to decide their nature. I should like to insist on the point that, in studying the chemical pathology of an infective disorder, it is not sufficient to investigate the artificial chemical products of the primary infective agent; a chemical examination of the tissues of persons dead of the disorder must also be performed. The great importance of this is shown by one fact which has been brought out in these experiments—viz., the pathological *rôle* of the spleen.

Rôle of the spleen.—The spleen is an organ with an obscure physiology and a still obscurer pathology. Anyone who has tried to understand what has happened to a spleen in a case of infectious disease must have been struck with the utter hopelessness of coming to any definite conclusion regarding that organ from a merely physical examination. From the physiological point of view, it is known to undergo certain mechanical changes which can

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only be of slight import, and (besides being a birthplace for white blood cells) to contain in comparatively large amount the crystalline products of the breaking up of proteids, such as uric acid &c. The chief point about the organ, however, from a pathological point of view, is that the blood flows through the walls of the vessels into spaces; then we have a more or less stagnating fluid, the proteids of which can be digested either by micro-organisms or by ferments. In anthrax and infective endocarditis this organ is greatly enlarged; in diphtheria it is usually normal in size. In all three cases it is the proteids of the spleen from which the specific poisonous products are mainly formed; they serve as the food of the infective agents, primary or secondary.

Food for the infective agents.—Besides the spleen, there are other parts of the body in which the primary infective agent finds suitable media in which to grow. Thus pathological effusions, whether already present in the body or formed by the primary infective agent, are suitable culture media. These effusions, speaking generally, may be considered as slightly alkaline solutions of proteids which are outside the active metabolism of the body—i.e., the proteids are not in a living fluid like the blood. The bacillus anthracis, for example, when injected under the skin of an animal forms this effusion by its products, and thus provides its own culture medium. The interstitial fluids of the tissues of the body, containing as they do the amount of proteid, sodium chloride, and phosphates necessary for the growth of the primary infective agent, probably serve as culture media. Lastly, in diphtheria and in infective endocarditis, fibrin serves as the medium in which the micro-organism flourishes. In diphtheria the false membrane is composed of fibrin, which, as I have shown, is in a state of digestion, and the exudation of this fibrin is no doubt produced by the earliest products of the bacillus diphtheriæ. In the case of infective endocarditis which I have brought before you, the nidus of the micro-organism was formed by the fibrin capping the vegetations. Without a suitable medium the primary infective agent cannot develop, cannot produce its poisonous products.

Products formed by the primary infective agent—I have attempted to make clear the fact that in these infective disorders the primary infective agent or living contagion produces its effect in man by means of its specific chemical products, which it forms from the proteids of the body with or without the intervention of a ferment. It may be that in all cases the chemical substances are produced by means of an unorganised ferment excreted by the primary infective agent; but the point that concerns us is that in only one of the diseases examined—viz., diphtheria—is there any evidence to show that this ferment plays a direct pathological *rôle*. In this disease, in which the bacillus diphtheriæ is limited to the superficial parts of the membrane, and does not diffuse itself throughout the body, it was seen that there was something excreted by the bacillus and absorbed into the body, in the tissues of which were digested products. This excretion of the bacillus was looked upon as a ferment, and was called the "secondary infective agent." In anthrax and infective endocarditis, on the other hand, the primary infective agent is in the body itself, and there is no evidence that a ferment plays any direct part in the causation of the symptoms of the disease. I very much suspect that in tetanus, a disease which resembles diphtheria in the fact that the primary infective agent is limited to the site of inoculation, a ferment or excretion of the bacillus acts as a secondary infective agent. But this is quite undecided. The secondary infective agent cannot be expressed in any chemical terms: only in terms of what it can accomplish, either (1) of its physiological action, or (2) of its capacity for forming from proteids chemical bodies which resemble it in physiological action. The secondary infective agent is one possessing properties which, like those of unorganised ferments, are usually expressed by the term "vital"; it is, as it were, one of the vital properties of the living cell cast off in a form which is unorganised.

Products of the infective agents, primary and secondary.—The products of the primary or secondary infective agents are chemical bodies belonging, as I have shown, to two groups, a proteid and non-proteid. The proteid form the class of digested proteids or albumoses and peptone; the second group are final products from the digested proteids and are analogous to the leucin and tyrosin of pancreatic digestion. The organic constituents of the body consist of proteids, carbohydrates, fat, and certain so-called extractives, which, like urea, uric acid, &c., are nitrogenous and the result of proteid metabolism. There is no evidence at present that pathogenous micro-organisms can form from fats and carbohydrates poisonous bodies; they may break them up, but the chemical bodies produced have little physiological action, while the proteids are substances which, from their enormous molecule and from the presence of nitrogen, are capable of being split up into poisonous bodies. The chemical difficulty with proteids is that there is no knowledge of the size of their molecule and, what is of great importance, of their molecular construction. The percentage composition gives no idea of the size of the molecule, and the only idea we have of the molecular constitution of a proteid is from a study of the chemical constitution of the nitrogenous bodies resulting from its destruction. It is not, therefore, surprising that with regard to the first class of poisonous products under consideration—viz, the albumoses—no very definite chemical knowledge is forthcoming, and that, as I have stated, all the albumoses I have been describing give the same chemical reactions. An ultimate analysis to determine the percentage composition is of little value in the case, as it is the molecular constitution we wish to know. We have, therefore, to express the albumoses in terms of their physiological action and to be content with demonstrating that the diphtheria albumoses differ from peptic albumoses and those found in anthrax and in infective endocarditis, in producing a paralysis consequent on a nerve degeneration, and that the anthrax albumoses are more poisonous than those of infective endocarditis.

The chemistry of the final products.—The anthrax base, the organic acid in diphtheria &c., is, however, a subject which will probably yield very fruitful and definite results. Such an investigation is, perhaps, one of the most difficult in organic chemistry. For us, as physicians and pathologists, the physiological action of such substances is of more importance than their chemistry; but as they are factors in disease and in some diseases the chief factors, the more complete our knowledge of them, the more likely will the means be found to combat them. In anthrax, for example, it is the final product, the alkaloid, which is the cause of death—the albumoses play a very subsidiary part in the production of the fatal result. In diphtheria, on the other hand, the albumoses play the more important *rôle*, while the organic acid has only an insignificant action. There may, indeed, be other diseases in some of which the albumoses play the chief pathological *rôle*, in others the final product, whether base or acid.

Comparison with other poisons.—These poisons found in infective diseases do not stand alone; they are related to others found both in the vegetable and animal kingdoms. Albumoses (which I have called phytalbumoses) are widely spread in vegetable tissues; they exist in the seeds, and probably other parts of plants. Alkaloids or bases are also obtained from plants, and it appears to me a very promising field of research to determine whether the vegetable alkaloids are associated with digested proteids—whether, in fact, the vegetable cell produces, like the bacillus anthracis, two classes of products, the albumoses and a base. This is, however, a question for the vegetable physiologist. In some seeds (abrus precatorius and ricinus communis) there are proteids which have a distinct and powerful poisonous action. In the jequirity seed, for instance, there are, as I have shown, two poisonous proteids, a globulin and an albumose, both of which produce in very small doses a general disease, two of the features of which are the production of ecchymoses and the occurrence of sanguineous diarrhœa. The jequirity proteids resemble in many respects those of snake venom, and are like the albumoses of diphtheria and of infective endocarditis in producing a watery diarrhœa. I think, indeed, that the jequirity poison more closely resembles the secondary infective agent in diphtheria than any other poison I know, as it partakes of the nature of a ferment in its ready destruction by heat. Whether it produces a peripheral nerve degeneration or not I do not know.

Summary of the action of the poisonous products in infective disorders; effect on the blood and on nutrition.—One of the effects common to many of these proteid poisons is their power of preventing or hindering coagulation of the blood. This we have seen to be the case with the diphtheria albumoses, the effect of which in this respect is well marked, and lasts a long time after they have been injected

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into the circulation. The albumoses of infective endocarditis also have this power, which is likewise possessed by the albumoses of peptic digestion, by the jequirity poison, and by many kinds of snake venom. This action shows that these poisons have a profound effect on the blood, and may account for the grave defects in nutrition which have already been described. The animals poisoned with the diphtheria or anthrax albumoses go on wasting after the fever has subsided, the loss of weight being greatest in the case of the diphtheria products, and proportional to the dose of the poison given. Tetanus albumoses may be classed with diphtheria as producing great wasting; while anthrax albumoses are less effective in this respect, and those of infective endocarditis least so. In connexion with this, there is the fatty degeneration of the cardiac muscle which has been shown in these experiments to follow the injection of not only the diphtheria products, but also, although to a less extent, the albumoses of anthrax and of infective endocarditis. There is no definite evidence that cardiac degeneration is directly dependent on a nerve lesion, either central or peripheral; and the fact that it is well marked after the injection of the anthrax albumoses which produce no degeneration in the nervous system points, in my opinion, to the conclusion that it is to the change in the blood which these poisons bring about that we must ascribe the fatty change. This fatty degeneration may, indeed, be only the final result of the poisons being special cardiac poisons. The skeletal muscles do not become fatty like the heart, unless there be nerve degeneration, as in diphtheria.

Effect on the body temperature.—From the experiments which have been described it is clear that the proteid products (albumoses) of the primary infective agents have a profound effect on the body temperature. Ott and Calmar first showed that ordinary peptic albumoses caused a rise of body temperature, and several observers have at various times investigated the effect of injecting into animals "septic material" freed from micro-organisms. These last experiments were performed at a time when the chemical characteristics of the products of pathogenous micro-organisms were unknown. The time has passed by for using impure material for physiological experiment. The most typical effect on the body temperature is seen in the case of the anthrax albumoses. A medium dose produces a rapid and high rise and a continuation of the fever for some days, a larger dose produces a less pronounced rise and a shorter duration of the fever period, while a still larger dose causes only a slight rise of temperature and a sudden fall, ending in death. The albumoses of infective endocarditis are less active in producing fever, while those of diphtheria and tetanus may be classed together, inasmuch as in medium doses they produce a fall of temperature. Diphtheria albumoses will produce fever, while those of tetanus, as far as has been ascertained, produce only a depression of temperature. It is a noticeable fact that it is the albumoses or proteid products of the infective agents, and not the final products, whether base or acid, that have the effects on the blood, on the temperature and on nutrition, that have been described.

Effect on the nervous system.—Many of these poisons select the nervous system for their action. One of the features of the action of albumoses is the production of coma, and in anthrax this coma is the special action of the base or alkaloid. Coma is a feature of jequirity and of snake poisoning. The final action of the albumoses in diphtheria is the production of coma, but their special action is to produce a paralysis dependent on nerve degeneration. It is quite possible that other products from diseases will be found to produce a peripheral palsy. The effect on the respiration which is observed in snake poisoning is ascribed to the action of the poison on the central nervous system, and when working at jequirity I came to the conclusion that its action on the respiration was also central. In diphtheria, however, where there is peripheral degeneration of the phrenic nerve, it is difficult to say how far the respiratory attacks are dependent on the peripheral degeneration, and how much they are due to an effect on the centres of respiration. Apart from mechanical obstruction, dyspnœa is one of the features of diphtheria in its acute stage, and it is possible that it may be due to an effect on the central nervous system; but here, again, it is difficult to exclude a peripheral action on the phrenics, for, as I have shown, the diphtheria products are special nerve poisons, and they may cause degeneration of the nerves even during the short course of the acute disease.

Question of immunity produced by the chemical products.—There is one question which I have left untouched—viz., that of the conferring of immunity against the disease by the means of its chemical products. This is, of course, an important effect. We have been considering the chemical products of an infective disorder or of the primary infective agent as specific in reproducing when injected into animals the symptoms of the disease. But it is evident that, if the chemical products are capable of protecting an animal against the invasion of the primary infective agent, this action must be essentially a specific one. For example, we could not suppose that the chemical products of anthrax would protect against diphtheria, or those of diphtheria against anthrax, but that only the products of anthrax could protect against the invasion of the bacillus anthracis. I wish to speak of the matter only in a general manner. I am, however, not at all sure that in all diseases there is this protection; I cannot conceive how the products in diphtheria could protect against the acute disease. In discussing the chemical products formed by the primary infective agent outside the body or in the natural disease, I have not mentioned any substances except those that are effective in producing the symptoms of the disease. There are some who have considered that such chemical products may consist of a "vaccine" and a "toxine." There is not the slightest evidence of this. There is no evidence of the existence of any chemical "vaccine" separable from the chemical "toxine," and I need, perhaps, hardly point out that such a "vaccine" has never been isolated. It was a term invented to explain phenomena which were not properly understood. There is also no evidence that there is any particular chemical substance which stops the growth of a pathogenous micro-organism. When grown in a flask it will not develop indefinitely, and it stops not because there is an anti-toxine formed, but because it is choked by its own chemical products in the same manner as peptic or tryptic digestion may be inhibited by the accumulation of the digested products.

In bringing these lectures to a conclusion I wish to say that the work was done for the Local Government Board, and to express my thanks to the medical officer for granting me permission to bring the subject before this College.

PULSATIONS AND MURMURS IN THE GREAT VEINS OF THE NECK:

THEIR PHYSIOLOGICAL AND CLINICAL SIGNIFICANCE.

By SYDNEY RINGER, M.D., F.R.S.,
AND
HARRINGTON SAINSBURY, M.D., M.R.C.P.

(*Concluded from page 741.*)

WE will now pass at once to consider certain characters belonging to venous murmurs heard at the root of the neck—characters which we have not examined in the preceeding sketch. The venous bruit, as heard in the internal jugular, has for the most part the character of a continuous bruit—i.e., the whole of the cardiac cycle between two succeeding beats of the carotid is filled up with a humming, or cooing, or purring sound, but if carefully listened to it is possible in most cases, and easy in many, to recognise that the sound varies in intensity; and that the variations follow each other in a sequence, which, on further investigation, is found to be of double rhythm—respiratory and cardiac. The respiratory rhythm shows a remission of the bruit during each expiration, an augmentation during each inspiration. The explanation of this phenomenon is not far to seek, for each inspiration facilitates the flow of blood into the chest, each expiration impedes it. The other sequence, of cardiac rhythm, concerns us chiefly, and we think that on the whole it is the more easy of recognition and the more common of occurrence. It shows two augmentations and two remissions during each cardiac cycle. What may be their explanation? The first step towards answering this is to time the phases of the bruit, and with a little care we succeed in this, and find that one augmentation falls in with the ventricular systole, the other with the ventricular diastole. It will be found most con-

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venient to time the phases of the venous bruit by means of the pulse in the carotid of the opposite side of the neck. The remissions are sometimes so marked that the augmentations are heard as a double bruit; sometimes, indeed, especially in some postures, the murmur is actually double, there being a complete intermission.

The posture which favours intermission of the bruit is the recumbent. In many cases of anæmia it is possible, by making the patient lie quite flat, to convert the continuous bruit into an intermittent one. The mode of production is evidently the removal of the factor gravity. As a whole, the bruit is more faint in the recumbent position, and it may disappear altogether. What statements do we already possess concerning the remittent character of the venous bruit? We refer to a remission of cardiac rhythm. Hope[1] described the venous bruit as continuous if arterial pulsation were slight, as discontinuous if it were forcible. The bruit in the latter instance showed systolic exacerbations, and the explanation given by Hope was that this was due to the superaddition of the arterial whiff to the continuous venous murmur. He maintained that he could distinctly hear the arterial bruit through the venous sound, recognising the former by its higher pitch. We have no doubt that his explanation will hold good of some cases, and that, especially if rather heavy pressure be used, the arterial whiff may associate itself with the venous bruit and appear as an exacerbation; but we are equally certain that in the majority of cases the systolic element belongs to the vein alone, and the decisive proof of this is to be obtained by compressing the vein above, the murmur ceasing at once. Parrot[2] described the venous bruit as a *bruit à double courant* (p. 656), and he says (p. 664) that most authors have analysed the bruit (venous) into two parts. According to him, one augmentation falls in with the ventricular systole, which, as he points out, coincides in time with the auricular diastole. This murmur he regards as a direct bruit occurring during the flow towards the heart. The other bruit (or augmentation) he makes presystolic, and he regards it as a bruit of reflux due to the auricular contraction. Parrot's observations referred to the venous bruit of health or of anæmia. Bamberger's cases[3] are pathological cases with dilated right heart and probably insufficient tricuspid; they do not apply here, but we may mention one case in which a rough systolic bruit and a weak diastolic bruit were heard over the veins of the left side of the neck, because of Bamberger's remark that he was struck since he had never heard a diastolic venous bruit.[4] Friederich,[5] who also limited himself to pathological cases, seems to confirm Bamberger's remark as to the rarity of a diastolic venous bruit, since he mentions only two cases of such—viz., one of Graves' disease and one of aortic regurgitation, and explains them in an exceptional manner. Walshe[6] states that the venous murmur may be remittently continuous, "undergoing reinforcement and weakening at regular intervals," but he does not discuss the time of these reinforcements.

Of more recent authors we find that Balfour, describing chlorosis,[7] says: "The venous murmur is continuous and audible both during systole and diastole, its intensity increasing with the thoracic and cardiac aspiration, and diminishing with expiration and the cardiac systole, so that the venous hum swells and dies as these alternate." He thus describes the double, respiratory, and cardiac rhythm of the venous bruit, and since the venous hum is said to lessen with the cardiac systole, it must augment during the diastole; he describes therefore a diastolic exacerbation. Gee[8] speaks of the venous bruit as subject to rhythmical increase of loudness both during the inspiratory draught from out of the veins and during the ventricular systole—i.e., during the auricular diastole. Guttmann[9] says the venous bruit is increased during ventricular diastole, and should be diminished during systole, but that the systolic decrease is not only not demonstrable, but that an actual systolic increase is audible. This systolic increase he explains like Hope—viz., as due to the superaddition of a carotid whiff. Landois[10] describes the venous bruit as rhythmically increasing during the diastole of the heart or during inspiration.

These references may suffice to show that no definite settled teaching prevails as to the time of the phases or exacerbations of the venous bruit. Limiting ourselves to those of cardiac rhythm, these are recorded as systolic or as diastolic, or as both systolic and diastolic; in the latter case one augmentation occupies a special portion of the diastole—viz., the presystole. It is Parrot who says that the venous bruit is systolic and presystolic, and who adds that most observers have analysed it into two parts. Whether this is the fact or not—viz., that most authors have so analysed it,—we are in complete accord with him that the bruit shows a double element, and that its rhythm is systolic and diastolic; but we differ from him in making the diastolic augmentation follow instead of precede the systole. Perhaps one element of confusion has been the presence of a respiratory rhythm as well as of a cardiac rhythm, for it is clear that the opposing influences of inspiration and expiration must at one moment assist, at another hinder, the cardiac influences, according as an expiration or inspiration happens to coincide in time with systole or diastole. This objection is to be eliminated by suspending the respiration, but then a permanent obstacle is placed in the way of the venous current, and, according to Guttmann, the diastolic element of the venous bruit often becomes under these circumstances more faint, or actually disappears. In timing the phases of the venous bruit we have, however, made the patient hold the breath, and we maintain that even under these conditions it is possible in the majority of cases to determine a double rhythm, and that this is systolic and diastolic. We would again accentuate the point that actual intermission of the venous bruit is in many cases to be obtained by making the patient lie flat. The rhythm is thus more easily analysed. Will this observation, which we claim to be a matter of fact, fit in with physiological data? During the cardiac cycle there will be two points of time when the venous blood will find readiest access to the heart cavities: the first will be at the moment of ventricular systole, for this moment coincides in time with the *diastole* of the auricle which has just emptied itself into the ventricle; the second will be at the moment of ventricular diastole, for at this moment the distended auricle will be able to unload itself into the flaccid and empty ventricle. Nay, more, if the teachings of physiology be sound as to the development of a negative pressure in a cavity at the moment of relaxation, we shall have a suction force accelerating the flow into auricle and ventricle.[11] Be this as it may, there will be in any case least obstruction to the venous inflow at the commencement of ventricular systole and the commencement of ventricular diastole.

Discussing the pulsations of the veins of the neck, we have shown that in health and in anæmia there is no reason to believe that the blood current is reversed at any moment of the cardiac cycle; but that, on the contrary, the flow is always towards the heart, now more slowly, now more quickly. It is at the moments of quicker flow that the conditions for fluid vibration will best obtain, and hence whilst the continuous flow in one direction should manifest itself as a continuous hum, there should be, on *a priori* grounds, both systolic and diastolic augmentations of the same. Parrot's view of a reversal of the blood current in the presystole, due to the auricular contraction, is wholly unproved for quiet states of the circulation in health and in anæmia. But what about pathological states when, for instance, the right heart is overloaded through disease in the left heart or in the lungs? Here there is permanent overfilling of the great veins near the heart, and under these conditions we have seen that a pulsation in these veins due to actual back-flow from the full right auricle may obtain during the auricular and the ventricular contractions (presystolic and systolic). The pulsation, the systolic certainly, may be accompanied by a bruit, which will be caused by a regurgitant fluid vein; it was to this bruit that Bamberger drew attention. Does the distended right auricle ever

[1] Op. cit., p. 103.
[2] Archives Générales de Médecine, 1867, pp. 649, 650, et seq.: Étude sur le Siége, le Mécanisme, et la Valeur séméiologique des Murmures vasculaires inorganiques de la Region du Cou.
[3] Beobachtungen ueber den Venenpuls: Würzburger Med. Zeitschr., 1863.
[4] "Da ich noch nie ein diastolisches Venengeräusch gehört hatte."
[5] Virchow's Handbuch der Speciellen Pathologie und Therapie: article, Krankheiten des Herzens, vol. v., pt. 2, p. 96, 1867.
[6] Op. cit., p. 142.
[7] Diseases of the Heart, second edition, 1882, pp. 168, 169, et seq.
[8] Auscultation and Percussion, second edition, 1877, p. 182.
[9] Untersuchungs Methoden, fourth edition, 1881, pp. 324, 325. A little further on Guttmann also describes the venous bruit as intermittent; this is comparatively rare. The rhythm of the intermittent bruit is the same as that of the remittent bruit.
[10] Lehrbuch der Physiologie des Menschen, 1889, p. 187.
[11] According to this view the ventricular negative pressure would far exceed the auricular negative pressure, and therefore the diastolic bruit should exceed the systolic in force.

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throw back its blood with sufficient force to create a bruit? We have not met with such a case, though theoretically it is of course possible.

In conclusion, let us point out that in quiet states of the circulation in health and in anæmia the continuous venous hum shows augmentations, systolic and diastolic, produced by accelerations of the onflowing blood; that at times the bruit may be actually discontinuous with systolic and diastolic phases, which again represent accelerations in the onflowing blood. Note, as characteristic of this, as we may term it, normal circulation that the *systolic augmentation* corresponds with the *collapse*, the *emptying of the vein*; that in pathological states marked by a *full right side* of the heart and distended veins a systolic venous bruit may be heard due to a wave of back-flow. Note, as characteristic of this abnormal state, that *this bruit* corresponds with the *systolic pulsation*, the *filling out of the vein*.

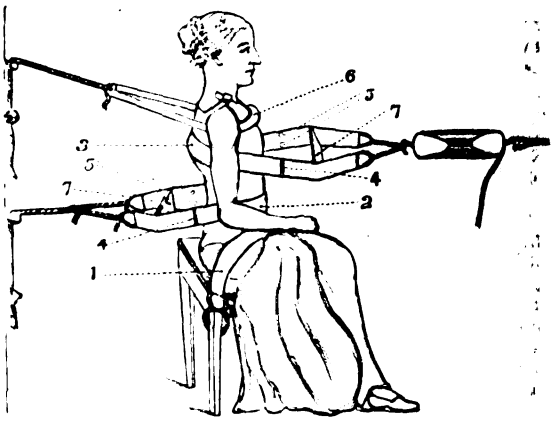
ON A METHOD BETTER THAN SUSPENSION OF APPLYING A PLASTER JACKET.

By RICHARD BARWELL, F.R.C.S.,
CONSULTING SURGEON TO CHARING-CROSS HOSPITAL.

CERTAIN drawbacks and inconveniences are connected with suspension of the patient while applying a plaster-of-Paris jacket; of these may be more particularly selected painful pressure on the jaw and occiput, as well as on the axillary plexus of nerves. The object of suspension is to straighten out the abnormal curve of the spine, so that the jacket when complete may be straighter than the unsupported back of the erect patient, thus preventing intervertebral pressure, and by successive applications correcting, as far as possible, the kyphosis or hump which must result if, such means being omitted, the diseased vertebræ synostose. Children, therefore, whose pelves and lower limbs are small and light, obtain little or none of such benefit; while adults with heavier lower developments may gain more temporary rectification, but can bear the pressure on the points of suspension a commensurately shorter time. Hence the plaster must be of such a quality as will set quickly; no gum or other colloid must be combined with it. The jacket must be completed with great rapidity, and not infrequently the patient must be taken down before hardening is so perfect as to obviate cracking and yielding; for, of course, when suspension ceases there is a tendency to recurrence of the curve, which a hastily applied jacket is too weak to resist. Much experience and practice may up to a certain point minimise these evils, but cannot eliminate them.

I have therefore for some years past ceased to employ suspension in kyphosis, and have straightened, as far as safety will permit, the patient's spine by a modification of my method of rachilysis, which, used differently, has proved successful in lateral curvature; the force—viz., traction by a system of pulleys—being used while the patient is sitting. It is thus carried out in a case of dorsal kyphosis: The patient being clothed in a skin-tight knitted vest, and with the usual parts padded, sits on an ordinary office stool about two feet and a half high, between two opposing walls in which certain hooks &c. are fixed, as for rachilysis. A three inch wide piece of webbing, with strong cords at each end, is secured to one of the back legs of the stool, and, passing over the top of the patient's thighs sufficiently tightly, is also secured to the other back leg (1). A strip of moderately strong unbleached calico, broad according to the size of the patient, crosses the abdomen on and below the umbilicus. This in the position under consideration I will name "counter-traction band." By means of the cord at each end it is fixed at the proper degree of tension behind (2). A similar strip of calico passes across the back on a level with the point of greatest curve. This is the "traction band" (3). If the projection be very sharp and angular, it is well to make a slit, lengthwise as regards the belt, two or three inches long, so that one of the laps may lie above, the other below the most prominent vertebra; a cord secured to both ends of this forms the whole into a loop, into which is hitched the hook of the system of pulleys. These two strips of calico would always crumple up and run into ropes as soon as tension comes on them unless prevented, which is easily done by having at hand four slips of common soft wood a little longer than the belts are broad. They are to be placed outside the calico pretty close to the patient's body (4), one on each side, and into them through the belts and just at their edges, are thrust surveyor's pins (5). Lastly, a one inch wide loop of webbing, properly padded, passes across the manubrium sterni under the axilla on each side, and is secured by a cord running through a single pulley at proper tension behind (6). This I call simply the "lanyard." Now the surgeon begins by making very slight traction by means of the system of pulleys, observing if the tension of his other cords is correct, and places the spine in proper position; if not, it can easily be altered by means of the single pulleys through which the cords run. All being correct, he increases the tension, and slips between the laps of both traction and counter-traction bands a board of wood, from ten to twelve inches long, in order to prevent lateral pressure on the thorax and abdomen (7). He now increases traction up to the desirable point, recollecting that the Astley Cooper system of pulleys, which is that which I use, multiplies his manual force by six. When as much traction as he may deem safe has been attained, he fixes the pulley cord by twisting or knotting it to the loop of the traction belt, thus causing the spine to be immobile during application of the jacket.

As this sitting position and slight restraint are either not at all or but very little fatiguing to the patient, the next procedures need not be hurried. Moreover, in order to ensure greater hardness and durability to the jacket, some



colloid may advantageously be mixed with the water in which the bandages are soaked. The best and most convenient material I find to be liquid glue (Le Page's). About a teaspoonful to the quart of water causes the plaster to set very firm and hard in from twenty minutes to half an hour, according to the warmth of the room. In winding on the bandages those parts of the traction and counter-traction belts which lie close and tight to the patient's body must be included and covered in the turns; those parts which project and stand away from the trunk are left out. By putting on the bandages not straight but somewhat obliquely, the chest and abdomen may be covered, with the exception of some little triangular spaces lying under the shelter—the eaves, if I may use such a term—of the projecting parts; these are afterwards dealt with.

When the plaster has become firm the traction should be slowly relaxed, and the calico belts cut away about three inches from the trunk, and any little roughness in the angle where they begin to project removed. Then the triangular interspaces should be wetted and covered with plaster soaked in the gluey water. The calico lappets (the three inches not cut away) are then laid over the newly applied plaster and covered by rubbing into them the same material. If the surgeon has to deal with a dorso-lumbar, or with simply a lumbar kyphosis, the lower belt becomes the traction band, passes to the front, and is attached to the pulleys; the upper belt is then the counter-traction band, passing across the front of the chest as high up as one wishes, is secured behind. No lanyard is required.

The advantages of this method over suspension may be thus summed up. 1. Hardly any appreciable fatigue to the patient. 2. No painful pressure on any part. 3. The

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amount of force employed in straightening the spine, instead of depending on such chance condition as the patient's weight, lies entirely within the surgeon's choice. 4. The surgeon may occupy what time he finds necessary in putting on the bandage, and can make a much more perfected one than when hurried. 5. The admixture of glue renders the jacket very durable and strong, capable of upholding a heavy much-curved trunk. 6. Less plaster is needed, therefore the jacket is lighter. 7. Bits and flakes of plaster do not chip away into the clothing and bed. 8. If a jacket removable by cutting down the middle be desired, a much more springy and less friable one, more easily taken off and put on without cracking, can thus be obtained.

Wimpole-street, W.

ON THE

PRESENCE OF URO-HÆMATO-PORPHYRIN IN THE URINE IN CHOREA AND ARTICULAR RHEUMATISM.

By ARCHD. E. GARROD, M.A., M.D. OXON., F.R.C.P.

DR. MACMUNN[1] has shown that a pigment, closely resembling hæmato-porphyrin, to which he has given the name of "uro-hæmato-porphyrin," is met with in the urine of sufferers from a variety of morbid conditions, and is especially constant and abundant in that of rheumatic patients. This statement has been confirmed by Le Nobel of Leyden, and I have myself found this substance in almost every case of rheumatic fever out of a considerable number in which I have looked for it. I have also found that the pigment present in rheumatic urine usually shows the characteristic five-banded spectrum (described by Dr. MacMunn) in alkaline solution; although I am inclined to think that in some of my cases the substance present was ordinary hæmato-porphyrin. In acid solution the spectrum of uro-hæmato-porphyrin contains two bands and an intermediate shading, which I cannot distinguish from those of acid hæmato-porphyrin in dilute solution, and Dr. McMunn holds that there is also a band like the urobilin band. The amount present in the urine of rheumatic patients is rarely, if ever, sufficient to impart a characteristic colour to the urine, and, although in some cases the characteristic bands are seen on adding a small quantity of mineral acid to the urine, the presence of this substance can, as a rule, only be recognised by precipitating the pigments and making an acidulated alcoholic extract from the precipitate. Even in such extracts the quantity present is often insufficient to yield an alkaline spectrum, and when this is the case the recognition of the pigment rests upon the observation and measurement of the characteristic acid hæmato-porphyrin bands. Some recent observations by Salkowski[2] upon urines containing hæmato-porphyrin render it probable that the administration of sulphonal may cause the excretion of that substance; and it is therefore important to state that the occurrence of uro-hæmato-porphyrin in the urine in acute rheumatism is quite independent of the salicylic treatment; for I have found it in urine passed immediately after admission to hospital by patients who stated that they had as yet had no treatment for their disease, and whose urine gave no salicylate reaction. In the course of a systematic examination of morbid urines for hæmato-porphyrin pigments, I have obtained some results with regard to chorea which I venture to regard as sufficiently interesting to form the subject of a preliminary note. I have examined the urines of twenty patients suffering from chorea, and in fourteen of these have found uro-hæmato-porphyrin, sometimes in quantities such as are but seldom met with. The quantity of the pigment present appears to bear some relation to the severity of the case; but considerable amounts may be found in the urine of patients who have a persistently subnormal temperature. The analysis of the cases shows that the presence of uro-hæmato-porphyrin is most constant in cases in which there is reason to suspect a rheumatic taint. Of the twenty patients referred to, five had definite personal histories of articular rheumatism, and all of these were passing uro-hæmato-porphyrin in their urine—four of them in considerable quantities and one in traces only; two had doubtful histories of articular rheumatism, and both of these had uro-hæmato porphyrin in their urine—one in considerable and the other in unusually large amount; three had murmurs, but nothing else to suggest rheumatism, and of these—two were passing urine containing considerable quantities of uro-hæmato-porphyrin, one with a trace only; two had clear family histories of rheumatism, but no personal histories, and no murmurs—the urine of one of these contained a trace of the pigment, that of the other none. The remaining eight patients had no rheumatic family or personal histories, and no cardiac murmurs. Of these, three had uro-hæmato-porphyrin in their urine: one in unusual amount, one in considerable quantity, and one a trace only. The urine of the other five contained no uro hæmato-porphyrin when examined. Since the presence of the pigment in the urine is by no means peculiar to rheumatic cases, but is only an unusually frequent phenomenon in that disease, the above results, did they stand alone, would scarcely offer any evidence of the part which rheumatism plays in the causation of chorea; but, when they are taken in conjunction with the evidence derived from other sources, they must, I think, be acknowledged to supply a fresh link between these two conditions. This conviction gained in force from the fact that I have not obtained such results in other nervous disorders; but up till now my observations on the urine of patients suffering from such diseases are few in number, and it is quite possible that the results of a further search may tend to invalidate this argument. However this may be, I believe that the frequent occurrence of uro-hæmato-porphyrin in the urine of choreic patients affords evidence that one at least of the perverted chemical processes which accompanies rheumatic attacks is shared by chorea; and that it may be ultimately found that the presence or absence of this pigment affords a means more delicate than any which we yet possess of distinguishing which cases of chorea are due to the rheumatic taint and which own some different causation. In conclusion, I must express my thanks to Drs. Sturges, Barlow, Hadden, and Herringham, who have kindly allowed me to examine the urine from some of their cases of chorea.

Chandos-street, W.

[1] Brit. Med. Journ., vol. ii. 1883, p. 1060; vol. ii. 1888, p. 117. Proc. Roy. Soc., No. 208, 1880; Journal of Physiology, vol. x., p. 71.
[2] Zeitschrift für Physiol. Chemie, 1891, Bd. xv., S. 286.

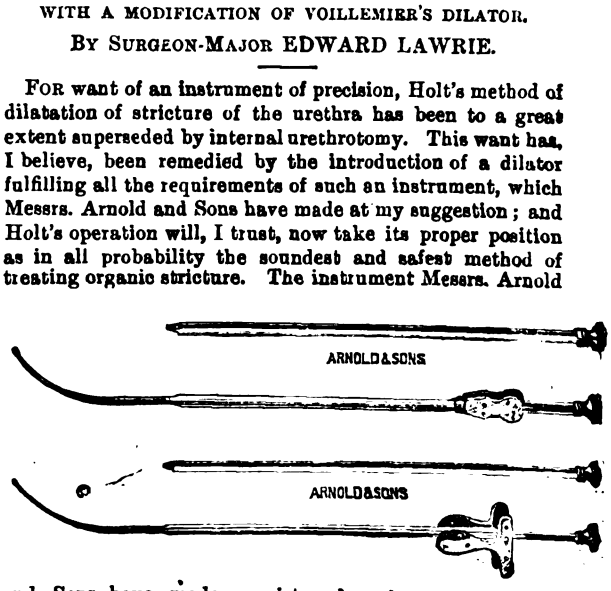
ON THE TREATMENT OF

STRICTURE OF THE URETHRA BY HOLT'S METHOD OF DILATATION,

WITH A MODIFICATION OF VOILLEMIER'S DILATOR.

By SURGEON-MAJOR EDWARD LAWRIE.

FOR want of an instrument of precision, Holt's method of dilatation of stricture of the urethra has been to a great extent superseded by internal urethrotomy. This want has, I believe, been remedied by the introduction of a dilator fulfilling all the requirements of such an instrument, which Messrs. Arnold and Sons have made at my suggestion; and Holt's operation will, I trust, now take its proper position as in all probability the soundest and safest method of treating organic stricture. The instrument Messrs. Arnold



and Sons have made consists of a branching dilator constructed on Voillemier's principle. The branches, which are passed through the constriction as a No. 3 Lister's steel bougie, fit into two grooves in the dilator, so

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that when it is introduced it dilates the stricture to the size and shape of No. 8 or No. 12 It is doubtful what the action of the old dilators generally was on the stricture. Probably they ruptured or split it in one or two directions; but they were faulty in that the branches were liable to separate to a greater extent than the size either of the dilator or of the urethra, and the splitting was consequently not confined in all cases to the stricture. There is no doubt as to the action of my instrument. It is confined to the stricture, which it dilates by multiple splitting or nicking. The first case in which it was employed, for the purpose of demonstration, was one of very tight stricture of the meatus; and after the dilatation the whole edge of the circumference of the stricture was nicked all round as regularly as if it had been done with a very fine knife. The splitting action of the instrument may vary in this respect, but it can have no injurious effect on the sound urethra. In internal urethrotomy, on the other hand, no skill on the part of the surgeon can confine the limits of the incision to the stricture; except by pure accident, the incision must commence and terminate in the sound urethra. The risks of internal urethrotomy as regards hæmorrhage, inflammation, and blood poisoning are therefore appreciably greater than those of Holt's dilatation with the new instrument.

In choosing between internal urethrotomy and Holt's or any other operation in the treatment of stricture of the urethra, surgeons are apt to forget that these procedures do not cure the disease. The cure of organic stricture is accomplished by the repeated passage of full-sized instruments, and the operative procedures merely shorten treatment or hasten recovery. They are beneficial by the precise amount of time they save in enabling the surgeon to pass a full-sized sound with safety. There are risks in internal urethrotomy due to the above-mentioned inherent defect in the operation which are not now encountered in Holt's operation. The only risk attaching to Holt's method is the possibility of urethral fever, which may arise from instrumentation of any kind when the urinary organs are diseased. The danger of urethral fever may be reduced to a minimum, however, by the use of tartar emetic, and a grain- or two-grain dose administered in suitable cases immediately before or after the dilatation of the stricture may be relied upon to control or prevent subsequent inflammatory or febrile disturbance.

It remains to be considered whether Holt's method of dilatation is applicable to the treatment of all strictures of the urethra. My experience is that it is effective in all organic strictures that are permeable by metallic instruments. I have always regarded it as a fortunate circumstance that I was strongly influenced against the use of soft instruments by seeing a false passage made in Paris in the year 1868. One of the most celebrated French surgeons of the day was trying to pass a soft instrument through a stricture, and while he was explaining to the students that it could not possibly do any harm, its point suddenly protruded through the patient's anus. From that day to this I have not attempted to use a soft bougie, and I have never met with an organic stricture through which a metallic instrument could not be passed. The case is different with traumatic stricture. The passage of instruments, which undoubtedly cures organic stricture, has no effect upon the traumatic disease. In traumatic strictures external urethrotomy by Wheelhouse's method is often a necessary operation; but no form of external urethrotomy is necessary in organic stricture unless the surgeon entirely fails to pass a dilator through it. Prolonged experience has convinced me that under no circumstances whatever is external urethrotomy a justifiable operation, and it ought to be banished from the practice of surgery.

Hyderabad.

CURRENT "FROM THE MAIN."—No. II.

By W. S. HEDLEY, M.D.

THE instrument foreshadowed in my recent communication[1] has now appeared. That electric light circuits are easily available for electro-therapeutic purposes may be accepted as an established fact. The time therefore seems to have arrived to carry the inquiry a stage onward, and to ask, With what measure of safety? The danger is the possible influx of strong currents. It is clear that against this risk our ultimate protection at present must lie in the safety fuse or "cut-out." It seems to me also clear that with a really reliable "cut-out" between him and the mains the physician may, by suitable methods, handle electric light circuits without misgiving. But what is a really reliable "cut-out," and where is it to be found? I think it is not to be found in a large proportion of the ordinary fuses used in electric lighting. First, because in light installations a fuse that acts within from 5 to 10 per cent. of the normal current is considered to be safe and satisfactory—e.g., a fuse set to break at 1 ampère would be within a sufficiently close percentage if it acted at 1·1 or 0·9, a margin of possible variation amounting to 0·2 or 100 milliampères in 500. This is not sensitive enough for us. Secondly, in electric lighting it is the practice to insert a fuse whose breaking point is from 50 to 100 per cent. above the normal current. Thus, to protect a 3 ampère circuit a fuse marked to break at 5 would probably be used. This adds another element of uncertainty and danger.

We must have a device that will automatically break a small current circuit with unfailing exactness, or shunt the greater portion of any sudden influx through another circuit. On making known my requirements I have lately been supplied with the former, and I regard it as a most ingenious and reliable instrument. It can always be in full view of the operator, can be set to exact requirements, can be tested at any time, its working parts are of the simplest description, and, set as it is now, it breaks circuit with unerring accuracy at 500 milliampères. It is the invention, I believe, of Mr. Cunynghame,[2] and its description is as follows:—The two ends of a copper solenoid dip into two mercury cups, and on the current reaching the predetermined amount the solenoid is "sucked over" by (i.e., drawn back upon) a fixed iron core. The solenoid is pivoted at the bottom, so that, as soon as it deviates a little *from* the centre, it drops by the force of gravity carrying its ends out of the mercury, and so breaking circuit. A magnetic "cut-out" of this description seems to me to have certain advantages over a fuse, the chief of which is that the exact breaking point can always be ascertained without destroying it. This instrument seems all that could be desired as a circuit breaker. Of course, as already mentioned, it is in the highest degree improbable that it would often be called upon to act. Still the possibility should not exist that a current strong enough to call it into action might pass through the body. To make this impossible the electro-therapeutic circuit ought to be a shunt circuit—i.e., only receiving a certain proportion of the possible maximum—a proportion that can be adjusted according to requirements in a way somewhat similar to that by which we shunt a galvanometer to read 5, 50, or 500 milliampères. Resistances up to, say, 100,000 ohms should be available for this shunt. Suppose the predetermined amount of current that the "cut-out" will allow to pass to be 500 milliampères, in a one-fifth shunt the possible maximum would be 100 milliampères, capable of reduction by the adjustable resistances to any required minimum, which could not be exceeded even were the "cut-out" protected circuit breaking at 500 milliampères. But a break of even the smallest current may be prevented by means of an arrangement that will, instead of *breaking* the main circuit, *shunt* the greater portion of it. Thus, then, we are safeguarded. Our first line of defence is an effective "cut-out" to break the current at a predetermined amount, or to shunt any sudden influx. Our second defence consists in the fact that we are working on a by-circuit, and not on one that allows a current of 500 milliampères through all resistances to pass before it breaks. Our third line of defence lies in the adjustable resistances whereby we can bring down the shunt-reduced maximum to any desired figure, however small. These resistances are absolutely reliable, and afford, in fact, a smoother, safer, and more satisfactory method of regulating current strength than even the cell collector, upon which, in this country at least, many of us are accustomed so implicitly to rely.

Brighton.

[1] THE LANCET, Dec. 19th, 1891.

[2] Manufactured by Woodhouse, Rawson, United, Limited.

RABIES.—An outbreak of rabies has required the destruction of a pack of hounds belonging to the Armagh Hunt Club.

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RECTAL ANTISEPTIC INJECTIONS IN EPIDEMIC INFLUENZA AND IN ADVANCED PHTHISIS WITH LARGE CAVITIES.

BY J. C. VOIGT, M.D. EDIN.,
FORMERLY RESIDENT MEDICAL OFFICER, BURY AND SOUTHPORT INFIRMARIES.

ON Dec. 23rd, 1891, I was called to a case of advanced phthisis. I found the patient prostrate, with a temperature of 103° F. She had been absolutely confined to bed for twenty-three days. There were profuse night perspirations and tubercular diarrhœa—fifteen loose stools in the previous twenty-four hours. There were the characteristic hectic flush and club-shaped nails. The patient had had no sound, refreshing sleep for more than a week. The cough was incessant. The profuse yellow expectoration showed abundant tubercle bacilli when examined by the Ziehl-Neelsen method of staining. The physical signs indicated a large cavity at the right apex and consolidation over the upper half of the left lung. After first trying to reduce the temperature by hydrochlorate of quinine in combination with antipyrin, and to check the diarrhœa by dilute sulphuric acid with small doses of tincture of opium, I, finding that the patient was losing strength, began on the night of Dec. 24th to give rectal injections of half a drachm of the oil of eucalyptus globulus in a tablespoonful of warm olive oil. Five of these injections were afterwards given every day till the evening of Jan. 2nd, 1892. By that time three ounces of eucalyptus oil had been injected. The patient was then able to sit up and walk about in her room. Her temperature was normal, and had been so since Dec. 27th. The diarrhœa had ceased altogether on the 25th (the second day of the treatment by injections). The night sweats had persisted till Dec. 31st, when they also ceased. The patient now had sound refreshing sleep every night, and ate heartily every day. With the results in this case before me, I was led to try the germicidal action of eucalptus by rectal injections in cases of influenza in the present epidemic. The following are brief notes of four recent cases only, in which these antiseptic injections constituted all the treatment as far as drugs are concerned. They are taken at random from my note-book, and are fairly typical of over fifty other cases treated similarly during the past month.

CASE 1.—T. L——, a girl aged six. Influenza. Patient first seen in the afternoon on Jan. 22nd. Temperature 103°. There was much pain in the frontal region and in the limbs and back. A rectal injection of half a drachm of pure oil of eucalyptus globulus in an ounce of warm olive oil was given at 3 o'clock. This was repeated three hours afterwards. Half an hour after the first injection she fell asleep, and when she awoke asked for milk, and drank some. That evening the temperature was 102°. The injections were continued every three hours. The next morning the temperature was 100°.—Jan. 24th: Three more injections; all pain gone; evening temperature normal.—25th: The temperature remains normal; injections discontinued; child eats well and plays; is quite cheerful; no further treatment necessary.

CASE 2.—Mrs. H——, aged forty-five. First symptoms commenced on Jan. 22nd early in the morning. First seen in evening (8 o'clock); temperature then 102°. Great pain in frontal region and in back. At 8.30 P.M. one drachm of eucalyptus oil with an ounce of warm olive oil was injected into the bowel. This was repeated at 10.30 P.M.—23rd: Morning temperature 101°; pain continues; injection every two hours (dose as before). At night much less pain in head; pain in back almost gone; temperature 99·8°—24th, morning: All pain gone; temperature normal. During the day three more injections. At night temperature normal. Patient got up on the following day.

CASE 3.—Mr. J——, aged fifty-two. Severe influenza began on Jan 21st, with very acute pains; temperature 103°. Rectal injections of eucalyptus every two hours during the day.—22nd: Three more injections; all pain gone; temperature normal in the evening.—23rd: Patient gets up; eats well.—24th: Goes out of doors. Although weather damp and cold, has no relapse.

CASE 4.—Mrs. W——, aged forty. Seen on Jan. 21st. Temperature 102·6°. Three rectal injections (one every two hours).—22nd: Four more injections in the evening. All pain gone; temperature 99°.—23rd: Found her downstairs. Temperature normal; eats heartily.

Remarks.—The antiseptic action of rectal injections of eucalyptus oil is efficacious in cutting short an attack of influenza, and in preventing altogether that nervous prostration and general break down which accompany and follow the disease, provided always that one is called to the case at a sufficiently early stage of the illness, and that there is no contraindication in the state of the heart or kidneys. For adults, without coexisting heart or kidney disease, a drachm of the pure oil of eucalyptus globulus is mixed with nearly an ounce of warm olive oil. An india-rubber ball syringe is filled with this mixture for each injection. The injections are at first given every two hours. When improvement sets in the dose is reduced to half a drachm of the eucalyptus, and the injections are given less frequently.

Southport.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CHRONIC INTERSTITIAL MASTITIS (TUBERCULAR) WITH CARCINOMA.

BY W. S. CRAWFORD, B.A. CANTAB.,
ASSISTANT SURGEON, LIVERPOOL CANCER AND SKIN HOSPITAL.

THE following case came under my care at the Liverpool Cancer and Skin Hospital, and appears interesting on account of the association of tubercle and carcinoma.

C. S——, aged forty-one years, sixteen years married. She has had six children (nursed by herself) and six miscarriages during this period. In her first lactation she had acute inflammation of both breasts, which subsided without the formation of abscess. Two years and a half ago she noticed some lumps in her right armpit, which were perfectly painless and remained quiescent for some time. Six months later she was confined; she suckled the child for twelve months by both breasts; very little milk was secreted by the right one. At the end of this period of nursing she noticed a hard lump in the outer part of the right breast; the swelling in the axilla had been increasing in size and was painless. Her mother died of consumption; there was no family history of cancer. On examination, in the beginning of November, 1891, the woman was very thin, pale, and miserable-looking. She stated that she had lost much flesh recently. The right breast was thin and atrophied, more so than the left; at the upper and outer border a small lump could be seen, about the size of a filbert; the skin over this area was puckered, presenting the well-known "pig-skin" appearance. This swelling was found to be intimately incorporated with breast tissue, somewhat irregular in outline, and firmly attached to the skin; the remainder of the breast was tough to the feel, adherent to the deeper structures, and riddled throughout with small shot-like bodies. Two lymphatic glands under the free margin of the pectoralis major were found enlarged and very hard. Filling up the top of the axilla was a fluctuating painless swelling, mixed up with an indefinite hard mass. Operation: Removal of breast and glands. Some difficulty was experienced in removing the breast from the underlying structures on account of the intimate adhesion and thickness of the fibrous tissue. On making an incision into the axilla about two ounces of thick curdy pus escaped, and a mass of caseating glands was removed. The wound was healed in a fortnight. On Jan 30th, 1892, the woman presented herself for examination. She had put on flesh, and had lost her woe-begone expression. The operation incisions were sound, and there was no recurrence. Examination of parts removed: The breast consisted of tough fibrous tissue, interspersed throughout with small cysts; the majority of these when opened contained caseous material, some few containing puriform fluid. The lump at the outer corner of the breast cut like typical scirrhus; the two isolated lymphatic glands were very hard and grated on section. The axillary mass consisted of the partial outlines of six or eight glands caseating throughout.

The tumour was microscopically examined by my friend,

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Mr. Thelwall Thomas, and the sections exhibited at the Liverpool Medical Institution, on Jan. 28th of the present year. The following is his report:—The breast shows a large amount of interstitial fibrous tissue, some of it in process of formation, distended gland spaces containing a central mass of caseous material without definite structure, surrounded by a few irregular rows of apparently proliferating acinous cells, the majority irregularly cubical in shape, others appearing more or less flattened. This description applies to every gland space examined with the exception of a few, in which only a small number of the cells remained, along with small fragments of the caseous material. The nodule at the outer corner is typical scirrhus, as well-marked a specimen as can be met with no cysts in this mass. The lymphatic glands on the way to the axilla contain numerous well-marked giant cells with nuclei at their periphery, placed in the centre of an irregular mass of small round cells, evidently nodules of tubercle, immediately adjoining which are found a well-marked alveolar stroma, containing small cubical cells of secondary carcinoma (from the breast). The caseous glands in the apex of the axilla are tubercular: many giant cells are found, and in a few sections are distinctly seen cells somewhat cutical in outline, with an indefinite alveolar stroma—most probably early nodules of secondary carcinoma.

Remarks.—In a large number of specimens from several cases of simple chronic interstitial mastitis (some of which had a carcinomatous nodule in them) we have been unable to find any marked caseating changes in the gland acini, which leads us to look on this one as probably tubercular, notwithstanding the absence of giant cells and bacilli of tubercle, which have been carefully sought for. The lymphatic glands have certainly tubercle and carcinoma intermixed.

Liverpool.

CASE OF CHOREA TREATED BY CHLORAL HYDRATE.

By B. BASKETT, M.R.C.S., L.R.C.P.

THE following is a case which recently occurred in the Bristol General Hospital, where I was physicians' assistant at that time, and which, as it may be of interest, I am allowed to publish by the kind permission of Dr. J. Mitchell Clarke.

A. Y——, a strong, well-nourished girl of fourteen years of age, engaged as a pupil teacher in a national school, was admitted on Aug. 24th for rheumatism accompanied with chorea. It was her first attack, was mainly right sided, and presented no unusual feature; it was attributed to excessive mental work. She improved with rest and treatment—viz., first salicylate of soda, and subsequently Fowler's solution—up till Sept. 3rd, when, under the agitation caused by the conduct of a patient in a neighbouring bed, she fell into a state of furious excitement. Her movements became incessant and maniacal in character, so violent that she was constantly being thrown out of bed, and had to be tied down with boards let in at the sides. She seemed conscious all the while, and to understand what was said; she obviously, for instance, tried to answer questions, but could not frame the words. She was at once isolated, and at night chloral, at first combined with bromide of potassium, was given in fifteen doses of each, the arsenic being continued during the day. On the night of Sept. 4th I gave her thirty grains of each without producing any sleep, and increased it to forty on the night of the 5th with equally little effect. On Sept. 6th, as she was becoming completely worn out, and had had no sleep since Sept. 3rd, while it was obvious that if the movements were not in some way checked she must, sooner or later, die, I administered chloroform. She was kept under for several hours, but when she came round was as bad as ever. It was then determined to make a systematic attempt to chloralise her, and for the next four days doses were administered at frequent intervals according to the results produced. It was given not so much with the intention of producing sleep as with that of checking the movements. She was, of course, under careful observation, special attention being paid to the temperature and the state of the pulse. The quantity given at each dose, and the intervals between the doses, were left to the judgment of the resident officer in charge at any given time; for instance, she was never roused from sleep except to be fed, and if one dose was ineffectual, another was given within the hour. Acting on this method, within a few hours from the time that chloralisation was begun on the night of Sept. 6th, she was got under the influence of the drug and kept more or less so for the next four days, the quantity required to produce the effect being altogether about a hundred grains daily. She was fed by the mouth when possible, but enemata of milk, eggs, and brandy were frequently administered also. During the height of the attack her temperature rose to about 103°, and kept at that level with slight fluctuations. This was probably due to the waking up of the rheumatism she had suffered from in the beginning, because she exhibited signs of pain and tenderness in the ankles, though there was no swelling there, and because at this time, and not till then, a very loud systolic murmur was to be heard at the apex, which could be heard up to the date of her discharge. It is worthy of remark that the chloral had no perceptible effect on the temperature. By Sept. 11th the violent movements had entirely disappeared, and she would sleep for hours after the administration of one dose of ten grains. She had gained ground so far that the choreic movements were decidedly less marked than they were just before this acute exacerbation. The probability, indeed, is that if the chloral had been further pushed a few days more she would have been entirely cured of chorea. But, reduced as she was, in the absence of urgent symptoms, and bearing in mind the cardiac mischief, it was considered better to reduce the quantity of the drug and substitute tonic treatment as soon as possible. From the result of this case it seems probable that we could—at the expenditure, it is true, of considerable trouble—reduce very materially the length of time spent in the cure (or watching rather, for it is surely doubtful whether the patient recovers any the sooner for the exhibition of the drugs ordinarily used) of cases of chorea. Unfortunately I have had only once the chance of seeing it used in any other case—viz, that of a man of twenty-four. It was a rather severe case, but the chloral was not pushed. However, with fifteen-grain doses every four hours, he was certainly and considerably benefited, but he insisted on leaving hospital in a few days' time before any marked result could reasonably be expected.

Cotham, Bristol.

CASE OF PUERPERAL ECLAMPSIA; RECOVERY.

By WILLIAM ROBERTS, M.R.C.S. & L.R.C.P.LOND.,
AND
CHESMAN BARKER, M.R.C.S. & L.R.C.P.

THE following case may be worthy of record in THE LANCET:—

Mrs. H——, aged twenty-two, is a primipara, and had arrived at the thirty-eighth week of her pregnancy without any untoward symptom, when on the afternoon of March 14th, 1892, she was seized with nausea and vomiting, and at 7 P.M. with an epileptiform convulsion, which, although bilateral, was stronger and more violent on the right side; she then rapidly became unconscious. There was then slight œdema of the legs and feet and puffiness of the face, and the urine was scanty and turbid, and contained about half of albumen. The skin was dry and harsh, the temperature 101°, and the radial pulse 120, and the arterial tension decidedly raised. The breathing was frequent and stertorous. Chloral (20 grs.) and bromide of potassium (30 grs.) were prescribed every four hours, but seven more fits occurred at intervals of half an hour, the patient still remaining comatose. Feeling certain that unless something were done the patient would speedily die, we decided to empty the uterus, and at 9 P.M. passed a gum-elastic catheter between the membranes and the uterine wall for a length of six inches. We also administered two minims of croton oil, which soon produced several copious evacuations. At 3 A.M. on the 15th the patient began to show signs of irritation, so chloroform was administered, and at 4 A.M., the os being completely dilated, the catheter was removed, the membranes were ruptured, and the woman was delivered by the aid of the forceps of a living female child in about ten minutes from rupturing the membranes. The placenta came away without trouble, and there was but little hæmorrhage. The administration of chloroform was then discontinued, and the patient left, as she appeared to be no worse. At 12 A.M. we found her still comatose, and

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were told that she had had four more convulsions. The skin being still very dry, and very little urine having been passed, and that into the bed, we gave her a hypodermic injection of a quarter of a grain of pilocarpine at 1 45 P.M. At 7 P.M. she was still unconscious, but was perspiring profusely, and had also retained some milk and soda-water, all previous attempts at feeding having been unsuccessful. On the morning of the 16th, forty-eight hours after the commencement of the coma, she became conscious, and then complained of severe headache and complete amaurosis. She was then put on twenty-grain doses of citrate of potash every four hours. In the course of the day she passed urine, which on examination contained one-sixth of albumen, which has since almost disappeared. She then made an uninterrupted recovery, regaining her sight in twenty-four hours, and at the present is up and attending to her household duties, and is suckling the infant, which is also quite well.

The interest attaching to the case lies in the success which attended the treatment, as regards both the child and the mother. Knowing, as everyone does, the almost uninterrupted fatality of cases occurring before labour, it is with the greatest pleasure that we put on record a case in which not only the mother completely recovered, but the child also survived. We wish to add our testimony to the advisability of immediate operative treatment in all cases occurring late in pregnancy, the nature of the procedure of course depending on the severity of the case. Inasmuch as in our case the convulsions themselves were not very frequent, we decided to bring on labour gradually; but, in a case in which the convulsions threatened to terminate life by their frequency and severity, we should not hesitate to empty the uterus by dilatation with Hegar's dilators.

Cambridge-gardens, W.

A CASE OF ENTERIC FEVER,

IN WHICH SYMPTOMS OF PYÆMIA APPEARED ON THE THIRTIETH AND DEATH OCCURRED ON THE THIRTY-SEVENTH DAY OF ILLNESS.

By IAIN CLERK, M.B.,

PHYSICIAN-SUPERINTENDENT TO THE JOINT BURGHS FEVER HOSPITAL, KNIGHTSWOOD, GLASGOW.

THE formation of small abscesses in certain parts of the body is not unusual in enteric fever, especially if the case has been a long-drawn-out one, or when rapid emaciation has taken place. With regard to abscesses, Murchison has the following note: "I have met with many instances in which, during convalescence, abscesses have formed beneath the skin in different parts of the body. ..... In rarer instances pus is deposited in the joints or in some of the internal organs, and then the case usually terminates fatally." The following short account of a case in which symptoms of pyæmia appeared on the thirtieth and death occurred on the thirty-seventh day of illness is, I think, worthy of record, seeing such a complication is somewhat unusual in this disease.

J. K——, aged twenty-eight, labourer, was admitted to the Joint Burghs Hospital on Sept. 30th, 1891, certified as suffering from enteric fever. His illness began eight days before admission, with headache, shivering, vomiting, general weakness, &c. It is not necessary to follow the history of the case, as there was nothing special to note, with the exception, perhaps, that the crop of rose papules was very profuse over the abdomen and chest. The highest temperature recorded was 103·8° F. There was no looseness of the bowels, although from colour and odour the stools were characteristic enough. The temperature, which all through his illness was very steady, became variable after the twenty-sixth,[1] dropping on the twenty-ninth to 98° in the morning, but rising in the evening to 103°. Thirtieth day: Morning temperature 103°, evening 101·8°. Thirty-first: Morning temperature 102°, evening 104°; and after this it ranged between 102° and 104°, or sometimes slightly over.

On the thirtieth day of illness the right cheek was seen to bulge a little, and on the following day the right eye was completely closed, the upper and lower eyelids being largely swollen. On the thirty-third day the left eye became involved, both lids swollen enormously, and the eye closed. On the thirty-fifth day a large swelling, not glandular, appeared in both sides of the neck at the angles of the jaws, and by this time the outer half of the right upper eyelid sloughed away, and there was considerable bogginess in the right temporal fossa and over the right ear. In all of those places named collections of pus took place with alarming rapidity; and although openings and counter-openings were made freely and early, sloughings of portions of both upper eyelids took place, and the patient gradually sank, and died on the thirty-seventh day of illness. As the temperature did not drop at the end of three weeks, it is likely that inflammatory action was still going on in the lower part of the small bowel; and it is conceivable that some purulent matter from an ulcerating patch may have got into the circulation, and, possibly carrying the enteric poison with it, given rise to those abscesses of which I have spoken. From the absence of glandular enlargement, it seems to have passed by the blood circulatory rather than the lymphatic system.

Glasgow.

[1] I mean *day of illness*, not day of the month, so much in vogue, but practically valueless.

A CASE OF HYOSCINE POISONING TREATED BY PILOCARPINE.

By HERBERT L. EVANS, M.B., C.M. EDIN.

IN connexion with the case of poisoning by hyoscine and that of poisoning by pilocarpine mentioned on pages 328 and 329 respectively of THE LANCET of Feb. 6th, 1892, the following may be of interest:—

On Oct. 16th, 1890, I was called to J. B——, a case of delirium tremens, at 4.45 A.M. He had just had a fit. This, in his case, was no unusual occurrence, his first attack having begun on Sept. 20th of the same year with an epileptiform seizure. Chloral, bromides, and morphia had previously failed to produce sleep, so a two-minim injection of a 1 per cent. solution of hyoscine was given, but this also failed. Eight hours later he had nearly three minims by the mouth, with no better result. In the evening morphia and chloral were given without effect. Later on, as he could not be kept in bed and was quite unmanageable, a three-minim injection of hyoscine of presumably the same strength, but from a different bottle, was given. The patient rapidly became comatose with dilated pupils and arteries, rapid pulse, congested face, hot, dry skin, and rapid and deep breathing. Morphia was injected, but without any apparent improvement. Directing that the patient should be energetically stimulated by pinching, I hurried to the surgery, and on returning with pilocarpine found that, as before, the patient could not be roused. Unfortunately no record of the injections of this was kept. So urgent seemed the necessity of producing symptoms approaching those characteristic of the drug that injections were made in the thighs and arms at intervals of about five minutes. In a short time there was a faint reaction of the pupils to light, with a tendency to moistness of skin, whilst the breathing and pulse improved; and on my next holding the candle to the face I was gratified by seeing the patient knock it from my hand, after which rapid improvement took place, followed by complete recovery. Great soreness and itching were complained of next day, the latter relieved by alkaline washes and cocaine ointment. His thighs and arms showed marks of about eight punctures, and he had probably had about two grains of nitrate of pilocarpine. His general health improved under strychnine, red extract of cinchona, &c., so that in a short time he was able to indulge in shooting and billiards, and seemed to have no craving for liquor.

Goring-on-Thames.

HOSPITAL FOR SICK CHILDREN AND WOMEN, BRISTOL.—The year 1891 completed the twenty-fifth year of this institution, and the annual report just issued records some interesting details on the history and career of the charity covering that period. In 1866 the hospital opened with six cots. The beds now number 100. The medical statistics of the past year show that more patients were treated both in the hospital and as out-door patients than in any former twelve months. The average annual expenditure is estimated now at £3300. The year's income from all sources (except legacies) fell short of the expenditure by £151 6*s.* 10*d.* The deficit had, however, been discharged out of a legacy received of £2964 14*s.* 7*d.*; the current year consequently began freed of an adverse balance.

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A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ROYAL FREE HOSPITAL.

CASE OF IMPACTION OF THE GILL-PLATE OF A HERRING IN THE LARYNX OF AN INFANT; TRACHEOTOMY; REMOVAL OF BONE; DIFFICULTY IN REMOVAL OF TUBE FROM FUNCTIONAL PARALYSIS OF ABDUCTORS; COMPLETE RECOVERY.

(Under the care of Dr. SAMUEL WEST.)

THIS case is interesting in two particulars: first, on account of the period of latency; and, secondly, because of the difficulty in the subsequent removal of the tube. The impaction of the bone in the larynx was marked by an initial attack of dyspnœa of great severity. The dyspnœa quickly subsided, and for four days continued so slight that no serious importance was attached to it. At the end of that time, however, it returned, and rapidly became urgent. The explanation is clear. The initial attack was due to the spasm set up, and the subsequent dyspnœa to the consecutive inflammation. The first was transitory and the second permanent. The difficulty in removing the tube was without doubt due to the closure of the glottis as the result of paralysis of the abductors, for the child could cry audibly though it could not inspire. The abductor paralysis was, Dr. West thought, the result of disuse, of laziness if we like to call it so, of the abductor muscles, and it was not until they had been roused to action again by the means used to dilate the glottis that they began to functionate.

Kate C——, a healthy infant aged nine months, was brought into the hospital suffering from considerable dyspnœa, with stridor and great recession of the chest walls. The movements of the larynx on respiration were greatly exaggerated. The face was pale and the child drowsy. The diagnosis was made of obstruction to the main air tube, in all probability in the larynx, and the history favoured the view that it was due to a laryngitis excited by a foreign body. The condition of the child was so serious that tracheotomy was performed at once, with immediate relief to the symptoms, after which the child went to sleep and slept comfortably the whole night. The mother stated that the child was perfectly well until the middle of the day on July 30th, 1889. It was then quite suddenly seized with urgent dyspnœa, and was thought to have swallowed a plum-stone. After a little while the urgency of the dyspnœa passed off, and, though the breathing continued short during the rest of that day and the next day, it was not bad enough to call in a doctor, and on the afternoon of the 31st the child was brought to the out-patient room, but, in spite of the history, was not thought to be a case for admission. The next day it was still better, and played about cheerfully all day; but at 10 o'clock in the evening the dyspnœa returned, and rapidly became worse, so that early on the morning of Aug. 2nd the child was brought to the hospital and admitted. When Dr. West saw it in the afternoon he advised instant tracheotomy. On the evening of the 2nd after the operation the temperature rose to 101·2°, and the next morning to 101·4°, and then fell gradually to below normal on the 5th, rising, however, the next day to 100·4°, but from this time it remained, with one or two exceptions, due to accidental causes, steadily below normal. The child progressed favourably till the morning of the 6th, when a severe attack of dyspnœa set in again suddenly. This lasted but a short time, and did not recur until midday, but lasted until Dr. West saw it about 3 o'clock. There was then considerable recession, and the child was cyanosed. The tube was removed, and after a violent fit of coughing a piece of the antiseptic gauze with which the wound had been dressed was coughed up. The dyspnœa still continuing, though not so severely, the air tubes were examined with a fine probe as far as could be done; and feeling something hard in the larynx above the wound, Dr. West introduced a pair of forceps, and removed a fishbone. The trachea was next examined and a curved wire passed down it in case there might be any more of the gauze within reach, but none was detected. The removal of the bone did not at once greatly relieve the dyspnœa, but by the next morning the breathing was comparatively easy. In the evening of the 7th the tube was removed, and remained out for about an hour, but the respiration was carried on entirely through the wound. The tube was now left out every day for a short time, and frequently when the tube was out the child cried vigorously. Still it was evident that the air did not pass through the larynx, for after an hour or so, as soon as the granulations round the wound had had time to swell up and close the orifice, dyspnœa set in and the tube had to be replaced. On Aug. 19th it was found that the child was able to breathe for a little time through the larynx, but after this day it became more and more difficult to keep the tube out on account of the dyspnœa produced. On Sept. 5th the child was anæsthetised and a fresh examination made by Mr. Stabb. The tube was removed, and a graduated bougie (No. 11) was passed up through the larynx between the cords. It was then also passed from the mouth downwards through the larynx. The wound was then closed, but dyspnœa immediately returned. A dilator was then taken and passed between the cords, and the blades slightly separated. For a few seconds after this the patient was able to breathe through the mouth when the wound was closed, but dyspnœa again returned, and a silver tube was inserted in the wound. Nothing was felt which could explain the dyspnœa. On the 7th, when the tube was taken out, the breathing through the mouth was perfectly natural and continued so henceforth, so that the tube was not again inserted. The child continued well, and was discharged with the wound completely healed on the 18th. The bone which was removed was one of the gill-plates of a small fish, probably a herring.

MANCHESTER ROYAL INFIRMARY

MYXŒDEMA TREATED BY THYROID GRAFTING.

(Under the care of Dr. THOMAS HARRIS and Mr. G. A. WRIGHT.)

IT is very advisable that this method of treating what has hitherto been an incurable disease should receive the fullest investigation, and cases in which it has been tried be reported. The grafts have been taken from other patients who were suffering from parenchymatous enlargement of the thyroid gland, which was producing symptoms for which it was considered advisable to remove part of the gland, also from sheep and from monkeys. Evidence of the good produced by this grafting when the grafts have retained their vitality and become vascularised is accumulating; but it is necessary to watch the patient for some time before satisfactory conclusions can be come to with regard to the benefit derived by any particular case. We have not space to consider the history of this method of treating myxœdema and allied conditions; the experiments and observations of Schiff, von Eisselsberg, Carle, and others are, however, not only interesting in themselves, but important in that they show the good effect on some of the lower animals, whilst the investigations of other observers prove that the good result of the grafting may be long continued if not permanent.

Mrs. T——, aged forty-eight, was admitted to the Royal Infirmary on March 6th, 1891. There was no family history of goitre or of myxœdema. The patient was a resident in Manchester, though she had travelled a good deal about the country. She was the mother of five children, three of whom are alive and well, two others died from convulsions during teething, and she had had two miscarriages. She gave the following history of her illness. She has been ailing more or less for nine years, when she suffered from a bad attack of bronchitis, and at this time she noticed that her neck was enlarged. The swelling was painted with iodine, but for a time increased until her neck became nearly twice as large as at the time of her admission; it attained its greatest size about eight years ago. She herself attributed the swelling to her persistent cough. The fulness of the neck then began gradually to subside, and she noticed that the ankles and abdomen occasionally swelled; frequency of micturition at night was also a new symptom. About two years and a half ago a still more severe attack of bronchitis came on, and the swelling of the feet and abdomen increased, and finally spread to her face. At this time the neck was nearly natural in size. It is within

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(Under the care of Dr. THOMAS HARRIS and
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the last two years and a half that the features of the present disease have developed, the most striking symptoms being a slowness of speech, swelling of the face, and weakness, together with a feeling of "strangeness" in the head, and a sensation of the mouth being smaller than natural. Such was the account obtained by the dresser on her admission. Mr. Deakin, surgical registrar, gives the following description of her condition at that time: "She is a fairly well nourished woman of forty-eight. The skin is dry and thick, but (with the exceptions to be presently mentioned) not hard or scurfy; it is in most cases of a yellowish earthy colour, but over the nose and to a certain extent over the cheeks it is dull reddish. The alæ of the nose and the lips are red, smooth, and full, and no wrinkles are to be seen in any part of them. The eyebrows are very much elevated and perfectly uniformly so, and the forehead is marked with three or four lines, horizontal in the centre, and curving over towards the sides. These lines help much to give her the peculiar staring look she possesses. The conjunctivæ are œdematous and glistening. The hair is fairly thick and strong. The mouth, gums, and palate are all rather œdematous. The tongue is markedly enlarged, somewhat pale, and its borders are indented. The eyelids are very markedly swollen and are pale and translucent, especially the lower, which show a distinct, soft, smooth pouch; the whole appearance resembles very closely that seen in chronic Bright's disease. The neck is flabby and soft, and examination of it gives the idea that some tough, hard, shrunken remains of the thyroid can be felt. The skin of the hands is dry, hard, thin, and scaly; the fingers are pointed; the nails are normal, but are overlapped by the skin, so that no groove can be made out. The hands are not unusually large. The abdomen is prominent around the umbilicus; there is no ascites; there is no œdema of the legs; the left limb is longer than the right; there is tenderness of both calves on pressure; the skin of the feet is horny and dry, and the toes are flattened together. The patient is fairly intelligent. Her sight has slowly been failing; her hearing is good; taste perhaps less distinct than it used to be. Pupils normal. Plantar, epigastric, and abdominal reflexes not obtainable; knee-jerk and deep reflexes over radius and olecranon are diminished. Sensation generally seems delayed; her speech is very markedly modified; and mastication and swallowing are slow. Pulse 60; heart normal. Appetite good; bowels regular. Respiration 17, a few râles occasionally. Urine 1010, acid, no sugar, contains a trace of albumen. The red blood-corpuscles were estimated at 5,970,000 per centimetre. No excess of white corpuscles. Hæmoglobin nearly normal in amount."

The patient was kept in hospital, and chiefly in bed, for a month before operation. During that time her general condition improved considerably, and the swelling of the face was less marked; the speech and other conditions remained little altered. On April 4th a curved incision was made below each breast, and the glands were raised a little from the pectoral muscles. Half the thyroid gland of a small, young, green monkey, which was chloroformed to death in the ante-room of the theatre, was then placed under each breast. The wounds were closed and dressed. The operation wounds healed by primary union and without any disturbance, and the patient expressed herself as feeling better. On the 29th she was sent to the convalescent hospital, and her condition then was decidedly better than on admission. The improvement was maintained, and she was sent home after being in the country for some weeks. She relapsed very much into her former state under the less favourable surroundings of her home, and was readmitted to the infirmary very much as she was at first. She again immediately improved, but it is clear that the improvement is due far more to the wholesome circumstances of her hospital life than to any special treatment. Her speech is quite unaltered. She herself, however, is strongly of opinion that she is much improved.

Remarks by Dr. HARRIS and Mr. WRIGHT.—There is, we think, no doubt that this case is clearly one of myxœdema. The history of the affection of the thyroid causing first enlargement and subsequently complete or almost complete atrophy is interesting. The monkey's thyroid was exceedingly small, and though it set up no irritation in its new position, we were quite unable to say whether it remained as it was, was absorbed, or grew. At any rate, we could feel no trace of it afterwards. We fear the temporary improvement must be put down entirely to better hygienic conditions, and so far as the thyroid grafting goes, no conclusion can be drawn from this case.

ROTUNDA LYING-IN HOSPITAL, DUBLIN.

MATERNITY CASES.

(Under the care of Dr. JOHN H. GLENN, Assistant Master.

THE accounts of these cases will be read with interest, as they give descriptions of unusual conditions. The complication of parturition referred to in the first case is luckily a very unusual one, and is not infrequently fatal. Two cases which somewhat resemble it have been recently described: one by Hirschfeld, in which the rupture extended through the cervical part of the uterus, and in which treatment similar to that followed by Dr. Glenn proved successful; another by Dr. Taylor, in which the rent extended through the posterior vaginal wall and was of large size, and which ended fatally in spite of antiseptic precautions. The necropsy does not afford any reason for regarding the hyperpyrexia as due to septic absorption.

CASE 1. *Accidental hæmorrhage; rupture through posterior vaginal vault; recovery.*—M. B——, aged twenty-five, multipara, was admitted to the Rotunda Hospital in labour on the evening of Nov. 18th, 1891. Dr. Glenn was called to the case just after midnight on account of some slight antepartum hæmorrhage. On palpation the child was made out lying in the first vertex position, the uterus was very tense, the lower segment greatly thinned, and the contraction being strongly marked. No fœtal heart could be heard. The bladder was empty. The tenseness of the abdominal walls, the almost constant pain and the general condition all pointed to accidental hæmorrhage. On examination per vaginam the diagnosis was verified by a gush of blood following the pushing up of the head. Having disinfected the external parts, and douched the vagina with carbolic solution (1 in 40), internal version was performed, a foot brought down, and the case left to nature. Half an hour later, the hæmorrhage recurring, traction was made on the foot, and the delivery gradually completed. After the expulsion of the child, hæmorrhage continuing, and the patient looking very collapsed, an ineffectual attempt was made to express the placenta, which, however, was found to have left the uterus. It was removed from the vagina by hand, and at the same time a laceration of the cervix, extending backwards through the posterior vaginal vault, was made out, the arm passing upwards through the rent into the abdominal cavity as far as the elbow. A long strip of iodoform gauze was introduced through the rent, the lower end left in the vagina, a compress and binder applied, and restorative treatment employed. During the afternoon the patient was given a quarter of a grain of morphia hypodermically. The catheter was passed regularly. On the 23rd the plug was removed; no hæmorrhage followed. On the 27th the patient was deeply jaundiced. Her urine was examined for urobilin, but with a negative result. The yellow tinge gradually disappeared, and she made an uninterrupted recovery, the highest temperature being 99·8°. The patient was discharged from hospital on Dec. 18th, 1891.

CASE 2. *Puerperal mania; hyperpyrexia; death*—M. D——, aged twenty, unmarried, primipara, was admitted on Nov. 18th, 1891. Her state of health on admission was good, but she was suffering from considerable mental depression. On Nov. 20th, at midnight, the patient was delivered by forceps, as the temperature had risen to 101·2°. The os was almost fully dilated. No special difficulty was experienced, but the perineum was lacerated, requiring three stitches. The child was born alive. The following day the patient was very unruly, and got out of bed and took her binder off. Her evening temperature on the 23rd was 100·6°; the lochia normal. Nothing of special interest occurred till the 26th, when she was very restless, her face flushed, and with an expression of suspicion. Stitches were removed; the union was perfect. Her evening temperature was 98·6°. On the 27th she developed well-marked mania. Hyoscine ($\frac{1}{75}$ gr.) was given. Evening temperature 102°; pulse 103. Slept badly. The following day the patient was very violent. Bromide of potassium (30 gr.) was administered. Her skin was harsh and dry; wet pack given. Morning temperature 102°, evening 102·4°. On the 29th, at 6 A.M., she had a rigor, and half an hour later her temperature in the axilla was 109·4°. The temperature was verified by three certificated thermometers. Death took place at 7 A.M. Post-mortem examination by Dr. Earl revealed no cause for death; there was no meningitis, and the thoracic and abdominal organs were healthy.

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Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Congenital Dislocations of Radius.—Congenital Malformations of Kittens.—Anencephalous Monster.—Ileo-colic Intussusception from Inverted Meckel's Diverticulum.—Acute Double Tubercular Disease of Testes.—Unusual Distribution of Secondary Cancer.—Ancurysm of Aorta in a Child.—Cystic Adenoma of Kidney.

AN ordinary meeting of this Society was held on April 5th, the President, Sir George Humphry, in the chair.

Mr. F. C. ABBOTT read a paper on nine cases of Congenital Dislocation of Radius, seven of which occurred in one family, the cases having been scattered over four generations. Five of the cases, belonging to three generations, had been examined personally by him, and all presented dislocation of radius forwards in one or both arms. Flexion and extension in all were free, but there was no movement of pronation or supination. In all the cases the deformity had caused the patient a good deal of inconvenience; but no member of the family was the subject of any other deformity. Dissections of the elbows of the youngest of these cases were shown, the chief abnormality being a large protuberance from the outer side of the coronoid process, fixed to the neck of the radius, and possessing an extra centre of ossification. The dissected elbows of a child aged two months were also shown. On the right side there was dislocation of both bones directly backwards, the articular end of the humerus being deeply cleft and much altered in shape. On the left side the radius was dislocated backwards, upwards, and inwards, still keeping its normal relation to the ulna, which articulated with a mass of cartilage attached to the lower part of the shaft of the humerus, representing the trochlea and internal condyle, the lower end of the humerus consisting only of external condyle and capitellum. In this case, the prime cause was evidently in the humerus. A living specimen of congenital dislocation of left radius backwards and outwards in a girl aged twenty-one was also shown.—The PRESIDENT said that in all cases the displacement was slight, and all seemed to be due to want of proper condition of the orbicular ligament. There was a similar case in the Cambridge Museum, in which both humerus and radius were deformed, the neck of the latter being longer than it should be, causing difficulty in flexing the forearm.

Mr. J. JACKSON CLARKE showed a Litter of Five Kittens with various congenital malformations. Their dam had a large abdominal tumour. They were all undersized, all had double hare-lip and cleft palate; one had exophthalmos, four had small and deformed upper extremities, some with suppression of digits. All of them had talipes equino-varus, which in two of the kittens was complicated by complete absence of the tibiæ. There were other deformities. Mr. Clarke attributed all the malformations to the mechanical effects of the abdominal tumour in the dam. Mr. Clarke also showed an anencephalous fœtus with double genu recurvatum, talipes, and proptosis of one eye.—Mr. PARKER regarded the specimens as valuable additions to the pathology of club-foot and similar deformities. The presence of a tumour in the mother was interesting, for he was convinced that it was to the environment that we must look for an explanation of these cases. A mechanical was much more rational than a neurotic origin, fo the children in other respects were usually absolutely normal, and if treated early they recovered completely. They thus differed entirely from nerve lesions, such as talipes from infantile paralysis, in which other evidences of neurotic origin coexisted, such as paralysis, changes in the skin, &c.

Mr. JAMES ADAMS of Eastbourne showed a specimen of Ileo colic Intussusception caused by an inverted Meckel's diverticulum. The patient, a labourer aged forty-two, hitherto in good health, was attacked with symptoms of intestinal obstruction, but under treatment he recovered, and in a week was able to resume work. In three weeks the symptoms returned, but were not relieved by treatment; the vomiting was only slight, and during the last week of his illness ceased altogether. A small quantity of blood was passed on one occasion after an enema, and there was only an occasional slight rise of temperature. There was some fulness, with dulness in the right iliac region, but no tumour could be made out. Peritonitis supervened, and he died three weeks after the beginning of the second attack. At the necropsy an ileo-colic intussusception was found; the ileum, where it passed with the mesentery through the ileo-cæcal valve, was constricted, black in colour, and evidently on the point of becoming gangrenous. The intussusception had sloughed at its distal extremity, and the two layers, with the mesentery, were all firmly bound together by inflammatory adhesions. In the last inch of the entering layer was found an inverted Meckel's diverticulum; it was seated eight inches from the ileo-cæcal valve, was three inches in length, and was covered with mucous membrane. In its interior, which in its inverted condition was formed of its peritoneal coat, was found a piece of fatty mesentery, which had become adherent through inflammation. He had found two other cases of diverticulum associated with intussusception, one in Guy's and one in St. Bartholomew's Museum, and they also occurred in adult males. He suggested that the process commenced by a dimpling of the free end of the diverticulum, which increased, forming an intussusception of that tube, which finally became completely inverted and hung loose in the lumen of the ileum and then acted like a polypus in producing intussusception.—Dr. PYE SMITH asked if Meckel's diverticula had been met with in the female subject. He had never seen one, and the point was worth bearing in mind in the differential diagnosis of cases of intestinal obstruction.

Mr. BARLING showed a specimen of Double Acute Tubercular Disease of the Testicle. The body of each organ was affected, not the epididymis, and in each there was a considerable caseous area, multiple patches existing on the left side. In addition to the caseous districts, there was a marked fibrosis of the adjacent parts of the testicles. Tubercle bacilli were found in preparations made from a caseous area, but there were no well-defined giant cell systems; in fact, the condition was one of infiltration with granulation and epithelioid cells, with catarrh of the seminal tubules, followed by caseative necrosis. The organs were removed from a patient aged thirty-one, who attributed his disease to severe exertion at his work; this was followed by swelling of the testicles four or five hours afterwards. When seen five weeks later the testicles were both swollen, the left especially, painful and tender, the scrotum was slightly œdematous, and there was a little fluid in each tunica vaginalis. The swelling appeared to involve the body and the epididymis, and the cord on each side was thickened. The temperature was of the hectic type, ranging from 103° in the evening to normal or subnormal in the morning. The parts about the base of the bladder were healthy, but there was a suspicion of phthisis. The patient discharged himself from hospital, but was readmitted later. The local condition was then less acute, and the temperature at night was only 100°, remitting to 98° in the morning. Castration was performed nineteen weeks after the injury, the temperature at once becoming normal, and the patient's general condition improved markedly afterwards. Mr. Barling believed the condition was a very rare one.—Mr. J. J. CLARKE had recently examined a similar case under the care of Mr. Page. The patient was a publican and an athlete, and the testes became rapidly involved one after the other. One which was removed showed undoubted tubercular lesion. Another instance of bilateral disease coming on extremely rapidly he had met with in a medical student.

Dr. PYE-SMITH related a case showing unusual distribution of Secondary Cancer. The patient was a man aged fifty-eight, a spirit drinker, who was brought into Guy's Hospital with enlarged liver and mental disturbance. There was no vomiting or ascites. Jaundice came on soon after admission, accompanied by delirium, and he died comatose. He regarded it as a case of hypertrophic cirrhosis from drink. The liver was finely granular, tough, and fibrous; the spleen was enlarged. There was also a large malignant ulcerated growth in the posterior wall of the stomach, with a secondary large nodule in the liver, carcinomatous infiltration of the pancreas and secondary growths in the adrenal, thyroid, and lymphatic glands. There was also recent tubercle, with pulmonary gangrene and old tubercular changes in the apices of the lungs.—Dr. CHARLEWOOD TURNER had met with a case in which there was a

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primary cancer of the rectum and secondary nodules in the ascending and transverse colon. But the latter growths were explained by the fact that the vermiform appendix had become adherent to the rectal tumour, and infiltrated with growth which had penetrated into the lumen, and so permitted the passage of cancer cells into the large gut. As to the causation of the pulmonary gangrene, though it might not have been due to feeding, yet it was difficult to exclude the possibility of eructations from the stomach having served as a causative factor.—Dr. PYE SMITH, in reply, said that the man did not vomit, and no particles of food could be discovered in the gangrenous part. The facts which he had brought forward went to confirm the view that every cancer had a single primary origin of purely local character, and the secondary growths arose by infection from the primary source.

Mr. EDGAR WILLETT showed a specimen of an Aneurysm of the Aorta in a child aged four. The sac, which was about the size of a walnut, lay in the concavity of the arch of the aorta, with which it communicated by a small opening situated at the termination of the descending portion of the arch. The pathology of this sac and its possible connexion with the ductus arteriosus were discussed, and microscopical sections of the walls were shown. Short clinical notes of the case were also given.—Mr. J. J. CLARKE had recently dissected for Dr. Phillips a specimen in which a caseous gland opened on the one hand into the left bronchus, and on the other into the aortic arch. The patient at first coughed up caseous matter, and later had attacks of hæmoptysis, one of which proved fatal. He showed a case in a child aged three of an aneurysm which appeared to result from inflamed lymphatic glands.

Dr. WALTER EDMUNDS showed a Cystic Adenoma of Kidney, which was removed during life from the body of a girl aged eighteen years. A movable lump in the left lumbar region had been noticed about two years, during which time it had appeared to grow. The tumour was thought to be the left kidney, and so on operation it proved to be. The patient did well. On examining the kidney after removal there was found projecting from its anterior surface a globular tumour; on section this was seen to be about two inches and a half in diameter, and to project internally into one of the calyces. The tumour consisted entirely of cysts of various sizes, the largest being about one inch in diameter. The cysts contained a thin colourless fluid, and were found on microscopic examination to be lined with an epithelium at places cubical, at others columnar. The remainder of the kidney was healthy, and was no doubt working at the time of removal. He had been unable to find either in the Transactions of the Society or elsewhere any record of a similar case; reasons had been given by Mr. Shattock in a paper read before this Society in 1886 (see volume xxxvii.) for thinking that in some cases of cystic disease of kidney the affection was due to the growth of included remains of the Wolffian body; the fact that the tumour was included in a distinct capsule seemed to favour that view in the present case. He was indebted to Mr. Croft, under whose care the patient was, for permission to exhibit the specimen.

The following card specimens were shown:—

Mr. E. WILLETT: Diphtheritic Membrane covering the greater part of the Mucous Membrane of the Stomach of a Child.

Dr. F. C. TURNER: Fibrous Atrophy of Right Adrenal: Hypertrophy of Left.

MEDICAL SOCIETY OF LONDON.

Further Cases illustrative of Hepatic Surgery.

AN ordinary meeting of this Society was held on April 4th, the President, Mr. Hutchinson, in the chair.

Mr. KNOWSLEY THORNTON read a communication on some further cases illustrative of Hepatic Surgery. The paper opened with brief notes of five cases of cholecystotomy, special attention being directed to the method best adapted to the suturing of the gall-bladder into the parietal wound, and to the various methods for dealing with stones when impacted either in the cystic or common ducts. The dilatation of the cystic duct advocated in a former communication was, as the result of larger experience, abandoned for a combination of needling and crushing *in situ* for small impacted stones, and duct incision and removal with subsequent suture of the duct in case of large stones. An interesting case of combination of stones and malignant disease of the gall-bladder (cause and effect) was described. Notes were then given of a probably unique case of removal of a sarcomatous growth from the inside of the cystic duct, and of two cases in which mere exploratory incisions were made, and the following summary of the conclusions arrived at by the author was given: 1. A properly conducted exploratory incision was free from risk, and might give valuable information leading to a scientific and successful after-treatment, even in cases in which no stone was found. Such exploration was, however, only justifiable after the most thorough trial of dietetic and medicinal treatment. 2. The ducts were as completely within the sphere of successful manipulative and operative treatment, when such were needful, as was the gall-bladder itself. 3 Stones of moderate size impacted in the ducts were better treated by needling and crushing, either by finger and thumb or by forceps pressure. Larger stones by incision, complete removal, and after-suture of the duct wall. 4. In cases in which débris was left in the ducts the gall-bladder should be opened, sutured into the abdominal incision, and drained. 5. In cases in which the ducts were incised and sutured a drainage-tube should be passed into the peritoneum beside the sutured duct, and the gall-bladder also drained externally. 6. In a well-marked case of repeated attacks of gall-stone colic, with recurring distension of the gall-bladder, it was better to operate early and before there was a chance of injury to the duct wall by impaction, and before the stone had reached the common duct. Such cases recovered rapidly, and there was every prospect that experience would show that complete intra-peritoneal suture of the wound in the gall-bladder would be safe and the rule of the future when operation preceded damage to the ducts from impaction.

The PRESIDENT remarked on the uniform success of the series. He himself had been much interested in the diagnosis of gall-stones and in estimating the amount and intensity of pain caused by them, and often referred to other causes. He had operated on only one case.

Dr. DOUGLAS POWELL said that the needling and manipulation of a stone in the duct were to him a novel procedure. Mr. Thornton seemed to regard the gall-bladder not as a reservoir for bile, but as a receptacle of fluid with which to wash out the bile-duct. He himself would like further evidence in support of this before accepting it, for it certainly impaired the value of some experiments which had been made as to the secreting function of the liver, seeing that the material used had been derived from the gall-bladder.

Dr. RALFE, though he admitted that surgeons had relieved physicians of many of these troublesome cases, yet held that there were instances in which it would be better if they waited longer before operating. In one case in which cholecystotomy was done the gall-bladder was found empty and cancer discovered to be present. In another case, in which operation was urgently recommended, the patient got well with rest and the use of mineral waters. Many attacks of so-called gall-stone colic were spurious and due to other causes, such as a collection of scybala at the hepatic flexure of the colon; or, as in one instance, the presence of a large round worm. Medical treatment should certainly be carefully tried before operative interference was thought of.

Mr. KEETLEY related a curious case that came under his care at the West London Hospital. A man had been ill six months, and had twenty attacks of biliary colic. He opened his abdomen and found the gall-bladder small and thickened; but careful palpation of both it and the ducts revealed no calculi. The patient made a rapid recovery, and gained strength. The hernia, which frequently developed at the site of the abdominal wound, was due to a want of correct apposition of the aponeuroses and fibrous elements of the abdominal walls one to another; cases left open for drainage were likely to prove defective in this respect.

Dr. BRISTOWE said that though medicine relieved the pain and promoted the passage of gall-stones in many instances, yet there were some in which he advocated the intervention of a surgeon. He related three cases of sharp attacks of colic in young persons in whom there was no jaundice, but who afterwards passed small stones. He referred to the case of an elderly gentleman who had an attack of gall-

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stone colic accompanied by jaundice. The latter persisted for twelve months, at the end of which time there was a recurrence of colic, a gall-stone passed, and the patient recovered. A lady suffered a series of attacks of colic; after an attack laparotomy was performed, but no stone could be found. A young woman was attacked with hepatic colic and became seriously ill. At an exploratory laparotomy no stone could be detected, but the gall bladder was opened and stitched to the abdominal wall, and for some time after she passed all her bile that way. Later she died of profuse hæmorrhage in the deeper part of the wound; at the necropsy both the gall-bladder and the duct, before being opened, were carefully palpated by two or three observers, and nothing could be felt. Nevertheless on opening the common duct a calculus was found therein.

Mr. MARMADUKE SHEILD said that in the diagnosis of smaller abdominal tumours, such as gall-stone or movable kidney, it was necessary to submit the patients to a preliminary and thorough course of purgation. Gall-stones often existed without causing any symptom, and were very frequently found post mortem where they were by no means suspected. Abscesses of obscure formation, pointing in the right iliac fossa, at the umbilicus, or through the abdominal wall, often when they burst discharged a quantity of gall-stones. The case related, in which healing took place in spite of the fact that malignant disease of the gall-bladder was present, was interesting; but bones which fractured as the result of malignant disease would firmly unite, and so would the cut surfaces of a peritoneum which had undergone malignant infiltration. He asked what was the value of massage in cases of impacted gall-stone.

The PRESIDENT added that he could not accept the theory which had been put forth as to the function of the gall-bladder, for that structure in the fœtus was proportionately so very large. Although the Society highly appreciated the successes that had been recorded, yet he felt bound to enter a caution against any attempt at imitating these procedures among the profession generally. The public should not be taught to look upon gall-stones as substances which, like urinary calculi, when found ought to be removed. They were constantly found, for instance, in lunatics, especially melancholiacs, with no symptoms whatever. It was not the mere recognition of stones in the gall-bladder, but the suffering which patients endured from them, that should be the measure of the necessity for operation, and in this respect there was an essential difference between gall and urinary calculi; besides, they were all aware of cases which after operation had not proceeded to so happy a termination as those of the author seemed to have done. Perhaps a little later he would supplement the procedure of crushing the stone by flushing and washing out the fragments. In conclusion, he related the history of two females who had had gall-stones for as long as twenty years, and though they had suffered much from them at first, yet at present the symptoms had entirely subsided, although the calculi were still to be felt.

Mr. THORNTON, in reply, said that in his paper he had carefully defended himself from the assertion that he desired to operate on all biliary calculi. Though he agreed that in many cases they did no harm, yet against such cases were to be put others in which perforation and gangrene of the duct occurred, and the patient died in a few hours. It would be difficult to evacuate the crushed calculi, because one was dealing with a closed duct through which nothing could be washed, and which was therefore quite unlike a pervious urethra. He agreed that a thorough clearance of the intestines was necessary before arriving at a diagnosis. There was often no jaundice and no vomiting until the stone arrived in the common duct; but the case might prove fatal before this happened. He could not recommend massage as a method of treatment in these cases, for in two in which it was resorted to he found on operation that the stone had grown into the duct wall, and manipulation from without could only have ruptured the duct. Though occasionally cases could be met with which, after twelve months, had come to such a happy termination as that related by Dr. Bristowe, yet he doubted whether it would be right for a surgeon to wait beside a jaundiced patient for twelve months for the possibility of the stone moving. He related an instance in which he was unable to feel the presence of a stone which he afterwards found on opening the gall-bladder

EPIDEMIOLOGICAL SOCIETY.

The Bacteriology of Vaccine Lymph.

A MEETING of this Society was held on March 17th, Joseph Ewart, M.D., President, in the chair.

Dr. S. MONCKTON COPEMAN began by remarking that the determination of the nature and actual virus of vaccinia had hitherto baffled all inquiry; and that, notwithstanding the importance of the subject, the practice of vaccination was as yet empirical. Some, indeed, reflecting on the failure of all attempts at the extra-corporeal cultivation of the virus, had suggested that it was not an organism, but a chemical substance, or enzyme; and with the view to decide this question he had repeated the experiments of Cohn, Chauveau, and Burdon-Sanderson, from which they had concluded that the activity of the lymph resided in the solid particles rather than in the fluid portion. Dr. Copeman having obtained 2 cc. of calf lymph, diluted it with 4 cc. of a 50 per cent. solution of glycerine, which had the effect of increasing its fluidity and retarding coagulation during filtration, enhanced rather than otherwise its activity, or with a normal saline solution; using with strict antiseptic precautions a Kitasato's filter worked by an aspirator, he obtained filtrates absolutely free from all particles whatever. Inoculations of the filtrate on human beings and calves were uniformly unsuccessful; but the observation of Dr. Sidney Martin, in the course of his experiments with the anthrax bacillus, that if any of the alkali albumen in his artificial serum failed to be converted into albumose, it was retained in the filter, convinced him that these negative results were not conclusively confirmatory of the point at issue. He had himself found that while the serum, albumen, sugar, and salts of milk passed through a porcelain filter, the caseine as well as the oil globules were arrested, and it was therefore possible that a like proteid in the lymph, and not any of the particulate bodies, constituted the active principle, and that in the subsidence process of Chauveau and others it might have been carried down by the bacilli, so that neither the positive nor the negative results obtained under either procedure were conclusive in favour of the theories of Chauveau and Burdon-Sanderson on the one hand or of Cory on the other. In the hope of identifying the nature and action of the several bacteria, he next undertook a number of artificial culture experiments with calf lymph, sowing by both the "streak" and "stab" methods nutrient gelatines, agar-agar, and agar-agar with glycerine. These inoculations were invariably followed by luxuriant growths, the appearances of which he described, a feature common to all being that the parts of the growth most exposed to the air presented a marked colouration, more or less yellow or orange, especially in gelatine. Plate cultivations with portions of these masses enabled him to identify (1) micrococcus pyogenes aureus, (2) micrococcus cereus flavus, and (3) micrococcus albus or epidermis, results agreeing with those of Pfeiffer and apparently also of Buist. He also obtained an organism which he believed to be the streptococcus pyogenes. Inoculations with pure cultures of each of these on the human being, calf, and rabbits never produced more than the most trifling inflammation, and nothing in the least resembling vaccination, though one rabbit died apparently of septicæmia after a free inoculation with a mixture of all four. Thinking it possible that the luxuriant growth of these might have destroyed the specific organism, he sought by following the procedure by which Kitasato had successfully eliminated foreign microbes and isolated the bacillus of tetanus—viz., subjecting the tubes to a temperature of 60°C. for various periods, and making plate inoculations direct therefrom — to isolate in like manner that of vaccinia, but entirely without result. Inoculations of calves with lymph from the tubes thus treated and with fluid from the alkali albumen were equally unsuccessful, showing that the specific microbes, if any, had also been killed. After confirming Dr. Husband's observation that the activity of vaccine lymph was not impaired by exposure to a temperature of 33°C., Dr. Copeman found that the critical point was between 38° and 42°, and what was now wanted was the discovery of a suitable culture fluid. A remarkable result was, however, observed in the inoculation by Dr. Cory of a calf with lymph that had been heated to 48°. No vesiculation followed, but the animal proved refractory to subsequent

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he Bacteriology of Vaccine Lymph.

of this Society was held on March 24th, President, in the chair.

NCKTON COPEMAN began by remarking ation of the nature and actual virus of va baffled all inquiry; and that, notwithst ce of the subject, the practice of vacc mpirical. Some, indeed, reflecting on its pts at the extra-corporeal cultivation gested that it was not an organism stance, or enzyme; and with the view he had repeated the experiments of nd Bardon-Sanderson, from which he at the activity of the lymph resided in ther than in the fluid portion. He ined 2 cc. of calf lymph, diluted per cent. solution of glycerine, which reasing its fluidity and retarding sep tion, enhanced rather than otherwise its rmal saline solution; using with some a Kitasato's filter worked by an aspir rates absolutely free from all particles s of the filtrate on human beings was successful; but the observation of th he course of his experiments with the at if any of the alkali albumen in the d to be converted into albumen. the filter, convinced him that this were not conclusively confirmatory ne. He had himself found that while the gar, and salts of milk passed through the caseine as well as the oil globu d it was therefore possible that a like and not any of the particulate bodies, principle, and that in the subsidence and others it might have been carried down hat neither the positive nor the negative der either procedure were conclusive in of Chauveau and Bardon-Sanderson on the other. In the hope of throwing Cory on the effect of the several bacteria and action of the several bacteria a number of artificial culture experiments , sowing by both the "streak" and utrient gelatines, agar-agar, and agar-se These inoculations were invariably fo rowths, the appearances of which in ea ommon to all being that the parts of the ed to the air presented a massive s s yellow or orange, especially in glycer s with portions of these masses emulsi) micrococcus pyogenes aureus, (2) mi ns, and (3) micrococcus albus or epidermi ith those of Pfeiffer and apparently as tained an organism which he believed ius pyogenes. Inoculations with pure f these on the human being, chiefly uced more than the most trifling reac g in the least resembling vaccinia died apparently of septicæmia after with a mixture of all four. Those the luxuriant growth of these org the specific organism, he sought by the by which Kitasato had separated the crobes and isolated the bacillus of tetanus the tubes to a temperature of 98° C. nd making plate inoculations from isolate in like manner that of the ithout result. Inoculations of sterile m the tubes thus treated and with albumen were equally unsuccessful. specific microbes, if any, had also be ffirming Dr. Husband's observation f vaccine lymph was not impaired a temperature of 55° C., Dr. Copeman critical point was between 55° and now wanted was the discovery of a fluid. A remarkable result was in the inoculation by Dr. Cory of a been heated to 65°. No vesicle ...proved refreshing and

inoculations with fresh lymph of ascertained activity, showing that a degree of immunity had been conferred, possibly by the products of a microbe that had itself perished in a manner analogous to the experiments of Roux and Yersin with the products of the bacillus (Löffler's) of diphtheria. Such a method would of course preclude continuation by arm-to-arm vaccination, but it certainly seemed that lymph heated to 40° only, and thus freed from the organisms he had described, was considerably more energetic than fresh lymph, for the calf that, after inoculation with superheated lymph, had resisted the effects of fresh lymph of proved activity yielded to a subsequent inoculation with the lymph thus "purified," exhibiting five well-developed vesicles. Turning his attention next to the cloudiness that constantly appears in stored lymph, with impairment of its potency, Dr. Copeman put up a number of tubes, intentionally interrupting the lymph with air bubbles, and kept them for several weeks in a vertical position. Points of opacity appeared at the lower end of each separate column of lymph, showing that, though dependent on the access of air, the material of the opacity was heavier than the lymph, and subsided accordingly. It was not caused by coagulation, for the phenomenon was seen best in tubes the contents of which remained perfectly fluid throughout, and the white points in others were entangled in the fibrinous threads. Tube and secondary plate cultivations in gelatine with portions of this opaque substance showed it to be composed of aerobic organisms present in the lymph from the first, although in minute numbers. Careful exposure of the lymph to a regulated temperature checked or arrested the growth of these organisms, and thereby enhanced the potency of the lymph, but always involved the risk of overdoing it, and thus impairing its activity; but the desired result could always be attained by the simpler and safer procedure of dilution with a 50 per cent. solution of glycerine, even to the extent of twice or thrice its volume. Glycerine, which was well known to act injuriously on many pathogenic organisms, had evidently the effect of inhibiting the growth of these extraneous aerobes which not only gave rise to the familiar cloudiness, but tended to impair the activity of the lymph. Indeed, it was possible, though he could not speak with certainty, that in the presence of glycerine there was a positive increase of the specific organisms or active principle, and its employment was on every ground to be recommended as a means of securing better and more uniform results.

Staff Surgeon PRESTON, R.N., referred to the frequency with which lymph, carefully put up with boric or salicylic acids for exportation to the colonies, had been found on arrival to be quite inert, a result ascribed to the high temperature—viz, 96° F.—to which it had been subjected on the passage, to avoid which it was now forwarded to the China stations by the Pacific Railway, and endeavours were being made to keep up a supply of calf lymph in Australia. He asked whether light had any injurious effect on the activity of the virus. He had successfully used lymph that had been stored for two years or more, but the tubes had been kept in absolute darkness—viz., in clinical thermometer cases. He also wished to know if anything positive had been established as to the apparent mutual antagonism of vaccinia and syphilis, whether congenital or acquired.

Dr. HUNTER considered the presence of streptococci a very grave matter, since they were at least closely allied to those that gave rise to erysipelas and spreading inflammations. If the virus of vaccine were an enzyme it would doubtless bear without impairment a temperature of from 55° to 60° C., which would certainly kill all these microbes; otherwise it would, like other micro-organisms, perish at 45°, and glycerine offered the only means of keeping down these extraneous organisms.

Replying to questions by Sir W. Moore and Dr. Bulstrode, Dr. COPEMAN said that it was not quite correct to speak of "corpuscular" elements, for good lymph should contain no blood, or pus cells, or any leucocytes whatever. The extraneous microbes were not strictly aerobic, though they throve much better in the presence of air. Their numbers depended on the circumstances of its collection, but they were usually more numerous in calf lymph from the greater difficulty of securing cleanliness. The micrococcus epidermis, however, could not be wholly excluded, even by shaving and washing the skin with sublimate. It was now established that no bacteria existed in the fluids or tissues of the healthy body, and those present in the vesicles were the progeny of such as had been introduced with the lymph in the act of vaccination. Light acted injuriously on some, not on all pathogenic organisms, and probably on those of vaccine; but the failures referred to by Mr. Preston were more likely due to the antiseptics employed, for a temperature of 96° F. (36° C.) was certainly not high enough to produce such a result. The fact of the virus being reproduced in the living body through an indefinite series of transmissions was sufficient to prove that the active agent must be a living organism capable of self-multiplication. The immediate cause of the phenomena might indeed be, and probably was, as in other diseases, a product of the microbes, but it could not be merely a chemical substance the quantity of which must be limited. He admitted a certain apparent antagonism between vaccinia and syphilis, but the fact that they could be produced together by a single inoculation proved it to be very feeble. Erysipelas was, in the vast majority of instances, the result of subsequent infection from independent sources, the vaccination contributing nothing beyond the breach of surface for the entry of the microbe of erysipelas. Still, if by greater precautions in the operation and the selection of lymph and by the use of glycerine in storing it, these extraneous though ever present aerobic microbes, which, if they did not often set up unpleasant processes of an inflammatory nature, did certainly detract from the success of the operation and the completeness of the protection afforded, and still more if this elimination of all foreign organisms could be effected by exclusively artificial culture, the opposition to compulsory vaccination would be disarmed, if not entirely overcome.

HARVEIAN SOCIETY OF LONDON.

Transposition of Viscera.—Enlargement of Liver due to Chronic Hyperæmia.

A CLINICAL EVENING was held on March 17th, Dr. W. B. Cheadle in the chair.

The PRESIDENT exhibited cases of considerable clinical interest, the first being one of Transposition of the Viscera. He said that the patient, a boy of sixteen, had been admitted into the hospital with pleurisy and effusion into the left side. The position of the heart on the right side was at first attributed to mere displacement from this cause; as the fluid subsided, however, it became clear that this abnormal condition was due to transposition, the stomach, liver, and spleen being transposed in like manner. The transposition of the thoracic and abdominal organs was probably complete throughout. In every instance in which post-mortem examination had been made, and these points noted, this was found to be so. Not only is the heart on the right side, but its cavities and vessels reversed, and the right recurrent laryngeal nerve wound round the aortic arch instead of the left. The right lung has only two lobes; the left three. The liver lies on the left side, with its lobes reversed; the stomach on the right side, with the cardiac to the right, the pyloric extremity to the left. In the intestine the cæcum lies in the left iliac fossa, the sigmoid flexure on the right. The left kidney lies lower than the right; the right testicle lower than the left—the converse of the normal conditions. In one case the patient was left-handed, but in others normally right-handed, as in the present instance.

The two next cases were examples of Fibroid Enlargement of the Liver due to long-standing Chronic Hyperæmia. Dr. CHEADLE said that he brought them forward as illustrations of the special tendency in early life to rapid and profuse proliferation of the fibrous stroma under such conditions. The first of these two cases was that of a boy of twelve suffering from mitral incompetence, very probably also from thickened adherent pericardium and mediastinal fibrosis. The symptoms had been of that persistent and recurrent kind so characteristic of subacute pericarditis and mediastinitis in children—viz., persistent præcordial pain and moderate pyrexia of from 100° to 101°; rapid pulse of 100 to 140; constant cough and dyspnœa, without affection of the lung: all lasting, with slight remissions only, for several months, and accompanied by steady advance of cardiac dulness upwards and muffling of the heart sounds. A doubtful friction sound only was heard, but there was a loud mitral murmur. Some general dropsy followed, and the legs were tapped on the 14th of May last. As the liver engorgement and fibrosis advanced, ascites developed, and attained such proportions that the abdomen

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was tapped six months later, on the 9th of November last, 240 ounces being drawn off. It was worthy of note that the fluid had not since returned either into cellular tissue or peritoneal cavity, so as to render a second tapping necessary, showing the value of early draining in such conditions. The case also illustrated the beneficial effect of opium in conditions of cardiac distress. Marked relief and improvement had followed its free use in this instance. There was an impression that the administration of opium in such cases was attended with danger, but it might be used without fear to relieve cardiac dyspnœa, unless the engorgement of lungs and cyanosis were extreme.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Lumbago and Sciatica.

AN ordinary meeting of this Society was held on April 1st, the President, Dr. Chas. Wells, in the chair.

Mr. KEETLEY showed a girl aged twelve on whom he had performed partial Thyroidectomy for removal of a large fibro-cystic growth, and exhibited the specimen.

Dr. HERRINGHAM read a paper on Lumbago and Sciatica. He described a case in which lumbago had been accompanied by sciatica and by so-called rheumatic pains in the muscles of the shoulders and in the musculo-spiral nerve. He attributed this collection of symptoms not to a primary neuralgia, but to an affection of fibrous tissue involving the nerves by pressure, though he confessed that opportunities were so rare to examine the tissues post mortem that this view was rather an inference than an observation. The localisation of the disease was unexplained. Many other parts of the body, never affected, seemed quite as fitted by anatomical disposition to take on such morbid action—nor, indeed, was it clear why the sciatic nerve was so noxious to disease. Besides direct injury, as in parturition and probably in jolting, cold, damp, and indigestion, either the gastric or the constipating variety, were the only well-known causes. Of the twin means of treatment, preventive and curative, the former were by far the most valuable; of the latter, for lumbago he recommended strong purging above all others; for sciatica, rest, warmth, and patience. He thought that diet had little or no effect. He had had the opportunity of testing the excretion of uric acid, and had found that it had no connexion with the disease. Continuous regulation of the bowels he had found to be of great value. He concluded by citing cases of similar affections of other nerves, of the anterior crural, and of the brachial plexus.

Dr. SYMONS ECCLES read a paper on Sciatica, giving his experiences of fifty-two cases treated by combined rest and massage. He divided his cases into three groups: 1. Those with long-standing lumbo-sacral pain; in ten of these cases constipation seemed to be the exciting cause. 2. Peri-neuritis with "tender points," but without any vaso-motor changes. 3. Neuritis, in which there were evidences of trophic dyscrasia. The loss of knee-jerk noted by some he thought to be apparent rather than real, and due to subjective disinclination to excite an exacerbation of pain. He had noted pelvic visceral disease and sigmoid constipation as causes of this painful condition. He pointed out the importance of guarding against chill, and advocated the use of warm woollen underclothing by day and night. In conclusion, the author claimed the scientific use of massage and galvanism (from ten to fifteen milliampères) as a valuable means of cure.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, MARCH 16TH.

Mr. A. W. STOKES, President.

Venous Pulsation.—Dr. MACKENZIE (Burnley) gave a demonstration of a means of graphically recording pulsation in the veins, whereby the movement of the apex beat or carotid pulse could be employed to time the events occurring in the veins. The essential features in the method were the covering of the vein or other pulsating part with a small leaden funnel. This funnel was connected by an elastic tube with a tambour, the lever resting on which recorded the movements communicated by the vein on the smoked paper of a revolving cylinder or Dudgeon's sphygmograph. The veins of which the pulsations were recorded were mostly the internal jugular, but tracings were also shown from the axillary vein, the femoral vein, and from the liver. The conclusions arrived at from the consideration of a large number of cases were summarised as follows:—Pulsation in the veins arises when from any cause dilatation of the right heart and great veins, with incompetency of the tricuspid and venous valves, takes place. While the auricle can vigorously contract there is a wave synchronous in time with and caused by the auricular systole (auricular wave). When the dilatation of the heart and veins is moderate, the auricular wave is followed by a great depression synchronous with and caused by the auricular diastole (auricular depression). In most cases there is a wave produced by and synchronous with the latter portion of the ventricular contraction (ventricular wave). The greater the incompetence of the tricuspid valve and the greater the distension of the auricle, the earlier does the ventricular wave appear, and the larger space of time it occupies. The ventricular wave in cases of extreme dilatation of the right heart may occupy the whole period of ventricular systole; the depression caused by the auricular diastole is then replaced by the ventricular wave. In such rare cases the auricle has ceased to contract independently, or its contraction is represented by a very small wave preceding the ventricular wave. The great depression then shown in tracings of the venous pulse is caused by and synchronous with the ventricular diastole (ventricular depression).

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, FEB. 27TH.

Mr. BENNETT MAY, F.R.C.S., President, in the chair.

Mr. CHAVASSE showed a case of Nævus Pilosus occupying the entire half of the face in a girl seventeen years of age. The hair on the scalp of the affected side was thicker, coarser, and of a darker colour than on the normal side. Although congenital and progressive, the parents had not permitted any steps to be taken to retard the growth. Mr. Chavasse also showed an Alveolar Sarcoma occurring in the cicatrix of a shoulder-joint amputation undertaken eight months before for a mixed-celled growth in the lower third of the arm, the patient being a man aged fifty-three. To effectually remove the infiltrated tissues it was necessary to resort to Berger's method of dealing with the subclavian vessels and removing the scapula and two-thirds of the clavicle.

Vesical and Renal Calculi removed from the same Patient. Mr. F. MARSH exhibited five calculi, two of which, weighing fifty-two grains, he had removed from the bladder on Jan. 29th, 1891, and three, weighing fifty-four grains, from the right kidney on Feb. 11th, 1892, of a man aged twenty. According to the patient's statement the symptoms were of about seventeen years' duration. When about three years old he suffered from pain in the right loin, with hæmaturia and increased frequency of micturition. The pain had been almost constant ever since, was worse after exercise, and sometimes shot downwards. The hæmaturia and increased frequency of micturition were intermittent; the former was well marked, and usually lasted for from ten to fourteen days. When he was fourteen years old the hæmaturia ceased. He has had no distinct attacks of renal colic. When he came to the Queen's Hospital in January, 1891, he had symptoms pointing to calculus both in the bladder and right kidney. He was admitted, and the vesical calculi were removed by suprapubic lithotomy, the wound healing in ten days. The calculi were chiefly composed of urates, and the smaller one did not appear to have been long in the bladder. The man was therefore advised to wait for a time before having the kidney exposed. When he came again to the hospital, in December, 1891, he still had the renal symptoms and was also suffering from frequent seminal emissions, which was really the reason of his attendance at the hospital. He was treated for this for a short time and then admitted with a view to nephrotomy, but a suppurative inflammation of the right middle ear developing, the operation was postponed for a few weeks until this was cured. During this time the urine was repeatedly examined, and occasionally a few pus-cells were seen, but never any blood-cells or crystals; the percentage of urea was normal. Percussion or

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pressure over the right kidney always caused pain, more marked on the anterior than on the posterior surface. No pain could be elicited by manipulation of the left side. There was no clear history of renal colic. Right lumbar nephro-lithotomy was performed on Feb. 11th, 1892. One calculus was felt embedded in the kidney tissue on the anterior surface and removed by an incision directly over it. It was about the size and shape of a small marble covered with little spikes, and was probably the cause of much of the pain. The second (the largest) and the third (the smallest) were removed respectively from a calyx and the pelvis by a fresh incision through the kidney substance. The first stone was composed almost entirely of oxalate of lime, and the two others chiefly of urates, the third one having a striking resemblance to the smaller one found in the bladder. The different layers of muscles were carefully approximated by buried sutures of silkworm-gut. A drainage-tube was inserted down to the kidney for forty-eight hours. The wound healed by first intention, no urine coming through it. For a week a fair amount of blood was passed with the urine; it then became clear, and the average daily amount since passed has been approximately forty ounces.

Mr. EALES showed a man aged twenty-four years who had a Sinus opening through the Upper Lid close to the nose and reaching in a direction almost directly backwards for about two inches. Fluid injected into the sinus came down into the nose. Mr. Eales stated that this man first came under his notice on Feb. 17th complaining that in a brawl on Dec. 8th he had been struck by another man who had his pipe in his hand when he struck at him, and that ever since the sinus had existed and would not heal. He was at once put under chloroform, the opening of the sinus enlarged and examined, when a hard substance was found and extracted by forceps, which on examination proved to be the vulcanite mouthpiece of a tobacco-pipe, broken off and measuring exactly two inches in length. Mr. Eales likewise showed a lad aged thirteen who was suffering from a Ruptured Globe. The lens was displaced into the vitreous. The retina was detached (T = − 2) and the sclerotic was ruptured below for a considerable extent about the equator, the anterior parts of the eye being unruptured.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

THURSDAY, MARCH 24TH.

Mr. W. F. FAVELL, M.R.C.S., President, in the chair.

DR. CLEAVER showed a specimen of Arrested Development of the Œsophagus from an otherwise healthy male infant, born at full term. As the child was unable to swallow, an unsuccessful attempt was made to pass a catheter down the œsophagus, and thus inject the milk. The child lived for six days and a half. On post-mortem examination, the œsophagus was found to end in a cul-de-sac at the level of the bifurcation of the trachea, from which point it was continued to the stomach as a mere membranous structure.

Mr. T. ROBINSON showed a female patient with "Argyria." Nitrate of silver had been prescribed six years before for sickness connected with uterine disease. She had taken it at first for about twelve months, and four years later she again took it for three months, of her own accord, for similar symptoms. Altogether she took about 340 grains of nitrate of silver. The discolouration, which only became marked after the second administration, was confined to the face almost entirely, the exposed part of the conjunctiva being slightly tinged. There was no blue line on the gums.

Dr. HUGH RHODES showed for Mr. A. JACKSON a case of Charcot's Disease of the shoulder and knee in a man aged sixty-two. There was a history of syphilis at seventeen years of age. The illness began seven years before with lightning pains, gastric crises, and increasing ataxia, which spread from the legs to the arms. The shoulder became diseased six years before, and the knee four years later. Both joints were very typical examples of Charcot's disease, the mobility, especially in the shoulder, being increased, and the onset of the affection nearly painless. Much of the shaft of the humerus was worn away, and the head of the bone could be put into the position of nearly all the dislocations. The circumference of the knee was four inches greater than that of the opposite joint. There was effusion into both joints, and the articular surfaces were eroded and grating.

Mr. C. ATKIN also showed a man with old-standing Charcot's Disease of the knee, who had been shown to the Society some years before.

Dr. BURGESS showed two cases of Friedreich's Disease. One a girl aged twelve, with marked tabeto-cerebellar gait, swaying of the trunk, and slow nodding of the head. Superficial reflexes present; knee-jerks absent. No ataxia of the arms; speech unaffected. The difficulty in walking was first noticed four years before, after an attack of scarlet fever. The patient was the eldest of the family living, and none of her brothers and sisters were similarly affected. The other patient was a man aged twenty-six, with ataxic gait, nodding of the head, twitching of the mouth, and distinct affection of the speech. A sister was said to be similarly affected. Superficial and deep reflexes were exaggerated. Both feet were high-arched, with claw-like condition of the toes and prominent extensor tendons. There was no pain or any sensory disorder; no evidence of syphilis. He first noticed that he staggered in the dark four years before, and had gradually become more and more unsteady. For the last three years he had found it an effort to talk. A shoemaker by trade, he had found difficulty in aiming with his hammer for the past two years.

Mr. R. J. PYE-SMITH read a paper on the Disposal of the Dead. He contended that the altered conditions of modern town life, as well as the dangers of our present system of burial, required a reconsideration of this question. The encasing of the body in a wooden coffin and burying it deep in the earth or in a vault he characterised as the worst possible compromise between the antagonistic aims of preserving a body as long as possible and of hastening its disintegration. He maintained that the substitution of a perishable coffin of *papier mâché*, or of paper covering a light iron tray and frame, would prevent the pollution of air and water; and that burial at a depth of nine feet in cases of infectious disease would be an effective check to their danger. On this point he referred to the observations of Darwin and Pasteur, showing that earth-worms, by the medium of which such diseases might be transmitted, never burrowed deeper than eight feet from the surface; also quoting Flügge to prove that few pathogenic bacteria could grow in the cold earth, and that both soil and air had a direct influence in preventing the formation of ptomaines. He further referred to Dr. Poore's experiments on the filtration of urine as indicating the small risk to the watercourses from earth-to-earth burial. Mr. Pye-Smith advocated shallow graves, the systematic planting of trees, shrubs, and flowers, and no reinterment in the same spot within at least twenty-five years. Finally, as an argument in favour of rational interment rather than cremation, he urged that nature needed the products of animal decay for the growth of the vegetable kingdom, on which we in turn depended for our sustenance and wealth.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

WEDNESDAY, MARCH 16TH.

Mr. ANDERSON, F.R.C.S., President, in the chair.

Operation in Chronic Intestinal Obstruction.—Mr. GRAY read a paper on this subject. He related four cases, in the first of which the symptoms were acute; but, as the result showed, there was no real obstruction. In the other three cases there was an acute attack following symptoms pointing to obstruction, varying from six months to ten years in duration. In two cases a band was found post mortem, under which a large quantity of small intestine was partially strangulated; in one case the band was peritoneal, and in the other formed by adherent small intestine. The four cases were contrasted to show the difficulty of deciding when to give up ordinary measures and when to advise operation in the face of apparent improvement. Stress was laid on the inadvisability of giving opium until the diagnosis was made, in consequence of its tendency to mask symptoms. The operation of laparotomy was described, and the recommendation given to commence the search for the obstructed portion by following the course of the empty coils of intestine lying in the pelvis. The causes of the

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high mortality of these operations were discussed, and a parallel drawn between them and herniotomy. The opinion was expressed that when laparotomy came to be looked upon as a primary measure instead of a last resource the mortality would fall nearly to the level of that of herniotomy.

Dr. HANDFORD showed a patient suffering from Intermittent Albuminuria with general vascular sclerosis, who had been greatly benefited by treatment with iodide of potassium.

Reviews and Notices of Books.

Lectures on Pathology. Delivered at the London Hospital by the late HENRY GAWEN SUTTON, M.B., F.R.C.P. Edited by MAURICE EDEN PAUL, M.D., and Revised by SAMUEL WILKS, M.D., LL.D., F.R.S. London: J. & A. Churchill. 1891.

WHEN, five years ago, a small volume of the late Dr. Sutton's lectures was published, the work, notwithstanding certain blemishes in composition, attracted universal attention for the freshness of style, the originality of conception, and the profundity of thought that were evinced in it. Never before had the prosaic subject of morbid states been dealt with in so entrancing a manner, and all who read it must have envied the students who sat at the feet of a master whose descriptions of disease were accompanied by suggestions and practical inferences that could not fail to rivet attention and excite admiration. It must be borne in mind that these lectures, which are incorporated in the present much enlarged and more carefully edited volume, were transcribed as they were orally delivered, so that, although some objection may be taken to their discursive character, they represent faithfully the spoken words and the thoughts which seemed to rise in the lecturer's mind as he passed from topic to topic. By means of the additions now made, the text embraces nearly the whole range of diseases; but it must not be supposed that it is exhaustive in the sense of anatomical description. Dr. Sutton recognised that the word "pathology" embraces much more than mere anatomy, and he included in his purview questions of etiology, of bedside observation, and of therapeutical measures, when considering the disorders of function which are linked with anatomical lesions. Herein rests one great charm of these lectures, which mark the liberation of the *rôle* of teacher from the limits imposed by the ordinary text book or by the examining board. We can imagine how the student must have looked forward to a lecture which did not aim at reproducing in routine fashion and orderly array the facts of pathological investigation, but which served to explain and illustrate the lessons learnt in the ward and post-mortem room by reference to a wide experience and the results of deep reflection.

The volume, however, will, we imagine, be even more highly valued by those already engaged in practice, since it embodies the views of a physician who had freed himself from the trammels of tradition, and who, in his dealings with disease, always held in view the natural physiological laws that govern the body in health, so that he laid more stress upon the leading principles of rest and nutrition than upon the results of pharmacological researches in promoting restoration to health. It may be that Dr. Sutton's wide pathological knowledge led him to depreciate the value of drug treatment; but those who study his words will see that he does not discard this altogether, but reserves it for those conditions where the direct influence of remedies is obvious. He knew well that the patient requires *advice* as much as, and more often perhaps than, medicine; and one cannot wonder that such a man, who always had before him the possibilities of recuperation that lie latent in the organism, should become a successful practitioner. We will not anticipate the pleasure which every reader of this book will gain from its perusal by citing passages from it here, although it would not be difficult to select many which for terseness and force deserve to be remembered as aphorisms; whilst there are other sayings which at first seem to run counter to all the reader's cherished opinions, although on reflection they may be found to contain truths of great value. In a word, we are very grateful to the friends and pupils who have furthered this publication; and in closing a book which no one who has read once will fail to return to again and again, we cannot but regret that so acute and philosophical an observer has not left behind him more of the products of his fertile mind to instruct and delight posterity.

Essays on Acromegaly. By Dr. PIERRE MARIE and Dr. SOUZA LEITE. With Bibliography and Appendix of Cases by other Authors. London: The New Sydenham Society. 1891.

ACROMEGALY was the term applied to a pathological condition by Dr. Pierre Marie, who first clearly identified it, and whose essay is given in this volume. It belongs to the class of affections which produce such a striking change in the conformation of the body as to be recognisable at first sight; and it is characterised by a giant-like overgrowth of the peripheral parts of the body, the bony framework as well as the soft tissues. So striking is this progressive alteration in the frame that it is singular it should have been identified as a distinct condition only some seven years ago; but the bibliography and records contained in this volume (which is edited and translated by Mr. Procter Hutchinson) comprise, in addition to the writings of Marie and Souza-Leite, several cases which were recorded years before these essays appeared. It is interesting to note that one of the earliest of these is a case brought before the Pathological Society in 1857 by the late Mr. Oliver Chalk under the title of "Partial Dislocation of the Lower Jaw from an Enlarged Tongue." This case, which seems undoubtedly one of acromegaly, was further remarkable from the fact that the changes commenced in quite early life, and at the time of its record the face was much elongated by the hypertrophy of the lower jaw, which projected about an inch in front of the upper jaw; whilst the tongue occasionally protruded for some distance beyond the line of the teeth. Mr. Hutchinson has added to the cases collected by Dr. Souza-Leite notes of those published since the date of that essay, so that the volume contains practically all that has been written on the subject. One feature of singular interest is the fact that in nearly all the cases examined after death (and they are but few) the pituitary body has been found greatly enlarged. There is no doubt that this publication will stimulate inquiry into the subject and probably result in many additional cases being brought to light. There is, unfortunately, one blemish in the book, and that is the roughness and indistinctness of the woodcuts, which have been reproduced from old blocks, and are quite unworthy of the text.

Studies in Anatomy in the Anatomical Department of the Owens College. Vol. I. Manchester: Cornish. 1891.

PROFESSOR A. H. YOUNG has collected and edited a large number of papers containing original researches in anatomy conducted by himself and his demonstrators during the past three or four years. Some of the papers have not been previously published, whilst others are reprinted from the "Journal of Anatomy and Physiology," and other publications. The most important of the unpublished investigations are those of Professor Young on the Termination of

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the Mammalian Aorta, with Observations on the Homologies of the Pelvic Arteries; of Dr. A. Robinson on the Development of the Posterior Columnæ, the Posterior Fissure, and of the Central Canal of the Spinal Cord, and on Abnormalities of the Venous System and their relation to the Development of Veins. These papers are of considerable importance, and of great interest to the anatomist, and are well illustrated. Mr. J. W. Smith, in an account of Some Muscular Anomalies in Human Anatomy, describes an instance of complete absence of the sterno-hyoid muscle on both sides in a female subject, who presented many other irregularities in the muscular system; he also discusses several important variations of the well-known "achselbogen" and "sternalis" muscles with regard to their derivation and innervation. The volume shows how ably and thoroughly anatomical research is carried on at Owens College, and Professor Young must be congratulated on being able to publish such a series of valuable investigations.

OUR LIBRARY TABLE.

Die Menschliche Stimme nach Charles Lunn's "Philosophy of Voice." Von LUDWIG J. TRÜG. Pp. 124. Düsseldorf: L. Schwann. 1892.—Charles Lunn was a singer with a fine tenor voice, who established a School of Music in Birmingham in 1866, the teaching in which was highly esteemed by experts both in England and abroad. The method adopted was that of the old Italian school. The present work is an attempt to resuscitate it. The author commences by giving directions as to the mode of breathing to secure the best results, and a slight sketch of the anatomy of the larynx. The following sections describe the different registers, the relations of the male to the female voice, the theory of the voice, and the mode in which it may be exercised and strengthened. It is comforting to know that so few sing well, not because they do not possess a properly constructed organ, but because they do not educate it. The translation appears to be correctly done.

Tuberculosis and its Successful Treatment. By ROBERT BELL, M.D., F.F.P.S., &c. Glasgow: David Bryce and Son.—This essay is intended to show that the proper line of treatment of infective disease in general, and of tuberculosis in particular, is to afford support to the vitality of the tissue cells of the invaded organism; and it is therefore based largely upon the acceptance of the truth of the doctrine of phagocytosis. It constitutes also a plea for the prescription of muriate of calcium in tubercular diseases, the continued use of which has, in the author's hands, served to confirm his former experience as to its efficacy. He criticises adversely the treatment by tuberculin, and maintains that the simplicity of the remedy he advocates should be no bar to its more general employment. In this opinion no one will venture to differ with him.

Electricity Up to Date. By JOHN B. VERITY. London and New York: Frederick Warne & Co.—This little book deals in a popular and instructive way with the more practical problems of electric lighting and electric power. The author tells us in his preface that his object has been to write for the general public, and therefore with as much freedom from technicality as his subject would allow. Upon the whole he has succeeded, and succeeded well. Admirable features of his book are an excellently selected glossary and a carefully compiled index. His choice of subject is also marked by sound judgment, and his exposition is usually both clear and concise. Occasionally, however, he slips into inaccuracy or confusion. For example, on p. 50 he explains the danger from access of moisture to electric cables to be that the copper wires might become wet. Now, this would matter nothing whatever if the insulator remained intact. It is because a film of moisture connects the copper wire with the outer world that leakage takes place, and the absence of this suggestion from the passage in question makes what was no doubt as clear as day to the writer's mind almost unintelligible to the ordinary reader. But such shortcomings are only faults which a revising hand would easily remove or repair.

Bradshaw's Dictionary of Mineral Waters, Climatic Health Resorts, Sea Baths, and Hydropathic Establishments. With Maps and Plans. London: Kegan Paul, Trench, Trübner, and Co. 1892.—This is too good a book to be disfigured and have its usefulness impaired by misprints; but of these, we are sorry to say, there are not a few. Though professing to be revised up to 1892, the list of "specialists," which would be much better omitted, includes the name of Sir William Gull, who is no more; while Dr. Graily Hewitt will hardly recognise himself as "Dr. Hewitt Grail," or the well-known Florentine consultant in skin diseases as Dr. "Pellizari." The list of practitioners at the chief continental towns and healthy results is equally faulty, Drs. Aitken and Grigor, for example, being represented as now practising at Rome, though both of them have been dead these five years and more; while Dr. Spurway, who has taken the place of one of them in that capital, is referred to as still in practice at Pegli. Among the African health resorts why is the insanitary Tunis mentioned and the delightful Biskra, on the borders of the Sahara, ignored, the latter, moreover, being quite as well favoured in sulphur springs as the former, while infinitely superior to it in climatic steadiness, natural beauty, and repose? Montecatini, in Tuscany, has, we find, bad justice done to it in this edition, so far as its highly efficacious saline waters are concerned; but why restrict its medical staff to Dr. Paolo Casciani (whose name is also misspelt, by the way), and not include the eminent head of the establishment, Professor Federici, and his colleague Dr. Pio Fedeli? Amid blunders and defects such as these, what confidence has the reader that the temperatures of the several springs are correctly given or that the other indications are sufficiently accurate to spare him a fruitless and expensive journey? The book, we repeat, is distinctly meritorious in the main, but if it aspires to keep up its popularity it must for the future be less perfunctorily edited.

Epsom College Natural History Society. Report for the year ending Christmas, 1891.—The third number of this report recommends itself in a marked degree to favourable criticism. Compared with the attenuated nature of its two predecessors, its sudden growth to over a hundred pages appears very remarkable. But there is more than mere growth to note; there is internal evidence of healthy development, and this, again, affords the best testimony of real work. Although it is somewhat regrettable that no regular meetings were held in the geological or entomological sections of the Society during the midsummer term, they have not been entirely neglected. The lecture on the venomous snakes of India by Sir Joseph Fayrer is reproduced, and forms a highly interesting section. That on the wild animals of India by the same lecturer must also have afforded much satisfaction and instruction to the members of the Society. The reports of the various sections afford evidence of very useful work.

AN INFECTIOUS HOSPITAL, LEEDS.—The sanitary committee of the corporation has agreed (subject to a contract to be prepared to the satisfaction of the town clerk) to purchase the Manston Hall estate, situated in the York-road, for the sum of £10,000, for the purpose of erecting on the estate a hospital for infectious diseases. The property comprises upwards of ninety-seven acres and a mansion.

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Analytical Records.

TOLPHITE.

(W. R. & H. V. DODD, 2, ST. ANDREW'S-PAVEMENT, STAMFORD-HILL.)

Qualitative analysis soon reveals the constituents which compose this nursery powder. It is perfectly free from all irritants, is antiseptic, carefully pulverised, and has a soft micaceous feel when rubbed between the fingers. All these are qualities which recommend it for the purpose for which it is intended.

BELLARA: AUSTRALIAN WINE.

(J. R. B. EARNSHAW & CO., SUFFOLK HOUSE, LAURENCE POUNTNEY-HILL, CANNON-STREET, E.C.)

It is now generally conceded that the wines exported from our big colony Australia are really of an excellent kind, and, though "cheap," are by no means "nasty." From the following analysis of Bellara claret, some idea of its composition may be gained: Alcohol, 8·85 per cent. by weight, 10·95 per cent. by volume; total solid matter 2·96 per cent., mineral matter 0·30 per cent. It is an agreeable light wine, free from excess of acid, and well suited for table use.

HALL'S COCA WINE.

(STEPHEN SMITH AND CO., BOW, E.)

This is an excellent wine, with an alcoholic strength equal to good port, possessing a similar flavour and bouquet, but associated with it also is the peculiar though pleasant aroma of the fresh coca leaf. Ether when shaken with the alkalised wine yielded a residue on evaporation which with hydrochloric acid gave characteristic crystals of cocaine hydrochlorate; they were further identified by the numbing effect produced by the crystals when rubbed on the tip of the tongue. Analysis gave the following data: Alcohol 15 per cent. by weight, 18·50 per cent. by volume; total solid matter 18·73 per cent. (sugar and coca principles), mineral matter 0·33 per cent. The restorative and invigorating properties of the coca leaf are now well known, and it may be very conveniently and palatably administered in the form of an agreeable wine such as that under examination, a wineglassful of which is stated to contain one drachm of the soluble active ingredients of the leaves.

PUREST CHLOROFORM.

(SALAMON AND CO., RAINHAM, ESSEX.)

No exception can be taken to the bold name of this product in view of the excellent results it furnished on examination. It distilled over almost to the last drop at 60° to 61° C., and left no residue. A trace of alcohol was detected by the exceedingly delicate iodoform test, and the specific gravity at 15·5° C. was accordingly found to be 1·4966. If the pharmacopœia tests for aldehyde, ketone, chlorine, and acidity are to be relied upon, none of these impurities are present. We have not examined a purer specimen.

NIEMANN'S CARNINE SYRUP.

(J. H. NIEMANN AND CO., AND R. F. MACLOSKEY, 12, MAJOR-STREET, MANCHESTER.)

To preserve the fresh juice of uncooked beef without sacrificing its specific qualities and without introducing antiseptics, the presence of which in a preparation destined for the most part for invalids is undesirable, has often proved a difficulty. Least objectionable of preservatives, and one hitherto unthought of apparently, is cane sugar. The above preparation is made by simply mixing sugar with the juice expressed by hydraulic pressure from raw meat. The result is literally a sweetmeat, nutritive, and palatable, and one that can be readily and agreeably taken in aerated water or milk. One fluid ounce of the syrup according to our experiments results, when boiled, in the coagulation of no less than eleven grains of solid albuminous principles. It contains also nitrogenous matters in a soluble and non-coagulable form. The preparation is a new and important addition to the list of valuable nutrients.

CORALLINE.

(THE CORALLINE MANUFACTURING COMPANY, E.C.)

Coralline, like many kindred preparations, is simply the flour of a certain cereal, moulded into attractive shapes by suitable treatment with steam, or other means. The microscope indicated at once the kind of starch of which it is largely composed. It is a cooked food, and will be found useful for the preparation of palatable diet for children.

PEARL-COATED PILLS AND LANADEPS.

(T. HOWARD, LLOYD, & CO., 86, HIGH-STREET, LEICESTER.)

Five specimens of pills, elegantly coated with a composition which in appearance resembles pearl, have been submitted to us by this firm. The coating gradually disintegrates in flakes even when placed in cold water, and the medicament is soon exposed in an excellent state of preservation, as was indicated by an analysis of the Blaud pill. Lanadeps is the name of a valuable ointment basis prepared from sheep's wool. It does not saponify readily with alkalies, is free from irritant fatty acids, and does not undergo an undesirable change on continued exposure. Lanadeps according to our experiments absorbs over half its weight of water. It is therefore admirably adapted as a vehicle for the external application of drugs like mercurials, iodoform, or potassium iodide.

HOLLANDS GENEVA (J. D. K. & Z.).

(JOHN DE KUYPER AND SONS, ROTTERDAM.)

A carefully distilled spirit, characterised by the peculiar flavour and smell which betoken the genuine Schiedam of Holland. Unlike most other spirits, hollands is practically free from solid matter and extractives, and on this account it may in some cases be advantageously substituted for the more popular whisky. The following analysis testifies in a measure to the unquestionable purity of this spirit: Alcohol, 42 per cent. by weight, 49·45 per cent. by volume—equal to 86·7 per cent. proof spirit; extractives, 0·032 per cent.; mineral matter, 0·015 per cent. Owing to the presence of a small quantity of essential oils, the spirit, on dilution with water, yields a slight opalescence, which is immediately cleared on the addition of ether.

GLYCERINUM PEPTICUM.

(BURROUGHS, WELLCOME, AND CO., SNOW-HILL BUILDINGS, E.C.)

In our experiments this convenient preparation gave very satisfactory results. A few drops, for instance, diluted with very weak hydrochloric acid, rapidly digested a thin slice of hard-boiled white of egg, and in a short time dissolved it completely. The resulting solution gave the well-known biuret reaction for peptones. The preparation is simply a solution of pure pepsin in glycerine, and contains no objectionable antiseptics; it is trustworthy, and may be relied upon for uniformity of digestive power. The ease, also, with which it can be dispensed is clearly an advantage of some importance to practitioners.

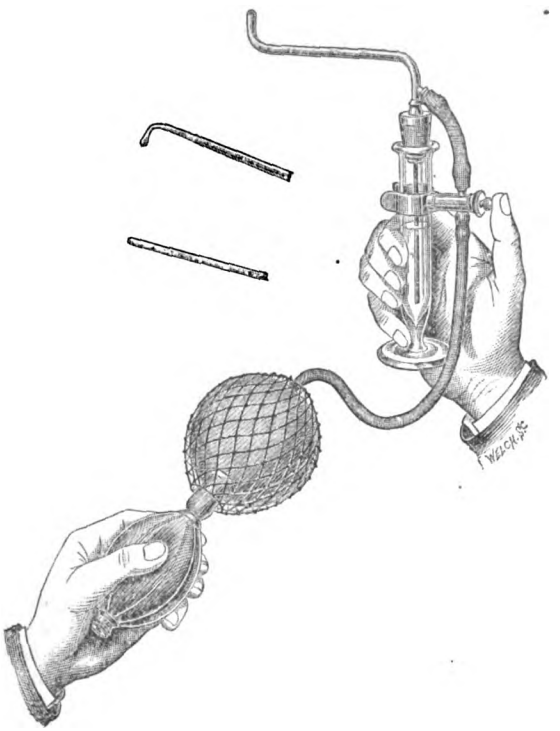
New Inventions.

SPRAY PRODUCER, WITH CHECK ACTION FOR APPLYING MEDICAMENTS TO THE LARYNX &c.

THE merits of this instrument will be likely to be appreciated by those who have used the old form of spray, which allows a cloud of vapour to generate as soon as the bellows are worked, thus obstructing the surgeon's view. The instrument illustrated below allows the bellows to be fully charged with air, but does not set the spray working until the surgeon has focused the exact spot desired to be operated on; then, by touching the tap, he can start or

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stop the spray instantly. Application by this means is rendered more effectual, and a nervous patient will be saved the discomfort arising from the hissing of the instrument before it is introduced into the mouth. Three tubes fit



each bottle as figured above. The apparatus is manufactured by Walters and Co, 29, Moorgate-street, London, E.C.

AN AUTOMETRIC STOPPER.

MESSRS. FLETCHER, FLETCHER, AND STEVENSON have submitted to us a simple and ingenious device by which the measurement of liquid medicaments is not only facilitated but made more accurate. It consists, as a glance at the accompanying sketch will probably explain, of a stopper made of pure unvulcanised rubber, in which is fitted a strong glass pipette graduated in five-minim divisions up to 120 minims. At the top of the pipette, just above the rubber cork, a rubber air-ball is attached, which, fitting closely to the perforated cork, gives the whole design the appearance of a common decanter stopper. On removing the stopper and attachment, and slightly compressing the ball, the required volume of liquid can be easily withdrawn, and then transferred to the bottle which is to contain the medicine. The "autometric stopper," as it is aptly called, is supplied with the 1 lb. bottles of this firm containing their "concentrated liquors."



SERGEANT'S VAPOUR INHALER.

THIS apparatus consists of a thin glass test-tube closed with a perforated cork, through which passes a small glass tube. To this can be attached a mouth-piece or a nose-piece. By its use volatile drugs, such as menthol and eucalyptus oil, can be brought into immediate contact with the throat and nasal passages in a heated state, by plunging the test-tube into some hot water and inhaling the medicament. It is manufactured by F. Ross Sergeant, Market-place, Nottingham.

INDEMNITY FOR CERTIFYING LUNATICS.

To the Editors of THE LANCET.

SIRS,—We are directed by the Council of the Medical Defence Union to lay before you the enclosed opinion of the legal advisers of the Union, which forms their reply to a question addressed to them as to the validity of a written indemnity obtained from the friends of a patient certified to be of unsound mind. It is thought that the information may be of general use to members of the profession.

We are, Sirs, your obedient servants,

LESLIE PHILLIPS, } Hon. Secs, Medical
A. G. BATEMAN, } Defence Union, Ltd.

Birmingham, March 29th, 1892.

Indemnity for Medical Certificate.

March 11, 1892.

DEAR SIR,—The provisions of Sec. 330 of the Lunacy Act, 1890, afford such ample protection that any attempt to extend them might be construed as an incentive to carelessness, if not worse, in the signing of medical certificates in lunacy. At the same time it is obvious that, notwithstanding the protection afforded by the section, a medical man, who, we suppose, receives but a small fee for certifying, might be put to a considerable amount of expense in defending himself against ill-founded proceedings.

We have, in accordance with your request, drafted a form of indemnity which we think is not open to objection on the ground of it being against public policy or otherwise In case you should now or hereafter find it worth while to have printed forms of such an indemnity, we suggest that on the back of the indemnity a copy of Section 330 should be printed in accordance with the enclosed. JOHNSON & CO.

("I" or "We") hereby request you to sign a medical certificate that.....is a person of unsound mind, in accordance with your verbal report to ("me" or "us") to that effect, as the result of your examination of the said.....

And ("I" or "we, jointly and severally") hereby undertake to indemnify you against all liabilities, costs, and expenses, of what kind soever, to which you may be rendered liable, or which you may reasonably incur in consequence of any proceedings which may be threatened or instituted against you by reason of your having signed such a certificate, if in such proceedings it shall be admitted or proved that in so doing you acted in good faith and with reasonable care, in accordance with the provisions of the Lunacy Act, 1890 (53 Vict., c. 5), or such proceedings shall be discontinued or not proceeded with.

Dated this day of , 189 .

Witness to the signature of the said.....
Name .....
Address .....
Occupation .....

Name.....
Address.....

Section 330 of the Lunacy Act, 1890 (53 Vict., c. 5), is as follows:—

1. A person who before the passing of this Act has signed or carried out or done any act with a view to sign or carry out an order purporting to be a reception order or a medical certificate that a person is of unsound mind, and a person who after the passing of this Act presents a petition for any such order, or signs or carries out or does any act with a view to sign or carry out an order purporting to be a reception order, or any report or certificate purporting to be a report or certificate under this Act, or does anything in pursuance of this Act, shall not be liable to any civil or criminal proceedings, whether on the ground of want of jurisdiction or on any other ground, if such person has acted in good faith and with reasonable care.

2. If any proceedings are taken against any person for signing or carrying out or doing any act with a view to sign or carry out any such order, report, or certificate, or presenting any such petition as in the preceding subsection mentioned, or doing anything in pursuance of this Act, such proceedings may, upon summary application to the High Court or a judge thereof, be stayed upon such terms as to costs and otherwise as the court or judge may think fit, if the court or judge is satisfied that there is no reasonable ground for alleging want of good faith or reasonable care.

MANCHESTER HOSPITAL FOR CONSUMPTION.—The formal opening of the new out-patients' department of this institution took place on the 30th ult. The building is situated in Hardman-street, Deansgate, and is erected on a scale calculated to meet the increased work and requirements of the hospital.

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THE LANCET.

LONDON: SATURDAY, APRIL 9, 1892.

THE appearance of the Registers of the profession—the Register of Medical Students, the Medical Register, and the Dentists' Register—is always an event of much interest to the profession. No medical library can be considered complete without the Medical Register, and the others are very convenient and instructive. We have already given in brief outline the data contained in these official lists, but we always feel moved by them to some reflections on the present position and growth of the profession. It might be thought, with the increasing number and severity of examinations, that the growth of the profession itself would be checked. Of this there is no immediate prospect, if we may judge from the additions both to the Register of Medical Students and to the official record of qualified medical men. Both lists in the present Registers show a marked increase over the preceding year. The addition to the number of students registering is very large, not to say alarming. Thus in 1890 there were registered 1846, but in 1891 no less than 2405. This means not only that 559 more persons were anxious to enter the profession in the latter year than in the former, but exhibits also a number very largely in excess of the increase in any previous year. Indeed, we must go back ten years for the next largest amount of registration of students. In 1881 there were 2171 registrations, but the number last year exceeds the record of ten years since by 234. We have before directed attention to the fact that the increase proceeds irregularly, being more one year and less another. But there has been no such leap in any previous year, and it implies such an excess of any numbers likely to be needed to fill the gaps in the profession that it would be satisfactory to find grounds for regarding it as merely temporary or due to some exceptional circumstance. We have already advanced an explanation. According to a recent recommendation of the General Medical Council, candidates commencing study after Jan. 1st, 1892, must not pass their final examination in medical surgery and midwifery before the close of the fifth year of medical study. In other words, the students on the Medical Register now issued are registered just in time to escape the requirement of a fifth year, and this possibly may have caused the rush. It is somewhat curious to note that the chief increase in registrations of students is in England, where the excess over the previous years is 334. It is next greatest in Ireland (139), and in Scotland it is only 86. Perhaps the prospect of a teaching university in London may have had something to do in determining the large increase in the number of English registrations of students.

Returning to the Medical Register, we may again be excused a word of regret at its (no doubt unavoidable) late appearance, so that a quarter of the year is gone before this official roll is in the hands of the profession or of the Courts. Next we may notice one significant omission from this Register as compared with its predecessors—that of a table, headed in the previous year: "Table G., showing the several Registrable Qualifications, on and after 'the appointed day' (June 30th, 1887), named in the Medical Act (1886), with abbreviations used to denote them in the Medical Register." It is a matter of notoriety that at the last meeting of the Council a little storm was raised over the registrability of the diploma, *per se*, of the Royal College of Physicians of London, and its appearance in this familiar table. The Council by a majority refused to recognise the completeness of this qualification, and instructed its registrar not to register it as such. We have not yet seen the end of this question, the venue of which has been transferred from the Council to the Law Courts, where we may shortly expect an interesting and perhaps costly discussion. Meantime it seems to have been thought that the safest course is to omit the table. In spite of this omission and of the smaller and more compact appearance of the volume, the Register of this year exceeds its predecessor by thirty-six pages. The number of practitioners is larger in this Register than in the last by 392. This addition is less than in the previous year, and less than the average of years. The increase of course fluctuates much, but it is, on an average of ten years, about 618 a year. Last year's Register contained more names than its predecessor by 818. The increase in the present Register would probably have been greater had it not been that the election of direct representatives no doubt caused the removal of many names, such as those of deceased practitioners. The quinquennial election of direct representatives affords a reasonable occasion for comparison of numbers. In 1886 the Register contained 26,452 names; in 1891 it contained 29,555, or an increase in five years of 3103 practitioners.

The removals from the Register are not the least interesting part of the information given in these volumes. Happily there are very few under the penal clauses of the Medical Acts. In the last year they reached five, a number only once previously reached. These, however, are five too many. But the fault does not rest with the Medical Council. Under Clause 14, which empowers the Registrar to remove the names of those of whose existence or residence he has reason to be doubtful, owing to no replies to inquiries being returned, 407 were removed. The number removed on evidence of death, strange to say, does not materially increase. Rather it seems to diminish. For though last year it was 581, as compared with 467 in the previous year, the average has been only 529 in the last five years, compared with 570 in the last fifteen years. It is well known that the Registrar uses every means of getting evidence of the deaths of practitioners, but it is to be feared that many are still unreported to him. Even so it is gratifying to believe that the mortality of the profession is decreasing rather than otherwise. Let us hope that medical men, while increasingly solicitous about the lives of their patients, are also more considerate of their own. The Colonial Register has grown, now comprising ten instead of two names, and all the qualifications are Australian. We cannot leave this volume without testifying to the care with which it seems to have been prepared, and to the value of its tables, Acts of Parliament, and other contents.

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We have already given the principal facts of the Dentists' Register, and noted the increasing proportion of those whose names are thereon enrolled in virtue of diplomas implying professional education and justifying us in looking annually more and more for professional methods of practice.

WE are in possession of abundance of facts which prove only too clearly that our herds are decimated by a deadly scourge, more damaging by far than contagious pleuro-pneumonia, foot-and-mouth disease, or any other disorder with which we are acquainted; that the milk of the affected animals will readily produce the malady in other creatures consuming these articles; that the disease is highly contagious between individuals of the bovine species; and that the inference is exceedingly strong that human beings are exposed to great danger by the existence of such a disorder among cattle. That the disease is very infectious in the bovine species has been well known to veterinarians for at least a century; that it is readily transmissible, experimentally, by inoculation and by ingestion of the products of diseased beasts has been clearly demonstrated hundreds of times since VILLEMIN published his researches a quarter of a century ago; that it can be communicated accidentally not only to bovines, but to animals of various species, has been shown in the records of numerous cases in medical and veterinary works and periodicals; and that it may be transmitted from animals to man there are several instances to prove. Unfortunately, we cannot experimentally demonstrate that mankind can take tuberculosis from cattle by eating the flesh, drinking the milk, or partaking of the cheese or butter derived from stricken animals, unless it were permissible and right to test the matter on persons condemned to be executed; but there is clinical and experimental evidence to offer that such transmission is possible—nay, highly probable; and there is only too much reason to apprehend that infants and young people incur serious risks from being allowed to consume the milk of cattle which are tuberculous. All this is well known, and for practical purposes is sufficient to warrant steps being taken to grapple with a plague that is terribly common among our live stock, is increasing yearly, and bids fair to destroy it eventually unless vigorous measures are instituted. Surely this alone should long ago have led to sanitary measures being devised and enforced; for though human life is, legislatively, held to be of less value than that of animals, the grave losses inflicted by the presence of bovine tuberculosis in our dairies and in our choice breeds of cattle ought to be sufficient to arouse attention and instigate the adoption of sanitary police measures to limit its ravages. Of the wide and serious prevalence of the malady in cattle there can be no doubt. Perhaps if human health and life had not been at stake the scourge would have been taken in hand long ago; otherwise why should contagious pleuro-pneumonia and foot-and-mouth disease, which are not nearly so destructive or prevalent, be so demonstratively and resolutely dealt with?

It is a mistake to suppose that the existence of tuberculosis cannot be diagnosed in cattle. Every experienced veterinary surgeon can tell at a glance animals which are badly affected—indeed, butchers and dairymen know them well, and indicate them by familiar names. There may be cases which are obscure, but these are comparatively few, we presume, and are not nearly so perilous for the public safety as the cases of those animals known as "piners" or "wasters," or whose udders are involved. Besides, in doubtful cases the veterinary surgeon has his clinical thermometer, and can also have recourse to the tuberculin test, which the highest authorities assert is of positive value as an aid in diagnosis.

With the evidence before us, we must express the opinion, and strongly, that the time has long since arrived when something should be done to stay the course of a disorder that seriously damages property and is a source of great danger to the public health. The malady is not even recognised in the Contagious Diseases (Animals) Act. It is something more than disgraceful that such a pest should be allowed to revel among and destroy our cattle unhindered and unchecked, and that the flesh and milk of these creatures should be dealt out as food without warning and without restriction. With a cause of damage and disease—human and animal—so palpable everywhere, we cannot consider ourselves a very enlightened or humane people if we longer allow it to continue its operations when the steps to be adopted are so apparent and so simple.

THE loose writing and looser thinking characteristic of so much of our popular literature have been well exposed in Professor MASSON'S "Story of Gifford and Keats," in the April number of the *Nineteenth Century*. For nearly seventy years it has been accepted as true in fact that the author of "Endymion" was brought to a premature grave by a severe article in the *Quarterly*, attributed (without authority, it would seem) to its editor, Dr. WILLIAM GIFFORD. The creator of this myth was the young poet's friend, SHELLEY—himself the object of adverse criticism in the same journal,—according to whom the article in question "produced the most violent effect on his susceptible mind; the agitation thus originated ended in a rupture of a blood-vessel in the lungs, and a rapid consumption ensued." SHELLEY, we need not say, was quite without scientific training or scientific faculty; but had he possessed even the scanty initiation enjoyed by KEATS himself in medical study, he would have paused before thus lightly improvising and publishing a more than questionable account of the cause of his friend's death. He asks us to believe that the sense of wrong aroused in KEATS by a scornful depreciation of his first essay in poetry originated a mental "agitation" which "ended in a rupture of a bloodvessel in the lungs," of which the sequela was "a rapid consumption." What medical undergraduate would accept this as a rational or probable history of a pulmonary hæmorrhage? or, even admitting it to be such, would see in the said hæmorrhage the immediate cause of a "rapid consumption?" Phthisis ab hæmoptoë is so rare, or so imperfectly established, that many pathologists refuse it a place in the classification of disease. The hæmoptysis of phthisis (grave enough as a symptom in the early stage, but seldom if ever fatal) is an indication of pre-existing structural lesion, most commonly of tuberculous deposit; and it is simply an inversion of antecedent and consequent to make a rapid consumption "ensue" upon it. But what in KEATS'S case are the

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facts? As Professor MASSON shows, he accepted the adverse criticism calmly, like the high-souled fellow he was—without anything of the "agitation" sufficient to cause a pulmonary apoplexy. "Praise or blame," he writes, "has but a momentary effect on the man whose love of beauty in the abstract makes him a severe critic of his own work." Again, phthisis, as Professor MASSON duly notes, was hereditary in the family of KEATS, whose younger brother TOM died of it, after being watched by the poet, sitting by his bedside night and day for months. Furthermore, KEATS went through this trying experience after a tour in the Scottish Highlands had, by the privation and exposure attending it, evolved the latent seeds of the constitutional cachexia, shown by the recurring follicular disease of the pharynx he brought back with him. Yet again, in this ominous condition we find him working at his favourite pursuits with greater ardour and intensity than ever, while suffering from what Lord BEACONSFIELD has called "that ignoble melancholy which arises from pecuniary embarrassment." These and other influences, all of them far more adverse to the phthisically constituted poet than the heavy comedy of his critics, Professor MASSON brings before us, with the object and, let us add, with the effect of destroying for ever the hypothesis of SHELLEY that his friend owed his death to the "canker-worms" of contemporary criticism. "The Story of Gifford and Keats" is of value, far beyond its immediate purpose, as illustrating for us the mythopœic element in literature and as running to earth one of its most characteristic and popularly accepted examples. Other contributors to the *Nineteenth Century* might profit by Professor MASSON'S memoir, notably the amiable and accomplished authoress of a paper on "Vegetable Diet," in which, among other feats of what we have called "ecstatic etiology," we find the consumption of animal food from overdriven and maltreated oxen and sheep gravely suggested as the cause of "the excessive and inexplicable extension of cancer within the last decade!"

Annotations.

"Ne quid nimis."

ROYAL COLLEGE OF PHYSICIANS.

ON Monday next, pursuant to Act of Parliament, the Fellows of the Royal College of Physicians will have to elect a President for the ensuing year. Sir Andrew Clark has so efficiently served the College in the past that there can be little doubt about his re-election. He has thrown himself thoroughly into the work of the College, and his tenure of office has been remarkable both for the variety and importance of the subjects brought under discussion, and for the ability with which, as President, he has mastered the details and aided the decisions of the College. In all probability the meeting on Monday will to a certain extent indicate the possible outcome of future elections; such indications, however, are to be regarded merely as friendly signs of the times. At the present moment the College has assumed a very definite position in relation to sundry important questions which have not yet reached their final stage; hence the re-election of Sir Andrew Clark becomes not merely a kindly recognition of his invaluable services, but also a matter of the highest expediency in the interests of the College.

PUBLICANS AND DRUNKENNESS.

IT would seem that among the agents in preventing the tragedies of drunkenness in this country we are to look to the publicans themselves. One of the judges lately—Mr. Justice Grantham, at the Durham Assizes—in sentencing a pitman for manslaughter of a brother pitman, ordered the publican who had supplied them both with drink to stand in the dock. Thereupon the judge reflected on him severely for giving drink to drunken men, to men whom he harboured in his house on pay-day sometimes from midday till the house closed, and at other times from 5 o'clock till the house closed. Not only had he done it in this unhappy case, but the judge declared it had been his practice, and he feared it was the practice of other publicans, to serve men habitually when they were drunk. Such a warning to publicans ought to be a caution. The judge commended to the justices present the telling-off of a special body of police to go about before closing time, visit the houses, and see that drink was not being served to people already under its influence. This does seem one way of getting something like satisfactory police accounts of the drunkenness that is now altogether unchecked and unreported, and of diminishing the disproportion between the numbers of persons found guilty of offences committed under drink and the number of publicans found guilty of supplying drunken persons with drink. In Pennsylvania there is a law making saloon-keepers responsible in damages for injuries resulting from the sale of liquors to intoxicated persons. A recent decision in the Courts there gave substantial damages to a widow whose husband was unable to guide his steps home, fell into a gutter, contracted pneumonia, and died. The publican was held responsible for the pneumonia.

THE STATE REGULATION OF WORKING HOURS.

THE evidence recently tendered before parliamentary committees appointed to deal with the question of hours of labour leaves no room for doubt that these are at the present time excessive. According to one witness, Mr. J. B. Lakeman, inspector of factories and workshops, the working time of women in the metropolitan districts under his supervision varies from eighty to ninety hours per week, a daily average of about twelve hours; and these, as he pertinently remarks, are very commonly spent amid insanitary conditions. The obvious remedy is, of course, to shorten the daily term of active duty, which constitutes the chief occasion of error and the clue to other associated evils. Another suggestion by the same witness is as simple as it is sensible—namely, the allowance of a definite and sufficient time for two daily meals. It is clear that nothing is more conducive to effective work than comfort and regularity where these are concerned. The great advantage of a really pure atmosphere is hardly to be found in a large city, but the reduction of work hours implies at least a relative reduction in the amount of inhaled impurities due to gas combustion. On every sanitary ground, therefore, we would urge the great importance of the proposed new Act for regulating the hours of female labour in shops. The chief obstacle to this measure, it is well known, does not consist in any implied inconvenience to belated customers or to the course of business, but in the competitive keenness which leads a poorer class of traders to labour and make labour at all unseasonable times. Were a work limit assigned and

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made compulsory, the great mass of tradesmen would gladly avail themselves of the relief thus afforded, and trade itself would flourish none the less because controlled by the time restrictions imposed by obvious necessity. Some decisive step in this direction is everywhere suggested, in the interest of men as well as women, by the physical signs of over-pressure visible among almost all classes of operatives. Certainly the term proposed, seventy-four hours per week, ought to suffice for all ordinary claims of business. The question of inspection, as we have all along maintained, must form an important feature in any scheme of regulation, and this matter, we are pleased to note, has come under the consideration of the Committee on Shop Hours. Similar in its main purpose, and of equal if not greater public importance with the inquiry above mentioned, is the investigation into the hours of railway servants which is now engaging the attention of another parliamentary committee. It is worth noting that even the assertions of superior officials cannot always exonerate railway companies from the blame so often attributed to them in respect of this matter. In the case of a fireman lately dismissed on one of the Irish lines, the misdemeanour alleged to be attributed to him consisted in his refusal, after working twenty-three hours, to undertake duty for a further term of sixteen hours. The same man was said to have been employed in one week for 117 hours. His case was no doubt exceptional, but it can hardly be accepted as unique. It certainly suggests very strongly the need of legislative regulation, as much for the sake of public safety as of ordinary justice to individual workmen.

MR. HUXLEY AND THE TITLE OF DOCTOR.

MR. HUXLEY, it seems, though M.D. of Breslau and M.B. of the University of London, and the happy possessor of endless doctorates of all sorts, objects to the title of "Dr." Huxley. He can stand being called Professor, but draws the line at "Dr.," which many men seem to value so highly. Mr. Freeman and Matthew Arnold, we are told, objected to be called "Professor." It is all intelligible enough. Great men have a consciousness of something *in* them that supersedes all the aid and adornment that titles can give. "When unadorned, adorned the most." And in this they are a warning, if not an example, to lesser men who attach an excessive importance to the mere embellishments of a name.

FRENCH WORKMEN AND SANITATION.

THE Workmen's Congress of Hygiene, to which we have already alluded, promises to be a great success. Distinguished professors and physicians of Paris have promised assistance. The organisers—the National Committee of the French Labour Party—have secured the handsome hall of L'Union du Commerce et de l'Industrie, in the Rue de Lancry, for every Saturday evening during the next six weeks. Here preparatory lectures will be addressed to the working men who have joined the Congress. The public will be admitted to the gallery on the payment of a small fee. The first lecture will be delivered on Saturday, April 9th, by Dr. Dujardin-Beaumetz, Member of the Council of Hygiene of the Department of the Seine (the Paris district), on Alimentation and the Alimentary Regimen. On April 16th Dr. Armand Gautier, Member of the Institute, Professor of Chemistry at the Paris Faculty of Medicine, will lecture on Food Substances of first necessity, their Character, and their Defects. This is expected to be an extremely interesting lecture, for it is well known that Dr. Gautier holds very strong views in respect to the making of bread, and regards modern methods as being dangerous, wasteful, and extravagant. On April 22nd, Dr. Budin, Professor of the Paris Faculty, will lecture on the Hygiene of the Children of the Working Class, Milk-supply, and Crèches. On April 30th Dr. Dumesnil, Secretary of the Consultative Committee of France, Member of the Commission on Insalubrious Dwellings, will discourse on the Sanitation of the Workman's Home. On May 7th Dr. H. Napias, Member of the Consultative Committee of Hygiene of France, Inspector of Factories, and General Secretary of the Society of Public Medicine and Professional Hygiene, will lecture on the Hygiene of Labour—workshops, factories, offices, and retail shops. Finally, on May 14th, Dr. A. J. Martin, Member of the Consultative Committee of Hygiene of France, Professor of Hygiene, will deliver an address on Preventable Diseases, and how to Prevent them. Almost as instructive and useful as these lectures are the excursions and practical studies which are to be made each Sunday following the lectures. The members of the Congress are to be conducted, for instance, to the Paris Municipal Laboratory, where bread, wine, and other such substances will be analysed in their presence, and they will be shown how adulteration is detected. The sewers will be visited and plumbing apparatus examined—in fact hygiene will be studied theoretically by means of the lectures, practically by excursions and visits which the authorities of the town will facilitate in every way within their power. It is only after these six weeks of preparatory investigation that, towards the end of the month of May, the Congress will hold its sitting. The debates, we have already stated, will be limited exclusively to three phases of hygiene: the workman's food, work, and home. The delegates will, by the preparatory measures we have described, have acquired some knowledge of the technicalities of the subjects they are about to discuss; and it will be interesting to hear what the workmen themselves have to say concerning the questions affecting especially the health of their own class.

SMALL-POX AND ISOLATION IN DEWSBURY.

IT had been hoped that the great difficulties which had been felt by many of the sanitary authorities in the Dewsbury Union during the serious prevalence of small-pox would have led to the early provision of some means of isolation which, quite apart from the question of small-pox, would have been available for infectious diseases generally. Batley, indeed, took the lead in the matter, and the Local Government Board, having held a local inquiry, undertook to favour the formation of a joint hospital district and board, and practically promised the applying authorities to aid in its being assented to by Parliament this session. For this purpose a draft order was, indeed, actually issued. At this stage the town of Dewsbury stepped in, and, having called a meeting of a number of the authorities concerned, has secured their provisional agreement to abandon Batley and to join them in the constitution of a different joint board; and the Dewsbury chairman, who presided, naïvely got over the serious delay which the new action necessitates by telling the delegates that the Local Government Board are so fully engaged with Bills this session that it will be impossible for the present for them to do anything in the matter. In the meantime it is announced in the local press that the small-pox epidemic proceeds with a persistency that is truly alarming in this district, which is identified with the manufacture of heavy woollen goods. Fresh attacks are heard of from Dewsbury, Heckmondwike, Birstal, Ravensthorpe, Thornhill, and Soothill-Upper. Dewsbury had last week no less than forty-four acute cases under isolation, to say nothing of thirty-six convalescents. And whilst this is going on incorrect statements are being made as to the vaccination or otherwise of nurses attacked. Thus a statement has been propagated to the effect that a nurse who has been a sufferer had been recently vaccinated. But on the authority

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of the secretary to the Dewsbury District and General Infirmary, this is not only denied, but it is stated that this nurse and another official are the only officials who had not been recently vaccinated. This case gives support to the very general impression which has prevailed, to the effect that much good would arise from an independent investigation into the relation of vaccination to an actually existing epidemic of small-pox, such as that which is going on in and about Dewsbury; and we are therefore glad that the members of the Royal Commission on Vaccination have obtained the services of Dr. Sidney Coupland for this purpose. Dr. Coupland, who is an able pathologist as well as a discriminating physician, will bring an unbiased mind to the subject he has undertaken to investigate, and whatever the lessons which his labours may have to teach, they will merit and receive attentive consideration. He is already on the spot, and he purposes to proceed continuously with his inquiry.

A HOSPITAL AT MASSOWAH.

ITALY has great opportunities on the Red Sea littoral, but she lacks the money to turn them to immediate account. One of these is the construction of a sanatorium on the Asmara table-land—a delightfully salubrious hill country, which might be made accessible from Massowah by rail in a couple of hours. But beyond "prospecting" it as summer quarters for her seaport garrison she has taken no steps to utilise the magnificent Asmara site, on which British or American enterprise would have run up an attractive health resort long ago, making it a *succursale* to Massowah, at which passengers to and from the East Indies or the Straits might conveniently break the journey. Italy has, however, made a beginning at Massowah itself, and from the *Eritreo*, the local organ of Italian policy, we learn that she has started a hospital, primarily for the behoof of the settlement, but ultimately to be extended and made available for a larger public. The hospital enjoys the patronage of His Majesty King Humbert, after whom it is called, and whose subvention of 5000 lire (£200) attests his interest in it as more than nominal. There are many reasons why Italy should strengthen her foothold in those parts—the adaptability of her settlers to the climate, as already shown in THE LANCET, giving her an advantage over other European competitors in the opening up of the Dark Continent. More than fifty years ago the Capuchin missionary Massaia did noble work to the west of Abyssinia, and surely his initiative might be followed up over the interval between that point and the Red Sea.

THE THERAPEUTIC EMPLOYMENT OF ANTI-TOXINES.

IN the *Medical News* (New York) of March 19th there is an interesting summary of the efforts that have been made to apply therapeutically, in the management of disease in human beings, the results of recent studies upon the chemical products of bacteria, and the substances obtained from the bodies of patients who had died from the disease which these organisms produce. Most prominent among these studies were the results obtained by Behring and Kitasato in their work upon tetanus. Their investigations are well known. They showed that in certain animals which were susceptible to this disease it was possible to produce a condition of immunity against the inroads of the organism that causes it, and that when immunity was once established, the blood serum of the protected animal possessed the property not only of affording immunity to other susceptible animals, but a more or less curative effect when the disease was already in progress. They also further demonstrated that the blood and serum of animals that had been rendered immune against tetanus possessed the power of rendering inert the bacilli that play the etiological *rôle* in the production of this malady. The practical application of this observation to the therapeutics of tetanus was first made by Tizzoni and Centanni, who isolated fro mthe serum of animals rendered immune the anti-tetanus principle, and Tizzoni claims to have employed it with successful results in the treatment of tetanus in the human being. Schwarz, assistant in the surgical clinic at Padua, also reports the successful treatment of a case of traumatic tetanus in the human being by the use of the tetanus anti-toxine of Tizzoni and Centanni. Another case of recovery after this method of treatment is also reported by Schwarz as having occurred in Toscana under the management of Dr. Pacini, and still another is recorded from the surgical clinic of Professor Nicoladoni in Innsbruck. In a similar line the experiments of the Klemperers in connexion with croupous pneumonia must be looked upon as a triumph of bacteriology, even though they are as yet by no means completed. These observers succeeded not only in rendering susceptible animals immune against the form of septicæmia produced by the organism that is believed to be the cause of croupous pneumonia, but also demonstrated that the serum of these animals had the power of affording both immunity against the disease when injected into other animals and of bringing about a cure when injected into animals in which the disease was already in progress. They then directed their attention to the treatment of the disease by this means in human beings, and found that by the subcutaneous injection of the serum of animals rendered immune, the patients suffering from croupous pneumonia, the results were in the main promising. They demonstrated that while healthy individuals and those suffering from other forms of disease presented no systemic reaction after the injection of the serum, in six cases of pneumonia in which the serum was employed there was a marked fall of temperature and slowing of the pulse within the first twelve hours after it was injected. In four of these cases the temperature fell to normal, but rose again after six hours; in the remaining two it fell to normal, and remained there.

PRACTICE IN SOUTH AMERICA.

AS Argentina has sometimes been described as a sort of El Dorado for medical men on account of the high fees which at times have been undoubtedly charged and obtained from wealthy merchants residing in Buenos Ayres, and as the conditions of practice at present are very far from justifying such a description, a correspondent of a well-known German medical journal has recently endeavoured to warn any of his countrymen who think of emigrating against any very elevated conception of the state of matters medical in that part of the world. No foreign diploma is recognised as entitling to practice; but an examination, both practical and theoretical, must be passed in one of the two universities, and this is conducted in Spanish, so that the first requisite is a residence of several months in the country in order to learn the language. In Buenos Ayres the examination lasts quite a month, and includes mental and children's diseases, ophthalmology, and toxicology. The fee is 350 dollars, paper currency, which at present corresponds to about twenty guineas. In Cordova, the other university, the examination is more simple, but the fees are considerably higher. Leave can be obtained, without passing the examination, to practise in localities where there is no doctor, but this has to be renewed every six months, and is refused if a man with a recognised diploma makes his appearance on the scene. Of the 450,000 inhabitants of Buenos Ayres about one-half are foreigners, 15,000 being Germans, and there are already fourteen German practitioners. Since the revolution and the consequent depreciation of the currency the fees have fallen to about the same

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as in continental capitals, but the expense of living is far greater. In Monte Video a similar Spanish examination is requisite. In Paraguay there is a simple oral examination. In Brazil the examination may be passed in French, and is not so serious an affair as in Buenos Ayres.

THE DYNAMITE EXPLOSIONS IN PARIS.

THE attempt to blow up some private and public buildings in Paris suggests the inquiry as to what means exist for the succour of the wounded. Fortunately, so far, the number of the wounded is limited, but that is due to accident, and not to the nature of the explosives used. The Paris police are not renowned for their urbanity. The men are recruited from anything but the best sources; they are badly paid, and, when, overworked by any political crisis, are apt to become callous and brutal. The other day, when the explosion took place at the house in the Boulevard Saint Germain, one of the principal contributors to the *Progrès Médical* and the director of the hospital La Pitié were in a café close at hand. They immediately rushed to the spot, explained who they were, offered to telephone for ambulances, and to dress the wounds of such persons as might have been hurt by the explosion. The police, however, without even inquiring whether there were any wounded requiring assistance, roughly pushed these medical men aside and rudely sent them away. On the other hand, the police are themselves incompetent to render assistance to the wounded. Many efforts have been made to give instruction to police officers similar to that imparted by the St. John Ambulance Association in England. For some reason as yet not satisfactorily explained these offers have not found favour in the eyes of the authorities. It is said "it is an evil wind that blows no one any good." The anarchist plots will have one not unsatisfactory result if, as is probable, they lead to the better instruction of the police in respect of the care necessary for the succour and removal of the wounded. It is now very generally felt that a larger number to police is required in Paris, that the men must be more carefully recruited, and that it would be a great advantage if at least some among them were trained in ambulance work.

DEATH UNDER CHLOROFORM.

A DEATH occurred on Wednesday, March 23rd, in the practice of a London hospital surgeon, the chloroform having been administered by an anæsthetist of great experience and skill. We have frequently pointed out that these occurrences, sad as they are, must in the present day be to a certain extent inevitable, and will happen even in the hands of the most skilled. It would be as unreasonable to raise the panic cry about chloroform as to refuse to permit any surgical operation to be performed or medical treatment to be adopted because a percentage of deaths is associated with such proceedings. On the other hand, we safeguard our patients by using every precaution against mishap in medicine and surgery, and we draw largely upon the stores of our past experience in deciding whether or not any given operation should be performed in any given case. So should it be with our anæsthetics. It certainly appeals to the sense of the fitness of things that only those who have an extensive experience in the use of anæsthetics should be entrusted with their use, and that each case should be as thoroughly studied from the point of view of the person giving the anæsthetic as from that of the surgeon. The expert has several problems to work out in dealing with any case: he must decide whether an anæsthetic can be taken, what anæsthetic is best suited to the exigencies of the patient, the surgeon, and the operation, and then he has to conduct the anæsthesia in the best and safest possible manner, having in view not only the welfare of the patient, but also the requirements of the proposed surgical manipulation. In the case the particulars of which we have to chronicle below everything was done which could have been prompted by human forethought. The patient, a boy of six, deformed, and somewhat delicate, was chloroformed by an expert with his usual care, and the operation of staphyloraphy was successfully performed. The head was placed in the fully extended posture. The breathing became indistinct just as the operation was completed and the heart failed. Artificial respiration, performed for an hour, failed to resuscitate the boy. The child had successfully gone through several operations before this one. The necropsy, beyond revealing a somewhat small and flabby heart, gave no clue to the cause of death. Although Mr. Warrington Haward and Mr. Pollock, when they urged the value of ether before the Medico-Chirurgical Society, spoke in approval of ether in cleft palate operations, yet the general consensus of opinion on the part of the profession has for years been to favour the employment of chloroform for staphyloraphy as being much more convenient and less likely to interfere with its accurate performance. We must feel deep regret for the death and sympathy with all concerned, but there certainly seems the consolation of knowing that the fatality was, humanly speaking, unavoidable.

"ADDING A NEW TERROR TO DEATH."

IT is not often we find ourselves in some accord with Miss Frances Power Cobbe. But for once we have that pleasure. She has published a leaflet headed "Adding a New Terror to Death," in which she describes and denounces the too common practice of advertising the symptoms of the illness and sometimes the details of the treatment of any patient whose position in the social or political system is at all important. She says that "death-beds are desecrated that doctors may be advertised." There is perhaps a dash of her own animus against the profession in this sentence, but she undoubtedly has hit on a tendency which requires repression. The medical profession is essentially a quiet one, dealing with private and personal facts, the divulgence of which is unseemly. Even in the case where the most important lives are at stake the medical facts are the affair of the patient and his family alone. This is now much better understood than it was a few years ago, but there is enough truth in the satire of Miss Cobbe to justify our giving it this notice.

THE MICROBE AMONGST THE BATAKS.

ALTHOUGH it has long been accepted that there is nothing new under the sun, we usually look for our anticipators in China, where we are specially referred to Confucius. In the *Asiatic Quarterly Review* for January, however, we are referred by "L. B." to M. J. Claine's description of a Sumatra manuscript on the Microbe. Most of these manuscripts are composed of the inner bark of a certain tree cut into long slips and folded in sections. According to Mr. W. Marsden, F.R.S., who writes in 1811, "their contents are little known to us. The writing of most of those in my possession is mixed with uncouth representations of scolopendra and other noxious animals, and frequent diagrams, which imply their being works of astrology and divination." M. Claine has been fortunate enough to obtain one of these manuscripts containing an account of some plague, and from the drawings given he maintains "that the Batak physicians, two centuries ago, had anticipated the modern theory of germs and bacilli." It is interesting to note that this would be shortly after the earliest observations on this subject had been made in Germany, and especially in Holland,

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by Kircher, Lange, and Leeuwenhoek. The Bataks were an educated people, many of them being able to read and write, and although they probably obtained much of their information from the Hindoos who ascribe diseases to a Kira or worm, it is quite probable that their ideas on the subject of microbes may have been derived from other quarters. In the next number of this quarterly we are promised a translation of some of this Batak manuscript. The illustration produced in the number before us shows a series of lines, spirals, and circles which may be interpreted to represent bacilli, micrococci, and spirilla, leptothrix forms, and the rest; but along with these, and often, as it were, built up of them, are forms which might be meant to indicate insects &c. We shall look forward with considerable interest to the translation of this manuscript.

RECOGNITION OF POOR-LAW EXTRA MEDICAL WORK.

THE extra work of Poor-law medical officers during the influenza season is little heard of, but can well be imagined. It is gratifying to notice in different parts of the country a disposition on the part of boards of guardians to do their duty to such officers. The *Surrey Advertiser* contains the report of a meeting of the Hambledon board of guardians, at which a proposal to offer a bonus of 15 per cent. on their salaries to the medical officers was discussed, and in the end carried *nem. con.* A reverend gentleman tried hard to wreck the resolution on the ground that he saw no reason for such a proposal. The medical men took the office for better or for worse, and they were there as guardians of the poor, not of the medical officers! This gentleman must not be too hardly censured. He is evidently defective in his sense of the reasonableness of things; as if the guardians were not there to do justice to their medical officers, and as if they could better protect the poor than by properly rewarding the medical officers, who had saved the lives of the poor at the risk of their own. We hope the excellent example of the Hambledon guardians will be followed everywhere.

THE PROGRESS OF SANITATION IN INDIA.

WE are glad to learn from the *Pioneer Mail* of the 17th ult. that a Bill was introduced at a recent meeting of the Provincial Legislative Council for the North-Western Provinces and Oudh, dealing with the construction and maintenance of drainage and sewerage works in municipalities. It is certainly necessary that something should be done in this direction, for it seems to be urgently needed, if we may judge from the report of the sanitary commissioner for 1890. That year was a very unhealthy one in the North-Western Provinces and Oudh. The death-rate was higher than it has been since 1879, when it reached 44·8 per 1000. It equalled 37·27 per 1000 in 1890, when there was a marked prevalence of fevers, the registered number of deaths from which reached an enormous total, and attained a ratio of 28·21 per 1000. Fever is often used in India, no doubt, as a convenient label to apply to a number of febrile diseases other than those of malarial origin. Influenza appears to have prevailed as an epidemic, and added its quota to the fever death-rate of 1890. Cholera and small-pox also prevailed to a great extent. The great increase of rainfall over the average, and the increased price of food—owing to the large export of grain to Europe rather than to any bad harvest—no doubt contributed greatly as general causes to the large sickness and mortality. But the drainage, water-supply, and conservancy arrangements are, generally speaking, in an extremely unsatisfactory condition. The present Bill originated with the case of Benares, which was the first of the kind for practical treatment in these provinces. The provision of good water is the great need, but drainage and sewerage are urgently required. The Bill is a general measure, capable of being adapted to different towns with differing and sometimes widely varying conditions. It is largely based on the provisions of the Bombay Municipal Act. The nine chapters of the Bill deal with definitions, with the construction of drainage and sewerage works, the drainage of premises, the enforcement of privy accommodation, the levy of a sewerage rate, and the provision of by-laws, &c. The Bill has, we are assured, been very carefully drawn, in view of the admitted needs of certain municipalities in these provinces, and is believed to offer a fair and sufficient basis for preliminary discussion.

LEUCOCYTOSIS IN PNEUMONIA.

DR R. VON JAKSCH, in the *Centralbl. für Klin. Med.*, draws attention to the fact that the prognosis in cases of croupous pneumonia in which leucocytosis does not appear is very unfavourable. He thinks that in these instances it would be advisable to give by the mouth or hypodermically either pilocarpine, antipyrine, or nuclein, all of which, according to Horbaczewski, increase the number of white blood-corpuscles. Dr. von Jaksch is fully convinced that pilocarpine in croupous pneumonia actually increases the number of white corpuscles when a condition of leucocytosis already exists. For instance, in a patient suffering from pneumonia of the right base the number of white corpuscles was increased 62·7 per cent. an hour after the hypodermic injection of 0·005 milligramme of hydrochlorate of pilocarpine. This sudden increase was not due to the ingestion of food, as the patient during the time was kept without nourishment.

THE ISLINGTON MEDICAL OFFICERSHIP OF HEALTH.

IT is gratifying to know that the responsibility of the action of the Islington Vestry in disregarding its own by-law, and making an appointment to the officership of health without even advertising the vacancy, is left with the vestry alone. The procedure is denounced on all hands. The leading Islington papers declare it to be without justification and without precedent. We understand, too, that a dignified protest has been forwarded to the vestry, signed by most of the leading practitioners in Islington. One of the members of that body, Mr. Elliott, seemed to think that he made a sufficient answer to this protest by saying that the appointment would be advertised, and that the gentlemen who had signed it could all become candidates if they chose. He might have known that none of the signatories are likely to care to become candidates, and that all are entitled to the credit of having no selfish motive in taking the course they did.

THE ETHICS OF CHASTISEMENT.

IN the trial at Dublin of Mrs. Montagu, which has closed with her deserved conviction, the lenity of the sentence inflicted is clearly attributable to the fact that in the opinion of the jury this case was one of tyrannical cruelty in which death was accidental. A verdict of murder would probably have been under the circumstances too severe. As regards cruelty there could be no question, and we have here unhappily a fresh illustration of the fact already well proved by experience, that position and education afford no sufficient guarantees for moral goodness. The inner nature, in spite of these external influences, may remain hard and passionate, and the chastisements which have their origin there will be like in character. The ethics of punishment were clearly and briefly summarised by the Solicitor-General in his speech on this occasion, as allowing a "right of giving chastisement [to children] for their moral culture

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but the exercise of it must be reasonable, having regard to the age and health of the child." This will be generally accepted as a fair statement of the matter. A parent's will, fancy, or feeling has little to do with it, and indeed severity should not be entirely shunned, if only it be exercised with reason. It is the moral culture which gives to the whole system its keynote. For its fittest and most fruitful method we must rely upon educative more than upon punitive measures. An understanding of the highest moral rule, quite apart from mere maxims of expediency, with a zeal for improving the character, inspired and guided by the great moderating force of love involved, or if this be lacking, as occasionally happens, a sense of duty, instructed by dispassionate wisdom, furnish us with the means of truest success. Thus viewing the matter we recognise a reason for patience, and may fairly hope that the exhibition of its power in trial will prove attractive to those we teach, and will justify and impress on their minds the occasional use of measured and resolute chastisement.

SIR GEORGE BUCHANAN, F.R.S.

WE are gratified to announce that Her Majesty has been pleased to confer the honour of knighthood upon Dr. George Buchanan, on his retirement from the post of Medical Officer to the Local Government Board. A very general desire has been expressed by many who have taken a prominent part and exhibited keen interest in the advance of public health and preventive medicine in this country to mark their sense of the distinguished services which Sir George Buchanan has rendered for so long a period in the health department of the State, and at the same time to show their sense of the loss which his resignation of his official post will entail. The result is that a preliminary meeting has been held, under Dr. Bristowe's auspices, with a view of presenting to Sir George Buchanan some permanent memento of the esteem and regard in which he and his work are held. Sir Henry Acland, who has expressed great personal interest in the matter, will act as chairman of a general committee which will shortly be formed for the purpose. As yet only a small provisional committee has been formed. Together with Sir Henry Acland, K.C.B., and Dr. Bristowe, F.R.S., medical officer of health for Camberwell, the movement is being forwarded by Sir Anthony Home, K.C.B., V.C., M.D.; Dr. Tatham, medical officer of health of Manchester; Dr. Whitelegge, medical officer of health to the West Riding County Council; Dr. MacCabe, of the Local Government Board of Ireland; Dr. W. H. Hamer, of the health department of the London County Council, who will act as metropolitan honorary secretary; and Dr. Thresh, medical officer of health for districts in Essex, who will act as provincial honorary secretary. Dr. Thorne Thorne, F.R S., of the Local Government Board, has also expressed his desire to serve on the general committee.

METHYLENE BLUE IN MALARIA.

A SHORT time since Guttmann and Ehrlich suggested the use of methylene blue in the treatment of malaria. Thayer has since treated five cases in this manner, and his results are published in the Johns Hopkins Hospital Bulletin, vol. iii., No. 19. The dose administered was one grain and a half five times a day. In all the cases the urine was carefully examined, but at no time was albumen found. In all of the cases in which methylene blue was given alone slight strangury followed within the first three days, which, however, was immediately relieved by nutmeg, and in the cases in which nutmeg was given at the commencement of the treatment there were no unpleasant results. The urine in all the cases assumed a deep blue colour; the fæces, although appearing as usual when passed, became blue on exposure to the air. With one exception all the cases were of the more chronic and severe types of malarial fever, those in which the hyaline intra-cellular bodies and crescents have been found in the blood. It is in such cases that quinine is often very slow in its action, and that, even when quinine and arsenic are given together, organisms may be found in the blood for weeks and months. One case of tertian ague yielded almost immediately to the methylene blue, the organisms disappearing on the third day. In another case the organisms had not entirely disappeared in twenty-three days. This was a severe chronic case. In a third case, which appears to have been one of the more severe varieties, no organisms were seen after the ninth or tenth day. In none of the cases was there any chill later than twenty-four hours after the beginning of the administration of the drug. Thayer concludes that methylene blue has certainly a distinct anti-malarial action, a fact which is of great interest, and this treatment is certainly worthy of more extended trial.

DISEASED TINNED MEAT: A CAUTION.

A RECENT conviction in the Liverpool Police-court awakens once more the uneasy suspicion which is apt to be associated, not always unreasonably, with the system of contract supply. It is not difficult to understand the reducing influence exercised on a margin of profit by the lowest cost estimate, and the consequent opportunities of temptation. We may trace these and their effects in every branch of trade, and nowhere more than in the food market. This brings us to the case in question, that of a provision dealer, who seems to have done a large business in tinned meat at the rate of 1½*d.* a pound. A trifling charge indeed, but dear for that which was provided, since we are informed that the contents of 600 tins were found on examination to be "blown" and stinking. The fraud was, in any case, as disgraceful as it could well be. It is satisfactory to know that the heavy fine inflicted on the delinquent dealer must have absorbed considerably more than the slender profits of his dishonest merchandise. The incident is further noteworthy as illustrating once more the truthful force of the rule which bids the buyer beware of imposture—a caution which is in no connexion more needful or more often disregarded than in the purchase of cheap food.

ASSIMILATION OF FAT.

SEVERAL recent Russian graduation dissertations deal with the various conditions which affect the assimilation of fat. Dr. Zvyagintseff has examined the relative assimilation of fat in children fed with fresh and sterilised milk. There does not appear to be any difference, and the amount assimilated during the first three days of a six days' experiment did not differ from that assimilated during the latter three days. He finds that it requires from 90 to 105 minutes to sterilise milk efficiently in a Koch's apparatus; and he is disposed to think that if bottle-fed children were always fed with sterilised milk they would be much more healthy than they are, and their mortality would be greatly diminished. Dr. Bélorusoff finds that warm abdominal compresses diminish the assimilation of fat in healthy subjects, more especially in those who have a good store of fat in the form of subcutaneous adipose tissue, their effects being, on the other hand, less marked in thin subjects. Dr. Popoff administered to a number of healthy persons—students and others—warm baths at 35° C., containing various aromatic herbs, such as rosemary, mint, lavender, &c., and lasting half an hour, for the purpose of determining the alteration produced, if any, in their capacity for assimilating fat. The result was that there was always some increase in the percentage absorbed, the minimum increase being 1·5 and the maximum 6 per cent.

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Dr. Shimanski found that warm baths containing oleum pini Sylvestris nearly always increased the fat assimilation, the effect being to some extent prolonged for some few days. Dr. Sprenzhin finds that hot-air baths very slightly increase the assimilation of fat, but when the baths have been stopped there is no appreciable after-effect.

PROFESSOR POLITZER IN LONDON.

PROFESSOR POLITZER of Vienna, being on a visit of a few days to London, Sir William Dalby invited all the aural surgeons attached to the general hospitals in London, as well as many others, to meet him on Monday, April 4th. As all the invitations were accepted, there was a large and representative meeting. Sir William Dalby introduced the distinguished visitor, who gave a highly interesting demonstration of preparations and dissections illustrating the normal and pathological anatomy of the ear. The delicacy of some of the specimens, especially those of the membranous labyrinth prepared by Professor Politzer's own hands from the non-decalcified petrous bone, excited the greatest admiration. Some celloidin and paraffin preparations, which were much more easy to make, were none the less extremely instructive. The temporal bones from fatal cases of mastoiditis following influenza, and from cases of deafness in old persons caused by ankylosis (generally fibrous) of the stapes, aroused considerable interest. Professor Politzer then exhibited a number of his recent additions to the aurist's armamentarium, notably instruments for insufflation and injection into the tympanic "attic," and a strong kind of punch forceps for chipping away the outer wall of that cavity. He referred feelingly to the fact that it was in the very room in which this meeting was held that he received his first enlightenment in otology from the late Mr. Toynbee, and expressed himself as being very much gratified by the reception which he had received.

EPILEPSY AND HEAD INJURY.

AFTER a careful review of the whole subject of the relation of epilepsy to head injury Dr. Putnam of Boston concludes that we need not hope in all cases of injury to prevent convulsions by early trephining and care bestowed upon the wound, and he points out that the local and general injury of the brain are probably of the highest importance in those cases, and quite independent of fracture. He regards of great importance the general treatment of the brain by means of cold applications and prolonged absolute mental rest. As to the cause of the convulsions which occur after injury, he thinks it necessary to seek for some further explanation than mere local irritation, especially in view of the fact that a considerable interval so frequently elapses between the accident and the first convulsion, and he suggests as the cause of the convulsions a degenerative process which increases gradually in extent and probably in intensity. He throws out the suggestion that trephining, for the sake of exploring the condition of parts, may possibly be desirable in the case of patients presenting themselves for the first time after the injury, but before the outbreak of the convulsions, in order to make sure that there is no local condition present which may give rise to irritation or may be the starting-point of degenerative processes.

NEW METHOD OF HARDENING BRAIN TISSUE.

IN a recent number of the *Neurolog. Centralbl.* Professor Stieda of Königsberg gives a short description of a method of hardening the brain which had already been described by him in an anatomical journal. By this method dry preparations are obtained which are extremely useful for purposes of demonstration and study. The specimen is first immersed in a concentrated watery solution of chloride of zinc, so much of the salt being taken as to allow the brain to float. After being twenty-four hours in this, the specimen is removed, and is found to have remained soft, but at the same time to have acquired a certain consistence and toughness, so that the pia mater can be removed without injuring the cortex. The brain is now placed in 96 per cent. alcohol, either as a whole or after separation into parts. To expedite the hardening, it is advisable to renew the alcohol from time to time. In two or three weeks the specimen will be found to be sufficiently hardened. It is then taken out of alcohol and placed in turpentine, in which it should remain from two to four weeks, according to the condition of dehydration in which it was previously to being placed in the turpentine. The process can also be hastened a little by using an incubator, but great care is necessary to prevent shrinking. By means of the turpentine the specimen again becomes soft but transparent, and it has acquired a brownish colour varying in tint with the kind of turpentine used. Finally, the specimen is placed in oil varnish, in which it remains for two weeks. It is then taken out and placed uncovered for a week or two, exposed to the usual temperature of a room, until it is dry and no longer oily to the touch. The final colour is a somewhat pleasing brown; the specimen is but little shrunk, and, as has been said, it is very useful for demonstrations and also for study.

DRUNK OR DYING?

WE have taken the trouble to investigate very fully the circumstances which took place at and preceded the inquest, held on the 31st ult., on a patient aged fifty who died in St. Bartholomew's Hospital from apoplexy. Some of our contemporaries have made severe, but we think unwarrantable, comments on the proceedings at the inquest and the medical evidence. The jury returned a verdict that "The deceased died from apoplexy caused by excessive alcohol," and did not append any rider to this verdict or comment on the medical evidence. The first time the man was brought to the hospital, soon after midnight on March 26th, a small superficial scalp wound over the external occipital protuberance was dressed. Mr. Baker, the house surgeon, roused him with the battery. He smelt strongly of drink. The man gave his name and walked away with the constable's help. An hour later he was sent back on a stretcher with a message that the inspector could not rouse him. When Mr. Baker tried to use the stomach pump the man struggled with all his limbs so that the police constables had to hold him. The passing of the tube made him vomit between two and three pints of beer only (i.e., nothing but beer), and during the vomiting he sat up. No evidence presented itself that his drunkenness did not account for the symptoms present, and he was sent away again, this time on the stretcher. This was at 2 A.M. At 8 A.M. he was brought back, and then had right hemiplegia and aphasia. He gradually became more comatose, and died thirty-three hours later. He had no symptoms of apoplexy on the first two occasions when he was at the hospital. He was apparently only drunk then, and it is probable that hæmorrhage began in the interval between his second and third arrival. After admission it was found he had albuminous urine of low specific gravity; also that he had in his pocket a casualty paper of the hospital, showing he had been attending for chronic headache and buzzing in the ears. The explanation of the case appears therefore to be that a man who was drunk was rightly treated for the condition due to alcohol, and was admitted when taken to the hos-

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pital with symptoms giving evidence of the commencement of apoplexy. Mr. Baker has to our knowledge had exceptional experience in the duties of a hospital resident, and his careful examination was supplemented by that of another of the house surgeons when the patient first applied for treatment. No hospital can afford to keep all the drunken men who are brought to it until they have slept off the effects of their debauch on the chance that apoplexy may subsequently occur.

THE INCREASE OF SMALL-POX.

THE occurrence of two or three deaths from small-pox, and the increase of admissions into the Small-pox Hospital, may be but the first droppings of a storm, or they may have no such significance. There are two responsibilities: the responsibility of the authorities to have telegraphic information of cases notified, to isolate the patient, and, if possible, all who have been exposed to the patient's infection; and, finally, to revaccinate all persons in the immediate environment of the patient—friends, nurses, and others. This is the Leicester system, which has been so successful. It is essentially the protection of vaccination, though the authorities are not magnanimous enough to admit it. There is another responsibility—that of the individual for his own protection and that of his family by vaccination and re-vaccination. Small-pox will laugh at all sanitary advantages where they are not backed by this special protection, and no sensible people will trust to mere public provisions which cannot cover the furtive risks of this locomotive age.

POISONING BY HOMATROPINE.

IN the *Medical News* (New York) Dr. Purley relates the particulars of a case in which symptoms of poisoning by atropine developed after the repeated instillation of drops of a 2 per cent. solution of homatropine into the eyes. The patient was a child of seven, who was the subject of hypermetropia. To procure relaxation of accommodation she was ordered to have homatropine solution dropped into her eyes every fifteen minutes for an hour before returning for examination. She came at the appointed time, and while at Dr. Purley's house nothing unusual was observed. The pupils, as was to be expected, were well dilated. On the way home, however, she became restless and excited, the face was flushed, and her mental condition was peculiar. Her ideas, which were very rapidly expressed, became very incoherent and extravagant, and she saw imaginary objects. Her gait became staggering, hallucinations were very marked and accompanied by mild delirium. She was treated by the family doctor, and the following morning was very much better, but it was several days before she had entirely recovered. The case is certainly curious, for Dr. Purley calculates that only about two-fifteenths of a grain could have been instilled, and, considering how small a proportion of this was likely to be absorbed, it was scarcely to be expected that toxic symptoms would have been produced.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Thierfelder has been appointed custodian of the Hygienic Museum.

Breslau.—Dr. R. Stern has been recognised as *privat-docent.*

Buda-Pesth.—Dr. Ernest Schwimmer has been appointed Extraordinary Professor of Dermatology.—Dr. Emil Moravsik has been appointed Extraordinary Professor of Forensic Medicine.

Havana.—The right of granting the doctorate being about to be taken away, four medical professorships with the corresponding assistants' posts will be suppressed. A considerable sum will of course be saved, but in a manner which will seriously interfere with the scientific position of the colony.

Jena.—Dr. Rossbach is about to resign the chair of Medicine and to retire from the direction of the Medical Clinic.

Lyons.—M. Poncet, Professor of Operative Medicine, has been transferred, at his own request, to the chair of Clinical Surgery, in succession to M. Tripier, deceased.

Munich.—Dr. Hans Buchner, *privat-docent* in Bacteriology, has been granted the status of Extraordinary Professor.—Dr. Amann, of the gynæcological clinic, has been recognised as *privat-docent.*

Munster (Academy).—A Professorship of the Chemistry of Foods has been established, to which Dr. Koenig has been appointed.

Paris.—M. Gabriel Pouchet has been appointed Professor of Pharmacology, in succession to M. Regnauld, retired.

Strassburg.—Professor Flückiger, Director of the Pharmaceutical Institute, is about to retire.

WE regret to have to announce the death, on the 3rd inst., of Mr. Charles Hawkins, F.R.C.S., in his eightieth year, at his residence in Duke-street, Portland-place, W. Probably he is best known as having edited the autobiography, lectures, and other literary productions of the late Sir Benjamin Brodie. He was a Fellow, and for some time treasurer, of the Medico-Chirurgical Society, and held the appointment of inspector of Schools of Anatomy in London. He was author of the article, "Lithotrity," in "Holmes's System of Surgery."

A SERIOUS outbreak of scarlet fever appears to have broken out in the neighbourhood of Bexley Heath, Kent. Cases to the number of sixty or seventy had on Saturday last been reported to the medical officer of health, on whose recommendation the churches and chapels in the vicinity were closed on Sunday, and the carrying on of the work of the schools of the locality was ordered to be suspended for the present. A strict inquiry into the origin of the epidemic is called for.

DR. EDWARD DAVIES has been appointed by Mr. B. H. Thelwall, coroner, his deputy for the Eastern or Wrexham division of the county of Denbigh. We understand that it is the intention of Mr. J. C. Davies, L.R.C.P.Lond., of Ruabon, to become a candidate for the coronership (likely soon to become vacant) of East Denbighshire.

THE Otological Congress will be held in Florence in September, 1893, under the presidency of Professor Grazzi. The sitting will be held eight days before the meeting of the International Medical Congress, which will, as already announced, take place in Rome next year.

THE list of names for the Committee on the Registration of Midwives is not yet completed. It will be chosen half by the Committee of Selection and half by the House itself. It is not likely to begin its work till after the Easter holidays.

SIR JOSEPH LISTER, BART., has been elected a member of the Royal Institution.

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ROYAL MEDICAL BENEVOLENT COLLEGE, EPSOM.

Special Verbatim Report of the Twenty-sixth Festival, held April 5th, 1892.

THE biennial festival of the Royal Medical Benevolent College is an occasion which awakens widespread interest in the ranks of the medical profession, and it cannot be disputed that the interest manifested is well deserved; especially is that the case at the present time. Founded about fifty years ago, the school is practically contemporaneous with the Queen's reign, and old enough, therefore, to have seen some revolutionary changes take place in the accepted views of those who form and stamp public opinion in reference to matters educational. Epsom College, however, is now well abreast of the times in the development of its teaching work. Its record of successes and distinctions won at the two great universities may fairly be pronounced a brilliant one, regard being had to the comparatively small number (200) of lads for whom the existing buildings and appliances provide accommodation. But it is not only, not even chiefly, as a school where privileged terms are offered to medical practitioners for the education of their sons that the Epsom institution appeals to the medical profession and the still larger British public. By its constitution it is made not only a place of education for children, but also a place of asylum for a certain number of incapacitated medical men or widows of medical men, who are provided with annuities and lodging in their declining years. To this charity is added a further gift to the children of parents so disabled in the shape of a free education in the case of sons at the Epsom College to the number of fifty foundationers; in the case of daughters to the number of seven foundation scholarships in connexion with the College at the St. Anne's Society. The amount of distress which has thus been alleviated during the present reign is quite incalculable, and if nothing more were now proposed than the rendering more effective the machinery which has accomplished so much already, the managers of the College would be entitled to claim the sympathy and support of all who have at heart the interests which have with such excellent results been entrusted to their care.

But the Council of the College are not left at leisure to mature their labours as they might reasonably desire to do, for it has been found that the work of the two departments—the educational and the asylum,—to which we have already referred, cannot easily or well be carried on exactly upon the existing lines. The success of the school has resulted in an enlarged and growing demand for admission which, with the existing accommodation, the Council are not able to satisfy. It is, moreover, in no way surprising that arrangements devised half a century ago should now be found to be somewhat out of date, and only imperfectly adapted to the requirements of educational work directed by modern views as to its aims and methods. For all these reasons the teaching staff cry out for improved accommodation, and the Council, impressed with the reasonableness of the demand, and charged with the important task of discovering and carrying into effect a way of satisfying it, have fallen back upon a scheme which will, we think, command general approbation. The scheme is a bold one; but boldness in such a case is no defect, for no weak and halting measures could conceivably meet the case. The plan which they have adopted involves the disappearance sooner or later of the pensioners from the College precincts at Epsom, and the provision of such additional allowances as will enable them to provide for themselves elsewhere, in order that the space vacated by them may be added to the existing accommodation of the College, and turned to account for educational purposes. Such a scheme involves, of course, a very considerable outlay of money, and seeing that the institution was at the time when this plan was originated seriously embarrassed by debt, the credit of boldness, no less than of discernment, is due to those who first put it forward. Its success is now, indeed, a matter of time only. The debt which a few years ago overshadowed the institution has been entirely cleared off, and an exceedingly good beginning has been made with the collection of the capital fund necessary to float the scheme. At the last festival when the project was launched the Council had much less reason than at the present

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VOLENT COLLEGE, EPSOM

of the Twenty-sixth Festival,
9th, 1892.

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moment to look forward with confidence to an early realisation of their wishes. By way of stimulating the zeal of the friends of the institution the Editors of THE LANCET undertook to subscribe to this object the sum of £1000 upon condition that the entire balance of £49,000 was subscribed within two years. The interval has now passed, and although the condition has not been literally fulfilled a commencement has been made so full of the promise of an early completion of the subscription list to its required proportions that the promisers of this conditional donation have seen their way to abating the stringency of the condition and have already paid over to the treasurer the promised sum. They feel that having thus evinced their own confidence in the assured and speedy success of the task in which the Council is engaged they are entitled to commend it to the warm sympathy and practical support of readers of THE LANCET. It will be seen on reference to Dr. Holman's speech, published in another column, that the sum of about £26,000 is now required to carry out the endowment scheme for the pensioners.

In thus advocating the cause of the Epsom College Extension scheme they are happy to find themselves in the company of men whose association with the undertaking is both an undeniable voucher of its wisdom and an effective pledge of its success. We refer not only to the distinguished medical men who assisted at the meeting on Tuesday last, but also to the genial presence of the Right Hon. David Evans, the Lord Mayor, who not only presided, but performed his presidential duties in a manner which left no doubt upon the minds of his guests as to the sincerity of his expressions of interest in the work which the gathering had been convened to promote. We acknowledge this courtesy to the medical profession none the less warmly because Epsom College does not limit its advantages to the sons of medical men. It was felt, and justly felt, by the founders of the school that no advantage was to be gained by excluding the general public from its precincts. On the contrary, it always has been the desire and the practice of medical men to cultivate good and close relations with their neighbours not of their own profession, and less perhaps than most other people are they exposed to the temptation of converting their professional association into a form of caste. Only in one sense is Epsom College *exclusively a medical school*—namely this, that the privileged terms which the possession of an endowment enables the Council to offer, in a certain number of cases, are open only to medical men. The sons of parents not coming within the definition are admitted to the School upon the terms of payment of a fee amounting to £70 a year. These, therefore, are received on terms which compare advantageously with other schools affording equal social and educational advantages, and no one who has sons there is likely to complain upon this score. The distinct advantage which a medical man enjoys could not of course be extended to the general public without destroying the medical character of the school. In all other respects the institution is one that serves the public exactly as it serves the profession, and it is no small satisfaction to those who at the present moment are advocating its claims to be able in an appeal which is addressed not only to medical men, but also to the general public, to rest their advocacy upon such very substantial grounds of distinctly public merit as Epsom College justly claims.

The twenty-sixth biennial festival in aid of the funds of the Royal Medical Benevolent College, Epsom, was held on the evening of Tuesday last in the Whitehall Room of the Hôtel Métropole. The Lord Mayor (the Right Hon. David Evans) presided. He was accompanied by Mr. Sheriff Foster. On his right sat Sir Andrew Clark, Bart., Sir A. W. Hemming, K.C.M.G., and Mr. Wakley, F.R.C.S., and on his left Sir Richard Quain, Bart., President of the General Medical Council, and Mr. Thomas Bryant, President of the Royal College of Surgeons. Among those who were prevented from attending may be mentioned Lord Derby and Lord Gifford. The company, however, was a large and representative one, numbering considerably over two hundred and fifty persons. The object of the gathering was to assist the Council of the institution to provide funds in aid not only of aged and disabled medical men, but also of the children of those medical men who, from death or misfortune, have been unable to provide for their families. The pensioners who receive annuities of £21 each, with furnished rooms in the College at Epsom, must be legally qualified medical men who have been registered for five years, or the widows of such. They must not be less than sixty years of age at the time of their application for admission, and their yearly income, independent of any allowance by the College, must not exceed £60. It was with a view of aiding the funds, in the first place, of this charitable institution, and also of assisting in collecting the sum of £26,000 to enable the Council to carry out a scheme for permitting the removal of the pensioners from the precincts of the College, and, by giving them increased allowances in lieu of furnished rooms, to enable them to reside in their own part of the country instead of at Epsom, that the biennial festival dinner was held. After the dinner,

The LORD MAYOR rose and said—I give you the health of Her Most Gracious Majesty the Queen, and may God bless her.

The toast was drunk with enthusiasm, and was followed by the singing of the National Anthem.

The LORD MAYOR then proposed the toast of "The Prince and Princess of Wales and the other members of the Royal Family." He said: We cannot refrain from expressing our deep sympathy with their Royal Highnesses in the terrible sorrow they have been passing through. We sincerely hope and trust that the change abroad will benefit them, and that they may return with their grief lessened somewhat by the change of scene and the change of rest.

This toast was also drunk with enthusiasm.

The LORD MAYOR next proposed the toast of "The Army, Navy, and Reserve Forces," which he coupled with the name of Colonel Meyer, who briefly responded.

The LORD MAYOR, in proposing the toast of "Success to the Royal Medical Benevolent College, Epsom," said: Gentlemen,—In the first instance, permit me, please, to express the great indebtedness and the great honour I feel in being asked to preside over this influential gathering to-night. It is perfectly true that the Lord Mayor for the time being is asked to undertake several important and responsible duties, but even the Lord Mayor hesitates when he is asked to preside over the interests of so valuable an institution as this. I myself hesitated, feeling that possibly I should not be able to do sufficient justice to your cause and to your interests. However, the executive of the Council thought otherwise, and to-night I am in possession of the chair. I have expressed my pleasure of presiding as

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Lord Mayor. There is on this occasion, however, an additional pleasure and interest on my part, for the very simple reason that my residence is within a mile of this college. Scarcely a day goes by that I do not pass it, either riding, or driving, or walking. I am a local man, residing in the locality itself where this institution is placed. And what is it from a local knowledge that I learn and glean with respect to Epsom College? There is nothing so searching as regards an individual as a local knowledge or reference, either for good or for evil. Wherever we are locally placed, and especially in a small village, we soon find out men's virtues and their shortcomings. And what is it that I locally know with respect to Epsom College? That this institution is worthy of its founders, and that to-day it bears the highest reputation in the neighbourhood which surrounds it; and so, I think, it is fitting—at all events, it is not altogether out of place—that as Lord Mayor first of all, and secondly as a local man, living within short distance of the institution, I should preside here to-night. But to me there is an additional interest. It is that the founder, the actual founder of this institution, was a Welshman, and I, needless to say, am a Welshman myself. I come from the county of Glamorgan, and the founder of this institution came from the adjoining county of Cardiganshire. He was but a poor Welsh apothecary. I believe I am speaking in the presence of his son here to-night, but I do not in any way imagine that this reference, even that the term "poor Welsh apothecary," will in any way upset the son's respect for his father. At all events, this Welshman, for a Welshman he was, founded this institution. But for his initiative, we should not have been called here to-night, and all the immense good recorded of this College would have remained unrecorded. For what purpose, then, was it founded? It was founded to provide an asylum and pensions for aged medical men and the widows of medical men in reduced circumstances; and it does not come within the range, unfortunately, of the knowledge of the majority of us that there are practitioners, many of them friends of ours, others known to us, who have become reduced in circumstances, not in the majority of instances through any mistake on their part, but through the sheer force of circumstances. I have myself, when a youth in Wales, watched many hard-working practitioners in the county of Glamorgan; and I have seen many of them—having more especially in my mind one—called out in the middle of the night to saddle his horse, when the rain was pouring down and the wind blowing cold across the mountains, to visit some suffering patients. And attached to that, what? A large fee? No, a very small one, and in all probability an uncollected fee. That is not an overdrawn picture. Though we are speaking now in London, these experiences which I have recounted are not limited to Wales; and there are medical men much nearer, here in the metropolis, of whom very similar tales of devotion might be told. This institution, then, was founded for that object, and in addition that there should be a school open to all classes, but offering special advantages to the sons of medical men, fifty of whom are foundation scholars; and in addition to which, on the pensioners' side, there are fifty pensioners receiving annuities of £21 each. On the question of pensioners there is a slight, and certainly an unfounded, impression abroad that the contemplated scheme for the enlargement of the accommodation at the College would bring with it an amount of injustice to the pensioners. Nothing of the kind is thought of or contemplated. It is not proposed to remove a single pensioner now resident. That would be wrong, unless they consented. But it is proposed that as they die out no more would be admitted. As to compulsion, there is no compulsion, for if the pensioners do not desire to live in the College it is true that they do not get their house accommodation or their clothes. Nothing of any kind could be done by the Council without receiving the approval of Parliament, and that would be a guarantee that it shall be in no sense an unjust arrangement. This College was founded in the year 1851 by the Welshman, John Propert. On the 25th of June, 1855, it was formally opened by H.R.H. the late Prince Consort, who on that occasion was accompanied by the Prince of Wales. What are we asked to do more especially for this institution to-night? No extracts that I can give you from this excellent report can possibly be information to you who are most of you acquainted with the whole surroundings of this College as well as with its ends. But this night is rather an exceptional one, and it brings with it an exceptional appeal. At this dinner we are asked to assist in meeting the annual outlay for the support of fifty pensioners, of fifty foundation scholars, an outlay amounting to between £5000 and £6000 annually. This, needless to say, is a large amount, but appealing as it does to the large hearts of those present, although it may strike one as being somewhat large, no difficulty of any kind will be felt if one and all decide, not only to maintain their annual subscriptions, but to increase them, and to induce others to do the same. Well, now we come to that which I regard as very important—to aid in raising the sum of about £26,000, so that the Council may give the pensioners augmented incomes, and thus dispose of their compulsory residence in Epsom College, and enable them to spend their declining years among their relatives and friends. Well, now, it does strike me that if this could only be accomplished—and it ought not to be impossible—it would be a step in the right direction. You separate, in the first instance, the old from the young. That is a step which will enable that institution to enlarge the sphere of its educational purpose and action, and at the same time bring with it advantages to the pensioners. Is there anything else that I can say? Anything that can be needed at my hands to arouse you to continue and increase your support of this institution? I think not, excepting that the wording of this report with reference to the profession itself, which is so admirably put together that whoever occupied this chair could not possibly do better than read it, for it brings out what should be, and what, I take it, are our feelings and our sympathies for the medical profession, especially to those of them who are in low water and needful of our help and of our assistance. Speaking of the medical man, it says: "He is bound, if he does his duty, and there are few who do not, to hold himself at all times and in all weathers at the disposal of those who may want his help; he attends the poor as well as the rich; he goes to places and houses, unsanitary as well as sanitary; he expends his life in all climates, and at all seasons; with the result that the lives of medical men are shorter than those of men following other professions, and the time within which they can provide for their families is correspondingly shorter." Words beyond what I have uttered are not required from me; I ask you to give, not only your sympathies, but also, to the utmost of your resources, material aid for the furtherance of the object to promote which we have met here to-night. There is nothing to equal the advantage, either in life or in any other movement, of a good start. For the youth we say, "Give the boy a good start." Anything that gives one a start is an impetus of considerable help, and in this movement we have to-night got a very good start, and a start of a practical, substantial, and generous description. You may recollect that the Messrs. Wakley—I take it that the applause is conclusive evidence that the name is not altogether unknown to you—offered the substantial sum of £1000 if the enlargement scheme of £26,000 could be reached. Well, that was somewhat handicapping us largely. The motive was a good one; but when I tell you to-night that the Messrs. Wakley have withdrawn all stipulations with regard to that sum, and that they say: "With a feeling that possibly such a movement on our part may induce others to follow suit, and with the desire that this should be accomplished, and in an unrestricted form, we hand to you and to your list, Mr. President, to-night the sum of £1000." Is not that a good start, and don't you think it will be an inducement to others to follow suit to encourage generous donors, and that before another president occupies this chair the object shall have been accomplished, and that it shall be his privilege to declare that consummation from this chair, and that the sum of £26,000 has been collected; and if that be arrived at, I do venture to say that it will have been largely and instrumentally due to the fact that the Messrs. Wakley so generously gave us this impetus. I have no more to tell you or to say, excepting that it is my earnest anxious desire that this night's proceedings shall be a substantial success. I give you with the greatest possible pleasure, and hope in that success, "Success to the Royal Medical Benevolent College," and to associate with it the name of Dr. Holman, the treasurer. He is a man, in the first instance, well known in the county of Surrey, not very far removed from Epsom College. I am alluding now to Reigate, where, unfortunately for his friends and his

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patients there, he is about to vacate, and to come to that greater village, London, where no doubt he will bring all his skill and knowledge for the benefit of the greater number. Therefore, not by way of God-speeding him, but as a recognition of their love and devotion to him, for his eminent services, professional and otherwise, in the past, I know that the people of Reigate and the neighbourhood will not permit Dr. Holman to depart without a mark of their esteem in the shape of a most substantial testimonial as to his value and his exertion and his many services in connexion with this our cause, and it gives me the greatest possible pleasure to associate his name with this toast.

Dr. HOLMAN, in reply, said:—My Lord Mayor, Sheriffs, and Gentlemen,—It is very difficult indeed to return thanks adequately for so large a toast as has been committed to my charge by my colleagues at the College and its Council. I have been present now on many occasions when the cause of this particular institution has been pleaded, but I have never, since the late leader of the House of Commons, William Henry Smith, pleaded our cause, ever heard it done better than to-night. We have had the silver eloquence of a Paget, the humorous sallies of Lord Granville, but the potent, quiet, unassuming manner in which every point which we wanted presented to you has been put forward to-night has seldom been surpassed, and the Council have to thank his lordship most heartily for it. It is perfectly true that two years ago, in this room, I started before you a new idea, and which I then had no warrant whatever from my colleagues for bringing before you. But I had taken counsel with myself and with several gentlemen who had worked with John Propert, and I felt that the proposition put before you was sound. My colleagues in the Council are now with me unanimously, and let it be thoroughly understood that the Council are only following out the views of the family of John Propert in going forward in the course that is now proposed. I ask you, each of you, if you were ill and old and worn out, which would you rather do—would you rather be taken, say from the south of England and transported to Durham or Northumberland, or somewhere or other, to receive £21 per annum, with three tons of coal and free rooms, or would you have its equivalent, and live amongst your friends? It is not a question that ought to be asked for a single moment. And let it be understood once for all that the interest of every pensioner who ever comes within the purview of Epsom College will be thoroughly cared for. No one shall be injured, and no Parliament would ever think of making an Act of this description retrospective. I have found, as far as I can inform myself, that the sum of about £26,000, with the addition of the funds we can now command, would enable the Council to capitalise such a sum of money as would make the position of the pensioner absolutely secure. If that is the case, and if we have a rising school—and we have a rising school,—which is earning its own way, its own honour, and which is improving every year, thanks to the head master and his staff, they tell me that this £26,000 is a sufficient sum. In 1885, seven short years ago, this institution was £11,000 in debt, had ill repute and a diminishing school, and now I turn round and tell you, as the treasurer of the institution, that the school is full. We have an improving and an enlarged property, and now we want more accommodation for the scholars. It is a new departure, it is a good departure, and one for which, as such, I will pledge myself never to rest until the £26,000 are realised. Now, it seems to me a very good suggestion (which has been made since I have been in the room this evening) that many a man hardly likes to commit himself to the idea of being a subscriber for an unlimited number of years to this College, but they may or may not have any interest in this particular scheme. Let them subscribe, say, for five years for this particular purpose, and pledge themselves to it, and they will soon enable me to carry it through. One of England's greatest surgeons has promised £20 annually for life in support of this scheme. Another medical man, a great provincial surgeon, tells me: "I am very greatly impressed with the scheme you propose. I now hand you a cheque for a small sum, and I will put a codicil to my will in which I will leave you £1000." That tells me that the profession is waking up to the value of the scheme I have proposed to you, and you must recollect that we are going on improving the school in a way which has never before been done. As we advantage the school in general, so we particularly advantage the individual foundation scholars who are sent to us to take care of. You cannot send these foundationers to a large school without benefiting them greatly. I do implore you to help your Council to carry out this great reform, and every sixpence of money that you will give will be properly laid out. My Lord Mayor, I thank you for the able and eloquent way in which you have pleaded for us.

Sir ANDREW CLARK, rising to propose the health of the Lord Mayor, said: Our happy—and shall I say in anticipation, our successful?—dinner to-night has had the honour of the presidency of the City of London in the person of the Lord Mayor—the great City of London: the representative of the industries, the wealth, the commercial enterprise of this great nation; shall I add, also, the leader as well as the representative of all the benevolent and all the religious enterprises which characterise this age above every age in the record of civilisation? Well, it has to add two other things, I fancy, to make it a perfect great City of London. With its excitements, its opportunities, its influence, its wealth, it has now to make itself the leader of the intellectual enterprise of this great nation. It has to take and make advantage of the circumstances of the moment, and to subscribe half a million of money to found a new University of London—a university which, by its teaching of the highest knowledge, its dissemination of the truest culture, its promotion of research, shall make it the greatest university of the greatest city of the greatest race which the world has ever seen. Whether it will be wise enough to take advantage of the opportunity I do not know, but I know this, that the opportunity is here, and that if it is missed it will never be recovered. It wants two things. This is one. But there is still another thing. I have ventured to say that it is the leader of the benevolent enterprises which characterise this age more than any other age of civilisation, and if it is the leader of such benevolent enterprises it should be the complete leader, and should cover every great circumstance that comes within this conception of the highest duty. It should turn round to the medical profession and say to it: "We know that you are members of a great profession; we know that you give more than any other profession to the public weal, and that you get back the least of any in return; we know what your toil, your self-sacrifice, ay, and even your martyrdoms, have done for us; and we know that now, when you are wanting help for this great institution, the Royal Medical Benevolent College, and in acknowledgment, not in repayment—the work of the medical profession can never be repaid—but in acknowledgment of our indebtedness to you, we pay up the sum that remains unsubscribed. Here are your twenty thousand pounds." These are the two things, my Lord Mayor, that are wanted to make the City the greatest City of the greatest nation of the greatest race in all the world. I must pass from the City to-night to the person who represents the City of London, and I am commanded to propose the toast of his health, and I have no doubt how you will cordially respond to it. He is a Welshman. If John Propert, the poor Welsh apothecary, with his large heart and his childlike nature, were here in bodily presence with us to-night, how he would rejoice, how he would infect us with his enthusiasm, how he would take extra pinches of snuff, and how he would tell us to honour the Welshman and "come down with the money." Well, there is one thing more, the Lord Mayor is a neighbour of our College, and I think there can be no higher compliment capable of being paid to us than that the neighbour who knows the ill-gossip as well as the good reports, can preside here to-night, and give us by his presence a testimony that our College is worth the presidency even of the Lord Mayor of London. You do not require me to tell you how he has presided over us to-night. The treasurer has told us, and he said he had never heard the cause of the charity advocated in a clearer, simpler, truer, and more efficient way than has been done to-night. I agree with him. It is a pity that the Lord Mayor was not a teacher in one of the hospitals in London, for his power of direct, concise, lucid, and forcible explanation would do honour to the most accomplished teacher. On looking at him I am a little surprised myself, he looks so young, he is so genial, broad, and catholic in all his ideas and words, that I really find it difficult to believe that he is the Lord Mayor of London. But he *is* the Lord Mayor of London, and in giving you his health I would only say, long may the City of London have such Lord Mayors to preside over its councils, and long

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may we have such chairmen to preside over such meetings and set before us in such felicitous and persuasive terms the claims of this great institution to your support. I give you the health of the Lord Mayor of London, and wish him long life and prosperity, and success in the high office to which he has been called.

The LORD MAYOR, in response, said: Sir Andrew Clark and Gentlemen,—To you, Sir Andrew, I owe a debt of gratitude for the manner—and I must say, as far as I am personally concerned, the too flattering manner—in which you have referred to myself; but no word uttered by you was in too high and too great praise of the ancient Corporation of which I have the honour at this moment to be the head. The Lord Mayor of this City of London is never out of place when he presides at a charity meeting, and the Mansion House of to-day is the Mansion House of the past reputation, having its doors—and they are wide—thrown open in the cause of all charities. It is a proud position to occupy, that of Lord Mayor of the most important and most ancient Corporation in the world, and any man would be proud of it if it were only for the cause of charity. It does bring back to any Lord Mayor occupying the position an amount of great regret as well as satisfaction—satisfaction in the great honour it is, and in the knowledge that it is instrumental for so much good; and regret to find that, all-powerful as it is, it even falls short of the requirements which daily reach the chief magistrate in his capacity as the head of the Corporation. But it is impossible to satisfy all; but nevertheless, and fortunately so, it is able to satisfy many, and as long as the Corporation and the Lord Mayor for the time being, as long as that individual associates himself as representing the Corporation with the cause of charity, so long would it retain the support and the confidence of the citizens at large; and when, in addition to charity, it takes under its cloak the cause of education, though that has not been a neglected cause—indeed, you can scarcely point to any great movement of to-day which is not met with the warm support and cordiality of the Corporation of London. I thank you for the kind manner in which you have introduced the toast, and again express to you, one and all, the great satisfaction I feel in filling the proud position to night of presiding over this gathering.

Mr. LAMB, the Secretary, then announced that the contributions had amounted to £2926.

The LORD MAYOR then said that as John Propert's son was present, he would ask him to address the meeting, and to give them the value and benefit of a few remarks from him.

Mr. PROPERT, on rising, said he felt he was completely out of order in addressing the meeting, but this was quite an exceptional evening. They had to-night, owing no doubt to the persuasive eloquence of the Lord Mayor, beaten the record in the matter of subscriptions. He was willing to admit most freely that it was chiefly owing to the eloquent speech of their President, but he could not forget that there were two gentlemen present who had enabled them that evening to beat the record by their very great kindness in giving them, without handicapping them in the least, a sum of money which he could only characterise as handsome. Messrs. Wakley, by their conduct that night, had earned the gratitude of every member of the medical profession, and he (Mr. Propert) could not allow that meeting to separate without expressing his best thanks to them for their most generous conduct.

The LORD MAYOR then called upon Mr. Wakley.

Mr. WAKLEY, on rising, said: My Lord Mayor and Gentlemen,—We really could not help doing it. We have been during the last two years really very much disappointed. I was informed by my friends, and especially by our valued treasurer, that supposing a considerable sum was promised, dependent upon a certain amount being subscribed within a stipulated period, many persons of business instincts would subscribe to secure the larger sum. From the very first moment that this grand and splendid institution was conceived by the late Mr. Propert, his son will tell you that his father was a frequent visitor to THE LANCET Office, and in that same room which we now occupy, this charitable movement was constantly discussed, and its details considered. And here I must allude to an expression of my right honourable friend the Lord Mayor. He referred to the late John Propert as the "poor Welsh apothecary," as he was always pleased to call himself; but it is well to add to that, what that poor apothecary became in London. A gentleman with the largest possible practice, attending to the health of the greatest men of the day, and one of the most successful and charitable practitioners in London; among all charitable objects he valued none so dearly as this institution, which we are called upon to support this evening. There is no man whose memory should be honoured by the profession more than that of our lamented friend, John Propert. Gentlemen, at this late hour I cannot say much. An editor's place is in his work-room; but I should desire to say for my son and myself that we have always done what we could for this College, and you will forgive me for mentioning that we propose to give—as after the last biennial dinner—to Dr. Holman for distribution, another supplement of 25,000 copies of the report of this most successful meeting. I do hope and trust that the next Chairman, whoever he may be, will be able to tell you—though I may not be alive to hear it—that you have obtained the required £26,000, and that the pensioners are home with their friends, with whom they can live and be happy. Frequently, as I have passed Epsom College, I have taken occasion to enter into conversation with one or two of the pensioners, and those to whom I have spoken were all anxious to return and live among their friends. I have a strong feeling on this subject. We all know that even the lower animals have an irresistible instinct when sick or injured to return home to die. Here Mr. Wakley related a very touching anecdote illustrative of this natural tendency among the lower animals in the time of suffering; and, in conclusion, he said: I ask you, gentlemen, to make on behalf of this endowment scheme for the pensioners every effort on your own part, and to use your influence among your friends to obtain this amount during the next two years.

Sir RICHARD QUAIN, President of the General Medical Council, said Mr. Wakley had spoken of himself and his son. He wished to say a few words about his father. A nobler man never lived than the late Mr. Wakley, nor one who did more good work in the cause of the medical profession. He remembered THE LANCET when it only consisted of half a dozen pages, but now it was a volume, and this was owing to the enlightened conduct of the present Editors. He would like to bear his testimony in favour of the father, and to repeat that, in his opinion, a more excellent man never lived. It would be impossible to exaggerate the importance of the work which he had accomplished on behalf of his professional brethren. The late Mr. Wakley was intimately acquainted with Mr. Propert, and assisted him to a very great extent in carrying out his plan. He (Sir R. Quain) did not see the name of the British Medical Association as in any way promoting this very important object which they had in view. He earnestly hoped and trusted that the magnificent income which they had, accumulating as it was year by year, would be voted, some of it at least, to the furthering of this object.

After the banquet the intervals between the toasts were enlivened by some excellent vocal and instrumental music.

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Roberts, Dr. F.	—	1 1 0
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A. D. H.	—	2 0 0
Stuard, Captain Wm. D. ..	—	10 10 0
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Emson, Alfred, Esq. ..	1 1 0	—
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Mackinnon, Sir W. A., K.C.B.	2 2 0	—
Colvin-Smith, Surgeon-General, C.B.	1 1 0	—
Eames, Mrs.	1 1 0	—
Burtt, Mrs.	1 1 0	—
Spicer, N. W., Esq. ..	1 1 0	—
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Roberts, A. C., Esq. ..	1 1 0	—
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THE VENICE CONFERENCE ON THE SANITARY CONTROL OF THE SUEZ CANAL.

OFFICIAL PRIVATE REPORT OF THE FRENCH DELEGATES.

IN spite of a certain reticence on the part of the authorities, to which we have already alluded, we have been enabled to peruse the proof sheets of an official report, prepared for the private information of the French Government, on the debate held by the representatives of the fourteen nationalities who recently met at Venice. More than this, we have secured a copy of the protocol they drew up, embodying the French propositions, and which has been signed by the delegates of twelve out of the fourteen nationalities represented. This protocol we have translated as literally as possible. It constitutes the actual text of the new sanitary law which the immense majority of the European Powers desire to see applied to the ships passing through the Suez Canal. This is a matter of such vast importance, both from a commercial and a sanitary point of view, that it is most necessary to possess the actual text of the proposed rules. Therefore we have translated every word of the protocol, but we must be content with summarising the accompanying report.

In laying the matter before the French Government, the French delegates to the Venice Conference annex the protocol drawn up and signed by the Governments of Great Britain and of Austro-Hungary, which formed the basis of discussion. This protocol related to the modifications of the Sanitary Maritime Council of Egypt, to the medical qualifications of its members and their salaries, to the revision of sanitary rules affecting the Suez Canal, pilgrims, &c., to the passing of ships in quarantine through the canal, to increase of financial resources for sanitary purposes, to the creation of a corps of sanitary guards, &c. The most important point at issue was the passing of infected ships through the canal. The Anglo-Austrian protocol proposed that English ships going to a port in Great Britain should be allowed, even when infected, to pass through the canal in quarantine. Against these proposals, which we have very briefly summarised, Dr. Proust, in the name of the French delegation, delivered a set speech of which we have the text before us. He pointed out that at the Sanitary Conferences held at Paris in 1851 and 1852, at Constantinople in 1866, at Vienna in 1874, and at Rome in 1885, the only question discussed was the protection of Europe against the importation of cholera. The Venice Conference, on the contrary, seemed more concerned to secure the free passage of ships whether they were infected or not. Thus commercial rather than sanitary interests seemed to predominate. The Suez Canal, he urged, was very narrow, and at some points it would be difficult to prevent communications with the shore. Then a certain number of extra firemen are taken at Port Said and Ismalia by ships going to the extreme East. On the return journey these firemen disembark at one or the other of these Egyptian ports. This is very difficult to prevent. It was precisely in this manner that the firemen who landed from the ss. *Timour* introduced the cholera into Egypt in 1884. At least, this was the opinion expressed by the German delegation which was sent under the direction of Dr. Koch to study this epidemic. It was also the opinion of Dr. Mabé, the sanitary authority sent by the Sultan to make a similar investigation. Nor can the right to pass in quarantine be granted to one single Power: the mail ships of that Power would have an unfair advantage when competing against other lines of steamers. But for the other Powers, the distance between their ports and Port Said is much shorter than from the English ports. The danger is therefore greater; also fraud is always possible. Thus, in 1890, a steamship obtained permission to pass through the canal in quarantine, as the captain declared he was going direct to an English port. He, however, stopped on the way, and cast anchor in the harbour of Pauillac One such incident, one case out of a thousand, would suffice to provoke an epidemic in Europe that might last several years, might cause a disastrous mortality, and would bring about the imposition of incoherent and excessive quarantines in Mediterranean, American, and other ports, thus causing far more trouble to the interests of navigation and commerce than the precautions the French delegation proposed. Dr. Proust then described what, in the main, is set forth in the protocol which the Conference ultimately adopted, and which we append to this report. These precautions Dr. Proust defines as, in one word, "affording the greatest possible facilities when a ship has a clean bill of health, or as imposing effective but not vexatious measures against all vessels that are infected or likely to be infected." The most striking argument brought forward is that in which Dr. Proust demonstrates, by quoting statistics, how little these measures would interfere with the traffic in the canal. Thus in 1886 the number of ships passing through the canal amounted to 3100; in 1887 it was 3137; in 1888, 3440; in 1889, 3425; and in 1890, 3389. Of these ships the number which would have come under the category of infected ships, or of "suspects," were, from 1885 to 1891, only two vessels. These two ships passed through the canal in 1886. They were the *Euphrates* and the *Gulf of Mexico*. The one came from Bombay the other from Calcutta. Cases of cholera had occurred on board within six days of their arrival at Suez. One ship had six cases, the other had five. The number of ships that might be qualified as "suspects," and which passed through the canal, was as follows:—13 in 1885, 6 in 1886, 4 in 1887, 8 in 1888, 9 in 1889. Only one in 1890, and 7 in 1891. Thus in the course of seven years there were only fifty ships which would have been stopped at the Wells of Moses for the time necessary to ensure their disinfection. But of these fifty ships there were thirty which passed through the canal in quarantine, so that there remain only twenty which would have been detained for disinfection. We have therefore a total of twenty suspicious ships and two infected ships in the course of seven years. What would be the material effect on the commerce of the world produced by the detention of twenty-two ships out of a total of more than 20,000 ships in the course of seven years? How much greater is the inconvenience and loss likely to be incurred if Europe were exposed to the danger of infection brought to its shores by these twenty-two ships. Dr. Proust added that if better precautions were taken before leaving Eastern ports the number of ships likely to be detained, though already so small, might be still further reduced. For this purpose it would only be necessary to disinfect all dirty linen before taking it on board, or else to disinfect the same during the journey. Dr. Proust warned the Conference of the reaction which would ensue if, through the neglect of prudential measures, cholera once more visited Europe. Quarantine might then be reimposed with more vigour and with results more disastrous than in times gone by.

The speech delivered by Dr. Brouardel, Dean of the Paris Faculty of Medicine, has also been printed for the consideration of the French Government. He insisted that the Anglo-Austrian Protocol did not provide sufficient guarantees against the danger of infection. Science had made great progress since the last Conference. We were now acquainted with the bacilli of cholera. We know that they reside in the dejections of the patient, or in the soiled linen. We know also that the bacillus has a prolonged vitality, that for months it retains its virulence; that at New York, after the lapse of a year, it provoked a new epidemic. He maintained that there were bacilli on board the ships, and simply demanded that they should be destroyed on their arrival at Suez. Our position, he said, was much more favourable than when the previous Sanitary Conference met at Rome in 1885. At that epoch, Dr. Koch had but recently discovered the bacillus of cholera. The matter was still uncertain, but now so many investigations have confirmed the discovery that it is no longer open to question. In 1885 disinfecting stoves were quite a novelty, and their efficacy was still open to doubt. Now they had been in use for several years. Thus the morbid germs and the means of destroying them were known. Why, then, should we not destroy them? Dr. Brouardel proceeded to praise the sanitary measures adopted by the English port authorities, and wished to see similar measures applied at Suez. They might not prove infallible, but, though convicts occasionally escaped from prison, that was no argument in favour of abolishing imprisonment. The precautions proposed for the Suez Canal had already been applied on the Spanish frontier. Each train was stopped and disinfected. There were every day from 300 to 400 passengers and a certain amount of linen to disinfect. The trains were not detained for more than half an hour. The total time required for disinfection at Suez would not exceed seven hours for 300 persons. Then, to avoid even this slight delay, ships might carry their own disinfecting

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stoves, and in the course of time what occurred on the Spanish frontier towards the close of the cholera epidemic would also happen at Suez—namely, the passengers would be careful on arriving not to have any dirty linen. As for the contaminated ships—and there were only two in the course of five years—a delay of five days was demanded. It is necessary to clean the ships, the soiled cabins, &c., and the passengers may still be in the period of incubation. This period does not seem to exceed three days, and thus, after the third day, the ship might be allowed to pass through the canal in quarantine if there is a disinfecting stove and a doctor on board. Dr. Brouardel, having explained that the expense of such measures would be small, insisted, on the other hand, on the immense losses resulting from cholera epidemics. In 1884-85 Spain lost 180,000 inhabitants through cholera. Intense misery ensued. At Marseilles the loss in money from the epidemic was estimated at 300,000,000 fr., and a certain number of British subjects shared in this loss, thus proving the solidarity of the interests of commerce and of public health. Referring to the suggestion of an English delegate that each nation should do as it chose, he objected that continental countries were not, as England, separated from each other by the sea. Their intercourse was so intimate that they suffered the one for the defects of the other. Then, if infected vessels were allowed to pass through the canal because they were going to England, what would happen in case of shipwreck on the coasts of the Mediterranean. Were we to refuse help when such ships were in distress? In 1873 a French captain made a false declaration on arriving at Havre. He was given free pratique, and an outbreak of cholera ensued. In 1866 a similar case occurred at Constantinople, and cholera again ensued. During the same year the *Sydney*, under analogous circumstances, imported cholera to Suez. Therefore the declaration of a ship's captain does not suffice.

In the discussion which ensued, Dr. Proust reminded the Conference that the English delegates in 1885 wanted the Suez Canal to be treated as if it were an open sea. But this suggestion was almost unanimously disapproved. It found favour only with the representatives of England and of British India, and was rejected by eighteen votes against two. Answering the criticisms made by the Hon. J. W. Lowther, Dr. Proust did not object to being called a scientific theorist. He was convinced that no prophylactic measure could be good if it did not rest on a scientific basis. He could not guarantee that the measures proposed would be infallible, but they would certainly reduce the danger of importing cholera to a minimum. Nor did he think that there would be any great difficulty in isolating passengers at the Wells of Moses. They proposed to build a hospital and infirmary and a disinfecting establishment, and the whole should be surrounded by a wall, to render surveillance more easy. Mr. Lowther had remarked that the presence of a doctor and a stove on board did not prevent an invasion. But Dr. Proust replied that they facilitated the isolation of the sick and the disinfection of soiled objects. Mr. Lowther had said that the surveillance exercised at Suez had not prevented the epidemic at Damas. But this had no connexion with the Suez Canal, for the cholera came from the Persian Gulf. The French delegation in view of this fact, were desirous of introducing, at a later period, a resolution in favour of establishing serious measures of control on the Persian Gulf. Suez is undoubtedly the most important door through which the cholera may reach Europe; but this is not the only door we should watch. In 1823, 1830, and 1846 the cholera penetrated Europe by the land route. Cholera follows human currents. The land route was then the most frequented. It will be necessary later on to watch the Persian Gulf. There it was that horse-dealers, coming from India, spread cholera through Mesopotamia. Mr. Lowther had said that though England was not seeking to acquire any privileges she was anxious to shield Egypt from the risk of infection; but Dr. Proust, to prevent this risk, did not propose to establish a sanitary station at Suez, and the Wells of Moses had been chosen instead, expressly for the purpose of avoiding the risk to which Mr. Lowther alluded. Ataka might have been selected in preference, but this place is on the African coast—touches Egypt,—whilst the Wells of Moses are separated from Egypt by the canal. The risk of infection is further reduced by the fact that this station would serve only for ordinary ships, while the pilgrim ships would be stopped much further away, at the lazaretto of Gebel Tor.

Such were some of the principal arguments adduced by the French delegates at the Venice Conference. Their pleading proved successful; for the protocol ultimately adopted embodied most of their proposals. The following is the translation we have made from the French text of this international treaty:—

TEXT OF THE PROTOCOL SIGNED BY THE REPRESENTATIVES OF ALL THE POWERS EXCEPTING ENGLAND AND TURKEY.

The principle of the passage in quarantine of ships through the Suez Canal, formulated by the Anglo-Austrian protocol, is accepted on condition that the following measures, destined to protect the public health of Egypt and of Europe, shall be applied. For this purpose ships are to be divided into three classes:—1. Ships with a clean bill of health. 2. Suspected ships. 3. Infected ships.

1. *Ships with a clean bill of health.*—Ships which after medical inspection are declared free from contamination shall have immediate free pratique whatever may be their character. They shall not be submitted to the twenty-four hours' observation actually prescribed against ships of a certain category (*patente brute*).

2. *Suspected ships* shall be qualified as such:—Ships having a case of cholera at the moment of their departure or during the journey, but no fresh case of cholera during the previous seven days. Such ships shall be treated in a different manner according to whether they have or have not on board a doctor and a disinfecting apparatus (stove). (*a*) Ships having on board a doctor and an apparatus for disinfection (stove), fulfilling the required conditions, shall be allowed to pass through the Suez Canal in quarantine under regulations to be indicated further on. (*b*) Other suspected ships not having on board either a doctor or a disinfecting apparatus (stove) shall, before being allowed to pass in quarantine, be detained at the Wells of Moses during the time required to disinfect the dirty linen, body linen, and other susceptible objects, and to ensure the sanitary condition of the vessel. If it is a mail steamer or a steamer especially employed for conveying passengers, which has no disinfecting apparatus (stove) but has a medical man on board, and if the local authority has the assurance, resulting from an official examination, that measures of sanitation and disinfection have been properly applied either at the point of departure or during the journey, passage in quarantine through the canal shall be allowed. If it is a mail steamer or a steamer specially employed for the passenger service, not possessing any disinfecting apparatus but having a doctor on board, if the last case of cholera occurred more than fourteen days previously, and if the sanitary condition of the vessel is satisfactory, free pratique may be given at Suez when the disinfecting operations are terminated. For ships that have effected the passage in less than fourteen days, passengers going to Egypt shall be disembarked at the Wells of Moses and isolated during twenty-four hours, and their dirty linen and other articles in use shall be disinfected. They shall then receive free pratique. Rules shall determine under what conditions the dirty linen shall not all be disinfected.[1]

3. *Infected ships*—that is to say, ships having cholera on board and new cases having occurred within the previous seven days. Such ships shall be divided as ships with a doctor and a disinfecting apparatus (stove) and ships without a doctor and disinfecting apparatus (stove). (*a*) Ships without a doctor and without a disinfecting apparatus (stove) shall be stopped at the Wells of Moses; the patients shall be disembarked and isolated in a hospital. Disinfection shall be carried out in the most complete manner. The other passengers shall be disembarked and isolated in groups composed of as few persons as possible, so that all the passengers shall not suffer if the cholera develops itself in one particular group. The dirty linen, all articles in use, the clothes of the crew and the passengers, shall be disinfected, as also the ship itself. It is well understood that there is no question of discharging the cargo; the disinfection is only applied to the part of the ship that has been infected. The passengers shall remain five days at the establishment at the Wells of Moses. When the cases of cholera occurred several days previously, the duration of this period of isolation may be reduced.

[1] When cholera shall attack only the crew of the ship, the linen of the crew only shall be disinfected, but all the linen of the crew must be disinfected, and all the linen belonging to that part of the ship inhabited by the crew.

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This duration will vary according to the date of the last case of cholera. (*b*) The passage in quarantine may even be granted before the end of the five days by the sanitary authority after the disinfection has been carried out, if the ship has a doctor and disinfecting apparatus (stove) on board which fulfils the required conditions. In respect to mail ships, in cases where the disease has only invaded a limited portion of the ship, the local authority shall judge as to the necessity of landing the passengers, and of the number of persons, according to the places they occupied on board, who should land. The local authority shall also decide what portions of the ship must be disinfected. An exception is to be made in cases of transports conveying a large quantity of troops submitted to military discipline. If the ship has a doctor and a disinfecting apparatus (stove) on board, the sanitary authority may order that only the persons lodging in the compartment where the case of illness has occurred shall be forced to land. While they are disembarking, this compartment, or the section of the hospital to which the patients had been transported, together with all the objects used by the persons who were in personal contact with the patients, shall be completely disinfected. The sanitary authority on board shall declare upon oath which are the suspected or the infected compartments of the ship. The dirty linen belonging to the remainder of the troops shall be disinfected on board. Further, a stove, placed on a hulk, may come alongside the ship so as to help in more rapidly carrying out the disinfecting operations.

RULES CONCERNING THE PASSAGE IN QUARANTINE.

1. The sanitary authority at Suez shall grant the permission to pass in quarantine. The Council shall be immediately informed. In doubtful cases the Council shall decide. 2. A telegram shall at once be sent to the authority appointed by each Power. The ship in question shall bear the cost of the despatch. Each Power will decree penalties against the ships which abandon the course indicated by their captains, and unduly enter the ports belonging to the territory of such Powers. Exception is made in cases of accidents of a compulsory character (*force majeur et de relâche forcée*). 3. When boarded, the captain shall be held under the obligation of declaring whether he has on board indigenous native firemen (Lascars and others) or any other sort of paid servant not inscribed on the log book. 4 An officer and two sanitary guards shall go on board. They must accompany the ship to Port Said. Their mission will be to prevent any communications, and to watch and see that the measures prescribed during the journey through the canal are duly executed. 5. The taking on board or the landing of passengers or of goods during the passage through the canal from Suez to Port Said inclusively is forbidden. 6. Ships going through in quarantine must effect the transit without stopping or stationing on the way. In case of running aground or of other unavoidable accidental stopping the operations necessary must be performed by the persons on board, and all communication with the staff of the Suez Canal Company at Suez must be avoided. 7. The stationing of ships passing in quarantine is forbidden at Port Said. The provisioning of ships must be carried out with the resources on board. Stevedores or other persons who shall have gone on board shall be isolated on the quarantine pontoon; their clothes shall be disinfected according to the rules. 8. When it is indispensable for ships passing in quarantine to take coal on board at Port Said, they must carry out this operation outside the port between the jetties. 9. The pilots, the electricians, the agents of the Company, and the sanitary guards shall be disembarked at Port Said, outside the port, between the jetties, and thence conducted to the quarantine pontoon, where their clothes shall be completely disinfected.

Appended to the protocol adopted by the Venice Conference is a series of regulations, describing the preventive measures that should be taken on board ship at the Dr. Ruysch; Turkey, Dr. Arif Bey, Colonel Bonkowski Bey, and Dr. Haïreddin Bey; Italy, Dr. Pagliani and Dr. Torella.

The instructions drawn up by this committee are headed with the following note:—"The germ of cholera is contained in the digestive organs of the patients, its transmission is effected more especially by the dejections and the matter vomited, and consequently by linen, clothes, and hands that have been soiled."

We now translate the directions given by the International Committee:—

I. *Measures to be taken at the point of departure.*—1. The ship's captain must watch and see that no person suffering from a suspicious choleriform complaint shall come on board. He must refuse to allow on board linen, rags, bedding, and, in general, all articles that appear dirty or likely to be contaminated. Bedding, clothes, rags, &c., having belonged to persons suffering from cholera or from a suspicious malady, must not be brought on board. 2. It is highly desirable that when emigrants or troops are to be transported they should be gathered together in groups and watched for five or six days before they are allowed to go on board, so as to ascertain if any among them are contaminated by cholera. 3. Before going on board, the ship must be thoroughly cleansed and, if necessary, thoroughly disinfected. 4. It is indispensable that the water-supply put on board should be taken from a source absolutely exempt from the danger of contamination. There is no danger if the water has been boiled or distilled.

II. *Measures to be taken during the journey.*—1. It is desirable that in each ship there should be a special place reserved for the isolation of persons suffering from a contagious disease. 2. If this does not exist, the cabin or other place occupied by the person attacked by cholera must be isolated. The persons entrusted with the duty of nursing the patient shall alone be allowed to enter, and they in their turn must be removed from the risk of all contact with other persons. Bedding, linen, clothes, and other objects which have been in contact with the patient and in the cabin occupied by the patient must be plunged into a disinfecting solution. The clothes of the person who nursed the patient must be treated in the same manner if they are soiled. Those objects which have no particular value shall be burnt or thrown overboard if the ship is in the open sea and not in the canal or in a port. The more valuable articles shall be conveyed to the disinfecting stove in air-tight sacks dipped in a mercurial solution. If no disinfecting stove exists on board these articles must remain for two hours immersed in a disinfecting solution. 3. The dejections of the patients (vomit and fæcal matter) shall be received in a vase in which a disinfecting solution, which will be described further on, has been previously placed. These dejections must be immediately thrown into the closets, and the closets must be rigorously disinfected each time that the dejections of cholera patients have been thrown into them. 4. The place occupied by the patient must be rigorously disinfected according to the rules indicated further on. 5. The corpses, previously enveloped in a shroud impregnated with a mercurial solution, shall be thrown into the sea. 6. All the prophylactic operations carried out during the journey shall be inscribed in the log-book, to be shown to the medical authorities on arriving at Suez. 7. These rules are applicable to all who have been in personal contact with the patients.

III. *Measures to be taken on the arrival of a ship at Suez.*—1. All ships must be submitted to medical inspection before entering the canal at Suez. 2. This inspection shall be carried out by the sanitary authority of Suez. 3. If the ship is infected, the persons suffering from cholera or who are thought likely to be contaminated shall be disembarked and isolated in a *locale* specially constructed for this purpose near Suez. Shall be considered as likely to be contaminated: All persons having symptoms of cholera, notably diarrhœa. 4. All contaminated or suspicious objects shall be disinfected before the ship enters the Suez Canal. Shall be

objects: Clothes, bedding, mat-
her articles which have been in
, as also the clothes of those who
the objects contained in the cabin
, in the cabins next to the patient's
ntiguous.

isinfection.—1. The rags, clothes,
of little value shall be destroyed

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by fire. 2. Linen, bedding, clothes, mattresses, carpets, papers of value, &c., contaminated or likely to be contaminated, shall be disinfected in stoves by steam under pressure. Only those stoves which have been tested with the aid of a maximum thermometer shall be considered as efficacious disinfecting apparatus. This thermometer must prove that, within the centre of a mattress, 105° to 110° C. have been attained. This degree of heat is slightly in excess of that necessary to kill the known pathogenic micro-organisms. To ensure that the operation is efficacious, the temperature must be maintained at this elevation consecutively for from ten to fifteen minutes. 3. Disinfecting solutions:—(*a*) Sublimated solution of 1 per 1000, with 5 grammes of hydrochloric acid added. This solution should be coloured with fuchsine or eosin. It must not be kept in metallic receptacles. (*b*) A 5 per cent. solution of pure carbolic acid crystals. (*c*) Freshly prepared lime: To secure a very active solution, lime of good quality should be selected and mixed gradually with half its weight of water. When the mixture is effected the powder should be put in a carefully closed vessel and kept in a dry place. 4. Special advice with regard to the employment of disinfecting solutions: All linen and clothes soiled by dejections from the patients must be immersed in a sublimated solution. Such objects as may be deteriorated by exposure to the high temperature of the disinfecting stove—objects such as leather, tables, parquetry, flooring, &c. shall be washed with a sublimated solution. The persons who are attending the cholera patients must wash their hands and faces with a sublimated solution of 1 per 2000. Carbolic acid can be employed to disinfect such objects as are injured by a temperature of more than 100° C, or by contact with the mercurial solution, such as metals, instruments, &c. The lime is specially recommended for the disinfection of the dejections of patients, their vomit, and their alvine evacuations. In its absence, carbolic acid can be employed. 5. The cabins or other parts of the ship occupied by cholera patients or persons suffering from suspicious symptoms shall be emptied and the objects they contain submitted to the above treatment. The walls shall be disinfected with the sublimated solution, containing an addition of 10 per cent. of alcohol. The floor shall be washed with the same solution. Two hours later the whole of these surfaces shall be washed with a large quantity of plain water. 6. To disinfect the hold of a ship, and to neutralise the sulphuretted hydrogen, a sufficient quantity of sulphate of iron should be injected into the bilge water. Afterwards it is to be washed out with sea water; then a certain quantity of sublimated solution may be injected. The bilge water must not be emptied into a port.

THE REFORM OF ATHLETICS.

THIS is a subject of present interest, particularly on the Continent, where the systematic training of the bodily powers forms a far more prominent part of education than among ourselves. In France, in Germany, in Sweden, and in Italy something like an international discussion has for some time been devoted to it—the contribution of the last-named country being especially valuable from the scientific ability of its representative, Professor Angelo Mosso, of Turin. That eminent physiologist, whose doctrine as to the pathology of fatigue is familiar to readers of THE LANCET, attacks the gymnastic system traditional in Italian schools, and in a recent paper in the *Nuova Antologia* insists, as a first step in his argument, on the capital distinction between "robustezza" (robustness) and "forza" (strength). The former, he maintains, is often developed out of proportion to the bodily health, as, in order to ensure an abnormal power of muscle, the other organs are, *pro tanto*, impoverished.

As a consequence modern gymnastics (and not in Italy alone) are open, in physiological eyes, to grave objection. Repeated exercise, he admits, augments muscular force—the muscular tissue itself becoming thickened and the organism habituating itself to the products ("poisonous" as these are) of muscular waste. But, as is well known, during intense strain or extraordinary effort the blood no longer circulates healthily, the respiration is altered, the pulsations of the heart are irregular. The artificially widened thorax, on which the athletic enthusiast so prides himself, is, according to Professor Mosso, of a highly relative value, for even without such widening we always respire a sufficient quantity of air, and even habitually, as he further maintains (in a special monograph) "we respire more air than is necessary." The gymnastics of the schools have this defect, that they "localise fatigue in some groups of muscles," whereas really healthy exercises should induce a fatigue of the whole body—a symmetrical fatigue—and that gradually. Recent experiments on the results of fatigue of the muscle have shown that that tissue suffers more (pathologically considered) from a maximum than from an ordinary contraction; and, besides, that to the weary muscle a given effort is more hurtful than to the muscle which has rested.

Professor Mosso gives an instructive sketch of the phases through which gymnastics, from the beginning of the nineteenth century to its close, have passed in the schools of Italy. Received at first with enthusiasm, this new adjunct to education became very soon stationary "on account of its military character." Between the two chief gymnastic systems, the Swedish and the German, there was a struggle for popular favour, the former being the more "intense," the latter more gradual, and basing itself on physiological science as then known. Even by the Swedish method, according to Professor Mosso, "the development of the muscles and the 'allenamento' (power of keeping in the breath) are obtained less rapidly than on the traditional Italian system, but its results are more hygienic and more assured." It is, he reminds us incidentally, from the Swedish gymnastics that the so-called "ginnastica chirurgica" and massage took their rise.

Several commissions have, in Italy, undertaken to revise the contending gymnastic systems, and to make salutary innovations accordingly. But Professor Mosso has little confidence in the finality of these. He rather points to France, where, as a means of fortifying future generations, an effort is being made to give gymnastics a soundly scientific direction,—an effort in which the physiologist and the education authorities are coöperating loyally. The first step taken by these reformers was to assimilate from abroad whatever seemed useful and practical, and next to compile a manual of gymnastic exercises, commendable, according to Professor Mosso, for its clear intelligible character and for the cheapness which makes it accessible to all. France, he tells us, has a military school of gymnastics where instructors are prepared for other schools; and he sounds a warning note to Italy, where no corresponding institution exists, to take a leaf out of the French book betimes, while within measurable distance of war, with its rapid mobilisation, and with the energetic movements characteristic of modern strategy. "It is but too true that in Italy politics are all-absorbing, and her legislators think the problem of physical education beneath them." The meagre endowment of her physiological laboratories is fatal to the furtherance of such education—a fact all the more to be lamented when Italy teems with men able to give her a pre-eminence in gymnastics as notable as she has long held in other departments—that of fencing and sword exercise, for example.

At present athletic or gymnastic discipline is not in favour with Italian youth, those schools in which it is practised always numbering many truants from its classes; while the "theory" of such discipline gets more and more involved in unpractical pedantries, irksome to the youth, and embarrassing to the instructor, and erroneous ideas as to the efficacy of certain "intense" forms of exercise come in as a further complication. There is, moreover, the traditional prejudice that during muscular exercise the brain is at rest—a position, according to Professor Mosso, "absolutely false." When the distinguished Hellenist, Professor Sellar made his first appearance on the golfing green at St. Andrews, the mature "caddie" who accompanied him remarked, "Ye may be guid eneugh, Professor, at teaching laddies Greek; but gouf needs a heid." Professor Mosso is clearly of the "caddie's" opinion.

A frequent defect in modern gymnastic institutions—and not Italian only—is the *locale* in which the exercises take place. This, often confined and sparingly ventilated, more than neutralises whatever good may survive the frequent faultiness of the methods pursued. From this consideration Professor Mosso proceeds to that of the necessity of gymnastic as a means of combating the insanitary influences, always on the increase, of life in industrial and rapidly over-populated cities. Physical education, he concludes, to

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be complete, must take in not only the muscular development, but that of other organs. True and healthful gymnastics must be diversified. He appeals to the municipalities of his country to aid in this salutary innovation by giving suitable *locales* for such exercises. But in order that physical education should start fair and advance beneficially, the Government should acquire a just notion of the physiological conditions of the youth frequenting school, so as to modify the hours of attendance, and appoint masters capable of teaching the true "recreative gymnastic," abandoning at once all traditional pedantries, fraught as these are neither with permanent robustness nor general vigour. "E un apostolato," says Signor Mancini, echoing Professor Mosso, "ed una missione degna di ogni uomo di cuore;" and we hope this "crusade," this "mission" of healthily rehabilitating the youth of Italy—aye, and of other countries—may soon find its proper instrument in an enlightened and practical system of "reform in athletics."

SOCIETY FOR THE STUDY OF INEBRIETY.

IN the large room of the Medical Society of London, on Tuesday last, this Society held its eighth annual meeting. The president, Dr. Norman Kerr, after a service of non-intoxicating refreshments, gave some particulars of an appeal he had made to the various temperance and allied societies on behalf of compulsory legislation for the habitual drunkard. Hitherto the temperance and general philanthropic bodies had opposed all such legislation, but the reception of this appeal revealed a marked change. Such great temperance bodies as the Church of England Temperance Society had thoroughly adopted the compulsory platform, recognising a large number of inebriates not as willing offenders but as impelled by a physically diseased condition. This influential Association had formally endorsed the platform of the Inebriety Society, and had taken active steps in agitating a change in the law. Other societies which did not make any official pronouncement on legislation had also approved the proposed actions. The secretary of the Band of Hope Union had said to him (Dr. Kerr) that the disease aspect of inebriety and compulsory legislation dealing with it were now fully accepted. The various female associations had been specially emphatic and unanimous in approval of the Society's legislature proposals. A number of large towns had also resolved to petition Parliament on the subject. Dr. Usher, F.R.G.S., of Melbourne, read a paper on "Some New Methods of Healing Alcoholism, with a theory based upon microscopical and other investigations as to the pathological conditions of the blood, and suggestions as to treatment."

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF INSPECTORS OF THE MEDICAL DEPARTMENT OF THE LOCAL GOVERNMENT BOARD.

On Diphtheria in St. George's, Hanover-square, by Mr. SWEETING.—The occurrence of diphtheria at Bourdon-buildings in the above-named parish was made the subject of inquiry by Mr. Sweeting on behalf of the Local Government Board. The buildings in question belong to a company, and they consist of twenty-four lettings. There was no special overcrowding, and, speaking generally, no particular sanitary defects were noticeable. But, commencing on Oct. 20th, diphtheria had prevailed there during the autumn months, and there had also been cases described under such terms as "tonsillitis." Indeed, out of twenty-three cases, eight were of such a character as to have remained unnotified. All the conditions under which diphtheria and allied sore-throat are known to prevail were investigated; but it was not easy to determine any particular cause as influencing the spread of the disease except school attendance; and it soon appeared that nearly the whole prevalence was related to attendance at one particular school. In the end Mr. Sweeting arrived at the conclusion that the recognised diphtheria had been preceded by occurrences of minor sore-throat ailment; that the disease had no relation to sanitary circumstances, to special milk services, or to disease in the lower animal; that there was a disproportionate incidence of the disease on school attendants, with an excessive incidence on attendants at one special school, and evidence as to the absence of children from this school from time to time owing to affections of the throat, together with proof of return to school in various stages of recovery. In this latter way personal infection through school attendance operated to maintain the prevalence. Precautions were taken to deal with the disease; but it is suggested that longer exclusions from school of affected persons might have helped to extinguish the disease at a much earlier date. Such exclusion, to be successful, must in every case be the result of action by the sanitary authority itself, and it is only likely to be efficient if it is based on the recommendation of the local health officer, who, in turn, must be kept apprised of every fresh occurrence of disease by means of immediate notification.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Ashton-in-Makerfield Urban District.—The death-rate for this district reached 22·7 per 1000 last year, and we can hardly regard the zymotic rate of 2·3 as a small one, especially when it is remembered that for so small a population it has averaged 2·8 during the previous ten years. The infantile death-rate is distinctly excessive, and it is unsatisfactory to read that nuisances which have been associated with enteric fever remain undealt with. The midden-privy system is badly managed and is a cause of nuisance; but at the same time Mr. Nathan Hannah says that good work is carried on, that the sewers have been carefully attended to, and that the hospital has been improved. What is evidently wanted is a detailed record of the sanitary circumstances of every house in the district, but the only thing the authority have done by way of setting a systematic inspection on foot has been to talk about it for "two or three years."

Poole Urban and Port Districts.—The zymotic rate for this district was low in 1891, and the general death-rate was 14·2 per 1000. After discussing certain occurrences of disease, Dr. Lawton speaks of the scavenging and flushing as being well carried out, of a good water-service, of regular inspection of the district, and of prospective improvements as to sewerage. The number of infectious cases coming under notice is not given, but the infectious hospital was not used. In the port 145 inspections of vessels were made, Dr. Lawton undertaking those in which medical points seemed to arise, and as the result improvements in shipping were ordered and effected.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6131 births and 4346 deaths were registered during the week ending April 2nd. The annual rate of mortality in these towns, which had been 24·8 and 22·3 per 1000 in the preceding two weeks, further declined to 22·2 last week. In London the rate was 21·4 per 1000, while it averaged 22·8 in the thirty-two provincial towns. The lowest rates in these towns were 14·7 in Croydon, 16·1 in West Ham, 17·1 in Gateshead, and 18·3 in Bradford; the highest rates were 26·5 in Swansea and in Burnley, 26·7 in Halifax, 26·8 in Preston, and 28·1 in Manchester. The 4346 deaths included 427 which were referred to the principal zymotic diseases, against 477 and 435 in the preceding two weeks; of these, 170 resulted from whooping-cough, 134 from measles, 42 from diarrhœa, 33 from scarlet fever, 30 from diphtheria, 16 from "fever" (principally enteric), and 2 from small-pox. No fatal case of any of these diseases was registered in Norwich; in the other towns they caused the lowest rates in Bolton, Gateshead, and Halifax, and the highest in Salford, Liverpool, Sheffield, and Wolverhampton. The greatest mortality from measles occurred in Birkenhead, Birmingham, Sheffield, Liverpool, and Wolverhampton; from scarlet fever in Birkenhead and Cardiff; from whooping-cough in Brighton, Bristol, Salford, Huddersfield, Sheffield, Swansea, and Wolverhampton; and from diarrhœa in Preston and Blackburn. The mortality from "fever"

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VITAL STATISTICS.

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In thirty-three of the largest English towns [illegible] and 4346 deaths were registered during the week ... April 2nd. The annual rate of mortality in these ... which had been 24·8 and 22·3 per 1000 in the ... two weeks, further declined to 22·2 last week. It ... the rate was 21·4 per 1000, while it averaged 21·... thirty-two provincial towns. The lowest rates in these ... were 14·7 in Croydon, 16·1 in West Ham, 17·1 in ... head, and 18·3 in Bradford; the highest rates were ... Swansea and in Burnley, 26·7 in Halifax, 28·8 in ... and 28·1 in Manchester. The 4346 deaths included ... which were referred to the principal zymotic ... against 477 and 435 in the preceding two weeks, ... 170 resulted from whooping-cough, 134 from measles, ... diarrhœa, 33 from scarlet fever, 30 from diphtheria, ... "fever" (principally enteric), and 2 from small-pox. ... fatal case of any of these diseases was registered ... Norwich; in the other towns they caused the highest ... in Bolton, Gateshead, and Halifax, and the lowest ... Salford, Liverpool, Sheffield, and Wolverhampton. ... greatest mortality from measles occurred in Bristol, ... Birmingham, Sheffield, Liverpool, and Cardiff; from ... from scarlet fever in Birkenhead and Cardiff; from ... ing cough in Brighton, Bristol, Salford, Halifax, ... Sheffield, Swansea, and Wolverhampton; and from ... in Preston and Blackburn. The mortality from ...

showed no marked excess in any of the thirty-three large towns. The 30 deaths from diphtheria included 15 in London, 3 in Manchester, 2 in Birmingham, 2 in Bradford, and 2 in Newcastle-upon-Tyne. Two deaths from small-pox were registered in London, but not one in any of the thirty-two provincial towns; 43 cases of this disease were under treatment in the Metropolitan Asylum Hospitals on Saturday last (of which 11 were admitted during the week), and 7 in the Highgate Small-pox Hospital. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1227, against 1230 and 1226 on the preceding two Saturdays; 139 new cases were admitted during the week, against 146 and 126 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 523 and 466 in the preceding two weeks, further declined last week to 430, and were 44 below the corrected average. The causes of 78, or 1·8 per cent., of the deaths in the thirty-three towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Cardiff, Croydon, Leicester, Leeds, and in six other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Preston, Huddersfield, Bradford, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 24·2 and 23·4 per 1000 in the preceding two weeks, further declined to 21·2 during the week ending April 2nd, and was 1·0 per 1000 below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·6 in Leith and 17·1 in Aberdeen to 23·5 in Glasgow and 27·5 in Perth. The 589 deaths in these towns included 24 which were referred to whooping-cough, 15 to measles, 8 to "fever," 7 to diphtheria, 6 to scarlet fever, 5 to diarrhœa, and not one to small-pox. In all, 65 deaths resulted from these principal zymotic diseases, against 71 and 69 in the preceding two weeks. These 65 deaths were equal to an annual rate of 2·3 per 1000, which slightly exceeded the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 28 and 34 in the preceding two weeks, declined again last week to 24, of which 11 occurred in Glasgow, 3 in Edinburgh, and 3 in Dundee. The deaths referred to measles, which had declined in the previous three weeks from 16 to 12, rose again to 15 last week, and included 13 in Glasgow. The 8 fatal cases of "fever" showed a further increase upon recent weekly numbers; 3 occurred in Glasgow, 2 in Edinburgh, and 2 in Dundee. The deaths from diphtheria, which had been 5 and 8 in the preceding two weeks, were 7 last week, and included 3 in Glasgow and 2 in Edinburgh. Of the 6 fatal cases of scarlet fever, 5 were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 183 and 181 in the preceding two weeks, further declined last week to 158, and were 8 below the number in the corresponding week of last year. The causes of 74, or nearly 13 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased in the preceding four weeks from 32·7 to 40·1 per 1000, declined again to 37·3 during the week ending April 2nd. During the thirteen weeks of the quarter ending on Saturday last the death-rate in the city averaged 38·4 per 1000, the rate for the same period being 28·2 in London and 19·8 in Edinburgh. The 250 deaths in Dublin during the week under notice showed a decline of 19 from the high number in the preceding week, and included 24 which were referred to measles, 3 to whooping-cough, 2 to diarrhœa, 1 to "fever," and not one either to small-pox, scarlet fever, or diphtheria. In all, 30 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·5 per 1000, the zymotic death-rate during the same period being 2·6 in London and 1·8 in Edinburgh. The fatal cases of measles, which had been 12 and 22 in the preceding two weeks, further rose to 24 last week, and exceeded the number recorded in any week since August, 1887. The deaths referred to whooping-cough, which had been 5 in each of the previous two weeks, declined to 3 last week. The 2 fatal cases of diarrhœa were within one of the number returned in the preceding week, and the death referred to "fever" corresponded with the number in the previous week. The 250 deaths in Dublin last week included 43 of infants under one year of age, and 56 of persons aged upwards of sixty years; the deaths of infants exceeded the number in any recent week, while those of elderly persons showed a marked decline. Three inquest cases and 5 deaths from violence were registered; and 91, or more than a third, of the deaths occurred in public institutions. The causes of 25, or 10 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF CALCUTTA AND ITS SUBURBS.

Dr. W. J. Simpson, the Health Officer for Calcutta, in his official memorandum for December last, reports that the total number of births registered during the month was 894, against 783 in the preceding month, giving an annual ratio of 22·9, against 20·1 per 1000 of the population. Of the 894 births, 449 were males and 445 females. The total number of deaths (exclusive of still births) registered in December was 1380 against 1282 in the preceding month, showing an annual ratio of 35·5 per 1000. The proportion of male to female deaths was as 136 to 100. The monthly total exceeds all the corresponding figures of the past decade, excepting 1881 and 1882, and also exceeds the decennial mean by 93. There were 98 deaths from cholera, against 152 in the preceding month, less than the average of the past decade by 80. No deaths from small-pox, but those from fever amounted to 536, against 513 in the preceding month, and in excess of the corresponding figures for the past ten years. There were 47 deaths from tetanus during the month, 41 of which were in infants under one year of age. In the amalgamated area of suburbs there were 486 births registered in December, giving an annual ratio of 27·1 per 1000 of population. The total number of deaths registered was 879, giving an annual ratio of 49·0 per 1000. Of these deaths, 49 were from cholera, 388 from fevers, 154 from bowel complaints, 52 from tetanus, 7 from injuries, and 229 from other causes. There were no deaths from small-pox in the suburbs during the month. According to the weekly return of deaths for the week ending Jan. 23rd, 1892, the latest return received by us, the total number of deaths for the town of Calcutta registered during the week was 309. The general death-rate of the week was 34·5 per 1000 per annum, against 28·2, the mean of the last five years. The general death-rate of the week for the amalgamated area was at the rate of 46·3 per 1000 per annum, against 37·8, the mean of the last five years. The general death-rate of the combined area is equal to 38·2. The prominent and recurring features in these returns from Calcutta and its suburbs are the prevalence of fevers (presumably malarial in their nature), bowel complaints, and tetanus, especially among the infant population.

THE SERVICES.

WE regret to announce the death of Deputy-Surgeon-General Dr. Thomas Fraser from pneumonia, on the 3rd inst., at Exeter. The deceased officer had long retired from the Service. He was for a long time the surgeon of the 10th Hussars, and subsequently was in medical charge of the Royal Military College at Sandhurst. Deputy-Surgeon-General Fraser was very popular and much esteemed whilst in the Medical Service, and the news of his death will be received with much regret by those to whom he was known.

Brigade-Surgeon-Lieutenant-Colonel T. Maunsell, in charge of the 2nd Station Hospital at Aldershot, in anticipation of promotion to Surgeon-Colonel, succeeds Surgeon-Major-General G. L. Hinde, Principal Medical Officer, South-Eastern District, who shortly retires.

ARMY MEDICAL STAFF.—We understand that in future every candidate for a commission in the Army Medical Staff will be required to possess, in addition to the qualifications previously laid down, a certificate of having acted as medical clinical clerk for six months and as surgical dresser for another six months, not less than three months of each period being spent in hospital wards; also a certificate of having attended not less than three months' instruction at an ophthalmic hospital, whose course shall include instruction in the errors of refraction.

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Surgeon-Major W. T. Johnston, doing duty in the Belgaum and Bangalore Districts, Madras command, has been appointed to the charge of the Station Hospital, Rangoon; Surgeon-Major A. W. Carleton has been transferred from the Station Hospital, Rangoon, on appointment to the charge of the North Station Hospital at Secunderabad, Madras command; Surgeon-Captain F. T. Skerrett has been transferred for duty in the Madras District from the Station Hospital at Wellington; Surgeon-Lieutenant-Colonel H. W. A. Mackinnon, D.S.O., will, on transfer from Canterbury to Aldershot for duty, be appointed to the charge of the North Camp Hospital, vice Brigade-Surgeon-Lieutenant-Colonel F. Howard; Brigade-Surgeon-Lieutenant-Colonel F. B. Scott, C.M.G., takes charge of the 2nd Station Hospital, vice Brigade-Surgeon-Lieutenant-Colonel T. Maunsell; Surgeon-Captain C. W. Thiele, stationed at the 3rd Station Hospital, Aldershot, has been placed under orders for embarkation for the West Coast of Africa; Surgeon-Captain J. W. Jennings has proceeded from Worcester to Carnarvon to assume medical charge of the 4th Battalion Royal Welsh Fusiliers, and Surgeon-Captain R. J. Windle, from Chester to Beaumaris, in medical charge of the Royal Anglesea Engineering Militia; Surgeon-Captain T. Archer has been struck off the strength of the S.E. District, on proceeding to Bermuda; Surgeon-Captain H A. de Lom has been posted to the Station Hospital, Western Heights, Dover; Surgeon-Captain R. Kirkpatrick has joined at Easter-road Barracks for duty from Edinburgh Castle, and Surgeon-Captain G. Wilson has joined in his place from Piershill; Surgeon-Captain G. E. Moffett has been transferred from Perth to Fort George, and Surgeon-Captain W. G. Birrell from Fort George to Easter-road Barracks; Surgeon-Captain L. Nash proceeded on the 25th ult. to Hebburn, in medical charge of troops, and Surgeon-Captain S. R. Wills has been posted to Newcastle-on-Tyne; Surgeon-Major J. E. Nicholson has joined the Citadel, Plymouth, for duty; Surgeon-Captain J. H. Brannigan has arrived at Devonport for duty; Surgeon-Captain G. G. Adams has been transferred to Horfield from Cardiff; Surgeon-Captain T. W. Gibbard has joined at Winchester, from Portsmouth; Surgeon-Captains R. C. Johnston and R. G. Thompson have joined the Thames District for duty.—Surgeon-Major-General A. M. Tippetts, having attained the age of sixty, has been placed on retired pay.—Surgeon-Major T. J. Gallwey, M.D, Medical Staff, having left for Cairo to take up his appointment in the Egyptian Army, will now be seconded.

ARMY MEDICAL RESERVE OF OFFICERS. — Surgeon-Captain Alfred Herbert Marsh, 3rd Volunteer Battalion, the Cheshire Regiment, to be Surgeon-Lieutenant (dated April 6th, 1892).

NAVAL MEDICAL SERVICE.—The undermentioned Surgeons have been promoted to the rank of Staff Surgeon in Her Majesty's Fleet:—William Manley Lory and William Spencer Lightfoot.—The following appointments have been made at the Admiralty:—Staff-Surgeon Wm. S. Lightfoot to the *Philomel* (dated March 31st, 1892); Surgeons: Edwd. Cooper to the *Victory* (dated April 4th, 1892); Joseph C. Wood to the *Assaye* (dated April 5th, 1892); Richard F. Bate to the *Champion* (undated).

VOLUNTEER CORPS.—*Royal Engineers* (Fortress and Railway Forces): 1st Aberdeenshire: William Sinclair, M.B., to be Surgeon-Lieutenant (dated April 2nd, 1892).—*Rifle:* 1st Surrey (South London): Surgeon-Lieutenant C. S. Smith to be Surgeon-Captain (dated April 2nd, 1892).—1st Volunteer Battalion the Royal Sussex Regiment: Charles William James Chepmell, M.D., to be Surgeon-Lieutenant (dated April 2nd, 1892).—20th Middlesex (Artists'): Surgeon-Captain A. R. F. Evershed resigns his commission (dated April 2nd, 1892).

VOLUNTEER MEDICAL STAFF CORPS.—The Manchester Division: Geo. Clements Richardson, Gent., to be Surgeon-Lieutenant (dated April 2nd, 1892).

ESSEX AND HERTS BENEVOLENT MEDICAL SOCIETY.—The annual report for 1891 of this Society, for the relief of the widows and orphans of medical men in the counties of Essex and Hertford, shows that the total grants for the year amounted to £375. The capital stock, invested in Consols, was £10,053.

Correspondence.

"Audi alteram partem."

THE OPIUM QUESTION.

To the Editors of THE LANCET.

SIRS,—The "opium controversy" has of late attracted considerable attention. It was the subject of an article that appeared in THE LANCET a few weeks ago, and also of a long discussion in the Indian Section of the Society of Arts. A circular has also been widely distributed amongst members of the medical profession, of which I have received a copy, asking us to subscribe to certain propositions regarding the effects of the consumption of opium upon the people of India, and to sign a memorial recommending to the Government of India that the growth and sale of opium in India should be prohibited by law. This document I have not felt myself able to sign, as I am convinced that many of the statements in the memorial and in the covering letter are erroneous, and founded upon imperfect knowledge. Probably a large proportion of the 5000 members of the medical profession whom you state to have signed the memorial have done so on hypothetical grounds, and without any direct or personal knowledge of its merits. I have had rather a long experience of medical practice in India, having had charge of native hospitals, dispensaries, and gaols in nearly all parts of the Bengal Presidency, in the hills, in the Punjab, the North-West Provinces, Lower Bengal, and Orissa, and I have always mingled freely with natives of all classes; so that I have had pretty full opportunity of judging of the effects of the use of opium on the health and well-being of the people generally, and, as the subject is of the greatest medical interest, I venture to ask you to accord me a small space in your influential journal for this letter. I do not propose to enter into the political and financial side of the question. That I would leave to others who have more special knowledge on such matters, and are more capable of forming a correct judgment. Unless, however, it can be clearly established—and this is a medical question—that the use of opium, as we find it in India, leads to anything like common or widespread injury to either the moral or physical well-being of the people, we should, indeed, hesitate before we advocate the giving up a large source of revenue which presses upon no one, and in its place lay additional taxation on, perhaps, the poorest, but at the same time the most patient, thrifty, and industrious, peasantry in the world. It would indeed be a most cruel and tyrannical exercise of England's almost unlimited power in India, perhaps only to remove a sentimental wrong.

In bringing to notice some of the medical and sanitary aspects of the question, I will confine myself chiefly to matters that have come under my personal knowledge and observation. It is well known that the use of opium by the people of India is far from being general or universal. It is very much restricted to certain classes and to certain localities; of those who use opium, some smoke and some eat the drug. As a rule, when the people are in the habit of taking opium they do so in great moderation; there is no general tendency to exceed, any more than with the majority of people at home who take their daily glass or two of wine or beer there is a tendency to drink in excess. In the same way it is, I am convinced, an erroneous notion to suppose that in the moderate quantity in which it is usually taken opium has a deleterious effect upon the health or physique of the people. The Sikhs in the Punjab, perhaps the most hardy, vigorous, and warlike race in India, commonly take opium, and they certainly show no signs of deterioration. Again, the palki-bearers of Behar and Goruckpore, men of small stature and slight build, are perhaps capable of as great or greater physical exertion as any class of men in the world, and that on an amount of nourishment that in this country would hardly satisfy a child. They nearly all smoke opium. I have known a set of twelve men—and eight men will do equally well—carry me in a palanquin a distance of forty miles in a little over ten hours. Of course they take turns to carry, four and four about, but all the men run

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through the whole distance. They always halt two or three times during the journey and pass round the opium pipe, and each man takes a few whiffs, and then on again as fresh as if they were just starting. No one can say the opium injures their health or stamina. It is, however, especially in very malarious and feverish localities that opium is most generally used, and it seems then to be almost a necessity. In Assam and Eastern Bengal its use is almost universal, and in Orissa—along the swampy, feverish coast, teeming, one may say, with malaria—nearly all take opium. "It keeps us alive," they say, and, from what I saw of the people and the prevalence of fever amongst them, I believe that it did so. I cannot say that a dose of opium will either prevent or cure a paroxysm of malarious fever as quinine will; but the opium seemed to enable a man to resist the fever and to get through his day's work in spite of it. It may be true that quinine and other drugs would answer better as anti-periodics, but how could these poor peasants ever get enough of such expensive drugs. They can get for a few annas—say, for sixpence, the price of two or three febrifuge doses of quinine—one *tola*, or 180 grains, of opium, enough to last a man for months. It may, I think, be almost accepted as a proof of the benefit of opium in counteracting the bad effects of malaria that we so generally find that in malarious regions the people take opium. I remember the time when its use was very general in the fens of Lincolnshire and Huntingdon, where on market days one would see the country people going in numbers to the chemist's shop, place their penny on the counter, and take up a small packet which contained the week's supply of opium. Whether there is anything of the kind now I do not know. The fens have been drained since then, and perhaps ague and opium-eating are both things of the past.

There is another point in connexion with the use of opium in India which has not, I think, been fairly considered by those who would prohibit it. The peasants of India generally are very poor. They live and toil (and for them there are no restrictions to eight hours' work a day, and no Sunday or weekly holidays) on an almost incredibly small amount of nourishment, according to our English ideas. A daily allowance of 1½ lb. of rice or flour, a little vegetable and butter, and a pinch of salt and spices, is pretty well the whole food of a working man, and there seems to be no doubt that where food is scanty a small quantity of opium tends to prevent rapid waste of tissue, and enables a man to sustain life and vigour on such small allowance of food. I cannot help believing that if the use of opium in India were prohibited, it would inflict an incalculable amount of suffering and injury upon vast numbers of our Indian fellow subjects. Of course, as with everything else, the use of opium may be abused, and no doubt a certain proportion of the opium consumers take it in excess and ruin their minds and bodies. The opium dens and hells in our large towns in India, as in London, show this. Even then the effects of opium are not nearly so bad as those of alcohol. The opium debauchee at least injures himself only, or perhaps those depending upon him. The drunkard not only ruins his own life, but is a danger to his neighbours as well, and drink is the cause of most of the crime in this country. Opium practically leads to no crime, and there is little doubt that if the use of opium could be prevented in India, some other and probably far more deleterious nerve stimulant or sedative, as alcohol or *bhang* (Indian hemp), would take its place. I think that few even of the most sincere supporters of temperance, amongst whom I humbly hope I may include myself, would advocate the passing of a law in England forbidding the sale or consumption of alcoholic drinks, even if such a course were possible. To carry out such a law in India in respect to opium would be equally impossible; I doubt if even our all-powerful Government could do so. Every man in India who wished for it would cultivate his own little patch of poppy, and it would be difficult even for the most autocratic Government to keep watch over and punish millions of people for doing what they thought right; but could such a law be enforced I am strongly of opinion that we should not, in the language of the memorial above noticed, be "seeking the welfare of the people of India."

I am, Sirs, yours faithfully,

HENRY CAYLEY, F.R.C.S.,
Indian Medical Service (retired).

Netley, March 26th, 1892.

DENHOLM *v.* TAIT.

To the Editors of THE LANCET.

SIRS,—I think you will admit, after reading my letter, that I am entitled to make a few comments in your columns upon the above case, especially since Mr. Lawson Tait has thought proper to address a letter to *The Times* on the subject. The action for libel I felt compelled to bring against Mr. Tait originated in a letter he addressed to the husband of a lady who had died forty-four hours after being operated upon by him for uterine myoma. In this letter the following passage appeared: "The immediate cause of the unfortunate result is the rupture of a bloodvessel at or near the spot where the electrical needles caused so much damaging inflammation and sloughing. Had she never been submitted to that treatment the case would have been a straightforward one, and her recovery almost certain." As I had been solely responsible for the application of this electrical treatment, the husband brought the letter to me with a natural desire to be satisfied how far the accusation was correct.

For the purpose of vindicating my professional reputation, I requested and obtained permission for a post-mortem examination. This examination was conducted by three experienced pathologists totally unknown to me, and the result was to the effect that the patient had died not from hæmorrhage, but from septic peritonitis. I immediately wrote to Mr. Tait to ask him whether he still persisted in his opinion, and he replied not only that he did, but that he was prepared to substantiate it. I was then advised that my only course was to institute an action for libel. The trial lasted three days, and the evidence completely and satisfactorily proved that no electrical needles had ever been used, that the electrical treatment had nothing whatever to do with the cause of death, and that the patient had lost her life from septic peritonitis, entirely due to the operation performed by Mr. Tait. At the conclusion of Mr. Tait's evidence my counsel suggested to me that as Mr. Tait had declared that the letter he sent was not the one he intended, that as I had been fully exonerated by Mr. Tait from all blame, and that as the jury would have to find Mr. Tait guilty of stating that which he knew to be untrue before they could award me a verdict, I might consent to the withdrawal of a juror, with a full and complete understanding that all imputations were withdrawn on both sides. To this I assented, considering, as I still consider, that I was making a generous concession. Mr. Tait's counsel expressed himself as highly satisfied with the withdrawal of the action, and the judge concurred in the prudence of the course I had taken. I also felt satisfied that the dispute had been settled in a manner mutually satisfactory and honourable. Three days later, however, Mr. Tait addressed a letter which appeared in *The Times* of March 29th, in which he stated that he regarded the result of the trial as a "victory!' and reiterated his attack upon me by saying that he reasserted everything he had asserted before, and that he had withdrawn nothing; that is to say, that he still believed that "the immediate cause of death was hæmorrhage due to the use of electric needles." After the appearance of this letter the judge who had tried the action was appealed to in court by my counsel, and requested to state what his impression was of the terms of settlement. His lordship replied that he understood Mr. Tait to withdraw all imputations, and to say that he entirely exonerated me from any negligence or any want of skill in my application of the electric treatment. I am quite willing to leave the issue for your readers to decide whether or not Mr. Tait was justified when he stated in *The Times* that "so far as I am concerned, and by my counsel, I withdraw nothing."

I am, Sirs, yours faithfully,

Manchester, April 6th, 1892. ANDREW DENHOLM, M.D.

To the Editors of THE LANCET.

SIRS,—In your article on this subject you inadvertently do me an injustice which I am sure you will permit me to correct. You say that "Mr. Tait at the trial still spoke as if he believed that a hæmatocele existed, and might have been found if looked for." There were four witnesses besides myself waiting to prove that they saw the hæmatocele—viz., Mr. Christopher Martin, Mr. Charles Martin, Nurse Trease (three

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members of my staff), and Mr. Alfred Freer, surgeon, of Stourbridge — an altogether independent witness who happened to be present at the operation. With the details of this particular hæmatocele and how it killed this patient I shall not trouble you now, for a complete story of this remarkable case will be laid before the profession at as early a date as possible, as an illustration of how important these accidents are and how strangely they have been overlooked. In passing I may say that this is the only instance in which I have known a hæmatocele to prove fatal; but that it did so will elsewhere and in due course be shown by Mr. Christopher Martin, who hardly left the patient from the time of the operation till her death. The case in this as well as in certain other respects is unique.

That the course adopted of consenting to withdraw a juror was a mistake you may well believe, and at first I was very much averse to it, as I wanted the whole thing thrashed out and a verdict of the jury taken; but very many reasons in favour of it can be given, which, however, do not concern the issue raised by your article or require discussion in a medical journal. The reason which chiefly influenced me was that the case had been hurried on to trial with a precipitance enormously to my disadvantage; so that the plaintiff's answers to interrogatories administered on my behalf did not reach us until the case was on the eve of going into court. Not till then did it dawn upon me or upon my advisers that I was practically being put in the dock on two criminal charges, that I had wilfully and maliciously misstated the cause of the patient's death, and that I had recklessly and improperly operated on her. I feel almost certain that most of the plaintiff's witnesses did not realise the full effect of the course they had thought fit to take until they heard my counsel's opening speech, or I am sure they would never have given such evidence as they did, particularly the three young gentlemen who spoke so smilingly of the so-called post-mortem examination, to which, as you emphatically point out, I was not invited.

Further, another action was pending, Tait *v.* Payne. The husband of the patient, also acting on the lines above indicated, stopped the cheque which he had given me after the operation. I entered an action for the recovery of the fee, on the trial of which you will see that I would have had a far better chance of fighting out the whole question, especially as that trial would have taken place in London. The end came, however, with great speed and perfect certainty. No sooner was Denholm *v.* Tait settled than the solicitors for the defendant in Tait *v.* Payne came and made proposals for a settlement. This I refused absolutely, save on the payment of the full fee with costs of the action, and these terms were promptly conceded.

I am, Sirs, yours faithfully,

Birmingham, April 5th, 1892. LAWSON TAIT.

*** We insert the above letters, but it must be clearly understood that we cannot publish any more correspondence on the subject.—ED. L.

"PYRAMIDAL CATARACT."

To the Editors of THE LANCET.

SIRS,—In your last issue you published a letter from Mr. P. H. Mules commenting on a paper of mine which I read before the Ophthalmological Society on the minute anatomy of pyramidal cataract. It is a great pity Mr. Mules was unable to be present at the meeting to hear my paper in full and to see my specimens. Had he been, he would have seen that I did not "divide my cases arbitrarily into groups," but took them according to the time that had elapsed between the formation of the cataract and the excision of the eye—that is, in the order of the age of the opacities. If Mr. Mules had not mislaid his copy of Dr. Samelson's paper, he would have found on referring to it that Professor Schweigger concluded his account of the microscopical examination of the specimen as follows:—"To the question, then, which here chiefly concerns us, whether the cone was interior or exterior to the capsule, we do not obtain a satisfactory answer." This was a point upon which my specimens supplied very definite evidence. The statement "that in the majority of cases pyramidal cataract is found associated with a perfectly transparent cornea" has been made by others besides Mr. Mules, and I presumed that in his article it was a quotation, for it was placed between inverted commas. What I said was quite logical: that before this statement can be accepted as proved it would be necessary to examine pathologically a large number of eyes with opaque corneæ so ascertain the condition of the lenses in them. In the six cases I brought before the Society the cornea was the seat of old or commencing opacity. If these eyes had only been examined clinically the fact that they contained pyramidal cataracts would not have been known.

Mr. Mules finally refers to two cases he has recently operated on in which the pyramid lay outside the capsule. He does not say that he arrived at this conclusion from a microscopical examination of it. Granting, however, that in each case it was outside the capsule, they cannot then be spoken of as opacities of the lens, and were not therefore cataracts. One of the objects I had in view in reading my paper was to confirm definitely that there are opacities at the anterior pole of the lens situated within the capsule, and to which the term "anterior polar cataract" or "pyramidal cataract" can be truly applied. Von Ammon long ago pointed out that portions of the anterior fibro-vascular sheath of the lens may persist. Doubtless sometimes these persistent membranes may closely simulate a true pyramidal cataract. Our object should be to differentiate these two classes of cases and to call the former what they really are—persistent pupillary membranes, not cataracts.

I am, Sirs, yours truly,

E. TREACHER COLLINS.

Devonshire-street, W., April 4th, 1892.

CYSTIC GOITRE.

To the Editors of THE LANCET.

SIRS,—I have read with much interest Mr. O'Reilly's successful case of a large goitre treated by injections and subsequent operation; the more so, perhaps, as I have been using injections in a similar manner, and with a similar double syringe, for some thirty years. I began the use of this method in rather recent cases, withdrawing a small quantity of the liquid and replacing it with an equal amount of alcohol. The idea was to alter the specific gravity of the fluid in the cyst with a view of promoting its absorption, and in moderately recent cases success was obtained. But in more advanced cases not much effect followed. Iodine was tried with a somewhat similar result. Prior to this I had employed this method in pleuritic effusion; but the introduction of the aspirator showed that these may be dealt with much more vigorously. In large cystic goitres the small hypodermic syringe is hardly powerful enough, and in all cases the fine needle is apt to become blocked on account of the flocculent nature of the fluid to be withdrawn. The aspirator needle can be fitted up for the purpose, or, better still, a shorter one of ample bore. Some of the visitors and pupils at the Throat Hospital during the many years I acted as physician to that institution must have seen me employing this method, and the instruments may probably still be at that hospital.

I am, Sirs, yours faithfully,

Deanery-street, Park-lane, April 4th, 1892. PROSSER JAMES.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

South-West Lancashire Spring Assizes.

LORD CHIEF JUSTICE COLERIDGE is presiding at the present spring assizes, and it is hoped in legal circles that his lordship's visit, which is an unusual event on this circuit, will lead to a reform in our present assize arrangements. The grievances of barristers and jurors are more in evidence than the grievances of witnesses, especially medical witnesses. The local authorities have been ordered to provide better accommodation at the courts for the prisoners waiting their trial, but apparently no notice has been taken of the entire want of any provision at all for medical and other witnesses waiting their appearance before the grand jury. It has been repeatedly stated in previous letters that the medical and other witnesses are all waiting at the top of a flight of stairs, which, with the landing and an adjacent lobby, are the only accommodation for them. One learned judge (Mr. Justice Wills) himself made a point of inspecting personally the places in which prisoners were lodged before entering the dock. Is it too much to hope that

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the same learned or some other judge will do the same kind office for witnesses. An inspection of the witnesses' room near the Crown Court and of the outside of the grand jury room at the opening of the assizes, would probably effect in a few minutes that which years of patient reiteration may never accomplish.

More Frequent Assizes required.

The population of Lancashire is rapidly approaching that of London, and yet we have only four assizes in Liverpool and Manchester, while in London there are monthly sittings at the Central Criminal Court. The inconvenience of the present system is keenly felt by medical witnesses residing at a distance, who have to leave their practices and attend day after day for a remuneration which must leave them considerably out of pocket. The holding of an assize every two months would reduce this to a minimum, and would be only in accordance with modern progress.

A Heavy Calendar.

So heavy was the business at Manchester that the assizes in Liverpool had to be postponed for nearly a week, to the great inconvenience of many persons. The number of prisoners and that of civil causes to be tried here is unusually heavy, and both judges will have to sit early and late in order to finish before Easter.

Prevention of Cruelty to Children.

A public meeting was held in the Town Hall, Birkenhead, on the 2nd inst., under the presidency of the Mayor (Alderman Wilmer), for the purpose of forming a branch of the Liverpool Society for the Prevention of Cruelty to Children. The meeting was called in pursuance of an influentially signed requisition, and resolutions in favour of forming the proposed branch and of appointing an influential committee were carried unanimously. The Liverpool Society has done an excellent work in preventing one phase of cruelty—i.e., children of tender age trading in the streets in order to maintain drunken, idle, and cruel parents; and it is hoped that the Birkenhead branch will be equally successful.

Liverpool, April 5th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Newcastle Clinical Society.

THE last meeting of this Society for the session was held on Thursday last. Dr. James Aitchison showed three patients upon whom various joint excisions had been performed two years previously—viz.: (1) Excision of the knee—a female about twenty; (2) excision of wrist, also a female about the same age; (3) excision of ankle—a lad about fifteen, who was now able to take his part at football; amputation had been previously advised and declined in this case. Mr. Morrison showed for Dr. Drummond a case of muscular atrophy following influenza. Dr. H. S. Baumgartner brought forward a case of elephantiasis. Dr. George Murray showed for Dr. Beatley a specimen of pericarditis. Dr. J. A. Jackson read a paper on scarlet fever. The second of the course of sanitary lectures and demonstrations promoted by the Sanitary Institute and the Corporation of Newcastle was delivered last Saturday night at the Guildhall by Mr. A. Wynter Blyth, medical officer of health for St. Marylebone, his subject being House Drainage and Sanitary Appliances. A number of models and appliances were exhibited, and there was a large attendance.

"Milk and Water."

Dr. Armstrong, our medical officer of health for this city, says that the milk trade in Newcastle alone represents a sale of probably not less than 1,500,000 gallons per annum, costing the consumers about £100,000. At the same rate of calculation the amount sold yearly in the United Kingdom is about 250,000,000 gallons, representing a cost of £17,000,000. In 1889, 21 per cent. of the analysed samples of milk in London were adulterated to an estimated aggregate loss to the consumers of £50,000 per annum on an outlay of £2,000,000 sterling. If, as he says, even one-hundredth part of the so-called "milk" be in the form of water, the adulteration means an annual robbery of the Newcastle consumers to the tune of about £1000 and the British public of £170,000.

Middlesbrough and District.

Dr. Malcomson, the medical officer for the Rural Sanitary Authority, reports that during the whole year the health of the district had been very satisfactory, the death-rate only reaching 14·15 per 1000 per annum.—The Saltburn Convalescent Home is announced to be reopened on May 5th and 6th next. "The master masseur" (so says the local paper) has been holding forth to crowded audiences at West Hartlepool.—"The master" does not pretend that the system will completely cure a chronic complaint on being first applied (modest man!), but he maintains if the system is fully carried out it will restore the patient to a healthy condition. Cases of neuralgia and of deafness of fifteen years' standing are nothing in his way. The "master masseur" does not weary his audience by mere talking. A "really first-class concert" forms part of the evening's programme. "The master" himself also, it is said, contributes to the entertainment, showing no mean skill as a singer or reciter. "The master masseur" extracts teeth free of charge, whether he pulls one or a dozen from the same individual, while the banjo performers "soothe away all pain."—Dr. Townsend of Normanby, near Middlesbrough, was the recipient last week, on his return from his honeymoon, of an illuminated address and handsome presents for himself and Mrs. Townsend, subscribed for by over 400 miners of the district. Dr. R. W. Smeddle has also received a presentation in recognition of his services as a lecturer to the North-Eastern Railway Ambulance Class at New Shildon, near Darlington. At Monkwearmouth, Dr. H. Davis has also received a presentation as a token of appreciation of his services to the ambulance class.

The late Mr. John Bowes, Surgeon, of Richmond.

The remains of the late Mr. John Bowes of Richmond were interred in the family vault in that town on last Friday, amid every manifestation of respect. Mr. Bowes did not long survive his brother, who died last Christmas, at an advanced age. Mr. John Bowes died in the South of France, where he had been sojourning for his health for some time. He was thus the last of the well-known medical family, the Bowes of Richmond.

Mr. F. H. Homfray of Gainford, near Darlington, has again been awarded the Government grant for successful vaccination in the Teesdale district.

Newcastle-on-Tyne, April 6th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Extension of the Edinburgh Royal Infirmary.

A MEETING of the contributors to the Royal Infirmary was held last week to consider the proposed extension of the hospital, at which a report by a committee of contributors was submitted. The report dealt with the first plans submitted by the infirmary managers, which were not approved, and also with negotiations with the directors of the Sick Children's Hospital and with the governors of George Watson's Trust, the result of which was that both these bodies were prepared to hand over the ground required by the Infirmary for the sum of £24,500. The report recommended the acceptance of these terms, as it would give the necessary space for building without overcrowding. On this ground it is proposed to build a pavilion facing the meadows, like the other medical pavilions, and constructed to contain eighty-four beds; two pavilions running east and west, to contain sixty and forty beds, and another small pavilion to contain twelve beds. The adoption of this report was carried, and since the meeting the infirmary managers have completed the negotiations for the transference of the properties.

Edinburgh Royal Hospital for Sick Children.

The directors of this hospital have appointed Mr. John Wheeler Dowden, M.B., C.M., and Mr. Robert D. Clarkson, B.Sc., M.B., C.M., to be resident physicians for six months from May 1st.

Health of Edinburgh.

The mortality last week was 85, and the death-rate 17 per 1000. Diseases of the chest accounted for 40 deaths, and zymotic diseases for 8, of which 3 were due to whooping-cough. The intimations for the week were: typhus fever, 2; typhoid fever, 2; diphtheria, 2; scarlatina, 17; measles, 104.

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Edinburgh Professional Examinations.

The second professional examination is still proceeding. Professor Greenfield has not been able to take any part in it, his place being taken by his senior assistant. The new examiners are reported to be giving satisfaction to the students.

City of Glasgow Fever Hospital, Belvidere.

The following extract from the latest monthly report to the Hospitals Committee submitted by the Physician-Superintendent, Dr. J. W. Allan, will be read with interest:—"During the winter session 1891-92 two courses of clinical instruction in Infectious Diseases were conducted, one from Oct. 24th till the Christmas holidays, the other from Jan. 16th till March 12th. In each of these courses an attempt was made to keep the classes strictly to the regulation number—viz., twenty-five each; but, as will be seen from the accompanying figures, that number was rather exceeded. The classes met on Saturday, that being the only day available for students in the winter session, by the present arrangement of medical studies. The number of students attending in a winter session is thus practically restricted to fifty. A much larger number could be undertaken if the medical curriculum were extended and modified so as to give more time and opportunity for coming to Belvidere. At each meeting it was usual to give two forms of instruction—viz: (1) a short lecture in the class room, and (2) bedside demonstrations in the wards. There was thus an attempt at a combination of systematic and clinical teaching, the former necessarily meagre from the very limited time at our disposal." The clinique was attended by sixty students during the session. The attendance was regular, and, so far as was known, not one of them contracted infectious disease from visiting the wards.

The Aberdeen University.

The medical graduation took place at Marischal College on Monday. There was quite the usual amount of noise on the part of the undergraduates, and the Principal thought it best not to deliver the usual special address to the young graduates. Twelve gentlemen were promoted to the degree of M.D., and the theses of Mr. A. R. Cushny, M.A., M.B., C.M., and Mr. James Galloway, M.A., M.B., C.M., were considered worthy of "highest honours," and that of Mr. Edgar Stevenson, M.B., C.M., of "commendation." Forty-one gentlemen received the degrees of M.B. and C.M. Mr. W. Trethowan graduated with "highest honours," and Mr. Davidson, Mr. Duncan Mackintosh, Mr. Thomas W. Ogilvie, Mr. Pirie, and Mr. James Rush graduated with "honourable distinction." The diploma in Public Health "with credit" was conferred on Mr. John T. Wilson, M.B., C.M. Twenty-three gentlemen passed the first division of the first professional examination, forty have completed the first professional, and forty-five have passed the second professional examination. Mr. Ashley Mackintosh, M.A., gained the Fife-Jamieson Memorial Gold Medal in anatomy; Mr. Peter Howie, the Keith Gold Medal for systematic and clinical surgery; Mr. Alexander Stables, the Shepherd Memorial Gold Medal for systematic and practical surgery; and Mr. W. Trethowan, the Matthews Duncan Gold Medal in obstetrics.

April 5th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Presentation to Mr. Hamilton Burke, F.R.C.S.I.

THIS gentleman, who for many years was senior medical inspector of the Local Government Board, was last week presented with a silver tea and coffee service, silver claret jug, and silver salver, from dispensary medical officers and officers of unions belonging to the province of Leinster. Miss Rita Burke was also presented with a bracelet. The address, which was illuminated, having been read, a suitable reply was given by Mr. Burke, who afterwards entertained the deputation at luncheon. The salver bears an inscription to the effect that it was presented with a silver tea and coffee service to Mr. Burke, on his retirement from the office of medical inspector, Local Government Board, by his many friends among the dispensary, medical, and other principal union officers of the province of Leinster, in appreciation of his invariable kindness, consideration, and courtesy to them during the many years of his official charge of that extensive district.

Dinner to Surgeon-Major-General J. Sinclair.

A farewell dinner was given recently at the Shelbourne Hotel by officers of the Medical Staff in Ireland on the active and retired list to Surgeon-Major-General J. Sinclair, who occupied the post of Principal Medical Officer in Ireland until March 28th last, when he was placed on the retired list. Surgeon-Colonel Collis succeeds Surgeon-General Sinclair as Principal Medical Officer in Ireland.

Health of Ireland in 1891.

The total births registered in Ireland during the year 1891 amounted to 107,883, or 23·0 per 1000, and the total number of deaths was 86 053, or 18·4 per 1000. Of these 86,053 deaths, 4406—a number equal to 0·9 per 1000 living—were caused by one or other of the principal zymotic diseases.

Royal College of Surgeons.

It is intended to present the President, Mr. Croly, with his portrait on the occasion of his retirement, on the completion of his second year as President of the College. Dr. Edward Hamilton has issued cards as a candidate for the presidency of the College for 1892 and 1893.

Proposed Hospital for Consumption.

Dublin has naturally a damp climate, and it has occurred to many that locating a hospital which is expected to be a curative institution in or near Dublin would be a great mistake. There are counties, it is urged, in Ireland where the winters are much milder than the county Dublin, and where the temperature is more equable. There is one place peculiarly situated, and for which it is claimed that at the present season of the year it is the warmest district in the United Kingdom, and the place, above all others, where an invalid may with comparative comfort and safety sojourn. This is Glengarriff, styled by a recent author "The Madeira" of Ireland, which is situated on the south-west Irish coast. It lies in a vale, protected on all sides from the cold and sharp winds by lofty mountains, the only wind that has free access to it being from the south. As a winter resort, the author above referred to says that Glengarriff has no equal in Ireland. It has a mean winter temperature of 45°, and its mean annual temperature is 52°, a higher mean annual temperature than the most noted of the English winter health resorts. In the months of December, January, February, March, and April the climate at Glengarriff is exceptionally mild, and there is an unusually large amount of daily sunshine, permitting of free exercise in the open air, which to the invalid at that season of the year is a great and manifest advantage. There are difficulties, no doubt, in the way; but if a hospital for phthisis is to be established, why not erect it in the most suitable position that can be obtained, either in Kerry or elsewhere?

Dublin Sanitary Association.

The report of the council for the past year again protests against the large number of private slaughterhouses in the city, as being a source of danger to the health of the citizens. The annual death-rate in Dublin last year was 25·5 per 1000 as compared with 26 3 the previous year. In the city there was a reduction from 29·0 to 28·5, while in the suburbs there was a reduction from 19·9 to 18·5, which is an exceptionally low rate. It is satisfactory to note that in spite of the influenza epidemic, which in both of the last two years considerably swelled the number of deaths from diseases of the respiratory organs, the general death-rate both in the city and suburbs for 1891 was below the average of the last ten years, and that the typhoid epidemic which attracted so much public attention last autumn did not eventuate in any considerable increase of the total deaths from fever (202), which were less than in any of the last ten years, except in 1886 and 1887, when the deaths from fevers of all kinds were only 192 and 193 respectively. The most striking feature in the returns for last year is the extraordinarily small number of deaths from measles and scarlet fever, which together caused only 9 deaths. The report being adopted, the president read an address on the subject of preventable diseases, and the proceedings terminated.

It is proposed to erect a memorial window in Kildare Cathedral to the memory of the late Mr. S. Chaplin, F.R.C.S.I.

April 5th.

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PARIS.

(FROM OUR OWN CORRESPONDENT.)

Horse-racing and Charity.

It is only a long residence in this city that enables the student of human nature to appreciate the important part taken by horse-racing in the thoughts of a large section of our population. *Garçons de café*, shop boys, small tradesmen, and clerks, these are the individuals who, with marvellous recklessness, risk again and again their small earnings on the chances of a "good tip." The powers that be, accepting the gaming propensities of the populace as an unavoidable nuisance, have very wisely taken measures to divert some of the invested cash into charitable channels. To this intent, it is ordained that a certain percentage of the money staked shall revert to the Assistance Publique, and that the charities of the country in general gain considerably by this arrangement is proved by the fact that no less a sum than 800,000 francs has just been allotted to those judged the most deserving or necessitous. Of this large sum, 700,000 francs have been set apart for the purpose of constructing a hospital at Blanchefasse (Seine et-Oise) for the consumptives of Paris. The architectural details of this projected building will be a reflex of recent advances made in the knowledge of the etiology and therapeutics of King Phthisis. The surplus of the betting fund will be devoted to such laudable purposes as the installation of a disinfecting stove at the Rennes hospital, the support of the Retreat for the Aged Poor at Salarre in the department of Ariège, and to the furtherance of the revaccination campaign under the auspices of the Paris Academy of Medicine. "'Tis an ill wind that blows nobody any good," and we once more see how human folly can be turned to good account. Might not a similar arrangement be adopted by *ces gens pratiques par excellence, Messieurs les Anglais?* The British poor would assuredly have no objection.

Military Hospital Gossip.

While on the subject of hospital construction I may mention that it has been decided by the War Office to suppress the existing urban military hospitals St. Martin and Gros-Caillou, and to replace them by a single new establishment, which shall be situated outside Paris. The situation has not yet been selected; but it is intended to provide for the easy conveyance of patients from the different barracks of Paris to the new hospital by the construction of a special tramway line. The present clumsy, jolting, and slow system of transport by ambulance waggons will thus be superseded, to the great advantage of individual sufferers and of the service in general. The new hospital will contain 600 beds. This centralisation of the military sick will entail a loss of about twenty beds, but it is thought that the addition of a few beds to the Val-de-Grâce hospital and the better utilisation of the regimental infirmaries will more than make good this deficiency. The nursing at military hospitals was, during the imperial *régime* and at the suggestion of the Empress Eugénie, entrusted to *religieuses*. An arrangement was, for this purpose, entered into between the Government and the different religious orders, such as the St. Vincent-de-Paul, and it appears that this treaty will shortly lapse. Meanwhile, the work of ousting the religious element from hospital nursing staffs is being extended to military establishments. Of the forty sisters placed by the Empress at the Val-de-Grâce hospital, there now only remain twenty. Despite the protests of such journals as *Le Soleil* and *Le Gaulois*, it is evident that the picturesque *sœur* is doomed to disappear at no very distant date from the wards of French hospitals, both civil and military. The status of officers under treatment in a military hospital has hitherto been a matter of doubt, it being a moot point whether the fact of his occupying a bed in such an establishment deprives him temporarily of his privileges as an officer. The question has recently been settled so far as the French army is concerned. The circumstances leading to the decision are these: An officer under treatment at Val-de-Grâce Hospital put a hospital orderly under arrest for having neglected to address him as "*Mon lieutenant.*" The *médecin en chef* promptly cancelled the punishment, whereupon the wrathful officer appealed, first to the military governor of Paris, who upheld the action of the chief surgeon, and finally to the Minister of War. The Minister referred the matter to a committee, who took the same view as the governor of Paris. The reasons upon which the decision is based are given *in extenso*. Thus it is stated that the dress worn by officers while in hospital is not distinctive, and orderlies are consequently not supposed to recognise the grade of such patients. It has also, in the interests of the patients themselves, been enacted that orderlies are not to obey the orders of officer patients. Were it not so, such patients might compel *infirmiers* to supply them with forbidden articles like alcohol, tobacco, &c. The French army surgeon can now breathe freely; his position is distinctly defined; he is supreme in his own wards. This is as it should be.

A Great Scandal at the Faculty of Medicine.

There is held periodically at the Paris Faculty of Medicine a competitive examination for the filling up of any vacancies that may occur in the list of *professeurs-agrégés* in medicine or surgery or obstetrics at the metropolitan and provincial faculties. The examining board is composed of professors of the Paris and provincial faculties, the president nominated this year by the Ministry of Public Instruction for the examination in medicine being Professor Bouchard. When the result of this very difficult and long competition was announced a fortnight ago the absence of certain well-known names from the list of successful candidates was much commented on, and charges of favouritism and infringements of regulations in the conduct of the examination were boldly formulated both in the lay and professional press. The choice of the professors composing the Board of Examiners lies with the president of the board, himself nominated as above mentioned by the Minister of Public Instruction. A general charge is made that the discretionary power thus conferred on the president is taken advantage of in order to form a jury whose sympathies will naturally incline towards any candidates favoured by the president. It is further pointed out that the choice of a president at this year's *concours* was particularly unfortunate, seeing that Professor Bouchard, without having the title, exercises the functions of the technically suppressed post of inspector-general of faculties and schools of medicine. The irregularity alleged to have occurred in the conduct of the examination consists in this—that it was postponed for twenty-four hours pending the recovery from indisposition of Professor Sée, a member of the jury. When M. Germain Sée had recovered he could only attend during three days, and the proceedings were continued without filling up the vacancy caused by his definite retirement, which constituted yet another irregularity. Of the five successful candidates for the Paris faculty it is said that three are pupils of M. Bouchard, that three of the five are not hospital physicians, and have published no particularly important works, and, finally, that three out of the five unsuccessful candidates are not only hospital physicians, but are well known for their valuable contributions to medical science. For these various reasons the unsuccessful competitors have sent a petition to the Minister praying him to annul the choice of the examiners. That their contention merits consideration is probable from the fact that no less a personage than Professor Cornil presented the discontented phalanx to M. Lesage, Avocat au Conseil d'État, who is to champion their cause.

Operative Treatment of Spina Bifida.

An instructive paper on the above subject was read by M. Monod at a meeting of the Société de Chirurgie, held on March 16th, the *mémoire* being based upon the report of a case successfully operated on by M. Walther. The patient was a new-born infant affected with a voluminous spina bifida, which reached from the first sacral vertebra to within 1 c. of the anus, its length being 12 c. Half-way down from its base the cutaneous covering was suddenly replaced by a delicate transparent membrane, which the slightest excess of tension would have easily ruptured. Four hours after birth M. Walther performed the following operation:—After a preliminary tapping, which gave rise to 220 grammes of a limpid fluid, two lateral flaps of skin were detached from the surface of the sac, which, after being laid open, was itself dissected as far as the edges of the vertebral orifice (this was only 2 millimetres wide), and resected after being ligatured with silk. The flaps were then reunited over the pedicle, a salol dressing, with a thick collodion coating over all, completing the operation. The sutures were removed six days later,

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leaving a wound completely cicatrised. A fortnight after the operation the child was exhibited. The cicatrix was then firm; no impulse could be detected during efforts, nor could any motor or sensory change in the lower extremities be discovered. Notwithstanding the favourable features presented by this case—viz., its situation, absence of cord and nerves from the sac, narrowness of the orifice of communication with the vertebral canal—M. Monod, in his admirable *résumé* of the results yielded by the divers treatments practised for the relief of this congenital condition, deems it worthy of record with the thirty equally successful cases already published by French and other surgeons, amongst the English being Mayo Robson, Sinclair, and Barton. It is only fair, however, to recall the failures that have attended this form of surgical intervention. Bellanger (Thèse de Paris, 1891) tells us that of 24 cases thus operated on, 8 died—a mortality of 33·3 per cent. This is only what one might expect, for, as M. Monod very aptly remarks, there are spinæ bifidæ and spinæ bifidæ. The varying anatomical relations of the tumour readily explain the success of the elastic ligature, of compression exercised by means of Rizzoli's forceps &c. The diagnosis of the contents of the sac being generally a matter of conjecture, we cannot help predicting that whenever sufficient skin exists over the tumour to form flaps the *méthode sanglante* will tend to become the *méthode de choix*. Even should nervous elements be found in the sac, the experience of Périer, Hildebrand, Rosenbach, Bayer, Cockburn, Picqué, and Guttenbauer shows that they can be dissected off its inner surface and pushed back into the canal without compromising the success of the operation. The radical cure can, moreover, by this means be rendered complete. Mayo Robson attempted to close the vertebral opening by transplanting a periosteal flap derived from an animal; Dollinger and Senenko brought the laminæ together by suture after having fractured them at their base; while, more recently, M. Berger succeeded in filling up the interval by grafting bone taken from a rabbit. I myself had the advantage of witnessing this operation as performed by M. Berger at the Lariboisière Hospital. Should operative measures be out of the question, M. Monod advises recourse being had to injections with Morton's solution, of which he speaks very highly.

April h.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Death of the Sleeping Miner.

THE Silesian miner, Johann Latus, who slept from Sept. 17th, 1891, till Jan. 30th, 1892, died the other day. The necropsy showed that death was simply the natural end of a state of profound exhaustion caused by the morbid conditions consequent on lying motionless so long. The chief of these was the gangrenous state of the lungs, due perhaps to the accumulation of blood in them during the long sleep, but perhaps also to the passing of portions of food and drink into them, owing to the weakness of the patient after awaking. Except slight meningitis of very recent date the brain was perfectly intact. Deposits of a nature not yet ascertained were found, which surrounded the substance of the spinal cord. These deposits will be microscopically examined, but their presence on the cord is believed to be a sufficient reason for the phenomena of this remarkable case. They were found round the motor nerves only, which explains why the skin during the long sleep was sensitive even to slight irritations, whereas the limbs lay stiff and motionless, and could be bent only by the exertion of considerable force.

The Langenbeck House.

The Langenbeck House is to be opened on the occasion of the twenty-first congress of the German Surgical Society, to be held here from the 8th to the 12th of next June. An exhibition of surgical instruments and apparatus is to be held in connexion with this inauguration and with the congress, and intending exhibitors should apply to Dr. A. Koehler, Luisenstrasse 48, or to Dr. B. Schimmelbusch, Ziegelstrasse 5-9, before May 1st. Langenbeck's eldest daughter (the Countess Hardenberg) has presented the House with a life-size portrait of her father, painted by Schrader.

The Removal of Rubbish.

The German Public Health Society occupied itself at its sitting last Monday with the question how the rubbish of Berlin could be better got rid of than at present. Dr. Theodor Weyl proposed some time ago that it should be burned in destructors, on the ground that this system is successfully applied in England and Belgium. Geheimerath Spinola remarked, with reference to this, that Herr Schlossky, who has to superintend the cleansing of the Berlin streets, does not think the use of Fryer's destructors suitable for Berlin, that the municipal authorities of this city, however, recognise the necessity of a change in the matter in question, and that a partial remedy is about to be applied by the establishment of a central place outside the city, to which all the rubbish will be conveyed by water. Dr. Weyl went minutely into the question whether the Berlin rubbish is fitted for being burned in destructors. The objection that English rubbish, being richer in coal, is easier to burn was met by Dr. Weyl's statement that English rubbish is quite easily burned in summer, when its coal contents are considerably less than in winter. He dwelt on the hygienic drawbacks of the system now followed here.

Professor Flückiger.

Professor Flückiger of Strasburg, who now retires into private life, has taught in the university of that city since 1873. Before his appointment there he held a professorship in the University of Berne, and also the office of a State apothecary. His writings are among the necessary helps of pharmacentists, and comprise valuable contributions to the history of pharmaceutics.

Professor Joseph Koenig.

A professorship of the Chemistry of Food and Drink has been founded at Muenster, and Dr. Joseph Koenig, who has been at the head of the Experimental Institute for Agricultural Chemistry there since 1871, has been appointed to fill it. He is the author of important writings on the subject which he is now appointed to teach.

Dr. Robert Sommer.

Dr. Robert Sommer has established himself as a private lecturer at Würzburg. He is known as a student of philosophy as well as of medicine, and has published a treatise on the origin of the mechanical school of medicine in the end of the seventeenth century. He is assistant to Professor Rieger in the University Clinic for Mental Disease in Würzburg.

Statistics.

In the week which ended on the 19th ult. 2 persons died in Berlin from erysipelas, 2 from puerperal fever, 2 from articular rheumatism, 2 from syphilis, 3 from quinsy, 4 from typhus fever, 7 from gastro-intestinal catarrh, 8 from whooping-cough, 9 from influenza, 10 from scarlatina, 12 from measles, 19 from diarrhœa with vomiting, 21 from diarrhœa, 22 from cerebral apoplexy, 23 from diphtheria, 35 from senile decrepitude, 46 from pneumonia, and 91 from pulmonary phthisis; 4 persons poisoned themselves; 14 died violent deaths, eleven of them by suicide. The mortality of Hamburg was 21; of Berlin, 21·1; of Dresden, 22·9; of Breslau, 25·5; of Munich, 29·6. Of the German cities with more than 100,000 inhabitants, Stettin had the lowest mortality (18·4), Cologne the highest (33·7).

Berlin, April 4th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Medical Legislation in New South Wales.

I MENTIONED in a former communication that the Ministry of which Mr. Dibbs is head had brought in a Bill to regulate the practice of medicine. This project of law has now passed the Upper House, and being a Government measure, will very likely be presented to the Legislative Assembly before the session closes. The Bill contains a preamble, twenty-eight clauses, and three schedules. It is introduced "to enable persons requiring medical or surgical advice or aid to distinguish qualified from unqualified practitioners." So runs the preamble, and the measure, if passed, will fully justify the preamble, for under its provisions all the uneducated quacks in the colony will be raised to the level of qualified practitioners. The outline of the Bill is briefly this. The present Medical Board, whose only duty is to inspect diplomas and register

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...erting last Monday with the question how the ... Berlin could be better got rid of than at present. Theodor Weyl proposed some time ago that it ... be burned in destructors, on the ground that this ... successfully applied in England and Belgium. Geheimrath Spinola remarked, with reference to this, that ... Skalowsky, who has to superintend the cleaning ... Berlin streets, does not think the use of Fryer's ... suitable for Berlin, that the municipal authorities ... city, however, recognise the necessity of a change ... matter in question, and that a partial remedy is ... be applied by the establishment of a central place ... the city, to which all the rubbish will be conveyed. ... Dr. Weyl went minutely into the question what ... Berlin rubbish is fitted for being burned in ... The objection that English rubbish, being richer ... easier to burn was met by Dr. Weyl's statement ... English rubbish is quite easily burned in ... coal contents are considerably less than in ... dwelt on the hygienic drawbacks of the ... followed here.

Professor Flückiger.

Professor Flückiger of Strasburg, who now ... private life, has taught in the university of that ... 1873. Before his appointment there he held a ... in the University of Berne, and also the ... pharmacy. His writings are among the ... pharmaceutists, and comprise valuable ... history of pharmaceutics.

Professor Joseph Koenig.

A professorship of the Chemistry of ... been founded at Muenster, and Dr. Joseph ... has been at the head of the Experimental ... since 1871, has been appointed ... Chemistry there since 1891, has been ... it. He is the author of important writings ... which he is now appointed to teach.

Dr. Robert Sommer.

Dr. Robert Sommer has established himself ... lecturer at Wurzburg. He is known as a ... psychology as well as of medicine, and has ... on the origin of the mechanical school of ... end of the seventeenth century. He is ... Professor Rieger in the University Clinic for ... Wurzburg.

Statistics.

In the week which ended on the 19th ult. ... in Berlin from erysipelas, 2 from puerperal ... articular rheumatism, 2 from syphilis, 3 from ... typhus fever, 7 from gastro-intestinal catarrh ... ing cough, 9 from influenza, 10 from ... measles, 19 from diarrhœa with vomiting, 21 ... 22 from cerebral apoplexy, 23 from ... senile decrepitude, 40 from pneumonia, ... monary phthisis; 4 persons poisoned themselves ... violent deaths, eleven of them by suicide. The ... of Hamburg was 21; of Berlin, 21·1; of Dresden, ... Breslau, 20·5; of Munich, 29·6 (of the ... with more than 100,000 inhabitants, Stettin ... mortality (15·4), Cologne the highest (33·7).

Berlin, April 4th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

them, without asking any questions, and who have not the power to strike even the names of dead doctors off that Register, is superseded by a Medical Council of ten persons. Five of these are nominated by the Crown and five by the Senate of the Sydney University. There is no provision for the direct representation of the profession. An official Register is established, to be in the keeping and under the control of the Council. The Council may register any diploma or degree on proof that the person submitting the diploma or degree is the person named in the papers submitted, and on further proof that the college or university from which the diploma or degree has emanated required a course of medical study of not less than four years. Schedule 2 enumerates all the colleges and universities of the United Kingdom as qualifying bodies under the Act. All practitioners at present on the Register of the colony shall on the passing of the Act become unregistered, and must apply for re-registration, with full proof of their identity and of the genuineness of their diplomas. They must also pay a fee of two guineas. This necessity for re-registration is imposed so that the Council may be able to reject a certain number of persons now registered fraudulently, and also to strike out the names of dead men. A separate folio of the Register is reserved for unqualified persons who have been in practice in the colony for five years previously to the passing of the Act, provided that within two years of that passing they pass an examination in accordance with the regulations laid down in Schedule 3. Another class to be registered on a separate folio are those unqualified men who may be able to adduce proof that they have been in continuous and reputable practice for twenty-five years immediately anterior to the Bill becoming law. The Council has the power to refuse to register or to erase from the Register the name of any person who has been struck off the list of his college or off the Register of the United Kingdom, and the Council may, by a majority of two-thirds, investigate any charge of misdemeanour, felony, or disgraceful professional conduct, and visit the offending person with temporary or permanent punishment. An appeal is allowed to the person convicted to the High Court of Justice. The Senate of the Sydney University is constituted the examining body under the Act. The privileges of a registered practitioner are that he alone is eligible for Government appointments, and none but registered persons may sign death certificates and give medical evidence. Any person advertising as treating disease, injury, or ailment must place his Christian and surname in full in a conspicuous place on the house or premises to which such advertisement refers; and if unregistered he must add, "not registered under the Medical Act, 1891." The penalty for violation of this regulation is a fine of £50, or twelve months' imprisonment. Persons guilty of false registration or of falsely using the title of doctor, physician, surgeon, &c., shall be mulcted in a similar amount. The remainder of the Bill deals with administrative details. The obvious criticism of the Bill is that it is a jumble of absurdities and altogether reactionary in its provisions. The medical profession is entirely ignored, and the hive of quacks with which the colony swarms are given an opportunity of recognition by the State. The profession throughout the colony do not appear to take the slightest interest in the matter, and it is most probable that the democratic element in the Assembly will so mutilate the Bill that its own framers will scarcely recognise it.

Typhoid Fever in Melbourne.

Typhoid fever is very prevalent just now in Melbourne. The Board of Works, which was established last year, has up to the present done nothing in the direction of carrying out the sewerage system, for dealing with which it was specially created. The want of money is the reason of its supineness. A municipal loan of £2,000,000 is being floated for the purpose of draining Melbourne and suburbs, but the loan hangs fire. Meanwhile the people die. Dr. Gresswell has been inquiring into the spread of typhoid fever amongst school children, and has made most astounding discoveries of filthy and insanitary arrangements in connexion with the State schools. After his recent investigations he asserted that from what he had seen of the want of the commonest rules of decency and hygiene amongst the Victorians the wonder was that there was not a great deal more typhoid fever.

Water Famine at Broken Hill.

The great silver mining centre Broken Hill has recently been entirely without water, and had it not been for the promptitude of the Government in having water sent by rail, disastrous consequences must have followed. As it is, business is disorganised, and some of the mines closed; typhoid fever is rife, and lead poisoning is rapidly on the increase. The quality of the water found in the neighbourhood of the town may be judged by the following analyses recently presented to the Premier of New South Wales by a deputation of residents of Broken Hill, who interviewed Mr. Dibbs on the question of starting a water scheme to supply the town with fresh water from the river Darling. Broken Hill is the mushroom city that has grown up quite recently on the silver fields, and now has a population of nearly forty thousand people, whose ordinary drinking-water has the following composition:—

Locality.	Total solidity, grains per gallon.	Chlorine, grains per gallon.	Albumen parts per million.			Lead.
			Free.	Fixed or albuminised.	Total.	
No. 3. Craven's Dam	125 grains	1·4	1·2	0·90	2·1	Trace
No. 4. Mellowship's Dam ..	70 grains	1·1	1·34	0·84	2·18	Trace
No. 5. Town Dam	50 grains	0·5	1·5	1·0	2·5	Trace

Leprosy in New South Wales.

The Premier has laid upon the table of the Assembly the report of the Board of Health on leprosy in New South Wales during the year 1891. This has been compiled by Mr. Sagar, the secretary of the Health Department. In the course of his observations he points out that at the beginning of the year named thirteen lepers were under detention at the lazaret. During the year seventeen persons were notified to the Board as suspected to have leprosy. On examination seven were found to be ill of some other disease; ten were found to have leprosy—five of them were natives of New South Wales of European descent, four were Chinese, and one was from the Island of Tanna. One of the five whites died very soon after his discovery. The number remaining under detention on Dec. 31st, 1891, was twenty-one—one native of New South Wales of English descent, and one Chinese having died during the year. Eight of them were natives of New South Wales of European descent (six males, two females), eleven were Chinese, one a Javanese, and one a Kanaka. The total number of patients admitted since 1883 (when the lazaret was established) is thirty-one—namely: Natives of New South Wales nine, of whom one has died; nineteen Chinese, of whom eight have died; one half-caste from the West Indies, who was discharged in 1885, his sores having healed; one Javanese; and one Kanaka; total, thirty-one, of whom nine have died and one could not be detained. The male lepers are lodged in the establishment specially provided for them, which was described in the report on the subject dated May, 1891. In an appendix is a full account of the important facts regarding each of the patients of European descent. A summary, having reference to local distribution of the present series, shows that two patients are known to have been in communication with cases of leprosy; that, in connexion with the histories of cases near Mudgee and in Sydney, a Chinese leper was discovered during the present year at Mudgee; he had stayed there with his father on arriving in New South Wales twelve years ago, had lived there with his father during the year that preceded his arrest, and in the interval had lived and worked as a cabinet-maker in Sydney. Two other patients resided in widely separated neighbourhoods, but still in the same north-western district, where there is constant circulation of bush hands between the isolated sheep stations; but the patients themselves met for the first time at the lazaret. Thus the small series of cases here recorded furnish some slight hint of the contagiousness of leprosy.

Feb. 28th.

THE COLLEGE OF AGRICULTURE, DOWNTON.—The rebuilding of this college, rendered necessary by the destructive fire of last year, has now been so far completed that the premises will be ready for occupation and use next term.

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Obituary.

DR. HENRY TOMKINS.

LAST week we announced the death of Dr. Henry Tomkins, medical officer of health for Leicestershire. The immediate cause of death was pneumonia, following on an attack of influenza. The deceased gentleman was a Doctor of Medicine of Queen's University, Dublin, a Bachelor of Science of Victoria University, Manchester, a Member of the Royal College of Surgeons of England, and a Licentiate of the Apothecaries' Society, London. His medical studies were pursued in Queen's College, Manchester Royal Infirmary, Queen's College, Belfast, and for shorter periods in the hospitals of London, Dublin, and Paris. He was successful in obtaining various scholarships and prizes, among them the Dunville and Turner scholarships at the Victoria University. In the year 1885 he was appointed to the important post of officer of health of the borough of Leicester, at a time when there was considerable attention being paid by the Town Council to the sanitary condition of the town. From among thirty-one candidates the committee of selection chose Dr. Tomkins. So well has his arduous work been performed that at their last meeting the Lord Mayor, on behalf of the Town Council, in describing his services, said: "The Council has sustained a serious loss in the death of its medical officer of health, Dr. Tomkins—a gentleman who had held the office for several years, who had in every department of his work shown exceptional ability, who held high professional qualifications, whose manners were always most agreeable, and who never spared himself in the discharge of the various duties, often most unpleasant, which fell upon him. The borough was singularly fortunate in securing the services of a gentleman of his high attainments, and still more fortunate in being able to retain him so long, when they knew that he had many temptations to go to other spheres. His value was recognised in the profession by his having been selected by THE LANCET as Special Commissioner to visit America at a time when the medical profession were gathered there for highly important discussion. He had now passed from among them, and the Council, he was sure, would not allow an event of the kind to take place without recording its sense of the loss, and its sympathy and condolence with the widow." This is a high but not an exaggerated tribute of praise. He has done a great deal for the borough of Leicester, in improving its sanitation, in cleansing the river, in procuring cleaner houses for the people, and in mitigating the diseases once so prevalent in the town. The completion of his work Dr. Tomkins, unfortunately, has not been spared to see. But he has left behind him many landmarks of sanitary progress in the right direction. His work as borough analyst was most enthusiastically carried out, as is evidenced in his last report to the Town Council. His contributions to medical literature were well known, and the columns of THE LANCET frequently contained communications from his pen. Of a quiet and unassuming disposition, as indeed all are who are conscious of power, he rendered himself widely known among his professional brethren by a combination of talent and industry; and he earned the esteem of the inhabitants among whom he laboured for his straightforward and unflinching advocacy of physiological and hygienic truths, and his endeavour to apply these to the amelioration of the sanitary condition of his fellow-citizens.

ESQUIRE DUKES, M.R.C.S. ENG., L.S.A.

MR. DUKES was born in Old Ford in 1813. He died on March 15th at Marquess-road, Canonbury. He was educated at Merchant Taylors' School, and subsequently at St. Thomas's Hospital. His first qualification, that of the Apothecaries, dates back to 1835, and he did not take the Membership of the College till 1860. His life was uneventful, but full of service and honourable work which secured for him the gratitude of his patients and the esteem of his professional neighbours. He joined the Hunterian Society in 1857, and was one of its vice-presidents. He worked hard till 1889, when he took into partnership Dr. Dewar. He leaves a son and four daughters.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT a quarterly meeting held on April 7th, the minutes of the ordinary meeting of the Council held on the 10th inst. were read and confirmed, with the exception of the resolution relating to the insurance of the two museums, in place of which an amended resolution of the Committee of General Purposes was accepted.

The death of Mr. Charles Hawkins, F.R.C.S., a past member of the Council, which took place on the 4th inst., was reported, and a vote of condolence with the sister, Miss Hawkins, was passed.

In pursuance of the report of the Museum Committee, the best thanks of the Council were given to Sir Arthur Douglas Brooke, Bart., for his presentation to the College of the valuable specimens of skeletons and skulls collected by his father, the late Sir Victor Brooke, Bart. The collection comprised fourteen skeletons, eighty-eight skulls, and seven crania.

The Council, having received no dissertation for the Jacksonian Prize of last year, agreed that the subject for this prize in the year 1893 be Hydrophobia. The consideration of the subject for the next Collegiate Triennial Prize was postponed.

From a report of the Laboratories Committee it appears that there are seventeen workers in the laboratories of the Colleges.

The Council, in pursuance of the notice in the summons, proceeded to the election of a member of the Court of Examiners in the vacancy occasioned by the resignation of Mr. W. M. Baker, and Mr. Howard Marsh was elected.

The President reported that, in pursuance of the provisions of the Bradshaw bequest, he had chosen Mr. Christopher Heath as the Bradshaw lecturer for the ensuing collegiate year, and that the lecture would be delivered at some convenient date in November or December, of which due notice would be given by circular to members of the Council.

The Council elected Mr. James Galloway, F.R.C.S., the Morton lecturer on Cancer and Cancerous Diseases for the ensuing collegiate year.

Mr. Jabez Thomas, M.R.C.S., Swansea, was elected a Fellow under Section 5 of the Charter of the 15th Victoria, relating to Members of twenty years' standing.

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the Examiners on the 4th inst:—

Anatomy and Physiology.—Edward J. Lumb and Jeremiah S. A. Murphy, students of Yorkshire College, Leeds; George O. Rigby and William E. Tarbet, of University College, Liverpool; Thomas Salt, Edward A. B. Poole, Alex. W. Nuthall, and William P. Nicol, of Queen's College, Birmingham; William M. Willis, Edmund A. Dorrell, and Albert E. H. Pinch, of Bristol School of Medicine; Herbert J. Peel, John H. Bellamy, and Frank S. Hardy, of Sheffield School of Medicine; Albert L'Estrange Orme, of Trinity College, Dublin; Henry Roscoe, Francis J. Smith, and Francis S. Jackson, of Owens College, Manchester; William J. Woodman, of St. Mary's Hospital; William Davies, of St. Bartholomew's Hospital and Mr. Cooke's School of Anatomy and Physiology.

Anatomy only.—Walter G. Parkinson, William Archer, and William S. Dibbs, of Yorkshire College, Leeds; Henry J. Beginbotham, of Owens College, Manchester; Thomas W. W. Bovey, of Bristol School of Medicine; James R. Webb, of Melbourne University.

Physiology only.—John B. Chadwick, Alfred B. Steward, and Robert Marshall, of Owens College, Manchester; Walter M. Jackson, of University College, Liverpool.

(Six candidates were referred in both subjects; four in Anatomy only and six in Physiology only.)

Passed on the 5th inst.:—

Anatomy and Physiology.—Chas. W. Eames and Arthur P. Cummings, of Yorkshire College, Leeds; Charles Lamplough, James W. C. Barrett, Frederick G. Messiter, John C. Griffiths, Joseph Ganner, and Wm. McE. Clendinnen, of Queen's College, Birmingham; Thos. Gregory and Allen Whitfield, of Owens College, Manchester; Alfred H. Coperman, of St. Thomas's Hospital; Daniel S. Gerrish, of Bristol School of Medicine; John Wallace, of Queen's College, Belfast; Max Walthard, of Berne University; Ernest R. Rost, of St. Mary's Hospital; Francis G. Crookshank, of University College.

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Mr. John Thomas, M.R.C.S., Swansea, was elected Fellow under Section 5 of the Charter of the College relating to Members of twenty years' standing.

Medical News.

EXAMINING BOARD IN ENGLAND.—The Colleges of Physicians and Surgeons.—The following gentlemen passed the Second Examination of the Board on the subjects indicated at a meeting of the Examiners held on the 4th inst.:—

Anatomy and Physiology.—Edward J. Lamb and Joseph Martin, students of University College, Liverpool; and William E. Tarbet, of University College, Liverpool and Owens College, Manchester; Edward A. B. Poole, Alex. W. Nicholson, and Sidney Edward A. B. Poole, of Queen's College, Birmingham; Arthur Bennett, of Queen's College, Birmingham, and Owens College, Manchester; Albert E. H. Bellamy, and Frank Sidney Hetherington, of Owens College, Manchester; Albert E. Fearnsides and John H. Bellamy, of Owens College, Manchester; Albert E. Fearnsides, of Owens College, Manchester, and Yorkshire College, Leeds; Henry Rosse, Frederick Dixon, and William Walter Chandler, of Owens College, Manchester; Walter Dixon, of Owens College, Manchester, and Yorkshire College, Leeds; Thomas Barrett, M.B., Cambridge, and Owens College, Manchester; James H. Wells, of Owens College, Manchester; Alfred Marshall, of Owens College, Manchester, and University College, Liverpool.

Six candidates were referred in both subjects; two in Anatomy only and six in Physiology only.

Passed on the 5th inst.:—Chas. W. Fawcett and Arthur Barrett, M.B., Cambridge, of Yorkshire College, Leeds; Charles Chapman and Alfred H. Cockerill, of Owens College, Manchester; Thos. Gregory and Alfred Hopkinson, of St. Thomas's Hospital; Alfred H. Cockerill, of Medicine, John Wallace, Francis of Bristol School of Medicine; Max Weichard, of Berne University, Switzerland; Francis G. Crookshank, of Owens College, Manchester, and St. Thomas's Hospital.

Anatomy only.—Arthur E. Little, Ernest E. Crowther, and Percy Kitchen, of Yorkshire College, Leeds; William H. Tomlinson, Jas. Worthington, Joseph Broadbent, Samuel Crossley, and Albert Hodge, of Owens College, Manchester; John W. Farndale and Edward J. E. Coop, of Queen's College, Birmingham; Charles E. Walker, of St. George's Hospital; John H. R. Pigeon, of Bristol School of Medicine; William C. Gent, of Bristol School of Medicine and Mr. Cooke's School of Anatomy and Physiology; Brian Watts, of Sheffield School of Medicine and Mr. Cooke's School of Anatomy and Physiology; Matthias Bailey, of University College, Liverpool; Percy Lyndon Moore, of Cambridge University and Mr. Cooke's School of Anatomy and Physiology.

Physiology only.—Richard G. Worger, of Bristol School of Medicine; John H. Busteed, of Guy's Hospital.

(Four candidates were referred in both subjects and fourteen in Physiology only.)

Passed on the 6th inst.:—

Anatomy and Physiology.—Godfrey J. R. Lowe, Edwin J. Toye, Ernest P. Turner, and Henry E. Thompson, of St. Bartholomew's Hospital; H. Fulham Turner, Ernest H. Van Someren, Alfred Salter, Henry J. F. Bourne, Stanley Copley, Thomas H. Green, Murray P. Jones, and James H. Horton, of Guy's Hospital; Arthur W. Jenkins, Arthur L. A. Webb, John Richards, Alfred Dimsey, Cecil Banting, and Courtnay C. Weeks, of University College; Edwin H. T. Nash, Maurice H. Laslett, Matthew J. H. Sayers, and Alfred L. Home, of St. Thomas's Hospital; Matthew H. Raper and Edward J. Dobbin, of Middlesex Hospital; Henry W. Mills, of St. Thomas's Hospital and Edinburgh University; Sidney T. Reid, of Charing-cross Hospital.

Anatomy only.—Richard D. Stacy, of St. Bartholomew's Hospital; Leonard G. Reynolds, Stanley Rivers, and Thos. S. Biggs, of Guy's Hospital.

Physiology only.—Randolph L. Grosvenor, of St. Mary's Hospital; and Robert A. Pitter, of Middlesex Hospital.

(Six candidates were referred in both subjects; two in Anatomy only and eight in Physiology only.)

VICTORIA UNIVERSITY: FACULTY OF MEDICINE.—**The following candidates have satisfied the examiners:—**

Second M.B. Examination.

C. S. Ashe, Owens.	R. T. Hughes, Owens.
W. J. Bowden, ,,	A. W. Lilley, ,,
S. W. Brook, ,,	T. U. Mercer, University.
W. M. Brown, University.	Ernest Monks, Owens.
Archibald Brushfield, Owens.	Frank Radcliffe, ,,
W. W. Clemesha, ,,	J. H. Ray, ,,
T. S. Collin, ,,	J. F. Rimmer, ,,
N. F. Edwards, ,,	H. S. Smith, ,,
P. H. Fearnsides, Yorkshire.	W. L. Spink, Yorkshire.
F. W. Fish, Owens.	O. B. Trumper, ,,
J. W. Hainsworth, Yorkshire.	J. D. Whitaker, Owens.
J. P. Hall, Owens.	Philip Wilkinson, ,,
John Howe, ,,	

Final M.B. Examination (Part I.).

Reginald Alcock, Owens.	John Healey, Owens.
J. C. Bowden, University.	C. R. Jones, University.
H. C. Cadman, Owens.	W. McClelland, ,,
J. B. Carter, ,,	J. B. Mawdsley, ,,
J. H. Crocker, ,,	A. J. Partridge, ,,
W. E. Davies, University.	F. C. Scotson, Owens.
Arthur Greenhalgh, Owens.	F. J. Woods, University.

Final M.B. Examination (Part II.).

†A. E. Ash, Owens.	†E. C. McCarthy, Owens.
Arthur Bicknell, University.	†R. W. Marsden, ,,
*J. W. Crawshaw, Owens.	C. B. Taylor, ,,
A. J. Edwards, ,,	*J. H. Taylor, ,,
H. J. Lightbody, University.	†R. T. Turner, ,,
C. E. M. Lowe, Owens.	

* First Class Honours. † Second Class Honours.

UNIVERSITY OF ABERDEEN.—**The following candidates have received degrees in Medicine and Surgery:—**

Degree of M.D.—Charles G. Bennett, Buckie; Eber. Chambers, London; *Arthur R. Cushny, Fochabers; James S. Dickie, Bournemouth; Robert Eatough, Brindle; Charles T. Ewart, London; *James Galloway, London; Arthur C. Hutchings, Salisbury; William Macbain, Blackburn; Archibald D. Mackinnon, Skye; Lindley M. Scott, Aberdeen; †Edgar Stevenson, Birkenhead.

* Highest Honours. † Commendation.

Degrees of M.B. and C.M.—Wm. M. Anderson, Aberdeen; Andrew Baxter, Aberdeen; Thos. Brander, Garmouth; Wm. J. Carmichael, Aberdeen; Arthur B. Dalgetty, Auchinblae; Navroji B. Darabseth, Bombay; §Andrew Davidson, Forres; Wm. R. Duguid, Buckie; Wm. J. S. Ewan, Fyvie; Duncan Finlayson, Tain; Alexander Forbes, Leochel-Cushnie; Alexander Fraser, Inverness; Thomas H. Galbraith, London; Alex. G. Gall, Melbourne; Alex. Grant, Dufftown; John W. Grant, Watten; Edward M. Griffiths, Ruthin, North Wales; Peter R. Ingram, Kildrummy; John R. Keith, Bridge of Allan; Robert E. Kerr, Bunchrew; Alex. Lamont, Ellon; John Leach, Ardersier; §Duncan D. Mackintosh, Aberdeen; William Moir, Forgue; Hugh Mowat, Banff; James Mowat, Auchnagatt; §Thos. W. Ogilvie, Aberdeen; John G. Pardoe, Littlehampton, Sussex; §Wm. R. Pirie, Aberdeen; William Ross, Fearn, Ross-shire; Wm. A. G. Russell, Orkney; §James Rust, Aberdeen; George Savege, Montrose; Charles R. Selbie, Pitcaple; Robert R. Sutter, Timaru, New Zealand; Andrew W. Thomson, Jamaica; ‡Wm. Trethowan, Victoria, Australia; Henry L. de Vos, Ceylon; James Wallace, Fearn, Ross-shire; Alfred Wilsden, Wooler, Northumberland; Robert Young, South Australia.

‡ Highest Honours. § Honourable Distinction.

George K. Gifford (Shetland) has passed the examinations for the degrees of M.B. and C.M., but will not graduate until he attains the necessary age.

Diploma in Public Health.—John T. Wilson, Glasgow (with credit).

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—**The following candidates have passed the Preliminary Examination:—**

J. J. Adrian, N. Beck, R. Brews, A. Eades, F. Hefferman, L. Jones, G. Kennedy, M. King, J. Martin, J. Morris, G. McDonald, J. Nesbitt, T. Neville, J. O'Connor, E. O'Farrell, G. Ross, H. Sheill, W. Veming, and J. Whyte.

The following candidates have passed the Supplemental Examination in Physics:—

J. Barry, M. Cahill, D. Clarke, V. Connor, T. Cormack, E. Corselles, A. Faulkner, R. Hamilton, E. Heard, T. Martin, L. Mayston, T. Mullins, C. Odevaine, R. O'Donovan, P. O'Meara, B. Phillipson, and E. Siberry.

UNIVERSITY OF DUBLIN.—**The following prizes have been awarded for the winter session:**—*Anatomy:* Senior Division—J. H. Morton, prize; Second Year, D. F. Walker, prize. Junior Division—Robert Friel, prize. *Practice of Medicine:* M. C. Carmichael, first prize; R. H. Kennan, second prize; F. Wynne, third prize.

GREAT NORTHERN CENTRAL HOSPITAL.—**It has been decided by the committee of the hospital situate in the Holloway-road to erect the additional wing which will complete the new buildings, as a memorial to the late president of the institution, H.R.H. the Duke of Clarence and Avondale. Tenders for the work have been accepted, the cost of which, with the necessary furniture and fittings, will amount to about £30,000.**

HOSPITAL FOR WEST FIFE.—**At a special meeting of Inverkeithing Town Council on the 2nd ult., it was agreed to combine with the Burgh of Dunfermline and the Fife County Council in erecting a hospital for the treatment of infectious diseases. The terms on which the cost should be allocated have now been adjusted. It is proposed to provide from thirty to thirty-five beds, and the capital expenditure is estimated at £3000. A site at Milesmark, near Dunfermline, has been recommended.**

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL.—**The annual report of the hospital, read at the annual meeting on the 8th ult., stated that 500 more patients had been treated than in the previous twelve months. As to the qualifications of physicians, the Rev. J. W. Tottenham moved the following resolution: "That an alteration be made in Rule 53, to the effect that after the words 'Fellow or Member of the Royal College of Physicians of London' be inserted 'Edinburgh or Dublin.'" A prolonged discussion ensued, the ultimate result being that the present rule should be maintained.**

METROPOLITAN OPEN SPACES.—**In the eighteen months during which the London County Council has maintained the gardens and churchyards handed over to it by the Metropolitan Public Gardens Association, £323 has been spent in various necessary works. There are eleven of these places, and it is estimated that £1694 will be required to put these additions into a condition similar to the other recreation grounds, if the Council decides to permanently take them over. The total acreage of parks and open spaces under the Council's control is 3121, and the cost for maintaining these last year was £56,668.**

ROYAL COLLEGE OF SURGEONS IN IRELAND: SCHOOLS OF SURGERY.—**The following is the prize list for the winter session 1891–92:**—*Descriptive Anatomy:* Junior—George E J. A. Robinson, first prize (£3 and medal); Charles Bagot Martin, second prize (£1 and certificate). Senior—Edward Joseph Moore, first prize (£3 and medal); Ernest Alexander Meeke, second prize (£1 and certificate). *Practical Anatomy:* First year—Joseph Richardson Sinton, first prize (£3 and medal); Francis Joseph Parcell, second prize (£1 and certificate). Second year—Asher Leventon, first prize (£3 and medal); Edward Joseph Moore, second prize (£1 and certificate). Third year—Hubert Rolston Sweeny, first prize (£3 and medal); Louis Francis Corbet, second prize (£1 and certificate). *Practice of Medicine:* William Taylor, first prize (£3 and medal); James Joseph O'Donnell, second prize (£1 and certificate). *Theoretical Surgery:* William Taylor, first prize (£3 and medal); Hubert Rolston Sweeny, second prize (£1 and certificate); Arthur McCann and James Jos. O'Donnell, certificates. *Midwifery:* William John Trewhella, first prize (£3 and medal); Myles D'Exeter Jordan, second prize (£1 and certificate). *Physiology:* William Ludgate Martin, first prize (£3 and medal); Edwin C. Hayes and Arthur McCann, second prize (£1 and certificate). *Chemistry:* Maurice J. Carroll and Edward W. Siberry (equal), first prize.

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MEDICAL APPOINTMENT TO COUNTY COUNCIL.—Mr. T. Woods, L.R.C.P. Lond., L.R.C.S.I., has been elected an alderman of the Dorsetshire County Council.

FOOTBALL CASUALTY.—During a Rugby match between the Liverpool Banks and the Liverpool Insurance Companies, played on the 30th ult. on the Old Boy's ground, Stanley, a young man sustained a fracture of the leg and was taken to the Royal Infirmary.

THE DRAINAGE OF THE LEA VALLEY.—A Select Committee of the House of Commons, presided over by Mr. Herbert Gladstone, have passed the Bill authorising the formation of a Board of Commissioners with power to effect the drainage of the lower portions of the Lea Valley, now subject to frequently recurring floods.

GIFT TO BIRMINGHAM.—Mr. Richard Cadbury has just formally handed over to the Mayor of Birmingham his late residence, Moseley Hall, which he has partly endowed, as a convalescent home for children. There is accommodation for 150 beds. The value of the gift with the donation to the endowment fund is estimated at £30,000.

CORONERS IN BOROUGHS.—Where owing to the death of the coroner of a borough a vacancy occurs in his office, it is proposed, in a Bill introduced by Sir A. Rollit, M.P., to empower the mayor of the borough to appoint a fit person to act as temporary coroner until the vacancy is filled by the council of the borough. In such cases the temporary coroner would have the same remuneration &c. as the ordinary coroner.

OPENING OF NEW HOSPITALS IN BOMBAY.—His Excellency the Governor, who was accompanied by Lady Harris and attended by Captain Nuthall, A.D.C., on March 17th performed the ceremony of formally opening the Sir Dinshaw Maneckjee Petit Hospital for Women and Children, the Bai Motlibai Obstetric Hospital, and the Dwarkadas Lalloobhoy Dispensary for Women and Children, the three new institutions lying off the Baboola Tank-road, and in close proximity to the Sir Jamsetjee Jejeebhoy Hospital.

NORTH-WEST LONDON HOSPITAL, KENTISH TOWN-ROAD.—The past year of this institution has been specially prosperous financially. The deficiency of the funds at the opening of the year gave much anxiety. Outstanding liabilities amounted to upwards of £2700, and the current expenditure for the year of not less than £3500 had to be provided. But Baron de Hirsch headed a list of subscriptions for £1000, and Mr. John Maple gave £100 on condition that twenty donations of a similar sum were forthcoming. The offer met with ready and satisfactory responses, and the work of the hospital has suffered no curtailment, but has increased.

POPLAR HOSPITAL FOR ACCIDENTS.—The thirty-seventh annual report shows that the usefulness of the charity had been satisfactorily maintained during the past year. The twelvemonth's receipts reached £8000, the largest sum received in any one year. This result is due to the special appeals made for additional funds. To meet the requirements of the honorary surgeons and the building committee for necessary improvements, plans were prepared and subsequently accepted, involving an outlay of £6088, and the work had been commenced and should be finished by November next. The amount subscribed does not permit the committee to erect the much-needed ward for women, which would enable them to complete the buildings. The cash statement shows a balance in hand of about £910 on the general fund.

PRESENTATION.—On the occasion of the members of the Infirmary Medical Superintendents' Society dining together with numerous friends at the Inns of Court Hotel, Holborn, on the 26th ult., advantage was taken to present Dr. John Henry Bridges, the medical inspector of the Local Government Board, with a silver salver and an illuminated address, subscribed for by the whole of the medical superintendents of the Metropolitan Poor-law infirmaries, as a mark of their appreciation of his courtesy in the discharge of his duties in connexion with the infirmaries, and of regret at his approaching retirement. Dr. Bridges, in an appreciative response, concluded by expressing his regret at the prospect of his active connexion with the infirmaries ceasing, but looked forward to his moral support continuing, and he felt sure that the members of the Society might look for the cordial support of the new head of the department, Dr. Thorne Thorne.

QUEEN'S HOSPITAL, BIRMINGHAM.—The annual report, just issued, shows a large increase in 1891 of the number of patients treated, which testifies to the growing importance and value of the charity to the city in its benevolent work. A wholesome improvement appears in the subscription list. The contribution from the Hospital Saturday collection had this year amounted to £1759 9s. 10d., the largest sum yet raised by that organisation on its behalf. The sanitary condition of the hospital was highly satisfactory, and the external nursing department had proved an important and valuable auxiliary.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on April 5th, 1892.

Hospital.	Beds occupied. Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	Total accommodation.
Eastern Hospital	196*	64	..	20	..	280	442
North-Western Hospital	182	46	..	10	4	242	411
Western ,,	106	21	..	1	3	131	224
South-Western ,,	197	41	..	8	..	246	350
South-Eastern ,,	231*	13	..	26	1	271	424
Northern ,,	314	25	..	8	..	347	480
Totals	1226	210	..	73	8	1517	2331

* Infant with mother.

SMALL-POX.—*Atlas* hospital ship, 38.

MEDICAL NOTES IN PARLIAMENT.

Smoke Nuisance (Metropolis) Bill.

IN the House of Lords, on Thursday, March 31st, the House went into Committee on this Bill, which, after some consideration, was reported to the House, and afterwards referred to the Standing Committee.

The Water-supply of London.

In the House of Commons, on Friday, in answer to a requisition by Sir R. Temple desiring the names of one or two influential residents in Surrey to be added to the Commission, Mr. Ritchie replied that the question of the constitution of the committee had been very carefully considered. The Government could not accede to the suggestion of his hon. friend.

Yellow Fever on Transports.

In answer to Mr. Leighton, Mr. Brodrick said two cases of yellow fever occurred during the voyage of the *Atlas* to Halifax; and since arrival one case had been sent to the hospital. The percentage of sick to strength among the white troops at St. Lucia had been fairly constant since the increase of the garrison, and it had averaged 9·9 per cent.

Fever among the Royal Horse Guards.

In the House of Lords on Thursday, the 7th inst., the Earl of Arra gave notice that he will ask the Government how many cases of typhoid fever have occurred among the officers of the Royal Horse Guards (the Blues) since August last, whether any examination has been made by the military or other medical or sanitary authorities during the past year of the barracks and quarters occupied by the Royal Horse Guards up to April 5th, 1892, and whether there is any objection to lay these reports, if any have been made, on the table o the House. The question will be addressed to the Government soon after the reassembling of the House of Lords.

Queen's College, Belfast.

In the House of Commons on Thursday Mr. Sexton asked the Chief Secretary to the Lord-Lieutenant of Ireland what steps had been taken to provide the medical students of Queen's College, Belfast, with a summer session for dissection.—Mr. Jackson replied that he did not know that any application for a summer session in anatomy had been made to the authorities of the College, but he was aware that the President did not consider such a session necessary.—Dr. Tanner asked whether the right hon. gentleman was aware that summer sessions were quite ordinary.—Mr. Jackson: Yes, sir; but not necessary.

The Colour Vision Committee.

Sir Henry Roscoe asked the President of the Board of Trade whether he could state when the report of the Colour Vision Committee, appointed at his request by the Royal Society, would be laid upon the table of the House.—Sir M. Hicks Beach replied that the Chairman of the Committee expected to be able to report to the Royal Society at the end of the present month. As soon as the report reached him (Sir M. Hicks Beach) he would lose no time in laying it on the table.

The National Vaccine Establishment.

Mr. Summers asked the President of the Local Government Board whether he was aware that the humanised lymph distributed from the National Vaccine Establishment, which was derived from various public vaccinators throughout the country, had been found, on examination, to vary greatly in quality, and, in some cases, from 60 to 70 per cent. of

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QUEEN'S HOSPITAL, BIRMINGHAM.—The report, just issued, shows a large increase in the number of patients treated, which testifies to the importance and value of the charity to the benevolent work. A wholesome improvement in the subscription list. The contribution from the Saturday collection had this year amounted to the largest sum yet raised by that organisation in The sanitary condition of the hospital was satisfactory, and the external nursing department is an important and valuable auxiliary.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fevers of the Board at Hainault on April 4th.

Hospital	Beds occupied. Enteric fever.	Diphtheria.	Typhus fever.	Pernicious remittent fever.	Continued fever.
Eastern Hospital ... —	196*	64	—	20	... 5
North Western Hospital	142	66	—	14	1 3
Western "	146	21	—	1	1 5
South Western "	197	41	—	6	1 9
South Eastern "	220*	13	—	56	1 7
Northern "	314	25	...	3	... 2
Totals ... — ...	1215	230	...	79	4 31

* Infant with mother.

SMALL-POX.—*At this hospital this w...*

MEDICAL NOTES IN PARLIAMENT.

Smoke Nuisance (Metropolis) Bill.

In the House of Lords, on Thursday, March 31st, ... Committee on this Bill, with ... reported to the House, and afterwards referred ... Committee.

The Water supply of London.

In the House of Commons, on Friday, in answer ... to it, Lord George Hamilton, describing the ... Commissioner, Mr. Bryce, ... to agree to be a member of the Commission. Mr. Bryce ... of the constitution of the committee in ... Government could not accept ... [illegible]

Yellow Fever in Trinidad.

In answer to Mr. Leighton, Mr. Bowles said ... fever occurred during the voyage of the ... that one case had been sent to the hospital. ... strength among the white troops in St. Lucia ... since the increase of the garrison, and it has ...

Fever at the Royal Horse Guards.

In the House of Lords on Thursday, the Bishop ... gave ... that he will ask the Government ... [illegible] ... have occurred among the officers ... to the Blues since August last, whether any ... been made by the military or other medical ... during the past year of the barracks and ... of the Horse Guards up to April 5th, 1892, and ... If the Horse Guards up to April 5th, 1892, and ... to lay these reports, if any have been made, ... The question will be addressed to the Lords ... House.

Queen's College, Belfast.

In the House of Commons on Thursday Mr. ... secretary to the Lord Lieutenant of Ireland, ... to provide the medical students of Queen's ... summer session for dissection.—Mr. Jackson ... that a very ample provision for a summer ... in the authorities of the College, but he ... that any application for a session ... made to the authorities of the College, but he ... President did not consider such a session ... whether the right hon. gentleman was ... were quite ordinary.—Mr. Jackson: Yes, sir, ...

The Colour Blind Committee.

Sir Henry Roscoe asked the President of the ... whether he could state when the report of the ... mittee, appointed at his request by the Royal ... upon the table of the House.—Sir M. Hicks Beach ... Chairman of the Committee expected to be able ... Secretary at the end of the present month. ... [illegible] ... the table.

The National Vaccine Establishment.

Mr. Summers asked the President of the ... whether he was aware that the Institution ... National Vaccine Establishment, which was ... throughout the country, had been found ... the tubes had, upon microscopic examination by Mr. Farn, the official examiner of vaccine lymph, been rejected as unfit for use; and whether, in view of these facts, he would advise that no lymph should be used for public vaccination unless it had been first submitted to official microscopical examination.—Mr. Ritchie: As I very recently informed the honourable member, in reply to a question by him, the only humanised lymph distributed by the National Vaccine Establishment which is not microscopically examined is that supplied on points, and this lymph is exclusively furnished to the Department by their own officers, who themselves have carefully taken the lymph. I see no reason to advise a change in the existing arrangements as to the lymph for public vaccinations.

Scurvy among Sailors.

In reply to a question by Colonel Hill, Sir M. Hicks Beach said that returns on the subject of the health of crews of ships were presented to Parliament in 1876, 1879, and 1883. Since then there had been a great decrease in the number of outbreaks of scurvy, the number reported diminishing from 99 in 1881 to 13 in 1891. He was glad to be able to add that these outbreaks had diminished in severity as well as in number.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ARBUCKLE, JOHN H., M.D., C.M., S.Sc.Cert. Camb., has been appointed Medical Officer in Criminal Investigations in the Kilmarnock District of the county of Ayr.

BODMER, R., F.C.S., F.I.C., has been reappointed Public Analyst for the Bermondsey Local Board.

BURNET, R. W., M.D., has been appointed Honorary Consulting Physician to the Royal Caledonian Asylum, Holloway, N., vice D. W. Finlay, M.D., resigned.

CHEYNE, WM. WATSON, M.B., has been appointed Honorary Consulting Surgeon to the Royal Caledonian Asylum, Holloway, N., vice J. Wood, F.R.C.S., deceased.

CLARKSON, R. D., M.B., C.M. Edin., has been appointed Resident Physician to the Royal Edinburgh Hospital for Sick Children.

COTTERELL, EDWARD, F.R.C.S., has been appointed Surgeon to the Cancer Hospital, and Surgeon to the West-End Hospital for Nervous Diseases.

DEEPING, G. D., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Prittlewell Sanitary District of the Rochford Union.

DOWDEN, J. W., M.B., C.M. Edin., has been appointed Resident Physician at the Royal Edinburgh Hospital for Sick Children.

ENGLISH, J., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer to the Yass Hospital, New South Wales.

FISHER, J. A., L.F.P.S. Glasg., L.R.C.P. Edin., has been reappointed Medical Officer of Health for Garston.

FRANKISH, THOS., M.B., C.M. Edin., has been appointed Dispensary Surgeon to the Bradford Infirmary, vice Milligan.

HARRIS, THOS., M.D. Lond., M.R.C.P., M.R.C.S., has been appointed Honorary Physician to the Manchester Royal Infirmary, vice Ross.

HAYDON, F. E., M.B. Glasg., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Littlehampton Port Sanitary Authority, East Preston Union.

HENDERSON, D., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Bilston, No. 5, Sanitary District of the Wolverhampton Union.

HORROCKS, W., F.R.C.S., has been appointed Honorary Surgeon to the Bradford Infirmary, vice Dr. Rabagliati.

JONES, J. R., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Penrhyndendraeth Sanitary District and the Workhouse of the Festiniog Union.

KIRTON, C. S., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer for the Leigh Sanitary District of the Rochford Union.

LEES, C. F., M.B., C.M. Edin., has been appointed Assistant Medical Officer at the Hope Hospital, Manchester.

MACCARTHY, W. F., M.B., B.Ch. Dub., has been appointed Medical Officer for the Sanitary District of Powick, Malvern Union.

MILLIGAN, H. N. D., M.B., C.M. Edin., has been appointed Junior House Surgeon to the Bradford Infirmary, vice H. B. Kitchin.

MORRIS, W. J., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Tremadoc Sanitary District of the Festiniog Union.

MORRISON, J. T. J., M.A., B.C. Cantab., F.R.C.S. Eng., has been appointed Central Divisional Surgeon to the Birmingham Police Force and Fire Brigade.

MULVANY, JOHN, M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Cottage Hospital, Walsall.

MUNDEN, CHAS., M.R.C.S., has been appointed Medical Officer for the Ilminster Sanitary District of the Chard Union.

PARTRIDGE, THOS., M.R.C.P. Irel., M.R.C.S., has been reappointed Medical Officer of Health for the Stroud Rural Sanitary District.

RICHARDSON, W. J., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer to the Brentford Post-office.

ROBERTS, EDWD. C., M.R.C.S., has been reappointed Medical Officer of Health, Southgate, N.

ROBERTS, J. S. H., L.R.C.P. Lond., M.R.C.S., has been appointed Surgeon to the Swansea Hospital, vice Knight.

ROBINSON, FRANK, M.B., Ch.B., has been appointed Assistant Medical Officer to the Workhouse Infirmary, Crumpsall, and Resident Assistant Medical Officer to the Casual and Receiving Wards, New Bridge-street, Manchester.

SWABY-SMITH, C., M.R.C.P. Ed., M.R.C.S., L.S.A., has been appointed Senior Medical Officer to the First Surrey Rifles.

THANE, P. T., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the Yass Hospital, New South Wales.

WILLETT, EDGAR, M.B., F.R.C.S., has been appointed Assistant Surgeon to the Metropolitan Hospital, Kingsland-road.

WILLIAMS, HENRY W., M.D. Aberd., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Consulting Physician to the Dalrymple Home for Inebriety, vice Carpenter, deceased.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ASTON UNION.—Resident Assistant Medical Officer at the Workhouse, Erdington, near Birmingham. Salary £100 per annum, with furnished apartments, rations, washing, &c. (Apply to the Clerk, Union Offices, Vauxhall-road, Birmingham.)

CHESHIRE COUNTY ASYLUM, Macclesfield.—Senior Assistant Medical Officer. Salary to commence at £150 per annum, with board (no beer), apartments, &c.

CUMBERLAND INFIRMARY, Carlisle.—House Surgeon for one year. Salary £70 per annum, with board, lodging, and washing.

HASTINGS, ST. LEONARDS, AND EAST SUSSEX HOSPITAL, Hastings.—House Surgeon. Salary £75 per annum, with board and residence in the hospital.

KILBURN, MAIDA VALE, AND ST. JOHN'S WOOD GENERAL DISPENSARY.—Vacancy in the Honorary Medical Staff. (Apply to the Honorary Secretary, 13, Kilburn-park-road, N.W.)

LEWES DISPENSARY AND INFIRMARY AND VICTORIA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, furnished apartments, coal, gas, and attendance.

LONDON LOCK HOSPITAL AND ASYLUM, Harrow-road, and 91, Dean-street, Soho.—Surgeon to Out-patients. (Apply to the Secretary, 91, Dean-street, Soho.)

MANCHESTER ROYAL INFIRMARY, DISPENSARY, AND LUNATIC HOSPITAL OR ASYLUM.—Honorary Assistant Physician.

MANCHESTER SOUTHERN AND MATERNITY HOSPITAL.—Resident House Surgeon. Honorarium at the rate of £75 per annum.

METROPOLITAN HOSPITAL, Kingsland-road.—House Physician, House Surgeon, and Assistant House Surgeon, for six months. In addition to board and laundry expenses, the House Physician and House Surgeon will each receive a salary at the rate of £60 per annum.

NORTH RIDING ASYLUM, Clifton, York.—Second Assistant Medical Officer. Salary £100 a year. Board, apartments, washing, and attendance.

NOTTINGHAM BOROUGH ASYLUM.—Assistant Medical Officer. Salary £125 per annum, with apartments, board, and washing.

PARISH OF BIRMINGHAM.—Three Visiting Physicians for the Workhouse Infirmary. Salary £100 a year. (Apply to the Clerk, Parish Offices, Edmund-street, Birmingham.)

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—Visiting Physician for the Branch Hospital in the Royal Victoria and Albert Docks.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—Visiting Ophthalmic Surgeon.

ST. GEORGE-THE-MARTYR, Southwark.—Medical Officer of Health. Salary £500 per annum. (Apply to the Vestry Clerk, Vestry Hall, Borough-road, S.E.)

UNIVERSITY COLLEGE, London.—Resident Medical Officer in the hospital.

Births, Marriages, and Deaths.

BIRTHS.

ACKLAND.—On March 29th, at Stowford House, Bideford, the wife of C. Kingsley Ackland, L.R.C.P. Lond., of a daughter.

DUNCAN.—On April 6th, at Park House, Croydon, the wife of P. T. Duncan, M.D. Lond., of a daughter.

EMERSON.—On March 29th, at Talgarth-road, West Kensington, the wife of Surgeon-Major G. A. Emerson, I.M.D., of a son.

GOODING.—On April 5th, at Bridgeland-street, Bideford, N. Devon, the wife of M. R. Gooding, L.R.C.P. Lond., M.R.C.S. Eng., of a son.

HARDING.—On March 29th, at Elmsleigh Moat-Croft-road, Eastbourne, the wife of C. O'Brien Harding, M.R.C.S., L.R.C.P. Lond., of a daughter.

TOLLER.—On April 1st, at Castle House, Ilfracombe, the wife of Charles W. E. Toller, M.B. (Durh.), of a daughter.

MARRIAGES.

GROOME—DIXON.—On April 6th, at St. Peter's Church, Brockley, Walter Groome, M.B., M.S., son of John Groome, Esq., of Ellesmere Park, Eccles, to Edith Maria, youngest daughter of John Dixon, Esq., of Lenten House, Brockley, Kent.

MOON—BRADSHAW.—On March 1st, at Christ Church, Rawal Pindi, Punjab, by the Rev. A. N. W. Spens, Senior Chaplain, Wilfred Graham, Captain Seaforth Highlanders, third son of the Rev. Sir Edward Graham Moon, Bart., Rector of Fetcham, Leatherhead, Surrey, to Mary Frances, second daughter of Surgeon-Colonel A. F. Bradshaw, C.B., Army Medical Staff, Honorary Surgeon to his Excellency the Viceroy of India.

MORRIS—HALLETT.—On April 2nd, at St. Margaret's, Westminster, Henry Cecil Low Morris, L.R.C.P., M.R.C.S., Hambleden, Henley-on-Thames, to Emily Beatrice, youngest daughter of the late Joseph Hallett, of Sunningdale, Thornton-heath.

DEATHS.

CATTY.—On April 3rd, at Meadow Lodge, Cambridge-park, Twickenham, Frederic Adam Catty, F.R.C.S., formerly of Guildhall, London, aged 89.

HAWKINS.—On April 4th, at Duke-street, Portland-place, Charles Hawkins, F.R.C.S., in his 80th year.

SARGENT.—On April 1st, in London, of pneumonia, Henry Edwin Sargent, M.D., M.R.C.S.E., L.S.A., formerly of Polyphant, near Launceston, Cornwall, aged 63 years.

SPOONER.—On April 2nd, at 15, Victoria-road, Brighton, Chas. Henry Spooner, M.R.C.S., aged 76.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 7th, 1892

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
April 1	30·47	S.	41	37	84	67	37	—	Hazy
" 2	30·42	S.E.	48	43	108	67	40	—	Hazy
" 3	30·35	N.E.	53	48	114	67	41	..	Bright
" 4	30·07	S.	50	46	105	74	43	..	Foggy
" 5	29·98	S.	56	51	110	74	48	..	Hazy
" 6	29·96	S.E.	56	50	104	71	50	..	Hazy
" 7	29·93	E.	52	47	107	66	45	..	Hazy

Medical Diary for the ensuing Week.

Monday, April 11.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Evening. Mr. Watson Cheyne: A case of Removal of the Breast treated by Thiersch's Method of Skin Grafting.—Mr. Harrison Cripps: (1) A case of Chancre of Face; (2) A case illustrating Amputation of the Penis by a Perineal Method.—Mr. Hugh Smith: A Preparation of the Parts from a case of Unreduced Dislocation of the Shoulder, with Clinical History.—Dr. T. Colcott Fox: Two cases illustrating the Development of Lupus Vulgaris from Scrofulous Glands and Scrofulous Gummata.—Dr. W. Pasteur: Pigmentation of Mucous Membrane of Mouth and Gums. Cases will also be shown by Dr. Mitchell Bruce and Mr. Sheild. Mr. Brudenell Carter will show at the commencement of the meeting an instrument for facilitating the performance of Mules's operation. By the President: (1) A Specimen of Plugging of the Duodenum from a Lamb; (2) Infective or Melanotic Freckles in Senility (portrait).

Tuesday, April 12.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

THE QUEEN'S COLLEGE, BIRMINGHAM.—4 P.M. Dr. Arthur Foxwell: The Condition and Treatment of the Vascular System in Chlorosis and other Debilitated States. (Ingleby Lecture.)

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Mr. Rickman John Godlee: A case of Ligature of the Second Part of the Left Subclavian Artery for the Cure of an Axillary Aneurysm.—Dr. George Thin: On the Symptoms and Pathology of Psilosis (Linguæ et Intestini).

Wednesday, April 13.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

HUNTERIAN SOCIETY.—8.30 P.M. The President: A case of Acromegaly. Dr. T. Marshall: A case of Local Sweating of Face.—Dr. Jas. Galloway: A case of Morphœa undergoing Resolution.—Mr. J. Poland: A large Adeno-fibroma of the Breast.—Dr. A. T. Davies: (1) A case of Myxœdema; (2) A case of Transposition of the Viscera.

Thursday, April 14.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, April 15.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

Saturday, April 16.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and address of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

A WARNING.

IT has come to our knowledge during the last few days that a preparation of a chemical nature has been advertised with the name of this journal as part of its trade title. We need hardly say that we have forbidden the use of the name of THE LANCET for the purpose indicated, and our readers will be assured that in no case has any company, firm, or individual the right, either expressed or implied, to use the name of THE LANCET, or the word "Lancet," as part of the trade title of any article, compound, or substance whatsoever.

PRISMETRY.

Mr. Dixey, the well-known optician, addresses to us a letter in which he expresses his opinion that instead of numbering prisms according to the angle of inclination of the sides, as now commonly practised, it would be well if ophthalmic surgeons would adopt the notation recommended by Dr. Maddox in his work on Prisms, in which the angle of deviation of a ray of light passing through the prism is taken as the basis. Mr. Dixey points out very justly that the present method is very unsatisfactory, in view of the different materials of which spectacle lenses are made, such as pebbles and tinted and plain glass, and that the method of numeration suggested by Dr. Maddox is much more scientific, and will certainly lead to more satisfactory results when the optician carries out the directions of the ophthalmic surgeon. In this view we are in complete accord with Mr. Dixey.

Cestrian.—1. The degree is registrable only as an additional qualification.—2. Yes.—3. Information is given in our Students' Number published in September last; or application might be made to the Secretary of the Brussels Medical Graduates' Association, Dr. Steele, 3, Hamilton-road, Ealing, W.

Dr. Fred. J. Smith.—We can, obviously, undertake the analysis of cigarette papers only in cases where there is reason to suspect their innocuousness.

J. D. F.—Messrs. Leggott and Marsh, Market-street, Bradford.

AN INTERESTING DOCUMENT.

To the Editors of THE LANCET.

SIRS,—As much has been said lately about Sir Provo Wallis, the survivor for so long of the action between the *Chesapeake* and the *Shannon*, I send you a copy of a document in my possession, which will give your readers the name of the surgeon of the *Shannon*; and as possibly someone of his descendants may be in our profession, it may interest them to know that his name is preserved along with that of Sir Provo Wallis in my collection of autographs.

"These are to certify the Directors of the Chest at Greenwich that Peter Van Loo, quality L.M., was wounded on board His Majesty's ship *Shannon* by receiving a splinter wound on the left shoulder, removing the integuments for a great extent, on the first day of June, One thousand eight hundred and thirteen, being then actually upon His Majesty's service in engagement with the United States Frigate *Chesapeake*. Aged about 21 years. Born at or near Oldenburgh, Germany.

"P. B. V. BROKE, Captain. | PROVO W. P. WALLIS, Lieutenant.
— GOUGH (?), Master. | ALEX. JACK, Surgeon."

The name of the master is, I think, Gough; but it is so indistinctly written that I cannot well make it out. Can any of your readers help me?

I am, Sirs, yours truly,

Peterborough, March 29th, 1892. W. EASBY, M.D.

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Dr. Fred. J. Smith.—We can, obviously, undertake to do nothing of the kind.

Cigarette papers only in cases where there is reason to suspect serious inconvenience.

J. D. F.—Messrs. Leggett and Marsh, Market-street, Bolton.

AN INTERESTING DOCUMENT.

To the Editors of THE LANCET.

SIRS,—As much has been said lately about Sir Peter Van Loo, I will send you a copy of the action between the Chesapeake and the Shannon for so long of a document in my possession, which may be of interest to readers the name of the surgeon of the Shannon; and possibly some of his descendants may be in our profession, it would be well to know that his name is preserved along with that of the captain in my collection of autographs.

"These are to certify the Directors of the Chelsea Hospital that Peter Van Loo, quality L.M., was wounded on board His Majesty's ship Shannon by receiving a splinter wound on the left thigh, which has damaged the integuments for a great extent, on the first day of June, one thousand eight hundred and thirteen, being then actually in the service in engagements with the United States frigate Chesapeake. Aged about 21 years. Born at or near Gibraltar. Proved before me at Portsmouth, this 3rd day of May, 1815.

"P. B. V. BROKE, Captain. ALEX. JACK, Surgeon.
— GOUGH (?), Master.

The name of the master is, I think, Gough; but it is not quite certain that I cannot well make it out. Can any of your readers help me?

I am, Sirs, yours truly,
F. BAILY.

April, 1892.

PUBLIC ADVERTISEMENTS AND THE SHEFFIELD PUBLIC HOSPITAL.

WE are asked our opinion on the applications of candidates for the office of Honorary Surgeon in the Sheffield Public Hospital and Dispensary advertised in the *Sheffield and Rotherham Independent*. It is permitted, of course, for a candidate for such an office to lay before the governors a statement of the facts on which he grounds his claim to be appointed. But we think that the particulars of such claims should be given by circular or private communication to governors, and not in newspaper columns. The use of the latter medium has the appearance of an appeal to the public rather than to the governors of the institution.

E. R. H. (Birmingham).—1. The coroner is at liberty to order whom he pleases to make a post-mortem examination. A previous medical attendant should be informed of the arrangements for a necropsy, and invited to be present by the gentleman ordered to make it. We are not aware that the coroner has any power to forbid the presence of the medical attendant.—2. The first part of the second question does not admit of a definite reply without fuller particulars being given. The second part of the question admits only of an affirmative answer.

Rufus.—We regret we cannot supply the information, which might possibly be obtained from the firm named by our correspondent.

Mr. W. G. Percy (Brainerd, Minn.).—Almost any good dictionary will give the information.

Dr. M'Dougal (Cannes).—The paper will appear very shortly.

"'TOUTING' IN HALIFAX."

To the Editors of THE LANCET.

SIRS,—In your issue of April 2nd, under the above heading, "Fair Play" makes certain statements that are undoubtedly misleading to your readers. He says that at the Halifax Provident Dispensary no wage limit exists. Now, this is in one sense quite correct; but your correspondent omits to state that though no wage limit is fixed, yet every intending member's name goes before the committee and medical staff, who exercise their own discretion as to the eligibility of the applicant, and if in their opinion he can remunerate a private practitioner in the ordinary way, the application is not accepted. I may say the committee have already refused many such applications. As to the charge of "touting," it is, of course, impossible to conduct any co-operative system without canvassing. The Halifax Provident Dispensary, however, is not a professional organisation, but one which works on public lines, and "touting" is not a fair expression to be applied to its method. Moreover, as your correspondent must know, there are probably hundreds of dispensaries and schemes for medical aid in operation which are equally open to the complaint. Indeed, in many cases it could be made with much greater reason, since dispensaries have been established by medical men for their own benefit, and to canvassing in these cases the charge of "touting" may more fairly be applied. As to the question of remuneration of medical men, I venture to think the allusion of your correspondent is equally unfair. Our scale of charges is practically the same as that of the Leicester Dispensary (which has 35,000 members and a staff of twenty-two medical officers), and it is more favourable to medical men than the scales of many provident institutions. But it is also the fact that medical gentlemen in Halifax cater to supply the members of friendly societies with advice, attendance, and medicine at from 1*s.* 9*d.* to 2*s.* 6*d.* each per annum, whilst the Halifax Provident Dispensary charges an entrance fee and 3*s.* 6*d.* per member per annum. If space permitted, I could quote other facts, which would doubtless occasion surprise to some of your readers; but I think what I have already said will show that your correspondent's attack on our institution is both unfair and uncalled-for. I enclose you a copy of our rules, and hope you will kindly insert this letter in your next issue.

I am, Sirs, yours respectfully,
F. M. BATLEY,
April, 1892. Secretary, Halifax Provident Dispensary.

PTYALISM.

To the Editors of THE LANCET.

SIRS,—I should be glad of any suggestions as to treatment of the following case.

An old lady seventy-five years of age is the subject of a most troublesome salivation. During sleep and when awake the flow is constant. It began about twelve months ago, and has resisted all treatment by astringents, belladonna, regulation of diet, &c. All the teeth are gone, and no false ones are worn. There is, and has been, no tenderness of the salivary glands, and, except for the constant annoyance, no apparent depreciation of the general health. Appetite good, and digestive functions satisfactory.

I am, Sirs, yours faithfully,
April, 1892. M.B., C.M.

TATTOO MARKS.

To the Editors of THE LANCET.

SIRS,—Having some ordinary blue Indian ink tattoo marks on one of my hands, the result of a boyish freak, and which are more noticeable than elegant, might I ask any of your readers if they could recommend me a fairly certain mode of extirpation short of actual excision of the skin?

I am, Sirs, yours faithfully,
March 19th, 1892. M.B., C.M.

THE MALARIAL ORIGIN OF PERIODIC OPHTHALMIA OF HORSES.

DR. T. POTAPENKO, who has been in Russian cavalry regiments for several years, communicates to the *Vrach* some remarks on the periodic ophthalmia of horses which appears to be of malarial origin; for on examining the blood of affected animals he invariably found both within and without the red corpuscles micro-organisms which, from their microscopical characters and their characteristic staining, appeared to be identical with the plasmodia found in the blood in malarial fever in the human subject. These bodies were never found in the blood of horses not affected with periodic ophthalmia. In corroboration of this view Dr. Potapenko mentions that the affection generally occurred when the horses were pastured in low-lying marshy lands, wet spring and autumn being more favourable than dry seasons.

Mr. T. Greaves Walker.—We have perused the correspondence sent to us. It is gratifying to notice the obvious personal courtesy on both sides. Our correspondent has some reason to complain of the way in which the consultation was arranged without conference with himself. But we could wish that, for the sake of the patient and the avoidance of an appearance of want of professional harmony, he had met the consultant and continued in charge of the case. It is hopeless to expect perfect consideration to medical feeling, especially in complicated circumstances, and in the height of an acute illness. The action of the consultant here, as well as the interest of the patient, made it right to subordinate private feeling, at least till the case was over. Thereafter the practitioner in attendance might have expressed his dissatisfaction to the master of his patient.

Mr. Fred. J. Green.—The Beaufort leg, manufactured by Mr. Schramm, of Princes-street, Cavendish square, would probably meet the requirement of our correspondent.

B. F. will find the information he desires in our Students' Number, published Sept. 6th last.

M.R.C.S. Eng. and *M.D.* (Nice) have forgotten to enclose their cards.

Mr. P. T. Wyman.—We are unable to entertain the proposal.

ALLEGED OFFICIOUSNESS OF A MEDICAL OFFICER OF HEALTH.

To the Editors of THE LANCET.

SIRS,—Would you kindly give publicity to the following facts in your next issue?

On the 28th ult. I was called to see a patient, and, diagnosing the case as one of diphtheria, I duly notified it as such. To my astonishment, on paying my usual visit on the 2nd inst., I found that the medical officer of health had been to the house, examined the patient, and gratuitously expressed his opinion to the relatives that there were no symptoms of diphtheria, and that the patient had not had, and was not suffering from, that disease. On meeting the medical officer of health an hour or two later I referred to the circumstance, only to be further nonplussed by his assertion that "he had only done his duty." He then turned and left me while I was still speaking to him. On the 3rd inst. I had the independent opinion (after a careful examination of the case) of a medical practitioner of standing and experience, who verified my diagnosis, and expressed his willingness to give further testimony, if need be, to its accuracy. This gentleman found the following symptoms:—Two patches of diphtheritic membrane and excoriations in the throat left by sloughing, enlargement of glands in cervical region, and partial paralysis of soft palate with the resulting nasal voice.

Now, Sirs, I would wish you or some member of the profession to let me know what a medical officer of health's duties are. Courtesy and tact surely are essential, whereas interference with a medical man's patients and criticism of his diagnosis seem to contravene both. Have instances such as the above been brought under the notice of the Local Government Board, and if so, with what result?

I am, Sirs, yours faithfully,
GEO. MCM. BROWN, M.B., C.M.Edin.

Tunstall, Staffs., April 4th, 1892.

*** If the above statement, which is of course *ex parte*, is correct, the interference of the medical officer of health was most reprehensible. Such action would paralyse the whole notification system, which throws on the medical attendant the responsibility of the diagnosis. No medical officer of health will, on reflection, undertake to act as a sort of detective to a practitioner in matters of diagnosis.—ED. L.

"ORIGINAL WORK AND GENERAL PRACTICE."

To the Editors of THE LANCET.

SIRS,—In the direction of original work suggested by your correspondent, I would propose that post-mortem rooms of the general hospitals should be understood to be accessible to general practitioners. How greatly this would help to increase our facilities for observation and directly bear on our practice is obvious, especially in these days, when coroners often limit post-mortem examinations to an extent prejudicial to the public safety, as well as to the highest interests of the medical profession.

I am, Sirs, yours truly,
April, 1892. ANOTHER GENERAL PRACTITIONER.

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OPHTHALMIC CASE-BOOK.

WE have received a specimen page of a case-book for ophthalmic cases in general practice, printed for Dr. A. Maude, Westerham, by Messrs. Hooker and Sons, Westerham. It presents no particularly new feature, but will prove useful to ophthalmic surgeons.

Candidate.—Jervis on the Office and Duties of Coroners, of which several editions have appeared, published by Stevens and Sons, Chancery-lane.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. J. W. Allan, Glasgow; Lieut.-Col. Allsopp, London; Messrs. Anderson and Co., London; Mr. J. M. Atkinson, Hong Kong; Messrs. Boulton and Paul, Norwich; Dr. G. McM. Brown, Tunstall; Messrs. Burgoyne and Co., London; Mr. T. B. Browne, London; Messrs. Battley and Watts, London; Mr. Butlin, London; Dr. Berslay, Esher; Mr. Brice, Bridgwater; Mr. Barwell, London; Dr. Bateman, London; Mr. W. H. Brown, Leeds; Mr. Birchall, Liverpool; Mr. Barford, Wokingham; Mr. Batley, Halifax; Dr. G. Carpenter, London; Dr. Coghill, Birmingham; Dr. Moss, Congleton; Dr. J. Carroll, Ilkeston; Mr. A. Cooper, London; Miss Crick, Willerby; Mr. Clutton, London; Dr. Chapman, Toronto; Mr. E. T. Collins, London; Sir W. Dalby, London; Mr. A. Duke, Dublin; Mr. Dauber, Liverpool; Mr. Daniels, Llanelly; Dr. E. Davies, Wrexham; Dr. Denholm, Manchester; Dr. W. Downie, Glasgow; Messrs. Debenham, Tewson, and Co., Cheapside; Mr. Ellis, Bishop Auckland; Mr. Earle, Netley; Mr. J. D. Farquharson, Newcastle; Mr. Frost, London; Herr Fuchs, Kissingen; Messrs. Fryer and Coultman; Mr. Freer, Llandudno; Messrs. A. Francke and Co., London; Dr. A. E. Garrod, London; Dr. Gayford, London; Dr. J. A. Gray; Mr. H. B. Gray, Bradfield; Dr. Green, Kidderminster; Mr. J. Hart, London; Dr. Hime, Bradford; Dr. Harkin, Belfast; Surgeon Harper, East Central Africa; Mr. Halcrow, London; Messrs. Hertz and Collingwood, London; Mr. Hornibrook, London; Messrs. Hasluck and Co., London; Mr. T. Inglis, London; Dr. Jessett, London; Mr. M. Jones, Swinton; Mr. G. S. Jacobson, London; Dr. Prosser James, London; Mr. Jameson, Colne; Mr. Kent, Birmingham; Dr. Norman Kerr, London; Dr. Lee, Wollongong, N.S.W.; Messrs. Lloyd and Co., Leicester; Mr. Laffan, Cashel; Dr. S. Martin, London; Mr. D. Morison, Glasgow; Miss Maclaren, Brighton; Messrs. Maythorn and Son, Biggleswade; Mr. Michelmore, Tiverton; Messrs Mitchell and Co., London; Dr. Mouat, Bedford; Dr. J. K. Murray, Whittlesea, Cape Colony; Dr. Moore, Melbourne; Mr. R. S. Miller, London; Dr. B. J. Merrill, Stillwater, Minn., U.S.A.; Dr. A. E. Morison, Hartlepool; Dr. McDougall, Cannes; Dr. Middendorp, Groningen; Dr. Norström, Paris; Mr. North, Aston; Mr. Newman, Bowness; Messrs. Nevill and Co., Godalming; Mr. A. E. Nevins, Hanley; Mr. Percy, Brainerd, Minn.; Mr. S. Paget, London; Dr. L. Phillips, Birmingham; Dr. K. Roser, Wiesbaden; Mr. Rait, Arbroath; Mr. Rajasingham; Dr. H. T. Rutherfoord, London; Dr. G. Steell, Manchester; Messrs. Shelley and Co., London; Dr. F. J. Smith, London; Messrs. G. Street and Co., London; Dr. H. Snow, London; Mr. Sell, London; Messrs. Street Bros., London; Mr. Scott, Bewdley; Mr. Stewart, Dundee; Dr. G. C. Smith, London; Mr. Saunders, Manchester; Mr. Smith, Westgate-on-Sea; Mr. Scott, London; Mrs. Tomkins, Leicester; Mr. Lawson Tait, London; Dr. W. R. Thomas, Dobeross; Messrs. Thompson and Sons, Leicester; Mr. Torrance, Norwich; Mr. Thompson, Painswick; Dr. C. Turner, London; Mr. Wyman, London; Messrs. Whitworth and Stuart, Manchester; Prof. Wrighton, Downton; Messrs. Wright and Co., Bristol; Dr. Wetherell, Pembury, W.A.; Messrs. Walters and Co., London; Mr. Weaver, London; Mr. Woods, Gillingham; Mr. E. Wingfield; London; Mr. Withers, Shrewsbury; Mr. Walker, Stenhousemuir; Miss Yates, London; Dr. Watson, Glasgow; Sanitary Wood Wool Co., London; F. H., London; Maltine Manufacturing Co., Bloomsbury; Janison, London; Lady Superintendent, Zenana Medical College; Secretary, School of Medicine, Edinburgh; Baths of Homburg; A. C., London; G. G., London; Anglo-Swiss Condensed Milk Co., London; J. C. O., London; Midland, London; University College, Bristol; Veritas, London; M.D., Nice; Reast's Invigorator Co., London; Hippocampus; Disappointed; Inquirer; Signs of the Times, W. H. M.; Athlete; E. B. H., Birmingham; F.R.C.S., Upper Norwood; Physician, Finsbury-circus; Secretary, Chester County Asylum, Macclesfield; A Correspondent; *Midland Counties Herald* Office, Birmingham; Burmah; Secretary, Ancoats Hospital, Manchester; Selby, Birmingham; B. F.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Hutton, Ormskirk; Mr. Thomas, Llanelly; Dr. Mason, Pontypool; Dr. C. T. Williams, London; Mr. Toller, Ilfracombe; Mrs. Price, Tunbridge Wells; Mr. Jones, Ruabon; Mr. Hegan, Dover; Messrs. Kilbourn and Lovick, Walsall; Mr. Ling, Saxmundham; Mr. Joyce, Rhondda Valley; Mr. Slater, Sheffield; Dr. Mudd, Dorset; Messrs. Treggon and Co., London; Mr. Waterhouse, Rotherham; Messrs. Briggs and Bindloss, Harrow; Dr. Thain, Abergavenny; Messrs. Hooper and Co., London; Mr. Brooks, Wellington; Messrs. Parke, Davis, and Co., London; Mr. Harding, Eastbourne; Mr. McKettrick, Virginia Water; Mr. Steckan, Ulverston; Messrs. Burroughs, Wellcome, and Co., London; Mr. Morgan, Oswestry; Mr. Bottomley, Ashton-under-Lyne; Mr. Helby, Wandsworth; Dr. Simpson, Norwich; Mr. Pryce, Ilminster; Mr. MacDonald, Aberdeen; Mr. Withers, Canterbury, N.Z.; Mr. Stenhouse, Glasgow; Mr. Braund, Cornwall; Mr. Evans, Anglesea; Mr. Thin, Edinburgh; Mr. Sotheran, York; Mr. Norman, Dawlish; Mr. Cormack, Wigan; Mr. Woods, York; Mr. McClelland, Glasgow; Mr. Chapman, Stamford; Mr. Tresise, Burton; Dr. Knott, Middlesbrough; Surgeon-Major Mackenzie, Surbiton; Mr. Edwards, Tudhoe; Surg.-Col. Bradshaw, Simla, India; Dr. Griffith, Carnforth; Mr. Scott, Bewdley; Rev. Mr. Manby, Cornwall; Messrs. Packwood and Greensill, Birmingham; Dr. Wood, Pontypool; Mr. Heywood, Manchester; Dr. Wood, Pontypool; Mr. Pinder, Otley; Mr. Gibson, Toronto; Dr. Scilla, Potenza; Mr. Thomas, Liverpool; Dr. Hand, Alabama, U.S.A.; Dr. Mulligan, Abersychan; Mr. Lawrenson, Shetland; Mr. Johnston, Witheridge; Mrs. Sargent, Shadwell; Mr. Eyton-Jones, Bawtry; Mr. Scarth, Bournemouth; Fidelis, London; Baston House, Dalston; 9, Beresford-street, Walworth; Secretary, Dudley Dispensary; Strophanthus, London; Robin, London; Cantab., West Bromwich; F. L. S., London; D., Sheffield; B.A., London; M.D., West End-lane; Medicus, London; Medico, Cheshire; Gilmorehill; The Manager, Westminster; M.R.C.S., London; Cantab, London; Bank of Bengal, Bombay; Chirurgen, London; F. T., Torrington; Class Rooms, Edinburgh; Chiron, London; C., London; Secretary, Hulme Dispensary; Chairman, Municipal Council, Adoni; Advance,; Pure Beef Co., London; Euonymin, London; Experience, London; Price's Co., Battersea; Dr. H., London; Surgeon, Somerset; Surgeon-Major, London; A. B. C., London; Janion, London; M.B., Preston.

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Lumleian Lectures

ON

CERTAIN POINTS IN THE ETIOLOGY OF DISEASE.

Delivered at the Royal College of Physicians on March 31st and April 5th and 7th, 1892,

BY P. H. PYE-SMITH, M.D., F.R.S.

LECTURE I.

IN asking the attention of my audience to certain points in the etiology of disease, I would begin by submitting that the existence of disease in general needs no further explanation than the existence of life. Disease is as natural, as physiological, as health. No living thing is immortal, and life is a constant struggle against surrounding forces, in which each individual organism succumbs after a while, by handing on its life to its successor when it has ensured the victory of the race. Pathology is only a chapter of physiology, which for convenience we have separated from the rest. We call disease that which brings us discomfort, and then look upon every disease as abnormal, obtrusive, unkindly; but if we knew it, the highest temperature of fever is as strictly in accordance with the laws of animal thermogenesis and thermolysis as the slight diurnal oscillations of health; and the excessive secretion of the kidneys in diabetes is as much a part of the system of nature as the moderate increase produced by a cold east wind in a healthy man. The processes of degeneration and decay which lead to death should be regarded as correlative with those of growth and development which follow birth. It is as natural for the old man to shrink in bulk and droop in stature, for his permanent cartilages to ossify, his hearing to grow dull and his memory weak, as for the child to grow, for his bones to set, and his mind to develop.

It has long been known that human beings are liable to be the hosts of parasitic beings less highly organised, but living, growing, and reproducing like ourselves; and in recent times we have learnt that, in addition to the diseases produced by the presence of animal parasites, another large group is due to the invasion of countless hordes of minute parasitic plants, but to regard filariæ and bacilli as merely "causes of disease" in man is to take too narrow, too human a view. Every kind of beast, and bird, and fish, and many of the lower classes, are known habitually to harbour parasites. In the majority of cases this is without injury to the host; indeed, if the parasites were invariably destructive the victory of the individual would prove destructive to the race, since, although a host can live without a parasite, the parasite cannot live without his host. The fact is that if we call "disease" whatever is abnormal, then the "pathological" condition is to be free from parasites. The bare and inhospitable state in which the most civilised of mankind keep their bodies is only maintained by ceaseless care and vigilance; as soon as these are intermitted, numberless evicted tenants resume their natural right of domicile. The immense majority of our fellow-men, in the past and in the present, have been and are the contented hosts of a dependent fauna, which finds as natural and unblamed a habitat on or in the human body as birds in the air or fishes in the sea. From the point of view of the tænia, the trichina, or the pediculus, man is in general part of its environment, and in particular its homestead and its barn, while sanitary, economical, and pathological questions, from the parasitic point of view, refer, not to the host, but to the guest.

Let us, then, for this occasion look upon diseases not as unnatural, lawless, heterogeneous, abnormal, revolutionary, but as parts of the vast order of creation. They are not to be "explained" by any single all-mastering principle of physical evil. The various ancient systems of pathology which pretended to discover a common origin of disease are all outworn, dead, or dying, as obsolete as the correlative systems of therapeutics which pretended to deal with disease as a whole by some universal antagonistic principle. Like is not cured by like, nor contraries by contraries. The true physician is not guided by fallacious general hypotheses, but by individual insight and experience, for, as the greatest of philosophers taught, *ἰατρεύει καθ' ἕκαστα*. Let us study etiology as the natural history of diseases, the circumstances in which they arise, and the complicated conditions on which they depend, as necessary, sometimes inevitable, results of the construction and the working of the bodily machine. The practical, therapeutical side of medicine is ever with us; common humanity and the peculiar interest that each separate case excites prevent any danger of our maintaining a philosophical tolerance of disease. What we are most apt to forget is its scientific side, and to this it is that I invite your attention, not to the *seats* and *nature* of diseases, but to their *causes*—or rather, I would say, their natural beginnings—the circumstances in which they occur.

It is certain that by a study of the etiology of diseases we ultimately advance the practice of our art; for rational treatment depends on diagnosis, and diagnosis rests upon pathology, and pathology in its widest sense includes not only the anatomy, but the physiology of diseases—not only their "seats," but their "causes." Moreover, if inquiry into the origin and conditions of disease helps treatment, it is indispensable for the still better art of prevention. That depends entirely upon the extent of our knowledge of etiology; and I venture to believe that more human suffering has been relieved and more lives have been saved by the studies in natural history which have taught us the origin of infectious fevers, of scurvy and lead colic, of erysipelas and pyæmia, than by the best results of pharmacology. We still keep in memory the names of Paracelsus and Glauber, the Marchioness of Chinchon, Dr. Dover, and Mr. Plummer; but who would compare these twinkling asteroids to the splendour that surrounds the names of Edward Jenner, of Pasteur, and of Lister?

I. Let us first consider whether it is possible to classify and appreciate the several causes, external or internal, which alter or modify the ordinary working of the human machine, in such a manner as to cause pain or discomfort, to incapacitate any of its ordinary functions, or to lead to a cessation of the entire mechanism. The human body, like that of all the Metazoa, is an aggregate of more or less independent living particles; not only in the ascent from the simplest to the more complex plants and animals, but also in the development of each individual, we start with the single nucleated mass of protoplasm. Each living cell, like the organism of which it forms an element, can feed, digest and assimilate, can breathe and excrete, can be irritated, and can move. In this microcosm "nature's self untwisted lies, into its first complexities"; and, when thus unravelled, the problems of life, which we vainly thought to solve, when we understood the mechanism of circulation and secretion and movement, are seen stripped of such secondary additions, reduced to their naked simplicity, and more insoluble than ever. But if the life of a single cell be the life of the whole organism in miniature, so will be its death and the processes which lead thereto. What are the external agents which can injure or derange the ordinary functions of the cell? They may be thus stated: (1) Mechanical injuries; (2) electrical changes; (3) extremes of heat or cold; (4) chemical agents. All these, which in moderate degree act as stimuli, when more powerful become destructive. In addition, the living cell may be (*a*) starved for want of food; (*b*) stifled for want of oxygen; or (*c*) poisoned by its own excreta. If none of these accidents befall it, yet its life is limited; for, after giving birth to a new generation, the impulse which gave it being gradually weakens, until its inscrutable molecular construction and the functions which that construction make possible come together to an end. We see essentially the same disturbing forces in their action on the entire organism. Diseases may be caused by mechanical injury. To this group belong what used to be distinguished as surgical diseases, and, above all, traumatic inflammation, the reaction of the injured tissues. We may also regard as traumatic the effects of concretions, such as gall-stones and urinary calculi; their formation is a separate event to be explained on chemical grounds, the disease is not the foreign body thus formed, but the effect of its presence upon the living tissues with which it is in contact. The effects of poisons come next, but although they agree in their action being chemical, it is probable that this is their only agreement. We are at

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present quite ignorant of the physiological action of hydrocyanic acid upon the ganglion cells of the bulb, of antifebrin upon those of the thermotaxic centres, and of strychnia on those of the reflex mechanism in the cord, as ignorant as when the candidate for the doctorate in Molière explained the properties of opium as due to a *virtus dormitiva cujus est natura sensus assoupire*. Nothing is positively known of electrical or magnetic changes, or of the air, the earth, or the body itself, in producing disease. May we not add that, if we except such definite effects as can be produced in the moist chamber (for example, stimulation and electrotonus), the therapeutical effects of electricity, whether statical, galvanic, or faradaic, are equally uncertain? Our knowledge of diseases caused by chemical agents is much more extensive and exact. The effects of prolonged administration, in minute doses, of metals, such as mercury, lead, arsenic, and silver, are well ascertained. The discovery of the true cause of Devonshire colic by Sir George Baker is a classical instance of etiology by inductive reasoning. Moreover, what was always a more or less probable conjecture has now been proved in certain cases to be a fact—namely, that the effects of the most numerous and destructive parasites are due to chemical poisons, which they either excrete or manufacture from the normal proteids of the body. The important paper of MM. Roux and Yersin, which appeared in the Annales de l'Institut Pasteur for 1888, proved this by direct experiment in the case of diphtheria. Of heat and cold the direct effects as we see them on the external surface are readily understood. One or two considerations, however, perhaps deserve mention here. One is the remarkable difference between the effects which the same degree of heat or cold will produce upon different skins. We have always the "irritabile" to consider as well as the "irritans." Another is the remarkable effect of habit upon living tissues as well as organisms, upon epithelium and glands as well as on the nervous system; and habit tells in two ways, by inuring tissues to bear without reaction what at first was a powerful irritant, and again in continuing the effect of an irritant which has passed away. So that chronic eczema will follow brief exposure to the sun, and chronic bronchitis may result from a single chill.

A much more abstruse effect of cold is indirect. This acts upon internal organs which are far too deep to have their temperature altered by direct external cause. How far is the popular, and we may add, medical belief, justified, that common catarrhal laryngitis and bronchitis, pleurisy and pneumonia, inflammations of the stomach and bowels, the kidneys and liver, and even the spinal cord, are due to external cold? If we try to define our current explanation of this process, we might, in the first place, suppose that cold acts directly upon the nearest underlying important organ. Some apparent cases in support of this view do not really apply; for instance, a cold wind even without the help of dust may produce injection of the conjunctivæ, but this is a direct and immediate application of cold to the organ, just as cold water or cold air acts upon the exposed skin and produces a slight dermatitis. Nor is the undoubted production of facial paralysis a case in point, for there some impression is directly made upon the periphery, perhaps the muscular end-plates of the portio dura; degeneration follows, but there is no evidence of neuritis. Again, sore-throat and bronchitis following exposure to a dry cold air are only fresh examples of cold acting as a direct local irritant. Both affections are readily produced in many persons by talking out of doors, or by the habit of breathing through the mouth, a habit which often forms part of an unlucky circle, since it is caused or kept up by chronic tonsillitis (including the pharyngeal tonsil) obstructing the entrance to the posterior nares, or by swelling of the Schneiderian membrane from coryza obstructing the anterior entrance. But do we find that bronchitis, pneumonia, or pleurisy follows the application of cold to the chest, and that enteritis or peritonitis is produced by cold on the abdomen, or nephritis by cold upon the loins? Such is the popular, perhaps we may say the common, medical belief; but is there adequate evidence of its truth? The trunk is so well covered in cold and temperate climates, that it has scarcely any chance of being chilled except by the clothes being wet through. Granting that this is a cause of acute illness, is it not as often followed by rheumatic synovitis of the extremities as by pleurisy or pneumonia? Is it not much oftener followed by coryza, sore-throat, and cough? Is it ever followed by peritonitis? There is a belief, not without foundation, that acute myelitis is often occasioned by working in water; but in all the cases of the kind I have seen the wet and cold have affected the lower extremities, certainly not the spine. No one can suppose that cold applied to the surface could possibly produce by direct conduction a local fall of temperature in organs so deeply placed as the spinal cord and the kidneys; but it is imagined that some reflex motor or trophic influence is excited, a hypothesis analogous to that which is used to explain the employment of blisters and other counter-irritants to relieve deep-seated inflammation. The evidence for such an action appears to be inadequate; the vascular communication between the parietal and visceral pleura, the lumbar and renal arteries, is but small and irregular. We have no evidence of the existence of a nervous relation of the kind supposed, and there are, I believe, no adequate clinical facts to support the hypothesis. On the contrary, many facts are against it, as the impunity with which we place ice-bags upon the head, the thorax, and, even in cases of intestinal hæmorrhage, upon the abdomen. This treatment never produces inflammation of the lungs, the brain, or the bowels. Then it is held by many good physicians that ice applied to the chest can not only check pulmonary hæmorrhage, which I confess I doubt, but also pulmonary inflammation, which I venture to disbelieve. It will scarcely, at all events, be held by the same physician that pneumonia is both caused and cured by cold applied to the chest. We seem thus to be driven to the belief that cold applied to the surface of the body has no local results beyond the effect upon the skin; that a person may be exposed to severe and long-continued cold, causing acute suffering and even local lesions, like frost-bite, without any internal inflammation. On the other hand, we often seem to "catch heat" rather than cold in crowded rooms and overwarmed houses. The mischief seems to be, not the cold, but the chill, a sudden impression which we sometimes feel when exposed to a draught on going out of a hot room in winter, or on sitting, after profuse perspiration, in summer—an impression which we sometimes feel and sometimes do not. This chill is accompanied by a rigor, often represented by nothing but a slight shiver, or by a convulsion, in the shape of a sneeze; we feel at once that the mischief has been done, and a catarrh or some internal inflammation follows.[1] What the effect will be does not appear to depend upon the locality or the severity of the chill. In most persons in this country and in temperate Europe and America, a coryza with sore-throat, followed by a slight catarrhal bronchitis, is by far the most common result; but in many persons, especially in the summer months, precisely the same kind of exposure of the face or head, which causes a common cold, will produce diarrhœa and other symptoms of catarrhal colitis, local pain, with irregular peristalsis and discharge of mucus, with furred tongue, loss of appetite, and slight rise of temperature; while in India, China, and the Southern States of America a precisely similar chill produces an attack of ague. Does the same "chill" sometimes cause rheumatic fever, pneumonia, acute Bright's disease, pleurisy, or acute myelitis? The evidence, though far less convincing than in the three cases before mentioned, seems too strong to be set aside; but we must admit that each of these effects is comparatively rare, that each of the acute inflammations enumerated frequently occur without exposure to cold or wet and without any premonitory chill, and that, even granting the general etiology in question, we cannot pretend to say why the same cause should in one case produce rheumatic synovitis, in another pneumonia, and in a third acute nephritis.

Of contagion as a cause of disease I must say but little, partly because the subject is so vast, partly be-

[1] We cannot, I think, accept the negative position proposed by Dr. Ransom of Nottingham in denying that exposure to cold is the cause even of a cold in the head. Even if we put aside the universal popular belief as to an extremely common malady, to which all civilised languages bear witness; if we put aside the prevalent medical opinion, which is unbiased by any of the theories which have dominated our schools—we cannot explain away the direct experiments which are constantly being made in this particular. A cold in the head, though often and in many people accompanied by true fever, and running a tolerably definite course, is in others, or in the same patient at another time, a mere local inflammation. It is notoriously more common in winter than in summer; it can usually be traced to a definite exposure to cold, and does not come on without such exposure; it can be checked and aborted if, when the chill is felt, warmth is at once restored, and, even when established, its symptoms can be entirely removed for a time by a hot bath, or can be quickly, safely, and pleasantly cured if the patient will submit to confinement to bed.

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cause it has already been so ably treated, and so recently, in the Croonian and Goulstonian Lectures. I will only venture the following remarks upon this part of my subject. When the bacterial explanation of contagia is criticised (and it is well that so dominant a theory should be criticised), and when we are told, truly enough, that in very few cases have diseases been definitely and rigorously proved to depend upon the presence of a specific microphyte, and that in some of the best-known and most undoubted specific fevers none has yet been discovered—in typhus fever, to wit, and plague and small-pox and measles,—we must remember two important considerations in reply: First, it is abundantly clear that these diseases do not arise *de novo*, that they are strictly contagious and breed true; it is equally certain that they are not conveyed by gaseous emanations or liquid secretions, or by immaterial emanations. The fomites of plague and of scarlet fever convey the material contagion; that of variola can be collected, seen, and handled like so much arsenic or prussic acid. It is particulate, it multiplies indefinitely, it is preserved or it is destroyed by the agencies which affect only living matters. It is therefore a contagium vivum, and that being proved it is more likely to turn out one of the schizomycetes than a fungus, a microzoon or a living organism which cannot be referred to any group at present known. Secondly, although the complete demonstration of the bacterial nature of the disease has only been yet successful in four or five cases in man, yet the number equally so demonstrated which affect the lower animals is far greater; and, under the conditions of observation and experiment, we may perhaps rather wonder that the complete proof in the case of human diseases is present at all, than that the process of arriving at it is slow and the instances as yet few. The third observation is that the presence of microphytes, even when constant and pathogenic, does not determine the whole character of a disease. For we have such affections as tubercle, where the state of the soil is of greater consequence than the presence of the seed; we have the case of leprosy, where the bacilli, though constantly present, are in such small numbers that we cannot assign them more than initial importance in the result; we have cases of undoubtedly bacterial disorders which are neither contagious nor febrile, as lupus; and, lastly, there are bacterial diseases in which the microbe appears never to be distributed over the body, but to remain confined to the seat of inoculation, and thence to affect the distant organs by its chemical products, as diphtheria and tetanus. Theoretically, bacteria might produce injurious effect in one of the following ways: (*a*) By local mechanical irritation, in the same way as the acarus or pediculus; such irritation could only produce common reaction, and could not account for specific infection. (*b*) By mere bulk, their rapid multiplication obstructing capillaries or lymphatic paths, after the manner of an embolus. This, however, could only produce hæmorrhage, œdema, or other local disturbance, like the effects of the filaria sanguinis. (*c*) Again, since these minute plants grow and multiply after inoculation, they must consume an enormous quantity of material from the blood and lymph: hence it is conceivable that they might starve the host, like intestinal worms when in unusual numbers. (*d*) Again, they must consume oxygen, though probably the aggregate amount is only small, and they must excrete carbon dioxide, though this also would be but a fraction of that normally present in the blood. (*e*) They must excrete other materials, analogous to the urine of higher organisms, in so far as they are nitrogenous in composition, and more or less toxic in their effects on living tissues. (*f*) Lastly, they act as organic ferments, and change the properties of the animal fluids in which they grow from normal to poisonous.

Apart from the mode of action of bacteria, another point in the etiology of infective diseases is the method of their transference. Probably the virus, though discharged by many channels, has a much freer, more constant, and practically important outlet by a few or by one; and although capable of entering by many portals, finds it so much easier by one, that if we can preoccupy this, we may, for practical purposes, protect the whole organism from the invasion. Such channels of predilection would seem to be: for typhus fever, the expired air for leaving, and the inspired air for entering, the organism; for enteric fever, the fæces for exit, and drinking water contaminated by sewage for entrance; for scarlatina, the epidermis and the urine for discharge, and the breath for ingress; for measles, the mucus of the inflamed air passages; for small-pox, the serum and crusts of the eruption; for mumps, the saliva of the affected glands; for cholera, the rice-water discharges; for tubercle, the dried sputum. In some cases we can, more or less certainly, point to several places of invasion; thus small-pox is perhaps most often conveyed from the inspired air to the stomata of the air vesicles, and thence by the lymph and blood throughout the body; but we know from the effects of inoculation that its contagion finds a ready entrance through the nasal mucous membrane. There is some evidence in favour of occasional invasion of enteric fever through the air and through solid food, as well as through water, and also of the conveyance of tubercular infection by milk and by meat from tuberculous cows.

There is still difference of opinion as to the precise botanical position of the microphyte known as Actinomyces; but whether it, too, belongs to the schizomycetes or to a higher group of fungi, its effects are more local and irritative, and its secondary growth follows more restricted anatomical paths than we observe in the case of ordinary infective bacteria. There is now good reason to believe that actinomycosis is not conveyed by contact from diseased animals to man, nor yet by eating the flesh of an animal affected by the disease; it is probably always derived both by men and animals from the barley or other cereals infested by the parasite.

A striking proof of the need for caution in accepting conclusions before they are proved, and the fallacy to which reasoning by analogy is liable, is afforded by the case of the etiology of Ague. A few years ago the presence of a specific microphyte was assumed, and its discovery anticipated with almost as great certainty as we now feel in the case of typhus or measles. But the researches of several eminent pathologists in this direction were either fruitless or led to unsatisfactory results. At present the evidence is exceedingly strong that malarial diseases are constantly associated with the presence in the blood discs of a contagium vivum, or, if we please to call it so, a microbe, but not a bacillus or any kind of microphyte.

The presence of a distinct species of protozoon, the organisms known as Psorosperms and Coccidia, has long been recognised in the liver of rabbits and other parts in which its effects are purely local; but recently, first in France and afterwards in this country, similar structures have been recognised in the epithelial cells of molluscum contagiosum and of certain varieties of epithelial cancer. Their etiological significance is at present doubtful, but if it be established, we shall have a new form of parasitic life, producing disease in an entirely different way from bacteria on the one hand, and from the hitherto recognised epizoa and entozoa on the other.

II. We now come to another important group of causes of diseases—namely, disturbances of one or more of the bodily functions, which are at first merely functional and do not pass the limits of normal physiology. For example, it is natural for the cardiac contractions to become more frequent under mental emotion or bodily exertion. In a healthy and vigorous man who runs a short distance without previous training, not only does the heart beat twice as rapidly as at rest, but its contractions become often irregular, while a loud, blowing murmur shows temporary tricuspid incompetence. If the exertion is repeated moderately, systematically, and in a young and healthy subject, the effects described cease, and will only reappear if he falls out of training, or if he exceeds the limit of exertion for which he is competent, or if he runs under unfavourable circumstances, as, for example, with a distended stomach, or if he attempts to repeat the feats of youth, when increase of adipose tissue, stiffness, and perhaps muscular degeneration have come with advancing years. But when violent mental emotion or excessive bodily exertion recurs too often, what was a temporary physiological variation becomes a pathological habit; the heart is readily excited to palpitation, it does so on less and less provocation, and at last without any assignable provocation at all; what was an occasional, has become an habitual, deviation from the normal. Moreover, if such functional disorders continue, they more or less surely lead to structural changes; the irritable heart becomes hypertrophied; degeneration of its tissues follows; the over-strained aorta dilates; the valves become incompetent, and the whole vascular apparatus falls into irremediable ruin. Again, a-

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cold breath of air upon the face provokes a sneeze, or the presence of sulphurous acid gas in the inhaled air causes a cough, and the reflex mechanism called into action in each case is rightly claimed by the physiologist as part of the wonderful working by which the body is protected and preserved. But let the same irritants be too long or too often experienced, and, in addition to the reflex nervous mechanism, there ensue nervous changes, vaso-motor, secretory, and trophic, until a cold becomes a catarrh, and the cough becomes bronchitis. Not less frequent is the same progress of events in the digestive system. The stomach is supplied with food in too large quantities or at too short intervals, or imperfectly prepared by mastication and insalivation, or the vascular and secretory activity of the gastric mucous membrane is disturbed or completely inhibited by ill-timed cerebral excitement: the result is a physiological check to gastric digestion, and the undigested food becomes a foreign body and acts as a local irritant; the process, if long continued, leads to chronic gastritis, or perhaps to dilatation of the stomach, or the peptic glands strike work altogether, and atonic dyspepsia results. Again, inattention to natural calls may lead to nothing worse than irregular action of the bowels, but when the colon has become habituated to fæcal distension, persisting for many days, not only does its reflex peristalsis become dull and sluggish, but mechanical dilatation ensues, and we may at last have a condition of true intestinal obstruction developed from functional disturbance. Similar illustrations from the menstrual function in women are only too common.

I will only add one more. When certain articles of food, particularly spices and alcohol, are taken in more than a very moderate amount, the result is temporary vaso-motor paresis of the face; dishes compounded with curry or chilies will produce this effect in almost every case when admitted to a virgin stomach. If the degree of stimulation is moderate and the self-adjusting power of the organism good, the nervous system becomes habituated to the stimulus and the effect no longer follows: but if either of these conditions be absent, the flushing after meals becomes habitual until it is excited by wholesome food or by diluted alcohol. We then have a frequently repeated local erythema of the face which we may compare physiologically with the erythematous and urticarial eruptions produced by drugs and by special articles of diet. Recurring after every meal, this vascular dilatation at last no longer disappears in the interval, the skin and subcutaneous tissues hypertrophy, the sebaceous glands are in the condition of the submaxillary during stimulation of the sympathetic nerve, and the result is a permanent structural disease, gutta rosea—erroneously called acne rosacea,—a condition always, I believe, associated with flushing after meals, though it is often accompanied in women about the climacteric period with ovarian disorder. I need hardly repeat, what all experienced physicians recognise, that although the gastric irritant is, in most cases, some form of alcohol, yet the disease is produced not by alcohol directly, but by the gastric irritation engendered by it. Without the latter there will be no trace of gutta rosea in a patient suffering from delirium tremens or cirrhosis of the liver, while some of the worst cases of this unsightly malady occur in ladies who have never tasted strong drink and who are painfully scrupulous in their diet.

Of this important group of diseases which have their origin in physiological disturbance gradually becoming more frequent, and that end in permanent structural disease, we have always to bear in mind that, to use a homely proverb, it "takes two to make a quarrel." So it takes two to produce a disease—the blow and the reaction, the irritant and the patient. When a man complains that wholesome food disagrees with his stomach we might retort that his stomach disagrees with his food. What produces a slight and transient disturbance, or no disturbance at all, in one person, will seriously and perhaps permanently derange another; much depends upon habit and practice, and on voluntary habit and regulated practice. The muscular exertion which would produce utter exhaustion, with feeble pulse, cold sweat, complete anorexia and rejection of food, in the case of a young and healthy man who has never tried his powers, is borne with no effect but the pleasant sense of fatigue and increased digestive powers by an athlete in full training. The amount of liquor which, in the case of an unpractised drinker, would simulate mania, paralysis, or coma, will scarcely dull the senses of a practised toper. The few whiffs of tobacco which produce vomiting and something like collapse in a schoolboy, have no effect whatever when, by reason of use, the senses are exercised thereby. The same consideration is forced upon us by the action of irritants upon the conjunctiva and skin, where we can observe all gradations from purely traumatic inflammation limited in duration by the irritant to that which, though thus set up, continues long after it has ceased to act; and, finally, inflammation produced by no external cause, and therefore, as we say, idiopathic. If this is true of inflammations in general, it equally applies to the reaction of the organism to other mechanical, thermal, or chemical irritants, and, above all, to its behaviour under the influence of animal poisons. Some of these appear to be so violent and efficient that all they need is human tissues to act upon. The contagion, once brought into effectual contact with the organism, produces an invariable and inevitable sequence of effects. Such, or nearly such, may be said of vaccinia, of typhus fever, and of glanders (to take three striking examples), but even here the effect is not solely dependent on the contagion and independent of the recipient. It is a truism to say that neither croton oil, nor cantharides, nor tartar emetic ointment will produce inflammation upon the skin of a corpse, or that the hottest sun will produce no eczema on a mortified limb, but it does seem at first sight as though sufficiently hot or cold appliances and sufficiently violent poisons would produce approximately the same effects upon any living tissue. Even this, however, is not proved; we put down such and such as the lethal dose of arsenic or laudanum, but, as we know, opium eaters in Lincolnshire and arsenic eaters in Styria take much larger quantities with impunity. Morphia has no effect upon pigeons nor belladonna upon rabbits, and both arsenic and belladonna can be given to children in far larger doses than the proportion of their body weight to that of adults would dictate. Measles, small-pox, and influenza do not produce their effects in every case, even when they invade an unprotected population; some animals, though in other respects closely allied in their functions to man, are incapable of receiving certain contagia—syphilis, for example, hydrophobia, anthrax, and relapsing fever. The protective influence of most, but not of all the specific fevers against their own recurrence is a familiar fact, and belongs to the same order as the artificial protection from small-pox, as afforded by what is probably its attenuated virus (vaccinia), and the artificially produced resistance of animals to certain diseases. All of these are examples of an efficient cause of disease failing for want of a suitable object to play upon. An old man is less obnoxious to enteric fever than a child, a vaccinated child affords little hold for the virus of small-pox, a population in which measles has been endemic for centuries has impaired susceptibility to its contagion; so that we only learn how terrible this disease can be when it is allowed free play on the virgin soil of the Fiji Islands. There must be conditions, at present unknown, which protect a large number of children from scarlet fever, though exposed to infection, for it does not run through schools with the same freedom as mumps or measles or rubeola; nay, in some cases the susceptibility of the organism varies so widely that it becomes a more important element in the production of disease than the existence of contagion itself.

III. An important point in the etiology of most diseases is one which I learnt from Dr. Wilks; and, although I have not met with the observation elsewhere, it will, I feel sure, be backed by the experience of those whom I address. It is a commonplace of medical writers that acute diseases, instead of terminating by resolution, often continue in a mitigated but protracted form, and hence the malady which is at first both sharp and short (ὀξυς) becomes less severe and more protracted (χρόνικος); hence the adage: "Si dolor gravis, brevis; si longus, levis." But, though this is true in certain cases of rheumatic fever when untreated, of successive attacks of gout, of eczema, of tubal nephritis, and of malarial fever, yet the opposite order is not less important to observe—viz., that acute diseases are often developed out of chronic. The sudden seizure of a man in all the vigour of youth and health, by which the strength and ease of the morning is changed in a few hours into prostration, severe suffering, high fever, and a perverted state of every function, both of mind and body, is so striking and dramatic an event that it naturally arrested

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attention. Such cases have been generally taken for description by the best medical writers, who naturally choose the most striking and picturesque aspects of disease. But probably the only maladies in which such a mode of onset is at all common are those which are contagious, and depend upon the invasion of a healthy organism by a countless swarm of foreign organisms attacking it from without. They are so numerous and their poison is so powerful that they at once overcome the utmost vigour of youth and health, just as the strongest man is immediately subdued by stifling gases or by the venom of a serpent. In most other cases of disease, however, the apparently acute outbreak is really the result of a less obvious but no less important antecedent failure of health. Even in the case of infective diseases experimental pathology teaches us that, while on the one hand an organism may be rendered refractory to the invasion of the virus, on the other hand it may be artificially prepared (as by the injection of the cultivation fluid of blue pus), so that the subsequent invasion of a very attenuated virus shall produce the most severe effects. Thus it is a matter of common experience that enteric fever often begins with certain days, or even weeks, of diarrhœa; hence arises, at least in part, the difficulty of fixing the precise date when the specific fever began. May it not be that the local conditions of the intestines render them more obnoxious to the action of the contagion when it invades? In the same way genuine diphtheria is often preceded by non-specific and subacute angina; and may not here, again, the inflamed mucous crypts and lymph follicles and desquamating epithelium prepare a favourable nidus for the reception of this specific virus? In the case of phthisis, there is reason to believe that the bacilli of tubercle seldom make a successful inroad until local pulmonary catarrh or general feebleness of health have prepared the way for their reception. But if this be to some extent true even of contagious diseases, it becomes the rule, and no longer the exception, when we study the onset of many non-specific, but acute, inflammatory disorders. Abscess of the brain is acute, severe, and rapidly fatal when once developed, but it never attacks previously healthy patients. It is always preceded by injury, by caries, or by primary suppuration. How often do we find acute lobar pneumonia, a disease in many ways allied to a specific exanthem, not occurring in its classical form as a primary attack in a previously healthy man, but as a secondary complication of cardiac disease, of enterica, of rheumatism, or of chronic Bright's disease; sometimes in patients who are bedridden, and have never been exposed to cold and wet. Acute suffocative bronchitis is very rare in the young and healthy; the vast majority of cases occur in old and decrepit persons who have long been subject to a winter cough, emphysema, and consequent dilatation of the right side of the heart. The cases of phthisis which are most inflammatory — cases of "galloping consumption" — are almost always less rapid and acute than they seem. Careful inquiry brings out in most cases the fact of failure of strength, loss of flesh, and sometimes of definite local symptoms in the chest or throat, which have long preceded the apparently sudden outbreak of the disease. Phthisis ab hæmoptoë is not infrequent as a clinical event, although pathologically hæmorrhage is probably never the origin of phthisis. But when a patient tells you that while in the enjoyment of vigorous health he burst a bloodvessel under the stress of some sudden effort, how often do we find that scarcely noticed preceding symptoms of pulmonary disease have been present, while the physical signs point to changes no longer recent? How frequently after death from what seemed to be an unusually rapid case of phthisis, does the post-mortem room reveal long antecedent and partially obsolete lesions? Even mechanical lesions, like volvulus and other terribly acute and severe forms of intestinal obstruction, are often unexpectedly shown at the necropsy (without which experience and record of such cases is all but useless) to be only the final result of slow and gradual changes which prepared for the final catastrophe. In the case of cancers, which, in spite of numerous and careful observations, are believed by many pathologists to be parasitic, or conveyed by some form of infection from without or of dyscrasia from within, is it not a truer view to regard them as in each case, not originally engrafted upon or invading the body, but springing up as a perversion of local growth, sometimes at certain periods of rapid development, as in the sarcomata of the bones and joints of children, but most particularly at the periods of involution, disuse, and degeneration? If this view be correct, we shall in many cases find that the wide, striking, and at first sight almost incredible perversion from the normal structure of the part is not so sudden or "heteroplastic" as it seems, but originates by a gradual increase from minor perversion of growth which we call inflammatory or benignant. As cases in point, I would adduce the development of cancer of the skin from warts, the relations of cancer in the breast to Paget's disease of the nipple, the supervention of mycosis fungoides upon extensive superficial dermatitis, the connexion of carcinoma linguæ with syphilitic or other leucodermic patches, of labial cancer with smoking, of cancer of the glans penis with phimosis, of carcinoma of the gall-bladder with calculus, and, lastly, the remarkable fact that the favourite seat of cancer of the alimentary canal is at the narrowest passages, where friction and irritation are most probable and frequent.

IV. We have hitherto spoken of diseases which may be considered accidental—that is, a result of circumstances,—and from which therefore, were those circumstances constantly favourable, the organism would be free. What forms of disease would still remain? First, there would in a thousand individuals of any species be a certain number which came into the world imperfectly formed. To judge from the domesticated races such malformation is far from infrequent, but places the individual at such a disadvantage that it rarely survives. Among feral tribes abnormalities and monstrosities are perhaps less frequent, and would be more certainly suppressed in the keen competition of unprotected rivalry. In the human subject congenital diseases form a comparatively small, but extremely interesting, etiological group. We must distinguish them into three very diverse kinds.

1. Deficiencies, redundancies, or abnormalities due entirely to some deviation in the development of the embryo. Familiar examples are: harelip, spina bifida, hypospadias, atresia ani, and arrested or abnormal development of the heart and great vessels. The last-mentioned group is the only one of practical importance to the physician; they were dealt with by a late Fellow of the College, Dr. Peacock, with characteristic fulness and accuracy, and if he sometimes included under this head a larger proportion of cases—as, for example, those of tricuspid stenosis—than we should now admit, the reality of such errors of development remains independently of questions as to its extent. When we have traced the origin of diseases to such congenital malformations we have reached the term of present and perhaps of future knowledge. What determines such defects, excesses or varieties, is now, and is likely to remain, a mystery. They are independent of any accidents of utero-gestation, since they are common amongst vertebrate and invertebrate animals, and also in the vegetable kingdom. Many, perhaps most, of such malformations may be regarded as extreme cases of sports or variations from the ancestral form, of which the laws are unknown and the existence unexplained by the theory of natural selection which depends on their occurrence. I would only deplore in passing the lamentable proof of how slowly superstition gives place to a rational view of natural objects which is afforded by the belief that nævi, cleft palate, and deficient limbs are due to what are called "maternal impressions," a survival pardonable and even interesting when we meet with it among ignorant villagers, but without excuse when it occurs in a learned profession. 2. The second natural class of congenital diseases are those which, though present at birth, are the result of intra-uterine disease. Lesions of the right side of the heart from fœtal endocarditis (some would say rheumatic endocarditis), deposits of lithic acid in the fœtal kidney, intra-uterine ague and variola are more or less authentic examples; but probably the most frequent, and certainly the most important, is congenital syphilis, a disease directly transmitted by infection from one or other of the parents to the offspring. 3. The third etiological group of congenital diseases are those which are derived by inheritance from the parents, for the most part developing long after birth. On this large subject of hereditary disease I will only make the following observations: First, that congenitally transmitted diseases, of which syphilis is the most important, do not come under this head. Next, that most cases of cancer, though sometimes strongly hereditary, are nevertheless in the great majority of cases not transmitted at all. Thirdly, that if, as most naturalists

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agree, acquired properties are not transmitted to the offspring, it is very difficult for us to explain the undoubted hereditary transmission of gout.

As sources of fallacy in estimating the influence of heredity, we must bear in mind the probability of a son living in the same place, working in the same trade, and adopting the same habits as his father; also that very common diseases will appear to be hereditary by mere coincidence. Hence all statistical statements as to the frequency of rheumatic fever, cancer, or phthisis in the children of parents subject to these diseases ought to be checked by control figures showing its frequency in others. Lastly, we must not attempt to deal with obscure and ill-defined diseases; nothing valuable can come of statistics with respect to "rheumatism," "tonsillitis," or "epilepsy" without further definition. Yet we see jumbled together, in the attempt to establish an authentic inheritance, diseases of such different pathology as rheumatic fever, gonorrhœal synovitis and gout, and we are told that a patient's eczema is hereditary because his father suffered from urticaria, a brother from "psoriasis" (possibly syphilitic) and his maternal grandfather from gout. Or a "neurotic" inheritance is established on the strength of convulsions and paralysis having been remarkably common in the family, when we find on inquiry that the cases consist of infantile paralysis, hysteria, traumatic epilepsy, hemiplegia from embolism, and paraplegia from tubercular vertebræ. In genuine cases of hereditary disease there is transmission, not of the disease itself, as in the case of syphilis, but of some structural or functional, histological or chemical, peculiarity which renders more likely than usual the development of such diseases as gout, insanity, or hæmophili. A child born with a syphilitic rash and snuffles is not more likely than another to acquire syphilis if exposed to its contagion; it has the disease already; but a child born of decidedly gouty parentage differs from another in the ease with which the same causes which produce the disease in general will be efficient in his case. Hereditary tubercle, again, is only as a very rare exception, due to congenital transference of the virus, such that the infant enters the world with the bacilli in his tissues. In the vast majority of cases it means liability of the smaller bronchial tubes to catarrh, a vulnerability of the joints, and an excessive hospitality for the tubercular microbe or deficient capacity for dealing with him on the part of a too feeble phagocyte.

V. It has long been the custom to explain the occurrence of certain diseases by referring them to a previous existing disposition, or, to use the Greek form of the word, *diathesis*, of the patient; but it has always appeared to me that the assumption of such a cause is unscientific and prejudicial to the advance of etiology. To say that a man who has had rheumatic fever has a disposition to its recurrence is only to say that rheumatism is a disease which usually occurs more than once in the same person. We gain nothing by referring the occurrence of the rheumatism to a preceding rheumatic diathesis. If a man's father has had phthisis or gout he is no doubt predisposed to these diseases; but this, again, is only saying that phthisis and gout are often hereditary. The disposition of tendency for these or other diseases is either carried out or it is not; if it is never carried out, its existence cannot be proved, and is of no practical importance. If it is carried out, the right way to put the fact is to say that the disease occurred, and the supposed predisposition to it is only a roundabout way of repeating the assertion. If we find albuminuria and other signs of Bright's disease we may, if we please, say the patient is predisposed to apoplexy. If the blue line is on the gums, we may say that he is predisposed to paralysis of the extensors of the forearm; if he is a dram-drinker, that he has a cirrhotic diathesis. But none of these would be counted cases of diathesis in the conventional meaning of the word; and I venture altogether to deny that, apart from actual morbid events, either present or past, from hereditary taint or from such probabilities as exposure to disease from age or sex or occupation, that it is ever possible to predict the future advent of disease. Along with this lingering remnant of theoretical and metaphysical medicine we ought surely to discard from etiology such terms as "dyscrasia" and "temperament"—phrases which belong to the exploded humoral system of pathology. We know that there is no such thing as the black bile, and that phlegm is not secreted by the hypophysis cerebri; how, then, can we talk of the due temperament of the four humours or of their ill temperament, bad mixture, or dyscrasia? The division of men by their imaginary temperaments is arbitrary and without any basis, scientific or practical. It may be compared to the false sciences of phrenology and chiromancy. Lastly, if the existence of these etiological conditions is often arbitrary, what shall we say to the supposed blending of different diatheses? Just as it was found necessary to add to the four classical temperaments, and to admit "lymphatic," "nervous," and nervo-sanguineous, so it has been supposed that a hybrid disease like "rheumatic gout" can exist, and that scrofula and syphilis, herpetism and arthritism, may mix with each other, and modify the effects of a wound or the symptoms of a specific fever. All such theories appear to me to be baseless, and to prevent investigation into etiology by premature explanation. So far as such vague doctrines can be brought to the test, they fail. On the one hand, our present knowledge of the true etiology of syphilis, variola, scabies, scurvy, gout, and tubercle forbids our admitting the possibility of hybrids between an acarus and a bacillus, an amœba and a crystal; on the other hand, clinical experience shows that psoriasis, for instance, may occur in a case of syphilis, develop, and be cured quite independently of the latter, and that the same holds good of rheumatism and typhoid fever, gout and cholera, ague and pneumonia. The whole conception of complex diseases belongs to a time when each was regarded as a separate living thing, and is out of place if we look upon them as disturbed physiological conditions.[2]

VI. To go back once more to the ovum or organism in its simplest form, let us now suppose that it has inherited nothing but physiological—that is, normal—structure and tendencies; that it has met with no external disturbance, or, as we express it in medicine, is free from congenital and acquired diseases. Nevertheless, we know that it will not last for ever. One disease which was common to all its predecessors it has undoubtedly inherited as a diathesis, and this fatal heritage is a disposition to die. Its period, like theirs, is limited, and when its natural term is reached it too will cease to perform the functions of a living being, and its protoplasm will become subject to the reactions of common chemistry. Why either a cell or a more complicated vegetable or animal organism should wear out is not easy to explain; in the animal machine with which we are best acquainted its constructions and its working are so admirably contrived, so delicately adjusted, so finely compensated, that, while on the one hand we wonder that so fragile and exquisite a piece of mechanism should escape the various accidents of life or throw off the effects of injuries, we wonder scarcely less that so perfect a machine should ever wear out. If no external injury befal the body, no poison, no bacillus, no parasite approach it; if expenditure of force be restrained to the narrowest and most selfish needs of the individual, and the income of food be limited in proportion, there are yet certain expenditures which must continually go on. The diaphragm and the heart are muscles which have no prolonged holiday like those of the limbs during sleep; yet they also have their intervals of rest, no less constant than of work. And it does not appear that the musculo-nervous apparatus or the secreting organs ever cease to act by mere weariness of having toiled for fourscore years. Degeneration is not mere exhaustion of the vital powers, or using up of the first impulse which was given at conception, in the same way as a moving body gradually comes to a stop by friction, or a burning mass is quenched when the fuel is consumed. On the contrary, we can, I believe, always refer death from old age either to incidental diseases of external origin—injuries, cold, or contagia—or else to structural changes, particularly of the vascular apparatus. A continued hydraulic strain upon the great arteries is a kind of mechanical injury which leads to a chronic inflammatory process and a gradual destruction of their elasticity and power of resistance to blood-pressure.

That old people are far more liable than young to

[2] I would here venture to urge a definite abandonment of the term "scrofula." Its original application, as we all know, was to the swollen glands of the neck, and it was used at the time when the cervical lymph glands, the secreting submaxillary glands, and the "ductless gland," which we now call the thyroid, were all supposed to be much of the same nature. In modern German usage the word "struma" is not, as in England, a synonym for scrofula, but means what we call bronchocele. The traditional description of two types of scrofulous children, if it has any meaning at all, seems to apply to tuberculosis in the one case and to congenital syphilis in the other. The detection and separation of the latter condition by Mr. Hutchinson appears to me one of the principal achievements of modern English medicine.

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succumb to accidental disorders, such as diarrhœa, bronchitis, pneumonia, and enteric fever, may be to some extent explained by the degenerated state of their arteries, the frequently emphysematous condition of their lungs, and the probability that one or both sides of the heart have become dilated. Deaths which are ascribed to old age may be the result of chronic diseases, which chiefly affect the latter period of life, such as cancer, granular degeneration of the kidneys, bronchitis and emphysema, apoplexy from disease of the cerebral vessels, and various forms of structural disease of the kidneys and bladder from enlargement of the prostate. Or the disease may be an accidental one to which all ages are liable, but the power of resisting it is diminished. In this last respect the two extremes of life resemble one another. The freshly lighted taper and that which is burnt down to its socket are both easily extinguished by the slightest puff of wind. Hence the mortality of typhus fever, variola, and enteric fever in persons over sixty; hence the apprehension with which we regard pneumonia in an elderly patient.[2] The most common causes of senile mortality are the same as those which are fatal among infants—diarrhœa, particularly in the summer months, and bronchitis, particularly in the winter. To these trivial disorders an old man succumbs as he does to an accidental injury, to a fracture of the thigh or the rib. When none of these external disturbances have occurred, when the long-drawn thread of life is cut at last, suddenly during tranquil sleep or in the midst of placid conversation, the cause is probably always syncope. It is the heart and bloodvessels which give out at last. We must, however, admit that old age is otherwise peculiarly vulnerable. The cartilages are calcified, the bones are brittle, and the loss of fat diminishes the elasticity of the tissues and adds to the risk of shock. The lungs are light and thin from senile emphysema, the muscular strength is greatly diminished, so that there is less power in making voluntary efforts in respiration, and the nervous system is no longer sensitive and active, so that conservative reflex movements are sluggish, and the old man can neither save himself from a fall nor appreciate the deficiency of oxygen in the blood which reaches his brain. The loss of appetite prevents due nourishment, and the bodily heat is difficult to maintain. The organs of sense are, with few exceptions, impaired, chiefly from demonstrable structural changes, but also from diminished excitability of the nervous centres. With respect to the mental powers, it is difficult to separate the action of the cerebrum from its supply of blood; in true senile dementia there is probably always arterial hæmorrhage or obstruction or wasting of the cortex. Loss of memory appears to be the only mental symptom which is constant after a certain age. We have numberless examples of high intellectual powers, of beauty and dignity of character surviving physical decay; but whatever may be the clearness of judgment, the eloquence of language and energy of will in an aged body, it would probably be found without exception that such mental exertion can only be maintained for a short time. After Sophocles had triumphantly vindicated his mental powers at ninety years of age by reading a chorus from his last tragedy, he probably did no more for that day.

SENILE TUBERCULOSIS.[1]

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IT will be remembered that Sir James Paget, in his Clinical Lectures, has a paper on senile scrofula. This paper reminds us of one of Bacon's "Essays." It is very short, yet in its four pages it gives such a complete epitome of the subject that it will be long before anything that is really new is added to it. The value of Sir James Paget's observations is, of course, in no degree impaired by the circumstance that they were published before the exact pathology of the disease had been discovered; but, as it has since been shown that what was formerly spoken of as scrofula or struma is really tuberculosis, I shall exchange the one term for the other, and speak of senile tuberculosis instead of senile scrofula. The subject is one of wide clinical interest and importance. The disease in its various forms is far from rare, and its diagnosis is often in its early period very difficult. I hope, therefore, I may be justified in relating and discussing some of the examples of it which I have met with. But I may first allude very briefly to the incidence of tuberculosis at other periods of life. Statistics show very clearly that surgical tuberculosis is most prevalent between the ages of three and ten. But yet it may occur at a still earlier period. I have seen, for instance, at least four cases of tubercular caries of the spine (Pott's curvature) in children under a year old, and in one the disease began when the child was only seven months. After ten, tubercular disease (for instance, of the hip or the spine) becomes steadily more rare as age advances. I have met with it in all the decades up to that between seventy and eighty, but each decade shows, I think, a progressive diminution. The bearing of age on diagnosis deserves attention, for in some instances an oversight seems to have been due to the fact that the possibility of the occurrence of tubercular disease in a patient between forty and fifty or between fifty and sixty had not been considered or even entertained. About five years ago a woman, aged forty-five, at St. Bartholomew's Hospital, who stated that she had been eight months under a surgeon—who, however, had never examined her—for "rheumatic pains and sciatica," was found to have angular curvature and a large lumbar abscess. Another patient, aged fifty-five, who had tubercular disease of her hip, was supposed for several months to be suffering with chronic rheumatism. Such cases serve to enforce the recollection that tubercular disease may be met with at any period of life As to the age at which tuberculosis should be regarded as senile I think the line may very well be drawn at fifty. This limit is an arbitrary one, but it is sound clinically; for patients who develop the disease at or after this period are usually enfeebled in general health and have tissues that are already old in the sense of being degenerate.

The following case, recently under treatment at St. Bartholomew's Hospital, may be related as a typical example of senile tuberculosis. A man aged sixty-three, but who looked seventy, applied as an out-patient for advice about his knee. This, he said, had been weak, painful, stiff, and a little swollen for two months. I regarded the case as one of senile osteo-arthritis, for this view best accorded with general probability, and was one with which the symptoms agreed. The limb was scarcely at all flexed, there was no effusion into the joint, on passive movement the leg was easily flexed to a right angle with the thigh, and there was slight grating, such as is so often found in osteo-arthritis. He was ordered a series of four small blisters, and advised to walk for the time being as little as possible. At his next visit a fortnight later, however, the synovial membrane felt more thickened and puffy, and the skin was abnormally warm and somewhat dusky and glossy. Thinking the disease was possibly tuberculous, I had his lungs examined, and he was pronounced to have phthisis. In another fortnight the joint suppurated, and a collection of pus formed on the inner side over the head of the tibia. He was now admitted into the hospital. The abscess burst the next day, and about half an ounce of caseous pus was discharged. The resulting sinus showed no tendency to heal. For two months the limb was kept on a back splint, by which the joint was maintained at complete rest; but the swelling due to synovial thickening increased, and the thigh muscles wasted. He had a troublesome cough and free expectoration. The question was discussed whether, as he had phthisis involving both lungs, amputation could be ventured upon. The risk of the operation seemed less than that of allowing him to remain confined to bed with his temperature, as it often was, at 102°. I therefore removed the limb. The wound healed by primary union in almost its whole extent, and was dressed only once. The improvement in his general health was very marked. He quickly gained flesh and strength, and his temperature became normal. This case is, I think, noteworthy, not only as one of senile tuberculosis, but as evidence on the question whether amputation should be performed when joint disease is complicated with phthisis. As to this I may say that I have on several other occasions

[2] After seventy or seventy-five sometimes a better prognosis is possible, and I have known recovery from pneumonia at eighty. This perhaps is because those who outlive threescore years and ten are picked lives, and by reason of strength survive.

[1] Paper read at the Harveian Society in February, 1892.

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performed amputation for disease of either the wrist, knee, or ankle in patients with well-established phthisis, and the result has, as in this case, been in no way prejudiced by the condition of the lungs. In one, however, free hæmoptysis followed the use of ether; and it is safer, no doubt, to use chloroform in such cases.

In the Museum of St. Bartholomew's Hospital is a specimen thus described in the catalogue:—A knee-joint exhibiting well-marked pulpy degeneration of the synovial membrane. Microscopically, the thickened synovial membrane contained abundant deposits of miliary tubercle. From a lady aged sixty-seven, in whom the disease had existed for twelve months. The limb was removed by Mr. T. Smith. Two months before amputation the joint was tapped, and clear synovial fluid was removed. The patient made a very favourable recovery.

In the next four cases of senile tuberculosis the hip-joint was the part affected. A female patient aged fifty-five, who had been for some months in failing health, and who looked prematurely old, was attacked with stiffness and somewhat severe pain in the hip, attended with muscular wasting. For some months these joint symptoms were thought to be rheumatic. When I first saw her, however, the evidence that the disease was tuberculous seemed conclusive. She had phthisis, and had twice had free hæmoptysis; and the joint mischief had proceeded to suppuration, and an abscess holding about six ounces of pus was found beneath the tensor fascia femoris. Weight extension was applied and afterwards a Thomas's splint; but the disease steadily advanced, the abscess, after being opened aseptically, discharged about two ounces of pus daily, and the limb became shortened and everted. For some months the condition of the lungs appeared to be stationary, but then it became more active; there were three attacks of hæmoptysis, and purulent expectoration was free. The patient gradually wasted, and died about two years after the commencement of the disease. The hip-joint was at the time of death completely destroyed, the head of the femur had been absorbed, and the limb was two inches short and much everted.

For the following case I am indebted to Mr. Langton. A woman aged fifty-three, admitted into St. Bartholomew's Hospital in January, 1890, stated that in the previous March her left hip became painful and stiff. Gradually getting worse, she could move about only on crutches, and in the December she observed a swelling on the outer side of the joint. On examination she was found to have well-marked symptoms of hip disease—stiffness, shortening, eversion, and an abscess. The abscess was opened two days later, and subsequently counter-openings were made. She became rapidly worse; the urine (normal at first) now contained albumen. She became delirious, and died of exhaustion on April 10th. On post-mortem examination both lungs were tubercular; the right kidney was disorganised by tubercular disease; adrenals were tubercular. The hip-joint was disorganised, the head of the femur being partly destroyed, the acetabulum perforated, and a collection of pus had formed in the pelvis. The lymphatic glands running upwards along the iliac vessels and the aorta as far as the diaphragm formed a large elongated mass of tubercular glands, many of which had undergone calcareous degeneration. The head was not opened, but the symptoms observed before death seemed clearly to indicate the existence of tubercular meningitis. I may add that Mr. Bowlby informs me he recently made a post-mortem examination in which he found that a woman aged fifty-six had died of general tuberculosis and tubercular meningitis.

A man aged fifty-six had stiffness of the hip and pain extending from that joint to the knee, with marked muscular wasting. Within three months an abscess formed in Scarpa's triangle, and when this was opened a sinus, discharging pus freely, remained. The disease steadily advanced in spite of recumbency and weight extension, and the joint became disorganised. When he died from another cause fifteen months later the disease was evidently still in progress, and appeared to have become incurable.

In the College of Surgeons' Museum is a specimen thus described in the catalogue: "A hip-joint, in which, after the head and upper part of the neck of the femur had been destroyed, the shaft was drawn up, so that the remains of the neck rest in the ilium just above the acetabulum. It was taken from the body of a woman aged seventy, who ten years before her death had apparently scrofulous disease of her hip. Abscesses formed and opened in the groin, and ultimately the limb became much everted and shortened. After her death, by apoplexy, her lungs and liver were found tuberculous." This case is not only (in common with Case 2 and Case 3) a complete counterpart of hip disease in its more destructive form in the young, but as an example of senile tuberculosis is remarkable in the recovery of the patient. Such a result is, I think, very exceptional. It is much more usual to find, as in the three previous cases, that the disease advances, though it may be slowly, to a fatal termination.

I do not remember to have seen an instance of senile tuberculosis affecting the shoulder-joint, but I have met with it twice in the elbow and several times in the wrist. I may relate one case as an illustration. A man, aged sixty-seven came to the out-patients' room about six years ago with his left wrist swollen and weak, and with yielding of the ligaments, so that it was becoming distorted. The synovial membrane could be felt thickened and pulpy, and there was very marked wasting of the muscles of the forearm. To support the wrist he nursed it with his other hand. The disease, which he attributed to a wrench at his work, had been in progress four months. He complained of little pain. The hand and forearm were enclosed in carefully moulded leather splints and kept in a sling. For the next month the condition of the limb improved—swelling, heat, and redness of the skin subsided, and the joint felt, he said, much stronger. He now, without asking whether it would be safe, tried to work at his occupation as a cooper, but this produced an immediate relapse, and within three weeks an abscess formed. This was evacuated, but suppuration continued, and two sinuses remained. Suppuration was quickly followed by widespread destruction of the ligaments, so that the hand could be freely moved in all directions on the forearm, while the different carpal bones were felt, with a probe, bare and detached from each other. Amputation was therefore performed. The wound healed slowly, but without complication. On examination the whole carpus was infiltrated with curdy pus; the bones, many of them entirely denuded of cartilage, lay loose in tubercular granulation tissue, and pus had burrowed for some distance among the flexor tendons of the forearm. No microscopic examination was made, but the naked-eye appearances exactly corresponded with those of tubercular joint disease in young subjects.

One of the most rare of all the forms of senile tuberculosis is spinal caries. Sir James Paget has described a clear example of this affection in his "Studies of Old Case-books." The patient, a barrister aged about fifty-six, had pains in his back and sides, which were thought to be rheumatic. Four months later he had constant pain along the six lower ribs and at the epigastrium. Six months after the commencement of his disease, Sir James Paget found two spinous processes in the lower dorsal region prominent, and deflected to the right. With prolonged rest, and with issues kept open by the side of the spine, he slowly recovered. In four months he could sit up without pain. He regained health, and lived to be eighty-one.

I know of only three other cases: 1. In the catalogue of the College of Surgeons' Museum is a specimen (No. 3406), which is described as follows: "The five upper cervical vertebræ and the condyloid portion of the occipital bone affected at several points with ulceration (caries). The right transverse process and the lower articular surface of the same side of the atlas are entirely destroyed. The disease has also affected the corresponding condyle of the occipital bone, and the articular surface and side of the body of the axis, the right tranverse process, and the side of the body of the third, and the left occipito-atlantal articulation. No symptoms manifested themselves during life but those attributed to melancholia." As there is no history of the case, and as there was no discharge of pus during life or note that any was found after death, it may, of course, be questioned whether the disease was, as I believe, tubercular. The appearances, however, are exactly like those met with in tubercular caries, nor am I acquainted with such appearances as the result of any other form of disease. 2. I am indebted to Mr. Butlin for the following case: A healthy looking man aged sixty-seven was admitted into St. Bartholomew's Hospital in December, 1886. A month before, he had fallen off a table, and struck his neck against a chair. This injury was followed by stiffness of the neck, which gradually increased. In the following March he noticed a swelling in the neck, which gradually enlarged. In July, Mr. Butlin, finding that an abscess had formed, opened it. This relieved him, and the wound healed. In

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December, he returned to the hospital, complaining of severe pain, increased on the slightest movement, and situated on the left side of the neck and head. His temperature was not raised. The head and neck were enclosed in a leather case. This gave him great relief, and enabled him to sleep in comfort. In the following January an abscess (deeply placed behind the sterno-mastoid) was opened, and healthy looking pus in considerable quantity was evacuated. In February matter was found above the right clavicle. This, which proved to be fetid, was let out. The temperature was now 103°. An attack of cellulitis of the head and neck followed, but subsided; the discharge diminished, and in October had almost entirely ceased. But in November he had further suppuration, and a temperature reaching 104°. This attack also subsided, and in December he was well enough to be discharged. The leather collar was still worn, so as to support and keep his head as far as possible at rest. His subsequent history is unknown. I frequently saw this patient, and I believe, with Mr. Butlin, that the case was certainly one of tubercular caries of the spine. 3. A man aged sixty-three was in St. Bartholomew's Hospital about six years ago, under my care, with stiffness of the neck, so that he could neither nod nor rotate his head, with considerable widening and bony thickening in the neighbourhood of the spines of the upper cervical vertebræ, and with pain radiating over the occiput and down the sides of the neck. His head had sunk forward so that his chin was nearly on his sternum, and he moved cautiously and turned over in bed with difficulty. When sitting up he supported his head with his hands as children with caries of the cervical spine often do. A leather support was supplied. No suppuration occurred while he was in the hospital, where he stayed for about five weeks. This case was in all its features so exactly similar to cases of caries of the spine in young persons that I think there could be no reasonable doubt as to its nature. In the last year I have met with a case of disease of the sacro-iliac joint in a man aged fifty-four, in connexion with which a large abscess formed and burst, leaving a freely discharging sinus: and I know of another case in which the patient, a man aged fifty-five, died of exhaustion following disease of this joint attended with profuse suppuration.

In senile tuberculosis of the small bones of the hand and foot, and of the testis, the appearances are very similar to those which characterise tubercular disease of these parts in young subjects. There are the development of swelling arising without obvious cause or after injury, and its steady though slow and often painless increase, the infiltration and dusky tint of the skin, the formation of matter escaping through sinuses which usually show little or no tendency to heal, and, later, the thinning, undermining, and retraction of the skin, so that more or less extensive ulceration results. In the course of last year I saw in the out-patients' room two men, one aged sixty-six and the other seventy-two, with senile tuberculosis of the testis. In the first only one testis was affected, in the other both. In both the epididymis was enlarged, hard, and rugged, the skin was dusky and adherent, and suppuration had taken place. In the one the disease quieted down by rest and careful dressing, though when the patient was last seen a small sinus was still discharging and the epididymis was still large and hard. In the other the disease was advancing when the patient was last seen, but I am not aware how the case ended.

I do not know whether I am correct, but my impression is that senile tuberculosis of the lymphatic glands is rare. I have seen it going on to suppuration in the neck in two cases, but these two are all I can remember. Mr. Kiallmark, however, informs me that ten years ago a lady aged sixty-five had a mass of enlarged glands in the axilla, which had suppurated and led to the formation of several sinuses. The disease had been regarded by two surgeons as carcinoma. Mr. Kiallmark, however, considered that the affection was tubercular, and in this view he was confirmed by Sir James Paget. Under treatment the patient made a good recovery, and is still in good health. Disease of the lymphatics calls for no detailed description, for it is, though perhaps more chronic, generally identical in its characters and its course with the like affection in young subjects. That the lymphatics may become widely involved as the result of joint disease, just as they may in hip disease in earlier periods of life, is well shown in one of the cases related above.

The most material part of the subject of senile tuberculosis from a clinical point of view is the diagnosis of the affection in the different forms in which it may present itself. This may, as I have said, be attended with great difficulty—indeed, in the early stage of the affection it may be almost impossible. In the spine and the joints it will be a question between this disease and some form of osteo-arthritis. At first the symptoms may afford no reliable clue, and the surgeon, while trusting to general probability, and therefore anticipating that the case will prove to be osteo-arthritis, will yet do well to remember that, after all, it may be senile tuberculosis, and be ready to take note of any further indications that may present themselves. In the case of the spine, the development of angular curvature would of course point almost conclusively to tuberculosis. This symptom was well marked in the case recorded by Sir James Paget. It would be available, however, only in the dorsal and lumbar regions. In the cervical region senile equally with earlier tuberculosis produces deformity, but the deformity is not characteristic. It may consist of alteration of the axis of the column in a direction either forwards or laterally, or obliquely between these two; but the same deflection may occur in old people from osteo-arthritis, and also from muscular and ligamentous degeneration. I occasionally see a man of seventy-four with paralysis agitans, whose chin rests on his sternum, and whose cervical spine has such an abrupt bend forwards that it presents all the appearances of an angular curvature involving two or three vertebræ. Even angular curvature in the dorsal or lumbar region must not be regarded as an absolutely conclusive proof of the existence of tuberculosis, for I know of a case in which a well-marked angular curvature in the middle of the dorsal region followed cancerous deposit in the vertebræ, secondary to scirrhus of the mammary gland. Pain is no trustworthy guide. It is sometimes very severe—it was so from the first in one of the hip cases related above, and also in the knee case first related,—but more commonly it is only slight; while sometimes, as in tubercular disease in the young, it is entirely absent. Swelling varies in its amount. In some cases of senile tuberculosis of the knee, elbow, and wrist it is slight; but in others it is much more marked than it usually is in the early period of osteo-arthritis, and is due to pulpy thickening of the synovial membrane exactly resembling that which is so commonly present in younger subjects. It has seemed to me that this is a symptom upon which some stress may be laid. Stiffness, when tested by manipulation, is sometimes in senile tuberculosis much more marked than in the early stage of osteo-arthritis, but in the knee case movement was but little restricted. Two important symptoms of senile tuberculosis, absent in osteo-arthritis, are dusky congestion of the skin and increase of the temperature of the part. The one event, however, which may be regarded as very nearly conclusive is the occurrence of suppuration. Suppuration, as a rule, occurs in senile tuberculosis, and generally it occurs somewhat early; while in osteo-arthritis it is of course exceedingly rare. I do not remember to have seen an instance of it. In two of the cases of senile tuberculosis of the hip-joint, and in that of the knee which I have related, it was mainly on the presence of suppuration that the diagnosis was based.

In cases in which the lymphatic glands are the structures affected, the diagnosis will usually lie between senile tuberculosis and malignant disease. Here, again, the occurrence of suppuration would point very strongly to the former condition, but it would not be conclusive, for, rare as it certainly is, suppuration may be met with as a complication of malignant disease. This is well illustrated in a case which I recorded in the St. Bartholomew's Hospital Reports, vol. xxiii. A man aged seventy-three had enlargement of several of the cervical glands. They were about the size of walnuts, were covered with dusky and inflamed skin, and were suppurating freely. At first sight they had every appearance of being the seat of senile tuberculosis, except that they were extremely hard. They proved, however, to be undoubtedly malignant. In some cases family history, either of tuberculosis on the one hand, or of osteo-arthritis on the other, might be so strong that some weight might be attached to it; but family history is usually no safe guide. The presence of phthisis in the lungs, however, would, as it did in one of my cases of hip disease, and in the knee case, point strongly to tuberculosis.

I have little to say in regard to prognosis and treatment. Prognosis is usually unfavourable. The disease shows a strong tendency to advance and extend. In three out of

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the four cases of hip disease it steadily progressed, and in two proved fatal. Amputation has been ultimately necessary in the majority of cases of the knee and wrist. It will be noticed, however, that the woman whose hip I brought from the College recovered from very extensive disease, attended with the formation of sinuses. Sir James Paget's case of spinal disease also recovered. As to treatment, rest must, as in young subjects, be provided. The general health must be, as far as possible, maintained. Should suppuration occur, matter must be evacuated at once, the greatest possible care being taken to prevent sepsis. Should the disease continue to advance, amputation may become unavoidable. This operation, if resorted to early enough, will, so far as I have seen, be followed by a favourable healing of the wound.

Bruton-street, W.

CHANCRE OF THE LIP.

By STEPHEN PAGET, F.R.C.S.,

SENIOR ASSISTANT SURGEON TO THE METROPOLITAN HOSPITAL AND TO THE WEST LONDON HOSPITAL.

TWO cases of chancre of the lip which came under my care led me to make this abstract from the literature of the subject. Chancre of the lip may occur at any time of life, from infancy to old age; it is found in every condition of life, and under every possible variety of circumstances. The accidents which cause it are so many and so curious that no story is too improbable to be true; nothing is more strange than the facts in some of these cases, where the poison has been "ricochetting" among the members of a family or the workmen at a factory. It has fifty ways of gaining an entrance; the list is too long to be given here of all the instruments, implements, and things in daily use that have served to carry it. Probably the chancres thus caused are almost equal in number to those that are due to immediate infection by kissing, by suckling with a syphilitic breast, by such methods as these, and by unnatural practices.

Chancre of the lip is far the most common of all the extra-genital or erratic chancres. Thus, Mason found that of 37 cases of erratic chancre, 11 were cases of chancre of the lip; Laverque found 10 out of 27, Lavallée 16 out of 45, Bulkley 30 out of 65, Ricord 12 out of 29, Neumann 54 out of 84, and Pospelow 49 out of 198; Nivet, out of 581, found 412 on the face; and Tschistiakoff has collected 897 cases of erratic chancre, of which 391 were on the lip. As regards the proportion of chancres of the lip to chancres of the generative organs, it varies much, according to the class of cases to be considered. Thus Petersen of St. Petersburg had in seven years 1208 cases of primary syphilis in men. In only 23 was the chancre erratic, and in 11 of these it was on the lip. Sigmund of Vienna in seven years saw 73 cases of chancre of the lip, of which 32 were hospital patients and 41 private. Mauriac collected 1773 cases of primary syphilis in men. In 76 the chancre was erratic, and in 36 of these it was on the lip. Wirpscha, in ten years' work in a Russian hospital, saw 5147 cases of primary syphilis, in 249 of which the sore was erratic. Professor Ge of Kazan puts the proportion of extra-genital to genital chancres at 3·8 per cent. in man and 18·9 per cent. in woman. Bogolubow of Kronstadt saw 753 cases of primary syphilis. In only 4 of these was the chancre extra-genital, 2 of them being on the lip. Fournier, in twenty-seven years of private practice alone, saw 887 cases of primary syphilis in women. Of these, in 42 the chancre was extra-genital. Ricord, in 471 cases, found 29 extra-genital. But the most appalling statements are made as to some parts of Russia. Petersen is reported to have said, in 1888, that in the villages in the interior of Russia extra-genital infection occurs in 75 per cent. of the cases of syphilis, and is especially common among children. Pospelow, writing in 1889, says that in Kursk extra-genital infection occurs in 85 per cent. of the cases of syphilis, and in Wladimir in 91·3 per cent. (this includes 7·7 per cent. of hereditary cases), and that infection took place by the mouth in 63·9 per cent. of these. Ssabinin is reported to have said, at a medical congress in Russia in 1887, that of 865 cases of syphilis, 201 came of sexual intercourse, 219 were hereditary, and 445 came of herding together and using the things of daily life in common—e.g., all eating from one bowl, and passing one wooden ladle from mouth to mouth.

I know of no other figures so bad as these; but isolated instances in other countries have been published, where the poison has gone to one after another in a family, and bad outbreaks used to occur among glass-blowers, who pass their hot rough iron blowpipes from mouth to mouth. Dechaux gives an account of ten men thus infected by one man, who carried his disease (syphilitic caries of the nasal bones) from one glass-works to another. Attempts were made to get the men to use each a mouthpiece of his own, but they would not give the time to do this. Guinard, a factory surgeon at Rive-de-Gier, stamped out an outbreak by making regular monthly examinations of the men's mouths. Sigmund, writing in 1863, observed that there had lately been a run of cases of chancre of the lip at Vienna, and in 1868 he said again that these cases are on the increase. In 1850 there was a kind of panic in Vienna, and all secondary sores of the lips were popularly ascribed to direct infection, supposed to come from cigars. There is no evidence that I can find that either cigars or cigarettes have ever been infected at the tobacco factories; indeed, from the cleanliness demanded of the workpeople, and from the nature of the process, such a thing is not possible. Of course the use of another man's pipe or cigar end has in many cases been the cause of syphilis.

As regards the condition of the lip at the moment of inoculation, there is no reason to doubt that in most cases there is nothing amiss with it. But sometimes the poison takes advantage of an old crack or fissure, such as is very common, especially in winter, on either lip, especially the lower. Mr. Cooper gives a case where a crack of ten years' duration became the seat of a chancre. Similar cases are recorded by other English surgeons; and Pospelow says that out of forty-nine chancres of the lip a large number had begun in a simple fissure. Or there may be a scratch or a cut on the lip at the time of infection. In one case a bite was the cause; in another a man scratched his lip a few hours before it was exposed to infection; in another a child fell and cut her lip, and was infected by the kiss given to stop her crying. Vidal saw a chancre imposed on a chronic eczema of the lip in a young girl. Girode saw a chancre of the lip in a match-maker who was suffering from phosphorus necrosis with ulceration of the gums.

Coincident chancres of the lip and of the generative organs, the finger, or the nipple have been recorded. Roussel saw an infant with chancres of the lip and perineum. Sigmund saw seven cases of coincident chancres of the lip and tongue. In a few cases there have been two chancres on the lip, or one on each lip.

It may be well to take first the cases of chancre of the lip in children, for they are in some ways apart from the rest; and if such a case be not read aright, wrong judgments and false accusations will come of it. Thus, in one case, an infant was said to have been syphilised by vaccination, but it had a chancre at the corner of its mouth, and both of its nurses were found to be syphilitic. In another similar case the infection came not from the nurse's nipple, but from an accidental chancre on her finger. Often the chancre is overlooked, and then the disease is called hereditary. Infants are infected not only by a kiss, or from a syphilitic nipple, but also by the habit of nurses of first putting into their own mouths the toys that infants suck. Bryant had two cases of chancre of the lower lip in boys of seven; Laverque saw it in a child of three and a boy of twelve. Roussel gives seven good cases in infants and young children. These are but a few instances of what is probably not a rare complaint. Pellizzari says, "Perhaps not one case in ten comes to the notice of a doctor." In infants, he says, a chancre of the lip is a superficial lesion, which soon disappears; it is to the peculiar enlargement of the lymphatic glands that we must look, to make sure of our diagnosis. It seems certain that in infants a chancre of the lip may lack that induration which is its mark in later life. Thus Lavallée gives the case of a mother who got a chancre of the nipple by nursing a strange child, and in this way infected her own infant; but no sure signs of a chancre were ever seen on her child's mouth. Rollet, in 1859, writes: "I have tried in vain to find a case of hard chancre of the mouth in infancy. It is infinitely hard to find it on the lips or tongues of infants at the breast, though mucous patches and plaques are very common. Moreover, it is only in a few cases that you find the lymphatic glands

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I know of no other figures so bad as this; isolated instances in other countries have been quite where the poison has gone to one after another in a long and bad outbreaks used to occur among glass-blowers pass their hot rough iron blowpipes from mouth to mouth. Dechaux gives an account of ten men thus infected by man, who carried his disease (syphilitic caries of the bones) from one glass-works to another. Attempts made to get the men to use each a mouthpiece of his but they would not give the time to do this. Grisolle factory surgeon at Rive-de-Gier, stamped out the by making regular monthly examinations of the mouths. Sigmund, writing in 1863, observed that had lately been a run of cases of chancre of the Vienna, and in 1868 he said again that there was the increase. In 1850 there was a kind of panic in and all secondary sores of the lips were popularly to direct infection, supposed to come from cigars. no evidence that I can find that either cigars or have ever been infected at the tobacco factories: the cleanliness demanded of the workpeople, and nature of the process, such a thing is not possible. course the use of another man's pipe or cigar many cases been the cause of syphilis.

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enlarged." He is so sure of this statement that he invents a theory to explain it. But induration of the sore and enlargement of the glands are noted in more than one of Roussel's cases, aged one and a half to three years; and enlargement of the glands occurred even in an infant at the breast. In Baum's case, a child four years and a half old, the sore was as hard as cartilage, and there was great enlargement of the submaxillary and cervical glands.

As regards the later stages of syphilis thus acquired in infancy, it is said by Roussel that, as a rule, it is not severe; whereas in nurses who are infected by suckling syphilitic infants, the later stages of the disease are usually of marked severity. Pellizzari, who gives a list of sixty-nine nurses thus diseased—"a long list of martyrs,"—is of the same opinion. One of them, in spite of careful treatment, fought for six years against repeated outbursts of the disease, and died exhausted, yet free from visceral disease. Plummert gives two cases of nurses who were attacked by tertiary syphilis within a few months of infection. It may be that the severity of the disease in nurses thus subjected to it is due to their health and strength being depressed at the time of infection.

We come now to chancre of the lip in adults. It is most common in the years between twenty and forty. As to its frequency in England, we have the statement of Mr. Cripps, at the Medical Society in 1887, that about 40 cases had attended at St. Bartholomew's Hospital during the past year. In Paris, at the Hôpital St. Louis, in three recent years there were 27, 49, and 45 cases respectively. The question whether it is more common in men than in women is answered differently by different writers. Most of them say the latter. Neumann found it in 21 men and 33 women; Pospelow found it in 40 men and 64 women; Sigmund in 17 men and 56 women; and Wirpscha in 50 men, 99 women, and 100 children. Bumstead and Taylor, on the other hand, put it at 471 men to 130 women. The question whether it is more common on the upper lip than on the lower is of no practical interest, nor can it be answered. Neumann found 18 on the upper lip, 28 on the lower, and 8 at one corner of the mouth; Pospelow, Ricord, and Puché found it more often on the upper lip; Sigmund saw 39 on the upper lip, 16 on the lower, 12 involving both lips, and 4 at one corner of the mouth.

Chancre of the lip in adults does not come to the notice of the surgeon till it is well advanced. Like chancres elsewhere, it may manifest itself, says Sigmund, either by increased growth, as a lump, or by destruction of the tissues, as an ulcer. In the first case it begins as a mere scaly patch of epithelium, with slight swelling of the corium; its surface is more or less fissured, and the fissures may bleed. Thus a scab is formed of epithelial débris mixed with serum and blood, whitish, yellow, or dark, thin or thick, equal in size and shape to the sore beneath it, and in most cases firmly adhering to it. The sore is indurated, and this induration may be superficial, involving only the skin and subcutaneous tissue, or it may go deeper. After a time the swelling increases, the scab becomes loose, and the corium is exposed, with its surface rough with flakes of epithelium and dried discharge. New epithelium is slowly formed round the sore; but it is smooth, thin, and weak, falling off from time to time so long as any swelling and induration remain in the sore. Only after many failures does it at last succeed in healing the sore, leaving the lip sound and smooth without a scar. The second kind of sore, where there is loss of substance, is less common; it owes its ulceration, for the most part, to causes other than itself. At or near the time of inoculation there was a scratch, crack, or ulcer on the lip; or the sore was made worse by smoking, or by the use of caustics, or by neglect and want of cleanliness, or by the rubbing of a tooth. Bad air, bad food, and a bad state of health may have the same result, bringing about a loss of substance and a purulent discharge; but this discharge is not profuse or obstinate, save in those who are utterly unhealthy. Or the sore may become the seat of phagedænic ulceration. The progress of the sore is slow, especially in elderly people. Ricord thinks that the natural tension of the lip interferes with the healing process. The induration usually takes some months to disappear. He believes that he has seen traces of it after nine years in one case and after thirty years in another. There is a scar, "or, rather, a characteristic stain, a special mark of the disease; a round, brownish, dull, bronzed patch, very slow to change." This fades at last, leaving a faint white mark, or no visible trace of any kind.

Pospelow says of his cases that the chancres varied in size from a split pea to that of a five-mark piece. In shape they were most of them round or oval; some were linear, at right angles to the long axis of the lip; a few were set obliquely on the lip, or were irregular in outline. The linear chancres probably started in simple fissures of the lip. Some of the chancres were raised, some flat, some excavated. There was in every case well-marked induration; in one only is it said that this was not found. In a few cases it was only superficial, like a thin disc of parchment. The sores were usually painful on pressure, or in such movements as were caused by the taking of food.

Ricord (1858) says: "The period of incubation is very variable. If the lip is predisposed for inoculation by a wound, crack, or abrasion, however slight, the chancre appears all the sooner; and in one such case it showed itself in forty-eight hours. Its first appearance may be as a little wound, linear or circular; or it may begin as a pustule. A chancre inside the mouth always tends to ulceration; chancre of the lip seldom goes on to deep ulceration. If it occurs at the corner of the mouth it is usually divided transversely by a deep ulcerated crack." As regards the earliest aspect of a chancre of the lip, from the patient's account it seems that what is first noticed is a papule, pustule, or fissure. In a case published by Mr. Sheild a chancre near the angle of the mouth in a woman of thirty-two began as a "small pimple like a gnat-bite." In a case of Ricord's where the lip was scratched just before inoculation, it began as a white vesicle with a red halo. If it starts in an old fissure, nothing more is observed at first than a slight glazing and hardening of the edges of the crack, which may now be a little painful.

If a chancre, or part of a chancre, be on the inner aspect of the lip, warm, moist, and sheltered, it remains smooth or eroded, and no scab forms on it; it is less raised, or almost flat, or hollow. Pospelow notes that in cases where the sore lay in this way, more or less within the cavity of the mouth, it was just like a mucous tubercle. In Mr. Cooper's case, where a lower lip, cracked for many years, got poisoned from a dirty glass, the crack became glazed and hard, especially along its lower half; and a week later, on the inner aspect of the lip, there was a typical mucous patch, which joined the original sore just where the lips touch. "The contrast between the almost dry and glazed appearance of the lesion on the part of the lip exposed to the air, and the opaline moist appearance of that within the mouth, was very striking." So, too, if such chancres ulcerate, the ulceration is likely to be more extensive towards the inner aspect of the lip.

The lymphatic glands in chancre of the lip are of supreme importance for diagnosis; they are a constant and conspicuous sign of the disease, a token that is never wanting and never doubtful. Their enlargement takes place within three weeks of the first appearance of the sore, and in most cases within a fortnight. After the submaxillary, the cervical, and even the axillary glands may suffer. In chancre of the lower lip the glands beneath the chin are often enlarged. The deep glands escape, or are less enlarged in chancre of the lip than they are in chancre of the tonsil. The enlarged glands may attain a great size, and may form a lump almost as large as one's fist. One or more lymphatics have been felt in a few cases, as thick hard cords passing from the sore towards the glands; and in such cases the enlargement of the glands themselves may be but slight. In feeble persons, or if the sore is inflamed, the glands may be painful, may become acutely inflamed, and may even go on to suppuration. Besnier had a case where erysipelas of the face started in a chancre of the lip. When it subsided, the œdema and ulceration of the lip were found cured, and the sore itself was much smaller; but the glands suppurated. Save for such accidents as these, the glands remain painless and indolent. They have the feel of syphilitic and not of cancerous glands; though they may be "as hard as wood," yet they are not "as hard as stone"; they still feel like glands, and not like the ill-defined adherent infiltrating growth of cancer; the skin is free above them; they are not matted together and wedged in among the deeper structures; they remain distinct and loose long after they have become so large that if they were cancerous they would be firmly fixed to everything round them. They are best felt by hooking one's finger up behind them, so that they lie in front of it; then they feel like

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marbles in a bag, or "like nuts in a monkey's cheek." Sometimes one or two glands may far exceed the rest in size. If the general glandular enlargement of constitutional syphilis be well marked, the submaxillary glands will yet excel both in size and in hardness. They are, indeed, one of the surest and safest guides in diagnosis; and when once their hardness and enlargement are well established the case must be treated without delay.

As regards the further course of the sore itself, and the size to which it may attain if it be neglected, Mr. Hutchinson, in his "Archives of Surgery" for October last, has figured the largest one of all that he has seen; it occurred in a young lady, and invaded the whole upper lip. Other cases as bad as this have been recorded by other writers. As to the amount of inflammation in and around the sore, and throughout the rest of the lip, it varies according as the sore has been kept clean and quiet, or has been scratched or irritated. In a case of my own, in a young girl, who had been treated for three months with various lotions, the sore was large, raised, and inflamed, with a thick, dark scab, and the whole lip was red, stiff, and greatly swollen. This general swelling of the lip may reach an enormous size, and give much pain; it may not wholly subside for a couple of years. Such are the cases of "œdema indurativum," "œdème dur scléreux," "sclerotic œdema;" of late years a special organism (streptococcus) has been found in great quantities in the infiltrated tissues.

As regards the prognosis in chancre of the lip, the disease will probably run its usual course, neither more nor less. Neumann, speaking of eighty-four extra-genital chancres, fifty-four of which were on the lips, says: "The disease and its results were in no way modified by the unusual method of propagation." Sigmund says of his seventy-three cases: "There is nothing special to say as to the course and close of the disease in these cases. I observed forty-four of them for a long time without seeing them deviate from the ordinary way of syphilis. The old idea that the attack is milder if the sore is extra-genital, is certainly false as regards either a chancre on the finger or a chancre on the lip." In England the "old idea" is not that the attack will be milder, but that it will be more severe. Mr. Hutchinson, though he shows that the site of inoculation cannot affect the action of the poison, points out that neglect of treatment in chancre of the lip will result in an aggravation of the rash; and perhaps this may explain the apparent gravity of these cases. Again, Baum has suggested that some erratic chancres may, from the accident of their position, resist absorption, and thus a copious rash may coincide with a still large and indurated chancre, making things seem worse than they really are. Again, the position of a large chancre of the lip, half inside the mouth, must favour the absorption of syphilitic discharge into the stomach; and it is said that the most severe and obstinate forms of secondary and tertiary syphilis are found in those patients who have had, or still have, extensive ulceration of the fauces. And if Fournier's rule be true, that extensive ulceration of a chancre tends to be followed by a worse rash, this also will apply to ulcerated chancres of the lip. Thus there are reasons—some real, some only apparent—for the belief that a chancre of the lip will be followed by syphilis of at least an average severity, and probably rather above than below the average.

There is another "old idea" which may here be mentioned. It is the non-occurrence of erratic soft sores on the face—a great theme for discussion among the older pathologists, when as yet the distinction between infecting and non-infecting sores was not universally received. Ricord says: "I have now shown you a great number of cases of erratic soft sore in many different parts of the body; everywhere, indeed, save only on the head and face. My colleagues have not been more fortunate than myself. If we search the statistics, French and foreign, we find only two cases of soft sore on the lip, and both of these are doubtful. I believe that it ought to exist; I long to find it; but there is not one clear case of soft sore of the face." Fournier, in 1858, collected 150 cases of primary venereal sores on the head and face, but they were all hard chancres save five, and these five were all doubtful. Of course the soft sore can be produced anywhere by deliberate inoculation. Puché and Rollet thus produced it on the head or face in twenty cases; Bassereau, Huebbenet, and Robert also produced it on the lips and elsewhere on the face in many cases. But the records of true accidental inoculation of it on the face are rare and uncertain. One case that Fournier reports may be a real instance of it. Puché also reports a case of a sore on the lower lip, which had all the characters of a soft sore, and was reproduced elsewhere by inoculations; and Bryant published a case of "soft chancre" of the corner of the mouth, with inflamed glands, in a girl of seventeen; but these three cases are all that I can find. As regards the frequency of erratic soft sores in general, Fournier, out of 445 cases of soft sores, had only three or four where the sore was erratic; and Debauge, in 206 similar cases, had not one case of erratic soft sore. But the whole question must remain uncertain, in view of the character of the soft sore, and of its misleading likeness to tuberculous ulceration.

The diagnosis and treatment of chancre of the lip remain to be considered. Besides the use of mercury, the sore must be firmly covered, and the patient must be told in strong language that he is a constant source of danger to all about him. Sigmund recommends that the sore be cleansed with sublimate lotion and covered with mercurial plaster. As to diagnosis, one of two mistakes may be made. Either the chancre is taken for a simple swelling, or boil, or inflamed spot in the lip, and is neglected; or it is taken for cancer, and is excised. Records of the first mistake are too frequent to be quoted here. The second mistake is well illustrated by two cases published by Mr. Quain in 1859: "After a good deal of examination and consultation upon each of these cases, the tumours were removed." Mason gives three cases, all of which were first diagnosed as cases of cancer. Moreover, he gives the case of a man of twenty-six, who was three times within two months subjected to operation for a chancre of the lip.

Chancre of the lip is commonest in the young and middle-aged; as common on the upper as on the lower lip; and as common in women as in men. Chancre is rapid; its scab is often dark and rupial; the lip is often red, swollen, and stiff; it is seldom destructive, painful, or fetid. The glands in chancre swell in a few days; they rapidly attain a great size, yet are still loose, movable, distinct, true amygdaloid glands. Mercury will put an end to doubt. The microscope has been used with success; in two cases a suspicious sore was thus shown to be only the infiltrated granulation tissue of a chancre. But the surest guide of all in a doubtful case is the state of the glands.

Wimpole-street, W.

REMARKS ON SO-CALLED VILLOUS DUCT CANCERS OF THE FEMALE BREAST.[1]

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No chapter in the history of mammary neoplasms is more obscure than that which refers to the so-called villous duct cancers. This is strikingly exemplified by the many designations applied to them by different observers. It may be worth while to reproduce some of these, since they doubtlessly indicate, however imperfectly, varied aspects of the morbid process. They have been described by Brodie as "sero-cystic tumours," by Billroth as "tubular cyst-adenomas," by Gross as "true adenomas," by Labbé as "epithelioma intra-canaliculaire," by Rindfleisch as "glandular cancroids," by Cornil and Ranvier as "carcinôme villeux"; while others have given them such names as "duct papilloma," "papillary endo-canalicular fibroma," "cystic adenoma," "blood cyst," "épithéliôme cylindrique," "épithéliôme kystique," "épithéliôme polykystique," "villous duct epithelioma," "hæmorrhagic carcinoma," "duct cancer," "tubular carcinoma," &c. What confusion all this implies! Yet there is no lack of facts; the problem rather is to set these in order and to interpret them aright. To this end I think the first and most important step is the recognition of the fact that under this term "villous cancer," as commonly employed, at least two perfectly distinct kinds of neoplasm are included—viz., the non-malignant villous papilloma and the malignant tubular cancer.

I will now proceed to sketch briefly the salient features of

[1] A paper read before the Preston Medico-Ethical Society on March 9th, 1892.

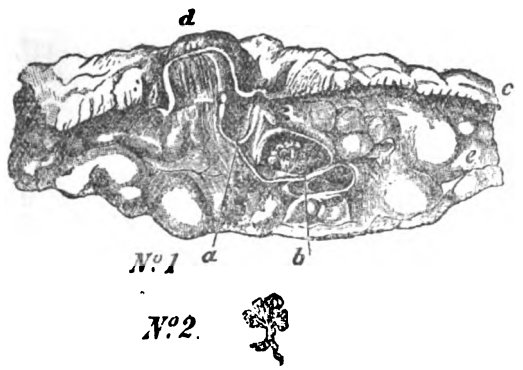
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each of these varieties, basing my remarks on the study of thirty-six cases, some of which have come under my own observation.

I. VILLOUS PAPILLOMA.

Villous papillomata of the breast may be either single or multiple. They may arise from any part of the mammary duct system, but hardly ever from the acini. The galactophorous ducts are their favourite seats, especially the lacteal sinuses. (See Fig. 1.) In its simplest form the disease presents as a soft, granulated or shaggy, pea-sized, solitary outgrowth of reddish or purplish colour, connected by a slender stalk with the wall of the duct whence it originates, as in cases by Barker, Bryant, Bowlby, Pollard, and others. When such a growth is floated in water, its branching, arborescent structure at once becomes apparent. Its delicate villosities, which are often of extreme complexity, are of course easily lacerated; and as they contain large capillary blood-vessels, ecchymoses and hæmorrhages frequently result. Their prevalent dark colouration is ascribable to this, and it has often caused them to be mistaken for blood-clots, and even for melanosis. On careful dissection it is easily determined that the cavity within which the papilloma is contained is the dilated duct itself, and the fluid contents are derived from its lining membrane. These may be either serous, mucoid, or pultaceous, and they are often blood-stained; they may contain epithelial cells in granulo-fatty degeneration, corpuscles of Glüge, leuco-

FIG. 1.



Solitary villous papilloma. No. 1. Section through centre of nipple of right breast, showing dilated ducts and a duct papilloma projecting into one of them. *a*, Dilated duct. *b*, Papilloma. *c*, Skin. *d*, Nipple. *e*, Breast tissue.—No. 2. Vertical section through the raspberry-like papilloma of No. 1. It is seen to be made up of four main lobes, each of them divisible into smaller leaflets. (Barker.)

cytes, granular débris, cholesterine scales, blood-corpuscles, &c., as well as dissolved albumen. These neoplasms present as circumscribed tumours of ovoid or conoid shape, with their long axes parallel to the main ducts. They are usually centrally situated beneath the nipple or areola. Though connected with the breast itself, they seldom adhere to other adjacent structures. They cause no retraction of the nipple or of the overlying skin; but these parts are sometimes dragged upon. The tumours feel firm, elastic or fluctuating, but they seldom attain large size, the majority being like filberts or walnuts. Their peripheral villosities occasionally protrude through the dilated galactophorous ducts at the summit of the nipple, where they form red granular excrescences.

More common than these solitary papillomata are the multiple ones (Fig. 2), of which cases have been recorded by Billroth, Pollard, Labbé, Robinson, and others. These may be confined to the ducts of several adjacent lobules, or to those of an entire lobe, or they may be scattered irregularly throughout the ducts of the whole gland. Under these circumstances firm, irregular, nodular tumours are produced, which often attain considerable size. On section numerous small cystic cavities are noticeable, within which the villous growths are contained; when the latter grow freely they sometimes cause absorption of the intervening cyst walls, the result being a softish mass of coalesced villous growths, which on section presents a spongoid appearance, its meshes containing pultaceous or mucoid fluid, derived from the cells lining the closely packed villosities. In these cases there is often no distinct capsule, and the bulging intra-canalicular growths may even seem to infiltrate the surrounding fibro-fatty structures.

Microscopical examination of mammary papillomata shows them to be composed of a slender framework of fibrous connective tissue, lined by one or more layers of columnar or subcolumnar epithelium. (Figs. 3 and 4.) In this fibrous framework very few, if any, cellular elements can be detected. It serves the purpose of supporting the capillary bloodvessels. In some instances this epithelial investment is exceedingly thick; upwards of twenty layers of cells have been counted. Under these circumstances the more superficial cells lose their columnar form and undergo granulo-fatty changes. Cells similar to those which cover

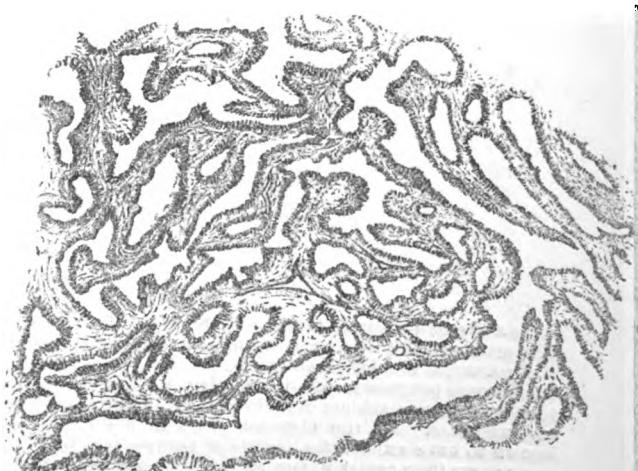
FIG. 2.



Multiple villous papilloma. (Gross.)

the free surface of the neoplasm line also the wall of its containing cyst. In their microscopic appearances such growths occasionally present some resemblance to alveolar cancer, for certain sections show ovoid spaces containing epithelial cells surrounded by scanty fibrous stroma. These cells, however, differ from cancer cells in that they are of the columnar type, and, instead of being irregularly massed within the alveolar spaces, they are regularly arranged round their walls. The alveolar appearance is produced by cross sections of the epithelial-lined, interpapillary depressions, between the closely packed ramifications of the neoplasm. In certain cases, when the villosities are lined with

FIG. 3.



Villous papilloma of breast under a low power. (Pollard.)

but a single layer of epithelium, a tubular appearance is thus produced.

In the initial stage of their development villous growths present as simple conical or forked outgrowths of the lining membrane of the duct. In this condition such growths are occasionally met with in the ducts in the vicinity of the fully developed growths. Further proof of their origin from this source is to be found in the fact that the cells lining their free surfaces are invariably of the same columnar type

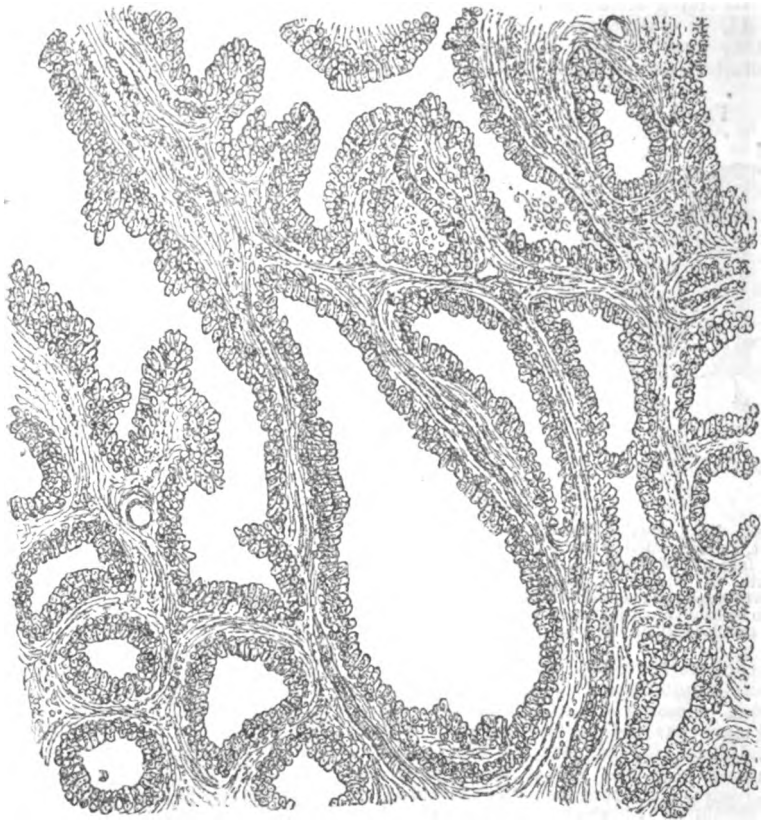
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as those of the originating ducts. Labbé[2] has recorded a case of multiple villous papillomata in which the free surfaces of the neoplasms and of the containing cyst walls were lined throughout with flattened epithelium. Here the disease was probably of intra-acinous origin. This is the only case of the kind with which I am acquainted.

It will be gathered from the foregoing description that these growths are of a perfectly innocent nature, though often multiple; they have no tendency to local infection, nor do they ever disseminate in the adjacent lymphatic glands or in the system at large, and when completely removed they never recur. Of the patients in my list one was known to be alive and well fourteen years after operation, and others six, three and a half, and three (two cases) years. In a few cases growths of this kind have been found associated with ordinary fibro-adenomata.

Usually the first symptom of villous papilloma to attract attention is the presence of a fluid discharge from the nipple, which persists, and after a time becomes sanious. Even when this is not the initial symptom it generally appears at an early date, and remains throughout a salient feature. In other cases a small pea-sized tumour is the thing first noticed. The presence of a tumour is, however, often overlooked by the patient, as it seldom causes pain or other inconvenience. The disease progresses slowly and almost imperceptibly, so that a surgeon is seldom consulted until it has existed for several years. Of the eighteen cases in my list it was known to have existed for periods of twelve, ten, four, and three years (two cases) before advice was sought. Having maintained this slow rate of increase for some years, these tumours not unfrequently get larger rather rapidly, owing to increase in the fluid contents of the cysts. In two out of my eighteen cases there was history of previous injury; in one the nipple had been severely bitten twenty-two years previously; in the other the disease was first noticed four months after a blow. The patients affected are generally prolific married women, and the right breast is as often the seat of the disease as the left. The average age at onset is forty-three years; the youngest in my list twenty-three, the oldest fifty-five. The numbers for each quinquennial period are as follows:—Twenty to twenty-five years, in 1 case; twenty-five to thirty years, in 1 case; thirty to thirty-five years, in 1 case; thirty-five to forty years, in 5 cases; forty to forty-five years, in 3 cases; forty-five to fifty years, in 2 cases; fifty to fifty-five years, in 2 cases. Villous papillomata therefore develop at a much later period than fibro-adenomata—of which the average age at onset is 30·4 years; but they arise somewhat earlier than cancers, of which the average age at onset is forty-eight years. The disease I have just sketched has hitherto almost invariably been confounded with encephaloid or scirrhous cancer, or sarcoma, and treated like these affections by amputation of the breast, in several cases the axillary glands having been removed as well. It is clearly a mistake to resort to such severe measures when we have to do merely with a solitary villous growth, or even with several such growths confined to a limited area of the gland. In such cases the disease should be excised, together with the containing cyst wall. Several cases illustrate the futility of cutting into these tumours, and of destroying the overlying skin by caustics. The only result of such treatment is to cause them to fungate and to increase rapidly. When the disease is diffuse the whole gland must be extirpated; but even then the overlying skin, including the nipple and areola, may usually be preserved.

FIG. 4.



Villous papilloma of breast under a high power. (Billroth.)

Bibliographical indications.—Labbé and Coyne: Traité des Tumeurs Bénignes du Sein (Paris, 1876), pp. 206, 212, and 264. Th. Billroth: Die Krankheiten der Brustdrüsen in the Deutsche Chirurgie, Lief. 41, 1880, S. 79. A. E. Barker: Brit. Med. Jour., vol. i. 1890, p. 590. S. W. Gross: Am. J. Med. Sci., Oct. 1879, p. 459. B. Pollard: Trans. Path. Soc. Lond., vol. xxxvii., 1886, p. 483. B. Pitts: Ibid., vol. xxxix., 1888, p. 320. H. B. Robinson: Ibid., vol. xl., 1889, p. 285; vol. xli., 1890, p. 221. T. Bryant: Diseases of the Breast, 1887, p. 272. B. C. Brodie: On Sero-cystic Tumours of the Female Breast (Lec. on Path. and Surgery), 1846, p. 137. A. A. Bowlby: St. Bart.'s Hosp. Reps., vol. xxiv., 1888, p. 273. E. W. G. Masterman: Ibid., vol. xxvii., 1891, p. 193.

II. TUBULAR CANCER.

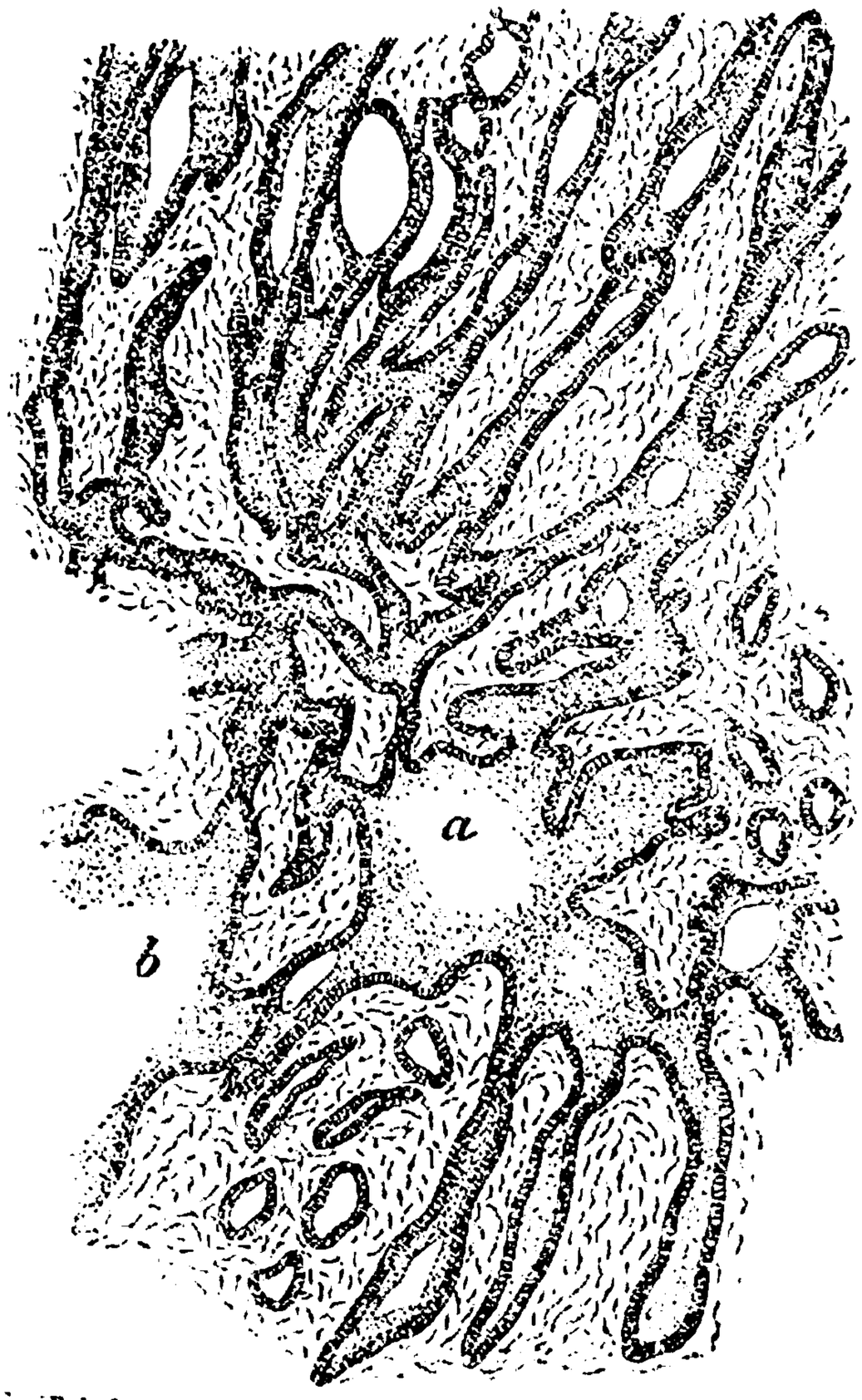
The terms "tubular" and "acinous," as applied to mammary cancers, originated with Billroth, but they are used by him in a different sense to what I employ them. According

[2] Traité des Tumeurs Bénignes du Sein, 1876, p. 163.

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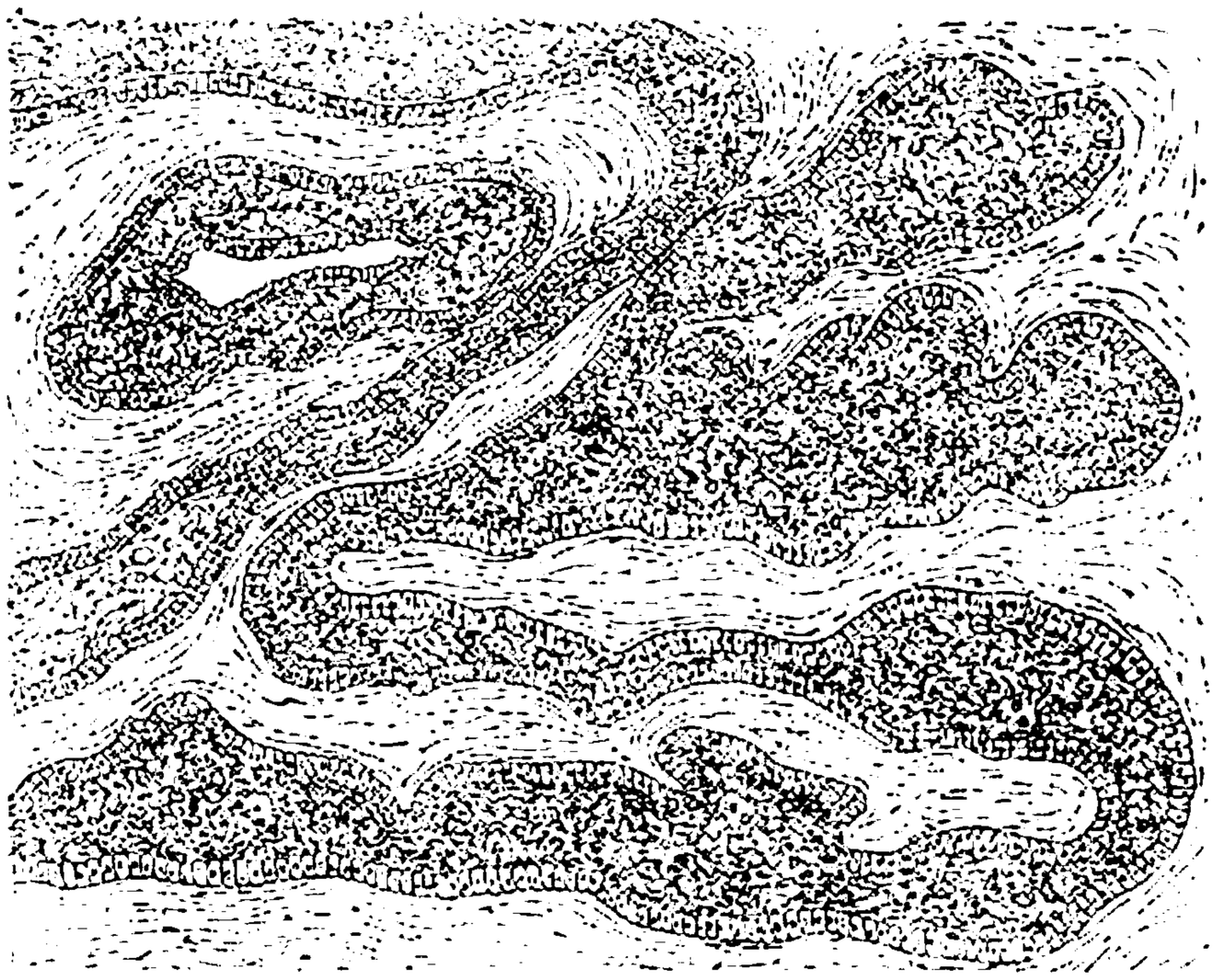
to my views, the great majority of breast cancers—about 96 per cent.—consist entirely, or almost entirely, of structures of the acinous type, the tubular form being quite a rarity. I regard the ordinary scirrhous or alveolar cancer as morphologically of the former type, the alveoli and their contents roughly representing acini in the resting stage. The latter term I restrict to certain cancers—histologically often very duct-like in appearance,—the true duct cancers. These are often associated with cysts and intra-cystic papillary growths, the latter of which never develop in connexion with acinous (scirrhous) cancers.[3] The concurrent testimony of recent observers is against Cornil and Ranvier's statement that villous cancer is merely a form of scirrhus accompanied by intra-cystic villous growths. This form of breast cancer is undoubtedly a distinct variety. Histologically it is characterised by the presence of elongated, intercommunicating, cellular processes, growing into the surrounding connective tissue. (Figs. 5 and 6.) These processes have the form either of hollow tubes (Figs. 5, 7, and 8) lined with one or several layers of columnar epithelium; or of solid cellular cylinders (Figs. 6 and 9), of which at least the peripheral cells are of the columnar type. The appearances seen in cross sections are well shown in Figs. 7, 8, and 9. In connexion with these structures, numerous small cysts frequently arise, through granulo-fatty disintegration of their cells; and within the cysts papillary growths often spring up. From the columnar type of their cells, and from the tubular form assumed by the ingrowths, it may be inferred that these neoplasms originate from the mammary ducts. Neoplasms of this kind generally present as hard, nodulated, irregular tumours, which are usually circumscribed, and often more or less completely encapsuled. They vary in size from a hazel nut to a newly born child's head, and commonly they are as large as a hen's egg. They are generally mobile and very seldom do they cause retraction of the nipple, or of the overlying skin. On section we find them composed of firm, whitish—or, in places, pale pinkish—solid substance, formed by the ingrowing epithelial processes, with here and there yellowish areas out of which pultaceous substance, consisting of epithelial cells in granulo-fatty degeneration, may be squeezed. Embedded in this solid substance are numerous minute cysts. Sometimes the latter are so numerous as to convert the tumour into soft reticular substance. These cysts contain mucoid or pultaceous fluid, and not unfrequently intra-cystic papillary growths. In this connexion ecchymoses and hæmorrhages sometimes arise.

FIG. 5.



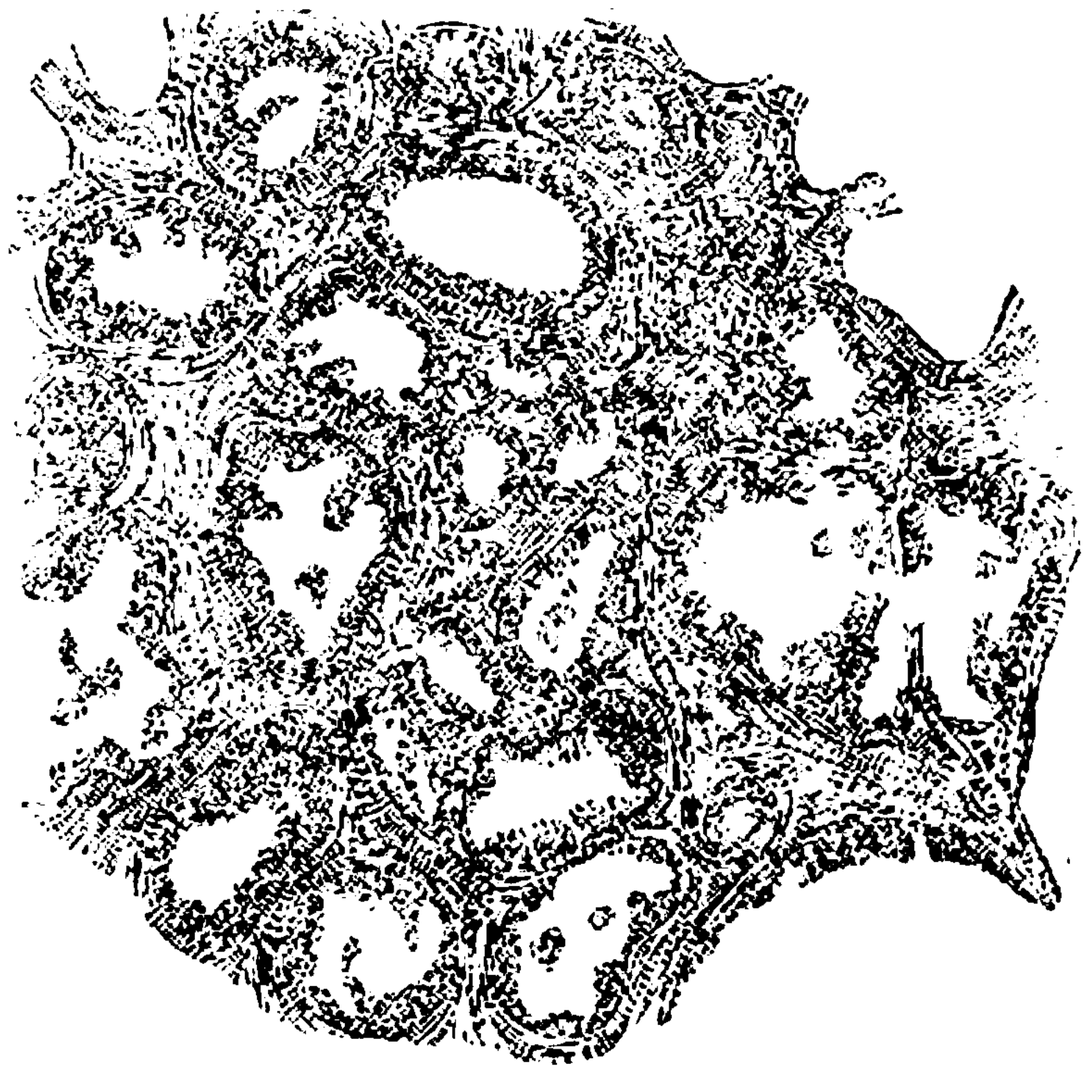
Tubular cancer of the breast (hollow form) in longitudinal section. *a*, Dilated duct giving off nine prolongations in the form of tubes lined by columnar epithelium, which anastomose with one another and with similar offshoots from other ducts (*b*). Intertubular connective tissue scanty. × 100. (Gross.)

FIG. 6.



Tubular cancer of breast (solid form) in longitudinal section. (Labbé and Coyne.)

FIG. 7.



Tubular cancer of breast (hollow form) in transverse section, under a low power. (Bryant.)

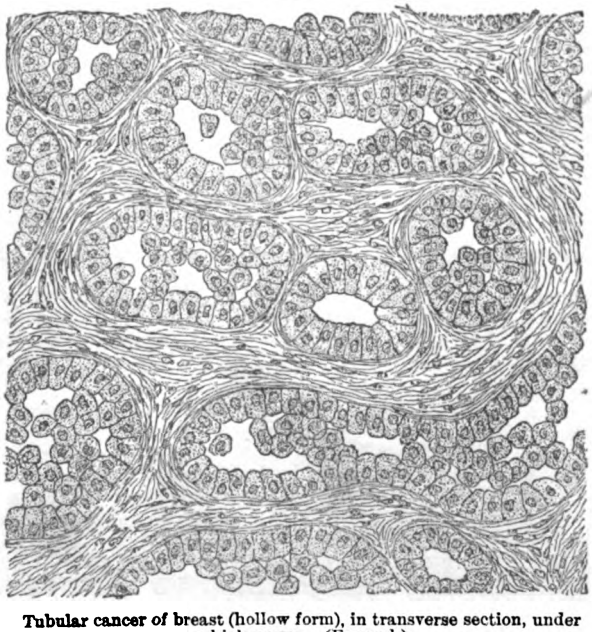
Their clinical history is a matter of great interest. The chief points are these:—They occasionally disseminate in the adjacent structures. In a case recorded by Shattock[4]

[3] In very exceptional cases villous papilloma and acinous cancer may coexist as independent growths in the same mamma. See Mr. Bowlby's paper (No. 2), St. Bart.'s Hosp. Reports, xxiv., 1888, p. 265; and Mr. Hutchinson's Archives of Surgery, vol. ii., No. 6, Oct. 1890, plate xxv., fig. 2.

[4] Trans. Path. Soc. Lond., 1888, p. 324.

nodules of this kind were found adherent to the two upper ribs in a woman aged sixty, who died a few weeks after amputation of the breast for the primary disease. The chief evidence of their malignancy is, however, to be found in the frequency with which they recur locally after removal. This is known to have occurred in eight out of my eighteen cases. The most striking of these is Butlin's. His patient was a married woman, aged sixty-four, the mother of several children. Six months before coming under treatment she first noticed a lump the size of a hazel nut in her left breast. When first seen she had a tumour the size of a bantam's egg, below and external to the left nipple. It was firm, irregular, and not adherent to the overlying skin, neither did it cause retraction of the nipple. The axillary glands were normal. The breast was extirpated, together with the tumour, which was circumscribed and invested with a thin capsule. It was of brownish-black colour and friable consistence. Two years later she returned with a recurrent tumour, the size of a walnut, at the axillary end of the scar. It was freely excised, and presented the same appearance as the primary disease. One year and a half later she came under observation again with several recurrent nodules in the same situation. They were of a year's growth. These were freely excised, together with the surrounding tissues. They presented the same circumscribed outline and brownish-black colour as the former tumours. Two years and nine months later two fresh

FIG. 8.



Tubular cancer of breast (hollow form), in transverse section, under a high power. (Formad.)

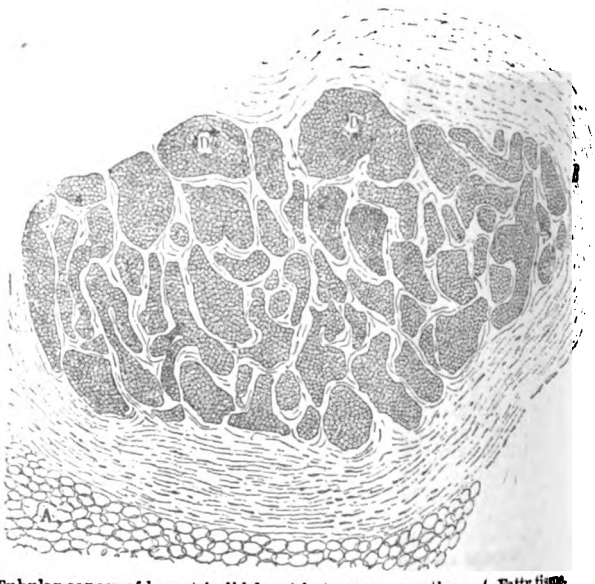
recurrent tumours, of some months' duration, were excised from beneath the old scar. Their structure precisely resembled that of their predecessors. The axillary glands were never affected, nor was there any sign of dissemination of the disease in any part of the body. The general health remained unimpaired.[5]

The adjacent axillary lymph glands are occasionally infected by these neoplasms. This occurred in five out of my eighteen cases. Godlee's is a typical case.[6] His patient was a childless widow, aged sixty-three, who when first seen had a mammary tumour of four months' duration. It was destroyed by caustic. Three or four months later it recurred in the scar. A year later a small lump was first noticed in the axilla, which in the course of another year had grown into a hard rounded tumour two inches in diameter, and the overlying skin was adherent and red. The breast was amputated, and the axillary tumour was dissected out. On dissection, the mammary tumour was found to be enclosed in a dense fibrous capsule, which contained a considerable quantity of solid dark-brown substance, like modified blood-clot, and about two drachms of dark treacle-like blood. The axillary tumour was of similar nature, only it contained less blood. It was described as "an anomalous form of blood cyst." On placing the tumour in water, it was seen to consist of a number of tortuous processes. After hardening it was very friable, and difficult to cut sections off, as these tended to fall to powder. On microscopical examination, there was revealed a scanty fibrillar tissue uniting together a number of tubules, lined by several layers of hexagonal epithelium.

To account for the comparative rarity of lymph gland dissemination, Labbé and Coyne have pointed out that between the proliferating epithelial zone and the nearest lymphatic lacunæ a barrier of thick fibrous tissue exists (*Fig. 9*), which must be overcome before the cancer cells can gain entrance into the lymphatics. The slowness with which this is overcome indicates, I take it, the low degree of malignancy of the new growth, rather than of the strength of the intervening barrier. Some authors have stated that these neoplasms cause also general systemic dissemination; but I know of no case that can be cited in support of this assertion.

The first symptom of tubular cancer usually is the presence of a small tumour in the central part of the

FIG. 9.



Tubular cancer of breast (solid form) in transverse section. *A*, Fatty tissue. *B*, Fibrous capsule. *D*, Epithelial cylinder. (Labbé and Coyne.)

breast, beneath the nipple or areola. Discharge from the nipple is seldom experienced. Tubular cancers increase much more rapidly than villous papillomas; in less than a year they commonly attain the size of a hen's egg. Occasionally they burst through the overlying skin and fungate. In my list there are four cases of this form of cancer in which tumours had been present for long periods—viz., thirty-six, eighteen, fifteen, and seven years respectively. In each of these cases a small tumour had existed for most of the time—whose increase was almost imperceptible—and then during the last few years it had rapidly attained large size. There are several facts about the history of these cases that make me think we here have to do with tubular cancer supervening on villous papilloma of many years' standing. The following is a typical case by Labbé and Coyne.[7] A well-nourished, healthy-looking woman, aged sixty-seven, four years after her only confinement, which was forty years ago, first noticed a small movable tumour in the inner part of her left breast. She had at this time and for two years subsequently serosanious discharge from the nipple, which then ceased spon-

[5] In answer to a letter of inquiry, Mr. Butlin has kindly informed me that he last saw this patient in June, 1889, two years and a half after the last operation. "She then had a small dark tumour below the scar, towards the axilla, and one or two hard enlarged glands in the axilla."

[6] Trans. Path. Soc. Lond., vol. xxvii. 1876.

[7] Traité des Tumeurs Bénignes du Sein, Paris, 1876, p. 343; for the other cases vide op. cit., p. 352; Gross, Amer. Syst. Gyn., vol. ii., 1889, p. 262.

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taneously. After this the tumour got larger, then it remained nearly stationary for thirty-three years. At the end of this time it was the size of a small egg. Soon afterwards, without any obvious cause, it began to increase rapidly, and quickly invaded the whole breast. In the course of three years a hard nodulated tumour, the size of a man's two fists, had developed. The nipple was buried in the growth, but not retracted; nor was the overlying skin adherent. Some of the bosses fluctuated. Nothing is said about the condition of the axillary glands. The diseased part was amputated. On examination after removal, the tumour was found to be encapsuled. In addition to the large lobulations and bosses, its surface was thickly studded with small rounded projections. On section its central part consisted of whitish compact lobular structure, and its periphery was occupied by numerous small cysts containing papillary growths and brownish fluid. Microscopical examination of the solid basis of the tumour showed numerous elongated, tortuous, anastomosing cylinders of epithelial cells growing in scanty fibrous stroma. The peripheral cells of these ingrowing processes were regularly arranged and columnar, those within were of irregular shape, and in various stages of granulo-fatty degeneration.

Tubular cancer supervenes at a much later period of life than villous papilloma, and even than acinous (alveolar) cancer. The average age of my cases at the outset of the disease was 53·5 years; the oldest 65·5, the youngest forty. The numbers for each quinquennial period are as follows: Forty to forty-five years in 4 cases; forty-five to fifty years in 3 cases; fifty to fifty-five years in 2 cases; fifty-five to sixty years in 4 cases; sixty to sixty-five years in 5 cases; sixty-five to seventy years in 1 case. The only treatment of any avail is free amputation of the affected part, as for scirrhous cancer; but the axillary glands need not be interfered with unless obviously diseased.

I only made the acquaintance of Brodie's lecture on "Sero-cystic Tumours of the Female Breast" after the above had been written. He is evidently the first who recognised the true nature of the disease. Honour to him! It is, indeed, impossible not to be struck with admiration at the singularly clear and penetrating insight into this obscure disease which this distinguished man had attained, and that without the microscope and other modern aids.

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Preston.

NOTE ON CONCUSSION OF THE SPINAL CORD.

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As a small contribution to the literature of concussion of the spinal cord, and as emphasising the interest attaching to such cases as the one that appeared in THE LANCET of Oct. 24th, 1891, p. 928, reported by Mr. Clutton, I think the following worth recording.

A. C——, aged forty, a goods guard, while attending to the lamp attached to the rear of his van, his train being in motion, lost his balance and fell backwards into the ballast way. He had no loss of consciousness, for he at once discovered that his legs were paralysed, and concluded that he had "broken his back." Some hours later he was admitted into the Cumberland Infirmary, and when I saw him I found him to be a tall, muscular, and very intelligent man, making no complaint beyond that of his powerless limbs. On examination of his back there was seen to be in the central line a considerable localised bruising over the lowest dorsal and upper lumbar spines, attended by marked tenderness, but there was no evidence of any injury to the spinal column. This, I need hardly add, was very carefully sought for. His legs were absolutely paralysed. Under his utmost efforts there was no evidence of muscular movement in them. Sensation was distinctly impaired. The bladder was distended and required relief by the catheter, the bowels were constipated, his temperature was subnormal, and his pulse feeble, but quiet. His consciousness and the recollection of his accident were perfect. For two days after his admission there was no evidence of improvement in mobility, but sensation returned somewhat rapidly. On the third day he could move his ankles and toes, and could very feebly and slowly draw up his legs, while the bladder was beginning to regain its expulsive power; and at the end of a week he could, while resting in bed, move his limbs freely, and the use of the catheter was no longer necessary. Sensation was then fully re-established. His temperature, normal on the day following his accident, never rose above 99·4°, and this only for two days.[1] Three weeks after his admission he was allowed out of bed, when it was found that although he could stand firmly, his power of walking was feeble and unsteady. Six weeks after his accident, and when with the aid of a stick he could move about with comparative freedom, he was made an out-patient, his statement then being that walking greatly fatigued him, and that extra effort in this way was always followed by stiffness, weariness, and numbness in the legs. His limbs were, however, not wasted, their muscular tonicity was fairly good and their sensations quite normal. Two months later he ceased his attendance, and when, a year or two afterwards, I had an opportunity of examining him I found him in perfect health, his story being that he was then as vigorous as in his earlier days.

A good many years have passed since then, and the case, at least as regards its completeness, remains with me as a solitary experience. I regarded it—rare as I ventured to believe such cases to be—as one of spinal concussion without simultaneous injury to the spinal column; but what the conditions were that underlay its symptoms remained matter of conjecture. A short time ago, and in quite another field of observation, I believe I found for them a probable explanation, and thus: A good stag was stalked to within eighty yards, and aim was taken at the upper part of his neck. He sank instantly to the shot, and the keeper, running in, divided freely the vessels of the throat. On introducing my finger into the bullet wound I found that it had been placed a little higher than was intended, that it had passed transversely through the muscles of the nape, and that in its passage it had but fractured the upper part of a vertebral spinous process. At once the thought occurred that the sudden collapse of the animal was due to damage to the spinal cord, and I therefore had the parts carefully removed for dissection. On clearing the vertebral column I found one spinous process alone injured, about half of which had been carried away; this, however, so cleanly that there was no marked fissuring of the portion that remained. The body of the injured vertebra was intact, as were those on each side of it, and the ligamentous structures were unharmed. Removal of the laminæ demonstrated more fully the perfect solidity of the column and the fact that there was no effusion without, or injury to the spinal theca. The subarachnoid space was also free, but it was noticed that there was a considerable effusion of blood in the meshes of the pia mater in a direct line with the fractured spinous process. About three inches of the cord were removed for examination, and this was done by the cutting of thin transverse sections. When the portion of it which lay within the body of the damaged vertebra was reached, it was found to be the seat of numerous points of very minute ecchymoses which were scattered through its substance, and that at one or two points there existed disseminated specks of extravasated blood. Its texture was, however, quite firm, and neither under pressure nor when exposed to a stream of water was it found to be markedly softer or more diffluent than the bit of normal cord with which it was compared. Unfortunately,

[1] That no reference is made to the condition of the reflexes is explained by the fact that the case occurred anterior to the published researches of Erb and of Westphal.

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the examination was entirely macroscopic, neither a microscope nor the means for preserving and hardening the specimen being available. This is matter for regret, as it is possible that the existing lesions were not confined to the walls of the bloodvessels.

These two cases seem to me to supplement one another, and although it is as a rule unwise to generalise from single examples, we know so much of the symptomatology and of the morbid appearances that indicate cerebral concussion that we could well anticipate similar conditions in a corresponding injury to the spinal cord. In both events the spinal column was subjected to sudden and severe jar, and in both with a very similar and striking result. Admitting that the injury in the instance of the stag was an exceptionally severe one (for the contusing power of a ball travelling at a high rate of velocity is fully recognised), still in the case of A. C—— there were certain circumstances which tended to render the blow he received one of great severity. He fell backwards from a train moving at fair speed in the opposite direction, receiving thus a considerable impulse; and when thus impelled he probably struck, judging from the localised nature of the bruise found, upon a projecting surface. Such conditions must have caused a sudden and severe stroke, and probably produced in him similar lesions to, but slighter than, those found in the stag.

Mr. Page, in his masterly and most valuable work upon "Injuries of the Spine and Spinal Cord," p. 19, refers to a case recorded by Dr. J. Liddell, in which a Minié ball striking a man to the left of the second lumbar vertebra and emerging some inches to the right fractured in its passage its spinous process. Paraplegia and paralysis of the bladder were at once developed, but at the end of two months were being gradually recovered from. In this instance the circumstances which gave rise to the injury were identical with those which occurred in the case of the stag, and I take it that the symptoms developed in the man owed their origin to such lesions in the spinal cord as were found to exist in that of the animal. Here, however, I would state my belief that even in the spinal cord we may have symptoms of a passing "concussion" in which probably the stroke being less severe, the harm actually done is neither so marked nor so grave. My reason for thinking this is that I have known a deer shot in the neck fall instantly and lie apparently dead for some little time, but, when approached, gather itself up with a visible effort and go off at sufficient speed to lead to its escape. In it, I imagine, the ball passed immediately over the spinal column without perhaps actually injuring it, but sufficiently close to communicate to it such a jar as for the time being inhibited the action of the organ it contained. What seems to render this more probable is the fact that a ball striking some other and non-vital part beyond, producing the sound of impact and the flight of the deer, would have afforded no immediate evidence of injury.[2] Even, however, in these lighter shocks—these so-called "concussions"—there is probably always a marked lesion existing. That this is usually so necropsies in fatal cases of cerebral concussion reveal to us, and in these the appearances found are precisely those which I have described as occurring in the spinal cord I examined. They are the coarse evidence of the jar the nervous mass has sustained, and the violence of which, so far as the naked eye carries us, seems to fall largely upon its vascular apparatus. Whether this be due, as Duret holds, to the result of force communicated to the cerebro-spinal fluid and its effects in the peri-vascular spaces, or to the vibratory thrill imparted to the mass itself, matters little; in either case what occurs is an apparently temporary, though happily incomplete, suspension of its essentially vital action. That this is the direct issue of the shake, and is independent of such vascular lesions as post-mortem examination reveals, is, I consider, probable; for although these mark well and emphatically the severity and nature of the injury sustained, they are, as a rule, insufficient *per se* to have produced a fatal result. That such lesions exist to a greater or less extent in all cases of cerebral and spinal concussion which do not die wellnigh instantaneously is my belief, and they write the record that the notable disturbance of function observed depends upon *organic* injury. I have some doubt, however, that such evidence can never be absent, and it comes from the observation of cases of cerebral concussion seen at the moment the injury was received. I vividly remember the case of one man—certainly the most striking in my experience—whom I saw fall from a height of some fourteen feet and alight upon his vertex in the hard roadway. The appearance he presented was very impressive: the terrible pallor of his face, the dropped jaw, the fixed pupil and insensitive eye, the arrested breathing, and the absence of all pulse at the wrist, made me believe he was dead. It was only when, having bared his chest and put my ear over his heart, I could detect such far away and feeble sounds as mark generally a rapidly ebbing life that I recognised that vitality was not quite extinct. Under the use of stimulants applied chiefly externally he slowly rallied, and ultimately recovered. But my reflection was this: Suppose that man had died—as in the presence of a heart with feeble walls or one less stable in its ennervation, and in the absence of help, he probably would,—what then would have been the appearances presented by his brain? If, as the experiments of the most recent observers seem to show, a primary anæmia from arterial spasm, the result of a powerful peripheral irritation, be the primary step in the development of the phenomena of concussion, and a congestive stage the sequel to this, it is, I think, probable that the blood extravasations so generally found can only occur after vascular relaxation; and that, if cerebral shock be immediately fatal, a singularly pale brain with great turgidity of its veins may alone indicate the mode of dying. Such a belief is contrary to the teaching of the highest authorities, and it may be groundless; but it is just possible that it may explain the absence of all coarse cerebral lesions in certain cases, attached to the records of which are the names of generally reliable observers.

The occurrence of concussion of the brain, apart from marked injury to its bony case, has always been admitted, but it has been notably otherwise with concussion of the spinal cord. The experience which prompts this note proves, I think, that such an injury may occur without important structural injury of the vertebral column, that it is the result of severe and direct injury, that its symptoms are at once apparent, and that when they are present there is some easily recognisable lesion producing them. The further teaching is this, that the treatment of such cases should be that usually followed in those of cerebral concussions, the main indications being the pursuit of such measures primarily as will prevent the further effusion of blood from ruptured vessels, the prompt relief of that state of active congestion which, as in cases of cerebral concussion, may possibly supervene, and the allowance of such a period of rest as will enable nature to repair the important injuries the cord has certainly sustained.

Cannes, France.

[2] In this reasoning I am not forgetful of the "knock-down blow" from general shock, familiar alike to the army surgeon and to the sportsman, which is apt to follow the blow of a missile, but where the recovery is, as a rule, rapid.

A SUCCESSFUL CASE OF

ILEO-SIGMOIDOSTOMY (SENN'S METHOD) FOR INTESTINAL OBSTRUCTION DUE TO MALIGNANT DISEASE OF THE HEPATIC FLEXURE OF THE COLON;

WITH SOME REMARKS ON INTESTINAL ANASTOMOSIS AND A DESCRIPTION OF A MODIFICATION OF SENN'S BONE PLATES.[1]

BY H. LITTLEWOOD, F.R.C.S.,
HON. ASSISTANT SURGEON TO THE GENERAL INFIRMARY AT LEEDS.

THE following are the notes of the case: G. F——, aged thirty-five, was admitted to the Leeds Infirmary on March 17th, 1891, under the care of Mr. W. H. Brown, with marked symptoms of intestinal obstruction. The patient said that since Christmas he had had a good deal of pain in the right iliac region, and for the last three weeks he had been unable to work. Three days before admission vomiting commenced, and continued at intervals; no motion or flatus was passed during this interval. On admission the patient was very ill, suffering from severe spasmodic attacks of abdominal pain and frequent vomiting. The abdomen was distended. The intestines could be seen distended and

[1] Paper read before the Leeds and West Riding Medico-Chirurgical Society on Dec. 4th, 1891.

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moving beneath the abdominal wall. The whole of the right side of the hypogastrium was dull. Before admission the patient had a small dose of morphia. Soon after admission the bowels were well opened. An enema was given, followed by another good evacuation. After this the patient was much better, vomiting and pain ceased. He left the infirmary on March 17th.

He was admitted again on Aug. 14th with well-marked intestinal obstruction. At no time since leaving the infirmary had he felt really well. He had had occasional attacks of vomiting and constipation, often complaining of pain after food. He had seldom been able to work more than two or three days at a time. Latterly the attacks had increased in frequency and severity. The bowels had not been opened for the past five days; he passed flatus a few times during this period, and vomited frequently. On admission the following note was made:—"Patient looking very ill; not much collapsed. Temperature 98·4°; pulse 100. Abdomen distended; resonant. Except low down in the flanks, coils of distended intestine can be easily seen moving (sometimes violently) through the abdominal parietes at frequent intervals. The movements can be easily excited on palpating the abdomen. No tumour can be seen or felt in any part of the abdomen. Complains of a griping intermittent pain, radiating all over the abdomen. Between the attacks of pain there is merely a feeling of distension." Since admission he has vomited several times; the vomit has not been feculent at any time. He has not passed any blood or pus per anum. Nothing felt by rectal examination. Soon after admission I saw the case with Mr. W. H. Brown, under whose care the patient had been admitted, and we agreed that as enemata had answered so well on a former occasion they should again be tried. Mr. Brown, going away the next day, handed the case over to my charge. A gravitation enema of a pint of warm olive oil was given; this was soon followed by a good evacuation, after this a simple enema was given, with good results.—Aug. 15th: Feels much more comfortable; pain and distension much less; vomiting has ceased.—19th: Has been feeling more comfortable; still some distension of abdomen. No vomiting; bowels opened by enemata.—23rd: During last few days patient has not been quite so comfortable. Some feeling of nausea; bowels opened by enemata. Abdomen still distended; patient has a feeling of general abdominal discomfort. Sometimes movements of the bowels can be seen, and to-day can be easily excited by abdominal palpation. At a consultation with the majority of the surgical staff the general opinion expressed was that the case was one of intestinal obstruction due to malignant disease of the colon, probably at the upper part of the sigmoid flexure. Abdominal exploration was advised, with a view of removing the growth if possible; if not, to stitch the bowel above the obstruction to a part of the collapsed bowel below.—24th: The patient being under the influence of ether, with the assistance of Mr. Moynihan, the resident surgical officer, I operated by making an incision three inches long in the middle line between the umbilicus and pubes, going through the edge of the right rectus. All bleeding having been stopped, the peritoneal cavity was opened to the same extent. There was some fluid in the peritoneal cavity. The small intestines were very much distended, some parts of the ileum being as much as two inches in diameter. They were injected. Cæcum and ascending colon distended. Transverse, descending colon, and sigmoid flexure collapsed. A large mass of growth about the size of an orange was found situated in the hepatic flexure and fixed. Mr. Mayo Robson, who was present at the operation, after having examined, agreed with me as to the inadvisability of attempting removal, and thought with me the best plan of treating the case would be to stitch the lower part of the ileum to the upper part of the sigmoid flexure. This I did by first pulling a loop of ileum out of the abdominal wound, emptying it of its contents, then surrounded it with a piece of indiarubber tubing. The same was done to a loop of sigmoid flexure. An incision about one inch long was made in the convex surface of each. Senn's decalcified bone-plates were inserted, and secured in the usual way. Four extra silk sutures were then put in round the margin of the plate, on the convex surface of the two pieces of bowel, to give a little extra security. The bowels were then replaced in the abdominal cavity, the cavity carefully wiped out, and the abdominal wound stitched up in three layers—peritoneum, muscles and fascia, and skin.—26th: Patient feels very well. Has passed flatus; no vomiting; temperature normal; less distension of abdomen.—28th: Patient still feels very well. Had bowels moved to-day. Sits up in bed.—Sept. 1st: Has improved since last note. Dressed to-day, wound quite healed; no distension of the abdomen. One of the bone-plates has passed per anum to-day.—5th: Still improving; bowels acting regularly.—7th: Patient feels very well; has been up to-day—i.e., fourteen days after operation.—10th: Improvement maintained; appetite good.—12th: Says he feels perfectly well.—16th: Left infirmary to-day—i.e., twenty-three days after operation. Temperature 100·2° on the mornings of the 25th and 26th. Temperature 99·4° on the evening of the 27th, and after that normal.

Diet.—For the first five or six days after the operation he was fed chiefly on milk and Benger's food. Had fish on Aug. 31st, chicken on Sept. 3rd, chop on Sept. 4th, ordinary diet on Sept. 7th. Patient was shown at the meeting of the Leeds and West Riding Medico-Chirurgical Society on Oct. 9th; was apparently very comfortable; no abdominal distension; bowels opened every day. A few days after this he went to work as a miner.

The case described above is an additional demonstration

FIG. 1.

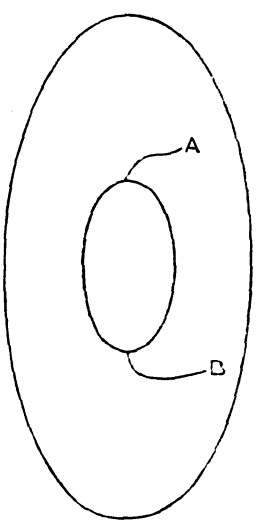


FIG. 2.

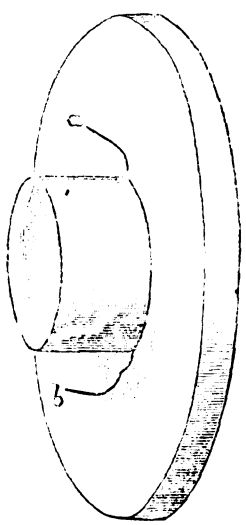
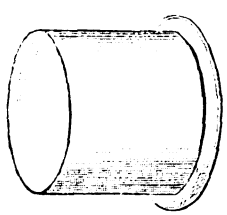


FIG. 3.



to the cases already recorded of the possibility of treating intestinal obstruction by establishing a communication between the distended bowel above the obstruction and the collapsed bowel below, and so cutting off the obstructing portion from the intestinal tract. We owe to Senn an enormous debt for this great advance in the treatment of intestinal obstruction, and, considering his paper was read in September, 1887, at the International Medical Congress at Washington, it is very remarkable that up to the present time only four cases have been recorded of this method having been used for the treatment of intestinal obstruction. Two were performed by Senn, one by Mr. F. B. Jessett, and the other by Mr. Reeves. They are referred to in a letter by Mr. Jessett in THE LANCET of Feb. 21st, 1891. Similar operations have been performed for other causes in several cases—e.g., injuries, pyloric obstruction, &c. This case differs somewhat from the other recorded cases in that the intestine was not divided, but a simple lateral anastomosis made. In Senn's two cases the growth was

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first excised; in the other two the operation of lateral implantation was performed; all of them necessitating a division of the intestine.

Before we were acquainted with this method, the treatment of cases of intestinal obstruction requiring surgical interference might have been arranged into three classes:—1. Those in which some definite obstruction was found and was relieved by operation. 2 Cases in which the obstruction was found and could not be removed, an artificial anus being made. 3. Cases in which, after a prolonged search, either the obstruction was or was not found, the patient dying of shock. It is for the treatment of such cases as occur in Classes 2 and 3 that Senn's method offers such advantages. In Class 2 the artificial anus is obviated. In cases belonging to Class 3, if the obstruction cannot be found after a reasonable time has been expended in the search, then lateral anastomosis offers the best chances of a successful termination. From assisting at a large number of cases of abdominal sections, it has always struck me that time is a very important element in the success of a case. By this method there is a great saving of time. With a little practice on the cadaver, or having seen or assisted at the operation, it can very quickly be performed (in about ten or fifteen minutes). I have ventured to suggest a modification of Senn's plates, with the idea of (1) doing away with the four stitches attached to the upper and lower margins of the apertures of the plates, which perforate the whole thickness of the intestinal walls; (2) of performing the operation more quickly; (3) of ensuring a good opening between the two pieces of intestine. The plates have been made for me by Messrs. Maw, Son, and Thompson; the accompanying drawing is by Mr. Haigh. The suggested modification is to fix a tube of decalcified bone (Fig. 3) into the aperture of one of the plates (Fig. 2). This should be made to accurately fit into the aperture of the other (Fig. 1); by this method the two plates could be held together, and the two parts of the intestinal walls between them brought evenly into contact with each other. It might be well to have a piece of fine silk attached to each of the ends of the apertures (as marked A a, B b in Figs. 1 and 2), so that by tying A a and B b together greater security would be made. The intestinal walls around the margins of the plates should be attached by a few sutures.

In a very interesting paper by Dr. Halsted of Baltimore a method of lateral apposition by sutures is described. He insists very strongly on the importance of including some of the submucous layer of the intestinal wall in these and all suturing operations of the intestine. I am sure it is very important to recognise this observation, but cannot help thinking the bone plates will have the advantage over any method of suturing, owing to their simplicity and the time saved in using them.

Leeds.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

THE NASO-PHARYNX IN INFLUENZA.

BY ARTHUR E. NEVINS, F.R.C.S. EDIN.

SINCE the influenza appeared in Europe a couple of years ago there have been abundant opportunities for everyone to become acquainted with the symptoms peculiar to this disease, and it has been generally recognised that catarrh of the nasal passages, with a more or less free evacuation of mucous, is a very common symptom. Many cases, however, come under observation in which there is comparatively little mucous discharge from the nose. But in these cases also there is always, so far as my observations go, a severe inflammation of the whole mucous lining of the naso-pharynx, which is often more intense, and productive of more acute distress to the patient than in the cases in which the catarrhal symptoms are more obvious. It seems, in fact, as if it was a rule, almost without an exception, that in influenza the infection first attacks the naso-pharynx, and it is the intense inflammation of this mucous membrane (which, when all its ramifications through the ethmoidal and frontal sinuses are taken into account, represents a very large superficial area) that is the cause of the intense debility and grave constitutional disturbances that ultimately supervene. The shock to the system is quite comparable to that of an extensive burn or a rapidly spreading attack of erysipelas. The appearance of the tonsils and pharynx in many cases quite bears out this idea, for the mucous membrane is seen to be of a deep red colour, rather dry, and from its puffiness suggestive of subjacent cellulitis. Nasal respiration is impeded, and there is a heavy, unpleasant smell, which is very perceptible to the patient, and also to those about him.

The intense cardiac and general enfeeblement which accompanies a "hospital throat" is well known; to many members of the profession it has been a painful personal experience. The prostration in cases of influenza is very similar in character, and probably dependent upon the same cause. If this is the case, it would lead us to look to local remedies, applied to the inflamed naso-pharyngeal mucous membrane, as likely to be efficacious in treating the general condition. The object of the present note is to describe a simple line of treatment, based upon a belief in this theory, which has been singularly successful in every case of influenza that has come under my own observation; furthermore, I can testify from personal experience to the immediate relief which it gives to the headache, feverishness, rigors, and other discomforts of the acute stage of an attack. It consists of spraying the nostrils and throat with a lotion composed of four grains of chlorate of potassium, four minims of tincture of perchloride of iron, to one ounce of peppermint water. The patient leans his head well back, and the spray is sent up one nostril until it can be felt trickling into the throat. In about twenty to thirty seconds a free expectoration of tenacious, viscid mucus takes place. The other nostril is similarly treated, and then the throat is sprayed. While this is being done the patient should inhale deeply, as by that means the spray is carried down into the larynx and trachea, which is important, as these parts are often affected by the inflammation. The relief and comfort which immediately follow the application is remarkable, and decrease in the fever is soon noticeable. The patient is able to take some liquid food without retching after it, and as a rule sleep soon follows. If the treatment is repeated at intervals of two hours for the first twelve hours, and of four hours during the next twelve hours, it will be usually found that the temperature is by that time nearly normal, and that convalescence has fairly commenced. As regards general treatment nothing need be said here; it must be adapted to the special circumstances of each case. There are, however, two lines of treatment which should in most cases be avoided. Inasmuch as intense cardiac enfeeblement is very common in these cases, the antipyretic drugs, which are all powerful cardiac depressants, are contra-indicated. As a rule, purgatives also are undesirable, for it is very common to find some degree of inflammation of the cæcum or colon as a complication in these cases. Hot applications to the abdomen are much more beneficial, as a rule. In conclusion, it may be well to mention that if a spraying apparatus is not at hand, the same effect can be got by pouring about twenty drops of the lotion up the nostril with a teaspoon and making the patient gargle the throat afterwards, but the spray is the more comfortable mode of application.

Hanley, Staffs.

NOTE ON PRICKLY HEAT.

BY J. A. WETHERELL, M.D.

UNDER the term "lichen tropicus" must be embraced three primary lesions, in frequency taking the following order:—1. A vesicular eruption, the vesicle, of the size of a pin's head, elevated on a roseolous, inflammatory base, being filled with colourless perspiration; sometimes arranged in segments of rings, at others diffusedly spread. On a superficial examination, it resembles much the efflorescence of measles or scarlatina, and occurs principally on the nape of the neck, the flexor surfaces of the forearms and legs, and the front of the abdomen. Even habitants for many years of semi-tropical regions are apt to exhibit this form, especially those who wear woollen underclothing. 2. A wheal with a red surrounding halo, accompanied by intense itching,

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which induces the sufferer to scratch off the covering cuticle, causing the erythematous effusion to develop a blood-scab. Its characteristics are shown on the backs of the hands and about the ankles, and may be mistaken for mosquito bites. 3. A copper-coloured papule of largish dimensions, on whose surface after twelve hours may or may not appear a pustule. The front of the thorax exhibits this best. The older pathology which regarded prickly heat (lichen tropicus) as a papular eruption, and the more recent, as vesicular—hence termed "miliaria papulosa"—are both partially correct, but also erroneous, inasmuch as they recognise a single lesion. The treatment of all consists in washing the affected parts frequently with superfatted menthol, eucalyptol, or phenol (20 per cent.) soap, allowing the rubbed-in foam to dry, then mopping on with a soft linen rag this lotion: liquor plumbi subacetatis, liquor carbonis detergens, and glycerine, of each one ounce; rectified spirit of wine, three drachms; oxide of zinc, two drachms, to a pint of water; or smearing with the following ointment: vaseline, two drachms; lanoline, two ounces; liquor carbonis detergens, two drachms; oxide of zinc, one drachm; menthol, twenty grains. If of limited extent, a bismuth and zinc powder may replace these. Cotton underclothing should be adopted and frequently changed.

Bunbury, Western Australia.

FORCEPS AS AN AID TO VERSION.

By W. HENRY HARRIS, L.R.C.P.ED. &c.

A CASE I was called to at a long distance by two medical men in attendance in Manitoba may not be without interest. On arrival, I found the patient, aged twenty, in labour, then some twenty hours; primipara; seven months. On examination I found the right arm protruding (had been so some hours, the patient having been kept under chloroform), the right shoulder firmly jammed, and constant powerful uterine contractions, so that the introduction of the hand for version seemed impossible. It occurred to me that if I could apply the forceps (Simpson's long) on the thorax at a point a little below its greatest diameter, gentle pressure would cause the blades to descend towards the pelvis, and so convert the presentation into an ordinary breech. The result was as I anticipated. In this case the fœtus had been dead some hours and the labour premature. My reason for publishing this case in THE LANCET is that I do not see "forceps as a means of version" quoted in the text-books, as well as to suggest that similar means might be applicable in cases where such an unfortunate presentation has occurred.

Maidstone.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

GUY'S HOSPITAL.

FRACTURE AND DISLOCATION OF THE PELVIS; INTRA-PERITONEAL RUPTURE OF THE BLADDER; PNEUMONIA; DEATH.

(Under the care of Mr. W. ARBUTHNOT LANE.)

THE amount of force required to produce a fracture of the pelvis to the extent described in this case is very considerable. We may remind our readers of the experiments to determine this question recently made by Dr. Areilza which we published in THE LANCET of April 2nd. Intra-peritoneal rupture of the bladder is not by any means a common complication in these fractures, injuries of other parts of the urinary tract much more frequently requiring surgical interference for their relief. It is difficult to say how long after it has occurred a rent in the bladder wall may be successfully sutured. Clinical records prove that the peritoneum is much more tolerant of healthy urine than was at one time supposed; and in the cases treated by Drs. Schramm and Knight, as much as fifty and fifty-four hours had elapsed before an operation was performed, after which recovery ensued. This case is an interesting and important one.

A. F——, aged thirty-seven, a coalheaver, was admitted into Guy's Hospital shortly after 4 P.M. in the afternoon of Feb. 23d, 1892. He had been driving a heavy cart containing two tons of coals, when he fell off his seat, the front wheel of the cart passing slowly over his pelvis. When seen by Mr. Lane at 5 P.M. he was extremely collapsed. There was a broad, bruised line running obliquely across the symphysis, indicating the course taken by the wheel. The several portions of the pelvis moved freely upon one another. There was no tenderness or rigidity of the abdomen, and before manipulation of it without complaint. At that time his condition was not such as to encourage operation, even had there been any indication to do it. He was therefore surrounded with hot bottles and made as warm as possible. He gradually improved, and in about two or three hours after the injury began to complain of a desire to pass urine, and developed tenderness and rigidity of the abdominal wall immediately above the symphysis. On passing a catheter a little bloody urine was drawn off. By 9 P.M. the patient had recovered sufficiently to bear an operation, so Mr. Lane opened the abdomen in the middle line about the symphysis, and found some bloody urine in the peritoneal cavity. There was a large transverse rent which admitted three fingers in the upper surface of the bladder, about an inch and a half from its summit, the adjacent portion of the bladder being much bruised and swollen. The innominate bones were found separated at each synchondrosis and also at the symphysis, the fragments forming the last articulation being separated antero-posteriorly by an interval of an inch. It was apparent that the bladder had been jammed and divided by the forcible approximation of the pubic bone against the very prominent lower margin of the fifth lumbar vertebra, which, as in the case of all powerful coalheavers, was in a position of partial spondylolisthesis. The two pubic bones were placed in apposition, the rent in the bladder was closed by a continuous suture, the pelvis was sponged free of any blood and urine, and a glass tube was left in Douglas's pouch. No attempt was made to wash out the peritoneal cavity, as the urine and mucous membrane of the bladder appeared to be perfectly healthy. Subsequent to the operation but a very small quantity of bloody fluid was sucked up out of the Keith's tube, which was removed shortly. Being only too well aware how often the subjects of such severe injuries die from pneumonia, every precaution was taken to keep him in a warm, moist atmosphere; but in spite of every endeavour he developed a pleuritic rub on the left side on the day following the injury, and although his temperature on only one occasion rose to 101°, his respiration and pulse became progressively rapid, and he died on the evening of the 27th, four whole days after the injury. All abdominal pain, rigidity, and tenderness ceased, and all his urine was siphoned off through a rubber catheter tied into the bladder. At the post-mortem examination, both lungs were found in a condition of grey hepatisation, the disease being more advanced on the left side. The wound in the bladder had healed perfectly, and there was no evidence of any peritonitis.

Remarks by Mr. LANE.—Though these cases of successful suture of rupture of the portion of the bladder wall covered by peritoneum are by no means very rare, yet I think that this case, though it terminated fatally, is worth publishing. The mode of production of rupture is certainly very unusual. It serves to illustrate the fact that the peritoneal cavity is comparatively tolerant of healthy urine, and affords another example of the frequency with which a patient, the subject of a severe injury, may die of pneumonia often unaccompanied by any particular rise of temperature, although the chest itself has sustained no injury, and every precaution has been taken to shield the patient from chill. Except for the unfortunate onset of the pneumonia he might have recovered.

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BEDFORD INFIRMARY.

TWO CASES OF INVERSION OF THE UTERUS.

THESE cases are examples of the common variety of inversion of the uterus (the puerperal), which is said to constitute at least 350 out of 400 recorded.[1] The diminished frequency is apparently due to the improved method of treatment in the third stage of labour; and, although there is no evidence that anything unusual was done in these cases, still it is a curious fact that a medical man was not in attendance when the birth of the children took place. For the account of the cases we are indebted to Mr. R. H. Elliot, late house surgeon.

CASE 1. (Under the care of Dr. Goldsmith.)—Emma A—— was admitted to the Bedford Infirmary on May 5th, 1891. Eight months previously to admission the patient was attended during her first confinement by a midwife, and a few days later she called in a medical man as her "womb came down." It was replaced, but she continued to lose blood, especially at her menstrual periods, when she passed clots. There was no foul discharge. On examination the abdomen was found to be rigid, and so little could be felt; the uterus was not made out. The vagina was rugose and dilatable, the cervix uteri soft and dilated; and through it presented a soft vascular tumour as large as a pear, which could be made out to be continuous all round at its base with the cervix, the finger passing into a cul-de-sac, and the sound confirmed the observation. Bimanually the uterus was not felt. There was a good deal of oozing going on, and the patient showed evidence of long-continued loss of blood in her waxy pallor and small, frequent pulse (132). She was put under ether, and Dr. Goldsmith passed a sound into the bladder, and met it above the tumour by a finger passed per rectum, thus confirming the absence of the uterus from its usual situation. He was quite unable to replace the uterus, or indeed to in any way improve its position. The patient was kept at rest, and a medicine containing dilute sulphuric acid and ergot given.

May 12th.—An injection of alum and zinc was employed to restrain the oozing, the only result being some shivering and purulent vaginal discharge on the 14th, accompanied by an evening temperature of 104·2°, which fell to 101·6° next morning. Nothing more definite appeared, and all quieted down.

25th.—Reposition was commenced with Lawson Tait's repositor, the largest cup stem being introduced.

26th.—The next-sized stem was substituted for the previous one, good progress towards reduction having been made.

June 1st.—The uterus is sufficiently reduced to allow the substitution of the smallest stem for that now in.

Later.—This had to be kept in some days to effect complete reduction, and meanwhile the cervix uteri closed upon it, making its removal very difficult and necessitating the introduction of a laminaria tent and the exercise of considerable force (under ether) before the stem could be got away. Some sapræmia ensued, but at once subsided after once washing out the uterus with carbolic lotion. The patient did well, and on July 10th the cervix still admitted the tip of the finger, and was soft. The sound passed two inches and a half. The patient was doing well, and had recovered health, colour, and spirits.

CASE 2. (Under the care of Dr. Coombes.)—Alice H—— was admitted to the Bedford Infirmary on June 29th, 1891. The patient was confined on June 8th, and was attended by a midwife, who called in a doctor, as the woman was bleeding freely. The medical man found a bleeding inverted uterus, which he replaced after removal of the placenta. The patient does not think the midwife pulled on the cord. On June 25th, as she was passing urine, the patient felt the womb come down again, causing her sharp but transient pain. She again sent for her medical man, who at once sent her to the infirmary. On admission she was anæmic, but not anxious-looking. Pulse 96; tongue moist; temperature 102°, which rapidly fell to 99°. Some retention for the first twenty-four hours had to be relieved by the catheter. Abdomen pigmented. Lineæ gravidarum well marked, abdominal walls lax. Uterus not felt, and there was no dulness over hypogastrium, but some tenderness there. On examination per vaginam a vascular tumour as big as a large orange presented. On the introduction of a duck-bill speculum the surface of the tumour was seen to be rough, especially over one part, which was evidently the placental site. Cervix uteri was soft, thin, and dilated, and embraced the neck of the tumour. Per rectum and per hypogastrium the fingers meet above the tumour. There seemed no prospect of a reduction by manipulation under an anæsthetic.

July 3rd.—Reposition was commenced with a Lawson Tait's repositor, the largest stem being used.

5th.—Half the tumour was reduced within the cervix, and the cup was accordingly withdrawn and applied to the remaining part.

6th.—The position of the cup was again changed, and it was now applied to the middle of the fundus, which alone had resisted reduction.

7th.—Stem again required readjustment.

8th.—Smallest stem substituted for the large one, the body being now within the cervix.

9th.—The smallest stem was replaced after the uterus had been douched; body reducing well.

10th.—Stem easily removed; douche given.

14th.—Involution progressing favourably; uterus still large, and cervix soft, but gaining tone. All went well, and the patient was discharged cured on Aug. 8th, 1891.

Remarks by Mr. ELLIOT.—These cases illustrate excellently the very satisfactory effect of gradually applied continuous pressure on an inverted uterus which defies all efforts at more rapid and forcible treatment. In each case the amount of pressure applied was increased (as the elastic grew slack owing to the reduction of the mass) by tightening up the perineal band. A vaginal douche was given thrice daily, and the uterus was washed out each time the stem was changed. Should any cases come under my care I would certainly alter the shape of the smallest stem by substituting a rounded convex end, with a very sloping shoulder on the stem side for the abruptly shouldered cup. I would do this for the following reasons: (1) The cup receives a portion of the fundus into it, and, a vacuum existing, one finds on attempting to withdraw the stem that one is reinverting the fundus by a sort of sucker action; (2) with a more gradual shoulder the removal of the stem would be greatly facilitated. These difficulties apply more in the cases of older standing, like the first, in which the cervix uteri returns more rapidly to its original condition of contraction.

[1] Hart and Barbour.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

EPILEPTIFORM CONVULSIONS FOLLOWING HEAD INJURY; TREPHINING; RECOVERY.

(Under the care of Mr. WHIPPLE.)

THIS is an interesting case of epileptiform convulsions following an injury to the head. The convulsions were always general, there being no marked twitching or spasm of one set of muscles before another, but there was always marked tenderness over the scar of the scalp wound. At the operation there was no great depression of bone or collection of fluid found, but the dura mater was thickened and very adherent to the bone, not allowing the pulsation of the brain to be seen, the result, no doubt, of inflammatory thickening; there was no bulging, as if there was increased intracranial pressure, but the removal of bone must have in some way either have relieved increased intracranial pressure, or else have removed something which acted on the brain as an irritant. For the notes of the case we are indebted to Mr. R. Stanley Thomas, house surgeon.

J. T——, a seaman aged sixty-three, was admitted on December 22nd, 1891, with the following history of having in June, 1891, when at sea, fallen down the hold of the ship, cutting his head and breaking his right leg. He remained unconscious for eighteen hours; on regaining his senses, he suffered from headache for some days. Four days after the

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accident he first had a fit, since then he has been subject to fits, having as many as five or six in a week.

When admitted he was a powerfully built man having on the right side of his scalp a concentric shaped scar crossing the fissure of Rolando three-quarters of an inch from the sagittal suture. Pressure over this region gave pain. No depression could be felt. He had no paralysis. His left arm he said was weak, but its power did not vary with that of the right arm any more than would naturally have been expected. His pupils were equal and reacted to light and to accommodation, no paresis of ocular muscles, optic discs normal; urine acid, sp. gr. 1018, no albumen or sugar.

From Dec. 28th to Jan. 6th he had thirteen fits, which lasted from a few seconds to a few minutes before he became conscious. During these fits he became violently convulsed at first, and unconsciousness followed for a variable period. His pulse became very feeble after a severe fit, and occasionally he would be quite collapsed. His breathing was never stertorous, but at times Cheyne-Stokes in character. He would foam at the mouth and bite his tongue, but he never passed urine or motions involuntarily. He suffered from sickness, which was always worse after the fits. He was given potassium bromide in thirty grain doses three times a day; but although the fits diminished in severity, they continued as frequently as before. As his condition had not materially improved he was given chloroform on Jan. 8th, and Mr. Whipple removed with a conical-shaped trephine a piece of bone beneath the scar the size of a shilling. The bone was very thick and the dura mater firmly adherent. No pulsation of the brain was seen, the dura being opened by a crucial incision. A grooved needle was passed in three different directions into the brain, to see if there was any collection of pus or blood, with negative result. The wound was then irrigated and sewn up with silk.

Jan. 9th.—The patient was very restless after the operation. A quarter of a grain of morphia was given hypodermically, and he slept after a second injection. He was troubled with sickness.

11th.—Still very restless. Quiet for a short time, but only after morphia. The vomiting continues. Fed by nutrient enemata and suppositories.

12th.—Head dressed. Sanious discharge under the flap.

13th.—Still very restless and strange. Vomiting continues almost incessantly. Blistered on either side of the neck over the course of the vagi.

14th.—Has passed a better night. Has kept down small quantities of milk-and-water.

17th.—Wound dressed; stitches removed. Wound quite healed. More sensible to-day than he has been since the operation. Keeping down milk. Nutrient enemata and suppositories stopped.

23rd.—Much improved. Takes solid food. Seems quite rational.

27th.—Allowed to get up.

Feb. 8th.—The patient has continued to make an uninterrupted recovery, having had no fits since the operation, and he is now able to walk about and takes his food well. To-day he is allowed to go home.

LITERARY INTELLIGENCE.—Mr. Lewis will publish immediately a Text-book of Morbid Histology, by Rubert Boyce, M.B., M.R.C.S., Assistant Professor of Pathology in University College, London, royal 8vo, with 130 coloured illustrations. The work gives a short account of the more marked histological changes in disease, designed as a practical and theoretical introduction to the higher branches of pathological morphology.

SOUTH DEVON AND EAST CORNWALL HOSPITALS.—The annual report for the past year states that the long-felt necessity for enlarging the Nurses' Institution had been accomplished and the additional rooms provided. The staff of private nurses still numbers twenty-two. It may be added that donations in aid of the hospital funds, in gratitude for the nurses' attention, had been received. The statement of the finance for the year shows an excess of expenditure over available income of £508 13*s.* 6*d.*, and, with the previous year's deficit of £704 18*s.*, the debit balance had increased to £1213 11*s.* 6*d.* Legacies received during the year amounted to £2509 18*s.* 8*d.*, but which could not be applied to the discharge of current expenses.

Medical Societies.

MEDICAL SOCIETY OF LONDON.

Appliance for facilitating Performance of Mules' Operation.—Subclavicular Dislocation of Shoulder.—Congenital Umbilical Fæcal Fistula.—Facial Chancre.—Amputation of Penis by Thiersch's Method.—Trophic Lesion following Influenza.—Syphilitic Dactylitis.—Disseminated Lupus Erythematosus.—Inguinal Colotomy.—Tumour of Humerus.—Intestinal Concretion in Lamb.—Infective Melanotic Pigmentation.

A CLINICAL MEETING of this Society took place on April 11th, the President, Mr. Jonathan Hutchinson, in the chair.

Mr. BRUDENELL CARTER exhibited an Appliance for facilitating the Performance of Mules' Operation. This consisted of a small hollow ball of indiarubber, furnished with a stopcock connected by a short tube with a detachable syringe, and capable of being quickly distended by air. As soon as the contents of the sclera were completely removed the ball was inserted, and was sufficiently filled with air accurately to occupy the cavity. The pressure thus exerted speedily arrested bleeding from the divided vessels; and as soon as this was done the ball was suffered to collapse by opening the stopcock, and was removed to make way for the glass globe, the insertion of which completed the operation. Before contriving the indiarubber ball, Mr. Carter was accustomed to fill the scleral cavity with pieces of sponge, which were tedious to insert and to remove, and which were far less efficient as a means of arresting bleeding by compression.

Mr. HUGH SMITH showed a specimen of Unreduced Subclavicular Dislocation of the Humerus. It was obtained from a widow aged sixty-nine, who about the end of October, 1889, fell down, injuring her right arm, after which she never regained the full use of the limb. At the end of April, 1890, she was found to be the subject of dislocation of the right humerus, but no attempt was then made to reduce the displacement. On June 6th, 1890, she was admitted to the Royal Free Hospital under the care of Mr. Boyce Barrow; but, in consequence of her age and the fact that she possessed good movement of the arm, no operation was performed, and she was discharged on the 19th. She died on Nov. 7th, 1891, and two days later the parts implicated in the injury were removed. Mr. J. H. Targett dissected the specimen, and found that the humerus was dislocated and rotated inwards, so that its head was resting upon the anterior surface of the neck of the scapula. The infra-spinatus and supra-spinatus muscles crossed the glenoid cavity and were inserted into a flat piece of bone which was closely connected with the greater tuberosity of the humerus. The long head of biceps was unruptured. It passed up the bicipital groove, and turned backwards at the level of the anatomical neck to reach the apex of the glenoid fossa. The latter was apparently unaltered, and the head of the bone was enclosed in a capsule formed by the anterior portion of the true capsule and the expanded tendon of the subscapularis.—Mr. SHEILD referred to the ease with which accidents of this kind might be overlooked. Three months ago a patient came to Charing-cross Hospital complaining of a sprained arm, and stating that there was no pain in the shoulder-joint. He requested the man to strip, though there appeared no reason for it, and then a dislocation of the shoulder was discovered.

Mr. WATSON CHEYNE brought a male child aged three months, suffering from Congenital Umbilical Fæcal Fistula. It appeared to be an instance in which the bowel ended at the umbilicus. An anus was present and a catheter passed up it an inch and a half. A catheter passed in at the umbilicus only appeared to take an upward direction. He imagined that it was an instance of persistent pervious Meckel's diverticulum, and he thought that though an operation to connect the gut with the rectum was feasible, yet the child would not be strong enough to survive it.

Mr. HARRISON CRIPPS exhibited a case of Facial Chancre. The patient, a middle-aged man, presented himself at the St. Bartholomew's skin department for a growth between the lip and chin. The size at that time was that of a florin.

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The growth was raised a sixth of an inch above the skin level, the edges being abrupt; its surface consisted of hundreds of papillæ about the eighth of an inch in length, looking like a warty epithelioma. The surface was dry and not excoriated. There was no discharge. The history given by the patient was that he was perfectly well ten weeks ago; he was then cut by the barber whilst being shaved. Between two and three weeks later he noticed the growth first make its appearance; in about three weeks it had attained its present size. A fortnight later a rash appeared on his body, with sore-throat. The patient was now covered with a most typical secondary squamous rash. The interest in the case was the singular appearance of the primary sore, which had no resemblance to the ordinary Hunterian chancre, looking much more like an epithelioma or warty growth. Had it not been for the history of the case and the secondary squamous rash the diagnosis would have been very difficult.—Mr. HUTCHINSON had never seen a case in which the primary sore exhibited such characters, but perhaps the hypertrophy of the papillæ was due to the poulticing which the sore had undergone. He had seen in the secondary stage of syphilis a definite papillary growth at the centre of the back part of the tongue. The case was of much interest in connexion with the disease framboesia or "yaws," which observed most of the laws of syphilis, having the same incubatory period, and exhibited primary and secondary phenomena, the primary lesion being usually a papilloma and the secondary lesions large papillomatous growths. It had been described as a "syphiloid," though not true syphilis, and was said to be peculiar to the black races. He himself was of opinion that "yaws" was nothing but a papillary form of syphilis, and the case shown he held to bear out that view.

Mr. CRIPPS next showed a case of Amputation of the entire Penis by Thiersch's method. The patient, a man of forty, had cancerous ulceration of the penis, engrafted upon the scar of an old syphilitic ulcer. The disease, of eight months' duration, had destroyed the organ down to the level of the scrotum, the base of the penis being represented by a hard fungoid mass. A semicircular incision was made round this, and carried through the raphé of the scrotum, dividing it into two halves. The corpora cavernosa were dissected off the pubic bone, and cut completely away. The urethra was dissected downwards for an inch and a half, and brought out through a buttonhole slit made on the lower part of the perineum an inch in front of the anus. It was then cut off level with the skin, slit open for a short distance, and stitched to the skin. The patient made a rapid recovery, and when shown to the Society the urethral opening, which would admit a full-sized catheter, could be seen a little in front of the anus. He had perfect control over the urine, and could urinate either in the sitting or standing position with freedom and comfort. Mr. Cripps alluded to the papers of Mr. Wheelhouse, Sir W. MacCormac, and Mr Pearce Gould on this operation, and considered that there was much advantage in bringing the urethra out so near the anus, for it prevented the patient wetting himself on going to the closet.—Mr. SWINFORD EDWARDS, in a case of malignant disease of the penis, had operated by Pearce Gould's modification of this method, and on removal of the organ he found a secondary deposit at the back part of each corpus cavernosum at the point where they joined, and this had not been discovered during life, and of course would have been left behind if the organ had been ablated by the old method. Three months later the man was in good health.

Mr. SHEILD showed for Dr. MITCHELL BRUCE a case of Peripheral Neuritis following influenza. The girl suffered from this epidemic in January, 1890, and the following July complained of severe pain in the right axillary region accompanied by hyperæsthesia of the nerves of the arm and spinal tenderness. In July, 1891, there was pain in the right arm and thumb; the nail of the latter having become thick and hypertrophied, and it was evulsed without effect. At the present time there was a good deal of pain in the upper limb and in the thumb and second and third fingers. There was marked muscular weakness of the thumb but no anæsthesia. The radial and musculo-spiral nerves were tender, there was tenderness in the right axilla and over the clavicle, and there were tender spots at the tip of the thumb and over the metacarpal joints of the second and third fingers. The electrical reactions were normal.

Dr. COLCOTT FOX showed an infant aged five months, with Symmetrical Enlargement of the Metacarpal Bones of the Thumbs and of the Metatarsal Bones of the Great Toes. The child, a first one, and reputed a seven months one, had been under mercurial treatment for some weeks for a widespread syphilide, and "pseudo paralysis" of the legs and left arm. Dr. Fox said thickening of the long bones, and Wegner's osteo-chondritis with pseudo-paralysis were frequently met with. The enlargement of the hand and foot bones was much less frequent, especially of the phalanges. He had elsewhere, however, described two cases of syphilitic dactylitis in infants. The diagnosis from tuberculosis was sometimes difficult. The enlargement in this case was probably due to an osteo-myelitis.—The PRESIDENT agreed as to the rarity of dactylitis at this age, but he saw no evidence of its being an osteo-myelitis; it was probably a gummatous periostitis.

Dr. FOX likewise introduced a woman, aged thirty-one, with Lupus Erythematosus of the face, ears, and scalp, and also discs disseminated thickly over the trunk and upper arms. She had hip disease at three years old; the lupus began on the face at about seventeen years, and the trunk had been affected for about six months. The patient's father died of phthisis, and her child had suppurating neck glands. Dr Fox pointed out the rarity of these disseminated cases, and their interest from a diagnostic and etiological point of view. Kaposi, Boeck, and Hallopeau had described malignant or febrile exanthematic cases. No such attack had so far been observed in the case shown.—The PRESIDENT referred to a somewhat similar case shown at Birmingham three years ago. He had never seen a case in which the lesions were multiple and discrete, as in the present instance.

Mr. HARRISON CRIPPS exhibited a patient in whom Inguinal Colotomy had been performed nearly a year and a half ago for rectal cancer. The patient had markedly gained weight and strength since the operation, and was able to go through his daily avocations without discomfort or trouble. As a rule the bowels acted once a day.

Mr. SHEILD showed a case of Tumour of the Head of the Humerus, which occurred in a girl who had suffered from obscure pains in the right shoulder for six years. The swelling appeared to be an osteoma, and caused some displacement of the head of the bone.

The PRESIDENT showed a mass three inches long formed of fragments of undigested food, which had acted as a plug to block the duodenum of a lamb between two and three months of age, which, owing to the death of its mother, had suddenly been thrown on its own resources to obtain food, and had chosen its diet injudiciously.—Mr. SHEILD referred to the frequency with which hair-balls were found in the intestines of horses, cattle, and dogs, the nucleus being often a piece of bone.

The PRESIDENT also showed the picture of a case of Infective or Melanotic Freckles in Senility. It began with freckling, often symmetrical, of the eyelids, and then on one side the pigmentation spread. The mucous membrane and cornea were also affected, which made the case unique. He feared it might end in malignancy, for he had twice seen epithelioma develop in connexion with similar cases.—Dr. SYMES THOMPSON referred to a paper by the President some years ago on Xanthelasma and its connexion with Disease of the Liver, and he asked whether any similar connexion with internal disease was suspected in the present instance.—The PRESIDENT replied that the disease was a local one, was not symmetrical, and probably did not depend on constitutional cause.

CLINICAL SOCIETY OF LONDON.

New Method of Nephrorhaphy.—Traumatic Cyst of Pancreas treated by Incision and Suture to the Abdominal Wall.—Hydatid of Lung treated by Aspiration.—Abdominal Section followed by Parotitis.

AN ordinary meeting of this Society was held on April 8th, Sir Dyce Duckworth, President, in the chair.

Dr. WASHBOURN and Mr. ARBUTHNOT LANE read a communication on a case of Floating Kidney which was treated by a new mode of nephrorhaphy. The patient was a woman aged forty-four, and the case was one of much obscurity owing to the great mobility of the tumour &c. Mr. Lane performed an operation which he hoped would prove more permanent in its results than the method

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usually adopted. He exposed fully the posterior aspect of the kidney and split the capsule into ten triangles by means of incisions radiating from its centre, so that when each triangle was separated from the posterior surface of the organ its base corresponded to the margin of the kidney to which it was attached. Then he carefully removed every particle of fat, transversalis fascia, &c., and after twisting each triangular portion of capsule a twisted silk ligature was attached to it. These ligatures were passed through the cut surface of the abdominal muscles, and were arranged in such a way that the posterior surface of the kidney freed of its capsule was retained immovable in immediate contact with the recently cut surface of muscle by means of its capsule, which was anchored firmly by its ten attachments. The woman gained weight and strength rapidly after the operation, and led an active life for about a year without experiencing the slightest discomfort. During this time she followed out the instructions given her—namely, that she was to avoid lifting any heavy weight, though she was encouraged to lead an active, vigorous life. In a moment of forgetfulness she attempted to move a heavy box, and at once experienced great pain in her side. This subsided rapidly, but left her with some of her original discomfort; but though the lower end of the kidney could be felt on deep palpation, there was no evidence of any abnormal mobility of the organ. As she dreaded the further development of her pain, the kidney was again exposed in the loin, when it was found to be embedded in a dense fibrous material which connected it intimately to the cicatrix in the abdominal wall. No light was thrown upon the cause of the slight return of her symptoms. The history of the case indicated the great importance of abstaining from lifting anything heavy after any operation of nephrorhaphy, however perfect.—Mr. GOLDING BIRD said that the author considered his operation better than the ordinary procedure for movable kidney, but he had not given the evidence upon which that opinion was founded; indeed, the case that he had related seemed to be an argument in the opposite direction. After operating in the ordinary way he himself had not found any return of pain, nor had the kidney left its attachment, though the patients were not limited as to exercise. He quoted several cases to show that the treatment had been very successful in his hands.—Mr. HULKE asked if other measures had been tried before resorting to suture. In several cases after operation the old symptoms returned, and the kidney became as movable as before. In many instances he had obtained excellent results by fitting the patients with a truss to which was fixed a horseshoe pad. If such an appliance was successful there was no need for submitting the patient to an operation which was not without risk.—Mr. PEARCE GOULD inquired what was meant by the "ordinary" operation of nephrorhaphy. It had at first been done by a temporary suture, which was passed through from the kidney to the skin and removed at the end of four, six, or more days. A frequent result was that the kidney became loose again afterwards; but if two permanent buried sutures were passed so as to fasten the capsule of the kidney to the posterior part of the aponeurosis of the transversalis muscle, a quite satisfactory result could be obtained. In some cases certainly the horseshoe pad had not given gratifying results. He did not see how such an apparatus could be successfully applied to control the kidney, which lay at the back of the abdomen. When a powerful muscular effort was made, any such pad must at times be quite inefficient in keeping the organ in place.—Mr. GOLDING BIRD added that when he spoke of nephrorhaphy he only referred to the modern method by buried suture.—Mr. HERBERT ALLINGHAM said that in his position as an official of the Surgical Aid Society he had seen a very large number of patients who had been submitted to nephrorhaphy, and who had not benefited in the slightest degree from the operation, the kidney being still freely movable. Under these circumstances, any improvement in the present method of operating would be a boon.—Mr. BOWLBY had seen a great many cases in which the kidney had broken loose from its anchorage. In one case operated on fifteen months ago by a surgeon experienced in these cases three buried sutures were used, and yet the kidney was quite loose and was giving as much trouble as before.—The PRESIDENT thought it was time an expression of opinion from physicians should be forthcoming. When he met with a floating kidney it was not his habit to call in surgical aid. He had known of people who had floating kidneys for twenty years, and yet remained in excellent health. Some suffered slight pelvic pain or a little discomfort at the menstrual nisus, and he held that it was not legitimate practice to interfere with a movable kidney if it gave rise to no more trouble than this. Surgeons did not seem at all agreed as to what should be done; and, if in the small minority of cases operation were necessary, there ought at least to be something like unanimity with regard to the procedure to be adopted.—Mr. R. W. PARKER referred to a patient, by occupation a cook, with floating kidney, who suffered so much pain as to be quite incapacitated from her duties. After failure of rest and pressure he cut down and stitched the organ to her side. Although it still remained quite fixed, the patient was not in the least degree relieved.—Dr. BARLOW, though he had seen a great many cases of floating kidney, had never met with one in which surgical interference was justifiable. They were met with in people prone to abdominal pain, and were much commoner among the better than among the humbler classes of society. It was a serious abdominal operation, not unattended with risks, and the physician who recommended it incurred considerable responsibility.—Mr. LANE, in reply, while he congratulated Mr. Golding Bird on the success of his cases, regretted that he and many others had not been equally fortunate. These cases of course were quite on a par with gall-stones in this: that they should not be meddled with unless they gave rise to great pain. He supposed that when patients found that no relief followed medical treatment they sought surgical aid, and this perhaps explained how it was that physicians did not seem to have met with the graver cases.

Mr. LITTLEWOOD (Leeds) read the notes of a case of Traumatic Cyst of the Pancreas. The patient, a male, aged thirty, was thrown from his horse, the horse stamping on his abdomen with his hind feet. Thirteen days after this a swelling was noticed in the left upper umbilical and lower epigastric regions. The swelling was explored and a syringeful of dark blood removed. The swelling increased in size, at first slowly, and then more rapidly. The patient suffered a good deal of pain in this region. Seven days later, August 12th, the swelling was aspirated in the morning, ten ounces of fluid removed, alkaline, dark sage-green colour, sp. gr. 1015. In the afternoon the abdomen was opened in the middle line above the umbilicus. The cyst was at once seen, having displaced the stomach upwards and colon downwards; it was covered over by omentum. This was torn through, the cyst opened, and the cyst-wall stitched to the peritoneum and deeper layers of abdominal wall; forty ounces of fluid removed of the same character as that removed in the morning; cyst drained. A sinus formed, which closed at the end of two months. Analysis of the fluid collected about ten days after the operation was made by Dr. Clarkson (demonstrator of physiology in the Yorkshire College), and shown to contain the following substances: serum-albumen, salts, trypsin, amylopsin, steapsin, and milk-curdling ferment (meta casein).—The PRESIDENT asked the author to record later the after-history of the case. The pancreas usually after such a lesion became cirrhosed.

Dr. HECTOR MACKENZIE reported a case of Hydatid of the Lung, which proved fatal by rupture into a bronchus nine hours after treatment by aspiration. The patient was a man aged twenty-six, who, until within a month of presenting himself at the hospital, had experienced no recent feeling of illness. He had then seen a doctor in order to be passed for admission to a benefit society, and had been informed, to his surprise, that there was something the matter with his right lung. Shortly after this he began to suffer from cough, shortness of breath, and from pain in the lower part of the right side of the chest, to sweat at night, and to lose flesh. On examination it was found that over nearly the whole of the upper three-quarters of the right side of the chest there was dulness with almost complete absence of breath sounds, and of vocal fremitus. Above there was a resonant area just to the right of the sternum, and the extreme apex was not quite dull. At the base there was a hyper-resonant area, over which loud friction sounds were audible, and the breath sounds were weak. The heart was displaced to the left, and the liver was displaced downwards. The diagnosis rested between new growth, hydatid, and a circumscribed pleuritic effusion. New growth and a circumscribed effusion were both improbable on account of the history. The rarity of hydatid was the only point which made that view unlikely. In

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order to clear up the diagnosis the aspirator was used, and a pint of typical hydatid fluid was drawn off. No more was taken because the fluid ceased running. The patient turned very faint during the operation. After the aspiration the patient was enjoined to keep still and remain at rest. He went on well, until six hours later in the evening he commenced to cough and brought up a mouthful of thin blood-stained fluid. This was followed by urgent dyspnœa, with pallor, lividity, and cold perspirations. The cough continued, but little more fluid was brought up. This critical condition continued for over two hours before the patient died, the dyspnœa taking on more of an expiratory character. At the post-mortem examination the cyst was found to be a very large one, capable of containing about fifty ounces of fluid, and apparently existed between the lobes of the lung. A large bronchus leading to the lower lobe communicated with the cavity formed by the fibrous capsule of the cyst. This bronchus lay at the back of the cyst and had been pressed upon by it, thus accounting for the weak breath sounds heard during life over the lower lobe of the right lung. There was recent pleurisy over the right lower lobe, with the formation of fibrin posteriorly. The principal interest of the case centred in the question of the advisability of aspirating or tapping hydatids of the lung. Dr. Bristowe last year reported a case which had died during aspiration, and such deaths were not infrequent. Dr. Davies Thomas's statistics showed that while the mortality of cases left alone was 54 per cent., that of cases treated by aspiration was 27 per cent, and that of cases treated by excision of rib was 16 per cent. It seemed, therefore, both on theoretical and practical grounds, that a free opening with complete emptying of the cyst gave the best chance to the patient.—The PRESIDENT said that tapping these cases seemed to be a very common mode of treatment, and it would be interesting to know in what proportion of cases it had been resorted to in Australia, and with what result.—Dr. BRISTOWE said that, if he remembered rightly, the statistics which had been quoted had been collected from all quarters of the globe and not from Australia alone, and they included also cases of living hydatid with those in which the parasite was dead and in which suppuration had taken place. Experience went to show that the danger of tapping a living hydatid was greater than similarly treating a dead and suppurating one. When his own case was tapped little or no fluid came through the tube, but subcutaneous emphysema developed, which was followed by lividity, dyspnœa, and discharge of fluid from the mouth. At the same time the area of dulness disappeared. If the hydatid were living, the lung tissue around was compressed; but it was not usually much matted or inflamed, and hence fluid, if it escaped, would easily run into the bronchial tubes. He thought that a rib ought to be resected, and a large opening made into the chest before attempting to remove the fluid. Of the cases which had been simply tapped, many died outright, and several of those who recovered were in imminent danger for some time after the operation.—Dr. MAUNSELL said that he had spent over twenty years in connexion with large hospitals in Australia and New Zealand, and during that time he had seen considerably over a hundred cases of hydatid, infesting every region of the body. In all cases of suspected hydatid of the lung a long, very fine aspirating trocar and needle should be used for confirmation of the diagnosis and gauging the exact distance from the surface of the chest to the most superficial part of the tumour. The exploring needle should be much longer, but not much larger, than an ordinary hypodermic needle. If a larger needle were used there was danger of swamping the thoracic cavity with fluid, and causing suffocation or fatal syncope. He had never known serious symptoms to follow the aspiration of a hydatid tumour in the thorax. If the hydatid were very small and situated in the substance of the lung, it might be treated by simple aspiration, the removal of a small quantity of fluid from the cyst often causing it to wither up and undergo degeneration. If the tumour were large, and especially if it contained daughter cysts, if suppuration had taken place, or if the fluid after tapping reaccumulated, it was necessary to make a deliberate incision over the most prominent and surgically convenient part of the tumour, and completely remove the hydatid with its mother cyst. If the tumour were very large it might be necessary to remove a portion of one, two, or even three ribs in order to completely evacuate the hydatid and provide for drainage. Fully fifteen cases of this kind had come under his observation or immediate care without a single fatal result from the operation. Dr. Maunsell concluded with remarks on the treatment of hydatid in the liver and in other situations.—Dr. MACKENZIE, in reply, said that he felt convinced that a fine trocar should be used, preparations being made to follow with operation at once if the tapping should confirm the presence of hydatid. He did not know if these cases were becoming commoner, but he had seen five during the last two years; of these, two had proved fatal during the aspiration or shortly afterwards; one, which was aspirated, recovered, though at the time it nearly died; one was aspirated, and then a rib was excised, with recovery; and one, which had suppurated previously to operation, died after excision of rib.

Mr. STEPHEN PAGET read notes of a case of Abdominal Section followed by Parotitis. He described the case as an example of an acute inflammation of the parotid gland, of which he had collected upwards of a hundred instances occurring after injury or disease or temporary derangement of the abdominal or pelvic organs due to reflex nervous action and not to pyæmia. The patient was a woman aged fifty-eight who had an operation for artificial anus performed on her for the relief of intestinal obstruction on Dec. 20th, the first step being to draw out and fix to the parieties a loop of intestine. The next day, as the bowels were acting well and as the abdominal distension was all gone, the gut was rashly allowed to drop back into the peritoneum. She became restless and even delirious, and appeared for two or three days to be on the point of death. On the 24th acute inflammation of the left parotid gland set in, but the next day she began to mend, and by the 28th both the parotitis and the delirium had gone. Her further recovery was uninterrupted. He remarked that the parotitis in these cases seemed to mark a crisis occurring towards the end of the illness, and being at once followed by recovery. It is not due to any blocking of the duct, the socia parotidis which lay so near the mouth being affected only once or twice in 102 cases. The true analogues of this parotitis were to be found in the salivation of some women in pregnancy and their longing for sapid foods; in the salivation that was observed in gastritis and in cancer of the rectum, and the arrest of salivary secretion which could be produced in a dog by drawing out a loop of intestine from the abdomen.

OBSTETRICAL SOCIETY OF LONDON.

Adjourned Discussion on Cæsarean Section.

A MEETING of this Society was held on April 6th, Dr. J. Watt Black, President, in the chair.

Dr. HEYWOOD SMITH said that one of the most important points to consider was the time of operation, and he had no doubt but that it was far better to wait until labour had set in before operating, as then there would be much more chance of the uterus properly contracting. Having had the opportunity of recently witnessing Dr. Duncan perform the operation, and the great difficulty in obtaining uterine contraction, that gave rise to a considerable loss of blood, the question arose, having regard to the absence of proper healing both of the abdominal wound and also that of the uterus, whether the hæmorrhage might not have been due to that cause.

Mr. BLAND SUTTON gave the details of a case in which he had successfully performed Cæsarean section. The patient, a secundipara aged twenty-six, was the subject of spondylolisthesis, with a true conjugate of less than one inch and a half. The operation was performed without withdrawing the uterus from the abdomen, very little blood was lost, and the time occupied was only thirty minutes. The child was dead. The husband's consent having been previously obtained, the patient was sterilised by tying each Fallopian tube near the uterus by a single piece of silk. Mr. Sutton did not consider it necessary to tie each tube in two places, and then divide it between the ligatures.

Dr. CHAMPNEYS said that in a subject so large he would only allude to two or three points of practical importance. The first was the danger of uterine atony; in addition to the choice of time (after the onset of labour), it was important to prevent the uterus from being chilled. The spray was

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objectionable from this point of view; so was the elastic ligature round the neck of the uterus. The second point was a difficulty which arose owing to a sort of hour-glass contraction round the child's neck, making extraction difficult. In a recent case this cost the child its life although it was recognised early, and the head was promptly and powerfully pushed up by an assistant. The third point was the best way of sterilising the patient. If the tube were tied in two places and the piece cut out, it left a raw and bleeding edge of meso-salpinx. The best way was to tie the tube simply, then to pinch up a loop of tube, to tie this with the ends of the first ligature, and then to cut off the loop of tube.

Dr. DUNCAN thought that the Cæsarean section was to be preferred to Porro's operation except in cases where there were uterine tumours, which could be removed at the same time; also where the uterus was affected with cancer, as here the offensive odour and discharge were very likely to cause fatal peritonitis if the uterus was left. Hitherto he had preferred and practised bringing the uterus outside the abdomen before opening it, considering that by doing so the complete prevention of the passage of blood, amniotic fluid, or meconium into the peritoneal cavity more than counterbalanced the risk attending the longer external incision. He narrated a case, however, on which he had performed Cæsarean section since the last meeting of the Society, and which was doing well on the eighth day; but several hours after the stitches were removed, and in spite of plaster having been applied over the abdomen, the whole length of the abdominal incision was torn open during a sudden fit of coughing, the intestines protruded even down on to the thighs, and death from collapse ensued about thirty hours after. Notwithstanding Dr. Murdoch Cameron's opinion and larger experience of Cæsarean section, he preferred choosing his time for operating, and did not wait until labour had set in. He considered that placing an elastic ligature round the cervix was not good, as it tended to cause asphyxia of the child and paralysis of the uterine muscle. He also thought that hour-glass contraction of the uterus could be absolutely prevented by taking care to effect delivery of the child before rupturing the membranes.

Dr. HORROCKS thought that if Cæsarean section and Porro's operation had equal mortalities, then the former would be preferable as being less of a mutilation, but both operations were good, and should be done respectively in suitable cases. He thought Porro's operation should be selected in cases of rupture of the uterus and certain cases of tumour complicating pregnancy. Cæsarean section at the present time could not be compared with cases operated on in the past, as formerly it was done as a *dernier ressort*, and without antiseptic precautions. He had operated by Sanger's method three times and assisted at a fourth. Two of the former died; the other two and all the children recovered. He considered that removing the uterus out of the abdomen before delivery was fraught with danger, and should be avoided if possible. The elastic ligature did not, he thought, prevent uterine contraction. Sanger and Leopold had used it with impunity. In all his cases the operation was performed before labour had set in. Bringing the peritoneal surfaces together by numerous fine silk sutures, as insisted upon by Sanger, occupied much valuable time, and speed was an antiseptic. In one case he inserted a drainage-tube through the cervical canal, but it caused hæmorrhage, and was soon removed. He emphatically stated that it was not necessary for the uterus to be actively contracted in order that hæmorrhage should be stopped. All that was necessary was retraction—that is, contraction having taken place, the fibres then relax, but are not stretched out again; hence it was useless stimulating the uterus farther, unless hæmorrhage was actively taking place. He showed sections of the Fallopian tubes made seven days after they had been tied with kangaroo tendon, proving complete obliteration of the lumen of the tube.

Dr. ROUTH wished to speak on three points: 1. To operate on a woman on whom the Cæsarean section had been once performed successfully was a proceeding almost free from danger, as the adhesions contracted between the womb and abdominal wall converted the operation into an extra-peritoneal one. From the tenour of the discussion he believed Cæsarean section would in future be much more frequently performed; and the improvements in abdominal surgery justified one in believing the results would be much more favourable. 2. In the case of a first operation it was very important to ascertain if the child were alive or dead, especially if it had been long dead, as it might be putrid; and in these cases, even with every aseptic precaution, it was very difficult to prevent poisoning. Dr. Duncan had mentioned such a fatal case in cancer of the cervix, and he (Dr. Routh) had had a case in which child and membranes were putrid, and which ended fatally. In these cases Porro's operation was preferable, and safer than Cæsarean section. 3. The incision into the uterus should be made at its upper two-thirds, carefully avoiding the cervical portion, as, if this were incised, the uterine contractions would tend to open the cut cervical portion and make a strain on the ligatures.

Dr. BRAXTON HICKS said that formerly it was a question whether any stitches should be put into the uterine wound or not, and many cases recovered that were not sewn up. He considered the recent improvement in the death-rate was largely owing to the increase in the number of stitches used. He expressed his consent to the advantages of Porro's operation in cases of uterine fibroids, and mentioned a case of the kind under his own care in which a large sinus running across the incision was divided; the bleeding could not be restrained except by undermining.

Dr. HANDFIELD JONES also made some remarks.

Dr. LEITH NAPIER, in reply, said that up to March 23rd Leopold had performed Cæsarean section forty-six times and Porro's operation four times. Of these, forty-six mothers and all the children were saved. Dr. Murdoch Cameron's total now reached eighteen, with two deaths; so that the maternal mortality of these two operators was under 9 per cent. Turning the uterus out of the abdomen before opening it was in some cases unnecessary; in others it greatly simplified and expedited the operation. On the whole, he thought it better to remove the child before extruding the uterus. As to the elastic ligature, although probably the dangers of asphyxia of the child and post-partum uterine atony were exaggerated, he thought it wise, unless reliable assistance were obtainable, to continue using it. With regard to the question of operating before or after labour had set in, there were *pros* and *cons* either way. Harris's cases of uterine tolerance after injury showed that it was not essential to wait for labour pains. He was glad to find Dr. Champneys now adopted the suggestion of cutting the tubes across rather than simply ligaturing them. Dr. Duncan had anticipated his reply to Dr. Champneys' hypothesis that the severed ends might bleed. As a matter of observation there was no oozing, and the divided mucous membrane became retracted within its peritoneal covering; the doubling up was unnecessary.

Dr. JOHN SHAW having made a few remarks, Dr. CULLINGWORTH said, in reply, that, with regard to waiting in all cases until labour had commenced, he did not agree with Dr. Cameron that this was necessary. The advantages of operating in the daytime were obvious, and experience showed that the operation itself was sufficient to excite uterine action and ensure full contraction. He much preferred opening the uterus and removing its contents *in situ*, as it obviated the necessity of a long abdominal incision and possible exposure and chilling of intestines. The uterus, after being emptied, could be brought out if thought desirable, in order to facilitate the suturing of the uterine wound. He regarded as distinct improvements the abandonment of the elastic ligature and the arrest of hæmorrhage from divided sinuses by direct pressure on the cut surfaces. Another advance was the method of suturing by a moderate number of deep and half-deep sutures, doing away with the wearisome peritoneal suturing, until recently thought to be so essential. He recommended those interested in the subject to read a very useful little paper by Dr. Kelly, published in the *American Journal of Obstetrics* for May, 1891, entitled "The Steps of the Cæsarean Section—the Do's and the Dont's." He regarded Porro's operation as a most valuable resource in exceptional cases, and thought that increased experience would enable us to formulate the conditions in which the one or the other operation was to be preferred.

The following specimens were shown:—

Dr. LEITH NAPIER: Axial Rotation of Parovarian Cyst.

Dr. WILLIAM DUNCAN: Uterus, Kidneys, and Ureters from a case of Cæsarean section.

Dr. GILES: (*a*) Congenital Diaphragmatic Hernia; (*b*) Malformed Fœtus (with a drawing).

Dr. CULLINGWORTH: (*a*) Ruptured Tubal Gestation; (*b*) Uterus extirpated for Squamous-celled Carcinoma, which had spread upwards instead of downwards.

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SOCIETY OF MEDICAL OFFICERS OF HEALTH.

The Customs and Inland Revenue Act.—Interpretation of Terms in Sanitary Acts.

A MEETING of this Society was held on March 21st, when Mr. S. F. MURPHY, President, occupied the chair.

Dr. SYKES read a communication on the difficulties attending the working of Section 26, Sub-section 2, of the Customs and Inland Revenue Act, 1890, under which houses originally built or adapted by alterations, and used solely for providing separate dwellings for the working classes at rents not exceeding 7*s.* 6*d.* a week, might be exempted from inhabited house duty if certified by the medical officer of health to be so constructed as to afford proper accommodation for each of the families and persons inhabiting them, with due provision for their sanitary requirements. No definition of these conditions was given, and the Local Government Board and the Commissioners of Taxes declined alike to afford assistance or information. The Commissioners and the local authorities too differed in their definitions of "separate dwellings." Dwellings might be wholly or partially separate according as they possessed separate or common entrances, and as the sanitary conveniences were used in common or each "dwelling"—i.e., suite of rooms—had its own. The degradation of adapted or "made down" houses was largely due to the absence of proper control of the common stairs, and it would be a matter for grave regret if block dwellings deteriorated from this cause. The Commissioners maintained that gates closed at night to all but the tenants made the building a single house, for which exemption could not be claimed; but some such control was necessary to prevent the common stairs from being the resort at night of "dossers," vagabonds, and prostitutes; but if the block were deemed to be a private house and the stairs not a part of the public street, police supervision could not be obtained. He moved: "That the Society of Medical Officers of Health considers as unsatisfactory the absence of control over the common stairs of houses let in lodgings and block dwellings in large towns."—The resolution was seconded by Dr. Parkes, and carried unanimously.

Dr. WILLOUGHBY then read a paper on the Conditions constituting (1) an Unhealthy Area, (2) a House unfit for Human Habitation, (3) and Unhealthy or Insanitary Houses; or the circumstances under which the (1) Housing of the Working Classes Act, Part I., or (2) Part II., or (3) the Public Health Acts respectively, should be applied. His intention was, he said, rather to elicit than to impart information, to ascertain the views and practice of others, and thus to arrive at a clear conception of what was to be understood by each of these expressions, and agreement as to the best line of action in dealing with the several classes of insanitary property. He would define an unhealthy area "as one in which (1) the majority of the houses were unfit for human habitation, or (2) were so arranged that reasonable ventilation was impossible, or (3) were incurably damp, or (4) the ground beneath which was saturated with sewage." Among irremediable defects rendering a house unfit for human habitation without entire reconstruction were: (1) "rotten and mouldy" houses, in which the damp was most evident near the ground and on the party walls, not being caused by defective roofs or gutters, and frequently haunted by diphtheria; (2) houses in blind or labyrinthine alleys, back-to-back houses without forecourts or overshadowed by lofty buildings (though there were back-to-back houses which he could not conscientiously condemn); and (3) houses with old and defective brick drains, the ground beneath which was saturated with the sewage of successive generations, generally to be recognised by the presence of rat holes in the floors and walls. Houses unfit for human habitation to be dealt with under the Housing of the Working Classes Act, Part II., if in groups, or the Public Health Act if single, were those in which (1) the conditions just described existed, (2) houses so dilapidated as to be past repair, and (3) in which the structural defects as regards the admission of light and air, drainage of the basement, the position of the waterclosets, &c., were such that their removal, though physically possible, would involve a prohibitory expense. The ideal plan of house drainage, which he always required in certifying houses of the better class, with disconnexion of the soil-pipe, a separate ventilating pipe at the head of the drain, and inspection chambers at either end, was out of the question in those occupied by the great majority of the middle and lower classes; but practical security against the entrance of sewer air might be obtained by using the soil-pipe as the upcast ventilator, and interposing between the house system and the sewer a small stoneware interceptor, with a syphon beyond it. The great difficulty in the case of small houses without areas or forecourts was to find a place for even the smallest interceptor, while without a manhole exploration of the drain involved breaking up the ground. He showed plans of an arrangement by which complete interception, ventilation, and facilities for exploration and flushing could be secured for an entire block or street section of a score of houses at the minimum cost, while all drains beneath the houses would be avoided. He would carry a common drain in the rear of each section from the footway of one cross street to that of the next, into the sewer of which it would discharge. There would be a manhole in the footway at each end, with provision for ventilation &c., as in houses of the highest class, save that, access being from the street, it would be under the control of the sanitary authority. Into this would be led from the houses on one or both sides the separate drains, ventilated by their soil pipes and uninterrupted by syphons &c. Again, considering the utter hopelessness of keeping a multitude of private cisterns covered and clean, he would propose that all the houses in a section of a street be supplied through pipes from a large common concreted cistern, erected somewhere in the rear, in a brick chamber, accessible only through a door, the keys of which should be kept by the sanitary inspector and the turncock.—Drs. TATHAM (Manchester) and SYKES (St. Pancras) severely criticised the provisions of the Housing of the Working Classes Act, especially as to appeals, arbitration, and compensation.—Dr. KEMPSTER stated that an arrangement for the combined drainage of rows of houses, with automatic flushing almost identical with Dr. Willoughby's, and controlled by the sanitary authority, had been carried out on the Shaftesbury-park estate.—Dr. WILLOUGHBY then briefly replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Surgical Section was held on March 4th, Mr. Croly, President, in the chair.

The Treatment and Origin of Hammer-toe.—Mr. SWAN read a paper on the treatment and origin of Hammer-toe, and demonstrated that the skeleton was at fault. He deprecated the treatment usually recommended, of division of certain of the soft tissues. From a number of facts which he stated as to the functions of the toes in certain races and the functional adaptability of the second toe, and from a comparison of the feet of anthropoid apes with the lower and higher types of the human foot, and from a review of the embryological development of the human foot, he refers the distortions of equino-varus and other congenital aberrations from the higher type—hammer-toe included—to either an arrest of the evolutionary process, or to a reversion to a lower type, with an unequal development of the osseous and soft tissues.—Mr. HAMILTON considered the Academy was indebted to Mr. Swan for his paper, which was characterised by originality and research, as well as by practical usefulness. The surgeon was apt to follow routine, and he had himself on many occasions divided the flexor tendons for this affection. He had no doubt, from what he now saw, such teaching was erroneous. He had himself been struck with the functional usefulness acquired by the toes, as illustrated by the divers in the Bay of Naples.—Mr. T. MYLES disagreed with some of Mr. Swan's statements, and considered that his deductions were hardly warranted in their entirety. For instance, the second toe, normally, was not shorter, but always longer than the first. Mr. Myles pointed out that in the condition under discussion the position of flexion of the second toe had the effect of removing the broad anterior extremity of the phalanx from between the first and third, and was, in fact, nothing more than a spontaneous effort to diminish the effects of the crowding together of the toes by tight boots.

Some Remarks on Excision of the Elbow joint.—The PRESIDENT (Mr. Croly) made a communication on resection of the elbow. He first described cases suitable for excision, and said the last thing that entered his mind in elbow-joint disease was amputation. Fortunately in disease of

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the head of the drain, and inspection chamber end, was out of the question in those occupied by the majority of the middle and lower classes; but security against the entrance of sewer air might be by using the soil-pipe as the upcast ventilating pipe between the house system and the sewer, or else an interceptor, with a syphon beyond it. The difficulty in the case of small houses without mews courts was to find a place for even the smallest manhole while without a manhole exploration of the drains meant breaking up the ground. He showed plans of an arrangement by which complete interception, with facilities for exploration and flushing could be made for an entire block or street section of a sewer at a minimum cost, while all drains beneath the house could be avoided. He would carry a common drain out of each section from the footway of one row of houses to the next, into the sewer of which it would form the There would be a manhole in the footway at each provision for ventilation &c., as in houses of the class, save that, access being from the street, it would be under the control of the sanitary authority. It would be led from the houses on one or both sides by rain drains, ventilated by their soil pipes and sewers by syphons &c. Again, considering the cost and difficulty of keeping a multitude of private cisterns efficient, he would propose that all the houses in a certain area should be supplied through pipes from a large common cistern, erected somewhere in the rear, in a yard accessible only through a door, the keys of which were kept by the sanitary inspector and the tenants. TATHAM (Manchester) and STEER criticised the provisions of the Housing of the Working Classes Act, especially as to appeals, and urged cooperation.—Dr. KENNETT stated that an arrangement for the separate drainage of rows of houses with trapped drainage almost identical with Dr. WILLOUGHBY's had been carried out by the sanitary authority, had been successful on the Shaftesbury-park estate.—Dr. WILLOUGHBY replied.

ROYAL ACADEMY OF MEDICINE IN IRELAND

A MEETING of the Surgical Section was held on the 4th inst. Mr. O'Kelly, President, in the chair.

The Treatment and Origin of Hammer-toe, and demonstrated that the skeleton was that of a monkey. He deprecated the treatment usually recommended, dividing certain of the soft tissues. From a similar consideration of the functions of the toes in man, which he stated as to the functional adaptability of the second toe, and the functional adaptability of the second toe in a comparison of the feet of anthropoid apes with those of higher types of the human foot, and from a review of embryological development of the human foot, he traced portions of equino varus and other congenital deformities from the higher type—hammer-toe included—to an arrest of the evolutionary process, or to a reversion to a lower type, with an unequal development of the muscles and soft tissues.—Mr. HAMILTON considered the Academy indebted to Mr. Swan for his paper, which was remarkable by originality and research, as well as by practical importance. The surgeon was apt to follow routine, and had himself on many occasions divided the flexor tendons in this affection. He had no doubt, from what he had seen, such teaching was erroneous. He had himself been taught with the functional usefulness acquired by the toes, illustrated by the divers in the Bay of Naples. Mr. MYLES disagreed with some of Mr. Swan's statements. He considered that his deductions were hardly warranted in their entirety. For instance, the second toe, he thought, was not shorter, but always longer than the first. He pointed out that in the condition under discussion the flexion of the second toe had the effect of shortening the broad anterior extremity of the phalanx between the first and third, and was, in fact, nothing more than a spontaneous effort to diminish the effects of the deformity together of the toes by tight boots.

Some Remarks on Excision of the Elbow-joint.—Dr. KIDENT (Mr. Croly) made a communication on this subject. He first described cases suitable for the operation, the elbow. He then described the method of operating, and said the last thing that entered his mind was amputation. Fortunately the disease was

the elbow the humerus was more extensively diseased than the bones of the forearm. He preferred the single incision, made about five inches long, the arm being held as straight as possible during the operation. The ulnar nerve, in diseased joints, in his experience is not necessarily seen. He laid particular stress on the importance of removing a portion of the shaft of the humerus in addition to the condyle, otherwise a stiff joint would be sure to follow. He exhibited a number of specimens of his cases from the museum of the College, showing the amount of bone removed. He also exhibited a radius and ulna from the bone-room of the College, showing the insertions of the biceps and brachialis anticus, the latter insertion being sufficiently low to allow of the removal of the coronoid process. He laid stress on the importance of early passive movements. If sufficient bone were removed no fear of ankylosis need be entertained.—Mr. WHEELER said that he had also cases in which there were scarcely any symptoms to warrant operation as far as regarded external appearances. Some of these cases he described under the head of silent caries.—Mr. BARTON said that in his experience excision had rarely to be performed for ankylosis in flexed position. He endorsed what the President had stated as to the time required for a useful cure, and believed twelve months necessary.

Reviews and Notices of Books.

Consumption: How to Prevent it and How to Live with it. By N. S. DAVIS, jun., A.M., M.D. Philadelphia and London: F. A. Davis.

THIS volume is intended partly as a manual for phthisical patients, giving them the hygienic rules &c. by which they must live, partly as a popular exposition of the nature and causes of "consumption," with the view of interesting the public in its preventive treatment. The author believes that the disease "could be reduced everywhere to very moderate limits if the bodies of children and growing youths were properly developed physically, and if the hygiene of our homes, our offices, and our factories was more perfect than it is." With the view of making the volume of value to medical practitioners, information on climate, exercise, &c., is added. On the whole, the author has executed his task very fairly, though the limits he has imposed upon himself render his work only a slight sketch of a large subject. He does not regard phthisis as contagious, and refers to the futile attempts which were made to stamp out the disease in Portugal and in Naples by vigorous methods of rigid isolation. He agrees with most authorities in regarding the sputa as the main source of its dissemination. He puts climate in the front rank as a curative agent. "The ideal home for the consumptive," he says, "must be where the air is exhilarating, dry, clear, and pure. For those who are greatly enfeebled the location must be one that is free from frequent high winds or intense cold. Coldness is rather beneficial than otherwise to those predisposed to the disease, or who are still fairly vigorous. A rarefied air is also a benefit to them. The ideal home must be so located as to afford its inhabitants tempting and attractive occupations. Whether this locality should be an elevated one with a thin and dry air, or at the ocean-beach with a heavier and moister air, will depend upon the nature and degree of change in the lungs of the individual." Much valuable and not too hackneyed information is given regarding the health resorts of Colorado, Texas, Arizona, Florida, California, &c. On the question of diet, Dr. Davis lays down many good rules. Among others, he says: "For those who have little or no daily fever, an abundance of sugars, starches, and oils are the best; but if fever is quite constant and high, a larger proportion of albumen usually proves most serviceable." The author deprecates the use of alcohol in consumption, remarking that "alcoholics continuously given only heighten the deleterious effect of the disease. Not only is tissue-change, which involves the natural elimination of used-up matter, interfered with, but the capability of the tissues to take up new matter is also lessened." He states that "statistics have been gathered which show that those consumptives who use liquors live, on an average, some months less than those who do not." We should be glad to have the statistics, as the point at issue is one of great importance. On the whole we can commend this little work. Its perusal will help any intelligent reader to a true understanding of the nature of consumption, and of the modes in which the lay public may best coöperate with medical men in arresting the greatest scourge of our civilisation.

The Practitioner's Handbook of Diseases of the Ear. By H. MACNAUGHTON JONES, M.D., and W. R. H. STEWART, F.R.C.S. Ed. Fourth Edition. London: Baillière, Tindall, and Cox. 1892.

THE fact that a fourth edition of this work is forthcoming is a sufficient proof of the increasing interest that is taken by the profession generally in the subject of aural surgery. The present edition is enlarged and copiously illustrated.

On examining this work with scrupulous care, we must confess to a feeling of disappointment. In the classification of subjects, the etiology of diseases, and especially in composition, evidences could be quoted of undue haste and want of consideration. Many sentences might be instanced which are so long and involved that the authors' meaning would be ambiguous to all but those previously well versed in the subject. In the classification of etiology grouping from a pathological standpoint is hardly aimed at. No less than three long chapters are devoted to the consideration of tinnitus aurium and its treatment. The authors deserve credit for their attempts to throw light upon a very obscure subject. We question, however, if they have handled the matter judiciously. For instance, the ascribed and recognised causes of tinnitus, in cases where the hearing was normal, are thus stated: "Recent sea-bathing, fever, alcoholic excess, tropical causes, cardiac weakness, nasal obstruction, puerperal eclampsia, irregular catamenia, mental strain, over-study, menorrhagia, Bright's disease, the menopause, albuminuria, quinine, retroflexion of the uterus with neurosis, pharyngeal catarrh, neurotic temperament, tobacco"! The directions for treatment of a "cold in the head," on page 176, are no doubt excellent, but are as much out of place in a work on aural surgery as a detailed description of the removal of an aural polypus would be in a work on General Medicine. Though the book is enlarged after this fashion, we note that subjects of such importance as operations upon aural exostosis and the instrumental treatment of impacted foreign bodies receive but scanty notice.

The affections of the nose and naso-pharynx complicating ear diseases are fully dealt with in a separate chapter. The authors advise "massage" as of use in certain cases of nervous deafness attended by tinnitus, and in "progressive deafness" due to chronic middle ear changes. We venture to think that before recommending this treatment to students and practitioners very distinct indications should be laid down for its employment, and we must express a difficulty in understanding how "tapotement" over the mastoid could possibly benefit chronic "progressive inflammation" in the tympanic cavity.

The illustrations are very abundant, but some of them are not well executed. While giving due credit to originality and research, we question the necessity of a well-known author attaching his name to such common and trivial inventions as ear-protectors, oral protectors, hand douches, and insufflators. On the pilocarpine treatment, as might be anticipated, the authors write with authority. We notice

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that they discourage the use of this drug in chronic affections of the middle ear.

The chapter on the use of electricity by Dr. Cagney is good, and affords a useful guide to those who feel disposed to advise its employment. The directions for using the tuning fork in cases of supposed nerve deafness are clear, and throughout the work portions may be selected which are worthy of praise. Again, though some of the illustrations are indifferent, the coloured plates at the commencement of the book afford excellent representations of such appearances of the tympanic membrane as perforation, chronic inflammation, and cretaceous deposit. The work would not suffer by more careful writing, a more methodical system of classification, and a revision of the illustrations. Even in its present form, however, anyone who reads it will not fail to increase his knowledge of what is taught and practised by many modern authorities in aural surgery and nasal affections.

OUR LIBRARY TABLE.

Traité Clinique et Thérapeutique de l'Hystérie. Par le Docteur GILLES DE LA TOURETTE. Paris: E. Plon, Nourrit, et Cie. 1891.—This is an exhaustive treatise which may be said to embody the views which are current at the Salpêtrière. It is the work of one of the most indefatigable of Charcot's disciples, and it has received the imprimatur of the master himself in the form of a preface. Such prefaces are unfortunately not uncommon, and in such a case as this, while a preface from one from whom may be said to have emanated most of the current doctrines with reference to hysteria as the word is understood in France would have had a certain peculiar value, it is a distinct disadvantage that it is only one among a number. Apart, however, from the preface, we have nothing but praise for the work. The subject is treated in an interesting manner, it is discussed thoroughly, and so far as possible an endeavour is made to elucidate it. The first chapter (there are twelve in all) is devoted to a historical review of the various writings which deal with this and cognate subjects; while the remaining chapters are occupied in setting out and enlarging upon the characters, symptoms, and origins of a disease as obscure as it is interesting. If we were to single out one chapter as more particularly interesting than the rest, our choice would certainly fall upon the eighth, which discusses the various hysterical, or so-called hysterical, affections of vision—a subject which is important in several aspects. But all the parts are interesting, and the book as a whole will be valuable so long as it is kept in mind that such cases as are described in it, and such clinical entities as are recognised, are only to be met with at the Salpêtrière, and so long as we remember that in that school especially there is a tendency to classify as hysterical any obscure case which recovers. We know of no work, however, which gives so graphically, so succinctly, and at the same time so completely, an account of the various vague symptoms and signs which are embodied in the somewhat shadowy figure of hysteria.

Health Springs of Germany and Austria. By F. O. BUCKLAND, B.A.Oxon., M.D. Second Edition. 1892.—Dr. Buckland only claims for his little work that it may prove useful to those who have not time for the perusal of the larger works on the same subject. It consists of a general sketch of the spas of Germany and Austria, and the information given is somewhat scanty, and has no pretence to originality. To take two typical examples. The following is the amount of information given regarding two of the most interesting and important problems connected with this subject—viz., the treatment of syphilis at Aix-la-Chapelle and the treatment of diabetes mellitus at Carlsbad. Regarding the former, the writer says: "The treatment consists in Tigismund's process of inunction, modified so as to suit the course of sulphur baths, together with an internal course of the waters." Regarding the latter, he says: "In this disease [i.e., diabetes] the amount of sugar is diminished and the symptoms generally improved. Life is undoubtedly prolonged, patients being known to return to Carlsbad for twenty years in succession. The number of visitors suffering from this malady increases annually. The effect of the waters does not manifest itself till about two months after the course, and therefore patients must not be disappointed if urgent symptoms are not relieved during the period allotted to drinking." Other leading questions of balneo-therapeutics are dismissed with equal brevity. While Dr. Buckland's book is thus a very slight sketch, only suitable for those approaching the subject for the first time, we have not noticed any important errors, and no doubt many non-professional readers will find the information given as much as they will be inclined to digest.

Indigestion, Clearly Explained, Treated, and Dieted; with Special Remarks on Gout, Rheumatism, and Obesity. By THOMAS DUTTON, M.D. London: H. Kimpton. 1892.—There are many points in connexion with the study and treatment of dyspepsia which still require elucidation, and, although the physiologist and chemist are being pressed into the service, it cannot be said that we have as yet much sound scientific knowledge upon this common condition, which embraces many varieties of functional derangement. The *brochure* by Dr. Dutton is not intended to open up new paths of inquiry. It is rather a description in simple language of the prevailing knowledge of the causes and symptoms of the chief forms of indigestion and their treatment. The author has treated his subject with discrimination, and the hints contained in the book as regards the preparation of foods and the general management of the dyspeptic may prove of service to many.

THE February and March numbers of the *Veterinarian* both contain matter of considerable interest. In the February number Mr. W. Ashton Hancock, M.R.C.V.S., contributes a paper on Tuberculosis, its Prevention and Suppression, in which he holds "that it is not a particularly difficult task to diagnose tuberculosis, especially in the lungs of the living animals, even without the history to guide you." He gives his reason for taking up this position. He also maintains that (1) periodical examination of all dairy stock by veterinary inspectors, (2) isolation and slaughter of all condemned cows, (3) compensation to the owner, and (4) the licensing of dairies would go far to help in diminishing the amount of tuberculosis in this country. In the February number there is commenced an interesting discussion on pleuro-pneumonia, a report of which is continued in the March number. There appears to be very great dissatisfaction, or at any rate disagreement, as to the course of study and method of examination necessary for the veterinary diploma. Those who are interested in the subject will find much of value in Captain Raymond's paper on General and Veterinary Education, and also in the discussion on the report of the Court of Examiners for the veterinary diploma in England and Scotland. Of course the teachers hold that the examination is at fault, and the examiners hold that the fault is in the teachers. There can be little doubt that the outcome of such a discussion will be new methods of both teaching and examination which will prove of advantage to the student.

DISEASED MEAT.—At Walsall, last week, a butcher was fined £25 and costs, or in default two months' imprisonment, for exposing for sale a quantity of meat which was unfit for human food. It was stated that the meat consisted of the carcase of a ewe sheep, which had not been slaughtered, and which defendant bought for £1, and a cow, for which he paid £1 6s.

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THE LANCET.

LONDON: SATURDAY, APRIL 16, 1892.

THE Irish Local Government Bill which has lately been brought before the House of Commons by Mr. BALFOUR, and concerning the political issues of which a party battle will shortly rage, deserves some examination and attention in its sanitary aspect, as well as comparison with the sister English and Scotch Acts of 1888 and 1889 respectively, which have already received the Royal assent.

On first perusal of the Bill we must confess to some feeling of disappointment at the somewhat disjointed and fragmentary character of the sanitary provisions. But this is soon seen to be unavoidable, inasmuch as the whole kernel of the measure is the power to transfer the functions of boards of guardians, as rural sanitary authorities, to the newly formed County and Baronial Councils. And here Mr. BALFOUR may be congratulated on having succeeded in framing a combined measure of county and district government, by taking advantage of the existence of the Irish barony, and adopting the latter as his administrative unit. In this respect the Irish Bill is superior to both the English and the Scotch Acts.

Clause 10 transfers to the County Council the powers of boards of guardians relating to the execution of the Contagious Diseases (Animals) Acts, 1878–90.

Perhaps the most important sanitary clause of the Bill is Clause 12. This transfers to the County Council the powers of rural authorities relating to the Public Health (Ireland) Act of 1878, the Housing of the Working Classes Act of 1890, the Labourers' (Ireland) Acts of 1883–86, and the Factory and Workshops Act of 1891. For the purposes of this business the county is to be divided into Sanitary Districts, presided over by a Sanitary Committee, consisting of a sufficient number of County and Baronial councillors to represent the cess-payers of the district. These resemble the Districts and District Committees of the Scotch Act. The Sanitary Committees formed as above stated are to be invested with the powers of the rural authorities within their districts, except that they cannot appoint officers or raise money; and are to be entirely under the control of the County Council, which is empowered to secure proper performance of duty on the part of each Sanitary Committee. There is also a power of appeal to the County Council against the Sanitary Committee on the part of the health officer or sanitary inspector of the county. Section 6 of this clause is important, as it gives power (unfortunately, permissive) to the County Council to appoint officers under the Sanitary Acts for any part of the county, duly assigning the area. Their duties and tenure are to be the same as those of the officers of the local district. Finally, Section 10 enacts that if three-fourths of the Irish counties adopt Clause 12, the remaining fourth may, by order in Council, be obliged to do so. Clause 13 gives power to the County Council to enforce the provisions of the Rivers' Pollution Prevention Act (1876), as in the English and Scotch Acts, and to form a Joint Committee as in those Acts. Clause 21 gives power of transference to County Councils of powers of local bodies—e.g., drainage boards. Clause 36 invests the County Council with important borrowing powers for sanitary works and improvements. Clause 42 enacts that the expense of the execution of business transferred from boards of guardians is to be kept separate from the other expenses of the Council, and to be defrayed out of a sanitary rate to be fixed by order of the Local Government Board. This order is to differentiate the rate for "general" and for "special" expenses, as in the English Public Health Act of 1875 (Sec. 229). Clause 50 authorises the formation of a Standing Joint Committee of the County Council and the Baronial Council, and Clause 52 imposes the necessity of the appointment, amongst other officers, of a medical officer of health "for the Sanitary Acts by this Joint Committee." His tenure of office, however, is not so secure as that of the county surveyor, for the latter can be dismissed only "with the concurrence of the Standing Joint Committee," whereas the health officer can be removed at the pleasure of the County Council.

Such are the main sanitary provisions of the proposed Act to extend local government to Ireland. In criticising them we cannot but accord praise to the conception of establishing the superior and the subordinate (or, more accurately, coördinate) bodies at one and the same time. The appointment of a health officer by the Standing Joint Committee of the County and Baronial Councils, under Clause 52, Section 6, is a distinct advance on the provisions in the English and Scotch Acts which make the county health officer's services "available" in the district. But here praise ends. The Bill is far too permissive. The main sanitary change—that of the transference of the powers of rural authorities to the new Councils—is itself to a great extent permissive; so is the appointment of "officers under the Sanitary Acts" by the County Council; and so, too, is the formation of the Standing Joint Committee of the County and Baronies. The appointment of a health officer by the latter is the only obligatory provision of the kind. These defects should be remedied in Committee. Besides these there is a serious omission in not giving the County Council power to make by-laws, which is contained in both the sister Acts. Again, no attempt is made to attract men of special attainments to the public service, by insisting on the possession of a State medicine diploma, as is now necessary in England and Scotland; or to secure them from arbitrary dismissal at the hands of incompetent or apathetic Councils. Further, in the case of there being no joint health officer, but only a county officer, there is no power given to the County Council, on the report of their officer, to make a representation against recalcitrant Baronial Councils to the Local Government Board or the Board of Supervision, as in the English and Scotch Acts respectively.

We trust that our criticisms may bear fruit in the reconsideration by the Government of some of the more important defects and omissions in sanitary administration which we have pointed out, and that before the Bill becomes law they may be corrected in a broad spirit of true statesmanship.

LORD KNUTSFORD has kindly forwarded to us Dr. POUPINEL DE VALENCÉ'S report to the Colonial Office, in which he gives an account of his experiments made

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with tuberculin on five lepers at the Barkly Asylum Public Hospital, Mauritius. Two of these cases can be excluded from consideration because they refused to go on with the treatment, although there had not been any evil effects. There remain therefore only three in which it was thoroughly tried. The treatment for all of them was simultaneously commenced at the beginning of May, 1891. Very little account is given of the lepers themselves before the injections, but photographs before and after the treatment are appended, and on the charts it is stated that they were all well marked, but not far advanced, cases of tuberculated leprosy. The patients were weighed and their urine tested before the injections were commenced. The dose began at half a milligramme, and was increased daily, and in four out of the five no reaction ensued until two milligrammes were reached. In the fifth case reaction followed one milligramme twenty-four hours after injection, when he had severe shiverings for three hours, general pains, and weakness, but no rise of temperature; indeed, in four out of the whole five the rise of temperature was slight as a rule, but in two cases it reached 105° F., on single occasions. As a general result there was some shrinking of the nodules, an improved sense of well being on the part of the patient, an increase of weight, and general improvement. There were no bad symptoms as regards the urine. Three had a miliary papular rash, and two had a vesicular eruption round the umbilicus. Dr. DE VALENCÉ thinks that if carried out in alternation with large doses of chaulmoogra oil, most gratifying results would be obtained.

It must, however, be borne in mind that these experiments were made in May, 1891, and that since then many other observers have recorded their experience, which is unhappily not so favourable as Dr. DE VALENCÉ'S was at the end of his investigations, and it would be desirable to know if the improvement obtained by him was temporary or permanent. D. G. DANIELSSEN treated fourteen lepers in Bergen with tuberculin. Five had anæsthetic leprosy, three had the pure tuberculated form, and six had the mixed or tuberculo-anæsthetic form. The experiments were carried on during four months. The commencing dose was one milligramme, and in some of them as much as 320 milligrammes for a dose was reached. The injections were made daily, unless the reactions were severe, when an interval of several days was allowed. In some of the cases the treatment had to be stopped even when only small doses had been reached, because the eruptions in the tuberculated and in the anæsthetic cases became so intense that the disease was evidently aggravated in the same way as used to be observed when iodine preparations were employed; but no case was fatal. This aggravation receives an explanation in the investigations made by Dr. LOOFT, Dr. DANIELSSEN'S assistant, who examined the blood for bacilli both before and after the injections; and, while he never found any before the injections, he did afterwards in several cases, and as far as could be observed they showed no signs of degenerative changes. It appears, therefore, that the tuberculin acts upon and breaks up the diseased tissue which contains the bacilli, and they thus get freely into the circulation. The general reaction came on usually from four to six or twelve hours after injection—occasionally, however, not till after two or three days; the local reaction occurred later. Drs. BABES and KALINDERO in their cases, however, found the reaction did not occur as a rule until twenty-four hours after injection. Unfortunately the conclusion drawn was that tuberculin aggravated the disease considerably, and, by setting free the bacilli, started fresh foci of disease, and made the whole process more active. As in lupus and phthisis, the patients became tolerant of the tuberculin after a time; but the disease progressed all the same, and fresh symptoms were frequently excited; many also of the old lesions became red and sensitive. In the anæsthetic form the patches enlarged, became redder and more sensitive, and new patches appeared.

In a case reported from a military hospital in Japan of a tuberculated leper the nodules diminished in size, and a certain amount of sensibility returned; but these good effects were only temporary, and the patient was losing ground at the time of the report.

Drs. BABES and KALINDERO of Bucharest treated seven cases. Their report, as far as it went, is fairly favourable, but some of their conclusions are not quite in accord with those of other observers. Thus they say that a rather stronger dose is required to produce a febrile reaction in leprosy than in tuberculosis; they find that the interval before the reaction is also much longer, as already mentioned (this is, perhaps, a question of dose). In other respects, they agree with others in stating that the fever lasts longer and the secondary reactions are more frequent, that cumulative action may be observed if daily injections are given, and that the local reactions may be absent, less marked, or late in development. In nerve leprosy local reaction was only once established, and there the anæsthesia was replaced by hyperæsthesia. This is a different result from that observed in Dr. COLCOTT FOX'S patient, treated by Mr. CHEYNE at King's College Hospital, in whom injections of 0·01 were followed by severe pains in the ulnar nerves, and in the calves and knees, with a temperature of 103° F. After the fourth injection extreme and dangerous collapse followed the reaction, the eruption became more prominent and large, blebs formed on both feet, and there were other unpleasant symptoms, so much smaller doses were subsequently given. All these symptoms occurred in a purely non-tuberculated case of long standing which was almost quiescent, obscure pains at intervals being the only symptoms left; the injections therefore had obviously excited a neuritis and revived the typical macular eruption which had faded away. The ultimate result, months after the cessation of the injections, was slight improvement; the patient asserted that she could open her hand better, that the anæsthesia was decidedly less, and that she herself felt better, had increased in weight, and the pains had not recurred. Curiously enough, Dr. POWELL of Cachar, in India, tried it in three well-marked tuberculated cases with absolutely negative results as regards reaction and everything else, even with doses of twelve milligrammes; while, to prove that the fluid was not at fault, two milligrammes injected into a lupus case produced characteristic local and general reaction. Dr. MORROW and Dr. FOX of New York also met with negative results in one case each, even with 20 milligrammes in Dr. MORROW'S case, except that it revived a

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pruritus which had become quiescent. Dr. GOLDSCHMIDT of Madeira treated five cases—four tuberculated and one non-tuberculated—with the fluid, and always found that doses of one milligramme and upwards caused general and often local reaction. In one case intense and prolonged reaction ensued, followed by blebs and new swellings of skin and mucous membrane, while on the lower limbs absorption of the leprous infiltration was produced. His general conclusion was, on the whole, favourable; but he said that its use required great caution. Mr. CANTLIE of Hong-Kong used it in seven cases, and he also found bacilli in the blood after injection, there having been none there before. According to this observer, when the leprosy is advanced depression instead of elevation of temperature is produced. Dr. ABRAHAM'S case was ultimately neither better nor worse. In Dr. RADCLIFFE CROCKER'S case a single injection of two milligrammes excited an attack of leprous fever, which lasted three weeks. Scores of new tubercles came out all over the body, but under gurjun oil inunctions they all disappeared again, and there was a little less infiltration in some parts. The patient, a tuberculated leper, had previously improved considerably with large doses of chaulmoogra oil, and had had no febrile exacerbation for two years prior to the injection. As an ultimate result he was not really any worse; but three weeks' fever was a long price to pay for a single injection, and he did not care to have it repeated.

The above cases do not exhaust the list of experiments, but they are sufficient to show that tuberculin is very uncertain in its immediate effects on leprosy; that while in some it produces no reaction or effect at all, in others, even with small doses, considerable and prolonged reaction may ensue; and that therefore not more than one milligramme should be given at first, and cautiously increased according to the patient's toleration of the fluid. Secondly, that it revives the activity of cases which have been quiescent for a long time, producing neuritis, bringing fading rashes into prominence, exciting bullæ, and setting free the bacilli; these may get into the circulation and produce fresh cutaneous and other lesions. In the ultimate effect, while some patients have shown improvement that has not been proved to be permanent, and in some was certainly only temporary, on the whole the position may be summed up by stating that, as far as the results hitherto obtained are concerned, the improvement which may result is too uncertain, too limited in character and time, and purchased at too great a risk of aggravation of the disease by the dissemination of new foci, for it to be recommended as a treatment for leprosy; and although some of Dr. HUNTER'S or similar modifications of tuberculin might lessen the immediate disagreeable effects, the fact of its action being to set free bacilli rather than to destroy them should make us seek in another direction for remedial agents for the relief of victims of this much-dreaded disease.

FOR a long time the thyroid gland was a *noli me tangere* for surgeons, and its removal or free surgical treatment was regarded as a very hazardous procedure. Hæmorrhage was the dreaded complication, and the very free vascular supply to the organ, as well as its proximity to large and important arteries and veins, sufficiently explained the surgeon's dread of incising or excising it. For some years, however, patient and careful attempts have been made to deal with the various diseases of this gland in accordance with accepted surgical principles. It has been excised hundreds of times, division of the isthmus has been freely practised, cysts in its substance have been incised and drained, and solid growths have been enucleated from the healthy glandular tissue. Where total excision of the thyroid was largely practised evidence was soon forthcoming to show that such an operation was liable to be followed by very grave constitutional disturbance. J. L. REVERDIN was the first to call attention to this subject in 1882; but it was not until the appearance of KOCHER'S well-known paper in 1883 that the matter attracted the notice it deserved at the hands of the profession generally. Further investigation, experimental and clinical, has only corroborated REVERDIN'S and KOCHER'S statements. Total extirpation of the thyroid gland has therefore been once more placed in the list of operations to be performed only under very special circumstances, and where no other means of relief is available. Simple division of the isthmus, either by the knife or cautery, has been often successful in relieving compression of the trachea due to bronchocele, and has in some cases been followed by wasting of the enlarged gland. This result cannot, however, be relied upon, and for that reason the procedure is not wholly satisfactory. Injection has long been practised for cystic bronchocele, and the late MORELL MACKENZIE perfected this operation. He used a solution of perchloride of iron, introduced through a special cannula, and retained until acute suppuration had been set up. This inflammation is a serious matter, as is evidenced by the rise of temperature to 103° and even more. This treatment has been largely successful, but it has two obvious drawbacks: it makes the patient very ill, at any rate for a time, and the cyst may take some time to close. More recently these cysts have been incised and drained, the cyst wall being sutured to the skin. Two arguments have been urged against this method: the danger of hæmorrhage from the interior of the cyst, and the fact that greater scarring of the neck is involved than in the treatment by injection. In the majority of cases there is no notable hæmorrhage, but it is well known that the vessels running in the wall of the cysts may be of enormous size and have very thin walls, and then, from the sudden relief of tension in the cyst, is liable to be followed by very abundant bleeding. This can always be arrested by carefully plugging the cyst with strips of aseptic gauze or lint. If the operation is performed with antiseptic precautions and a clean dissection made down to the cyst, the sutures being placed neatly afterwards, only a very fine linear scar, which ultimately becomes almost imperceptible, results.

For the treatment of solid growths of the thyroid gland enucleation is rapidly taking the place of extirpation. So long ago as 1849 PORTA pointed out that distinct tumours occurred in the thyroid gland, which, although embedded in the tissue of the gland, could yet be shelled out from it, and he recorded a case in which he had followed this method. SOCIN of Bâle has practised the treatment by enucleation, and has brought it prominently

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before the profession. Of late this plan of treatment has steadily gained in favour, and its applicability has been found greater than was at first thought possible. In the current number of the *Revue de Chirurgie*, A. REVERDIN records his last fourteen operations for goitre, and in no less than seven he resorted to enucleation of the growth in preference to partial excision of the gland. Of the seven earlier cases, only one was treated by enucleation, but of the last seven no less than six were submitted to this process. This was not due to a change in the nature of the cases, but to REVERDIN'S growing preference for and confidence in enucleation as he became more familiar with it. While recording these cases, he discusses the details of the operation. He recommends the exposure of the thyroid gland by a single straight or oblique incision extending the entire length of the tumour. If it is found that more room is needed, other incisions can be made later; but, as a rule, a linear incision is sufficient, and is much to be preferred to a flap wound of any kind. The muscles over the tumour must be cut, and the ends carefully raised and turned aside. When the thyroid gland is exposed the outer surface is often crossed by large and thin-walled vessels, and some of these will need to be carefully divided between two ligatures in order to expose a surface large enough to admit of the removal of the tumour. These vessels are so tender that if not handled very gently with forceps they tear and give rise to troublesome hæmorrhage. The tumour is then cut down upon by a series of careful incisions carried through the gland tissue over it. The exterior of the capsule of the growth can be distinguished from the rest of the gland. With his finger, if possible, the surgeon quickly isolates and then removes the tumour. This should be done as quickly as possible, and the surgeon will derive great help from a good assistant. Hæmorrhage may be very free, and the bleeding vessels must be seized with forceps and carefully tied, while smaller vessels may be controlled by sponge pressure. The divided muscles must be carefully stitched together, and the edges of the skin incision brought into apposition, after making due provision for the drainage of the cavity left. The patients often make a very rapid recovery from this operation. REVERDIN allows them to get up within a few days, and does not think it so important to keep the head at rest in the horizontal position as to gain the advantages in respiration and circulation that the upright position affords. When repeated injections of iodine or of similar irritants have been made into the tumour, enucleation may be impossible owing to the inflammatory process which the irritant excites, causing adhesion of the tumour to the surrounding glandular tissue. In such cases partial extirpation of the thyroid gland is the only operative means available.

THE Wandsworth District Board of Works has resolved to recommend the Local Government Board to insert a clause in the by-laws of the Public Health (London) Act to compel the occupiers of houses to cleanse their water cisterns once every six months, and to compel the owner of the house to place the cistern in such a position as would be easily accessible to the tenant.

Annotations.

"Ne quid nimis."

A CORONER ON UNQUALIFIED ASSISTANTS.

A VERY sad case is reported from Luton—the death of a young unmarried woman in lodgings after giving birth prematurely to a child. According to the evidence, on Wednesday, March 16th, she was not very well, and did not get up. Between two and three in the afternoon she said something which resulted in her landlady finding indications of the birth of an infant. On the Thursday she got up and came downstairs. In the night she seemed ill, with pain in her head. On the Friday evening she began to be delirious and wandering. The landlady then suggested the attendance of a medical man, and the patient expressed a preference for one from Dunstable, "Dr. Beart," whom, it transpired, she had consulted on several previous occasions. The landlady went to see "Dr. Beart of Dunstable," and explained what had happened, and he gave her a bottle of medicine, and told her if the patient were not better on the Saturday to let him know, and he would come and see her. She was worse on the Saturday, and the landlady sent a note to "Dr. Beart," and he came over in the evening and gave a prescription. After this medicine the raving ceased, and she slept a good deal in a semi-conscious way. On the Sunday a neighbour said something which induced the landlady to send for Dr. MacArthur, who found the patient in a dying condition, and she did die in an hour. At the inquest "Dr. Beart" said he was assistant to Mr. Henslowe, physician and surgeon, Dunstaple, and that he was not registered as a medical practitioner. He had resided at Dunstable for twenty-five years, and was formerly assistant to Dr. Hicks. When the jurors began to investigate the qualifications of "Dr. Beart," the coroner said they were going into matters outside the duties of coroners. We should not have thought so. The coroner then said: "They then came to the question whether she was properly treated by Mr. Beart. Well, he had known Mr. Beart for several years; he was a man who had had considerable experience, and he believed experience in midwifery cases. He in his evidence had stated that he was acting as assistant to Dr. Henslowe at Dunstable. "You can understand, gentlemen," remarked the coroner, "that I can approach this question without the slightest bias or the slightest professional feeling in any way whatever. Now it is a common, a very common, case, where a medical gentleman is called for him to send his assistant, and in nine cases out of ten the assistant is not what we call a qualified registered practitioner. He simply goes and attends the patients, and tells his principal on his return what he has done, and you may generally assume that he has done what is correct, for he would not be employed as assistant to a medical man unless he had had a considerable amount of experience as a dispenser and in other ways." He added that he thought the young woman seemed, as far as he could judge, to have had all the attention that she could have from the time of her confinement, and he submitted that she died a natural death. He thought it totally unnecessary for him to order a post-mortem examination, &c. Does the coroner know that the employment of unqualified assistants, as in this case, at a distance from his principal, who has never himself seen the case, is regarded by other coroners with the greatest dissatisfaction? It would be wrong to censure Mr. Henslowe on the evidence of so weak an argument as that used by the coroner; but his connexion with "Dr. Beart," and his non-appearance from first to last in a case so grave, ostensibly under the charge of "his assistant,"

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LORD WANTAGE'S COMMITTEE.

THE evidence, which is very voluminous, taken before the committee appointed by the Secretary of State for War to inquire into the terms and conditions of service in the army, has just been issued in the form of a large Blue-book. It appears to bear out very much what we have already said on the subject. It is not so much from the evidence of generals and other officers of high rank as from that given by the non-commissioned officers and privates that the most valuable information is to be obtained as to the requirements of the rank and file. They are, after all, the persons principally concerned. The root of the matter with them is briefly this: that they want a clear shilling a day and free rations, and had enlisted under the impression that they would get this, but do not. We are glad to notice that the subject of unnecessary night duties has not escaped attention. Their prejudicial effect on health is generally admitted, and there is really no good object attained by multiplying sentries in various directions, as is the case at present. Now that the Duke of Connaught has called attention to the matter in connexion with the Guards, perhaps something will be done. It has always seemed to us that there is too much separation between the civil and military classes; they do not know one another enough—and are not sufficiently amalgamated. A good deal of the popular prejudice against the army is simply the result of ignorance. There is no reason why military bands should not play inside barrack-squares and the general public be encouraged to walk about the grounds and listen to the music. The old spirit of an objectionable kind of militarism may still remain in some continental nations, but it does not exist and has no force in this country. The army is a voluntary one, and is maintained for the good and defence of the nation. The greater the social intercourse between the civil and military classes, the greater will be the amount of sympathy, friendliness, and mutual respect between them.

COMPETITIVE DIETARIES.

THE great Roman general, Corbulo, we are informed by Tacitus, was in his Armenian campaign reduced to extremities, his army having suffered, not indeed from losses in battle, but from being driven to satisfy its hunger from the flesh of sheep. To the average Briton into whose dietetic cult the mutton-chop enters so largely, this announcement must seem inexplicable; so much so that he might be excused for thinking lightly of the stamina or pluck of his forefathers who allowed themselves to be conquered by soldiery for whose stomachs the flesh of sheep was too strong. The fact is, however, as Tacitus has stated it; and we know from other authorities that animal food as a constant element in the Roman soldiers' fare was found hurtful to his health and efficiency. Cæsar, in his Gallic war, tells the same story: "Ut complures dies milites frumento caruerint et pecore extremam famem sustentarent" (how for several days his troops did without corn-meal and sustained the extreme of hunger on mutton). Corn-meal was the grand necessary of life to those legionaries who, led by Cæsar, subdued the world, and who counted themselves starved, and were apt to mutiny if reduced to the "famine fare" of animal food. Even British troops have been known to suffer from an exclusive meat diet, as indeed we found to our cost in the Zulu campaign of 1879; while the preference of the Roman soldiery for vegetable food has its justification in the experience of the Russian army, and still more of the German one in 1870, which carried that memorable campaign to its triumphant close on the *Erbswurst* (pea-sausage flavoured with a little bacon). Without for a moment lending countenance to the vegetarian who would cut off butcher's meat from human consumption, we may concede to him that an animal diet, unbalanced by a due proportion of the "kindly fruits of the earth," is distinctly prejudicial to the consumer, particularly to the resident in cities, whose opportunities of open air exercise are few and far between. We are still in want of such a series of experiments on the nutrient and sustaining values of foods, vegetable and animal, as the late Professor Parkes of Netley instituted with such conclusive results on the various kinds of drink, from water up to spirits. Till statistics of equal comprehensiveness and accuracy are furnished us we must be content to remain imperfectly informed as to the competing claims of the two great factors of solid alimentation. In the half light we possess on the subject we must expect partisanship on either side—the vegetarian insisting on the exclusive virtues of his special diet and his carnivorous antagonist appealing to physiology and personal experience in favour of butcher's meat. "Competitive dietaries" are thus forced on a bewildered public, and the physician is often called in to repair the damage done to themselves by those who, on either side, have had too much "the courage of their convictions." That men and women should be trained to become "the intelligent custodians of their own health," as Sir James Coxe so well expressed it, must always remain a pious opinion till science and experience have authoritatively pronounced themselves on the due balance—not antagonism—between the animal and vegetable factors of daily food.

EPILEPTIC COLONIES.

IN the current number of the *Journal of Mental Science* Dr. C. Theodore Ewart discusses in an interesting manner the ever-present problem, What is to be done with epileptics? The question is discussed principally with reference to the working of epileptic colonies, in the establishment of which this country has taken so far scarcely any practical steps and Dr. Ewart's paper is an important contribution towards the solution of the problem. After describing the various efforts which have been made in other countries to grapple with this subject, he summarises the main principles which he thinks should be observed in the organisation of such a colony. The first essential is land, to consist of at least 500 acres of farm and woodland, well adapted to agricultural and horticultural purposes, within easy access of a large city, which would naturally supply a market for the produce. Then there must be small buildings, arranged in separate divisions for the male and female patients, each of the divisions to make provision in separate cottages for the demented, the convalescents, the school children, the workers, and the private patients of the higher classes. Medical care of each patient must be provided for, and there must be educational provision for epileptic children, and workshops, farm buildings, dairy, &c., for the adults, as well as a special laboratory for the study of epilepsy by a skilled pathologist. The two arguments advanced against the establishment of two types of asylums are that there would be a sameness of occupation, a want of hope, and an absence of object, calculated to drive a sane man into insanity in a short time. To this argument Dr. Ewart replies that in such a colony as is proposed there would be neither lack of objects nor absence of hope. The second argument touches the financial question, for it might be said that the drafting off of chronic cases would necessitate the introduction of a larger number of sane workmen and workwomen. To this Dr. Ewart's reply is that the welfare of the patients must be the first duty of a committee,

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and he protests against the idea that the chronic cases are incurable. Even if they are, that is no reason why they should not be made useful, as such a course would give them an interest in life which, to say the least, would tend to ameliorate their condition. Besides, by separating the acute from the chronic, each class is placed in better circumstances for rapid recovery; the time of lodgment would thus be shorter, and the expense correspondingly lessened. This great problem is one which must be faced; it is obtruding itself more and more every day, and if by the means proposed we can in any way lessen the misery and brighten the lives of many of our fellow-men and women, while we protect the helplessness of childhood, and develop it into something better and more useful than under present conditions it has the chance of attaining, it is our duty, and it ought to be our pleasure, to make the attempt, even if it may entail at the commencement some sacrifices. But even from the economic point of view such a course will in the end bring its own reward.

THE LONDON COUNTY COUNCIL AND LODGING-HOUSES.

WHETHER we regard it from a social or a sanitary standpoint, the question of the licensing and regulation of common lodging-houses is and must be a matter of increasing public interest. Their growth is a necessary consequence of the influx into towns of a numerous working population, and their cleanly and otherwise efficient management is of course essential to the welfare of the whole community. We need not feel surprised, therefore, that the London County Council, as a responsible civic body fresh from its promises to the electorate, has thus early devoted a share of its attention to this question. At present the control of lodging-houses is vested in the hands of the police, an arrangement which is connected with obvious advantages of supervision. This control the Council would prefer to have transferred to itself, and it was in order to further its views on the subject that a deputation of its members recently waited upon the Home Secretary. The interview, though, as might have been expected, not decisive of any practical issue, is noteworthy as roughly indicating the grounds of a future settlement. The right hon. gentleman, we gather, would have no objection on sanitary grounds to the transference of the powers above mentioned. He freely admitted the excellence of the administrative machinery available for this department of the Council's work. At the same time, however, he recognised the necessity of reserving to the police authorities the practically unlimited power at present possessed by them of entry into *lodging*-houses. Little more, if anything, remains to be added to these arguments. The social and sanitary interest of the Council in establishments of this class is in no way incompatible in its exercise with that of the police, which is primarily and mainly judicial. We know of no reason why each of these authorities, as being most efficient in its proper sphere, should not exert its legitimate influence within that sphere in parallel association with the other.

NITROGENOUS ASSIMILATION.

THE effect of various forms of treatment on the assimilation of nitrogen has been studied by some of the recent candidates for the M.D. degree of the St. Petersburg Medico-Chirurgical Academy. Dr. Yaroff found that by regularly washing out the stomach the assimilation of the nitrogenous principles of food was increased, and where there was chronic gastric catarrh with constipation, these conditions were cured. He remarks, however, that for this result to be obtained it is essential that the patient should be accustomed to the use of the œsophageal tube, so that it can be introduced without difficulty. Tables are given showing the weight of different kinds of food, and of the nitrogen contained in each, together with the amount of fæces and urine, and their nitrogen, from which the percentage assimilated and metabolised is deduced. The assimilation was always higher by 2 or 3 per cent. during the week the washing-out was carried on than during the succeeding week, the metabolism on the other hand being generally lower—once as much as 20 per cent.—though occasionally slightly higher. Dr. Velichkin found that while hot-air baths were being taken the assimilation of nitrogen always improved, the average increase being over 2 per cent., and in most of the cases some increase on the normal amount was observed for several days after the baths had been discontinued. The baths likewise increased the nitrogenous metabolism on an average about 4 per cent. Dr. Sevastyanoff administered warm salt baths at 95° F. to phthisical patients, and found that the assimilation of nitrogen was increased, not only while the baths were being given, but also after they had been discontinued. As to the nitrogenous metabolism, it was increased quantitatively both during and after the baths, but, qualitatively considered, the change was lessened. Dr. Yavein, during observations on healthy persons, found that large doses of bicarbonate of potash somewhat diminished the nitrogen assimilated, citrate of potash having no effect. Both these substances, when given in considerable quantity, slightly increased the nitrogenous metabolism. It was noticed that while either of them was being taken the weight of the body increased, though it subsequently fell. This increase appeared to be due to an accumulation of water in the system, which was afterwards lost by increased secretion.

A CURIOUS SITUATION FOR A GOLD STOPPING.

AT a recent meeting of the Odontological Society, Mr. Newland-Pedley showed a dry specimen of sequestrum from the buccal surface of the alveolar process, in which a gold filling had been inserted. The patient presented herself complaining of a little hole in her gum, from which there was an offensive discharge. She said there had been a gumboil over the root of an upper back tooth which had led to the existing condition. The patient had consulted her dentist about a disagreeable discharge, and about fifteen months ago he inserted a gold filling in the little hole in the gum. On examination it was found that a gold filling was inserted in necrosed bone, and with the aid of a little cocaine a small sequestrum was removed with the filling *in situ*. It appears that the dentist had drilled into the alveolus between the two buccal roots. Was the necrosis due to this operation or of prior existence?

THE MONGOLIAN EYE.

IN the *Boston Medical and Surgical Journal* of March 3rd, 1892, is an abstract of a paper by a Japanese medical man published in the *Sei-I-Kwai Medical Journal* of Dec. 26th, 1891. This observer has studied in detail the differences between the characteristic eye of the Mongolian nations and of the Caucasian race. The difference between the two is caused neither by the size of the eyeball nor the colour of the iris, which is the same in both, but results from the shape of the eyelids. The epicanthus, a fold of the skin covering the inner canthus, is rare in adult white persons, but exists physiologically among the Japanese, so that it is sometimes called the Mongolian fold. In the majority of cases this fold runs obliquely inwards and downwards from the upper lid, so that the inner canthus is not round, as in white people, but sharp. When the fold is large it spreads to the inner part of the

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lower lid, in which case the upper lid does not cross the cornea horizontally, but obliquely, giving the peculiar expression to the eye often met with in Japanese. Another peculiarity of the upper lid in Mongolians is the lack of development of the orbital furrow, the groove below the eyebrows. The skin covering the upper lid is very loose, so that when the cartilage is raised the skin is thrown into a transverse fold. When this fold is well developed it droops slightly over the margin of the lid. This interferes with the eyelashes, directing them downwards instead of forwards. In Japanese the cilia are short and straight. On the lower lid they are sometimes so badly developed and so few in number that they appear at first to be absent. When well developed they are sometimes bent inwards by the peculiar formation of the upper lid, and may seriously irritate the cornea. Except for this there is no great difference in the lower lid of Mongolians and Europeans. The margin is generally more curved in white people, so that there is often a portion of the sclerotic exposed between the lid and the cornea, a peculiarity, the author remarks, which makes "their eyes looking apparently upwards generally." As the skin of the lid is less firmly connected to the subjacent tissues in the Japanese, entropion is more common, but ectropion less common, among them than among Europeans.

SURGEON CAPTAIN G. E. HARE, D.S.O.

We are glad to congratulate Surgeon Captain G. E. Hare, of the Medical Staff, on his being appointed Companion of the Distinguished Service Order, in recognition of his services during the operations against the Kachins and in the Wuntho District, Upper Burmah. It can never be said that officers of the Medical Staff are wanting in gallantry when the opportunity occurs, and when calls are made upon their sense of duty under the circumstances in which they frequently find themselves in the field.

EFFECTS OF CHLOROFORM INHALATION ON THE BLOOD AND URINE.

Dr. Sokolovski has published some observations on the hæmometrical and morphological changes in the blood occasioned by the inhalation of chloroform. He examined specially nineteen cases, which he divided into three categories, according as there was no blood lost, an appreciable quantity of blood lost, or the narcosis was of long duration; he observed the blood at regular intervals. He found that during the first few hours after the chloroformisation the actual number of young or immature white corpuscles was diminished, though not to a very marked degree—e.g., in one case their number per cubic millimetre fell from 1743 to 1300; the number of mature corpuscles, on the other hand, always increased. The increased number of white corpuscles during the early period appeared to be due to an increase in the multinuclear hypermature "neutrophil" elements, the number of which in the case above referred to increased from 5395 to 14,805 per cubic millimetre, so that the morphological metamorphosis of the blood increases in the sense of a change of elements to the latest stage of their existence. Later on, from the second day, the actual number of white corpuscles begins to diminish, and goes on diminishing, and may continue to do so for as long as ten days, until it has fallen to normal. During the whole of this period not only the actual number of immature and even of mature white corpuscles, but their number as compared with the hypermature, increases, while the number of the latter diminishes, falling ultimately sometimes below the normal for a time. This chloroform leucocytosis or lymphocytosis may be analogous to that due to certain other drugs as camphor, turpentine, or cocaine, or to that occurring in certain febrile conditions—relapsing fever or pneumonia. The temporary increase of the immature and mature mono-nucleated elements may be, according to Dr. Sokolovski, regarded as a true reaction on the part of the lymphatic and hæmatopoietic organs, due to the stimulation produced by the diminished number circulating during the chloroform narcosis. Another Russian observer, Dr. Sokoloff, who investigated the effect of chloroform inhalation in both man and animals, found that in most cases a minute amount of albuminuria occurred, which, however, soon disappeared. In some of the human subjects there was also a slight amount of peptone in the urine.

THE REPORT OF THE VACCINATION COMMISSION.

It is understood that in their forthcoming report the Commissioners will recommend the abrogation of cumulative penalties on persons charged with neglecting to have their children vaccinated. Attention will also be drawn to a point frequently overlooked—namely, that magistrates have a discretionary power in regard to the imposition of fines. In the Act of 1867, 30–31 Vic., cap. 84, it is provided that a person failing to comply with the regulations "shall be liable to a penalty not exceeding 20*s.*"; and in the amending Act of 1871, 34–35 Vic., cap. 98, the same phraseology is used.

THE ISLINGTON MEDICAL OFFICERSHIP OF HEALTH.

The Local Government Board have declined to sanction the appointment by the Islington Vestry of Dr. Wynn Westcott as temporary medical officer of health for Islington for six months in succession to Dr. Meymott Tidy, as being contrary to the by-laws of the vestry and without advertisement. It would have been a serious blow to the purity of local government if the Board had done otherwise. We shall not dwell on an incident so painful as this is. We can only rejoice that the local profession and the local press have together fought for the observance of the usual and obvious rules by which fair play and efficiency are secured in elections of responsible officers.

OCCUPATION FOR THE FEEBLE-MINDED.

From time to time we are reminded by its effects upon social or political conditions that the thinking power of Birmingham is not bounded in its applications even by the wide circle of its varied industries. Art and science have been appreciably indebted to its influence. It is, however, especially in the guidance and reform of civic and social usages that we are accustomed to trace the effects of this healthily active leaven. By way of illustration, we may mention a recent project which owes its rise to the kind originality of a ladies' committee. There exists in the hardware capital, as in other cities, a residuum of mentally weak but not incapable persons. Overmatched intellectually by the average man or woman, they have no definite position or sphere of usefulness among their neighbours, and are consequently as a rule dependent either on friendly maintenance or on parish relief. The committee already mentioned has taken account of these poor people, or more strictly, of the women among them, and has organised for them a system of profitable employment. This consists in the establishment of a laundry with adjacent cottage homes. The household and working expenses of the institution are to be defrayed partly by the earnings of the inmates and partly by subscriptions paid by their relatives or by parochial guardians. In this way their intellectual talent, however meagre, will be utilised, and it is at least probable that an effectual check will be placed upon the reproduction by such

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persons of a progeny as lacking in parental care as in mental capacity. There is also a very fair prospect that the mere process of employment will do something to awaken and strengthen the dull faculties of these semi-imbeciles. Every true friend of his species will therefore wish well to the Birmingham experiment, which might even be extended to meet the case of half-witted men, and which, if successful, will certainly not fail to be repeated in the social usage of other communities.

HEALTH OF THE PRINCE OF WALES.

FROM time to time there appear in the lay press certain statements regarding the health of the members of the Royal Family, which the merest smattering of knowledge of anatomy and physiology would show to be unfounded. Thus, referring to the health of the Prince of Wales, it is gravely stated in one of our contemporaries that "several months ago much anxiety was caused by the presence of a clot of blood in one of the Prince's legs; and this anxiety was intensified by this clot travelling from one limb to the other." By what circuitous route the journey of the clot was performed, and how frequently the passage from the one side of the body to the other was undertaken, are wisely left without remark. The newspaper in question prefers to exercise itself with "annoyances and troubles which have recently fallen to his share." Here undoubtedly it is on safer ground. The Prince of Wales has suffered much from the calamity which recently befell the nation, and this has led to depression and to some weakness. Cessation from the very active life which he is accustomed to live has also naturally exercised an unfavourable effect on the Prince's general health. Since, however, he has been going about from place to place in the south of France with Prince George he has improved in general health and spirits. In fact, the most recent information from the south of France concerning the Heir Apparent is altogether reassuring, and he is said to be in better health now than he has been at any period since the death of the Duke of Clarence and Avondale. The statement about the "travelling clot" seems to be based upon a condition which arose during the now historical illness of the Prince of Wales. At that time he had an embolism, and that has caused the superficial veins to enlarge. Now and again he suffers from a slight phlebitis, which causes him some pain. Prince George is also better than when he left, though he still suffers from wakefulness and neuralgia. The Princess of Wales, who has suffered very much from shock and from natural grief, has in some degree recovered her spirits, and Princess Maud has recovered from her synovitis.

REVULSANTS AND THEIR EFFICACY.

DR. L. DEVOTO, in an interesting contribution to the *Gazzetta degli Ospetali*, shares Dr. Besson's conclusions as to the therapeutic value of "intense and rapid revulsion"—sinapisms, that is to say, in contradistinction to vesicants which represent the group of revulsants "permanent and slow." The former he finds useful in acute disease by their power of lowering the temperature, of slowing the heart's action, and of producing a general vascular dilatation. In chronic disease where is encountered a falling off of nutrition, "cutaneous excitation has the power of determining an acceleration of organic combustion," besides exercising a calmative effect, more or less enduring, more or less considerable, on the phenomenon of pain. In syncope, moreover, they re-establish pressure and arouse the cardiac function. As to the slow and feeble revulsion, of which the vesicant is nowadays almost the sole representative, Dr. Devoto's experience harmonises with that of Dr. Besson, for whom vesicants have but one indication—that of inducing anæmia of the subjacent tissue and relieving pain. In pneumonia their use is invariably negative or worse. They have no power over the pulmonary lesions or over its morbid symptoms. "They augment the hyperæmia, they favour the dyspnœa and hypostasis, they predispose to asphyxia, and while suppressing, it is true, the pain at a given point, they reproduce it at another." Not less useless has he found them in pleurisy, while in diabetes mellitus, he considers, they are absolutely contraindicated, equally so in aged subjects, in children, and, generally speaking, in all maladies the characteristic note of which is failure or feebleness of the powers.

THE ELEVENTH CONGRESS OF INTERNAL MEDICINE.

THE meeting of the eleventh Congress of Internal Medicine will take place at Leipzig under the presidency of Dr. Curschmann, from April 20th to the 23rd. The programme contains the names of many authorities of the highest order, and the subjects to be under discussion will be of much interest. Thus, Birch-Hirschfeld of Leipzig, and Ehrlich of Berlin, will read a paper on "Obscure Anæmic Conditions." Rosenstein (Leiden), one on "Chronic Inflammation of the Liver." Emmerich (Munich) will discuss the cause of immunity from infectious diseases, and Goltz (Strassburg) will give the results of observations made by himself and Ewald on the excision of large portions of the spinal cord in animals. Among the more eminent medical men who will take part in the Congress are Schott (Nauheim), Fürbringer (Berlin), Minkowski (Strassburg), Ebstein (Göttingen), Adamkiewicz (Krakau), Finkler (Bonn), Israel (Berlin), Klebs (Berlin), Buchner (Munich), Von Ziemssen (Munich), Löffler (Greifswald), Petersen (Copenhagen), and Unverricht (Dorpat). Paschmann (Vienna) will contribute a paper on "Influenza and its Relation to Dengue." Cornet (Berlin) will treat of Tuberculosis. Congress tickets can be obtained from Dr. Krehl, 31, Thalstrasse, Leipzig, for 15 marks, which will entitle to a copy of the Transactions. An exhibition of medical apparatus, instruments, and preparations will be held in connexion with the Congress in the theatre of the Crystal Palace.

RED CROSS CONGRESS IN ROME.

AN Italian correspondent writes: "I announced some weeks ago the international *festa* of the Red Cross in Rome to which representatives from all the signatory powers have been invited. The programme of the proceedings is now before me, and if the weather maintains the loveliness that usually characterises the month of April in central Italy, no material element will be wanting to success. On the evening of Wednesday, the 20th, the 'Congressisti' will be received in the Sala Umberto Primo, where the official presentations will follow. Next day, at 2 P.M., the inauguration of the International Congress will take place in the *salone* of the Palazzo dei Conservatori in the Capitol. The opening address will then be delivered by the president, Count Gian Luca della Somaglia, Senator of the Kingdom. To this a discourse in reply will be made by a delegat of the different foreign powers represented. On Sunday, the 24th, the King and Queen will entertain the congress at a banquet in the Quirinal Palace, and on the following evening there will be a 'serata di gala' (evening entertainment) at the Costanzi. Tuesday, the 26th, will be a very attractive day, on the evening of which there will be a grand reception of the 'Congressisti' in the galleries of the Capitoline Museum, illuminated for the occasion by flambeaux distributed among the *chefs-d'œuvre* of statuary standing out from a background of evergreens. The hosts

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SOURCES OF SYPHILITIC INFECTION.

DR. RASSLER, in his essay for the M.D. of the University of Kiel, makes a valuable contribution to the literature of syphilitic disease. The *Archiv für Dermatologie und Syphilis* states that Dr. Rassler undertook the labour of analysing 630 cases of syphilis treated in the medical clinic with the object of ascertaining the number arising from extra-genital infection. He found thirty-four such cases, comprising twenty-three of the lips, one of the tongue, two of the mucous membrane of the mouth, and three of the mamma. In three instances the primary sore occurred on the genital organs without connexion having taken place, and in the remaining two it was impossible to indicate the locality. The result of these investigations shows that 5 per cent. of all cases of syphilis are due to extra-genital infection. According to other authorities, the proportion varies between 1 and 10 per cent., except in certain parts of Russia, where the proportion is said to reach as high as 80 or 90 per cent.

THE CENSURE OF A WORKHOUSE MEDICAL OFFICER BY A JURY.

SOME time since we had occasion to notice the censure of the medical officer of a workhouse in the East-end on very insufficient ground by a jury for alleged inadequate attention to a dying patient. We expressed the opinion that the Local Government Board would ascertain the merits of the case, and see that its servants were fairly judged. This hope has been realised. The Board did not indeed make an inquiry, having found that there was no tittle of evidence against the medical officer, and, that being so, there was no ground for an inquiry as asked for by the board of guardians. The case affords another instance of the ease with which some boards of guardians and juries adopt a tone of censure towards medical men. It is gratifying to know that there is a court of appeal to which medical officers who are conscious of doing their duty can confidently look for fair judgment. It would be still more gratifying to be able to believe that guardians and juries will take a more reasonable view of the services of medical officers.

PARSIMONY OF PAROCHIAL AUTHORITIES ABROAD.

PARISH DOCTORS in all countries complain of microscopic remuneration for what in some cases is macroscopic labour. The Spanish parochial medical officers have recently been agitating more or less publicly for a better recognition of their services. The Belgian *médecin des pauvres*, too, does not seem to hold a very enviable position, if we may judge from a complaint that has just been published in *Le Scalpel*. From this it appears that the authorities of a certain manufacturing town containing a population of 8000, including 5000 working people, have offered the reduced amount of 1800 francs annually for attendance on the poor, including medicines and confinements. Hitherto the work has been divided between two local practitioners, who, although threatened with a public advertisement for a stranger, have agreed to decline the post. The authorities have carried out their threat, and advertised what at first sight seems a fairly attractive appointment for a young practitioner wishing to start in practice, yielding about five francs per diem; but for this an average of twenty-five visits is required, including, it must be remembered, confinements and medicines, which last cannot be bought, we believe, at wholesale druggist's prices, but must be obtained through a pharmaciet. The "twopence gross earnings per visit" is really a ridiculous sum to offer; and it can only be hoped that no Belgian medical man, however young and inexperienced, will come forward as a candidate.

PHARMACY ACT PROSECUTIONS.

THE reality of the powers conferred under the Pharmacy Acts has lately received a very practical demonstration in Glasgow. In a number of cases prosecutions have been instituted at the instance of the Registrar under the Pharmacy Acts, Mr. Richard Bremridge; in all cases the offence consisted in the sale of poisons by a person who was not a duly registered chemist. No one can complain that the poisons were not fairly selected. They consisted of oxalic acid, red precipitate, chloroform, ergot of rye, tincture of opium, and opium. The fines imposed were heavy, being the full penalty in most cases, together with costs on a high scale. Practically there was no valid defence in any of the cases, although it seemed that there was an erroneous notion that if the shop was visited daily by a qualified man the Act had not been infringed. In one case it appeared that the respondent attended medical classes in Glasgow during the day, that his sister kept the shop, and that a doctor visited it three times a day and remained an hour each time. The real owner of the shop was the respondent's brother, who was a musician. A few more such prosecutions, carried to a successful issue, would do much to safeguard the public against the dangers of the sale of poisons by unqualified persons.

THE COSTLINESS OF FALSE CERTIFICATES OF DEATH.

WE noticed a short time since an inquest on the body of Susannah Elizabeth Walker of Holloway. The case has been further elucidated at the North London Police-court, before Mr. Haden Corser. On Saturday last Mr. David Hyman Dyte, of Derby-street, King's-cross, and Pooles'-park, Holloway, was summoned for issuing a false certificate of death in contravention of the Births and Deaths Registration Act, 1874. And Henry Smythe, his unqualified assistant, was summoned for using the said certificate, well knowing it to be untrue. Mr. Charles Townley, superintendent registrar for the parish of St. Mary, Islington, prosecuted for the Registrar-General. The allegations were that the poor at a provident dispensary at 43, Pooles'-park were seen sometimes by a lady and sometimes by Mr. Smythe, and if a death occurred, Mr. Dyte signed the certificate without having previously seen the case. Mr. Townley had four such cases, but only pressed the present one. Mr. Dyte, through his barrister, Mr. Lyon, admitted the offence, but excused himself in this case on the score of illness. Mr. Lyon did not strengthen his case by showing how Mr. Dyte, though not seeing dispensary patients, saw the notes of them by his unqualified assistant. Dr. Charles R. Drysdale testified to Mr. Dyte's professional and general character and great ability. This did not alter the opinion of the judge that the highest penalty should be inflicted—a fine of £10 or a month's imprisonment, and £1 13*s.* 6*d.* costs.

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Mr. Smythe at first pleaded not guilty, and denied having seen the certificate. But on being pressed he begged to withdraw the plea of not guilty. Thereupon a medical practitioner of Forest-gate, spoke of more than twenty years' knowledge of him as apprentice and assistant. He considered Mr. Smythe more competent than many qualified medical practitioners. Such testimonials are in very questionable taste, and they have nothing to do with the question of two persons, one qualified and the other unqualified, combining to give a false certificate and to conduct an essentially false practice. There is a certain aggravation in men who ought to know better doing such things. Mr. Corser fined Mr. Smythe £5, with the alternative of fourteen days' imprisonment, and £1 13*s.* 6*d.* costs. We have no wish to add to the pain which Mr. Dyte must feel in being placed in such a situation. But there is one obvious aggravation of the situation—that it is without excuse, and after very ample and repeated warning. We have pointed out time after time the risk incurred by medical men doing their work through unqualified assistants and signing false certificates.

OFFICIAL ANALYST TO THE HOME OFFICE.

THE appointment of official analyst, which will shortly be made, deserves the most careful consideration of the authorities. The duties of the post are primarily chemical; at the same time, we are of opinion that a man should be elected who has a deserved reputation as a medical practitioner. A chemist pure and simple, however learned and skilful he may be in his special branch of science, must necessarily lack to a great extent the knowledge of the relation of the action of poisons to the physiological functions and anatomical structures of the body. General descriptions are laid down in the text-books of the symptoms of poisoning and the appearances resulting from toxic and irritant agents, but the "history of the variations," which is a most important point in the investigation of cases of alleged poisoning, requires a wide and varied knowledge to turn it to trustworthy, practical use—a knowledge that can only be obtained by one who is a toxicologist in the most comprehensive sense of the term.

FINE FOR NEGLECT OF NOTIFICATION.

THERE have been several instances lately of medical men being fined for not notifying infectious diseases. At Guildhall on April 8th a gentleman was summoned under Section 55 of the Public Health (London) Act, 1891, at the instance of the Commissioners of Sewers, for that, on or about Feb. 19th, being the medical practitioner called in to attend a patient in Fleet-street, on becoming aware that he was suffering from small-pox, he unlawfully failed to send to the medical officer a certificate. The discovery of the case was made afterwards, when application for disinfection was made. The practitioner pleaded that being busy and having affliction in his own family the matter slipped his memory. The defence was intelligible but insufficient, and a fine of 40*s.* was imposed.

EXPERIMENTS ON THE CORD.

IN a series of experiments carried out by Dr. Mott and published in the *Journal of Physiology*, of which an abstract appears in a recent number of the *Neurologisches Centralblatt*, he found that pricks with a needle evoked a less prompt response on the side on which the cord had been cut than on the opposite side. Other tests also seemed to show that sensibility to pain, temperature, and pressure was less on the side on which the cord had been divided. No loss of sensibility was found on the same side. The knee-jerk was at first lost, later it was exaggerated on the affected side. The restoration of a movement was in proportion to its bilateral character and the height of the section. Flexion returned before extension, and movements at the hip before those at the knee and ankle. Toe movements returned only in slight degree, but motor power in other respects had in the space of two months so much improved that only very careful observation could distinguish a difference between the two sides. In the first week after the operation considerable disturbances, apparently vasomotor in character, were present on the side on which the operation had been done. Stimulation of the right hind-limb centre in the cortex of animals in which the left side of the cord had been divided caused movements of both hind limbs. The secondary degenerations were those usually described and no crossed descending degeneration was found.

FOREIGN UNIVERSITY INTELLIGENCE.

Rostock.—Dr. Oscar Langendorff of Königsberg has been invited to accept the chair of Physiology vacant by the death of Professor Aubert.

Jena.—Professor Stintzing has temporarily taken charge of the Medical Clinic. Dr. Verworn of Berlin has been recognised as *privat-docent* in General Physiology.

Helsingfors.—Dr. Schulten has been promoted to the full Professorship of Surgery; Dr. Ayrapää has been appointed to lecture on Odontology; Dr. Pipping has been promoted to an Extraordinary Professorship of Children's Diseases; Dr. Hjalmar Bonsdorf has been appointed to a Lectureship on Surgery. A Dental Clinic has been established.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Adolf von Stein, at the age of eighty-seven. He had been at the head of the medical department of the Wurtemburg army, and had also written a good deal on comparative osteology.—Dr. Karl von Schroff, Professor of Pharmacology in the University of Gratz, at the age of forty-eight.—Dr. V. J. Antonoff, Ordinator of the St. Petersburg Municipal Hospital and author of various papers.—Dr. Pippinskjold, Professor of Midwifery and Gynæcology in the University of Helsingfors. By his will he left £5900 for a lying-in hospital, £10,000 for the creation of a chair of physics, and £4000 to a widows' fund.

THE International Hydrological Congress, fixed to meet in Rome this year, has, by arrangement of its organising committee, been postponed till September, 1893, when the great International Congress of Medicine and Surgery will be held. The solidarity of the thermo-mineral department of the healing art, with the sister departments, will thus be recognised, to the great convenience of all who are interested in the newer as in the older developments of therapeutics.

WE regret to notice the death of Dr. Hayes Agnew of Philadelphia. Dr. Agnew was well known as a representative American surgeon; in this country he will be best remembered by the part he took in the treatment of the late President Garfield, and by his work on Surgery, which remains a monument of industry. He was a most enthusiastic teacher, and will be greatly missed from the chair of Surgery at the University of Pennsylvania.

A COURSE of instruction, clinical, anatomical, and pathological, is announced to be given at the Salpêtrière by Dr. A. Dutil, *chef de clinique*, and Dr. Paul Blocq, chief of the Pathological department, beginning on May 2nd. The course will be held four days a week for five weeks. The number of pupils will be limited. Application should be made to Dr. A. Dutil, at the Salpêtrière Hospital.

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MR. F. J. M. PAGE, B.Sc., F.I.C., has been appointed to the chair of Chemistry and Physics at the London Hospital, rendered vacant by the death of Dr. Tidy.

IN Kazan there is an epidemic of typhus fever. More than ten of the medical officers of the hospitals have been attacked by the malady.

THE ROYAL COLLEGE OF PHYSICIANS.

THE Extraordinary Comitia held on the 11th inst. to elect a President was well attended. Before the election various matters of business had to be dealt with; but although these were numerous, they did not present any particular difficulty. A communication was received from the Home Office, acknowledging the address of condolence presented upon the death of the Duke of Clarence and Avondale. From the Foreign Office two communications were received: one suggesting a cure for snake-bites and a form of treatment for kidney disease; the other with reference to the practice of medicine by English practitioners in France. The latter was referred to the consideration of the committee. Communications were also received from the Colonial Office, and from the "Inebriates' Legislation Committee" of the British Medical Association. The College solicitors enclosed a printed statement of defence in the action now pending in the Chancery Division between the Royal College of Physicians (plaintiffs) and the General Medical Council (defendants), and it was announced that the case was now set down for hearing, and would, in all probability, come on next term. From the College of Surgeons a formal letter was received dealing with the question of fees to be paid to examiners, and with a small matter of detail connected with the schedule for examination under the new regulations for the five years' curriculum. Dr. Semon, on behalf of the Berlin Committee, presented to the College one of the Virchow medals struck on the occasion of the Virchow jubilee. The President announced that at the instance of the War Office a scheme for the examination of army medical officers had been drawn up conjointly with the Royal College of Surgeons, and had been forwarded to the War Office. A University Committee was appointed to consider and report from time to time on any proceedings relating to the formation of a university in London. The following representatives of the different medical schools were nominated members of this committee: Dr. Payne, Dr. Andrew, Dr. Pye-Smith, the Registrar (Dr. E. Liveing), Dr. Norman Moore, Dr. Allchin, Dr. Coupland, Dr. MacAlister, Dr. Mackenzie, Dr. Bruce, Dr. Cheadle, Dr. Priestley, and Dr. Barlow. The report from the Laboratories Committee was received; it indicated that there had been two new applications for permission to work in the laboratories, and that since the last quarterly report all but five who had previously been at work have applied for permission to continue their researches. Sir Andrew Clark then delivered the annual Presidential Address. At the outset he remarked that that portion which dealt with the history of the movement for the establishment of a new university in London as it concerned the College would be printed and circulated amongst the Fellows, even though he might not have time to read it. After referring to the great increase in the numbers of the Fellows, Members, and Licentiates during the past year, he spoke in feeling terms of the amount of labour that had fallen upon the Registrar, and the need, in the near future, of supplying him with some assistance. He made an appreciative reference to the work done in the laboratories, and also to the various lectures which had been delivered within the College. The arrangements which had been made for the revision of the Nomenclature of Diseases also received notice in passing. The cordiality of the relations existing with the Royal College of Surgeons and also with the various departments of Government was noted. The President then proceeded to sketch the careers of the following deceased Fellows: Sir Henry Cooper, Dr. Robert Martin, Dr. Henry Monro, Sir George E. Paget, Sir James Risdon Bennett, Dr. Henry Gawen Sutton, and Dr. William Henry Stone. The happiness of the eulogistic terms employed and the kindly appreciation evinced in most of these remarks elicited frequent applause. Passing to the questions at issue between the Royal College of Physicians and the General Medical Council, the President gave a brief account of the events which had led to the present difficulties and spoke with pardonable warmth of the action of the General Medical Council. Reference to the successful issue of the labours of the committee appointed to consider the five years' curriculum brought to a close an address marked by singular fluency and eloquence. The question of greatest interest to the College, the attitude assumed towards the proposed new University in London, must be considered at leisure when it appears in print, as it was unavoidably crowded out. The motion of a vote of thanks, moved by the Senior Censor and seconded by the Emeritus Registrar, was carried by acclamation. The election of President then took place. Sir Andrew Clark was elected for the fifth time, receiving 97 votes, there being 103 Fellows present, the remaining votes being divided between Sir Richard Quain, Sir Henry Pitman, Sir Dyce Duckworth, Dr. Wilks, and Dr. Sturges. It is a coincidence that the number of Fellows voting should be exactly the same as last year, when Sir Andrew Clark received 96 votes.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 5975 births and 4543 deaths were registered during the week ending April 9th. The annual rate of mortality in these towns, which had declined in the preceding three weeks from 24·8 to 22·2 per 1000, rose again to 23·3 last week. In London the rate was 22·2 per 1000, while it averaged 24·0 in the thirty-two provincial towns. The lowest rates were 12·3 in Croydon, 14·3 in Brighton, 15·4 in West Ham, and 16·0 in Birkenhead; the highest rates were 31·0 in Manchester, 31·1 in Oldham, 31·6 in Halifax, and 33·5 in Salford. The 4543 deaths included 493 which were referred to the principal zymotic diseases, against 435 and 427 in the preceding two weeks; of these, 172 resulted from whooping-cough, 163 from measles, 57 from diphtheria, 41 from scarlet fever, 31 from diarrhœa, 25 from "fever" (principally enteric), and 4 from small-pox. No fatal case of any of these diseases was registered in Plymouth; in the other towns they caused the lowest rates in Bradford, Gateshead, and Leeds, and the highest rates in Sunderland, Sheffield, Derby, and Wolverhampton. The greatest mortality from measles occurred in London, Sheffield, Birkenhead, Liverpool, and Wolverhampton; from scarlet fever in Preston and Cardiff; from whooping-cough in Hull, Derby, Sunderland, Blackburn, Sheffield, Salford, and Wolverhampton; from "fever" in Norwich and Preston; and from diarrhœa in Derby and Burnley. The 57 deaths from diphtheria included 34 in London, 4 in Sheffield, 2 in West Ham, 2 in Birmingham, and 2 in Wolverhampton. Two deaths from small-pox were registered in London, 1 in Croydon, and 1 in Halifax, but not one in any other of the thirty-three large towns; 39 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 9 in the Highgate Small-pox Hospital on Saturday last, the 9th inst. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1289, against 1226 and 1227 on the preceding two Saturdays; 166 new cases were admitted during the week, against 126 and 139 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding three weeks from 523 to 430, further fell last week to 403, and were 26 below the corrected average. The causes of 75, or 1·7 per cent., of the deaths in the thirty-three towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Nottingham, Bolton, Leeds, Newcastle-upon-Tyne, and in nine

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other smaller towns; the highest proportions of uncertified deaths were registered in Brighton, Liverpool, Preston, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns which had declined in the preceding three weeks from 24·2 to 21·2 per 1000, rose again to 24·1 during the week ending April 9th, and exceeded by 0·8 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 18·6 in Leith and 18·9 in Perth to 23·2 in Aberdeen and 27·7 in Glasgow. The 671 deaths in these towns included 30 which were referred to whooping-cough, 14 to measles, 10 to diarrhœa, 5 to "fever," 4 to scarlet fever, 3 to diphtheria, and not one to small-pox. In all, 66 deaths resulted from these principal zymotic diseases, against 69 and 65 in the preceding two weeks. These 66 deaths were equal to an annual rate of 2·4 per 1000, which was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 34 and 24 in the preceding two weeks, rose again to 30 last week, of which 17 occurred in Glasgow, 5 in Aberdeen, and 4 in Edinburgh. The deaths referred to measles, which had been 12 and 15 in the previous two weeks, declined to 14 last week, all of which were recorded in Glasgow. The fatal cases of "fever," which had increased from 4 to 8 in the previous three weeks, fell last week to 5, and included 4 in Glasgow. The 4 deaths referred to scarlet fever and the 3 fatal cases of diphtheria also showed a decline from the numbers in the previous week. The deaths referred to diseases of the respiratory organs in these towns, which had been 181 and 158 in the preceding two weeks, were 160 last week, and were slightly below the number in the corresponding week of last year. The causes of 66, or nearly 10 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 40·1 and 37·3 per 1000 in the preceding two weeks, further declined to 33·0 during the week ending April 9th. During the thirteen weeks of last quarter the death-rate in the city averaged 38·4 per 1000, the rate for the same period being 28·2 in London and 19·8 in Edinburgh. The 221 deaths in Dublin during the week under notice showed a decline of 29 from the number in the preceding week, and included 23 which were referred to measles, 3 to whooping-cough, 1 to scarlet fever, 1 to "fever," 1 to diarrhœa, but not one either to small-pox or diphtheria. In all, 29 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·3 per 1000, the zymotic death-rate during the same period being 3·0 in London and 1·2 in Edinburgh. The fatal cases of measles, which had increased in the preceding three weeks from 12 to 24, were 23 last week. The deaths referred to whooping-cough, which had been 5 in each of the previous two weeks, declined to 3 last week. The fatal case of "fever" corresponded with the number in the preceding week. The 221 deaths in Dublin last week included 36 of infants under one year of age, and 59 of persons aged upwards of sixty years; the deaths of infants showed a decline, while those of elderly persons slightly exceeded those recorded in the preceding week. Four inquest cases and 5 deaths from violence were registered; and 66, or nearly a third, of the deaths occurred in public institutions. The causes of 23, or more than 10 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

IT is reported that Surgeon-Major-General W. M. Webb will be Principal Medical Officer at Netley on the retirement of Surgeon-Major-General G. L. Hinde. Surgeon-Major-General Webb's successor in Bombay will probably be Surgeon-Colonel R. Lewer.

Brigade-Surgeon-Lieutenant-Colonel C. E. Harrison, of the Brigade of Foot Guards, has been selected to act as medical representative of the British Army at the Congress on Surgery to be held in Paris, commencing on the 18th inst.

ARMY MEDICAL STAFF.—Surgeon-Major-General James Sinclair, M.D., is placed on retired pay (dated March 28th, 1892); Surgeon-Colonel Charles Henry Young Godwin is seconded for service as Professor of Clinical and Military Surgery at the Army Medical School, Netley (dated March 10th, 1892).—The undermentioned Surgeon-Majors to be Surgeon-Lieutenant-Colonels (dated March 30th, 1892):—William Donovan; Dugald Blair Brown, F.R.C.S. Edin.; Richard Henry Quill, M.B; Blennerhasset Montgomerie Blennerhassett, F.R.C.S.I.; William Budd Slaughter; Andrew Lang Browne, M.D; Christopher William Moore Keys, M.D.; and Henry Haldane Stokes, M.B. — Surgeon-Major Thos. Joseph Gallwey, M.D., is seconded for service with the Egyptian Army (dated March 25th, 1892).

YEOMANRY CAVALRY. — North Somerset: Surgeon-Captain J. J. Saville to be Surgeon-Lieutenant-Colonel (dated April 13th, 1892).

VOLUNTEER CORPS.—*Rifle:* 2nd (the Weald of Kent) Volunteer Battalion, the Buffs (East Kent Regiment): Surgeon-Major H. B. Wood, M.D., to be Surgeon-Lieutenant-Colonel; to resign his commission; to be granted permission to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated April 13th, 1892).—2nd (Berkshire) Volunteer Battalion, the King's Own Scottish Borderers: John M'Watt, M.B, to be Surgeon-Lieutenant (dated April 13th, 1892).—2nd Volunteer Battalion the Sherwood Foresters (Derbyshire Regiment): Surgeon-Major E. M. Wrench to be Surgeon-Lieutenant-Colonel (dated April 13th, 1892).—1st (Pembrokeshire) Volunteer Battalion, the Welsh Regiment: John Henry Hywell Williams, Gent., to be Surgeon-Lieutenant (dated April 9th, 1892).

VOLUNTEER MEDICAL STAFF CORPS.—The Woolwich Division: Percy Octavius Haynes, Gent., to be Surgeon-Lieutenant, Supernumerary (dated April 9th, 1892).

Correspondence.

"Audi alteram partem."

ROYAL MEDICAL BENEVOLENT COLLEGE.

To the Editors of THE LANCET.

SIRS,—It gives me great pleasure to inform you that Her Majesty has been pleased to contribute £25 towards the funds of the College. The *imprimatur* of Her Majesty's approval of the efforts of the council to improve the condition of the College must surely stamp our scheme as being good.

May I not hope that such an example may induce many others to aid us, and enable us to make a securely improved position for our pensioners, and at the same time to extend and benefit our rapidly rising school? I would commend to the serious attention of your readers the idea of contributing a certain sum per annum for a term of years to this specific purpose.

I am, Sirs, yours faithfully,

April 9th, 1892. C. HOLMAN, M.D., Treasurer.

WELLINGTON COLLEGE SORE-THROAT.

To the Editors of THE LANCET.

SIRS,—Mr. Wickham is quite mistaken in supposing that I appeal to him for any opinion with respect to the nature of the three cases of sore-throat reported in THE LANCET of March 26th which occurred in his family. I pronounced them diphtheritic at the time, and treated them as such. The head master's house is so constructed that boys and others going to see the head master enter his business room or library by a side door approached by an open porch, and in that way have no necessity whatever to enter the portions of the house occupied by the head master's family. The importance of this arrangement in the event of infectious illness was fully realised by the present Archbishop of Canterbury and myself when the house was built. If, therefore, boys are exposed to infection during the occurrence of infectious illness in the head master's house, it can only be by a deviation from the usual order of things, for

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which the medical officer cannot be held responsible if he is not made acquainted with it.

If Mr. Wickham doubted my diagnosis of the disease: First, why did he not mention his doubt at the time? Secondly, why did he not ask some other advice? Thirdly, why did he send for the sanitary engineer of the College to examine the drains, not only once, but a second time, till the source of the mischief was traced? Fourthly, why his great anxiety about the illness as exhibited in a letter I have, written to me at the time? But it was not only on the occasion referred to that diphtheria occurred in the head master's family. On another occasion it was diagnosed as such by another medical man who paid the first visit, acting as my deputy and on my general directions in the management of such cases. I have his note before me, from which I transcribe the following: "The eldest little Wickham has, I believe, got a diphtheritic throat, one tonsil having a large patch of that opaque-looking deposit on it. I have had her separated from the other children."

Mr. Wickham questions the nature of the illness referred to in my communication to THE LANCET of March 26th. But there can be no doubt about the gravity of the occurrence, as it impressed Mr. Wickham at the time. I have a note before me which I received from him late in the evening, from which I transcribe the following: "I asked Mr. Smith [the College architect and sanitary engineer] to come over and look at my drains, and he proposes to come by the 8.39 train to-morrow morning, and asks if you could manage to time your visit so as to meet him." In a postscript to the same note is the following: "Mrs. Wickham has had a very uncomfortable day . . . . I have not been able to get her to take more than half a tumbler of milk. You will judge if it is any use to see her again this evening." Two diseases only at that time that I am acquainted with—typhoid fever or diphtheria—could have so directed attention to the sanitary condition of Mr. Wickham's house, and typhoid fever was out of the question. Mr. Wickham knows that I, or indeed any other medical man, would do the very best for Mrs. Wickham and hers, not from a sense of duty alone, but being led thereto by her interesting character and disposition, and most angelic nature. No doubt the knotty point did arise whether the mother should continue to nurse her baby or not through her illness. The course I advised was not without precedent in my experience, and had the merit of being successful.

Sporadic diphtheria was not confined to Mr. Wickham's own family and Wellington College boys, but other persons and masters were attacked from time to time. There was difficulty in getting efficient quarantine observed. On one occasion an excellent but somewhat recalcitrant master, who chaffed at medical discipline, complained to the head master of my interference with the discharge of his duties. Mr. Wickham very properly upheld me on this occasion, and wrote as follows: "I have no doubt that you have done perfectly right in forbidding Mr. —— to go into school for another week; and I am very glad for his sake, as well as on the prudential ground of possible infection." These quotations, I think, can leave no doubt in the minds of your readers that diphtheria has in the past occurred in Mr. Wickham's house and elsewhere at Wellington College, and that due precautions were taken to guard against the spread of infection, which are the points raised by Mr. Wickham's letter in THE LANCET of April 2nd. Mr. Wickham's views respecting infectious illness at Wellington College differ materially from mine; but during the twenty-four years I attended at Wellington College the question never arose as to the dispersal of the boys, much less their withdrawal for a whole term; and I venture to think that had the medical system built up from experience during the head mastership of the present Archbishop of Canterbury been continued, the recent calamity would never have happened to the institution.

I am, Sirs, your obedient servant,
April 11th, 1892. J. G. BARFORD.

THE LONDON TEMPERANCE HOSPITAL.

To the Editors of THE LANCET.

SIRS,—I am instructed by the board of this hospital to convey to you the pain it feels on seeing a paragraph going the round of the whole medical press at home and abroad based on a statement made in THE LANCET, to the effect that ether is used in this hospital as a stimulant and as a substitute for alcohol, to which is sometimes added a reference to the danger incident to such a practice of producing a habit of ether drinking. The board directs me to emphatically and authoritatively state that no such practice is or ever has been carried on in this hospital, and that medicinally (that is, excluding its use as an anæsthetic) less ether is probably used here than in any other hospital in the United Kingdom. The board wishes me further to intimate that there is no occasion whatever for the substitution of ether for alcohol in any case, the members of our medical staff being entirely at liberty to administer alcohol medicinally if they consider such administration necessary. The statement which has gone forth is calculated to do great injury to this institution, and my board, therefore, cannot doubt that you will, in common justice, give to this letter the same publicity that was given to the paragraph of which it has such good reason to complain.—I am, Sirs, yours faithfully,
April 12th, 1892. E. WILSON TAYLOR, Secretary.

*** In THE LANCET of March 19th we inserted a letter from Dr. Ridge, in which the statement, published in the *Echo*, on which we had commented, was declared to be untrue. In an annotation in the same number of our journal we expressed the pleasure we felt in receiving and publishing Dr. Ridge's letter, and thus by implication, if not in so many words, endorsed the correction conveyed in that letter.—ED L.

THE INFLUENCE OF CLIMATE ON SURGICAL TUBERCULOSIS.

To the Editors of THE LANCET.

SIRS,—A paper recently read by Dr. Theodore Williams before the Royal Meteorological Society dealt in a very interesting and able manner with the subject of climatology in relation to the health resorts on the Riviera and in Egypt, with special reference to their suitability for consumptive cases. Important as it is to have reliable intelligence of foreign sanatoria, it is, nevertheless, to be regretted that there is a tendency to overlook the fact that these distant and expensive resorts are, after all, accessible to a very small percentage of invalids, and that the great bulk of their less wealthy brethren are compelled to remain in England and find what warmth and sunshine they may during the winter months in the few sheltered nooks on our south-west coasts.

Writers on health resorts, spas, &c., are usually physicians, and they describe the advantages these places are reputed to offer to patients with diseases of a strictly medical nature. But surgical diseases, especially surgical tuberculosis and allied disorders, have hitherto received scant attention from writers on health resorts; the surgical mind unfortunately is just now more bent on studying the natural history of microbes than on the power of the patient to resist them. It is true that the good qualities of fresh sea and country air are readily recognised in theory, but as a matter of practice a very large proportion of cases are sent out of London and other large towns only as a last resource, after the inestimably valuable weeks of early treatment have been wasted in experiments with tonics, cod-liver oil, unavailing surgical treatment, and too frequently a useless course of poulticing. Any surgeon going round our wards at the Royal Sea-bathing Infirmary for Scrofula could not fail to be struck with these facts. We get cases in all stages except the preliminary stages, when fresh air gives the surgeon and the patient a chance: pale waxen children suppurating to death through sinuses of old excisions and amputations performed in the London hospitals with every possible antiseptic precaution, patients with hopeless spinal and joint disease who have languished for months and even years in the vitiated air of city hospitals and slums. It is almost pitiable to think how many of these cases could have been benefited or saved by operation or treatment in a suitable atmosphere with plenty of light and bracing fresh air. Studded along the coasts of England there are institutions ready to relieve the great cities of cases which no surgical skill can cure in a depressing and unhealthy atmosphere.

Physicians, when they are able, do not hesitate to send their consumptive patients out of London at the first sign of the disease, and do not dally with tonics and cod-liver oil. How is it that many surgeons are so slow to grasp the importance of the climatic treatment of tuberculosis &c.? Many joints will not mend on splints alone, nor will the knife, however skilfully wielded, be successful in a large proportion of cases when the constitution of the patient is impaired by want of fresh air. If surgeons wish to follow

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up their cases, a short journey to the country ought not to be too great a tax upon their time, if they consider the extra chances to their patient of an operation or other surgical treatment in a favourable atmosphere. A fairly extensive experience of unnecessarily incurable cases that have drifted even to this corner of England induces me to write strongly on the matter, and every provincial surgeon will bear me out in my statements. The records of many apparently favourable results after operation appear in the statistics of London hospitals, but we have too frequently to "complete the case.' I trust that you, Sirs, may find room for this somewhat lengthy communication, in the hope that the important fact may be emphasised afresh, that the only chance of successful treatment of a large proportion of cases of surgical tuberculosis is to move them in their earliest stage from the vitiated air of the great cities to the sunlight and fresh air of the country.

I am, Sirs, yours faithfully,

Margate, April 9th, 1892. BERTRAM THORNTON.

INFLUENZA.

To the Editors of THE LANCET.

SIRS,—In a letter which appeared in THE LANCET of Jan. 23rd, I attempted to controvert the theory that influenza attacks chiefly the centres of the medulla oblongata by hinting that the symptoms which might be expected on such a theory were conspicuous by their absence in ordinary cases of the disease. It seemed unnecessary after this to point out that the usual symptoms of influenza in no way indicate a lesion of the bulb. What are the invariable symptoms in nine-tenths of the cases of the disease? Besides febrile symptoms of a somewhat indefinite and usually mild character, there is intense pain referred to the seat of the nerve centres and various muscles, together with extreme mental and physical prostration, nothing else. Surely no greater contrast could be imagined than between such a condition and that produced by lesions of the bulb. Is it not one of the most remarkable features in glosso-labio-laryngeal palsy that a patient whose days are few to live should retain his mental and physical activity and enjoy almost perfect immunity from pain?

As one who has advocated from the first appearance of the disease in 1889 that influenza does affect chiefly the nerve centres, I am the last one to deny that in exceptional cases the vital centre of the bulb may be affected; indeed there is little doubt that the causes of many of the unexpected fatal issues of the disease are due to the failure of the vital centres. Until we have reports showing that the great majority of patients dying from influenza present some constant lesion, I shall be content to believe that, whatever the specific change caused by the disease may be, that it is beyond the present methods of pathologists to discover. In the cases quoted by Dr. Althaus it will be seen that the more general the experience the more indefinite were the lesions found, and in no instance was any special change in the medulla noted that could be looked upon as primary. I do not think I shall be alone in considering influenza to have a depressing effect upon that ultra-microscopic condition of protoplasm which, for want of a better word, and in ignorance of its nature, is usually called its nutrition. The vital centres, as a rule, resist the action of the poison, but in exceptionable cases are paralysed by it. Then the vaso-motor centre appears to be most prone to the attack of the poison, more especially that part of it that controls the pulmonary and gastric circulations. The central nervous system generally is always profoundly influenced by the poison—more, probably, in its sensory and vaso-motor than in its musculo-motor aspects. The nerve endings also seem to be much affected by the poison, and, by an increase in their irritability, tend to exaggerate the effect of the morbid condition of the nerve centres.

I am, Sirs, yours faithfully,

March, 22nd, 1892. THOS. GLOVER LYON.

SMALL-POX ON BOARD A STEAMER.—The Anglo-American Telegraph Company's steamship *Minia*, from London for Halifax, which put in at Plymouth to coal and proceeded on her voyage on Thursday last, put back to Plymouth on the 10th inst., small-pox having broken out on board. She was visited by the port sanitary surgeon, and the patients removed to the Pique floating hospital for infectious diseases. The *Minia* has a crew of eighty men.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Medical Defence Union.

A MEETING of the Medical Defence Union (North of England Branch) was held in the council-room of the College of Medicine, Newcastle (kindly granted for the meetings of the Union). Dr. Philipson presided, and Mr. G. E. Williamson acted as hon. sec. The principal business was the election of small local committees in each of the large towns of Northumberland, Durham, Cumberland, and Westmoreland, to act in connexion with the branch and the council in Birmingham.

Proposed Memorial to the late Dr. Heath.

An influential meeting of professional and other friends was held on Friday last, in the library of the Royal Infirmary, to promote a memorial to the late Dr. Heath. The Mayor of Newcastle presided. The attendance would have been larger but for the inconvenient hour (to most practitioners) at which the meeting was called. It was shown that Dr. Heath had been associated as lecturer at the College of Medicine, and with the Royal Infirmary as surgeon and consulting surgeon, for about forty years. It was after some discussion decided to open a subscription for the purpose of the memorial, and also that it should take the form of the endowment of a chair in the University of Durham College of Medicine, and be styled the "Heath Lectureship in Anatomy." It was shown that this would accord with one of the objects Dr. Heath had at heart—namely, the endowment of certain chairs at the College sufficient to make the holders independent of private practice, and able therefore to devote their whole time to the study and teaching of their subjects. The following subscriptions were announced before the meeting closed:—The College of Medicine (in its corporate capacity), one hundred guineas; Drs. Philipson and Gibb, each fifty guineas; and about one hundred guineas in other subscriptions. Dr. Arnison was appointed treasurer, and Lieut. Fox, R.N., of the College of Medicine, Newcastle, hon. secretary.

Alnwick.

The sewerage of Alnwick not being in a satisfactory condition, the local board proposed alterations for its improvement and disposal. Towards the estimated cost the Duke of Northumberland made an offer of £1000. As this was more than twelve months ago, it appears that his Grace is dissatisfied with the delay of the local board in a matter of this nature, and he has written through his commissioner to the board to say that if the work is not proceeded with within a month's time the offer of the £1000 will be withdrawn.

Newcastle Hospital Sunday Fund.

A meeting of the Hospital Sunday Fund Committee of Management and Distribution was recently held, and an interim cash statement as to the collections in 1891 was presented, which showed that there was brought forward from the previous year £450, the collections in places of worship amounted to £2276 16*s.* 4*d.*, manufactories £2238, special contributions £76, with interest, making a total of £5061 19*s.* 8*d.*, the collections on the whole being the largest ever received.

The late Dr. Bruce.

An esteemed citizen of Newcastle, Dr. J. C. Bruce, died here last Tuesday. Dr. Bruce was widely known as a philanthropist and a learned antiquary, but perhaps best of all, outside his own city, as the author of a history of the "Roman Wall." Indeed, it has been well said that Dr. Bruce made the Roman Wall his own, and knew every yard of it, from the Tyne to the Solway. Although not a medical man, Dr. Bruce was intimately connected with our profession as a young man. With an idea of a future missionary life, he went through, at the University of Glasgow, the curriculum of chemistry, surgery, and anatomy. Soon after, owing to the death of his father, and complying with his parent's wish, he undertook the direction of a celebrated private school in Newcastle, the well-known "Bruce's Academy," which sent forth a very large number of pupils—Robert Stephenson and others—who became distinguished in their various walks in life. Dr. Bruce held several diplomas from learned bodies so far back as 1825–6, he was a B.A., and M.A. of his own University, and in 1853 it conferred its LL.D. upon

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NORTHERN COUNTIES NO...

(FROM OUR OWN CORRESPONDENT.)

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It is announced in our local papers that Professor Philipson has been nominated for the office of representative of the University of Durham in the General Medical Council.

Mr. Thomas Ironsides, the Kibblesworth centenarian, completed his 101st year yesterday (April 13th).

Newcastle-on-Tyne, April 14th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Proposed Botanical Institute in Glasgow.

SOME weeks ago a much-respected Glasgow lady, Miss Steven, died, leaving property valued at over half a million sterling vested in the hands of a board of trustees, to whom the widest discretion is given in the use of the money, the only restriction being that it is to be devoted to "charitable and educational" purposes. Already the trustees are overwhelmed with applications for help from every kind of charitable and educational institution in and near Glasgow. One of the most recent, and probably one of the most reasonable of these, is from Professor Bower, occupant of the chair of botany in the University. He points out that, while the city has recently purchased the Botanic Gardens, which are now used as a public park, the botanical department of the University has no proper home there, but is at present lodged in two small rooms and an attic in the University building in the garden. There is no class-room, and the laboratories are so small that the practical work has to be repeated three times daily to successive relays of students. The valuable herbarium lies nursed in an inaccessible attic. Professor Bower wants a new building in the Botanic Garden, which shall be under his own control, and which shall be provided with a lecture-room to hold about 300 persons, two large museums, and a central hall, herbarium, and laboratories and private rooms for the practical work of professor and students. He has advanced his scheme so far that he has sent the trustees a sketch plan of the proposed building. The building and fittings would cost £12,500, and a similar sum would be required to give an endowment of about £400, which it is calculated would meet all necessary expenses. The total sum which he wants, therefore, is about £25,000.

Utilisation of Parochial Hospitals.

There is a proposal on foot in Glasgow to extend the reform begun about a year ago in the City Parish Hospital, when nursing by untrained women aided by convalescent patients was given up in favour of attendance of a trained staff of nurses; it is now suggested that these large hospitals should be thrown open to students and practitioners, and that the tax-supported hospitals should thus, like the charity-supported infirmaries, be made available for clinical instruction and as training fields for practitioners. It is very sensibly suggested that a hospital so large would be better worked by a staff of non-resident visiting physicians and surgeons and by resident assistants, who would perform duties in all respects analogous to those performed in our general hospitals. An immense field would thus be opened up, and clinical material at present not at all utilised would be made available for teaching purposes. The best interests both of patients and ratepayers would also be served, while the increased number of hospital appointments at the disposal of qualified practitioners could not fail to raise the general level of experience and skill in the profession. A further alteration, scarcely to be dignified by the term "reform," is proposed by Mr. Macewen, who was for nearly a quarter of a century a leading manager of the Royal Infirmary—viz., that the charge of the thirty odd wards of the Royal Infirmary should be redistributed in such a way as to give only one ward (instead of two or three) to each surgeon or physician, and that, further, the honorarium paid to the staff should be discontinued.

Hypnotism.

Dr. Kingsbury of Blackpool visited Glasgow lately and gave several very interesting demonstrations in the Royal and Western Infirmaries of what may be done by this mode of treatment. He also addressed a large and attentive audience of medical men, who on the invitation of the President, Dr. Yellowlees, met in the hall of the Faculty of Physicians and Surgeons. Dr. Kingsbury made a favourable impression as an honest and straightforward exponent of this practice, and his statements did much to rob it of the mystery in which it is often wrapped. He succeeded at the meeting in throwing a male patient suffering from neuralgia into a deep "hypnotic sleep," with no benefit apparently at the time, however, so far as pain was concerned.

April 12th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Breach of the Pharmacy (Ireland) Act in Cork.

THE recent prosecution by the Irish Pharmaceutical Society in Cork has drawn attention to the necessity which exists of having some alteration in the law by which a qualified member of the Pharmaceutical Society either of England or Ireland may use his calling in both countries at will. Mr. Selkirk has been fined £5, the magistrates expressing their regret, and suggesting that he might appeal if he so desired. There is, however, not much likelihood of this occurring, as the law bearing on the matter is distinct and definite.

Cork Poor-law Medical Association.

At a meeting of the Association, held last Saturday, reference was made to the deputation of the profession whom the Chief Secretary for Ireland refused to receive, as he did not approve of the Superannuation Bill. The chairman (Dr. D. Flynn) suggested that Sir Walter Foster should use his influence with the Chief Secretary to obtain from the Local Government Board the benefit of an annual holiday. Dr. Murphy handed in a notice of motion that at the next meeting he would move that meetings be held in remote parts of the country, in order to come in touch with some dispensary doctors who have not joined their Association as yet, and that the president and secretary attend at those meetings, the date of which would be fixed at a future period.

Cork South Infirmary.

At a meeting held on the 8th inst. the trustees of this hospital adopted the following resolution: "The resignation of Dr. W. C. Townsend having been presented to the trustees of the South Charitable Infirmary and County Hospital, in accepting it the board of trustees deeply regret the severing of Dr. Townsend's connexion with the hospital as senior physician, which he has held for so many years with great honour to himself and benefit to the patients committed to his care. We, the trustees, beg to place on record our sincere thanks to him for his constant and unsparing attention to his duties, and at the same time request that he will accept the position of consulting physician to the hospital, which the trustees have great pleasure in offering him."

Belfast Queen's College: Students' Union.

A private meeting of gentlemen in favour of the establishment of a students' union in connexion with Queen's College, Belfast, was held at the College on April 5th. The president, who has initiated the movement, stated that the want of a students' union had long been felt at the College, such as existed in Cambridge, Oxford, Edinburgh, &c., and many considered that the time had now come when a building should be erected, containing a dining-room, debating hall, recreation rooms, and also apartments where the various students' societies could hold their meetings. The jubilee of Queen's College will take place in 1895, and the president thought this would be a fitting time to open the new union. Several gentlemen at the meeting

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having expressed themselves as strongly in favour of the establishment of the building, which would serve as a bond of union amongst the various students, it was decided to hold a public meeting in May, when the scheme will be formally launched. A small committee has been formed to carry out the preliminary arrangements. Mr. Thomas Sinclair, M.A., Belfast, a very distinguished graduate and warm friend of the College, has consented to act as treasurer, and already, through the praiseworthy exertions of the president, over £1100 have been promised. There can be no doubt that a students' union would be of very great advantage in many ways to those attending the College, and to none more than to the medical students. Owing to the long distances between the hospitals and the College and the city, many students are obliged to leave their lodgings early in the morning, and from that time until after five or six o'clock in the evening they are unable to dine. A students' union would obviate this difficulty, it would afford a place of rest for them between lectures, and would form a social bond of union—an element of no small value in a university.

Close of the Winter Session in Belfast.

The winter session at the hospital came to a conclusion on Saturday last, and it will terminate this week at the College. The examinations of the Royal University will begin in Dublin on April 20th and terminate on May 5th.

A series of entertainments in aid of the funds of the Dublin Orthopædic Hospital will be held in the Ancient Concert Rooms during the Easter holidays.

April 12th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

French Ophthalmological Society.

THE annual session of this Society will be inaugurated in Paris on May 2nd, when reports on the following subjects will be made by MM. Dor of Lyon, and Armaignac of Bordeaux respectively: (1) Treatment of Congenital Cataract; (2) Ophthalmoplegia.

How Quacks are punished in France.

Owing, I presume, to the sedentary nature of their occupation, shoemakers of all nationalities have from time immemorial been noted for intellectual originality, and most people can recall instances of a cobbler contravening the advice embodied in the precept enjoining him to "stick to his last." The above reflections were suggested by an incident reported in a medical journal. A worthy member of the cobbling confraternity of Havre had acquired considerable notoriety as a healer; he encountered no difficulty in imbuing the public of that flourishing port and its neighbourhood with the belief in his alleged miraculous powers. He claimed to be endowed with the faculty of prying into the secrets of the working of that part of the human economy which his patrons would probably lump together under the vague denomination "inside." To him the tegumentary and other coverings that hide these mysteries from the gaze of ordinary mortals were as transparent as glass. Not only this, but it appears that his horny hands are attracted unerringly to any part of the system that is diseased, and that such palpation remedies, *sans faute* and instantaneously, the morbid condition. These unorthodox doings having been brought to the notice of the authorities, proceedings were instituted against the ambitious worker in leather. The Tribunal Correctionel gravely deliberated over the case, two sittings being devoted to the consideration of testimony tendered by numerous individuals who had been cured offhand by this "suggestionist." If we may believe a young lady named Wolff, our eminent *confrère*, Professor Charcot, must henceforth be content to occupy a "back seat," for did not the poor shoemaker of Havre succeed in completely curing her of paralysis, whilst the celebrated neurologist of the Salpêtrière had ignominiously failed to afford her any relief? Unmoved, however, by this flattering evidence, the court decided to make an example of this unauthorised benefactor of humanity, and accordingly inflicted the tremendous penalty of—a fine of ten francs! Who shall now say that a prophet, whether he be a tinker, tailor, or cobbler, is without honour in his own country?

The so-called Parrot Epidemic.

For the last fortnight or so the lay and medical press has been publishing details of an alarming epidemic which broke out in three different centres in Paris. The disease was supposed to be a special form of epidemic pneumonia, and it was assumed to have been imported from Buenos Ayres through the medium of a cargo of parrots brought from that port by two Paris traders. Dr. Dujardin-Beaumetz has now completed his investigation of the occurrence, and he exculpates the parrots, and states that we have had to deal with a pneumonic form of influenza. The only part taken by the parrots is probably the conveyance of the germs on their plumage. Several patients have succumbed to the disease, as also many of the parrots, but the surviving parrots are in a good condition.

Paris, April 12th.

Obituary.

WM. IRVING, M.D., L R C.S.EDIN., J.P.

THE death of Dr. Irving removes from East Lancashire the oldest and most widely known physician in that district. He graduated in Edinburgh University in August, 1843. He also became a Licentiate of the College of Surgeons of Edinburgh in the same year. After a preliminary assistancy in Wolverhampton, he commenced practice at Blackburn in 1844. His attention to his patients and marked ability soon gained him a large *clientèle*, whose confidence and friendship he retained to the last. Although Dr. Irving's opinion as a consultant was sought by his professional brethren as well as by the rich and the lowly on account of his acuteness, clearness, and perspicacity in diagnosis, yet notwithstanding this and the opportunities he enjoyed as consulting physician to the Blackburn and East Lancashire Infirmary—an appointment which he held from its foundation—he left no writings behind him. Remarkably sociable, he preferred the company of his friends, the gun and the chase, as a means of relaxation rather than the quill. He was made a magistrate for the county of Lancaster on Dec. 1st, 1884. The funeral took place on Tuesday at St. Mary's, the parish church. All along the route the inhabitants showed their respect for the deceased by drawn blinds. Twenty-two private carriages joined the mournful *cortège*. It may truly be said of him that he made many friends and few enemies, and that he maintained the principle throughout life of not letting his left hand know what his right hand did.

J. W. TRIPE, M.D.

A VETERAN contemporary sanitarian has just been laid to rest in the person of the well-known Dr. Tripe. He had held the important post of health officer for Hackney for the last thirty-six years, having been the first officer to be appointed. Dr. Tripe had done excellent local work in the sanitary improvement of the large and populous area committed to him. But he was widely known outside these limits. He had filled the honourable position of President of the Society of Medical Officers of Health, and his sanitary and epidemiological writings were well known. In this latter connexion, Dr. Tripe published an interesting series of papers on epidemic waves. He also rode a tilt against the Homerton Small-pox Hospital, and his views found corroboration in the findings of the Hospitals Commission. Some later views of his as to the spread of fever from Fever Hospitals did not, however, command general acceptance. Altogether, a notable figure, whom it will be difficult to replace, has left our ranks.

THE INFIRMARY, OLDHAM.—The twentieth annual report of this charity, just issued, is a satisfactory record of the good work done during the year 1891. The experiment of providing qualified nurses to attend surgical cases outside the infirmary had worked well. 4577 patients had been treated at the infirmary in the course of the twelve months, and the convalescent homes were utilised for the benefit of thirty-seven patients. The adverse balance of £781 2*s.*, brought forward from 1890, had been reduced to £711 17*s.* 2*d.* The Hospital Saturday collection showed an increase of £154 5*s.* 11*d.* A munificent donation of £10,000 was received during the year from Mr. Eli Lees, of which £9000 had been invested in public securities. The endowment fund amounted to £31,773 1*s.* 4*d.*

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Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in the subjects indicated at a meeting of the Examiners on the 7th inst.:—

Anatomy and Physiology.—Arthur H. Evans, of Westminster Hospital; Philip N. Vellacott, Thomas M. Thomas, Henry A. Moffatt, Arthur E. Philipps, Charles H. Fagge, William S. Handley, Francis J. Steward, and Richard F. Clark, of Guy's Hospital; Robert M. Le H. Cooper and Reginald J. E. Hanson, of St. Mary's Hospital; Walter E. Dixon and Harry A. Bull, of St. Thomas's Hospital; A. Woodward, George H. Sowry, and Ernest H. Fryer, of St. Bartholomew's Hospital; Frederick T. D. Clindening, of Adelaide University and St. Bartholomew's Hospital; Percy J. Edmunds, George B. Hunt, and William R. Nattle, of University College; William B. Butler and Ferdinand C. H. Muggleton, of London Hospital; William R. Coldicott, of Charing-cross Hospital.

Physiology only.—Frederick P. Duncan, of University College; Chas. Mathews and Lionel T. Wells, of St. Mary's Hospital; William H. Farmer, of St. Bartholomew's Hospital; John Gardiner, of Middlesex Hospital; William T. Dempster, of King's College; Henry N. Robson, of St. Thomas's Hospital.

Physiology only.—Stewart R. Douglas, of St. Bartholomew's Hospital.

(Seven candidates were referred in both subjects; one in Anatomy only and five in Physiology only.)

Passed on the 8th inst:—

Anatomy and Physiology.—Forbes Fraser and David B. Keown, of St. Bartholomew's Hospital; Charles M. Beadnell, Horace Pern, and Sydney G. Graham, of Guy's Hospital; Fairman R. Mann, of Middlesex Hospital; Gwilym P. W. James, of University College; Angelo Gooding, of London Hospital; Percy M. Smith and John L. Davies, of St. Mary's Hospital; Conrad C. J. Erhardt and Frank H. Jacob, of King's College; Reginald C. Gayer, of St. George's Hospital; William C. D. Hills, of Charing-cross Hospital; Sydney G. Tippett, of Westminster Hospital.

Anatomy only.—Burroughs M. Hughes and Bertram J. Collyer, of St. Bartholomew's Hospital; James Robertson, of Guy's Hospital; Frederick Moreton, of Westminster Hospital; James G. Fowler, of London Hospital; Thomas S. Farncombe, of Trinity College, Toronto, and Mr. Cooke's School of Anatomy and Physiology; Fred. W. Waters, of St. Thomas's Hospital; William A. Bernard-Smith, of King's College; G. M. Bennett and Henry C. Clark, of Middlesex Hospital.

Physiology only.—William Herbert and Howard P. Kennard, of St. Thomas's Hospital; Robert W. Jamerson, of St. Bartholomew's Hospital; John J. Winn, of London Hospital and Mr. Cooke's School of Anatomy and Physiology; C. N. Barton, of St. George's Hospital; Roderick Sim, of Middlesex Hospital.

(Two candidates were referred in both subjects; nine in Anatomy only and thirteen in Physiology only.)

Passed on the 9th inst.:—

Anatomy and Physiology.—John G. O. H. Lane, Harold B. Stoner, Charles J. Harnett, Harry M. Wise, John R. Steinbaeuser, and Daniel W. Thomas, of Guy's Hospital; James H. Hugo, Matthew W. S. Iaacke, Edward Morris, Thomas P. Legg, and J. H. Meacher, of St. Bartholomew's Hospital; Alfred P. Coker, Ernest E. Ellery, and Michael B. Pinchard, of Middlesex Hospital; Frank G. Layton and Percy W. Kent, of St. Thomas's Hospital; Dudley R. N. Bernhardt, of St. George's Hospital; R. L. Dickinson, of London Hospital; John C. Smellie, of St. Mary's Hospital; Edward L. M. Rusby, of King's College.

Anatomy only.—Charles C. Jenkins and Percy E. Tressider, of Guy's Hospital; Thos. Hood and David Lewis-Jones, of St. Bartholomew's Hospital; Edward Haines and William Ashford, of St. Thomas's Hospital; David C. Kemp, of University College.

Physiology only.—Augustus C. Greenwood, of Middlesex Hospital; John A. K. Griffith, of University College.

(Seven candidates were referred in both subjects; two in Anatomy only and seven in Physiology only.)

Passed on the 11th inst.:—

Anatomy and Physiology.—Maurice G. Pearson, Arthur Pain, John S. Stevenson, Arthur E. Druitt, and A. H. Clarke, of St. Bartholomew's Hospital; Clarence H. Mott, Frank H. White, and Joseph Cohen, of London Hospital; Ernest E. Head, of King's College; Clement E. Covernton, Bernard G. Reynolds, and Frederick S. Brereton, of Guy's Hospital; Edmund L. Perry and William H. J. Paterson, of St. Thomas's Hospital; John E. P. Davies and Sydney P. James, of St. Mary's Hospital; Charles H. J. Robinson, of Middlesex Hospital; Sidney E. Shoppee and Charles S. Read, of University College; George B. Clarke, of Charing-cross Hospital; John R. M. Forsyath, of Westminster Hospital.

Anatomy only.—Henry A. Hall, of St. Mary's Hospital; Samuel B. Blomfeld and Arthur E. Peake, of Westminster Hospital; Walter A. Sharpin and Robert C. Martin, of St. George's Hospital; William H. Pope, of St. Bartholomew's Hospital; William F. Byford, of Guy's Hospital.

Physiology only.—Arthur R. H. Skey and Thomas S. Pigg, of St. Bartholomew's Hospital.

(Six candidates were referred in both subjects; two in Anatomy only and seven in Physiology only.)

Passed on the 12th inst.:—

Anatomy and Physiology.—George Phillips, Arthur Hunnard, J. Coote Hilbert, William Roberts, and Robert M. Johnston, of University College; Cecil A. Ensor, Edward T. Scowby, and Benjamin A. Richmond, of Guy's Hospital; Charles R. Watson, Frank Morley, Robert M. Ellis, and Boghas B. Tahmisian, of St. George's Hospital; Francis S. Tidcombe, of St. George's Hospital and Mr. Cooke's School of Anatomy and Physiology; George F. S. Genge and Henry Morris, of Westminster Hospital; Joseph E. G. Calverley, Arthur W. R. Cochrane, Frank M. Burnett, John F. Bill, and Arthur H. Morris, of St. Bartholomew's Hospital; William D. Frazer and Robert G. Strange, of St. Thomas's Hospital; Arthur P. Gibbons and Cyril B. Howse, of London Hospital.

Anatomy only.—Edward G. Moon, of St. Mary's Hospital; William A. Carden, of Guy's Hospital; Montagu H. C. Palmer, of London Hospital; Arthur A. Rogers, of St. Bartholomew's Hospital.

(Eight candidates were referred in both subjects, and four in Physiology only.)

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentleman, having previously passed the necessary examinations, and having now attained the legal age (twenty-five years), was, at the ordinary meeting of the Council on the 7th inst., admitted a Fellow of the College:—

Paton, Edward Percy, M.B. Lond., L.R.C.P. Lond., St. Bartholomew's Hospital; diploma of Member dated Aug. 1st, 1889.

CAMBRIDGE UNIVERSITY.—The following candidates have satisfied the Examiners in both parts of the recent examination in Sanitary Science:—

Bamber, C. J.	Jones, J. H.
Davison, T. H.	Roe, W. A. C.
Elliot, R. H.	Semple, D.
Fligg, W.	Taylor, J. M.
Foster, W.	Taylor, M. H.
Hadley, W. J.	Thresh, J. C.
Hodges, W.	Trevor, E. T.
Hyatt, J. T.	Weir, G. W.
Jones, A. L.	

UNIVERSITY OF GLASGOW.—The following gentlemen have passed the Third Professional Examination for the degree of M.B. and C.M.:—

A, including Pathology.—William Cassels, James Cochrane, Peter Forrest Dewar, George Edgar, Alfred Forrest, M.A., Andrew Graham, Ernst Denny Scott Heyliger, William Munn Hunter, Neil Keith, Robert M'Farlane Marshall, James Robert M'Cheyne Miller, M.A., William M'Gall, George Nicoll, Peter Rankin, James Bryce Robertson, John Davidson Smith, John Barr Stevens, James Thomson, Peter Thomson, Henry William Williams, James Murray Young.

B, not including Pathology.—Thomas Barrowman, Duncan Francis Brown, Allan Cameron, Vivian Ernest Chang, Thomas Colvin, William Copland, George Alexander Eadie, Edward Arthur Eckersley, John James Fraser, Thomas Adams Stewart Gibb, Alfred Alex. Cumming Grant, David Fraser Harris, B.Sc., William Irwin, James Ritchie Jeffrey, Alexander Kelso, David Millar King, Robert Langmuir, M.A., Thomas Burns Marshall, James Binnie Millar, John Munro, Duncan MacDonald, James M'Kee, James Morton MacLauchlan, Balfour Stewart Nicholson, John Paxton, Alfred Fred. Septimus Pearcey, Peter Patton Petrie, M.A., Allan Ramsay, Hugh Robertson, John Selkirk, M.A., William Northcote Sime, Johnson Marion Smith, Nathaniel Stevenson, M.A., John Provand Thomson, David Wallace, Alfred Webster, Alexander Grieve Young.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following have passed the First Professional Examination:—

M. Carraher, M. J. Carroll, C. J. Cavenagh, M. Corry, H. E. Deakin, G. H. Fisher, P. J. Fitzsimons, H. Herrick, J. R. Hewitson, E. C. Hodgson, E. J. Hogan, M. Hurley, D. Jones, W. Lawler, E. J. Lynch, M. R. Moore, J. McCarthy, B. McCaul, J. A. Neary, D. O'Brien, J. Thomson, and F. Wise.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed the recent primary examination in the respective subjects:—

Part I.

Chemistry, Materia Medica, Botany, and Pharmacy.—W. S. Robinson, Queen's College, Birmingham; L. M. Yardley, Royal Free Hospital.

Chemistry.—F. T. Knott, Guy's Hospital; E. Wright, Queen's College, Birmingham.

Materia Medica, Botany, and Pharmacy.—H. E. Davis, St. Thomas's Hospital; E. C. B. Ibotson, Guy's Hospital.

Pharmacy.—E. H. Forgett, Edinburgh University; L. Macrae, King's College and Glasgow; W. Taylor, Queen's College, Birmingham.

Part II.

Anatomy and Physiology.—C. J. Barnes, King's College; A. D. Clark, St. Bartholomew's Hospital; J. L. Davis and S. J. Haylock, St. Mary's Hospital; K. M. Hunter, Royal Free Hospital; E. C. B. Ibotson, Guy's Hospital; R. W. Middleton, Yorkshire College, Leeds; E. G. Moon, St. Mary's Hospital; R. A. McW. Robinson, Belfast; J. J. Speais, London Hospital; P. R. Wallis, University College.

Anatomy.—W. E. V. Gould, Queen's College, Birmingham; T. Gregg, St. Bartholomew's Hospital; J. B. Hodgson, Manchester and Glasgow; J. E. Jones, London Hospital; L. J. K. Lake, King's College; B. H. Leigh, Owens College; S. E. H. Martin, Royal Free Hospital; T. J. M'Culla, London Hospital; A. P. Square, Middlesex Hospital; J. R. D. St. Cyr, St. Bartholomew's Hospital; J. H. E. Trout, Queen's College, Birmingham; J. J. Winn, London Hospital.

Physiology.—J. T. Brickwell, Guy's Hospital; A. H. Bygott, Queen's College, Birmingham; H. Clapham, Sheffield; R. N. De Beauvais, Aberdeen; A. E. Freer, St. Mary's Hospital; A. R. McCullagh, Charing-cross Hospital; W. E. Pain, Guy's Hospital; C. J. Underwood, Charing-cross and London Hospitals; A. Wheeler, Edinburgh.

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THE yellow fever in Brazil is reported to be further spreading from the Brazilian coast to the interior. The principal victims are said to be Germans, English, Swiss, Austrians, and Swedes.

INFLUENZA AMONGST HORSES.—A serious epidemic of influenza is reported to exist amongst horses in London. It is stated that the outbreak is more virulent than any which have preceded it.

HOMES FOR WORKING BOYS IN LONDON.—The Princess Christian has consented to lay the memorial stone of a new City Home for Working Boys on June 15th, attended by the Lord Mayor. The home has been carried on at 30, Spital-square for twenty-one years, doing a most useful work amongst lads engaged in the City. The building and freehold will cost £9500, towards which £3200 has been subscribed by the committee and a few friends. The home is one of eight known as Homes for Working Boys in London. The Hon. T. H. W. Pelham is treasurer, and the office is at 18, Buckingham-street, Strand, W.C.

THE GENERAL PRACTITIONERS' ALLIANCE.—A general meeting of the members of the above Society was held at Exeter Hall on Tuesday, April 5th, George Brown, M.R.C.S. (President), in the chair, to consider the proposed Royal Charter to the Royal British Nurses' Association. The following resolution was proposed by Dr. G. J. Eady, seconded by Dr. F. H. Alderson, and carried unanimously:—"That this meeting of the General Practitioners' Alliance considers that the registration of trained nurses is a measure which is calculated to protect the sick against untrustworthy nurses, and will be of much advantage to medical men by affording them ready and reliable information as to the training and experience which nurses have received. This meeting, therefore, believes that it would be for the public welfare that the Royal British Nurses' Association should be incorporated by Royal Charter, and requests the president of the Alliance to forward a copy of this resolution to the Lord President of the Privy Council."

BEQUESTS AND DONATIONS TO HOSPITALS.—The late Major Barker of Wakefield bequeathed £2000 to the Clayton Hospital, Wakefield, £1000 to the Albert Asylum, Lancaster, £200 to the Scarborough Sea-bathing Hospital, and £100 to the Lock Hospital, London. Miss Louisa H. F. Bennett, late of Florence, bequeathed £6000 to the Manchester Royal Infirmary, £1000 each to the Middlesex Hospital and St. Thomas's Hospital, London, £3000 to the Hospital for Consumption, Brompton, £2000 to the Cancer Hospital, Brompton, and £5000 to the British Home for Incurables, for the purpose of founding a ward to be called the "Hannah Fawsett Bennett" Ward. The late Mr. Oliver Heywood of Manchester bequeathed £5000 to the Children's Hospital, Pendlebury, £3000 to the Salford Royal Hospital and Dispensary, and £2000 to the Manchester Infirmary. The treasurer of the Salford Royal Hospital has received a legacy of £500 from the executors of the late Mr. J. Hampson of Kempsford. The Goldsmiths' Livery Company has made grants of £250 and £500 to the Westminster Hospital and the Middlesex Hospital respectively. The following bequests have become payable by the death of Dr. George Miller of Glasgow:—£300 each to the Royal Infirmary and Western Infirmary, £200 to the Victoria Infirmary, £100 to the Royal Hospital for Sick Children, and £200 to the Colquhoun Bequest Fund for Incurables—all of Glasgow. The late Mr. William Blanchard of New Hampton bequeathed £500 each to the Richmond Hospital and the Teddington Hospital, £200 each to the Dispensary, King-street, St. James's, and the French Hospital, £100 each to the Hospital for Diseases of the Throat, Golden-square, to the Hospital for Diseases of the Skin, Leicester-square, to the Hospital for Consumption, Brompton, and to the Convalescent Home, Weybridge. Mr. George C. Ash, late of Maida Vale, bequeathed £500 each to the St. Mary's Hospital, Paddington, Middlesex Hospital, Charing-cross Hospital, University College Hospital, London Fever Hospital, King's College Hospital, Royal Free Hospital, London Hospital, Westminster Hospital, and the Hospital for Consumption, Brompton. The late Mr. Chas. H. Wagner of Birmingham bequeathed £500 each to the Birmingham and General Hospital and the Queen's Hospital, Birmingham, £300 to the Birmingham General Dispensary, £100 to the Children's Hospital, Birmingham, and £50 to the German Hospital, London.

SMALL-POX IN DORSET.—Small-pox, which broke out last week at the Union Workhouse at Shaftesbury, is reported to be spreading, notwithstanding the most stringent precautions.

MEDICAL MAGISTRATE.—The name of George Henry Browne, L.R.C.P.Edin., L.F.P.S.Glas., has been placed on the Commission of the Peace for the county of Brecon.

HOSPITAL SUNDAY FUND.—The late Dr. H. Elthington Price, of No. 1, Tisbury-road, West Brighton, left a legacy of £105, free of duty, to the Hospital Sunday Fund.

NAVAL MEDICAL SUPPLEMENTAL FUND.—At the quarterly meeting of the directors of the fund, held on the 12th instant, T. Russel Pickthorn, Esq., Inspector-General, in the chair, the sum of £80 was distributed among the several applicants.

TWO Tartars in the neighbourhood of Kazan have been sentenced to twelve years' penal servitude for the murder of a little girl of six years of age. They had cut out her heart to give it to a sick person to eat, as a human heart had been prescribed by a mullah!

COUNTY COURT ACTION AND COUNTER ACTION.—Messrs. Mason and Smith, surgeons, in the St. Austell's County Court, brought an action against Mr. Alfred Warne, and were met by a counter-claim for negligence and unskilful surgery and damages for £50, their claim being for £7 12s. 6d. Fortunately, the defendant had a sensible solicitor, who saw that there was no evidence in favour of the counter-claim and withdrew it. His lordship gave a verdict for the plaintiffs, with costs.

THE QUEEN AT HYÈRES.—In recognition of the interest manifested by the members of the British colony in the Infant Asylum at Hyères, the committee of the institution have solicited from the Queen permission to designate the bed last established by the name of some member of the Royal family. The Queen, in reply to this petition, has remitted a sum of money sufficient to instal four additional beds in the hospital, signifying at the same time her wish that they should respectively bear the names of Queen Victoria, Princess Beatrice, Duchess of Connaught, and Princess Margaret Victoria of Connaught.

MEDICAL NOTES IN PARLIAMENT.

Small-pox in London.

IN the House of Commons on Monday last Mr. Ritchie, replying to Mr. Talbot, said: I have been strongly impressed with the great importance of the local authorities taking the most energetic measures with the view of preventing the spread of infection when these cases occur, and in May last I wrote to the vestry of the parish of Shoreditch and to the several other vestries in the metropolis asking them specially to instruct their medical officer of health in every case of small-pox which might be notified to him, or which might come to his knowledge, immediately to visit the house where the disease had broken out, and at the earliest possible moment to take such measures as might be necessary to secure as far as practicable the isolation of the patient, the vaccination of any persons who might have been exposed to infection, and the disinfection of the premises, and any further action which the circumstances admitted of for the purpose of checking the extension of the disease. I am informed that the medical officer of health reported to the vaccination officer the outbreak of small-pox in the two houses referred to, and that the vaccination officer immediately visited the inmates and urged them to obtain vaccination and revaccination. Unfortunately his warning appears to have been disregarded. I learn that an arrangement has been made for vaccination daily of urgent cases by one of the public vaccinators of the parish. With respect to revaccination, there is no law under which this can be enforced. As regards vaccination, I am strongly impressed with the responsibility of parents who neglect to have their children vaccinated, and of the local authorities who fail to put in operation the law as to the enforcement of vaccination, especially where an outbreak of small-pox has actually occurred.

Burgh Police and Health (Scotland) Bill.

The House went into Committee on this Bill. On the first clause, Dr. Clark moved to report progress, as no opportunity had been afforded for putting down amendments. He afterwards withdrew his motion, and the Bill was proceeded with.—On the motion of Dr. Cameron progress was reported, when Clause 340 was reached on the ground that succeeding clauses opened up debateable matters relating to public health and borrowing and rating powers.—The motion was agreed to.

Midwives' Registration.

On the motion of Mr. Fell Pease, the Select Committee on Midwives' Registration was nominated as follows: Mr. Bright, Mr. Tatton Egerton, Dr. Farquharson, Sir W. Fitz Wygram, Dr. Fox, Mr. Howorth, Sir Guyer Hunter, Mr. Fell Pease, Mr. Rathbone, Mr. Stephens, and Mr. Arthur Williams; five to be the quorum.

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Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

BLAKISTON, ARTHUR A., M.R.C.S., has been reappointed Medical Officer of Health for the Borough of Glastonbury.

BONE, JOHN W., M.B., C.M. Edin., has been appointed Senior House Surgeon to the Clayton Hospital and General Dispensary, Wakefield.

BOWDEN, REGINALD T., M.D. Durh., M.R.C.S., has been appointed Medical Officer for the Ramsgate Sanitary District of the Isle of Thanet Union.

BRISCOE, W. T., M.D., M.C. Dub., has been reappointed Medical Officer of Health to the Chippenham Town Council.

BROWN, JOHN L, M.B., C.M. Edin., has been appointed Medical Officer for the Ashburton Sanitary District of the Newton Abbot Union.

CLARK, JAMES, M.D. Aberd., L.R.C.S., F.R.C.S. Edin., has been reappointed Medical Officer of Health for Lichfield.

CONOLLY, C. H., M.R.C.S., has been reappointed Medical Officer of Health, Wood-green, N.

DUFFUS, GEORGE, M.B., C.M. Aberd., has been appointed Medical Superintendent of the Brook Villa Asylum, West Derby, Liverpool.

EAGER, T. CAWLEY, L.R.C.P., M.R.C.S., L.M., L.S.A., has been appointed Medical Officer to the Woking Post-office.

FIELD, F. A., L.R.C.P. Lond., M.R.C.S., has been appointed Resident Surgeon to the Bedford General Infirmary and Fever Hospital.

FISHER, JOHN A., L.F.P.S. Glasg., L.R.C.P. Edin., has been reappointed Medical Officer of Health for Garston.

GIBBON, JOHN GEORGE, B.A., M.B., B.Ch. Univ. Dub., L.M. Rotunda Hosp., has been appointed Resident Medical Officer to Grey's Hospital, Maritzburg, Natal, S.A.

GOWING, B. C., M.R.C.S., has been reappointed Medical Officer of Health for the Penistone Urban Sanitary District.

GREENWOOD, WM., M.R.C.S., L.M. R.C.P. Irel., has been appointed Medical Officer for the Ossett Sanitary District of the Dewsbury Union.

GRIFFITH-WILLIAMS, WM. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Mattishall Sanitary District of the Milford and Launditch Union.

HAIGH, T. A., M.R.C.S., has been appointed Medical Officer of Health for Meltham.

HALL, WILLIAM, L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer of Health for the Ince-in-Makerfield Urban Sanitary District of the Wigan Union, vice R. S. Hall, deceased.

HEMSTED, ARTHUR, M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer for the Walton-on-Thames and Oatlands Districts of the Chertsey Union, vice R. Reece, resigned.

KEMPE, C. M., M.R.C.S., has been reappointed Medical Officer of Health to the New Shoreham Port Sanitary Authority.

MARSH, FRANK, M.R.C.S., L.R.C.P. Lond., D.P.H. Camb., has been appointed Assistant Surgeon to the Birmingham and Midland Ear and Throat Hospital.

MILLETT, GEO. B., M.R.C.S., L.R.C.P. Edin., has been reappointed Medical Officer of Health for the Borough of Penzance.

NAYLOR, R. G., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Audlem Sanitary District of the Nantwich Union.

NICOLLS, JOHN M., M.B., C.M. Dub., has been reappointed Medical Officer of Health for St. Ives.

OPIE, EDWARD A., M.B. Durh., M.R.C.S., has been appointed Medical Officer for the No. 2 B District of the East Preston Union.

PERCIVAL, THOS., M.R.C.S., has been appointed Medical Officer of Health for Knottingley and District.

REDWOOD, T. H., M.D. Durh., M.R.C.S., L.R.C.P., has been reappointed Medical Officer of Health for Rhymney.

REID, A. G., M.B., C.M. Edin., has been appointed House Surgeon to the Rotherham Hospital and Dispensary, vice Weatherbe.

RHODES, JAS., M.R.C.S., has been appointed Medical Officer of the Workhouse, Glossop Union.

ROBINSON, W. V., L.R.C.P. Lond., M.R.C.S., has been appointed a District Medical Officer of the Chertsey Union.

ROUTH, RANDOLPH H. F., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the No. 2 Sanitary District of the Bridgwater Union.

ROWLAND, F. MORTIMER, B.A., M.B., B.C. Cantab., M.R.C.S., L.R.C.P. Lond., has been appointed Resident Assistant Medical Officer to the Workhouse Infirmary, Birmingham.

SCATLIFF, ARTHUR W., L.R.C.P., L.R.C.S. Edin., D.P.H. Lond., has been appointed Medical Officer of Health for the Margate Urban Sanitary District of the Isle of Thanet Union.

SCOTT, ARTHUR W., M.D. Brux., M.R.C.S., has been reappointed Medical Officer of Health for the Handsworth Urban Sanitary District.

SHAW, J. HEPWORTH, M.R.C.S., L.R.C.P. Lond., M.B., Ch.B. (Vict.), has been appointed Assistant Surgeon to the Liverpool South Dispensary, vice Dr. Molyneux, resigned.

TURNER, JOHN A., M.B., C.M. Edin., has been reappointed Medical Officer of Health for the Hinckley Rural Sanitary District.

TYNDALL, FRANCIS, L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for West Houghton.

WALTON, F. F., M.R.C.S., L.R.C.P. Lond., has been appointed Medical Officer for the East Sculcoates Sanitary District of the Sculcoates Union.

WATKINS, D. J. G., B.A. Cantab., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Lincoln County Hospital.

WATSON, THOS., M.D. Glasg., C.M., has been reappointed Medical Officer of Health for the South Stockton Urban Sanitary District.

WELLBURN, EDGAR D., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been reappointed Medical Officer of Health for Sowerby Bridge.

WOLVERSON, THOS., L.R.C.P. Edin., M.R.C.S., has been appointed Surgeon to the Wolverhampton Police Force.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOROUGH OF LEICESTER.—Medical Officer of Health for the Borough. Total salary £500 per annum (£400 as Medical Officer of Health and Superintendent of Fever Hospital, and £100 as Public Analyst). (Apply to the Town Clerk, Town Hall, Leicester.)

CHARING-CROSS HOSPITAL, London.—Surgical Registrar. Salary £40 per annum.

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY.—Junior House Surgeon. Honorarium £25 per annum, with board, lodging, and washing.

GENERAL HOSPITAL, BIRMINGHAM.—Honorary Physician.

KING'S COLLEGE, London.—Curator of the Museum

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary £80 per annum, with board and residence. (Apply to the Secretary, Leith Offices, 34, Moorfields, Liverpool.)

LINCOLN ODDFELLOWS' MEDICAL INSTITUTE.—Qualified Dispenser (out-door).

LONDON SOCIETY FOR PROMOTING CHRISTIANITY AMONGST THE JEWS.—Fully qualified Medical Man, to labour amongst the Jews at the City of Safed, in Palestine. Salary £250 per annum, with unfurnished lodgings and travelling expenses out. (Apply to the Secretaries, 16, Lincoln's-inn-fields, W.C.)

NORTH-WEST LONDON HOSPITAL, Kentish-town-road.—Resident Medical Officer for six months. Salary £50.

NORTH-WEST LONDON HOSPITAL, Kentish-town-road.—Assistant Resident Medical Officer for six months.

PLYMOUTH BOROUGH ASYLUM, Blackadon, Ivybridge, Devon.—Assistant Medical Officer. Salary £125 per annum, with quarters, board, and washing.

ROYAL HOSPITAL FOR CHILDREN AND WOMEN, Waterloo-bridge-road, S.E.—Anæsthetist and Registrar for one year. Honorarium of 20 guineas voted at the end of that term.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—Visiting Physician for the Branch Hospital in the Royal Victoria and Albert Docks.

SEAMEN'S HOSPITAL SOCIETY, Greenwich.—Visiting Ophthalmic Surgeon.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea, S.W.—Anæsthetist. Honorarium £50 per annum.

Births, Marriages, and Deaths.

BIRTHS.

BERRY.—On April 9th, at Wansford House, Watford, the wife of F. Haycraft Berry, M.D., of a daughter.

HERN.—On April 9th, at Semmercote, Darlington, the wife of John Hern, M.D. Ed., F.R.C.S.E., of a son.

INGLIS.—On April 3rd, at Montpellier Lawn, Cheltenham, the wife of Dr. Alexander Inglis, of Auchendinny and Redhall, Midlothian, of a daughter.

SIMPSON.—On April 8th, at Northumberland House, Finsbury-park, N., the wife of S. Simpson, M.B., Medical Superintendent, of a daughter.

MARRIAGES.

CALDECOTT—D'ARCY.—On April 9th, at Christ Church, Virginia Water, Charles Caldecott, M.B., B.S. Lond., M.R.C.S., of The Grove, Jersey, to Sophia, fourth daughter of the late Major Francis D'Arcy, of Drumkeeran House, Kesh, co. Fermanagh. (No cards.)

LICHFIELD—WELBY.—On Dec. 24th, 1891, at Umtali, Manica, South Central Africa, by the Rev. J. R. Sewell, B.A. Oxon., Clergyman in charge of Umtali, Diocese of Mashonaland, James Wm. Lichfield, L.R.C.P. Lond., &c., Surgeon British South Africa Co.'s Service, to Bertha (Sister Beryl), fourth daughter of William Welby, Esq., of Canterbury.

PASSMORE—RATCLIFF.—On April 11th, at West Haddon Church, by the Rev. W. H. Disney, Rector of Winwick, John E. S. Passmore, M.R.C.S., L.R.C.P., of Gainsborough, Lincolnshire, eldest son of the late Samuel Passmore, of North Molton, Devon, to Ada, only daughter of Thomas Ratcliff, of Fox Hill, West Haddon, Northamptonshire.

WAINWRIGHT—WALKER.—On April 6th, at St. Martin-in-the-Fields, Lennox Wainwright, M.D., M.R.C.S., L.R.C.P., Lond., L.S.A., of Folkestone, second son of William Wainwright, M.I.C.E., of Ashford, Kent, to Edith, elder daughter of the late Samuel Walker, of The Elms, Edmonton.

DEATHS.

IRVING.—On April 7th, at Park Gate, Blackburn, William Irving, M.D., J.P., in his 73rd year.

KINNEIR.—On April 1st, at Sherborne, Dorset, Richard Kinneir, M.D., formerly of Cirencester, Gloucestershire, aged 78.

MUSKETT.—On Feb. 12th, at Hope Town, South Africa, from congestion of the lungs, brought on by leaving his bed to see patients while suffering from influenza, Edward Burrell Muskett, M.D., M.C., in the 55th year of his age. Deeply regretted.

TRIPE.—On April 7th, at his residence, Richmond-road, John William Tripe, M.D., Medical Officer of Health for Hackney, aged 71.

TURNER.—On April 3rd, at his residence, St. Peter's-street, Tiverton, Devon, Samuel Warren Turner, L.M., M.B. Cantab., eldest son of Captain S. C. Turner, of Childe Okeford House, Dorsetshire.

WELLS.—On April 9th, at 7, Berkeley place, Cheltenham, Warrick Walter Wells, F.R.C.S., Bengal Army (retired).

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, April 18.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

Tuesday, April 19.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

Wednesday, April 20.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

ROYAL METEOROLOGICAL SOCIETY (22, Great George-street, Westminster).—7 P.M. Mr. W. H. Dines: Anemometer Comparisons.—Mr. Francis Watts: The Hurricane over the West Indies, August 18th-27th, 1891.

EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Mr. Robert Lawson: Cholera in Ships at Sea, and its Connexion with Manifestations of the same Disease on Land.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Dr. E. Giltay: On the Use of the Camera Lucida in drawing Bacteria.—Mr. F. Chapman: Foraminifera of the Gault of Folkestone.—Surgeon P. W. Bassett-Smith: On some Deep-sea Deposits collected during the Voyage of H.M.S. *Penguin*, 1891.—Mr. W. M. Osmond: Simple Photo micrographic Apparatus.

Thursday, April 21.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

HARVEIAN SOCIETY.—Dr. Scanes Spicer: Hæmorrhage from the Upper Air Passages.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (Great Northern Central Hospital).—8.30 P.M. Clinical Evening.

Friday, April 22.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

CLINICAL SOCIETY OF LONDON.—8 P.M. Living Specimens:—Dr. Percy Kidd: A case of Angioma of the Larynx.—Mr. J. R. Lunn: Neuritis following on Fractured Arm. 9 P.M. Papers:—Sir Dyce Duckworth: Sequel to a case of Myxœdema, with Post-mortem Examination.—Mr. Howard Marsh: A case of Spontaneous Cure of Two Aneurysms of the Femoral Artery apparently by Inflammatory Action.—Mr. Arbuthnot Lane: A case of very severe Hæmorrhage following Removal of the Tonsil; Ligature of the Common Carotid; Transfusion; Recovery.

Saturday, April 23.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 13th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
April 7	29·93	E.	52	47	107	66	45	—	Hazy
,, 8	29·97	N.E.	44	43	99	65	42	—	Overcast
,, 9	29·96	N.E.	49	46	100	67	43	..	Bright
,, 10	30·00	N.E.	56	50	110	67	43	..	Bright
,, 11	29·95	N.E.	45	41	103	67	39	..	Bright
,, 12	29·93	N.E.	41	39	92	52	38	..	Bright
,, 13	29·66	E.	39	38	67	40	38	..	Raining

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

COSTLY LIBEL OF A MEDICAL MAN BY A VENDOR OF PATENT MEDICINES.

MR. ALFRED ELLIS VAUGHAN of Haslington has set an excellent example of the right way of rebuking an impudent libel by a "quack." He had a club patient named Cooke with an abrasion of the finger. Cooke was anxious about his finger, and Mr. Vaughan promised to call in another practitioner. Thereupon Cooke went to Samuel Johnson, a vendor of quack medicines, who, according to the report of the trial for libel at the Chester Assizes, gave Cooke "a lotion which was neither good nor bad." The libel was contained in a testimonial published by Johnson, and purporting to have been written by Cooke. It set out that Cooke had been unsuccessfully treated, and added, "I must have died in two more days had not my friends advised me to escape and come to you at once. I did so." Mr. Johnson's powers are further set off in extracts from his pamphlet. "I cure the worst fever in three days certain, the worst inflammation in six hours certain, twist of the bowels in six hours certain," &c. It may be hoped that this benefactor of his race may have got a "twist" in the direction of greater honesty by the fine imposed for his libel on Mr. Vaughan in the form of damages £250.

W. H. M.—We doubt very much if the solicitor, who is merely agent of the client, is liable. The client certainly is responsible to our correspondent for his fees.

W. E. G.—It is a legal question. But we think, in the circumstances stated, B. ought to pay the balance.

EPISTAXIS.

To the Editors of THE LANCET.

SIRS,—In your issue of Feb. 6th of this year was a very excellent article by Dr. A. A. Philip on "Epistaxis: an Easy and Effectual Method of Plugging." The method he describes struck me as at once simple and much preferable to the ordinary mode of using Bellocq's cannula, inasmuch as it is quicker and easier to perform. I have lately had a case of epistaxis which resisted ordinary methods of treatment—viz., compressing the upper lip, application of ice externally and internally, syringing with tincture of hamamelis and cold water, syringing with hot water. I then resorted to Dr. Philip's method, using a piece of oiled silk, with the result that the bleeding stopped at once. The following day I removed the plug without the least difficulty or discomfort to the patient, and the bleeding has not returned since. I feel very grateful to Dr. Philip for his valuable suggestion.

I am, Sirs, yours very truly,

Bath, April, 1892. OTTO HOLST.

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DEATH UNDER BROMIDE OF ETHYL.

DR. GLEICH reports a fatal result from the use of this anæsthetic. It occurred in Professor Billroth's clinique in March last, the patient being a man of forty-eight years of age, in hospital for extensive furunculus of the right arm. Before making the incision the operator had him anæsthetised with bromide of ethyl, but two minutes had barely elapsed when cyanosis appeared and pulse and breathing stopped. Artificial respiration was practised for an hour and a half, but without the slightest effect. At the necropsy there was found degeneration of the myocardium and of the liver; the renal epithelium, moreover, was undergoing degenerative change. There was, however, little or nothing of the hyperæmia, which is an almost invariable phenomenon in death under chloroform. It seems difficult to tax the bromide of ethyl with the fatal result. In conditions similar to those of the patient in question no other narcotic could have been employed without imminent risk.

Mr. P. J. Thomson.—1. Dr. Radcliffe Crocker's book, "Diseases of the Skin," published by Mr. H. K. Lewis.—2. The best English Atlas at present is that of the New Sydenham Society, but it is as yet incomplete. Professor Neumann has lately published one in Vienna. We believe Mr. Y. J. Pentland is about to issue an atlas, to commence some time in the autumn of the present year.

Perplexed.—Our correspondent was not treated fairly or summoned formally. A medical man is only bound to attend when he receives a formal summons signed by the coroner. We should not advise him to do more than complain of the informality of the summons and the shortness of the notice.

MICROSCOPICAL WORK.

To the Editors of THE LANCET.

SIRS,—No doubt there are many men like myself working at the micro cope, and endeavouring to keep our bacteriological knowledge up to date. The discussion at the Pathological Society on Phagocytosis furnished the most interesting series of papers that have been published for a long time. Now a great requisition is a gentleman who would undertake to examine any microscopical specimen sent "carriage paid" to him, with stamps to defray the cost of its return. No one would wish to occupy his time or for him to do it gratuitously, and if the necessary fees were not remitted, let him disregard the application. It would often be a great satisfaction to get a good microscopist to verify one's nomenclature, or say—"You have made a mistake; it is so-and-so; prepare the next specimen according to direction." I hope I am making a good suggestion; for I feel there is a great desideratum for such a gentleman, if he will come forward and volunteer his services. It would give an impetus to pathology and bacteriology throughout the country. I am, Sirs, yours faithfully,

April 11th, 1892. M.R.C.S.

THE DECIMAL SYSTEM.

THE New Decimal Association has just issued its second report, which gives a record of satisfactory progress in the work it has undertaken. The metric system is, as is well known, in use in Germany, France, Italy, Holland, Spain, Portugal, and many other countries, and it can, we think, be only a question of time for its manifold advantages to be practically recognised by all the nations of the world.

Omega, L.A.H., &c.—The treatment is at best unsatisfactory. Abstinence from alcoholic liquors should be strongly insisted on, and the bowels carefully regulated with saline purgatives and an occasional mercurial pill. Iodide of potassium would also probably prove useful. Should ascites occur, the fluid should be drawn off. But no single treatment can be suggested; such must necessarily be expectant.

Mr. Piggott (Clare).—Very shortly.

"PTYALISM."

To the Editors of THE LANCET.

SIRS,—I would advise "M.B., C.M." to give his patient chlorate of potassium in solution, in the proportion of an ounce to a pint of water—an ounce of the solution thrice daily before food. I published my experience of the remedy in cases of ptyalism and dry-mouth in the *Dublin Journal of Medical Science*, August, 1880. The medicine acts as a regulator in functional derangement of all conglomerate glands: in the case of ptyalism by reducing to normal limits the secreting power of the gland, and in cases of dry-mouth by exalting the physiological action when below par.—I am, Sirs, yours faithfully,

Belfast, April, 1892. ALEXANDER HARKIN, M.D., F.R.C.S.

To the Editors of THE LANCET.

SIRS,—Must we not consider the case given by your correspondent as one of chronic catarrh, similar to lachrymal catarrh or nasal catarrh, so frequently seen in old people? I have found the latter in connexion with a general weakness of circulation of the blood, and much improvement to result from a course of heart tonics, especially nux vomica.

I am, Sirs, yours faithfully,

April, 1892. M.R.C.S.

"POISONOUS CIGARETTES."

WE have received from various cigarette manufacturers samples of cigarettes the innocuousness of which does not appear to be suspected. If an opinion as to quality is required, they should be submitted of course to an analyst; but if there is reason to suppose that the practice of employing arsenic or other injurious materials in their manufacture is resorted to, then we should feel it our duty, in the interest of public health, to give the matter our serious attention. We have also received from one firm an interesting letter in which the writer is of opinion that harm frequently results from the use of uaripe tobacco, or of tobacco containing an undue proportion of isaluc, and from the ingredients used as flavouring agents, as well as from the practice of inhaling the smoke resorted to by some smokers. With the substance of these remarks we quite agree.

Dr. Edward Little.—"Natural premiums" (so-called) are calculated to increase with the age of the policy, and therefore to become very burdensome in course of time. This does not matter if a temporary assurance is all that is wanted; but that can be obtained more cheaply with the old-established offices than with these new comers in the insurance field. Comparisons such as are commonly made between "natural premium" policies and ordinary policies are apt to be very misleading, because the gradual growth and eventual burden of the natural premium are apt to be ignored and overlooked. Hence these schemes cannot be recommended in an ordinary case—the risks of present misunderstanding and subsequent disappointment are so great. Further than this, their best terms can always be bettered by the old companies. See the new Premium Table just issued by the London Life Association.

C.—It would not be in good taste. The professions are not to be confounded in one person.

SPRAY PRODUCERS WITH CHECK ACTION.

To the Editors of THE LANCET.

SIRS,—In your issue of April 9th, under the heading of "New Inventions," is an illustrated account of a "new" spray producer with check action, for applying medicaments to the larynx &c. I received from Berlin in the latter part of 1889 a similar instrument attached to a test-tube with foot-piece. Messrs. Weiss of Oxford-street in that year; at my suggestion, modified this instrument for me, the modification consisting of a screw arrangement, by which it can be attached to the neck of any bottle. They also at the same time made me a foot bellows to use with the above. This was in 1889; so I hardly think it can now be called a "new invention." I shall be much obliged if you will insert this in your next issue in justice to Messrs. Weiss, who were, I believe, the first makers of this ingenious device in London.

I am, Sirs, yours faithfully,

Devonshire-street, W., April 11th, 1892. W. R. H. STEWART.

*** Messrs. Weiss and Son send us a letter to the same effect as the above.—ED. L.

PUFFING OF MEDICAL MEN BY THE LAY PRESS.

WE extract the following from the *St. John's Wood, Kilburn, and Hampstead Advertiser*. Dr. Gaster is to be pitied for such an unseemly newspaper puff.

> "Dr. A. Gaster has removed from 31, Warwick-road, Maida-hill, to 100, Abbey-road. This young rising physician was pupil of the famous professor, Dr. Babes, discoverer of the microbe of influenza, which has wrought such ravages in our midst of late. Dr. Gaster has contributed many original articles to different medical journals abroad, where he has taken his degree of M.D. with special honours, and subsequently passed as member of the Royal College of Physicians, London. He has held the appointment of house physician, house surgeon, and resident medical officer abroad; and house physician to the City of London Hospital. Dr. Gaster is the son of Chevalier A. E. Gaster, secretary to the Dutch Legation, and brother to the well-known Rev. Dr. Gaster, of Warwick-road, W."

Inquirer.—No qualification is required, but it must be borne in mind that all the responsibility lies with the principal.

CREMATION.

CREMATION is growing in popularity among the French. Last year 3741 bodies were cremated, and the second crematorium in the Père Lachaise cemetery had to be enlarged. Italy has twenty-two crematoria, among them several perambulating ones. In Germany three new ones were opened in 1891. In other countries also the practice is becoming popular.

R. P. W. will find the information in our Students' Number, published in September last.

Dr. A. H. Smith (New York).—The paper will appear in an early number.

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THE PERILS OF DEATH CERTIFICATION IN SPAIN.

FROM a case which has just been published in *La Independencia Médica* it would appear that a Spanish medical man practising in Tarragona was sent for to a poor cottage some two hours distant, to see a man who said he had had a chill, with pain in the side and headache, and who seemed so weak that he could not raise himself in bed. The temperature and pulse were normal, and nothing was discovered by auscultation and percussion. The tongue was dry and dark. The patient seemed very despondent about himself, though the doctor did his best to reassure him by telling him that there was no cause for anxiety. In the evening the wife called on the doctor, telling him that her husband had become worse, and begging that he might be visited as early as possible next day. The doctor was surprised at this intelligence, and was still more astonished when, just as he was starting to pay the required visit the next morning, a messenger arrived, saying that the man was dead. The only conclusion he could come to was that some unsuspected complication had arisen which had rapidly carried the patient off; and when he was asked to fill up the death certificate later in the day he mentioned to the person who came for it his surprise at the patient's death. It was ultimately discovered that the whole case was an attempt to defraud an assurance company of 40,000 francs, the coffin when it was exhumed containing only a bag of earth and some fæces, which were employed for the purpose of preventing the neighbours from viewing the body, which was said to have burst and to be most offensive. The guilty parties were punished, and the doctor, who was found by the court to have given a false certificate "with rash imprudence," was fined 125 francs, and was ordered to pay costs amounting to a much larger sum. Fortunately for him, the assurance company testified its gratitude for the very important aid he had given it in resisting the claim by indemnifying him from all pecuniary loss. In the absence of any evidence as to the details of the cause of death given in the certificate we can hardly express an opinion as to whether the medical practitioner was deserving of sympathy. We are inclined to think that, under such circumstances as those narrated above, an English medical man would undoubtedly refuse to certify

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Messrs. Allen and Hanburys, London; Dr. Anningson, Cambridge; Mr. Appleyard, Bradford; Commander Blount, R.N., Chelsea; Messrs. Burroughs and Wellcome, London; Dr. Brogden, Cardiff; Mr. Barford, Wokingham; Mr. T. Bond, London; Dr. Collie, London; Mr. Collins, Birmingham; Mr. Claxton, Bournemouth; Mr. Cameron, Strathpeffer, Spa, N.B.; Mr. Cohen, London; Dr. Dutil, Paris; Messrs. Davies and Co., London; Mr. Duffin, Liverpool; Dr. W. Duncan, London; Messrs. Earnshaw and Co.; Mr. Frost, London; Mr. Galloway, Glasgow; Mr. Gilchrist, Inverskip; Dr. F. Hewitt, London; Dr. W. H. Harris, Maidstone; Messrs. Humphreys, Knightsbridge; Mr. Hall, London; Dr. Hellier, Leeds; Dr. Hughes, Denbigh; Dr. Harkin, Belfast; Mr. Holst, Bath; Mr. Kelly, London; Messrs. Krohne and Sesemann, London; Dr. Knott, Middlesbrough; Dr. J. Kerr, Bradford; Mr. Keyworth, Lincoln; Messrs. E. and S. Livingstone, Edinburgh; Messrs. Lloyd and Co., Leicester; Dr. Ed. Little, Wimbledon; Mr. Martin, Blackburn; Mr. Jas. MacMunn, London; Dr. J. Macpherson, Larbert; Mr. W. E. Miles; Mr. Howard Marsh, London; Mr. Nock, London; Mr. North, Birmingham; Dr. J. Oliver, London; Captain Persico, London; Mr. R. J. Pitt; Mr. Powers, Tamworth; Mr. Prior, London; Mr. Pollard, Wakefield; Mr. Rice, Cheshire; Messrs. Richardson and Co., Liverpool; Messrs. Rowntree and Co., York; Messrs. Robertson and Scott, Edinburgh; Mr. T. M. Stone, Wimbledon; Mr. Southam, Manchester; Messrs. S. Smith and Co., Bow; Dr. G. Steell, Manchester; Messrs. Swinburne and Son; Mr. W. R. H. Stewart, London; Mr. Siegle, London; Dr. A. H. Smith, New York; Mr. B. Thornton, Margate; Mr. Fry, Chipping Norton; Mr. Tomkins, Leicester; Mr. Thacker, Ohio; Dr. Thomas, Carmarthenshire; Mr. E. W. Taylor, London; Mr. Vickers, London; Mr. Westmorland, Manchester; Mr. Wilks, Worthing; Mr. Roger Williams, Preston; Mr. Wilkinson, Nottingham; Messrs. J. Wright and Co., Bristol; Messrs. White, Druce, and Brown, London; A Constant Reader; C.; F. M. D.; M.R.C.S.; Omega; Good Health Publishing Co., Michigan, U.S.A.; Medico, Liverpool; Fides; *Surrey Comet* Office, Kingston-on-Thames; Massage, London; A.B.C.; Town Clerk, Leicester; Clerical &c. Agency, Manchester; Secretary, Royal Hospital, Salford; Medicus, London; Y.; Perplexed; K. T. M., Torquay; Euonymin, London; B. R. K. J., London; Secretary, School of Medicine, Sheffield.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Watt, Workington; Mr. Robinson, Folkestone; Messrs. Brown, Gould, and Co., London; Mr. Robinson, Sheffield; Mr. McKettrick, Virginia Water; Mr. Norman, Dawlish; Mr. Jackson, Wisbech; Messrs. Keith and Co., Edinburgh; Mr. Brice, Bridgwater; Messrs. Whitworth and Stewart, Manchester; Dr. Whitham, Manchester; Dr. Davies, Ebbw Vale; Mr. Thin, Edinburgh; Mr. Fiske, Cambridge; Messrs. Benger and Co., Manchester; Mr. Patterson, Durham; Mr. Nicholls, Bury St. Edmunds; Mrs. Tyte, Minchinhampton; Mr. Mainwaring, West Kensington; Dr. A. Davis, London; Mrs. Muskett, Cape Town, South Africa; Miss Candy, Brixton; Mr. Dyer, Hants; Messrs. Thompson and Sons, St. Leonards; Mr. Walker, Stirlingshire; Mr. Werner, Gold Coast Colony; Dr. Waterhouse, Rotherham; Mr. Pryce, Sidmouth; Mr. Anderson, Carmarthen; Mr. Foxley, Barnsley; Mr. Hornibrook, Bloomsbury; Mr. Chantrell, Birkenhead; Mr. Edwards, Birmingham; Dr. Richardson, London; Rev. Mr. Day, Norwich; Mr. Taylor, Peterborough; Mr. Rickeard, Newcastle-on-Tyne; Dr. Adams, West Malling; Mr. Jones, Bridgend; Dr. Jessett, London; Dr. Wilding, Hendley; Mr. Ling, Keighley; Mr. Ellis, Harrow; Mr. Macara, Glasgow; Mr. Stilliard, Birmingham; Mr. Palmer, Brighton; Mr. Howe, Bromsgrove; Dr. Gorham, Garstang; Mr. Coxon, London; Mr. Hare, Darlington; M. L., Edinburgh; Janion, London; N., London; D. le F. S., London; Asmodeus, London; J. W. P., London; Warnsford Asylum, Oxford; Matron, Southampton; Secretary, Cheltenham Hospital; Surgeon, Rochford; T. H., Manchester; Joyce, Rhondda Valley; Chemist, Chester; Midlands, London; M., London; Class Rooms, Edinburgh; Surgeon-Major, London; Secretary, Rotherham Hospital; C., Bristol; A. B. C., London; J. A. T., Middlesbrough-on-Tees; Wigan, London; Wales, London; B.A., London; G. G., London; Beta, London; Strophanthus, London.

NEWSPAPERS.—*Liverpool Courier, Leeds Mercury, Leicester Daily Post, Public Health, Nottingham Evening News, Sussex Daily News, Manchester Guardian, Cleveland Leader (New York), Toronto Globe, Melbourne Argus, Cape Times, North British Daily Mail, Western Daily Mercury, Sydney Morning Herald, Scottish Leader, Law Journal, Freeman's Journal, Belfast News Letter, Scotsman, Bristol Mercury, Yorkshire Post, Newcastle Daily Leader, Hertfordshire Mercury, Windsor and Eton Gazette, Mining Journal, Reading Mercury, Liverpool Daily Post, Weekly Free Press and Aberdeen Herald, Dundee Advertiser, City Press, Local Government Chronicle, The News, Builder, Windsor and Eton Express, Sun (New York), Surrey Advertiser, Home News, Sunday Times, Society, Architect, Temperance Record, Local Government Journal, West Middlesex Advertiser, Horticultural Times, Le Temps (Paris), Chester Courant, Hobart Mercury, Eastern Daily Press, Richmond Herald, Rangoon Times, New Zealand Herald, West Middlesex Standard, Citizen, Bradford Observer, South Wales Daily News, Eastern Daily Press, &c.*, have been received.

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Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

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Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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THE IDEAL NUTRITIVE BEVERAGE.

ESSENTIA MALTI (KEPLER).

WE have recently introduced a new food agent and aid to the digestion of farinaceous substances under the above name. This preparation is manufactured by a modification of the KEPLER process for making the well-known **Kepler Extract of Malt.**

The KEPLER ESSENCE OF MALT contains a large amount of **Diastase** and natural mineral phosphates, and a considerable amount of tissue-forming substances. *The immense superiority of this preparation over ale and stout* is at once apparent when the process of manufacture is considered in detail. In making ale and stout the carbo-hydrates (so valuable as nutrient material) and the diastase (a most important principle of Malt, being of special service in errors of nutrition accompanied by digestive derangement) are sacrificed for the production of alcohol; whereas *in the KEPLER ESSENCE OF MALT these are carefully preserved intact.* This Essence is therefore an ideal aid to digestion and nutrient agent. **A wine-glassful of the Kepler Essence of Malt contains more elements of nutrition than a pint of the finest alimental stout.**



The flavour of the ESSENCE OF MALT is delicious. It is admirable as a table beverage when diluted with aërated water, and as an addition to milk for infant and invalid dieting; for it sweetens it and facilitates its prompt and perfect digestion. The Essence may be taken in coffee, gruel, aërated or plain water, wine, or mixed with any farinaceous pudding. As an addition to the food for young children its value cannot be over-estimated. It increases the value of all farinaceous food, and prevents the starch in such food, and large clots of curd in milk diet, overtaxing the power of the digestive functions.

For Lactating Women the ESSENCE OF MALT (KEPLER) contains many desirable properties; it quickly increases the flow and enriches the quality of the milk. It is serviceable as a laxative for young children, especially when constipation depends upon the defective digestion of starch. As a food beverage, it cannot fail to be productive of the highest benefit, either in **acute disease** or during **convalescence**; in fact, wherever there is defective nutrition, the KEPLER ESSENCE OF MALT is useful as a nutritive food.

As a Linctus, the Essence of Malt food, swallowed slowly, affords marked relief in the troublesome, dry, laryngeal cough, and the hacking cough of puberty or consumption, is pleasantly grateful and soothing, aids digestion, and builds up the tissues.

The KEPLER ESSENCE OF MALT is supplied to the profession in champagne pints at 1s. 2d. each. Retail 1s. 6d. each.

BURROUGHS, WELLCOME, & CO., SNOW HILL BUILDINGS, LONDON, E.C.

A Specimen will be sent free to any Medical Man on request.

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SPECIAL ADVANTAGES OF

BYNO-HYPOPHOSPHITES

AS A GENERAL TONIC.

Composition.—BYNO-HYPOPHOSPHITES consists of a neutral solution of the *Hypophosphites of Iron, Manganese, Calcium,* and *Potassium,* to which are added the *alkaloids of Cinchona* and *Nux Vomica,* the whole being in combination with *Bynin,* our Liquid Extract of Malt, already well known to the profession. There are two points about the mixture which are especially noteworthy:—

1. The alkaloids are present as they are found in the plants from which they are derived—that is, in combination with the natural acids,—and in this condition are believed to be more readily assimilable. The quantity of each present is accurately measured—there being, e.g., 1-40 grain of Strychnine to each ounce of the mixture.
2. Since sugar, as used in ordinary Syrups of Hypophosphites, is liable to cause dyspepsia or other troubles, it is here replaced by the valuable nutrient and digestive constituents of Bynin.

General Properties.—BYNO-HYPOPHOSPHITES is an amber-coloured clear liquid, readily miscible with water, of agreeable, very faintly bitter taste, deposits no sediment, and leaves no persistent taste in the mouth.

Therapeutics.—Whether or no Hypophosphites enable Phosphorus to be administered in a more readily assimilable form than do other combinations of this drug, it is as certain as extended clinical experience can make it that a combination of metallic Hypophosphites is of great value in Bronchitis, Phthisis, and other respiratory disorders, having a powerful stimulating effect, acting on the nervous system especially. The advantages to be derived from the general tonic action of the alkaloids of Cinchona and Nux Vomica and the digestive and nutritive properties of Bynin are obvious.

Dosage.—BYNO-HYPOPHOSPHITES should be given immediately after a meal, or may be taken in water with the meal. The dose is a dessert-spoonful to a tablespoonful, which may be gradually increased up to two tablespoonfuls, three times a day.

The British Medical Journal writes:—"The preparation has an agreeable taste, and is very easily miscible with water, forming a perfectly transparent solution."

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Lumleian Lectures

ON

CERTAIN POINTS IN THE ETIOLOGY OF DISEASE.

Delivered at the Royal College of Physicians on March 31st and April 5th and 7th, 1892,

BY P. H. PYE-SMITH, M.D., F.R.S.

LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—In my first lecture I endeavoured to open the statement that we are wrong if we seek for the cause of disease as of some monstrous and abnormal—almost illegal—interruption of our comforts and our life; that diseases are part of the vast and mysterious, though beneficent, system under which we live, that morbid processes are strictly physiological, and that the origin and conditions of diseases and of death must be sought by the same methods as the origin and conditions of health and of life. I would deal with etiology as a branch of natural history—and Historia, let us remember, signified inquiry as well as record,—to be studied in the light of comparative pathology and the great principle of evolution. I sought to direct attention from this point of view to the meaning of parasitic diseases, of injuries and irritants, of contagion, of diathetic states, congenital lesions and degeneration, and referred to the operation of such general biological laws as reaction to stimuli, habit, tolerance and immunity, heredity and degeneration.

We now come to the second division of our subject—the general etiological conditions which cause or favour diseases, not as accidents, injuries, degeneration and decay which affect individuals, but as predisposing rather than exciting causes, affecting groups of mankind, according to sex, age, and occupation, the climate they dwell in, and the race to which they belong.

Statistics.—Here we have less guidance from direct observation of cases and none at all from experiment. The conditions in question are too complex, and we have to depend almost entirely upon the method of statistics—i.e., the collocation in large numbers of instances. Here, if we would walk surely, we must walk warily, for the pitfalls are many.

Let me offer a few examples. It was said by a biographer of the great Dr Thomas Young, that although his scientific achievements far exceeded his work in his profession, yet that it was a remarkable fact that the percentage of deaths among his patients at St. George's Hospital was far lower than among those of his colleagues: doubtless the explanation was that fewer acute and interesting cases were admitted to his wards than to those who were more zealous in their calling. By the returns of the Lying-in Charity of Guy's Hospital, extending over several years, it was conclusively proved that more women were brought to bed of their second child than of their first: the inexperienced primipara did not often seek the skilled assistance which she afterwards took care to secure. If any disease is found to be as frequent in elderly people as in children, it is clear that they are not equally, but far more, liable to it, since many children do not reach old age, but every old man or woman has been a child: quite apart from incidence on one age or another, the cases of death from any disease will be less frequent late in life than early, because there are fewer to be ill of it. The superiority of the treatment of enteric fever by cold baths was once asserted on the strength of the very low mortality among patients so treated in the military hospital, Munich: but it was forgotten that with picked men of a very favourable age, free from chronic disease, well-fed and housed and nursed, any treatment would be likely to show better results than in cases taken from the population at large. Again, more male than female children come into the world; hence, for the first few years of life the proportion of deaths of boys from any indifferent accident or disease will be greater than that of girls, other things being equal: the disproportion is gradually redressed, and after fifty the number of women dying from any given disease, with no special sexual incidence, will, other things being equal, be greater than that of men.

Statistics, to be of value, must be taken without selection, designed or unintentional; they must refer to the same things—in etiological inquiries to well-defined and easily recognised diseases; they must be in sufficient number to compensate for such accidents as a "run of heads" before a "tail" appears; and they must be carefully "corrected" by such other statistics as the number of persons available for each enumeration.[1]

Etiological relations of sex.—With respect to the influence of sex in the causation of disease many interesting facts show the wide-reaching difference in physiology between men and women, exclusive of diseases directly and obviously connected with the uterus and ovaries, with menstruation, pregnancy, and lactation. (1) Some of the cases of special incidence of general diseases on women may be explained by the indirect effect of primary disorders of the female organs; (2) others by the more emotional tendency, the greater liability to disturbance and the smaller power of self-restraint shown by the majority of women compared with the majority of men; (3) some of the cases of special incidence of general diseases on men may be referred to their more exposed and hazardous life, to their different physical and mental education, to their greater liability to the results of calculus and stricture, and their more general propensity to gluttony and drink.

Under the first head comes the frequency of cancer of the breast in women. This, along with the great proclivity of the uterus to cancer, makes the total mortality from carcinoma considerably greater in women than in men.[2] To the same indirect uterine influence may be referred a certain number of cases of cardiac disease dependent on the high tension of the blood, the "physiological plethora" of pregnancy, as Dr. Barnes has termed it; a large number of cases of hydronephrosis and consecutive Bright's disease, which result from prolapse of the uterus; the majority of cases of severe anæmia with constipation; and perhaps a third of the cases of gutta rosea in women which depend upon disordered menstruation or on the menopause. Also for the rarity of gonorrhœal synovitis and the greater frequency of peritonitis in women.

Under the second head of "mental constitution" we may rank the prevalence among women of functional nervous disorders to which the adjective hysterical has (not without reason) been applied, with comparative rarity of the more fixed and permanent fancies to which (also not without reason) the title "hypochondria" has been given; the frequency of cardiac palpitation and other functional disorders of the heart, including perhaps that most singular of maladies exophthalmic goitre; and the uncertainty of both symptoms and events which attends cases of paraplegia in women.

Under the third head of "feminine habits" fall the proclivity of women to headache and neuralgia, constipation and dyspepsia (including that caused by the abuse of tea-drinking), obesity and anæmia from want of fresh air and active exercise; as well as their comparative immunity from atheromatous disease of the heart and arteries, particularly from aneurysm and from aortic (lævo-sigmoid) valvular lesions, from delirium tremens, from cirrhosis of the liver, and from gout; also from hernia, volvulus and other forms of intestinal obstruction which depend on strangulation of previously healthy gut, compared with their liability to those more chronic forms of obstruction which are caused by adhesions about the pelvic organs. The several effects above mentioned are due to the indirect working of disorders of the uterus and ovaries, the ready susceptibility of the nervous system, the comparative absence of exposure to weather and accident, of muscular labour and strain, and the diet, clothing, and habits which civilised life impose upon women. All of these have their full play during the time of ovarian activity, and are much more restricted before and after that middle period of life, in girls under puberty, and in women after the menopause. Accordingly, we do not find that the specially female maladies are nearly so common in childhood or in old age. On the other hand, we do find that men of feminine impressibility suffer from hysteria, from palpitations and syncope, or, to use our fathers' terms, young and emotional men are liable to "the vapours" and to "swoon."

[1] This is done by Dr. William Ogle in the instructive reports of the Registrar-General. The problems of statistics have been scientifically treated in Dr. Longstaff's excellent monograph on the subject.

[2] The Registrar-General's returns show that from 1848 to 1890 there were 167,734 deaths from cancer in women and only 84,913 in men.

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There still remain instances of marked sexual proclivity without any plausible explanation. Male children (allowing for their greater number) are more liable than female to tubercular meningitis, laryngismus stridulus, and tetanilla. In patients of all ages, most structural diseases of the nervous system are decidedly more frequent in men than in women. I do not refer to apoplexy and hemiplegia, because, so far as these clinical diseases depend on cerebral hæmorrhage, they are not nervous, but vascular in origin; nor to tetanus, because that is an infective and traumatic disease like pyæmia. But why should cases of acute myelitis, of progressive muscular atrophy (including Cruveilhier's palsy, bulbar paralysis, and Duchenne's pseudo-hypertrophic paralysis), of tabes, of cerebral abscess and tumours, and of general paralysis of the insane be so far more common among men than among women?[3] Why, again, while the atrophic forms of paralysis are so far more common among males, is the essential acute special paralysis, which is known as distinctively children's, so impartial between the sexes?

The nervous affections in which the female sex is more or less predominant are hysteria, including hystero-epilepsy, syncope and palpitation, with some forms of emotional insanity; the eclampsia of pregnancy, and puerperal mania—all of which are etiologically related to female physiology. Megrim or sick headache and neuralgia of the fifth pair of nerve are certainly more common in women than in men, while the opposite is the case with sciatica—a hint perhaps that it is in most cases a neuritis, not a true neuralgia. Chorea is more common in girls than in boys under puberty. Thus, of first attacks under sixteen under my own care, there were thirty-four in boys to seventy in girls. If all attacks were counted the contrast was still greater. But, as we know, chorea is far more rare in grown men compared with grown women. My cases between sixteen and twenty-six are thirteen men to twenty-six women. This relative persistency of a children's malady in the female sex is an interesting point. For comparative morphology teaches that the male organism is more differentiated than the female, further removed from the embryo condition; hence, we should expect that the pathology of the adult female would approach more nearly than that of the adult male to the pathology of the child. In a somewhat similar way we may "explain"—i.e., refer to a wider *group* of facts—the fact that some of the diseases of women after the menopause approach nearer to those of men—as, for instance, gout.[4]

To complete the list of diseases in which the female sex operates as a powerful predisposing or favouring cause we may mention myxœdema, bronchocele (endemic and exophthalmic), gall-stones, acute yellow atrophy of the liver, floating kidney, osteo-arthritis (particularly when occurring early and affecting the fingers), mollities ossium, pemphigus, sclerodermia, and xanthelasma. Among those to which the male sex predisposes are plastic bronchitis, hay fever, asthma, angina pectoris, atheroma with aortic valvular (sigmoid) disease, aneurysm, typhlitis, invagination of the bowels (but in children only, not in adults) and strangulation generally (particularly and almost exclusively that due to the presence of a diverticulum ilii), hepatic abscess, cirrhosis, paroxysmal hæmoglobinuria, diabetes, Addison's disease of the adrenals, calculus, gout, hæmophilia, and the severer forms of anæmia, except chlorosis—viz., leuchæmia, anæmia lymphatica, and Addison's idiopathic anæmia.

Of diseases due to bacteria, parasites, and fungi, few show any etiological relation to sex; such exceptions as tetanus, glanders, and anthrax are, like lead-poisoning and grinders' phthisis, sufficiently explained by the greater exposure of men to opportunities of contracting them. But, on the whole, scarlet fever, typhus and cholera, hydatids, scabies, and ringworm are impartial in their incidence, and find equally suitable soil in either sex. One exception appears to be whooping-cough, which is either less common or less fatal among boys than among girls.

Two important diseases have been asserted to be etiologically related to sex, which are, I believe, really indifferent in this respect. One is gastric ulcer. Brinton and Wilson Fox make it more than twice as frequent in women as in men; and von Ziemssen's numbers (confirmed by necropsy) were thirty-five to fifteen. That the usually simple, punched-out, perforating ulcer of the stomach—first described by Abercrombie, and subsequently by Cruveilhier and Rokitansky—is very common amongst young women there is no doubt, but it is far from being rare in the male sex and in later periods of life. I was first struck with this among private cases, for I have seen the disease in an old gentleman aged seventy-eight, who recovered, and in a lady over seventy, who died; on the whole, more often in young men than in young women. Thinking this was an accident of too small a number of instances, I found (with the help of M. Keiffenheim) the following results: Of 93 cases in Guy's Hospital which were diagnosed as gastric ulcer and went out relieved or cured, 33 were men and 60 women; but of 101 cases which died in hospital 59 were men and only 42 women. This may mean that our diagnosis has suffered from an insufficient basis of morbid anatomy, or it may show that more women than men recover.

The other is the idiopathic form of anæmia which was fully described by Addison in 1885, recognised by English writers and by Trousseau, imperfectly described by Lebert in 1858, and rediscovered and renamed in 1871 by Biermer. This physician working at Zurich, Immermann at Basle, Quincke at Berne (as well as Lebert at Zurich), agreed in stating that what they called "progressive pernicious anæmia" was far more common in women than in men; and the statement was naturally confirmed by Professor Gusserow from a gynæcological point of view. A study of their cases, and of those collected by Eichhorst in his monograph on anæmia, shows that some of them would in England be called chlorosis, and others would be regarded as anæmia secondary to hard and scanty fare, gastric disturbance, diarrhœa, hæmorrhagia, or lactation. On this principle we might add cases of "pernicious" anæmia in both sexes due to cardiac or renal disease, plumbism, or cancer, and, as a matter of fact, such cases have been admitted by certain writers. The important fact discovered by Addison has thus been lost sight of: that there is a severe and fatal form of anæmia which is idiopathic, primary, essential. If we exclude the secondary and spurious cases, and keep to his original and masterly account of the disease, we shall find that it is as common among men as women. And this agrees with its true pathology—for it is quite distinct from chlorosis, and is naturally allied with the other essential and grave forms of bloodlessness which we know as leuchæmia and Hodgkin's disease, all of which are more common in the male than the female sex; all of which, I may add, are unbenefited by steel, but sometimes cured and often relieved by arsenic.

Age in its bearing on etiology.—The predisposition of certain ages to certain diseases is often very remarkable. In some respects childhood and second childhood agree; their liability to death from bronchitis and diarrhœa argues a less power of resistance, which is also seen in the difficulty of maintaining animal heat in both extremes of life. The easy vomiting of children may be classed with the preponderance of reflex action, the spinal system being active and sensitive. Hence the prompt and marked character of the superficial reflexes (plantar, palmar, or cremasteric) in children, their ready laughter when tickled, their liability to convulsions. With the same physiological condition we may associate the presence of tetanilla and carpopedal contractions, trismus and laryngismus stridulus, infantile convulsions, and particularly those which take the place of rigor in an adult. To the same activity of reflex action we may perhaps ascribe the remarkable frequency of invagination of the intestines in children and the spasmodic element of diphtheria and catarrhal laryngitis, as well as of true asthma. Children are dependent for their food on others, and hence are liable to suffer from an insufficient or ill-constructed dietary. This is probably the cause of rickets and also of infantile diarrhœa and choleraic diarrhœa, so-called dysentery, and marasmus. The peculiar liability of children to certain forms of atrophic—including pseudo-hypertrophic—spinal paralysis has not, I believe, received any explanation. The predominance of children among those suffering from epidemic specific fevers is, no doubt, due to most adults being protected by a previous attack; for when small-pox or measles invades a virgin population all ages are indiscriminately seized.

One common character of children's diseases is that they are generalised in distribution. Tubercle invades a greater number of organs, phthisis is less confined to the apices,

[3] Traumatism cannot explain the preponderance of male patients with cerebral tumour, since Dr. Hale White has found that the same preponderance applies to male children and to tubercular growths.—*Guy's Hospital Reports*, vol. xliii., p. 118.

[4] Hipp. Aphor., vii., 29.

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pericarditis and endocarditis are more constantly associated, and diseases of the skin keep far less definitely to their usual localities, as, for instance, psoriasis and scabies. This peculiarity may perhaps be referred to the greater differentiation of the tissues in an adult.

Race and climate.—The effects of climate as an element in the causation of diseases are doubtless important, interesting, and instructive. But exact accounts of endemic diseases and of local modifications of diseases are still rare. I could give no facts of value from personal knowledge, and therefore prefer to pass over this part of my subject.[5] One of the difficulties of geographical pathology lies in separating the effects of climate from those of race and manner of living. That the marked racial differences between, for example, Europeans, negroes, and Chinese affect their functions as well as their mental character, and their reaction to disease as well as their normal physiology, there can be little doubt. But on the whole it seems probable that even in such extreme cases the differences are but small. The surprising lack of sensibility to pain which is characteristic of many races is rather due to undeveloped mental qualities than to ethnological peculiarity. Negroes are said to be very little subject to malaria; but a statement which I made to this effect has been corrected by those who speak with the authority of personal experience. Nevertheless, they must be less liable than Europeans, or how do they live where white men die? At present we may, I believe, state that there is no infection against which any race of mankind is immune; that there is no disease peculiar to any nation, or from which any nation is exempt; and that there is no drug known, whether poisonous or medicinal, which fails to exert its ordinary physiological effects upon any community of mankind.

Among the few exceptions to the uniformity of geographical distribution which we observe in our own islands may be mentioned the frequency of osteo-arthritis in Ireland, the rarity of hydatids and the comparative frequency of favus in Scotland, the absence of malarial diseases in Ireland, the prevalence of urinary calculus in Norfolk, and of endemic bronchocele in Derbyshire. Mr. Cadge finds that the frequency of stone is limited to uric-acid calculi. Those of oxalate of lime are not more common, perhaps less common, than elsewhere. It is remarkable that these uric-acid calculi, though common in boys, are only so in hospital practice. A late eminent lithotomist is said to have remarked, with a sigh, that he only once received a fee for cutting a child for stone.

Has change of climate within historical times brought about change of diseases? I think we may assert that, with a few important exceptions, such as the draining which has led to the general disappearance of malaria, and the improved habitations of the poor, which have made plague unknown and typhus rare, no such changes have taken place; and in particular that there is no foundation for the opinion that in former time the English spring was milder than at present. "The uncertain glory of an April day" was as uncertain at the close of the sixteenth as at the close of the nineteenth century. In the seventeenth the great Earl of Verulam met his death from standing in the snow on Highgate Hill on Easter Monday, and Evelyn remarks, under date March 27th, 1681: "An extraordinary sharp cold spring, not yet a leaf on the trees." In the eighteenth century Horace Walpole writes that "the spring has set in with its usual severity"; and the contrast between poetical description of the "ethereal mildness of spring" and its actual inclemency had become a commonplace of satire.

Occupation.—The importance of certain trades as causes of disease is well known; so well that there is little room for discussion. The effect of lead poisoning as a predisposing cause of gout and Bright's disease, and a direct cause of colic, paralysis, and abortion, has been dealt with from extensive personal knowledge by our late Goulstonian lecturer, Dr. Thomas Oliver. Mercurial tremors are rarely seen now; we had the first case I have seen for twenty years in Guy's Hospital last November. We can often cure and prevent chronic diarrhœa and other disorders which arise from arsenical poisoning by detecting their origin. The group of conditions which have been conveniently named in common "pneumoconiosis" will engage our attention as powerful predisposing causes of phthisis.

Overwork.—Before leaving this part of my subject, however, we must ask whether laborious occupations in themselves may lead to premature strain of the body or mind, and so to degeneration and disease. Here, I think, we must distinguish. Aneurysm, emphysema, and some forms of cardiac hypertrophy undoubtedly may be the result of overstrained and too violent or prolonged exertion, from mechanical stretching of the great arteries by movements of the arms, from high blood pressure, excessive calls on the heart, and over-long suspension of respiration, as in muscular efforts with a closed glottis. We see similar results in horses which are put to hard work at too early an age, and there is no reason to doubt the operation of such causes of disease in man. But their operation is limited to the production of certain definite lesions, and there is no evidence that harm is done, disease brought on, or life shortened by what is commonly known as work, whether mental, physical, or a combination of the two. The vanity of human nature is tickled by ascribing its disorders to such respectable antecedents as industry, energy, and intellectual activity. We must all have felt this when the obvious results of habitual idleness or gluttony are ascribed by a patient or his wife to an overtaxed brain or too strenuous devotion to business—especially in the public service. There is no fear of any one of us using our brains too much for our health, nor do I believe that mental labour or honest work of any kind interferes with health or shortens life a day. Even if it did, who would not rather be worn in use than rust in idleness? Who would not choose a short-spanned life filled full of action and of thought, of sorrow and of joy, of effort and endurance, of enjoyment of living oneself, and helpful service to others, rather than to wear out a tedious existence of monotonous ease.

There is, I repeat, no reason to believe that work in itself is injurious, even if it encroach on the hours of sleep. Nature will take care of herself, and irrepressible drowsiness will bring the needed rest if it be not driven away by artificial means. The evil results of excitement in the gambler, or of anxiety in the man who habitually lives beyond his means, are indirect. Such patients go too long without food, and then eat more than they can digest, for their meals are irregular and hurried; or they take stimulants from time to time to excite them for the moment, or sedatives to give the repose which they have not fairly earned.

Before passing from this part of my subject, permit me a word of protest against the assumption, which has become a commonplace of newspapers and of conversation, that the present age, the close of this nineteenth century, is fuller than any other of what is called "worry" and anxiety, mental excitement, over-strung nerves, and what not. It is gravely asserted that railways and telegraphs and the modern race for success are shortening life in Europe generally, and in England and America in particular; that there is an enormous increase of what are called nervous disorders; and that the neurotic temperament or type or diathesis which now prevails is intolerant of the heroic means of combating diseases which were well borne by such dull-witted fellows as Steele or Johnson, and by the comfortable, prosaic, easy-living men who saw the mutiny of the Nore and Napoleon's army gathered to invade our shores. Surely we are complimenting and pitying ourselves without cause. What are the hardships of a railway journey to Bristol or to Edinburgh compared with those of a journey by coach? What are the trivial anxieties of a citizen's life from telephones and telegrams, rates and taxes, advertising druggists, and School Board elections, compared with those of previous generations, when few men had not been robbed on the highway or otherwise put in personal peril, and when the citizens of many towns in the king's dominions had experienced a siege, a famine, or a pestilence. We may be sure that family troubles, misunderstandings and quarrels, disappointments and annoyances, bodily aches and pains, bills that cannot be paid, and accounts that will not balance, were just as common a hundred years ago as now—in the days of Horace or of Lucian, as in those of the *Spectator* and the *Rambler*.[6]

[5] I cannot but refer in this connexion to the valuable reports from the medical officers living in the Chinese ports which have been drawn up and published by the wise forethought of Sir Robert Hart.

[6] That life is in every way easier than it was a little reflection will convince us, and perhaps there is no better illustration of the fact than to contrast the annoyance, cold, and vexation which must have been constantly endured while trying to strike a light with a tinder box, compared with the ease, certainty, and rapidity of the lucifer match, or the still more rapid, easy and brilliant electric light. Let me recommend the perusal of a somewhat prolix, but not uninteresting book, which obtained the honour of a review in the *Edinburgh Review*, by Sir Walter Scott, called "The Miseries of Life." It was published in 1806

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The complaints we now hear were just as common fifty or a hundred years ago; the nation has been going to ruin ever since it was a nation, the present generation has always been degenerate, more feeble, more vicious, and more diseased than any which preceded it; but at the same time more sensitive, more interesting, more pitiable than any other, and, above all, gifted amid the general decay with a few superior intellects which could appreciate and describe the evils which they never attempted to cure. Hypnotism is not a more silly business than clairvoyance, nor that than mesmerism and phrenology, and the worst performances at Salpêtrière are only reproductions of mediæval cases of possession. If we may judge from plays and novels, fainting and the vapours are much less common in the nineteenth than in the eighteenth century. Men in general probably live a more domestic, healthful, and sober life than a hundred years ago; women are probably less nervous and bear and rear larger families; while children, both rich and poor, are certainly better clothed, better fed, and grow up into taller, stronger, and healthier men and women.

Local conditions as etiological factors.—When morbid anatomy was first studied by Rokitansky and his contemporaries, it was natural to make a list of all the known morbid processes, and then to apply them to each of the organs and tissues, so that one would have to describe hypertrophy and atrophy, fatty, calcareous, and pigmental degeneration, inflammation, fibroma, enchondroma, and carcinoma, malformations, and the presence of animal or vegetable parasites for every organ and tissue alike—for the parotid gland and the crystalline lens, for muscular and for adipose tissue. Such a preliminary method was valuable from its thoroughness; but long before the complete schedule was applied to every organ, it was clear that the various morbid lesions are *not* indiscriminately distributed over the body. Each general process is modified by the tissue affected, some organs are prone to certain forms of disease and are absolutely free from others, and in almost every case the common type appears under different local forms. Thus, speaking generally, we may affirm that some organs, like the small intestine, the salivary glands, and the pancreas, are almost exempt from disease, except by such specific processes as enteric fever, or tubercular ulceration, or mumps. We may state that suppurative inflammation never befalls the brain, the lungs, the liver, the spleen, the kidneys, or the testes—in fact, any of the solid viscera—except from infection or local injury; while, on the contrary, suppuration is a frequent and easy event in the case of skin, mucous membranes, connective tissue, and bone. We may affirm that tubercular inflammation, while extremely apt to affect the lymphatic tissue of bones, the lymph follicles of the intestine, and the lymph glands, as a primary process, is never seen in the great mass of lymphatic tissue formed by the spleen except by secondary infection; while, on the contrary, primary tubercle is common in the brain, the testis, and adrenal body, where lymphatic tissue is almost absent. With respect to tumours, I remember as a student supposing that chondroma, fibroma, lipoma, and the rest were just as common in one place as another, and was surprised to find that all the fatty tumours I saw were under the skin, and all the enchondromata connected with bone. It was then, strangely enough, not suspected that carcinoma had any special laws of distribution. This was partly because histologists had not yet definitely separated true carcinoma from other forms of malignant disease; at present we all, I suppose, accept Waldeyer's doctrine that "true" carcinoma only begins in an epithelial surface. This, however, is not all, for the epithelial or keratoid form has its own seats of predilection, distinct from the other kinds of cancer, and the same applies to the colloid and adenoid varieties. But the localisation of cancer is not only histological; for the mucous membrane of the small intestine, though of the same general structure as that of the rectum, is one of the rarest, as the latter is one of the most frequent, seats of the disease, and the acini of the parotid are as distinguished by their immunity as from those of the mamma by their proclivity to cancer. In the etiology of this disease it is not surely without meaning that its favourite seats, irrespective of histological structure, are the lips, tongue and throat, the œsophagus, pylorus, and rectum, the places where there is most friction.

Another remarkable law in the distribution of cancer is that those organs, as the uterus, the mamma, the stomach, the rectum, and the testis, which are the most frequent seats of primary carcinoma, rarely become affected by secondary growths; while the liver, the lungs, the lymph glands, and the serous membranes, while constantly affected by secondary, are rarely the seat of primary cancer. This proves, surely, that secondary growths are not the result of a general dyscrasia or predisposition, but are strictly derived from primary, by direct transmission through veins and lymphatics; and that primary cancer is really homologous, and not heterologous, in its origin, autochthonous and not immigrant.

In the lungs, again, phthisis chooses the apices, and not only the apices, but the highest point of the inferior lobe; while pneumonia almost as constantly begins below and spreads upwards. But it is in the skin that we find this principle of local predilection most strikingly exemplified, because here the histological characters are essentially the same. We may no doubt explain certain peculiarities as due to the greater abundance of sweat glands, or sebaceous secretion, or to the size and length of the hair, or to exposure to cold or to friction. But there remain many topographical peculiarities which are at present inexplicable. The striking and opposite localisation of psoriasis and eczema, the scarcely less marked local distribution of erythema, of lupus, of lichenruber, of erythematous lupus, of xanthelasma, and many other cutaneous diseases, depends upon etiological laws of which at present we have no conception. All we can say is that psoriasis, for instance, affects the left elbow because it is most like the right, and affects both knees because they are most like the elbows.

The mysterious etiological factor symmetry, of which so much has been written, may be reduced to two cases. In one the same affection is seen on both palms, on both soles, over both olecrana, or both popliteal spaces, because the corresponding sides of the body resemble each other more closely than anything else in nature. Thus psoriasis is symmetrical because it affects the same kind of skin, and because there is a right and left elbow, in the same way as Bright's disease and phthisis are symmetrical because they affect renal and pulmonary tissue respectively. The other case of symmetry in which a disease affects the surface of the whole body has sometimes been held to prove that the disease is "constitutional," or has its origin in the blood or nervous system. But surely this symmetry is not of genuine etiological moment at all, it is merely the result of widespread disturbances affecting a symmetrical organism, and such accidental bilateral symmetry would be lost in the case of a man with a distorted spine—it would be asymmetry in a turbot or a snail, and pentagonal symmetry in a starfish.

We shall find many illustrations of local modifications of general morbid processes in discussing the etiology of certain particular diseases to which I shall invite your attention at my next lecture.

CERTAIN QUESTIONS ON THE TREATMENT OF DIABETES.[1]

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THE questions which I propose submitting for consideration are—1. In cases of confirmed[2] diabetes running a protracted course, may any relaxations from the usual dietetic restrictions be permitted? 2. In such cases, at what period of the disease should opium or its derivatives be commenced, and how far may they be pushed? Besides these, I had in view a third—viz., What other measures, in addition to diet and opium, have been found useful in checking the disease or in relieving special symptoms? But on consideration, when I came to write this paper, I found that the addition of this third question would make the communication too lengthy; besides which, I thought it would distract discussion from the other two, which are, to my mind, the most important. At first sight, it may be thought that these questions are superfluous, especially in this country, where the insistance on the maintenance of a rigid dietary, combined with the administration of opium or its derivatives, has been taught in our

[1] Paper read before the Medical Society of London, March 14th, 1892.
[2] Cases of transient and gouty glycosuria and intermittent forms of diabetes in which assimilation is for a time restored are not considered in this paper.

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schools and endorsed in our text-books. But of late views have sprung up which have had a tendency to impair this teaching, especially as regards the necessity for maintaining a strict adherence to a proteid diet as the essential point in the treatment of the disease. This laxity with respect to a canon law first originated, no doubt, with the introduction of the so-called "skim-milk cure," and as at that time the distinction between diabetes and transient glycosuria was not clearly defined, several cases of the latter were cured which were supposed to have been of the nature of true diabetes; and though Dr. Pavy promptly disclosed the fallacy, and again placed the ban against milk in confirmed cases of diabetes, still there has remained a leaven of the heresy among many practitioners, not merely in not excluding milk from the dietary, but even in ordering it in very considerable amounts. But milk is not the only article that has crept in unawares into the fold of a pure dietary, and many of the continental physicians now permit a dietary which can no longer be called restricted. Thus Dr. Seegen[3] permits a small quantity of wheaten bread and subacid fruits, such as strawberries, &c.; Dr. Colquard[4] and Dr. Dujardin-Beaumetz[5] allow mashed potatoes instead of gluten bread; whilst in America, in a well-known work on Practical Medicine,[6] the diet table drawn up by Dr. Austin Flint[7] permits of asparagus, gooseberries, cherries, plums, and strawberries. It is true, no doubt, that those who permit these relaxations do not question the theoretic considerations on which the absolute restricted dietary is founded; they only deny the possibility of carrying it out to its full extent, and point out the direction in which relaxation may be least harmful to the patient. The point, therefore, I would draw attention to is whether such relaxation should be forbidden as aggravating the disease, or forced on us as a compromise.

With regard to the second question but little information exists; for though the authorities on this subject are eloquent on the effects opium and its derivatives have on the course of the disease, few, if any, rules are given for guidance.

The answers to these questions will of course greatly depend upon our clinical experience, and the views we have formed as to the nature and progress of the cases that have come under our observation. Most authorities now recognise two forms of confirmed diabetes, which they classify as—(1) neurogenic, usually coming on suddenly as the result of some nervous shock, and running a more or less acute course; (2) constitutional, gradually supervening as the result of some taint—gouty, rheumatic, syphilitic, or tubercular—the progress of which is usually protracted. But of late I have accepted a distinction between the two forms which I think indicates more closely their relationship and better represents their clinical features than the above-mentioned classification, which is based only on etiological conditions, and which I would describe as: 1. An alimentary diabetes, which can at first be entirely controlled by diet; but gradually this control is lost, and sugar reappears in the urine in spite of all restriction. This form is most commonly associated with a constitutional taint of some kind, though it sometimes, but less frequently, is found in cases of neurogenic origin. 2. General diabetes, in which, from the earliest onset, a restricted diet fails to remove entirely the sugar from the urine, whilst the glycosuria is out of all proportion to the food (of all kinds) ingested. This form is common in cases of neurogenic origin, and is specially characteristic of pancreatic diabetes. Whence comes the sugar in urine which is not derived from the starchy and saccharine materials of the food has always been a problem. That it is not altogether furnished by the metabolism of the proteid elements of the food—which was formerly supposed—is shown by the fact that it is often in considerable excess of what could be furnished by the proteid diet the patient was on; besides, as I have observed in carefully dieted cases, hardly any reduction, certainly not at all proportionately, follows a diminution of the proteid food—a fact which points to the source of the supply being from the tissues themselves; and, indeed, we now know that other tissues besides the hepatic furnish glycogen. What, then, happens in the two forms of diabetes we are considering is that in the milder and alimentary form the power of assimilating starch and sugar is only lost as far as the liver is concerned; but after a time, perhaps from the passage of sugar from the liver into the circulation, the tissues lose the power of transforming glycogen into energy or storing it up as fat, or, as some are now endeavouring to show, the blood loses its glycolytic or sugar-destroying power, owing to the absence of a ferment which is said to be normally furnished chiefly by the pancreas, but also by other glands. It is then that the diabetes may be said to become general. Out of a total of sugar excreted by the urine, a portion still remains removable by abstinence from starchy and saccharine food, but as the case progresses the proportion between this removable sugar and that which is not affected by a strict diet becomes more and more marked. Thus in a mild case in an early stage the total amount of sugar passed in the twenty-four hours was 150 grammes, which on strict diet sank to 30 grammes, or 5 to 1; whereas, in a severe case, one month before death the total amount of sugar was 320 grammes on a mixed diet, which was reduced by strict diet 190 grammes, or a proportion of 1 to 1·6. In short, the difference between the removable and non-removable sugar in a case of diabetes is one of considerable value for the purpose of prognosis, for any sudden increase in the proportion of the latter, though there may not be any actual increase in the total of sugar excreted, is always indicative of an exacerbation of the disease.

Rollo was the first to point out the extreme susceptibility of cases of diabetes, in which the sugar excretion had been stopped by diet, to relapse on very slight and very inadequate resumption of sugar. "Thus, half a biscuit, such as sold by confectioners at three a penny, has," he says, "brought back the disorder in full force," and my own observations have convinced me of the fact that in alimentary diabetes any increase of sugar ingested is always followed by an excretion of sugar, often above that amount. On the other hand, in general diabetes, although it is manifest the assimilative processes are lowered by the persistent presence of sugar in the blood, still the proportionate effect on the excretion of sugar is not so marked as in the purely alimentary form. Thus in a case in which the proportion of removable sugar was as 5 to 1 of non-removable, the resumption of mixed diet caused an immediate increase of the total sugar, amounting to 80 per cent.; whilst in a case in which the proportion of removable sugar was as 1 to 2 of non-removable, the resumption of the same dietary only caused a rise of 27 per cent. At first this would seem to tell in favour of a partial toleration of a less restricted diet in protracted cases of diabetes, especially when the proportion of non-removable sugar is high; but further observations show that though the increase per cent. in the amount of sugar in these cases is not so large as in the alimentary ones, still the resumption of saccharine food, even in a limited extent, acts adversely against the assimilative processes in the body, as is shown by the fact that generally when strict diet is again resumed, we find the proportion between the sugar removable by diet to be decreased; whereas the non-removable sugar is found to be increased. Thus, for instance, when before the resumption of a mixed diet the proportion of removable sugar was 3 to 1·5 of non-removable, after three weeks of mixed diet, on the return to an absolutely restricted diet the proportion became 2 to 2·5, showing that persistent supply of saccharine food had further lowered the assimiiative processes in the body. This fact, therefore, seems to tell conclusively against any relaxation of the restricted dietary in this form of diabetes; whilst the extreme sensitiveness to the minutest particle of starch and saccharine food exhibited when the glycosuria is still controlled by absolute restriction of the diet tells equally against its resumption in this stage of the disorder.

The next consideration is whether the advantages gained by a strict adherence to an absolute diet of proteid substances by diminishing the amount of sugar in the blood, and so checking the tendency to a further lowering of the assimilative processes in the body and controlling the extreme diuresis, may not be gained at too great an expense to the patient's well-being, and that some benefit may be derived in other directions by permitting a slight relaxation from too rigid a proteid dietary, and whether its too long continuance is not in itself a danger by causing the formation in excess of bodies such as the

[3] International Medical Congress, Berlin, 1890; vide report in THE LANCET, Sept. 15th, 1890.
[4] L'Union Médicale, Nov. 20th, 1886.
[5] Bull. Gén. de Thérap., 1886, cxi., p. 385.
[6] Pepper's System of Practical Medicine, vol. ii., art. Diabetes, 1885.
[7] New York Medical Journal, May 24th, 1884.

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morbid products of proteid metabolism. This is a question that requires further investigation before a decision can be given, but there are certain facts already ascertained which certainly seem to point in that direction. Dr. Wright, in his Grocers' Research Scholarship lecture,[8] stated that in the artificially induced diabetes of an animal kept entirely without food the same morbid products of proteid metabolism were found in the urine as are found in human diabetes, which, as the animal was in a state of inanition, must have been furnished by the imperfect metabolism of its proteid tissues. To this it may be answered that certain tribes live almost exclusively on meat from year's end to year's end; as do hunters for very long periods at a time without appearing to be in any way injuriously affected by diet. But the powers of assimilation of healthy active savages or vigorous hunters is very different from the feeble diabetic. In scurvy—a disease as I have endeavoured to show brought about by the withdrawal of alkaline salts and the increase of acid salts—so long as the patient remains vigorous, active, and cheerful, the disease is kept at bay; but the moment the vital powers are lowered from exposure, fatigue, or anxiety, then all the consequences of the diminished alkalinity of his blood are experienced. So in diabetes, though there is no actual withdrawal of the alkaline salts, there is with the flesh diet a positive entrance of an increased amount of acid salts into the body. These possibly at an early period of the disease, whilst the patient is still fairly vigorous, are eliminated by the kidneys, but when the bodily powers begin to fail they accumulate to a dangerous extent. Added to this is the fact that with increased feebleness the power of digesting proteid material is lessened, and consequently the risk of the formation of toxic bodies in the intestine is increased.

(To be concluded.)

THE INFLUENCE OF MENTAL DISTURBANCE IN PRODUCING ORGANIC DISEASE.[1]

BY H. GRABHAM LYS, M.D. LOND.

IN the following paper on the influence of mental disturbance in producing disease, I intend to limit myself almost entirely to what I think may fairly be termed "organic disease"—disease in which there is some profound change of nutrition or persistent perversion of function. The influence of mind on body in its widest application is far too extensive a subject to deal with in one article, and although from many points of view it would be advantageous to dwell upon functional derangement from mental disturbance before entering upon the genesis of more profound disease, I shall avoid it except in so far as it exemplifies this proposition, that functional derangement is a frequent antecedent of organic disease. I hope that I shall make evident the truth of this in more than one instance. The limitation that I have chosen has the advantage that it deals only with that form of disease which we are all of us, in our hospital life more especially, learning of. It will follow, too, that if I awaken interest in the dependence of organic disease on mental influence, the source of minor diseases will be readily appreciated and the lesson in therapeutics none the less impressed. In most of the cases where disease has long been known to have a definite relation to mental disturbance no effort seems to have been made to trace the links in pathology intermediate between the cause and effect. I shall endeavour to trace to mental causes, through the medium of increased arterial tension, certain cardiac and arterial degenerations which, so far as I know, have not been so referred. Beyond this class I fear I shall be able to do little but emphasise more or less well-known facts.

Atheroma.—First, then, I will deal with atheroma. Atheroma has been universally referred to increased arterial tension; and the causes of increased tension have been enumerated as Bright's disease and the arterio-capillary fibrosis, or muscular hypertrophy of arterioles, associated therewith; and second, intermittent bodily exertion. It is doubtful whether syphilis acts as a cause, unless by syphilitic arteritis and fibroid induration of viscera obstructing the circulation. In old age it may, of course, exist in proportion with the wearing out of the rest of the body without indicating excessive strain or pathological significance. Now, while there can be no doubt that intermittent exertion throws a great strain on the arterial system and leads to atheroma, I think that no long experience is required to convince one that many cases are referable neither to Bright's disease nor bodily exertion. And it seems to me strange that mental influences have not found a place here; it has long been known, and perhaps more recognised a generation ago, before physical examination became so refined, that not only temporary vaso-motor changes, such as occur in blushing or in the whiteness of rage, might be due to emotion, but also that persistent or repeated high tension often resulted from anxiety or mental distress, and accompanied a definite train of symptoms. Dr. Clifford Allbutt mentions the case of a young man whose pulse tracing during twelve months' domestic anxiety showed, on comparison with that before and after, a marked and persistent increase of tension. I have been at considerable pains to obtain some graphic illustration of this fact; but sphygmograms at all times require practice in taking and experience in interpreting, and it is not easy at will to produce such states of emotion as would afford a fair test. When one finds high tension in a patient suffering from anxiety, it is not often that we have any tracing of the pulse before the mental disturbance. The finger, however, will not fail to make the fact evident to anyone who studies the indications of the pulse and chooses to make trial of the fact. I need, indeed, hardly go beyond broad clinical experience to bear out this thesis; why so often does a person fall into a fit of apoplexy or an aneurysm rupture on some sudden mental disturbance? Can it be other than an increase of arterial tension? I shall refer also presently to the pathology of angina pectoris. Case upon case might be quoted where there has been an entire absence of history of such bodily exertion as does give rise to atheroma, where even microscopical examination has shown an entire absence of any thickening of the arterioles, and where history of the mental characteristics has shown that this was the source from which the body had been put to strain; and if atheroma is acknowledged to be due to mental disturbance, then also the results of the arterial disease—such as aneurysm and cerebral hæmorrhage—must be referred to it.

Dilated heart.—Like atheroma, primary dilatation of the left ventricle owns Bright's disease and intermittent severe exertion as its chief causes, but like atheroma it can often be traced to neither; more often than atheroma it is a senile change, and it has been attempted to refer it to degenerative changes in the heart muscle in these cases, perhaps, more than to capillary resistance. But sometimes cases occur in younger people, in whom there is no reason to assume a failure of general nutrition prior to the heart failure, and in whom it seems unreasonable to assume cardiac muscle degeneration; in these, again, I believe the cause is to be found in frequently repeated mental disturbance increasing arterial tension. It seems to be that, as in many analogous instances, the increased tension tends to persist in the interval and become habit, and so the arterial tension becomes permanently raised. But there are yet other cases of dilatation of the left ventricle traceable to mental causes apparently not through the medium of increased arterial tension—cases of a functional derangement, palpitation gradually passing into definite organic disease, hypertrophy and dilatation. How such an effect depends upon the cause is not altogether clear. I think it is perfectly evident that there does occur a class of cases in which palpitation is the primary condition and is followed by hypertrophy and dilatation, and the only question that seems to me to arise is whether increased frequency of heart does give rise in such cases to increased tension. So far as I have had opportunity of clinical observation I am convinced that in such cases there is no rise of tension; both in Graves' disease and transient palpitation the pulse tension is definitely not raised; I think it will be found that with palpitation due to emotion goes vaso-motor dilatation—blushing; and, *vice versâ*, that such emotions as cause vaso-motor constriction and increased tension are not accompanied by palpitation. And I think that these facts are borne out by physiological teaching. "The rate of the heart beat," says Foster, "is in inverse ratio to the arterial pressure, a rise of pressure being accompanied by a diminution, and a fall of pressure with increase, of pulse

[8] See THE LANCET of Feb. 27th and March 5th, 1892.

[1] A paper read before the London Hospital Medical Society in December, 1888.

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rate." There is, I understand, a mechanism regulating matters on this principle. One can only suppose, then, that the nutrition of the cardiac muscle is so much interfered with by persistent excessive frequency of action that it yields beneath the normal intra-cardiac pressure. Of course, palpitation due to mental or other causes is usually, like the cause, transitory, and leads to no impairment. The cases which bear out this sequence of events are exophthalmic goitre and persistent palpitation not associated with the other symptoms of this disease: in both hypertrophy and dilatation often become developed. And also cases occurring in the American Civil War and in the British army. The former are reported by Da Costa under the term "irritable heart." He brings forward 300 cases of palpitation in soldiers called from civil pursuits without previous training to active service. In twenty-eight cases out of 100 hypertrophy and dilatation were believed to have been developed. It seems clear that the cases did not occur, even chiefly, in those who had been subjected to hard service, and that they were referable to mere change of habit with which mental influences must have been mixed up. In the British army more stress has been laid upon the prevalence of cardiac dilatation and hypertrophy than upon their antecedents; but it seems clear that the "setting-up" drill is the main factor in inducing it. This drill involves marching, and even doubling, with the chest artificially expanded, so that both inspiration and expiration must be shallow, and it is imposed upon recruits for four hours daily. It is easy to see that this might cause increased tension in the pulmonary circulation, but such would not be the result, I think, in the systemic arterial system. It has been directly observed that during the drill the heart's frequency is increased to about 110, and the respiration to 40, per minute. It may be presumed that the increased heart frequency is here due to the action of deficiently aerated blood on the brain.

Angina pectoris.—I must now return to consider the connexion between angina pectoris and mental disturbance; nothing has been more clearly established by clinical experience than dependence of paroxysms of angina upon rise of arterial tension, confirmed by the brilliant therapeutical success of nitrite of amyl which Dr. Brunton's sphygmographic observations led him to suggest. The exciting causes of angina had long been known in the majority of instances to be physical exertion or emotional excitement, and one would have thought that Dr. Brunton's discovery in 1867 would have naturally led to the increased tension being referred directly to the existing cause; but the almost invariable association of certain organic changes, such as atheroma of the aorta, aneurysm of the base of the aorta, calcification of the coronary arteries, or degenerative lesions of the cardiac nerves and ganglia, seems to have led to a rivalry of the authorities in proving that one or other of these conditions is the essential cause. To me it seems but rational to attribute most of these associated changes—the result of arterial strain—to the repeated occurrence of the same increased tension which finally, in its sudden repetition, produces the struggle of the heart for life, and which constitutes an attack of angina pectoris. The changes in the cardiac nerves and the anglia seem to be secondary to the thickening and induration of the adjacent aorta. It is true that a paroxysm of angina is not always directly referable to either physical exertion or emotional excitement; the great Dr. Arnold of Rugby, it is said, was attacked in his sleep without any warning by his first and fatal paroxysm; it is difficult to say what circumstances can suddenly produce the necessary conditions in these cases; but they are quite exceptional, and I think that mistake has arisen from a too ready assumption that sudden death in a person with the organic changes usually associated with angina pectoris has necessarily been due to that disease. To take John Hunter's case, for instance. He had suffered from angina pectoris for years, but from what can be read of his death it seems that the clinical features of the fatal attack were those of syncope, although probably excited in the same way as his attacks of angina. He dropped down dead, absolutely suddenly, in a fit of anger with the authorities of St. George's Hospital; he had none of the symptoms characteristic of angina, and I contend that had he not been known to suffer from angina no one from his mode of death would have attributed it to that disease. To relate the history of one case of angina which came under my notice: A man in a large way of business in London who went through in the course of a few months a succession of most severe trials, each telling severely on his health, and the last suddenly attended by true angina. The first of these troubles involved separation from his wife, and then in succession at a short interval he lost two of his children. On each of these occasions considerable depression and insomnia followed, and his heart was noticed to become evidently less vigorous and slightly enlarged; then after a few months' anxiety in connexion with his business was followed immediately by repeated attacks of the severest angina. I look, indeed, to the pathology of angina for the strongest confirmation of what I have urged in support of the view that emotional excitement gives rise to increased tension and arterial degeneration. I may just allude here to the increase of cardiac affections, shown by Sir R. Quain during the last generation, coincident with conditions vastly intensifying the worry of life and strain on the feelings.

Graves' disease.—I have already mentioned cases of exophthalmic goitre in which permanent cardiac disease results from the long-continued palpitation. I must now just revert to that disease, to consider whether the theories of its causation by changes in the cervical sympathetic may not be more reasonably supplanted by the view that mental disturbance is responsible for it.[2] It has to be remembered that no one has ever expounded how the symptoms can be due to any one kind of disturbance of the functions of the cervical sympathetic. For the goitre a paretic lesion must be assumed, but then the recognised phenomena of paralysis of the cervical sympathatic are absent, and, further, to explain the palpitation we must have an irritative lesion. No irritative lesion will explain the thyroid enlargement, though the exophthalmos might be assigned to either; but in either case the eye symptoms are incomplete if accounted for by sympathetic lesion. It can hardly be contested that in every case of this disease a morbid mental state of constant character precedes its development. The prominent features of that mental state are depression with extreme irritability; and only as life wears on, and a more placid mental state is established, do the symptoms of this disease subside. The next question obviously is, How does the mental disturbance give rise to this train of symptoms? I think if one does recognise that an antecedent mental state may fairly be held responsible for the subsequent morbid developments, there will be difficulty in refraining from the belief that the exophthalmos and goitre are in some way referable to the palpitation; in every case in which a trustworthy account of the commencement of the disease is available, there appears no doubt that palpitation has preceded the other symptoms by a considerable interval. Slight thyroid enlargement is comparatively so common in girls who suffer only from intermittent palpitation that there is little difficulty in referring it to this cause; and the exophthalmos is the least constant and last developed of the three. I have yet to be convinced that cases occur without palpitation. There has been a tendency, however, among recent writers to attribute this disease to nuclear degeneration. Experiments by Filehne have shown that by dividing the upper part of the restiform bodies to a certain depth exophthalmos and vaso-motor paralysis of certain other areas were produced, although the thyroid did not swell. Thus the conclusion is drawn that the restiform bodies contain the nerve paths of circumscribed portions of the vaso-motor centre which are paralysed in this disease, while the palpitation is attributed to some involvement of the adjacent vagus centre. Graefe's and Stellwag's symptoms are similarly assigned to a central lesion, and Dr. Fitzgerald has remarked upon the occasional association of other central paralyses. I would still hold that the evidence points to the influence of mental disturbance as the cause, and we may gladly accept the subordinate mechanism which these observers are working out, for such of course there must be.

(To be concluded.)

[2] I have lately observed that Dr. Hector Mackenzie has taken a similar view of the pathology of Graves' disease.

CHILDREN'S INFIRMARY, LIVERPOOL.—At a special meeting of the governors, held on the 13th inst., to consider the revised rules, it was resolved to reduce the number of governors necessary to elect a medical officer to forty. The forty governors to be elected would be divided into five groups in rotation.

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CURE OF STRICTURE OF THE URETHRA BY MEANS OF PHYSIOLOGICAL REST.

BY F. F. BURGHARD, M.D., M.S. LOND., F.R.C.S. ENG.,
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FEW surgeons will deny that the proposal of Mr. Mansell Moullin, contained in THE LANCET of Jan. 16th, 1892, to submit cases of inveterate penile urethral stricture to a more or less prolonged period of perineal drainage with a view to secure a permanent disappearance of the stricture, is one that will require the support of the strongest possible evidence before it is likely to supplant the methods of treatment already in vogue. The results that are generally to be obtained either after the simple dilatation of a penile stricture or a combination of this with internal urethrotomy are sufficiently satisfactory to make one demand the clearest proof of the efficacy of the more severe form of treatment before one would feel inclined to recommend, or even sanction, its adoption. A careful perusal of Mr. Moullin's paper leads me to the conclusion that a sufficiently convincing case in favour of the performance of perineal section in these cases has not been made out; and I will endeavour to show, in as few words as possible, why the method by dilatation and internal urethrotomy should be preferred.

The questions at issue are two in number. First, Are the results of the usual treatment of penile urethral stricture sufficiently unsatisfactory to warrant us in recommending patients to submit themselves to the operation of perineal section and the six weeks' sojourn in bed that it entails? Secondly, if we do recommend them to submit to the operation, can we promise a definite and permanent cure, without the necessity of dilatation at some future date? Both questions I will venture, with all diffidence, to answer in the negative. My personal experience of the operation of internal urethrotomy is perhaps somewhat limited, but from the few cases I have done and several that I have seen, I am fully convinced that when once a penile stricture has either been incised or fully dilated (preferably somewhat over-dilated) it gives but little subsequent trouble, and only requires the passage of a bougie at comparatively infrequent intervals. In illustration of this may be mentioned two cases that are under my care at the present time. Both have been the subject of penile stricture. In the case of the one an internal urethrotomy was performed two years ago, and in the other the stricture was dilated up to No. 16 English some nine months since. Both these patients have attended at intervals of three months ever since, and there has been no evidence of any marked contraction taking place again; that is, there has never been the least difficulty in passing a full-sized bougie. But granting that the patient has to pass an instrument for himself for the rest of his life, there seems to be no particular inconvenience and no special danger attaching to the performance of the operation. It has only to be passed, as the cases above well illustrate, at comparatively infrequent intervals; it has only to be introduced for a certain number of inches, and need never penetrate to the bladder; consequently there is nothing much to be feared from sepsis. And lastly, the instrument being large and bulbous-ended, the patient cannot well do himself an injury. Whether a penile "stricture," divided or simply dilated, can ever become permanently absorbed, and a radical cure thus effected, there is at present no evidence to show. It is an undoubted fact that the so-called "indurations" (as detected by the bougie or the endoscope) may entirely disappear within a comparatively short time. But these "indurations" cannot be called true "strictures," and even in these cases it appears more probable that they will disappear more rapidly under the influence of the counter-irritation that the passage of large-sized instruments exerts than under that of rest alone. The cases quoted by Mr. Moullin do not, unfortunately, give any real proof that true penile strictures can be cured by the employment of physiological rest. The true test, the after-history of the cases, is not given, either because it could not be ascertained or because the cases were too recent to have any after-history. This fact encourages me to record a case which occurred to me, and which led quite erroneously to the conclusion that a penile stricture had been cured by rest alone. In September, 1890, I operated upon a labourer for extravasation of urine. He had two strictures, one four inches and the other nearly seven inches from the meatus; the penile stricture just admitted the finest catgut bougie, the deeper one was impermeable. Perineal section was performed and all the urine passed for six weeks by the perineum. At the end of that time the first attempt at catheterisation was made, when it was found that a No. 5 English catheter went through both strictures with the greatest ease, the penile one allowing the passage of a No. 7 without any difficulty. This latter was not felt at all as the dilatation of the deeper one proceeded; and when the patient was discharged the deep stricture was fully dilated, and no trace at all of the penile one could be felt. Yet after a lapse of several weeks—the patient having in the meantime broken his catheter—he presented himself once more, with the penile stricture contracted up so that it would barely admit a No. 6.

Experience of this kind leads me seriously to doubt whether rest alone can ever suffice to cure permanently an inveterate stricture of the urethra. What it undoubtedly can do, of course, is to allay spasm, to allow all congestion to subside, and to absorb, partially at least, any masses of plastic lymph that may have been thrown out either in the mucous membrane or the peri-urethral tissues, and which are usually pretty abundant in a stricture that has been exposed to much irritation.[1] Even this latter function would probably be aided by the occasional passage of a bougie. The whole question as to whether or not a case of stricture can be permanently cured by rest depends upon whether the stricture is caused merely by masses of lymph or by organised fibrous tissue. Where the latter exists—as it almost certainly must do in strictures that deserve the name "inveterate"—it seems quite hopeless to look for its entire absorption under the influence of physiological rest, however carefully it may be carried out. Rest will reduce it to its minimum by aiding the absorption of all superfluous plastic lymph, but it cannot absorb it entirely, and it will not hinder it from eventually contracting up. Take, for example, the case of a perforation left in the soft palate after an operation of staphylorrhaphy. It is well known how greatly it will undergo contraction from the cicatrisation of its circumference. It may be urged that penile strictures are not invariably cicatricial. True; but I have examined many such strictures and have always found a certain amount of definite new-formed fibrous tissue present, and I do not remember any case of stricture that I have examined where I could say that fibrous tissue was entirely absent.

It is difficult to see why, if penile strictures can be absorbed by rest and permanently cured, the same thing should not apply to the strictures that are seated deeper down the urethra. That such is not the case is sufficiently well known; the dilatation that occurs in a stricture after a prolonged drainage of the bladder through the perineum is often very considerable, and almost always occurs to some extent; but few strictures dilate sufficiently to allow anything but a medium-sized instrument to be passed, even after many weeks' rest. The first case of Wheelhouse's operation that I saw performed was done for the relief of a stricture that had remained impermeable after perineal drainage had been employed for two months. That certain cases of urethral stricture may be permanently cured by operation I have for some years believed and taught. The first case that drew my attention to the fact was met with in 1887, when I was surgical registrar to Guy's Hospital. A man presented himself for some minor ailment who had had a Syme's urethrotomy performed upon him by Mr. Howse some eighteen or nineteen months before. In answer to inquiries, he vouchsafed the information that he had discontinued the catheter three weeks after leaving the hospital, and had never had an instrument passed since. His urethra allowed the passage of a No. 12 bougie without the slightest hitch, and no trace of any stricture could be detected. Two years ago Mr. Bryant related to me the history of another case where, subsequently to the original urethrotomy and dilatation, nothing had been passed through the urethra for more than twelve months without any sign of contracting. Since then I have had two cases under my own care illustrative of the same point. The first case

[1] With a condition of more or less diffuse peri-urethritis, such as appears to have existed in one at least of Mr. Moullin's cases, rest would no doubt be efficacious in promoting absorption.

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was that of an Australian gentleman, on whom I performed Wheelhouse's operation in January, 1890, but of whom I lost sight almost directly, as he returned to Australia. He had instructions to pass a large bougie once every six weeks or two months. I saw him in November last, and passed a No. 12 bougie without meeting with any trace of the stricture. He then informed me that he had lost his bougies on the voyage out to Australia, and that "he had been too busy to see about getting any more"; and that, consequently, no instrument had been passed for more than eighteen months. The second case was that of a man on whom I performed Gouley's operation for stricture in June last, at King's College Hospital. No catheter was left in; it was merely passed every six hours for the first five days, and after that the man micturated normally. No urine came through the perineal wound, which healed by first intention, and the patient left the hospital on the fourteenth day. A bougie was passed once a week for the first three weeks; then once, a month later; then again after an interval of two months; and finally four months later still. He is to have the next one passed in eight months' time. A No. 12 detects no trace of stricture. The possibility of a permanent cure of stricture after operation quite accords with what we find on examining the site of such operations after death. The incision in the strictured urethral wall is occupied by a very delicate film of cicatricial tissue which presents a marked contrast to the dense tissue of the stricture itself. It can well be understood how such a thin web can be kept permanently dilated by the urine stream. And it follows, too, from this that the reason why old dense strictures, where there is foul urine &c., relapse more rapidly after urethrotomy than do those where such changes have not taken place, is that the septic condition of the perineal wound favours the production of new connective tissue, and so replaces the divided stricture by one of new formation.

Weymouth-street, W.

ENLARGEMENT OF THE SPLEEN IN YOUNG CHILDREN.

BY J. WALTER CARR, M.D., M.R.C.P.,
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As in adults so in children, enlargement of the spleen may be due to numerous and well recognised causes, some of an acute, others of a chronic character. Typhoid fever, malaria, leucocythæmia, tuberculosis, embolism, lardaceous disease, cirrhosis of the liver,—each one of these may of course produce a greater or less hypertrophy of the spleen. But whilst in very young children enlargements due to any of the above-mentioned conditions are comparatively rare, and not usually difficult of diagnosis when they do occur, there is a splenic hypertrophy found in infants, very chronic in its course, very serious in its prognosis, so frequent in its occurrence as probably to out-number all the cases of enlarged spleen due to other causes during infancy, and yet so ill defined in its etiology that it has hardly acquired a distinctive name, and in many medical works is only referred to incidentally under the heading of rickets or of syphilis. Nevertheless, its course, symptoms, and pathological anatomy appear to be so definite and characteristic as to constitute it a disease *sui generis*, and entitle it to as well-defined a place in our classification as has been assigned to the allied conditions leucocythæmia and lymph adenoma, from which however, as we shall presently see, it is easily distinguished. Perhaps the term "splenic anæmia," proposed by Griesinger, is the best to assign to it. It is necessary to distinguish a spurious from a real enlargement of the spleen in children; sometimes, without any genuine hypertrophy, it is considerably longer and thinner than natural; under such circumstances, particularly should it be pushed down by the contraction of a rachitic thorax, the lower end may be felt below the ribs, but it feels soft, not hard; there are none of the characteristic symptoms associated with genuine hypertrophy, and several times at a necropsy I have found that, though considerably elongated, the weight of such a spleen has not been abnormal or its consistence increased.

The following description of the symptoms and course of the disease is based on thirty cases observed during the last three years at the Victoria Hospital for Children, Chelsea. During that period not a single example of genuine leucocythæmia came under my observation, and the cases of enlarged spleen from all other causes (chiefly tubercular) in children under three years of age were fewer in number than those of simple splenic anæmia. Sixteen of the patients were males and fourteen females; in age they varied from two months to two years and a half when first seen. They were usually wasted, but by no means invariably so, particularly the slighter and earlier cases; but only in one or two instances were the children really plump and well developed. There was nearly always some pallor; this was extremely marked in the more severe cases, and was associated often with the more especially characteristic splenic appearance—a waxy colour with a faint olive tint, indicating almost at a glance the nature of the case. The degree of enlargement of the spleen varied; in nearly every instance it could be distinctly felt at least an inch or an inch and a half below the costal margin, and in about half the cases it extended down to the level of the anterior superior iliac spine and forwards nearly to the umbilicus. It always felt exceedingly hard, and was not usually tender. It must be remembered that in children the costo-colic fold of peritoneum is much firmer than in adults; so that in the earlier stages of splenic enlargement it directs the lower end of the organ forwards, and so prevents it from projecting as far below the ribs as it otherwise would, and perhaps causes it to encroach more on the thoracic cavity. The liver was apparently enlarged in about half the cases; but little importance can be attached to the extent of its projection below the costal margin, on account of the varying contraction of the chest by rickets, and the weight of the organ post mortem never indicated any decided hypertrophy. There was usually also swelling of some of the external lymphatic glands, but never to any marked extent; they were always hard and freely movable. In four of the fatal cases (8, 15, 16, and 30) hæmorrhages occurred—either epistaxis or small scattered purpuric spots in the skin, or both,—and Case 6, the child recently under treatment in Westminster Hospital, had profuse epistaxis shortly before admission there. These hæmorrhages probably depend solely on the severe anæmia, for, as Dr. Stephen Mackenzie pointed out in his Lettsomian Lectures on Anæmia in 1891, they may be met with whenever the proportion of red blood-corpuscles falls below 50 per cent. of the normal, a condition which obtained in all the cases referred to. In a similar way may be explained irregular attacks of moderate pyrexia, which occurred from time to time in the more severe cases whilst under observation in the wards. There was seldom an opportunity of examining the urine, but in two patients (Cases 15 and 30) a faint cloud of albumen was present, and in three others (Cases 5, 6, and 7) it was noted to be absent. According to Dr. Crozer Griffith, in Keating's Encyclopædia of Diseases of Children (vol iii., page 799), the urine in this disease does not contain albumen. The blood was examined, once or oftener, in fifteen of the children, and showed merely a condition of simple anæmia. In the most severe cases it was distinctly watery and paler than natural, and flowed very freely from a small prick. The red corpuscles always ran into rouleaux; they varied considerably in size, but presented no abnormal shape. In number they ranged from 32 to 78 per cent. of the normal; in only three instances, however, was the percentage less than 40, and two of these were fatal; the general range was from 45 to 70 per cent.; and even this may give somewhat too low an average, as in several cases in which the blood was not examined the anæmia was not at all profound. In one infant (Case 8) the number of red discs fell in eleven weeks from 64 per cent. to 37 per cent., then under treatment with reduced iron rose again to 63 per cent., when the patient died of diphtheria. In another instance (Case 20) which steadily improved the percentage rose from 62 to 82·6. The percentage of hæmoglobin was ascertained in seven of the cases, and was not found to bear any definite relationship to the number of red corpuscles; in all, however, as in simple anæmia and chlorosis, and in contrast with pernicious anæmia, it was deficient, both actually and also relatively, to the number of corpuscles. The hæmoglobin value of the individual corpuscle was usually from 50 to 67 per cent., but in one case (19) in which the percentage of red discs was 78, two estimations of the hæmoglobin gave only 25 and 28 per cent. respectively. From the few cases in which several estimations were made the increase or decrease of

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hæmoglobin seemed roughly to vary *pari passu* with that of the red corpuscles. It is perhaps doubtful whether the results of examination of the blood with the hæmoglobinometer are very reliable in childhood, and I shall be glad to hear the opinions of others on this point. In nearly every instance there was a slight excess of white corpuscles, but this was not marked, especially when we remember that in young children they are normally somewhat more numerous relatively than in adults—in infants, 1 white to from 130 to 210 red corpuscles. In only one instance (Case 8) did the percentage of white discs approach the leucocythæmic condition, and that was after epistaxis, when the red corpuscles fell to 37 per cent, with 1 white to 33 red ones. In this case all the lymphatic glands, both internal and external, were enlarged, though none were bigger than a small filbert: even the Peyer's patches and solitary glands of the intestine were found distinctly swollen. In the other cases there was 1 white to from 70 to 225 red discs, averaging about 1 to 100, so that it is quite evident that this disease is distinct from leucocythæmia.

It is well known that anæmia is often a prominent symptom of rickets, and, as nearly all these children were rickety, the question naturally arises whether the blood changes described were dependent mainly or even entirely upon the rickets. It seems to me, however, that, at any rate in the marked cases, the anæmia was always more profound than could be explained by the rickets alone, and, more particularly, that the diminution of red corpuscles does not occur to such an extent in simple rickets. Thus, in one case of well-marked rickets and anæmia, I found 98 per cent. of red discs and only 28 per cent. of hæmoglobin, and in twins with marked rickets and pallor the percentage of red corpuscles in each was about 80 and of hæmoglobin 70. As I have already stated, in none of my cases of splenic enlargement did the percentage of red discs exceed 78. Moreover, in the blood of cases of simple rickets there does not seem to be the same tendency to even a slight excess of white corpuscles.

The course of the disease is essentially chronic, and so it is difficult in out-patient practice to trace the cases to their termination. In some instances the splenic enlargement and the anæmia steadily increase, hæmorrhages occur, and the child dies at last from exhaustion, usually complicated by more or less catarrh of the mucous membranes, leading to bronchitis and broncho-pneumonia, or to diarrhœa. Ten of my thirty cases are known to have died mainly in the way just mentioned; but this is, perhaps, a higher mortality than that of a number of cases taken indiscriminately, as the thirty cases include an undue proportion treated as in-patients on account of their specially severe symptoms. Six of the cases could not be traced, of the remainder thirteen were found either to have completely recovered or to be steadily improving; Case 6 alone remained *in statu quo*. In Case 3, after only four months of treatment, the child's general condition and colour were greatly improved and the spleen could scarcely be felt, but this was a slight case from the first, and the spleen was never much enlarged. In Case 10, examined after a year and eight months, the spleen could not be felt, and the red discs had risen from 42 per cent. to 104 per cent. In Case 19, after eight months, although the spleen was still enlarged, the red corpuscles had risen from 78 per cent. to 98 per cent., and the hæmoglobin from 26 per cent. to 45 per cent. In Case 20 the spleen at first reached to the level of the anterior superior iliac spine, and the anterior border was in the nipple line; the lower border of the liver was felt half way between the umbilicus and the ribs; the inguinal glands were enlarged. Five months later the child was stouter and of better colour, the spleen could not be felt, the liver only projected an inch below the costal margin, and there was no glandular enlargement. From the first, however, the anæmia in this case was not extreme—viz., red discs 62 per cent., hæmoglobin 45 per cent.; the former rose to 82·5 per cent., the latter remaining about the same. In Case 22 the spleen was nearly as large as in the one just described; after three months it only reached an inch below the ribs, and there was much improvement in the child's colour and nutrition; it unfortunately succumbed to an attack of whooping-cough. Occasionally there seems to be no definite change after several months of treatment; Case 6 shows this especially, as after two years the child's condition was almost unaltered, the anæmia much the same, and the spleen a little larger.

The prognosis of cases of splenic anæmia as given by different writers varies immensely. Crozer Griffith, in Keating's Encyclopædia, says that permanent cures are of the rarest occurrence unless the splenic enlargement be due to syphilis or malaria; Henoch says that most of the children die from progressing anæmia, wasting, and, finally, dropsy of the cavities; Eustace Smith, on the other hand, gives a much more favourable prognosis; whilst Ashby and Wright state that most of the cases improve after a while, but that their course is very chronic. From my own observations I should say that the prognosis in these cases is not necessarily bad, though the disease will probably be of long duration; but should the spleen get very large and the anæmia profound, there is of course great danger of death from simple asthenia, from pulmonary trouble, or from the onset of any acute specific disease, which will probably prove rapidly fatal in a child already greatly weakened. Although the prognosis is usually more unfavourable the greater the enlargement of the spleen, yet it is interesting to note that in Case 4, in which the child steadily got worse and had marked anæmia, the organ was only slightly enlarged, weighing one ounce. Later on I shall mention facts which seem to point to the presence of well-marked syphilitic manifestations being a particularly unfavourable indication.

Morbid anatomy.—A necropsy was obtained in seven (Cases 4, 8, 15, 16, 26, 27, and 30) of the ten fatal cases. In all there were great emaciation and pallor of the internal organs, in four marked bronchitis or broncho-pneumonia. Case 4 was the only one in which there was any sign of tubercle, in this case there was a mass of caseous mesenteric glands. The liver was but slightly, if at all, enlarged in any instance, its greatest weight being fifteen ounces and a half. In appearance it was either normal or paler than natural; in only two of the cases (4 and 26) was it notably tougher than usual, and in two others (8 and 15) the consistence was very slightly increased. In one case (8) there was a depressed scar-like patch in the liver, perhaps the remains of a gumma; this was the only indication of visceral syphilis found in any examination. We may conclude, then, that the changes which the liver undergoes in these cases are unimportant, and that its enlargement is apparent rather than real, being due either to the relatively larger size of the liver in infancy or to the contraction of a rachitic thorax.

As regards the internal lymphatic glands, in no case was there any swelling of those in the thorax beyond what would be attributable to bronchitis or broncho-pneumonia. In four cases the mesenteric glands were normal; in one case, as already mentioned, caseous; and in two (Cases 8 and 16) slightly swollen. The bone marrow I have not examined, but it is said that that of the long bones may present in some cases the same dark-red lymphoid appearance frequently seen in pernicious anæmia.[1] In two cases the spleen was slightly adherent to the surrounding parts, and in a third there were a few flakes of lymph on the surface, but in no instance was there any distinct thickening of the capsule. In one case (4) the organ was but slightly enlarged, weighing 1 oz.; in the others it varied from 4 oz to 8½ oz. in weight. In all it was firm, and the consistence was distinctly increased; the section was dark and fleshy, but otherwise fairly natural in appearance, with no enlargement of the Malpighian corpuscles. Iodine solution gave no albuminoid reaction. None of the other organs presented any noteworthy change. The microscope confirmed the naked-eye appearance of the spleen by showing that the enlargement was apparently due to a simple hypertrophy, with more or less increase of fibrous tissue. In one case (8) there were scattered patches having somewhat the aspect of albuminoid change, a condition probably identical with the hyaline fibrosis which Cheadle has described.[2] The microscope showed no important changes in the liver or lymphatic glands, but in some instances there seemed to be slight overgrowth of connective tissue in the kidneys. The appearances presented by the spleen seemed to be the same whether the enlargement were associated with syphilis, with rickets, or with neither of these diseases; it also resembles the ague spleen. The condition described corresponds with the descriptions given by other writers, especially by Henoch and by Ashby and Wright; but I cannot be sure whether Jenner refers to a similar condition, when in his lectures on Rickets he speaks of an albuminoid infiltration of the spleen, with some simi-

[1] Dr. Crozer Griffith's article on "Splenic Anæmia," in Keating's Encyclopædia of Diseases of Children.

[2] Brit. Med. Jour., ii. 1888, p. 1148.

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lar affection of the liver and lymphatic glands, leading to enlargement of all these organs, and causing the emaciation seen in some cases of rickets. He describes the spleen as non-adherent, capsule scarcely if at all thickened, the substance of the organ tough but elastic, pale-red or dark-purple in colour; liver usually only slightly enlarged, heavy, tough, and semi-transparent; external lymphatic glands enlarged, not tender, and never inflamed. Although he speaks of an albuminoid infiltration of all these organs, he says that it has not the characters of the albuminoid change described by Virchow, and especially that it does not give any reaction with iodine solution. On the whole, from the general symptoms and accompanying conditions of these cases, it seems probable that the so-called albuminoid infiltration of the spleen associated by Jenner with certain cases of rickets is identical with the condition which I have been describing.

(To be concluded.)

A NOTE ON REID'S UTERINE DILATORS.

BY JAMES BRAITHWAITE, M.D. LOND.,
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IN 1888 Dr. Reid of Glasgow brought under the notice of the profession his uterine dilators. These consist of five conical dilators about two inches in length, which fit on a handle or stem common to all. The smallest of these dilators is a quarter of an inch in diameter at its narrow end, and three-eighths of an inch at its widest or proximal end. The largest is one inch in diameter at its widest part. The principle of action is that of a screw wedge. All the dilators have on the surface a shallow blunt screw, so made as not to cut the mucous membrane of the cervical canal of the uterus when introduced by a rotatory movement, but at the same time sufficiently deep to retain a hold on the parts through which they pass. When the British Medical Association met in Glasgow in 1888 I saw these dilators and procured a set from the makers, Messrs. Hilliard and Sons of Glasgow. They have served me in such good stead since in cases in which nothing else would have done that I propose to give two or three examples of their utility, especially as I have never since seen them mentioned in any way in the current medical literature of the day, and their value seems to be not known or appreciated.

In April, 1890, I saw with Dr. Thompson of Great Ouseburn a lady who was in such a condition from pregnancy vomiting that it was necessary to empty the uterus of a two months' fœtus in order to save her life if possible. The cervix was extremely rigid. I dilated first by Hegar's dilators, but could only get to size 9. By no justifiable force could any larger size be got in; so I then inserted a large laminaria tent, not having Reid's dilators with me. Next day I again tried with Hegar's; but I only got in two sizes larger. I now used Reid's, which I had meanwhile procured, and dilated at once to the fourth size; so that the left index finger passed through the cervix, and I completely emptied the uterus of a quantity of semi-putrid secundines by means of Gervis's ovum forceps, but no fœtus was found. The patient rallied for a day or so, but soon sank, the vomiting continuing. For three weeks previously the stomach had retained no food whatever, so this result was almost to be expected. The point, however, in the case is the ease with which Reid's dilators acted after the failure of Hegar's.

In October last I had a similar case, but more urgent still, and without these instruments I believe a successful termination of the case would have been impossible. A gentleman married a lady in California. Within a short time she became pregnant, and incessant vomiting necessitated the induction of abortion. She recovered from this, and became pregnant for the second time, but there was no vomiting, and she was delivered of a healthy male child at full term. She was attended by Drs. Ellerton and Clayton of Aberford, near Leeds, for she came to England to her husband's home. Becoming pregnant for the third time, vomiting came on at once; and when I saw her with her medical attendants named, she appeared to be within two days of her death, the stomach having retained no food for fourteen days. There was no time to wait for anything; the uterus had to be emptied at once. The cervix was closed firmly and felt somewhat hard. I dilated it to the fourth size of Reid's dilator. This took about an hour, as plenty of time should be given in the use of such a powerful instrument. The uterus was then emptied by means of Gervis's ovum forceps. This was upon a Wednesday; the vomiting abated considerably on the Thursday and ceased on the Friday, and the patient then recovered. I had a letter a week afterwards giving these particulars. I believe that no other dilator could have accomplished this, for great power was required; and the upward pressure necessary to introduce Hegar's instruments, one after the other, would have caused the vulsellum with which the uterus must be held to tear out. We have used this instrument extensively in the infirmary wards in the treatment of dysmenorrhœa. I will give one case of dysmenorrhœa, a private one, however, in illustration of its use in this disease.

A lady, thirty-four years of age, and unmarried, had suffered from dysmenorrhœa since she was eighteen, apparently induced by over-exertion in walking. It has become much more severe the last few years, and she had derived no benefit from the treatment of the physician who usually attended the family. In February, 1890, I dilated the cervix with Hegar's dilators to size 6 or 7, and inserted a large laminaria tent for the night. On withdrawing this next morning I did nothing further, as the parts were fairly but moderately dilated, and she had taken the ether necessary so badly that I did not like to give it again. No benefit whatever followed this dilatation except for the first time following. In May, 1891, I again dilated and used the tent as before; but on the second morning dilated with Reid's dilator to size 4, not passing it quite up to the full length. This has so far proved an absolute cure. I saw her a few days ago, and she has been as nearly as possible free from pain and is in good health, whereas she was previously almost a chronic invalid.

I could give many other illustrations, but those given show, I think, the great value of Reid's dilators. In use they simply require oiling and then passing into the cervical canal. The small end of the wedge is quite rounded and smooth. The handle is then rotated and the wedge screws itself in, dilating very gradually, but with immense power. I have never used the largest size, as the fourth one allows of the index finger passing, and I believe the largest size too large for an unimpregnated uterus, and possibly involving risk of laceration. It is necessary to steady the cervix by a vulsellum, or hook, but there is no risk of this tearing out or lacerating the tissues, as I have several times seen when Hegar's are used, for there is no upward dragging. Since this paper was written I have had a patient almost dying from hæmorrhage from what was supposed to be a sloughing fibroid. The cervix was contracted and did not admit the finger, and was woody and hard. It was dilated to the largest size with Reid's dilator, and as much as could be reached of the tumour removed. I thought at the time that it was all removed. The patient died within twenty-four hours from, as the necropsy showed, a large abscess full of offensive pus, but the cervical mucous membrane showed no trace of the action of the screw dilator, and it was examined very carefully in a good light.

I hope these cases may lead to a more general use and appreciation of the instrument, for which the thanks of the profession are due to Dr. Reid.

Leeds.

RELATION OF INFLUENZA TO CLIMATIC CONDITIONS AND TO ZYMOTIC AND RESPIRATORY DISEASES.

BY C. ROBERTS, F.R.C.S. ENG.

THE borough of Nottingham has issued an admirable coloured chart and a series of meteorological tables illustrating the relation of the number of deaths from various causes to the principal meteorological conditions on each day of the year 1891, but without any comments. As there was an epidemic of influenza during the ten weeks from April 22nd to June 30th, the chart affords an opportunity of studying the relation of this disease to climatic conditions and the prevalence of other diseases, independently of all

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preconceived ideas. The chart and tables do the compilers great credit, and their example might be followed with great advantage by other corporations. The meteorological curves do not throw much light on the cause and spread of the influenza. There was a high barometer, with a low and narrow range of temperature and a corresponding rainless and sunless condition, during the seven weeks preceding the outbreak of influenza. During its prevalence there was nothing remarkable in the climatic conditions, except an extreme range of temperature from a maximum of 72° to a minimum of 29°, equal to 43°, from May 13th to 18th, the period of the maximum death-rate from influenza and respiratory diseases. There were corresponding variations in the sunshine, the days of high temperature being very sunny, and those of low temperature sunless. There were ten days with hardly any sunshine at a period when sunshine is most plentiful in this country. There was nothing exceptional in the atmospheric pressure, rainfall, or direction of the wind during the ten weeks in which deaths from influenza were recorded.

When we examine the columns representing the number of deaths from various causes, we come on the remarkable facts that influenza usurps to a large extent the place of the zymotic diseases, and anticipates to a great extent the lethal effects of other diseases. The deaths from zymotic disease fall from 101 in the ten weeks before the influenza to 77 during the ten weeks of its prevalence, and to 31 in the ten weeks after it has disappeared. The deaths from respiratory diseases, which were 191 in the first period, rose to 262 during the epidemic, and fell to 78 during the ten weeks following it. The variations of deaths of persons above sixty years follow the course of the respiratory diseases; there were 234 in the first period, 302 in the influenza period, and 147 in the subsequent period of ten weeks. The following table shows at a glance these fluctuations in the deaths. As the epidemic occupied ten weeks I have arranged the other periods in groups of ten weeks each. The influenza period forms the centre group. The population of Nottingham in 1891 was 212,662, and the death-rate during the year 19·3 per 100.

	Deaths from zymotic diseases.	Deaths from respiratory diseases.	Deaths above 60, from all causes.
Ten weeks preceding the influenza, from Feb. 12th to April 23rd	101	191	234
Ten weeks of epidemic influenza, from April 23rd to June 1st. (Zymotic 77, influenza 100)	177	262	302
Ten weeks following the influenza, from June 2nd to Aug. 9th	31	78	147
Average	103	177	228

From these figures we see that influenza has, as it were, picked out the bad lives from the subsequent period, for if we average the deaths of the influenza and subsequent period we obtain the numbers 104 for zymotic and influenza, 170 for respiratory diseases, and 224 for deaths above sixty years of age, values which give only 3 zymotic deaths in excess of the pre-influenza period, and 21 respiratory and 10 old-age deaths less than that period. Some allowance must be made for the lower death-rate of the summer than the spring months; but, making ample allowance for this, it is obvious that the 100 deaths attributed to influenza were not an addition to, or excess of, the normal death-rate, but a mere variation of the name and time of registration of the deaths; and Nottingham as a community lost nothing (except a few weeks' labour) by the invasion of the epidemic of influenza in 1891. If further observation bears out these results there should be little reason for the panic which is spreading everywhere. May it not also help us to new views of the pathology of influenza when we find it supplanting zymotic diseases? My object is not, however, to discuss the pathology of influenza, but to call attention to its incidence, and its relation to other diseases and to the public health, as shown by the admirable chart issued by the Nottingham sanitary authorities, but which has been left for each student of vital statistics to interpret in his own way.

Curzon-street, Mayfair, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

LITHOTRITY IN CHILDREN.

BY F. A. SOUTHAM, M.B. OXON., F.R.C.S.,
SURGEON TO THE MANCHESTER ROYAL INFIRMARY AND TO THE CLINICAL HOSPITAL FOR WOMEN AND CHILDREN.

IN THE LANCET of Feb. 15th, 1890, I published a case of lithotrity at a single sitting in a boy aged three years and a half, and since that date I have performed the same operation in five additional cases, brief particulars of which are here given:—

Case.	Age.	Size of stone.	Structure.	Weight.	Duration of operation.	Result.
	Years.	Inches.		Grains.	Min.	
1	3½	Oval: ½	Uric acid	15	25	Up on 3rd day, discharged on 7th.
2	10	½ × ¾	,, ,,	45	70	Up on 5th day, discharged on 21st.
3	4	½ × ½	,, ,,	14	30	Up on 4th day, discharged on 7th.
4	5	1½ × 1	,, ,,	125	60	Up on 3rd day, discharged on 8th.
5	5	Oval: ⅝	,, ,,	13	20	Up on 2nd day, discharged on 8th.
6	3	,, ⅞	,, ,,	32	45	Up on 4th day, discharged on 7th.

In each instance the result has been extremely satisfactory, confirming in every respect the Indian experiences of Surgeon-Majors Keegan and Freyer, who were the first to advocate and practice this method of treating stone in male children. In performing lithotrity in young subjects, one is surprised to find how extremely tolerant the bladder is of prolonged instrumentation, the essentials for success being, in the words of Surgeon-Major Keegan, "great gentleness and a light hand." With two or three ounces of fluid (boric lotion) in the bladder, and the pelvis and thighs of the patient slightly raised so that the stone may fall back upon its posterior wall, the operation is a very simple one; in fact, much easier of performance than in an adult, the absence of any pouch or depression behind the prostate facilitating the seizure of the calculus and the removal of the fragments after it has been crushed.

Before deciding upon lithotrity in a child, it is, I think, advisable to know the exact size of the stone. This can be best estimated by measuring it with a small lithotrite when the child is sounded; more satisfactorily of course if the examination is made under anæthesia. As cystitis is usually present to a greater or less extent, the bladder should at the same time—viz., while the patient is under the influence of the anæsthetic—be thoroughly washed out with boric lotion. For a few days previously to the operation the irrigation should be repeated each morning, an anæsthetic not being necessary. By this means the condition of the urine is improved, the cystitis is relieved, and the urethra becomes accustomed to the passage of instruments. If a soft indiarubber catheter is used for the purpose, it causes scarcely any pain, and is usually well tolerated by the patient. In cases where the urine is very offensive—as happened in Case 2—small doses of boric acid may also be given internally. In none of my patients has it been found necessary to continue the irrigation after the operation, the removal of the calculus having been followed by a subsidence of the symptoms of cystitis. I am of opinion that by the employment of what we may term "urinary antiseptics"—namely, drugs such as boric acid, salol, &c., by means of which we are able to sterilise foul or toxic urine, and at the same time relieve inflammation of the bladder walls—the risks and after-complications of lithotrity in children, as well as in adults, are greatly minimised. As the operation is often somewhat prolonged, it is very important to guard against exposure to cold, and also to diminish as far as

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possible the effects of shock. With this object I always take care that the body and limbs of the child are wrapped in flannel bandages, and during the operation the patient lies upon a large, flat, hot-water tin, covered over with a blanket, which fits on the operating table. If hot fomentations are applied to the lower part of the abdomen and perineum after the operation, the child will usually pass urine in the course of a few hours without any straining or difficulty, and, beyond a slight smarting, with very little pain, usually much less than previously to its performance. In only one of my cases has there been any rise of temperature, and the following morning the patients have all been practically convalescent. It is, however, advisable to keep them in bed till the third or fourth day, when they may sit up in the ward, and at the end of a week they are usually quite fit to leave the hospital. In each instance the operation was performed with Weiss's Nos. 5 and 7 children's lithotrites, and the fragments removed with Nos. 6 or 8 evacuating tubes. In Case 4, as the stone was too large to be crushed with No. 7 lithotrite, it was first broken up with one of Weiss's small lithotrites for adults (about No. 9 size), and the operation was completed with Nos. 5 and 7 lithotrites. This case illustrates the fact that a calculus of considerable size—viz., over an inch in diameter—may be safely crushed in a young child. I believe that in the future lithotrity will quite supersede lateral lithotomy in children, and also that if a stone is too large to be crushed, it will be an indication for the selection of the supra-pubic operation.

Manchester.

A CASE OF HEMICHOREA FOLLOWED BY PARALYSIS (PARTIAL HEMIPLEGIA) IN A CHILD FOUR YEARS OF AGE.

BY E. A. PIGGOTT, L.R.C.P. & S. EDIN., L.S.A. LOND.

THE following case is of interest not only as occurring in so young a child, but also as exemplifying the embolic theory in the causation of chorea. The partial hemiplegia, I take it, as clearly indicating cerebral breach of structure, in all probability dependent upon capillary embolism. For the early history of the case I am indebted to the parents of the child, at which period she was under the care of another practitioner. The case came under my observation only a short time before the development of the hemiplegic symptoms. M. D——, aged four years, the child of healthy parents, suffered more or less from convulsions during dentition, the commencement of which was delayed until she had attained the age of eighteen months. When she had completed her fourth year she was attacked with influenza, which was generally epidemic at the time (March, 1890). During the interval of time between the subsidence of the convulsions synchronous with dentition and the attack of influenza the child enjoyed perfect health. The attack of influenza was succeeded by marked choreic movements in the left upper extremity, the facial muscles on the left side being the next affected; the disease, assuming a decidedly progressive character, ultimately reached the left lower extremity. The muscular contortions were almost entirely limited to the left side of the body, and were often present during sleep, frequently causing the little patient to awake with a sudden start. Locomotion was also interfered with, the left leg being drawn along the ground in walking. A nourishing diet, consisting of milk, beef-tea, eggs, &c., was ordered, and a mixture containing compound syrup of the hypophosphites, combined with small doses of liquor arsenicalis, together with cod-liver oil, prescribed. Under this treatment there was a marked improvement in the choreic symptoms; the improvement, however, was of brief duration. Decided evidence of hemiplegia soon commenced to manifest itself, paralysis of the left facial muscles, partial ptosis, and considerable photophobia, with loss of power in the left arm to such an extent that there was complete inability to grasp any object, the child using the right hand to endeavour to assist the left, finally being unable to lift the arm at all. The bowels were relieved naturally until this date (Oct. 13th, 1890). On Oct. 15th I was called to see the patient, as the symptoms were alarming. On arrival I found the following condition—viz, pupils unequal, left dilated, right contracted; the conjunctiva of the left eye totally insensitive, with diminished sensibility in right conjunctiva; marked trismus, the jaws being firmly closed. Tonic contraction of the extensor muscles of the left arm and forearm and both legs, the left being the most complete. Temperature in axilla 100°; pulse about 120, weak; respiration normal; child groaning slightly at intervals, and moving the head from side to side. A small quantity of liquid nourishment was administered by forcibly separating the jaws. During the progress of the disease, especially after the paralytic symptoms developed, the child was constantly complaining of pain in the head, and would cry out suddenly, frequently awaking from sleep with a scream.—Oct. 16th: The condition to-day nearly approached that of complete coma. Temperature normal; muscular jerkings almost continuous in the left upper extremity, which remained rigidly extended. The fingers were clenched, and the hand drawn back to such an extent that it almost resembled in appearance a complete dislocation at the wrist-joint, both feet being similarly affected, and simulating the condition represented in a case of talipes equino-varus. The bowels were obstinately confined, the urine being passed involuntarily. From this date the patient gradually passed into a state of profound coma, sordes forming upon the lips, with a total inability to take nourishment, death finally releasing the little sufferer on Oct. 23rd. A post-mortem examination was not permissible.

The foregoing case, in a great many of its details, resembles tubercular meningitis. Both parents being young and vigorous, there was no reason for supposing the child directly inherited a tuberculous diathesis; doubtless a tendency to brain mischief existed, owing to the convulsions attendant upon dentition. It is also a question what share, if any, the attack of influenza had in the production of the fatal cerebral symptoms.

Clare, Suffolk.

ATRESIA ANI.

BY JOHN K. MURRAY, M.B. EDIN.

A WELL-DEVELOPED child three weeks old was brought to me in September, 1891. I found a dimple marking the usual site of the anus, and the fæces passed per vaginam. On passing a probe the fistulous communication could not be found. Under ether, administered by my friend, Dr. Batchelor of Queen's Town, I cut down on the normal site of the anus, dividing the tissues in the middle line to the depth of an inch and a half. I could find no rectal cul-de-sac. The depth of the wound precluded further dissection. To get freer access I partially divided the posterior vaginal wall, and having passed a probe into the posterior fornix vaginæ I at last succeeded in making it enter the bowel. By inserting my forefinger into the wound I found the point of the probe just a little behind the vaginal wall. I accordingly cut down on it. This was followed by a free gush of fæces. I put a stitch in the site of the recto vaginal septum and closed the vaginal opening by absorbent wool. A bulbous silk catheter was tied in the rectum. The wound was syringed daily. By the third day no fæces escaped per vaginam. The catheter was removed, and passed into the bowel four times daily. When seen in the early part of March, 1892, it was found that a well-formed anus was present, rather nearer the vagina than in the normal perineum. No fæces have escaped since the third day per vaginam.

In this case the dimple marked the arrested deepening of the epiblastic fold which grows into and becomes continuous with the mesenteron. The high site of the rectal cul-de-sac probably indicates a defect in the development of the mesenteron itself. As regards the operation, the main difficulty was in striking the cul-de-sac, which was not distended by fæces, free egress being afforded by the vagina frequently during the operation. It is recommended by Dieffenbach and Barton[1] that, if possible, the cul-de-sac should be detached from the vagina and stitched to the skin. This may be feasible where the cul-de-sac is blind or where it comes low down, but where the cul-de-sac terminates at its communication high up in the fornix vaginæ such a proceeding is difficult, even hazardous. The result in this case shows the tendency of nature to revert to normal channels when such are re-established. The line of

[1] Medical Recorder, vol. vii., p. 357.

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force was in the direction of the wound when defecation took place, consequently the healing of the trench-shaped wound formed a natural prolongation of the rectum ending at the skin.

Whittlesea, Cape Colony.

DIFFUSE HÆMATOMA OF THE BACK; DEATH.

BY G. OSCAR JACOBSEN, M.R.C.S., L.R.C.P. LOND.

I WAS called on March 18th to see T. E——, who, I was informed, had on the previous night hurt his back in a fall. On arriving I found that the patient, a man aged fifty-eight, seemed to be in considerable pain, and on examination of the back discovered a large swelling, which corresponded roughly in site and size to the right scapula. The tumour appeared to be fluid, as there were distinct evidences of fluctuation. There was no discolouration of the skin. From the history I took it to be a hæmatoma, and prescribed a lead lotion, rest, and sedatives. I was unable to obtain ice. The patient, I was told, had got up from the sofa, and was crossing the room, and during the momentary absence of his wife was seized with an attack of giddiness, and had fallen with all his weight with the right side of his back against the sharp jamb of the door-post. I had been attending him for kidney disease, and what I took to be Ménière's disease, the patient complaining of constant attacks of vertigo associated with one-sided deafness. The next day, the 19th, the man seemed no worse, but the swelling had increased. The third day he seemed in a good deal more pain, and the swelling now extended upwards under the muscles of the right side of the neck nearly as high as the mastoid process, downwards to the small of the back, and had, moreover, now become very much discoloured. The next night I was sent for again, and found the patient in a very bad way, delirious, with running pulse and great dyspnœa—in fact, moribund, and he died the next morning, the 23rd, at 5 A.M., a little over five days from the time of the accident. A necropsy was ordered by the coroner, which I made about thirty hours after death. On inspection there was found to be considerable swelling on the right side from the mastoid process to the lumbar region. This was distinctly fluctuating, and there was very great discolouration of the skin, not due to post-mortem changes. On opening the chest the first thing noticed was infiltration of all the pectoral muscles of the right side with blood. On dissecting them carefully back this was found to become more and more intense, and after reaching a point just behind the mid-axillary line there was found underneath the latissimus dorsi a huge cavity which contained over three pints of semi-fluid and coagulated blood. The intercostal muscles were sodden with blood, and at one point seemed breaking down into the pleural cavity. The right pleural cavity contained a fair quantity of blood-stained fluid, and towards the base some very recent lymph, which also was found on the surface of the base of the lung. The lungs appeared healthy, and the other organs appeared fairly healthy, with the exception of the liver, which was somewhat enlarged, and the kidneys, which were granular, with diminished cortex, and the capsule very adherent. There was atheroma of the aorta and thickening of the aortic valves.

This case I think interesting and worthy of record, owing to the comparatively slight injury—namely, the fall against the door-post—the large amount of blood effused, and the considerable length of time elapsing before death. The extent of the hæmorrhage I attributed to the brittle state of the arteries consequent upon the patient's kidney disease.

Ashwell, near Baldock.

FOOT-AND-MOUTH DISEASE IN KENT.—The foot-and-mouth disease in the Sittingbourne district is, it is stated, increasing, and threatens to become epidemic. The third outbreak in the course of a few days was reported on the 16th inst., when it was discovered that the malady had made its appearance among a flock of about 150 sheep on Oakwood Farm, near Sittingbourne, belonging to Mr. G. H. Dean. This latest outbreak has had the effect of extending the boundary of the infected district. This was apparent on Good Friday, when a large number of pedestrians who attempted to pass through Gore Court Park found several of the footpaths closed to the public and guarded by police.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

WESTMINSTER HOSPITAL.

ENTERIC FEVER; RIGHT HEMIPLEGIA WITH APHASIA; RELAPSE; DEATH.

(Under the care of Dr. DONKIN.)

THIS case is placed on record on account of the exceptional occurrence of hemiplegia in connexion with enteric fever. In connexion with this case Dr. Donkin observed that some few cases have been reported, but mostly without necropsies. Two cases in children with recovery were recorded by Dr. Gee and Dr. Cayley respectively in the *Medical Times and Gazette* for 1878, vol. i. The blocking of the cerebral arteries is usually put down, according to inference from probability, to an embolic cause, and where no cardiac abnormality is demonstrated or indicated the embolism is supposed to arise from a broken-up thrombus in the left heart. In this case there was nothing noteworthy in the heart's structure or contents. We have probably to choose between thrombosis *in situ* or some temporary clotting in the heart's cavities leading to embolism for explanation of the arterial blocking which was discovered both in the brain and the lung. It seems much more probable that both the clots found were produced *in situ*, and that their cause was the same—viz., depression of the circulatory force from the long and severe pyrexia, which was evidenced by continuous dicrotism of the pulse and great weakening or silence of the first sound of the heart. Direct impairment of the nutrition of the arteries was a part of the profound effect of continued and especially of enteric fever on the tissues generally, and morbid changes in the blood were probably important co-factors with the weakened heart in producing the result. It must be remembered that the patient had an extensive bronchitis with much dyspnœa, causing excessive stress on a heart already overworked and probably dilated in the course of the fever. In this context Dr. Donkin called attention to a case recorded by Dr. J. Abercrombie where sudden left hemiplegia occurred in a boy of six years old with diphtheria, the necropsy showing thrombosis of the right middle cerebral artery without valvular heart disease or evidence of embolism. The account of the case is abstracted from notes furnished by Mr. Gossage, house physician.

The subject of this record, aged thirty, had been nursing two cases of enteric fever in a house where the drains were believed to be very defective. One of these cases died after a severe course of the fever with profuse fetid diarrhœa. The nurse began to feel ill while at her duties a fortnight before admission to hospital on Dec. 2nd. On Nov. 28th she had severe headache, and on the following two days suffered from pains all over, and shivered repeatedly. On Dec. 2nd there were slight cough, slight diarrhœa, and some vomiting. She was the subject of chronically enlarged glands in the neck, which had been getting larger during the three weeks before admission; had had "strumous conjunctivitis" two years before; and attacks of influenza in January, 1890, and May, 1891, the last being severe. On admission, the temperature was 104° F., and there was some distension, with great pain and tenderness of the abdomen. From this date to the 15th the temperature ranged between 104·8° and 102°, being usually over 103°, and there was much abdominal pain, occasional vomiting, and abundant eruption. After five days' constipation, a simple enema was given on the 8th, and subsequently there were from one to three semi-solid or solid motions on most days till the 15th, when fairly marked morning remissions of temperature set in. On the 15th bronchitic signs were heard all over the chest. The bronchitis became severe, with considerable dyspnœa, for several days, and the temperature ranged generally between 101·5° and 103°, occa-

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sionally rising to 104°, until the 22nd. After this the temperature gradually fell and the bronchitis decreased, until at the end of the month pyrexia ceased and the signs of bronchitis disappeared. On the 31st the patient complained of somewhat severe pain in the head. Her bowels had not acted for several days, and an enema was ordered on Jan. 1st. The nurse, who was about to administer the enema at 6 P.M., found the patient with much impaired consciousness and unable to articulate; she had been apparently asleep for an hour previously. On examination there was drooping of the left eyelid and considerable paralysis of the right arm and leg. She could hear well and apparently understood what was said to her, putting out her tongue—which was seemingly protruded straight—very slowly. Swallowing was somewhat difficult, and urine was passed in bed. During the next few days the paralysis became complete, and there was considerable loss of sensibility in the affected limbs; the breathing was somewhat laboured, and urine and fæces were passed in bed. On the 4th the temperature rose slightly; on the 5th it was 102° in the evening; on the 8th there were rose spots, loose motions, and some vomiting. The eruption and diarrhœa continued, and on the 14th the evening temperature was 104°, the pulse rose to 160, and the breathing became frequent and very laboured. On the 15th the pulse was running, the temperature rose to 105°, and the patient died at midnight.

The necropsy was made forty hours after death by Dr. Hebb. The brain substance was pallid, the sulci deep. The left carotid was distended with a softish dark clot which extended to its principal branches, the middle cerebral being apparently most affected, but the clot was confined to the Sylvian fissure. (Owing to certain conditions of the post-mortem examination the lower part of the carotid was not examined.) The supply area of the middle cerebral was extremely disorganised, the softened parts being the left corpus striatum, the island of Reil, the operculum, the anterior fourth of the upper internal temporo-sphenoidal convolution, and the wall of the lateral ventricle in more than its front third. The corpus striatum was of a greenish-yellow hue, and only kept in position by its attachment posteriorly to the optic thalamus. Elsewhere the surrounding nerve tissue was broken down flocculent detritus. This disorganisation affected the whole of the anterior cornu and the wall of the ventricle as far back as the front of the optic thalamus. The optic thalamus was somewhat softer than normal, and chiefly affected in its outer front part. The rest of the cerebrum, the cerebellar pons, and medulla were, except that the puncta vasculosa were large, not noteworthy. The vessels of the pia mater were to the naked eye normal. The pleura was smooth. The bases of both lungs were much congested and very friable. About the centre of the anterior edge of the left lower lobe was a faintly yellow infarct, about the size of a large walnut, having somewhat the appearance and consistence of grey hepatisation. The pulmonary arteriole supplying this was thrombosed by a dark, softish clot. There was evidence of general bronchitis. The heart and peritoneum were normal. The mesenteric glands were very large and soft, and much blood-stained. The spleen was large, tense, and turgid; parenchyma very soft and quite black. Extensive "typhoid" ulceration was found in the ileum, mostly healed, but two large and recent ulcers; also some very small recent ulcers in the ascending colon.

SHEFFIELD PUBLIC HOSPITAL AND DISPENSARY.

FIVE CASES OF INTRAVENOUS INJECTION OF SALINE FLUID FOR HÆMORRHAGE AND COLLAPSE.[1]

(Under the care of Mr. R. J. PYE-SMITH.)

THE following cases, all of them of extreme gravity, have recently been treated at the Sheffield Public Hospital and Dispensary by a method which deserves to have more attention called to it. In THE LANCET of Sept. 12th, 1891, Mr. Arbuthnot Lane related a remarkable case in which he had saved the life of a child moribund from hæmorrhage by the intravenous injection of three pints and a half of saline fluid. Although the intravenous injection of watery fluid is as old as transfusion of blood, having been practised by Sir Christopher Wren in 1656, and being mentioned by Libavius in 1615,[2] it has not often been used in such large quantities as those employed by Mr. Lane, except in cases of cholera, in which disease it was very successfully employed in doses up to four pints by Dr. Little at the London Hospital in 1848–49, and again by Mr. L. S. Little in 1866–67. The quantity of fluid used is, however, one of the most essential points in the intravenous injection of saline fluid. However valuable and necessary the red corpuscles and the nutritive constituents of the blood may be, it is not their diminution that gives rise to the immediate danger in cases of acute hæmorrhage. The real cause of death is a mechanical one, and consists in the loss of volume in the circulating fluid, which must, within certain limits, be proportional to the capacity of the vascular system. These limits are practically defined by the action of the vaso-motor apparatus, which, within them, automatically regulates the tension throughout the arterial system; but as soon as the limit is over-reached in the way of depletion, the regulating power which adapts the tension of the vessels to their contents ceases, the toneless arteries then fail in their share in the propulsion of the blood, and—the capillaries, the veins, and the heart being each affected in its own way—the circulation flags, and ultimately ceases. This fatal condition is reached when the quantity of blood is suddenly reduced to between three-quarters and half the normal or actually present amount in the body, and therefore long before death would have resulted from the diminished quantity of red corpuscles or from loss of nutritive material in the blood. It is not the composition of the blood but its bulk that is at fault, and the result is not oxygen starvation or tissue starvation, but failure of circulation. The rational way to meet this emergency is the intra-vascular injection of a sufficient quantity of any fluid not injurious to the blood or to any of the tissues of the body. Such a fluid we have ready to hand in "normal saline solution"—i.e., ¾ per cent. aqueous solution of sodium chloride. The fluid is prepared by dissolving clean common table salt in clear, recently boiled water in the proportion of a drachm to the pint. It is injected into any convenient vein, at the rate of a pint in ten minutes, at blood heat, and in quantities sufficient to restore fulness to the pulse or to equal the amount of blood lost; and as in cases of death from sudden hæmorrhage the amount lost is usually from three to four pints, that should probably be about the quantity employed. The apparatus Mr. Pye-Smith has employed for injecting has been, except in the first case, a simple glass syringe, as recommended by Mr. Lane, to the nozzle of which a T-shaped piece of tubing has been attached, the other arms of which were connected respectively, by means of india-rubber tubing, with the cannula in the vein and the saline solution in a jug. With the help of an assistant to compress the two indiarubber tubes alternately it is quite easy to inject continuously with such an apparatus without danger of injecting air into the vein.

CASE 1. *Gunshot wound of leg; hæmorrhage; collapse; injection of three pints of saline fluid; amputation of leg; recovery.*—H. W——, a carter aged twenty-six, was admitted on Sept. 25th, 1891. He was accidentally shot in the left leg by the discharge of a fowling-piece at a distance of two or three yards, and sustained a severe lacerated wound, with compound comminuted fracture of tibia and fibula. He bled profusely for half an hour before being got to a house, where a handkerchief bandage was tightly applied to the thigh by a priest, and he was sent in a cart to the hospital, a distance of twelve miles. He arrived about three hours after the accident, and was admitted under the care of Dr. Keeling, in whose absence and that of Mr. Thorpe Mr. Pye-Smith was called to see the patient.[3] He found him much blanched and collapsed, with small, weak, and frequent pulse and cold extremities. The man was restless, and complained of pain and thirst. It was evident that the leg required amputation, but the patient seemed quite unfit to undergo such an operation, and Mr. Pye-Smith determined to try the injection of saline fluid before submitting him to it. Meanwhile, hot water bottles were applied to the body, and he was ordered a drachm of brandy with five minims of laudanum every half hour in an ounce of hot water. Ether

[1] Part of a Clinical Lecture delivered on Feb. 11th, 1892, at the Sheffield School of Medicine.

[2] South's Chelius.

[3] Mr. Pye-Smith thanks Dr. Keeling, who was away on his holiday at the time, for leave to report the case, and Mr. Thorpe, who arrived at the hospital half an hour after him, for having kindly left the case in his hands.

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having been administered, and the thigh freed from bandages, Mr. Pye-Smith cut down on the internal saphenous vein below the knee at the level of the line for the proposed amputation flap. No blood flowed from either end of the divided vein, and it was not tied. A pint and a half of saline solution was slowly injected, with obvious improvement in the pulse, which had before become so feeble as to be scarcely perceptible at times. An elastic bandage was now applied to the thigh, and the amputation, two inches below the knee, was proceeded with; but when completed, although there had been scarcely any further loss of blood, the patient's condition was so alarming that the vein was again exposed by slitting up the skin over it, as the flaps had already been stitched together and the injection repeated. Another pint and a half of saline fluid was injected, this time with still more obvious effect, for the pulse became most markedly fuller and less rapid, whilst the colour and fulness of the face were distinctly increased. The patient soon rallied, took liquid nourishment readily, and in a few hours seemed out of immediate danger. The wound healed well, and was quite closed in a month. The man is now in good health, and by no means anæmic.

CASE 2. *Fractured ribs and internal hæmorrhage from a fall of thirty feet; collapse; injection of twelve ounces of saline fluid; death; necropsy.*—H. H——, a joiner aged thirty-two, was admitted on Dec. 15th, 1891. Whilst at work on the scaffolding of a new building he was struck by the chain of a crane, and fell a distance of thirty feet on to his left side. He was at once conveyed to the hospital, where he was seen by the house-surgeon, Dr. G. Wilkinson, half an hour after the accident. He was then in a state of extreme collapse, blanched and cold, but conscious, and complaining of pain in the left side. The pulse was very feeble, 120. The pupils were dilated and insensitive to ordinary daylight. The skin was covered with cold sweat. There was much pain in the back on movement. Crepitus was felt over several of the lower ribs on the left side, and there was a hæmatoma on the left buttock. On drawing off the urine, it was found to contain a trace of blood. The patient stated that he had micturated shortly before the accident. He was put to bed with hot-water bottles, and brandy and opium were administered, and ergotine was injected subcutaneously; but in the course of an hour he was evidently worse and almost pulseless. He was quite unfit for abdominal exploration, and, as a forlorn hope, saline fluid was injected into the cephalic vein at the right elbow. By the time that twelve ounces had been slowly injected the breathing had become so feeble that artificial respiration was resorted to, with the effect of somewhat restoring the pulse for a short time. Ether was injected subcutaneously and brandy was added to the saline fluid for further intravenous injection, but respiration and circulation failed before any more could be used, and in spite of continued artificial respiration, with inversion of the body and faradization, he died three hours and a half after the accident. At the post-mortem examination it was found that the lowermost five ribs on the left side were fractured and that there was a rent in the centre of the left half of the diaphragm through which the spleen and the greater part of the stomach had escaped into the left pleura. The spleen was quite pulped, and there were upwards of two pints of blood in the left pleural cavity, besides a considerable quantity in the posterior walls of the abdomen. The stomach was a good deal bruised, and the left kidney somewhat so. The bladder was not injured. The heart was contracted, and its ventricles were empty.

CASE 3. *Burnt wound of popliteal space; hæmorrhage; collapse; injection of sixteen ounces of saline fluid; amputation of thigh; recovery.*—J. O——, a steel roller aged eighteen, was admitted on Dec. 15th, 1891. He was at work in a steel-rolling mill when a piece of hot steel ran against him, cutting and burning the back of the left thigh down to the bone at the top of the popliteal space. He bled a good deal at the time, and, although a string was tied tightly round the thigh, he lost some more blood whilst being conveyed to the hospital. On admission an elastic tourniquet was applied, and it was found that the popliteal vessels and nerves were severed, as well as the biceps and parts of other muscles. Over a pint of blood-clot was found in the trousers. He was blanched and restless, and his extremities were cold. The pulse was small and feeble, 84. He was put to bed with hot-water bottles; an enema containing brandy was administered, and brandy and opium were given by the mouth. He would not at first consent to amputation, but within an hour of admission, his pain being so great, his friends prevailed upon him to do so, and ether was then at once administered. His condition was such that Mr. Pye-Smith thought it best to inject some saline fluid before amputating. Sixteen ounces were accordingly injected into the right cephalic vein at the elbow, with the effect of raising the frequency of the pulse to 120, and with such marked improvement in its volume that he then desisted, and proceeded to amputate the thigh by a single antero-internal flap, by which means he was able to divide the bone within an inch of the level of the wound and just above the apex of the popliteal space. The patient was pale for some days after the operation, but under the influence of iron and nourishment he soon began to regain his colour, and has made a very good recovery.

CASE 4. *Railway crush of both legs; hæmorrhage; collapse; double amputation (knee and thigh); injection of four pints of saline fluid; recovery.*—C. R——, a shunter aged thirty-nine, was admitted on Jan. 2nd, 1892. He was engaged coupling two empty railway trucks as they were slowly moving, when he slipped, and one of them went over both his legs just below the knees. Elastic tourniquets were quickly applied by some of the Midland Railway officials, but not till he had lost a good deal of blood, and he was sent to the hospital. When admitted he was much collapsed and moaning with pain, but it was not possible to get from him any account of the accident or even to obtain any response when he was told that his legs must be amputated. The right leg was found to be severed, except for a little skin, in the lower fourth, and was crushed to within two inches of the knee-joint. The left leg was nearly severed immediately below the knee, and the skin all round the knee was loose. His wife's consent to amputation having been obtained, ether was administered, and both legs were amputated, the right by lateral flaps through the knee-joint, leaving the semilunar cartilages as well as the patella; the left, by anterior and posterior flaps, just above the condyles, the patella being removed. Very little blood was lost, but his arteries felt very empty. The pulse was irregular, soft, and compressible, 132. His face was very pale. It was not considered advisable to leave him without injecting saline fluid, which was in readiness; and, as he lay quiet after the effects of the anæsthetic, it was easy to inject the fluid into the internal saphenous vein at the angle of the amputation wound in the left thigh, before applying the dressings. Four pints were steadily injected in the course of about half an hour. The effect on his pulse was marked; it fell in frequency from 132 to 104, and became much fuller, but he might probably have received still more with advantage. The face became a little less pale, but the improvement in that respect was not great. The pulse rose again to 120 before he was removed to bed, but he rallied well, and, though weak and very anæmic for a fortnight, he is now making a good, though slow, recovery. Unfortunately, a great part of the skin flaps of the left amputation wound sloughed, and an inch or more of the femur will probably have soon to be removed. There was also some sloughing in the right limb, but the tissues are now closing satisfactorily, and promise to make a good stump.

CASE 5. *Burnt wound of axilla; hæmorrhage; ligature of axillary artery; gangrene; secondary hæmorrhage; amputation at shoulder; syncope; injection of four pints of saline fluid; death.*—M. T. L——, a collier aged twenty-four, was admitted on Dec. 31st, 1891. In running between a fellow workman and the fire he received an accidental blow from a pointed piece of hot steel, which penetrated the left axilla from the front. Blood spurted out of the wound, but pressure controlled the hæmorrhage till medical assistance was obtained. Mr. Pye-Smith saw the case at Waleswood Colliery in consultation with Mr. G. H. West Jones of Eckington five hours after the accident occurred. There was a small wound about two inches above the anterior axillary fold on the left side, and the axilla was distended, but the radial pulse on that side was as good as on the other (88 per minute), and sensation in the limb was perfect. With the assistance of Mr. West Jones and of Mr. J. Court of Staveley, Dr. A. Court giving chloroform, Mr. Pye-Smith opened up the axilla from below, and found it full of blood-clot. The burnt wound went directly backwards, through the pectoralis major, and penetrated to the vertebral border of the scapula. A large artery (probably the subscapular) was found bleeding, and was secured deep in the axilla, as well

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as one or two smaller vessels, and it was hoped they would prove to be all, as the axillary vessels and nerves appeared to be uninjured; but on moving the arm blood rushed from the axillary artery, and it was found that there was a slit on its upper aspect in the third part of its course. It was tied and the wound then closed, drainage-tubes being inserted, and, as the man's home was two miles from the colliery, he was then sent in an ambulance to the hospital, a distance of about ten miles. Next day there was lack of sensation in the fingers, and on the following day, as gangrene appeared to be commencing, a consultation was held to decide whether to amputate at once at the shoulder or to wait for demarcation. It was decided to wait, in the hope of being able to amputate at the elbow later on, sensation still being good to some inches below that joint. In the course of a week the gangrene had greatly advanced to just below the elbow, and now a gangrenous patch showed itself on the inner aspect of the upper arm. The patient became delirious and the semi-purulent discharge from the wound was fetid. He took nourishment pretty well, but the pulse and temperature ranged high, and he looked very pale, thin, and ill. On the evening of Jan. 12th (twelve days after the accident) secondary hæmorrhage occurred, and he lost several ounces of blood. It was evident that amputation must be at once performed and the bleeding vessel secured. Ether was accordingly administered, and it was found that the gangrene now extended to the middle of the arm. Amputation at the shoulder was effected by outer and inner flaps. No large vessels bled, the axillary artery being plugged with clot and the slit in it being clearly visible. On clearing out the suppurating cavity in the axilla, it was seen that the secondary hæmorrhage was from a hole deep down on the vertebral border of the scapula, so deep that the only way to secure the vessel was by leaving a pair of long pressure forceps on it. It was apparently the posterior scapular artery, which had ulcerated on the separation of an eschar caused by the burn. Whilst this vessel was being secured the patient's pulse entirely failed, and two pints of saline fluid were at once injected into his right basilic vein, with marked improvement in his aspect, and a return of the radial pulse, which became full and bounding. In a few minutes, however, the pulse again began to disappear, and was soon imperceptible at the wrist. Ether was injected under the skin and a brandy enema given, and then the saline injection was resumed. When half a pint had been used the pulse again returned, and continued to improve whilst the remainder of the second quantity of two pints was being injected; but it never became as strong as it did during the previous injection. When the injecting was finished the respiration was very feeble and shallow, and the pulse soon became imperceptible even at the groin, and breathing ceased. Artificial respiration was now resorted to, combined with inversion of the body, and faradaism was applied to the neck and præcordium, but none of these means availed to restore either circulation or respiration, though persisted in for half an hour.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Ligature of the Second Part of the Left Subclavian Artery for the Cure of Axillary Aneurysm.—Symptoms and Pathology of Psilosis.

AN ordinary meeting of this Society was held on April 12th, Sir Andrew Clark, Bart., President, in the chair.

Mr. GODLEE read a paper on a case of Ligature of the Left Subclavian Artery for the cure of an Axillary Aneurysm. The subject of this paper was a man aged sixty-six, who was suffering from a large axillary aneurysm on the left side, with dilatation of the left subclavian artery and signs of pressure on the brachial plexus. There was also some suspicion of atheromatous disease of the aorta. Tuffnell's treatment was employed for three weeks without effect, and the aneurysm appeared to be increasing in size. The subclavian artery was accordingly tied in its second part with catgut. The wound healed by first intention and the aneurysm was gradually contracting. The patient complained of pain in the upper arm. Appended were notes by Dr. J. Mitchell Bruce, describing the condition of the thorax both before and after the operation. The justifiability of the operation, the best method of performing it, and the best form of ligature, were finally discussed.—Mr. BARWELL agreed that the old statistics on this subject were valueless, as, owing to the advance of surgery, those complications formerly so common were now no longer to be feared. In 1879 he had operated by a somewhat similar method, and in his writings he had more than once recommended it. He referred to a tabulated list of nine operations of this kind, and mentioned the causes of death in the five which succumbed. The artery being well supported by muscle fibres between the scaleni was less likely to be diseased there, and hence would better bear a ligature. This aneurysm was much rarer on the left side, and it appeared from Dr. Bruce's description of the present condition of the chest that other large arteries were involved, probably by a prolongation of the aneurysmal condition downwards. This complication was always to be feared in these cases.—Dr. TAYLOR said that the patient, who had resumed his occupation, stated that he was weaker than he originally was, though he now only complained of a slight pain over the heart. After the operation there was considerable pain of a neuralgic nature in the left arm.—Mr. MAUNSELL said that suppuration in the sac and secondary hæmorrhage were causes of death in these cases. The former had been practically abolished by antiseptic surgery, and, with regard to the latter, time alone could show whether it would be possible to ligature successfully the second part of the subclavian on the right side; that vessel being almost in a straight line with the ascending aortic arch, and therefore exposed to the full force of cardiac contraction; it also had branches springing from it, which was not the case on the left side.—Mr. HOLMES congratulated the author on the success of the operation, and remarked on the necessity of keeping an accurate record of all the cases He himself had never resorted to this procedure nor had he seen it done, but he remembered an instance in his own experience in which he would have been better advised had he endeavoured to tie the second part instead of the third; the aneurysmal sac was so much in his way that in endeavouring to apply the ligature he perforated it and the man bled to death. There were of course dangers in the operation, but personally he did not regard the possibility of injuring the thoracic duct as a very serious one, for it was a lax structure and not liable to be wounded; on the other side ligature of the superior intercostal nerve had to be guarded against. The use of ligatures which no longer cut through the coats of the vessels had greatly diminished the risk of secondary hæmorrhage. Statistics drawn from the past were valueless, for the practice of Liston and Astley Cooper was something quite different to that of the present day, and their experience was practically useless. As to the material used for ligature, he himself had used ox aorta with much success, though he admitted that the catgut ligature was, if not superior, at any rate equal to any other. For general use, however, he preferred kangaroo tendon; it was less bulky, more easily tied, and more trustworthy than catgut. As the latter was prepared by a process of putrefaction, it could not so easily be rendered perfectly aseptic, and this was a point of great importance in relation to the so-called secondary, but in reality primary, hæmorrhage, which had proved so fatal. He preferred so to ligature the vessel as to divide the internal coats. These cases were exceedingly dangerous, and their fatality was due to the fact of the proximity of the vessel to the aorta.—The PRESIDENT agreed with Mr. Holmes when speaking of the uses of past statistics; they were not only unreliable, but misleading.—Mr. GODLEE, in reply, said that in the paper to which he had referred there was an account of eight cases, and in five of them the ligature had been applied between the scaleni. The phrenic nerve was usually quite out of the way of injury, but the duct stood in greater danger of being divided. It was situated in a region in which surgeons had carried out extensive operations for the removal of glands, and he had seen the duct or a large tributary thereof divided in a woman, who subsequently became very much emaciated. He felt sure that silk would answer perfectly well to ligature the artery in its continuity; still a ligature made of several strands of catgut could be easily placed and tied into a very small knot.

Dr. GEORGE THIN gave a communication on the Sym-

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ptoms and Pathology of Psilosis Linguæ et Intestini. The author referred to his previous publications on the symptoms and pathology of this climatic affection, and illustrated the characteristic changes in the mucous membrane of the mouth and throat by relating in detail the histories of two typical cases, the appearances being illustrated by water-colour drawings. In order to emphasise the points of distinction between psilosis and other forms of tropical diarrhœa, he related the histories of two cases of the latter affection; and showed on what symptoms the differential diagnosis depended. In the two cases of psilosis which were now specially described, microscopic examination by Dr. Wethered of large, creamy, soft masses, which were passed with the stools after the motions had become solid, showed that they consisted of almost pure cultivations of bacteria, a rod-shaped bacterium, of moderate and definite size, largely predominating over the other organisms present. With convalescence, this mass gradually diminished in quantity, and, when recovery had taken place, was no longer observed. The mass was much larger in one of the cases than in the other, but the characteristics were the same in both. In the liquid diarrhœa motions of the acute condition the colour of the stools was a pale yellow; but when the diarrhœa had ceased, and the motions became solid, the patient passed, usually once daily, a large, formed, white, colourless stool; the colourless condition of the motion coinciding—over weeks and months—with a diet containing milk, farinaceous foods, fish, eggs, and chicken, with a moderate amount of vegetables and fruit. Six cases were referred to in illustration of this fact. Clinical evidence, and the evidence of a previously published case—in which there was a post-mortem examination—was adduced to show that these white stools were coincident with a normally healthy condition of the liver and pancreas. In one of the cases the fæces, on a pure milk diet, were analysed by Dr. Wynter Blyth, who associated himself with the investigation of this part of the case; and it was shown that the general percentage composition was: water, 82·73; organic solids, 14·00; chemical matters, 3·27. More than half of the organic solids consisted of neutral fats, apparently milk fat, which had passed without being digested or saponified. Nearly 6 per cent. of bile acids were present as a soap. A small quantity of organic sulphur was present as taurin, but the colouring usually found in fæces was entirely absent. As the fat in the stool was only a fraction of the quantity taken in the milk, it followed that a considerable proportion of the milk fat was digested. In both cases the exhibition of iron was not followed by the ordinary black iron stool, minute grains of metal being interspersed with the motion. Reference was made to a paper by Allan Macfadyan, Nencki, and Nieber, in which, in a case of fistula near the ileo-cæcal valve, it was shown that the food mass which passed into the colon was acid, whilst the reaction of the mucosa of the ileum was alkaline; and both the mucosa and the contents of the large bowel were alkaline. Reasons were given to show that in psilosis the alkaline secretion of the mucosa of the ileum was wanting; that the food mass that passed into the large bowel was more than usually acid; and that the fæces were acid. It was argued that the abnormal reactions of the intestine must produce abnormalities in the development of the bacteria normally present in the bowel; and it was suggested that the normal colouring matter of the stools, under the influence of abnormal bacterial products, either was not formed or was destroyed. The same condition, but to a less marked extent, obtained in some cases of ordinary tropical diarrhœa. Clinically, the fact was established that persistent white stools might exist, whilst both the liver and the pancreas were healthy.—Dr. ECCLES said that he was in a position to confirm what had been said by the author as to the condition of the intestinal contents in this very rare disease, and he referred to a paper read by him at the International Congress at Berlin in which he demonstrated that the action of salol was greatly prolonged in certain forms. He had found that when the motions were frothy and white, salol did not appear in the urine for three or even four hours after ingestion. That was a very marked prolongation, for in the healthy man it could be detected at the expiration of forty-five minutes. The explanation of this was presumably that salol was insoluble in acids, but easily so in alkalies, and it followed from this that if the salol were a long time before being split up, it must be in the presence of an acid medium. In certain cases of sprue under his notice it was found that when the motion was yellow or white and frothy, and for some time after the motions had become cylindrical, but still white, the delay in the appearance of salol was still prolonged, but when the motions became coloured as well as cylindrical, the reaction of salol appeared much more promptly, taking place in as short a time as fifty minutes. Persons might have a slight attack of sprue in a country where the disease was met with, and then the disease would seem to cease and the patient return to this country. But as long as ten years afterwards a period of cold, damp weather would determine a fresh outbreak. He had had an opportunity of applying Gunnsberg's test as to the condition of the digestive juices in sprue, and had found that there was but little gastric activity; there seemed to be an over-secretion of hydrochloric acid, from which it followed that gastric digestion might be prolonged after the food reached the small intestine, and so set up the condition of irritable ileum referred to by the author.—Dr. SCRIVEN said that sprue was quite a different disease from ordinary tropical diarrhœa; it was common in the Himalayan highlands, and had been attributed to the water. It was very chronic, extending over several years, the patient getting gradually thinner, with enfeebled digestion, associated with vomiting and sore mouth. The abdominal organs were usually found wasted, but apparently healthy; he had occasionally seen ulceration of the large intestines, but in that case he considered that the disease had been superadded to dysentery. He had also met with a kind of roughness of the ileum which seemed to form part of the disease, though as a rule the mucous membrane was smooth and thin. The most important observation of recent years with regard to the disease was that it could be cured by the aid of milk, and without medicine. He was in the habit of ordering three ounces an hour for sixteen hours daily, gradually increasing the quantity to six pints per diem. Where there was much trouble in inducing the patients to keep to the milk diet he allowed a small quantity of bread to be crumbled with the milk, and he referred to an instance in which wonderful improvement took place after seven weeks, even although a small quantity of bread had been allowed. In another case, where the patient had suffered from diarrhœa for three years, when on a milk diet the trouble ceased, and the motions became solid and white; when that occurred, the patient at once, against advice, took to general diet, with the result that a relapse took place; he repeated this five times in one year, and eventually died of the disease.—Dr. MANSON referred to the work of Bertrand and Fontan on the "Enterocolite chronique des Pays Chauds," in which they gave an account of the pathology of the disease. He himself did not regard the disease as an endocolitis, but thought that it was a condition generally superadded to some previously existing affection, such as dysentery, operations upon the lower part of the bowel, such as piles, fistula, &c., and in debilitating conditions, such as pregnancy, hæmorrhage, fatigue, mental worry, and depression. There occurred in the tropics forms of the disease in which the lower bowel was not involved, the typical tongue being present, together with dyspepsia and white stools; this condition might remain without advance for months if the patient were careful as to diet, but any error in this direction might initiate a well-marked attack, extending down the alimentary canal. It was of the utmost importance in treatment to procure physiological rest to the digestive apparatus, the patient being sent to bed so that the nourishment of the body might be carried on with the lowest possible diet capable of sustaining life. He began by ordering sixty ounces of milk, with directions that unless the diarrhœa ceased it was to be reduced ten ounces daily to a minimum of ten ounces. Patients who were refractory to milk diet could be given koumiss, which was just as efficacious. In one analysis the stools were described as containing a trace of bile acids, while in others these were altogether wanting. In several necropsies they found that the pancreas contained centres of degeneration and even suppuration; it was the most fatal of the chronic morbid conditions to which the Anglo-Indian was liable. French authors stated that in Cochin China the disease was just as common on the coast as in the interior and in low-lying districts as on the highlands. The mortality among the army of occupation had been enormous from this cause, and 10 per cent. of their deaths were ascribed to it.—Dr. JOHNSON said that the disease was at any rate indirectly caused by residence in malarial districts.

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Though it had been met with as an idiopathic condition, yet a great many cases were consecutive to dysentery and malarial fever. Immediate change of climate gave the only chance of recovery, and it usually answered admirably if adopted in an early stage of the disease. From the fact that it was so very common in such places as the valley of the Yang-tse, Batavia, and other well-known hotbeds of malaria, it was impossible to avoid the conclusion that it was not merely a disease which might occur in any tropical climate, but that there must be some preceding malarial poisoning.—Dr. THIN, in reply, said that he had purposely avoided all allusion to treatment, with which he had fully dealt elsewhere. His particular object was to demonstrate the condition of tongue and throat peculiar to the affection. With relation to the existence of white stools, they had been taught by tradition that a temporary condition of this kind indicated inaction of the liver amenable to appropriate medication; but this was an affection not associated with the liver, and yet accompanied by colourless motions. He did not admit that it was a malarial affection, for though it occurred in countries where malaria was common, yet plenty of people suffered from malaria without having this disease, and it also existed in countries where malaria was unknown. He had been struck by the number of French troops which had been affected, but they probably included all cases of tropical diarrhœa under this head. Though it was apt to attack people weakened by age or pre-existing maladies, it also attacked the young and the strong. He quoted a case in which the malady could not have been superadded to any pre-existing disease, and he maintained that if the disease attacked weak people, the weakness had nothing to do with it. He quoted several opinions to show that the disease was not the same as the "hill diarrhœa" of India, and referred to the difficulty of distinguishing between it and the "sore mouth" of Ceylon. With regard to the condition of the pancreas, he observed that that organ was found to be healthy in the majority of cases examined.—The PRESIDENT desired to call attention to the similarity between this affection and certain varieties of disease known in the provinces as "mucous disease."

MIDLAND MEDICAL SOCIETY.

WEDNESDAY, MARCH 9TH.

Mr. BENNETT MAY, F.R.C.S., President, in the chair.

Piece of Brass in Lens.—Mr. ANTROBUS showed for Mr. Eales a lad aged fourteen, brassworker, with a piece of brass situated in the lower and outer part of the crystalline lens, which had been there fourteen days, the lens retaining its transparency.

Perforated Appendicitis.—Mr. RATCLIFFE showed a case of perforative appendicitis. H. W——, aged fifteen, glass-worker. Five years ago the patient was in hospital suffering from typhoid fever. On Jan. 22nd he returned from work seeming well. He lay down on the sofa, and soon afterwards complained that he had the "bellyache," the pain being in the upper part of the abdomen, above and in the region of the umbilicus. He came to the hospital and was treated as an out-patient. On the following day (23rd) he was admitted as an in-patient, under the care of Dr. Wilson. There was no constipation before the commencement of the illness, but it was marked after. On admission, the abdomen was distended all over. No tumour could be felt anywhere, and the pain was almost entirely confined to the left iliac region, there being little or none on the right. The patient continued in this condition till the 30th, when he suddenly became collapsed, with profuse perspiration and feeble pulse, and the abdomen became extremely distended and tender. He was taken to the theatre for operation, but died before it could be done. Necropsy: The small intestine was somewhat distended throughout. There was marked general purulent peritonitis. Over the anterior surface of the vermiform appendix a piece of small intestine was matted by peritonitis so as to form an abscess cavity the size of a walnut, the upper boundary being the last two inches of the ileum, the outer wall formed by the cæcum. This cavity had burst into the general peritoneal cavity. The appendix was hidden in this cavity. There was a stump a quarter of an inch long attached to the cæcum. This stump had its lumen occluded. The rest of the appendix was adherent to the wall of the abdomen outside the cavity. No calculus could be found. There was no pus behind the cæcum. In the left iliac fossa there was a coil of small intestine more markedly inflamed than the rest, but nothing else.—*Remarks:* It is interesting to note that this boy had had typhoid fever previously, this probably causing narrowing of the opening of the appendix, which, becoming blocked, had formed a cyst, not giving rise to any symptoms. The first symptoms would be probably due to rupture of this cyst. Adhesions forming the second and final symptom were due to the bursting of this into the general peritoneal cavity. Perhaps the most interesting feature of the case is that at no time could any particular tenderness or any signs of tumour be discovered in the right iliac fossa. In the first instance the pain was above the umbilicus, and after admission entirely confined to the left iliac fossa, rendering the diagnosis of appendicitis wellnigh impossible.

Cysticercus Cellulosæ.—Mr. RATCLIFFE also showed a Cysticercus Cellulosæ in the Arm. J L——, a middle-aged man, who lived largely on pork and bacon, came up complaining of a small swelling, about the size of a large hazel nut, on the inner side of the biceps muscle of the right arm. It had been growing for a year, and had given rise to pain for the last two months. On removal, it was found to be a small cysticercus about half an inch in diameter.

Imperforate Anus with a Penile Fistula.—Mr. Heaton showed an infant on whom he had operated for the relief of imperforate anus with a penile fistula. The child, an otherwise healthy male infant, had on the under surface of its penis, about three-quarters of an inch from the end of the glans, a small fistula, from which for the first few days of its life a constant discharge of meconium took place. The anus appeared natural, but on examination was found to lead into a blind cul-de-sac. The rectum was found about three-quarters of an inch from the end of the anal cul-de-sac. It was opened and its mucous membrane stitched to the edges of the skin incision. The opening of the fistula into the rectum was on its anterior surface about half an inch from the blind end. The fistula had no connexion with the urinary passages. Since operation the child had gained in weight, and at present there was no tendency to contraction of the newly made anus.

Mr. HEATON read a paper on Anæsthetics.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

TUESDAY, FEB. 6TH.

ROBT. MERCER, M.R.C.S., President, in the chair.

MR. ALTHORP showed a patient recovering from Compound Comminuted Fracture of the Patella.

Auto-infection in Scarlatina.—Dr. BATES read notes of a case of apparently typical Scarlatina in a girl of nineteen, who, having complained of slight joint pains at the end of the first week, was apparently in the course of convalescence when the temperature ran up and the typical rash again appeared. On the fourteenth day the urine was albuminous, with blood and casts present; on the seventeenth some erythema nodosum appeared; on the twenty-first day the rash came out again, and after this the fever abated. On the thirty-fifth day the urine became scanty, and œdema of the face appeared. Hot-air baths re-established diuresis; desquamation continued until about the eightieth day. He was at a loss to account for the symptoms except on the hypothesis of auto-infection.—Drs. Carter, Burnie, Rabaghati, and Johnstone criticised the case.

Antipyrin in Asthma.—Dr. BATES read notes of two cases in females. In one abortion had occurred from the severity of the attacks. Local measures and arsenic, pushed to the extent of a drachm of the liquor in the day, had been useless. A large dose (twenty-five grains) of antipyrin gave the first relief for months. Both cases had relief now under continued treatment with antipyrin.

Hæmatocele.—Dr. GOYDER read a paper dealing with the Pathology and Treatment of Pelvic Hæmatocele, especially the later stages. He dwelt on the obscurity of the diagnosis occasionally, and advised medical rather than surgical treatment for the majority of cases.—Mr. HORROCKS strongly advocated surgical treatment; the medical treatment he regarded as trifling.—Dr. JOHNSTONE mentioned three cases treated expectantly, in each of which an ovum

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was found post mortem.—Messrs. Carter and Burnie also spoke.

Tumour of Optic Thalamus.—Dr. MAJOR showed preparations and specimen, and read the notes of the case of a single girl aged twenty-three. Four months prior to admission she had pains in the left temporal region, worse at night. She could read perfectly, but noticed that on looking at two people she only saw the left one. Two months later she sought treatment for her sight; one eye was hemiopic. Five weeks later she suddenly lost power in right arm, leg, and side of the face. There was some numbness of the right side and thickness of speech, but no aphasia or loss of consciousness. She regained power to a great extent, and three weeks later had a similar attack, from which she was recovering on admission, when she was bright and intelligent. Temperature a little raised. Right pupil dilated; no optic neuritis, no colour-blindness. Right synonymous hemiopia, paralysed muscles, flaccid. Diagnosis, tumour of posterior part of left optic thalamus pressing on posterior limb of inner capsule. Iodides were given. The fever increased, delirium commenced, then prolonged stupor and death. Post mortem, some meningitis, left optic thalamus distinctly enlarged, and on section the posterior part contained a rounded, firm, slightly greenish-coloured tumour, which pressed on the posterior portion of the inner capsule The structure was not typical, microscopic examination showing nests of large ill-defined cells embedded in a fibrous tissue.

PLYMOUTH MEDICAL SOCIETY.

SATURDAY, MARCH 12TH.

Mr. T. LEAH, President, in the chair.

MR. WALTER WOOLLCOMBE showed a case of Double Congenital Dislocation of First Phalanges of Thumbs forwards into Thenar Eminence. The phalanges, especially of the right hand, were very poorly developed, and the thenar eminences entirely wasted. The patient, a man aged forty-one, was a tailor, able to work well till lately, when he had suffered from "sewing cramp" in the first and second fingers. He presented a curious deformity of back—the upper sacral and second lower lumbar vertebræ presenting extreme bulging posteriorly—prominence covered by tuft of long hairs—spina bifida occulta (Sutton), and a compensatory curve forwards of the lower dorsal vertebræ very extreme, so that a deep fissure existed between the erector spinæ muscles.

Mr. A. RENDLE showed a Gall-stone of unusual size passed per anum by a stout woman, aged forty-nine. Severe colic for three months, with slight jaundice; melæna; hæmatemesis on two occasions. A large inflammatory mass could be felt in the neighbourhood of the gall-bladder. Exact size of stone, 1·8 in. in length, 1·2 in. in breadth; weight just over three drachms. Mr. Rendle remarked that he could only find records of two doubtful cases exceeding this in size, and two others where hæmatemesis was noted as a symptom.

Mr. WM. SQUARE opened a discussion on the Relative Values of Temperatures. After describing the thermometer as first introduced, and the improvement in late years, he emphasised the fact that external circumstances have little or no effect on the internal body temperature, and cited some common causes of a raised temperature where no lesion could be found. The amount of temperature was equal to the amount of tissue metabolism in excess of normal. He next raised the question of the value of drugs simply to bring down the temperature in such diseases as typhoid fever; in his opinion they were of no use. He cited 110° as the highest temperature consistent with life, and concluded by discussing the hyperinosis theory.

Mr. H. S. THOMAS showed the following charts:—1. Acute Rheumatism, in which each rise above the average coincided with fresh joint pains, and *vice versâ*. 2. Third Week of Typhoid, in which fall of temperature was interrupted by occasional rises, each accompanied by either diarrhœa or fresh spots. 3. Acute Pneumonia, temperature falling on seventh day; rise after reaching normal, coincident with serious symptoms, although no evidence of fresh consolidation could be found. 4. Acute Epididymitis, with heart murmurs, varying much in intensity, in which the temperature rose every evening between 2 and 10 o'clock to 102° or 103°. Quinine was useless; ulcerative endocarditis was diagnosed. 5. Tubercular Arthritis of Ankle. Temperature 103°; collection of pus let out; temperature fell for the week, then rose again. Amputation. Temperature kept up, although stump looked well; probably deep and extensive thrombosis. 6. A Case of Lupus, in which chloroform was given for scraping. Sudden collapse; artificial respiration &c.; on recovery temperature was 101°. One hour later it had dropped to 98°, and then remained normal.—Mr. WILLOUGHBY thought that in acute rheumatism, lobar pneumonia, and affections of the pons where the temperature reached 106° or 107°, the temperature alone should be treated by drugs, irrespective of the disease. The most effective treatment was cold baths, and the patient should be removed before the temperature had fallen as low as desired, as it continues to fall after removal.—Mr. A. RENDLE would go further than the last speaker, and sponge whenever the temperature reached 103°. No harm ever resulted.

Reviews and Notices of Books.

The Anatomical and Histological Dissection of the Human Ear in the Normal and Diseased Condition. By Dr. ADAM POLITZER. Translated from the German by GEORGE STONE. London: Baillière, Tindall, and Cox. 1892.

THIS work gives in detail various methods for the anatomical investigation, coarse and minute, of the various parts of the ear in health and disease. The book is very thorough, entering into all the minutiæ in the most complete manner. The first part, which comprises six chapters, deals with the naked-eye appearances of the various parts of the organ of hearing, the removal of these from the body, the making of sections through them, and the description of elaborate and complicated dissections to display their appearance in the normal state and otherwise. The second part deals in detail with the histological methods most in vogue among pathologists and anatomists who especially investigate the organ of hearing. This part of the work is most instructive, and contains all that is new and important in connexion with the examination of the complicated structures with which it deals. The translation is, on the whole, very readable, and Mr. Stone may be congratulated on having executed his difficult task well. The work is illustrated by 164 illustrations and one woodcut.

The laborious investigations of Toynbee in the pathology of the organ of hearing did much to place aural surgery upon a scientific footing. True advance in this subject can only be hoped for by increased knowledge of the physiology and pathology of the complicated inner ear. Anyone reading this book will at once see that it forms a most valuable guide to the would-be dissector and pathologist. The reader will also be somewhat dismayed at the great amount of labour, time, and close attention that must be bestowed without stint by him who would become an expert in, or advance, aural pathology. The work, indeed, is a powerful argument for the subdivision of labour in modern pathological investigations, and shows us that in this country we are somewhat behind our German *confrères* in the minute investigation, post mortem, of cases of deafness. What has been said of this book is sufficient evidence of its extreme value to any worker in aural pathology. Its study becomes a necessity, for it stands unrivalled. It should form part of every hospital library and be in the bookcase of all those who wish to investigate diseases of the ear by the light of post-mortem examination.

Traitement des Maladies de la Peau. Par le Dr. L. BROCQ. Paris: Octave Doin. 1892.

THE fact that a second edition has been called for in eighteen months shows that this valuable work of the new French school has met with the appreciation of those for-

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whom it was intended. It only remains for the critic to point out in what way this edition differs from its predecessor. In the first place, *mirabile dictu*, the number of pages is reduced from 925 to 894, and that, indeed, although the author has added a chapter on those surface diseases of the tongue which most frequently come in the way of the dermatologist, such as leucoplakia, black tongue, the mapped tongue, or, as he calls it, "desquamation marginée aberrante," glossodynia, and superficial glossitis. While there is some reason for this notice of surface tongue affections, it is rather surprising to find several forms of vulvitis described in a work on diseases of the skin. The articles on eczema and lichen have also been extended, and there are new articles on actinomycosis, glanders and farcy, *maladie pyocyanique*, or skin lesions consequent on the presence of the bacillus pyocyaneus, parakeratosis, syringomyelia, &c. Although these new articles are short, yet they are additions; and how, then, has the reduction in size been effected By an improved eclecticism as regards the remedial measures suggested, the first edition having been overloaded with formulæ, to the embarrassment rather than to the assistance of the practitioner. The result is an undoubted improvement in the work; but we are not sure that it might not have been carried a little further still. Dr. Brocq has very wisely, too, had all his formulæ made up by an experienced pharmacist, so that those who consult his work may rely on the formulæ being composed on sound pharmaceutical principles. The work can therefore be advantageously consulted for French methods of treatment by all practitioners who are familiar with the language, and the alphabetical arrangement will facilitate their search. Some of the formulæ, such as that for the useful emplastrum Vigo, with its twelve ingredients, will astonish English readers; but they are only relics of ancient pharmacy, which experience has proved to be useful, and with regard to which no one in this age of bustle has taken the trouble to separate the wheat from the tares.

A Report of an Investigation into the Causes of the Diseases known in Assam as Kala-Azár and Beri Beri. By GEO. M. GILES, M.B., F.R.C.S., San. Sci. Certif. Univ. London; Surgeon I.M.S., on special duty in Assam. Shillong: Printed at the Assam Secretariat Press. 1890.

Tea Garden Sanitation. Being a Few Remarks on the Construction of Coolie Lines and the Sanitary Management of Coolies, with Special Reference to the Prevention of the Disease known as Anæmia of Coolies, Beri-beri, and Anchylostomiasis. By GEO. M. GILES Surgeon I.M.S. Shillong: Assam Secretariat Press. 1891.

THE first of these publications is a scientific report of a very carefully conducted and interesting investigation by Dr. George M. Giles, and the second gives the practical results of that investigation in a popular form for the use of non-professional persons and the managers of tea gardens in Assam. The report, illustrated with several plates, begins with a comparison between the disease observed in Assam and that known as the beri beri of the Dutch colonies of Sumatra and Java, and long ago observed in Madras and described by Malcolmson. Dr. Giles satisfactorily demonstrates that the so called beri-beri of Assam is a totally distinct disease, however, marked by dyspepsia, anæmia, subnormal temperature, dropsy, and debility, and without any necessary connexion with any specific peripheral neuritis or disorder of the nervous system. It corresponds with the endemic parasitic anæmia observed at Ceylon, but not with the beri-beri of nervous origin. The beri-beri, or Kala-Azár, of Assam is due to the Dochmius duodenalis inducing a diseased condition, for which Dr. Giles proposes the term "anchylostomiasis." He shows by his researches into the life-history of the parasite that it is not in water, but in human excreta exposed to the air, that the ova of the entozoic worm find their nourishment and pass through the several stages which fit them again for a parasitic existence. The number of ova found in the dejecta of the subjects of anchylostomiasis is immense. The subsequent changes, the production of swarms of minute nematoid embryos, and the transmission of the disease in connexion with the habits of the natives, are all very carefully traced out and set forth. The author's labours are likely to be attended with great practical benefits, for, as he points out, there should be no difficulty in removing the source of the disease by a proper system of conservancy and sanitation, and he discusses very fully and practically the preventive measures necessary to that end. The mortality from this disease in the tea gardens and villages is very great, and every effort should be made to carry out the practical remedies indicated by the author of these excellent reports.

Dissection Guides By THOMAS COOKE, F.R.C.S. Eng., B.A., B Sc., M.D. Paris. London: Longmans, Green, and Co.

THE author is well known for his systematic arrangement of the facts of human anatomy and for the methodical manner in which he has successfully imparted instruction in a long series of years. "Dissection Guides" forms a useful volume, containing the result of much careful practice and knowledge. The object of the book is to make dissecting a fascinating pursuit. Under the guidance of proper instruction there is no subject of the whole medical curriculum which excites so much enthusiasm in the student. Mr. Cooke points out correctly the causes of that vexation and disappointment which in the case of the student of anatomy lead to destruction of "parts," render the attainment of knowledge imperfect and out of ratio to the time spent in its pursuit, and eventuate loss of zeal, and finally distaste for the study. With a good teacher this to the student would be impossible. It generally arises from wrong methods on the part of the instructor. The keynote of the book is struck in the following sentence:—"But for repeated dissections to be possible in the present congested state of the medical curriculum the student must learn to dissect both efficiently and without loss—i.e., unnecessary expenditure—of time; he must learn to dissect well and quickly." The author's endeavour is to teach the student to do this, and there is no doubt that by following the directions laid down in the volume this power will be attained. Specially valuable s such a work to students who have dissected the parts already, but who are working for the higher examinations and require to refresh their knowledge. We notice with pleasure the author's views on the subject of pictorial illustration in the teaching of this subject. Drawings on the blackboard and elsewhere, when properly executed, are undoubtedly an aid to the apprehension and recollection of an intricate subject. But there is no occasion, whilst using such helps, to give them the main prominence. The book aims at benefiting the industrious student, at teaching him to dissect efficiently, and to obtain a practical acquaintance with the structures of the human body, which will stand him in good stead in his career as a surgeon. It will be found to be practical from beginning to end.

OUR LIBRARY TABLE.

Transactions of the Ophthalmological Society of the United Kingdom. Vol. XI. Session 1890-91. With List of Officers, Members, &c. London: J. & A. Churchill. 1891.—The eleventh volume of the Transactions of the Ophthalmological Society contains some valuable contributions to ophthalmic science. Foremost among them is a most lucid

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and complete description of the glands of the ciliary body, with excellent photo-micrographic figures by Mr. E. Treacher Collins. The demonstration of these glands was rendered possible by the ingenious device of bleaching sections by means of chlorine, and the result is a most valuable addition to our knowledge of the histology and pathology of that part of the eye. The discovery is so entirely in accordance with the rest of our knowledge and anticipations that it may fairly be regarded as the keystone which completes the subject. The same author describes and figures a very remarkable case of rupture of the posterior capsule of the lens and one of implantation cyst in a shrunken globe. Mr. George A. Berry has some rather abstruse papers on the connexion between accommodation and convergence, and on latent lateral deviation of the eyes. Some exceptional cases of hemianopsia in which the condition of the brain was investigated post mortem are supplied by Messrs. Swanzy, Werner, and Williams. The above, with some other cases of interest and variety, make up a very good volume, which contains in addition the President's address on the work and events of the previous year and the Bowman Lecture delivered by Mr. Hulke. The coloured plates and figures are quite up to, if not beyond, their usual excellence.

Contributions to Practical Medicine. By Sir JAMES SAWYER, Knt., M.D., F.R.C.P. Lond., F.R.S. Edin., Consulting Physician to the Queen's Hospital, lately Professor of Medicine in Queen's College, Birmingham. Second Edition, Revised and much Enlarged. Birmingham: Cornish Bros. 1891.—The appearance of a second edition of this volume of medical essays, whilst it testifies to the popularity of the work, affords an opportunity of revising the original writings and of introducing two new essays—one on the treatment of gastralgia, the other on the use of ether as a menstruum in medication by the skin. The additions are quite in keeping with the rest of the work, being lucidly and agreeably written, and conveying much practical information. The volume affords excellent reading, and is well printed on good paper with a liberal margin.

The Pathology and Prevention of Influenza. By JULIUS ALTHAUS, M.D., M.R.C.P. London: Longmans and Co. 1892. — This *brochure* consists of the paper (amplified) which the author read before the Medical Society, and which was published in our columns. The argument, it may be remembered, was in support of a theory of influenza being due to a specific poison which acts especially on the nerve centres. There is much to be said in favour of this view; but we hardly think that the reasons adduced in support of the protective power of revaccination are convincing enough to be accepted. Whether we are destined to have another visitation of the disease or not, Dr. Althaus's contribution will remain as a clear exposition of some of the most striking of its phenomena, which may be helpful towards a truer conception of its nature.

The Hydropathic Establishment and its Baths. By ROBERT OWEN ALLSOP, Architect. London: E. & F. N. Spon.—This work contains a description of all the various kinds of bath employed by the modern hydropathist, the Turkish bath excepted, the author having treated that subject in a former work. This volume is addressed partly to architects and partly to the medical profession. The author hopes that "physicians of other schools than hydropathy will accord a not unkindly welcome to a work that at the worst may tend to promote that cleanliness which we are told is next to godliness." The practical requirements of the hydropathic establishment are fully considered and some existing institutions described. Vapour baths, the Russian bath, the douche, massage and electrical treatment, pulverisation, and the Mont Dore methods, inhalations, the "pine cure," the sun bath, &c., all receive adequate attention. Numerous illustrations and plans of the various forms of bath increase the value of the work. Into details of this kind we cannot enter, but we have tested Mr. Allsop's work at many points, and always with a satisfactory result. As regards the general system of hydropathy, the author remarks: "It is a great thing to rid oneself of the notion that baths of all kinds are merely aids to cleanliness of the visible portions of the human economy. Every bath has some therapeutic property, and this over and above its mere cleansing powers. In medical parlance, it may be derivative, stimulative, sedative, alterative, or tonic. The chief end of scientific bathing is to stimulate the functions of life by assisting the wasting of tissues and by aiding the recuperative and regenerative forces of nature."

California; its Life and its Climate. By AN ENGLISHMAN and AN ANGLO-CALIFORNIAN. London: W. W. Gibbings.—This anonymous pamphlet is meant mainly for intending emigrants, and deals chiefly with such topics as the cost of land in California, the cost of clearing the land, the products that may be grown, the price of labour, cost of building, &c. As regards the cost of living in California, we are informed that "beef and mutton cost 5*d.* and 6*d.* per lb. A whole salmon costs 3*s.* to 4*s.* Wine is cheap; an excellent claret can be had for 6*d.* per bottle. Oysters are cheap, and game may be had for the shooting. Groceries are somewhat dearer than in England." White labourers receive two dollars per day, and domestic servants about twenty dollars per month. As regards climate and health, the writers say: "Anyone who, for profit or for health, is seeking a new home might well consider the advantages and charms of residence in a land where roses, geraniums, and many other flowers bloom the whole year round, and where the climate is one eternal spring, whose enlivening and exhilarating sunshine and air send the blood coursing more briskly through the veins and lighten one's spirits."

"THE SMOKE NUISANCE."

To the Editors of THE LANCET.

SIRS,—The report of your Sanitary Commission on the smoke question is of especial interest at the present time, as a Bill, introduced by Lord Stratheden and Campbell, to give the vestries power to compel householders and hotel keepers to make some provision for the abolition of smoke, has recently passed the second reading in the House of Lords, and the Bill is supported—as for many years it has been—by the Duke of Westminster. Although London will always be subject to fogs, it is a disgrace to civilisation that no efficient legislative attempt has been made to eliminate the tons of soot held in suspension in the atmosphere whenever fogs appear. It has been suggested that the presence of soot may act as a germicide, and therefore, in a sanitary sense, may be beneficial. This suggestion is, of course, the greatest rubbish. The truth is that hundreds of lives are lost annually from bronchitis and other chest diseases as the result of breathing this irritating compound. Again, thousands of pounds are lost yearly through interruption of business caused by the black pall which often enshrouds London for days, and this great capital, which ought to be one of the finest cities in the world, has become a by-word of reproach and a place to be avoided during certain seasons. Again, our finest public buildings and statues become dirty and begrimed, and the whole city shows the impress of its murky atmosphere. I therefore venture to ask you to continue to lend the weight of your scientific research in assisting to pass the Bill which I have referred to. It proposes no drastic or impracticable measures. It simply confers powers on the vestries to frame regulations for the abolition as far as possible of this black scourge. I am quite aware that in the present state of our knowledge no definite plan of action can be laid down, but when it becomes illegal to poison the atmosphere with smoke I believe that before the dawn of the next century, now rapidly approaching, scientific research and practical experiment will do much to mitigate this scourge.—I am, Sirs, yours obediently,

THOS. BOND, F.R.C.S.,
Member of the Sanitary Committee of St. Margaret and St. John's, Westminster.

April 12th, 1892.

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THE LANCET.

LONDON: SATURDAY, APRIL 23, 1892.

MUCH allowance is to be made for a Chancellor of the Exchequer who, finding himself unable to make any very satisfactory or startling announcements, tries to add to the interest of his budget statements vague and general reflections on the profitableness of particular professions or the wealth and comfort of their members. We are not disposed to be very hard on Mr. GOSCHEN for his recent and remarkable comparisons of the income of medical men and cotton spinners respectively and of lawyers and coal owners. We will let him off, but on one condition only—namely, that he shall descend to some rough particulars. We do not forget that before making these comparisons he had the wisdom to disclaim any intention of descending to detail. "I will not be so indiscreet as to place figures before the committee with reference to the aggregate profits of various trades and professions, but I have examined some of these proportions and they are most interesting." Mr. GOSCHEN thereupon made the famous statements about the lawyer in his quiet office and the doctor in his sombre study getting together taxable profits which do not make the outward show of the manufacturers, who employ a thousand men, but which, nevertheless, form a handsome and regular contribution to Schedule D. "The ubiquity and steadiness of these professions compensate for the lower scale of gain which they may be presumed to earn." Mr. GOSCHEN'S immediate justification for any such comparisons was in the argument that these happy incomes were independent of the vicissitudes of the general trade of the country, that whatever the suspension or abatement of the profits of the great manufacturers caused by strikes, or seasons, or fashion, or legislation, the gains of the professions went equally on as if they came from heaven. But we take leave to demur seriously to this proposition. The colliery surgeons could tell Mr. GOSCHEN differently—that while a strike rather increases their work, it stops their pay. It is self-evident that the incomes of the professions must depend largely on the general prosperity of the country, and it is certain that the incomes of medical men do eminently so depend. It is notorious that the medical man is the last creditor to be paid, that he is at everybody's call, and that he is supposed to be under some divine obligation to work without pay, or even the prospect of pay. The medical man's profits "ubiquitous and steady"! This reads more like satire than fact; but we shall forgive Mr. GOSCHEN if he will favour the House, and through it the public, with the real and the whole facts of the case. We know Mr. GOSCHEN to be a fair and just statesman, who would not willingly use his high position to injure or misrepresent any class of the community. We submit to him that in the unfortunate comparisons he has made he has done the medical profession great injustice. They will tend to make the public more than ever careless about their remuneration of medical men, and they will convey to them a most false impression of the wealth that is to be realised in it. That the whole profession makes a handsome and regular contribution to Schedule D only shows that the profession is conscientious in its returns. But it shows actually nothing of the general condition of its individual members. There are on the Medical Register of the United Kingdom 29,555 persons. Will Mr. GOSCHEN tell us what proportion of these pay under Schedule D; how many do not pay at all; and, roughly, on what sums they do pay? They themselves are ubiquitous. They live on mountains, on the sea, in remote villages, in the humblest parts of cities and towns, in the poorest districts. The income represented by Mr. GOSCHEN'S "handsome and regular contributions" has to be divided among all these persons, whose education has been costly, who have disproportionate expenses of living, and whose calling is perilous to life, and hard and exacting to a degree not true of any other calling. It is scarcely fair of Mr. GOSCHEN to tickle the ears of the public with statements so misleading. The poverty of the profession is abundantly testified. The State exacts much from medical men and it gives little. It exacts high education and high conduct. It affords them little or no protection. It gives them no prizes. It should at least refrain from misrepresentation of the very returns they themselves make. The income of a medical man often barely suffices for his current expenses, and it ceases with his uncertain and perilous life. It is a rare exception for him to leave anything that can be called a fortune. The average income of medical men is probably under £300 a year. It is from a profession so situated that Mr. GOSCHEN takes "handsome and regular contributions" with an air of satisfaction and confidence, and of which he speaks with flowers of rhetoric which excite laughter in the House. We venture to think that very different effects would have been produced if Mr. GOSCHEN had given the particulars of the case. The public is kept in the dark on these questions; it is entitled to more information. It should be possible to procure reliable data in detail from public offices, and it is to be hoped that some medical Member of Parliament will take occasion to ask Mr. GOSCHEN for the details we have indicated. Meantime let no misguided youth or his parent conceive of the medical profession as one even of the tributaries of the river Pactolus, to which anyone may come for the mere gold it will produce. It will yield many things: Work and care and even honour and self-satisfaction—but gold is not one of its rewards. The other features of the Budget need not detain us. We rejoice that the rush to alcohol has ceased. We rejoice in any proofs in the public revenue that the British workman has the unselfishness to abate his own huge expenditure on drink and even tobacco, before abating that on tea and other comforts of his wife and family. We cannot but regret that it is impracticable to reduce the burdens of public taxation, especially in the case of those to whom Mr. GOSCHEN confesses, in terms to which we must take the strongest exception, the obligations of Chancellors of the Exchequer.

WITHIN the last few months several very important coronerships have been rendered vacant by death. The first was that of the borough of Birmingham, which had

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been held by the late Mr. HAWKESLEY, a solicitor, since the death of his predecessor, Dr. BIRT DAVIS, who held it for a period of thirty years. The hasty election which a literal compliance with the law would have involved was averted by the temporary election of the deputy coroner for the county up to a certain date, when he resigned, as had previously been arranged. Meanwhile, the respective merits and demerits of medical and legal coroners had been duly discussed, the result being the election of Mr. OLIVER PEMBERTON, our well-known *confrère*. Shortly afterwards the city coroner for Liverpool died most unexpectedly at the comparatively early age of sixty-four. The mayor, aldermen, and city councillors of Liverpool, having had no experience of medical coroners, and being evidently prejudiced in favour of a legal candidate, made the election in ten days and, according to the local press, on strictly party lines, the Conservatives supporting Mr. SAMPSON, the present coroner, the Liberals Mr. LYNSKEY. During the course of the election, however, Mr. F. W. LOWNDES, surgeon, received twenty-three votes. This was the only occasion—out of the three elections for coroner which have occurred in Liverpool since it became a municipal corporation—on which a medical candidate has received any support at all. Since then the respective merits of medical and legal candidates for the office of coroner have been fully and fairly discussed in two of the Liverpool daily papers, which circulate largely throughout Lancashire, Cheshire, and Wales. The ice, therefore, which was broken at the election has been dispersed in all directions, and it is gratifying to note that a legal coroner, Mr. THELWALL of Wrexham, has been sufficiently magnanimous, as well as right-minded, to elect for his deputy Dr. EDWARD DAVIES of Wrexham. This gentleman has for over thirty years made nearly all the post-mortem examinations for the present coroner, and given evidence in his court in a large number of cases. He has also been consulted by him in cases of doubt or difficulty in which the necropsies have been made and the medical evidence given by other medical witnesses. This recognition of Dr. DAVIES' peculiar fitness for the duties of the office is a good example which other legal coroners will do well to follow. Continuing the list of vacancies, we come to Chester, whose late city coroner, Mr. TATLOCK, a solicitor, died early in the year and was duly succeeded after ten days' interval by Mr. BRASSEY, solicitor. It is somewhat surprising that no medical candidate of sufficient standing and influence came forward to secure the support of the City Council, more especially as Mr. HENRY CHURTON, surgeon, who has held the office of coroner for the Chester district of the county for over fifty years, has during the whole of that time resided in Chester. Such an omission is probably explained partly by the short interval which elapses between the death of a coroner and the election of his successor, and partly by the greater influence which members of the legal profession often have with city councillors.

Another vacancy has now occurred by the death of Mr. W. CARTER, coroner for the Newington district of Surrey. For some time past he has been unable, from his great age and feeble health, to discharge the duties, which were accordingly carried out by his deputy, Mr. PERCIVAL WYATT. It is most desirable, in the interests of the public, that for this important appointment a thoroughly well qualified medical candidate should be found, that he should receive the loyal and hearty support of all his professional brethren, and through them that of the majority of the County Council with whom the election will rest. Of the 298 coroners in England and Wales whose qualifications are known—247 have legal—only fifty-one have medical qualifications. In other words, five-sixths of the English and Welsh coroners have no medical training, while those who have this most essential requirement for the office of coroner only number fifty-one, or one-sixth. How is this anomaly to be accounted for? The arguments in favour of legal coroners rest upon the flimsiest basis, which only requires exposure to show its utter hollowness. Many who support a legal coroner do so for the feminine reason "because they do;" this is at least the only reason they can give. Others give the more logical reason: because by the Municipal Corporations Act the deputy coroner must be a solicitor or barrister. But even this weak argument does not apply to coroners, either municipal or county, who both may be, and are, members of the medical profession. Nor does it apply to deputy county coroners, who may also be medical men subject to the approval of the Lord Chancellor. The last and strongest argument in favour of a barrister or a solicitor for the office of coroner is that he may be able to explain points of law, should these arise, better than a physician or a surgeon. But this argument will not bear the test of reasoning. Judges, recorders, and stipendiary magistrates are chosen from the ranks of those who have performed the routine duties of the courts in which they are subsequently called upon to preside, and a barrister can with confidence assume such judicial duties, he being in a sense "to the manner born." To try criminals or causes, to decide important points of law, these are essentially legal duties which any barrister may prepare himself to undertake eventually. The coroner's court is, however, totally different from any of the courts we have named. It is a court *sui generis*. The legal part might, according to Mr. WAKLEY, the first medical coroner, be learned in one day. According to Dr. LANKESTER, two hundred and ninety-nine out of every three hundred inquests involve no point of law, and the remaining one only points which a medical coroner can easily decide. A legal coroner necessarily comes to the duties of a coroner a veritable "fish out of water." The viewing of the body must be a mere form, and the technical medical evidence for the most part incomprehensible. Contrast this with an experienced medical practitioner, an old hand at attending inquests and making post-mortem examinations. The viewing of the body is to him an important medico-legal duty, for which he has been preparing himself ever since he first entered the dissecting-room years and years ago. Taking the evidence of witnesses upon oath as to the cause of any individual death is a simplified version of what he has been doing for many years past under much greater difficulties. The signing of burial and registrars certificates are quite in his way, while the oath administration to jurors and witnesses is so familiar to his ear from constant repetition that he scarcely requires to have the words before him. The office of coroner has always had its

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quasi-medical aspect, but it will be greatly improved if it be regarded as a purely medical appointment. Why should not this be so?

The number of offices open to members of the bar, from that of Lord Chancellor down to that of Revising Barrister, is legion. Very numerous and lucrative also are the appointments open to solicitors from town and city clerks to those of clerks to the board of guardians. This office of coroner is the solitary one not absolutely medical which is open to members of the medical profession, and then only after a keen contest against a legal candidate. In Ireland and Wales the medical coroners are in greater proportion than is the case in England. Is it because the medical profession is more respected in the Principality and the Emerald Isle? When Mr. WAKLEY first held office he was the only medical coroner; since then his seat has been held by three medical successors, the legal candidate being in a minority on each occasion. Two other Middlesex coroners are medical men, and, as we have seen, the total number is just a unit over fifty. That which one man has done another man may do, and all that is required to secure these offices for the medical profession is that the profession should be true to itself and assert its claims. For every vacancy which is likely to occur a suitable candidate should be found ready against the surprise of a ten days' election. The chosen candidate should have the loyal and hearty support of all brethren. In this way we may hope to see each vacant coronership as worthily filled as was that for Birmingham a few months ago.

PROFESSOR CHRYSTAL'S graduation address on the 14th inst. at Edinburgh was memorable, not only in itself as a model of what such addresses should be, but also for the circumstances in which it was delivered, and for the remarks to which these gave rise. It was the last occasion on which the old Arts curriculum appeared on the academic stage before retiring in favour of its successor as framed under the new ordinance. As the representative of the superseded system, Professor CHRYSTAL could obviously have said more in its favour than he did—could have dwelt on the "excellent service" it had done, not only for Scotland, but for other parts of the empire, whose youth availed themselves fully of its advantages. But from this he wisely refrained, and passed on to forecast, in a prudent, but by no means pessimistic, spirit, the curriculum that is henceforth to take its place, until it in turn has to be modified or superseded by another yet more in harmony with the ever-changing requirements of humanity in evolution.

The Arts curriculum in the Scottish Universities owes its death to two causes: first, the increased efficiency with which at least three out of its seven subjects—Latin, Greek, and mathematics—are taught in the preparatory schools; and, secondly, the claims of other subjects to academic notice in lieu of the remaining four—logic, ethics, natural philosophy, and rhetoric. Young men now come up to the University with a classical and mathematical equipment almost equal to that with which the Bachelor or Master of Arts a generation ago left its halls; while the field of science has been so enlarged that it has forced in to the area of academic recognition subjects indispensable to the professional man in general and to the medical man in particular. Thanks to improved methods of teaching and improved text-books, the standard of proficiency in Latin, Greek, and mathematics with which the student now enters the University is so much higher than formerly that the time he used to employ in getting from the professor the knowledge he should have got from the schoolmaster he can now devote either to the prosecution of these subjects on a superior plane, or to the cultivation of others for which he has more aptitude, or which, with a view to his future profession, he can turn to better account. He can, if he chooses, become a better scholar in the old Arts subjects than he used to be; or, while possessing a higher proficiency in such of these as are still considered essential, he can select from the other subjects by which the Arts curriculum has been supplemented those which will be most useful to him in his calling in life. He can graduate in sciences which have a direct bearing on his professional career, and, if that be the medical, he can so train himself in these as to make professional study at once easier, more thorough, and more conducive to practical results. A great improvement this on the old system; but not without dangers of its own, to which Professor CHRYSTAL pointed significantly.

Now that pre-professional graduation has been made so much more profitable for professional after-study, will due advantage of it be taken? Will the future medical man be likely, in greater numbers than heretofore, to qualify himself for his career by graduation in Arts—in the improved curriculum now open to him? We hope he will, and Professor CHRYSTAL, with wise words, strengthens the hope. "I think," he says, "the tendency to press young men at once into the business of life is being overdone. It lowers the standard of the professional classes and it aggravates the block in these lines of life of which so much is heard, and which has irritated so many of our educational diseases to the stage of acuteness. Moreover, it is a mistake from the point of view of the individual, for I have noticed with satisfaction that of the few Arts graduates that now enter medicine, for instance, a very large proportion are to be found among those that ultimately distinguish themselves by success in their profession." But to attain this end—that of a more generally cultured, while more technically trained professional order—the qualifying bodies must coöperate; and the Universities themselves must not be tempted to relax the conditions of qualification so as to take in the "miraculous draught" for which some of them have been accused of lowering their nets. On this subject Professor CHRYSTAL might have enlarged with profit, but he contented himself with pointing to a real danger with which the new Arts Ordinance is fraught. As to its general principle, he declines to pass a criticism which experience might, on one side or the other, falsify. "It has been tacitly agreed on all hands," he says, "to give it a trial. I cannot, however, refrain from saying that, after mature consideration, I have come to think that it is of doubtful educational soundness, in so far as it sets up a kind of competition by Dutch auction between the kindred subjects of the old departments. There will, I fear, be a tendency in

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the future for passmen to crowd, not to the better or more thorough teacher, but to the more popular subject and the easier-going professor. This will be seen in all the compulsory departments, and in the optional subjects to some extent also." This is a very real and not very tractable danger—so much so that the University Commissioners are, in answer to authoritative representations, devising means by which it may be met. After all, no innovation, however well considered, works with unexceptionable smoothness in its early stages. Experience comes in to correct, modify, and adjust, till drawbacks, suspected or unforeseen, are replaced by better working conditions. Manifold, indeed, are the influences which may be counted on to perfect the academic machine—influences like that spirit of emulation which forms the motive power of all improvement. Edinburgh, even under her extended Arts Ordinance, will never be allowed to forget that she has rivals in the academic field whose efficiency she must cope with, and whose advantages she must counterbalance or outweigh, if she is to maintain the position she has long held as a centre of culture and of professional qualification. It is this honourably competitive spirit her University Commissioners must practically recognise if the not illusory dangers foreshadowed by one of her ablest representatives are to be averted or avoided.

TIME and again this unwieldy piece of legislation, with its 563 clauses, has been before Parliament in the course of the past decade, and as often its admission to the Statute-book has been deferred. The House of Commons will consider the sanitary clauses of the Bill on Monday evening next. In the best interests of public health in Scotland, it is to be hoped that it will meet with its previous fate, or else that the clauses in question will be entirely dropped. Should it pass in its present form, then, as is pointed out in a memorandum issued by the Scotch medical officers of health, Scotland will be in the remarkable position of having two sets of sanitary laws running concurrently—one in the burghs and the other in the rural districts. The former would be under the new Act, and the latter under the Act passed in 1867. It has been suggested in some quarters that the passing of the Local Government Act of 1889 is a reason for withdrawing the objections which sanitarians in and out of Parliament have always felt to the Bill. As a matter of fact the opposite is the case. The counties have now been compelled to appoint medical officers who have to devote all their time to their duties, and surely they have a right to share in any improvements in the sanitary legislation of the country. But it is proposed instead that the new law should be handed over to the local authorities of small burghs who pay their medical officer perhaps £5 a year, while those authorities who have had to appoint skilled and practised officials are to be left with a law in which the chief interest ought now to be felt by the antiquarian. It may be urged that there is no harm in giving the burghs this year that which the counties might get next year. But the *crux* of the case is that giving to the burghs now will delay indefinitely the meeting of the requirements of the counties in the future. It is the burgh members who are anxious to pass the Bill, and if once their constituents are satisfied, it will be many a day before Parliament finds time to attend to the needs of the remainder of Scotland. Surely it would be better, as the Society of Medical Officers suggests, that the Infectious Disease Prevention Act, 1890, and the Public Health Amendment Act of the same year, both of which refer only to England and Ireland, should in the meantime be extended to Scotland, both urban and rural, and that when other legislation is undertaken it should consist of a Public Health Act which would embrace the country as a whole.

It is not our purpose to criticise the various clauses of the Bill as it stands. But if it were desirable that they should pass at all, there would be abundant room for amendment. The provisions with regard to the notification of infectious diseases are in several respects different from those of the Notification Act which is already in force in many of the burghs, as well as in nearly all the county districts. Under the Bill, notification may be made either to the medical officer or sanitary inspector, and to give any such choice in regard to such a matter is, on the face of it, absurd. Medical men are to be paid for notification, "unless it be found that the diagnosis of such practitioner was incorrect." What relations are likely to be set up between three or four medical men in a small burgh when the local authority insists on one of these practitioners revising in every infectious case the judgment of his brethren? Then, again, we find the astounding provision that notification is to extend to "every case of infectious disease *and whooping-cough*." When the local authority of Dreepdaily gets in its first account for a whooping-cough epidemic, it will begin to wonder whether the new Act is not more expensive than useful. And it will no longer have any doubt on the point when it realises that the Act compels it to provide hospital accommodation for its population of 700 or upwards, and at the same time gives it no power to unite for this purpose with the surrounding county district, but only with other burghs which may be many miles away. Section 367 seems expressly drawn up for the purpose of causing friction between burghal and rural sanitary authorities. "Whenever it shall be certified by the medical officer of health ..... that milk is being brought within the burgh from any farmhouse, dairy, or place beyond the burgh in which any person is ill of infectious disease ..... the burgh prosecutor or sanitary inspector shall apply to the magistrate for an order to prohibit the sale of milk so bought," and so on. Surely the supervision of infectious disease in dairy farms might safely be left to the medical officers of the county districts in which the farms are situated. It is true that previously to the passing of the Local Government Act the city of Glasgow obtained powers of this kind by a local Act, but the circumstances are entirely altered now. In the case of a dairyman selling milk—say, in three burghs—the effect of the clause in question would be to place him under the power of no less than four local authorities—those of the three burghs and that of his own district,—and these possibly with divergent views as to the proceedings required to be taken in the presence of infectious disease.

The Bill bristles with objectionable clauses, but space forbids our giving more than the above examples. It is

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significant that no single medical voice in Parliament has been raised in its favour, and that it is receiving, at least as to its public health provisions, the active opposition of Dr. CLARK and Dr. CAMERON. It is sincerely to be hoped that their opposition will be successful.

Annotations.

"Ne quid nimis."

THE MEDICAL OFFICER OF THE LOCAL GOVERNMENT BOARD.

WE congratulate Mr. Ritchie, the President of the Local Government Board, on his appointment of Dr. Thorne Thorne as the successor of Sir George Buchanan, F.R.S. The wisdom of the appointment of Dr. Thorne as head of the department with which he has been so long and worthily connected will be ratified by the opinion of the medical profession and the public In addition to his long and varied official experience, Dr. Thorne has made his mark by much excellent and original etiological work. He is a Fellow of the Royal Society, a Bachelor of Medicine of London University, and Fellow of the Royal College of Physicians of London, Honorary Member of the Academy of Rome, Lecturer on Public Health at St. Bartholomew's Hospital, and Examiner in Public Health for the Universities of Oxford and London. Dr. Thorne was President of the Epidemiological Society, and was a British delegate to the International Society Conference at Rome in 1885, where he did excellent service. His connexion with the London Fever Hospital and the Royal Hospital for Diseases of the Chest has given him a practical acquaintance with disease and hospital work. Dr. Thorne is well known as the author of various official reports on public health and cognate subjects, one of which we may mention—namely, that on the use and influence of hospitals for infectious diseases. His Milroy lectures on Diphtheria, its Natural History and Prevention, attracted much attention, which was well merited. There is therefore abundant evidence of Dr. Thorne Thorne's qualifications for the post as far as technical and professional culture are concerned, and he has besides the reputation of possessing the tact and good judgment which are so necessary in a public official who has always responsible, and sometimes difficult and delicate, duties to perform.

A TEACHING UNIVERSITY FOR LONDON.

WE have strongly urged on the Government the necessity of appointing one or more eminent medical men to serve on the reconstituted Royal Commission which is now being formed for the consideration of this highly important matter. The question of degrees for London medical students obtainable on conditions similar to those existing in the other centres of medical education is so intimately connected with the wider aspects of university teaching in London that it is quite imperative that representatives of our profession should be included among the Royal Commissioners, and one of the blots in the constitution of the former Commission was the non-inclusion of any such representative among its members. At the same time it is obvious that in such a selection, past and present teachers who have taken a decided line either for or against any of the schemes which have been brought before the Commission or the Privy Council should not be asked to serve, nor should any member of the Senate of any of the other universities which would be affected by a solution of the problem, be selected. The difficulties can only be rightly weighed and estimated by an absolutely impartial and judicious investigation, and it is only by eliminating all persons who might be considered in any sense to have a partisan view that this can be secured. We trust therefore that the rumours that some members of the deputation which waited on Lord Salisbury (in opposition to the Charter of the proposed Gresham University) will be placed on the Commission are incorrect. Sir William Savory and Sir George M. Humphry have been mentioned as the probable medical representatives, but it is obvious that these eminent members of the profession are too closely concerned with two of the bodies which have already taken action in the former phases of the problem to be in these respects fit and proper representatives. Sir W. Savory has served throughout on the Joint Committee of the Royal Colleges which propounded a scheme which was rejected by the Commission; and Sir G. M. Humphry is an active member of the University of Cambridge, which also presented a petition to the Commission, which was taken into consideration. It can surely not be difficult to find members of our profession, not connected with the governing bodies of any of the universities or corporations which have already taken action in the matter, whose position and judgment would carry due weight. From every personal standpoint, and on any other Commission in which medical interests are involved, no more suitable members of our profession could be chosen than the above-mentioned gentlemen.

EGYPTIAN MEDICINE.

So rapidly is our knowledge of ancient medicine increasing that already the chapters devoted to it in such standard works as those of Häser and Puschmann are getting out of date and will have to be rewritten, or at least revised. Chinese medicine, for example, perfunctorily handled by the former of these historians, and completely ignored by the latter, is, thanks to the research of the medical missionary, becoming better known to us every year. Indeed, within the last few months the historico-critical studies of Dr. J. Berendes, one of Germany's most scholarly pharmacists, have shown us how rich was the Chinese materia medica in remedies not a few of which might be profitably reconsidered with a view to their employment in nineteenth-century therapeutics. But it is Egypt that impresses us most profoundly with the wealth of surgical and medical resource enjoyed by her ancient practitioners; and, now that we are on the track of so much literary treasure-trove in papyrus, we may look to the same discoveries that have given us Aristotle's Constitution of Athens and the Mimiambi of Herondas for yet further accessions to our knowledge of how men fared at the hands of the profession in the great Nile Valley millenniums before Christ. The "Papyros Ebers: the oldest Book on the Healing Art," is now a κτῆμα ἐς ἀεί, not only in its original form, but in the singularly painstaking and circumspect translation of it by Dr. Heinrich Joachim of Berlin. To this we shall take an early opportunity of returning; but meanwhile we may draw the reader's attention to another and quite recent discovery in the same prolific field. M. Bouriant, a member of the French Egyptological School of Cairo, in a memoir read before the French Academy, has for the first time given to the world "A Fragment of an Egyptian Medical Work," preserved in Coptic in the so-called Theban dialect. Other portions of the manuscript to which this fragment belonged would, it was hoped, have been discovered, but hitherto the search for the missing portions has been unsuccessful. What we do possess is a strip of parchment, forming one leaf of a manuscript, and con-

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stituting pages 214 and 215 of the same. Zoega, in his "Catalogus Codicum Copticorum," mentions four pages of a similar work; but these have not yet been published, and so M. Bouriant's translation of the fragment he himself has found possesses an interest still unique. That translation (into French) is too long to be given here *in extenso*. Suffice it to say that it treats of the female mamma in health and disease. In the former state, when a flow of the lacteal secretion is sought, special drinks and applications are prescribed; and in the latter, when the breast is sore, cataplasms of various kinds are recommended. These bear a strong family resemblance to those already known to us from the "Papyros Ebers" and the historico-critical researches of Berendes; but a specimen in M. Bouriant's French has an interest of its own. "Pour les seins endoloris—s'emploie aussi pour le corps mâle de l'homme—prends la plante nommée 'œil de chat,' de la ceruse, de la litharge, du plomb, et de l'opium en quantités égales; broie-les bien; ajoute un peu de vinaigre; mets (le tout) dans du suc de jusquiame; fais cuire dans du suc de vigne femelle; mets dans un vase du plomb et laisse reposer; frottes-en les parties malades jusqu'à la guérison." Other indications are given as to how to keep this medicament in readiness for use from time to time. The other prescriptions are not less curious, and certainly whet our anticipation for still further additions to what we know of Egyptian medicine. M. Flinders Petrie, we are aware, brought to England recently a portion of a very ancient papyrus containing a book on veterinary medicine, dealing specially with the eye diseases of oxen. This, when translated, cannot fail to be interesting, and will, we hope, lead to yet further discoveries in the veterinary art of the Egyptians, particularly their mode of treating cattle plague on an epidemic scale.

DEATH OF DR. ALLON.

WE cannot but join our contemporaries in a note of grief at the death of the Rev. Henry Allon, D.D., of Islington. Dr. Allon was more than the representative of a leading dissenting body. He was in touch with all religious bodies in that general coöperation for good which is their chief credit. One of the last characteristic public functions he discharged was to fill the chair, after it had been vacated by the Archbishop of Canterbury, at Lambeth Palace, at a meeting for providing summer holidays for poor children. He was from the beginning a promoter of the Hospital Sunday Fund in the Metropolis, was a member of the council of the Fund, was on its General Purposes Committee, and was in every way one of its best friends. He was an effective and dignified speaker either in or out of the pulpit, and was held in high respect by all the earnest men of his time even when they differed from him in opinion.

THE PRACTITIONER'S PARASITES.

FEW medical men of any standing have not experienced at some time or other the importunities of the begging impostor. Now as a poor but unfortunate fellow countryman, now as an invalid, as a dispenser out of work, as a brother practitioner in monetary difficulties, or as representing one of a dozen other phases of distress, he is constantly turning up. He is affable, voluble, pitiable. He comes laden with manuscript recommendations, yet he is evidently devoid of credit. Like the rich, he, though poor, has many friends, and they too as needy as himself, and as willing to avail themselves of the charity which he first scented out. His name is legion, and his modes of "working," as we have seen, show him to be quite a social chameleon in adaptation. We may briefly notice, by way of illustration, two specimens of this class who were charged a few days ago at the bar of Worship-street Police-court. This couple, a husband and wife, were in the habit of utilising the name of some former student of a medical school, supposed to be in bad health and poverty, in order to extract from one or other of his quondam teachers a solid proof of their esteem or pity for him. The appeal was, of course, by letter, and for a time was not wanting in success. Its ultimate consequence, as might have been expected, was their appearance in court. We may hope also that this exposure of their method may convince the less cautious of our medical brethren that a searching investigation is a needful and by no means unhandsome preliminary to the exercise of their generous compassion.

SAD DEATH OF A MIDDLESBROUGH CYCLIST.

OUR Newcastle correspondent, in his letter this week, notes the sad death of a young man aged twenty-two, belonging to Middlesbrough, who had ridden forty miles before he was taken ill on Good Friday last at Great Ayton, in Cleveland, where he died the next morning. The cause of death is said to have been syncope brought about by cold and over-exertion. It appears that this young man was a practised bicycle rider, and to such forty miles could hardly be considered an excessive run in a day; but, besides distance, many things have also to be considered by the judicious rider—for instance, the nature of the roads, the weather, and, perhaps above all, the pace. We know that the new machines are capable of attaining a speed never thought of a few years ago. A high speed through cold air such as prevailed on Good Friday must often be very dangerous, as likely to cause pulmonary congestion, to overcome which the heart will work at a high degree of tension, and, like any other muscle, it is likely to become paralysed from overwork; and herein lies the danger from swift and hard riding. It would be well if our young men would remember the advice that an eminent English physiologist gave to a young man some years ago: "Observe your strength, and keep within it."

QUARANTINE AND ISOLATION AT BARBADOES.

THE Board of Health of Barbadoes have erected a hospital for infectious diseases on Pelican Island, the cause of its erection having been one of those difficulties attaching to the inhuman practice of quarantine when that system is carried out on old-fashioned principles, which, we trust, few would now advocate. According to the *Barbadoes Herald*, the hospital is the outcome of the sad fate of a large number of the crew of the barque *Mozart*, who, one after another, were taken with yellow fever, there being at the time no place whither the hitherto healthy seamen could be removed so as not to be exposed to the infection of their sick shipmates and of the infected vessel itself. But now that the hospital has been provided, the authorities are confronted with a new difficulty. If the hospital is to be generally available for all infectious sick arriving by sea, it is feared that masters of vessels will be careless as to taking infection on board, for they will be able to land them at Pelican Island, where considerable aggregations of the infectious sick may thus occur. The authorities seem to fear that if this takes place danger will arise for the inhabitants. But, apart from aggregations of small-pox in contiguity to inhabited localities, we doubt whether any such hospital as is likely to be provided on Pelican Island stands much chance of doing harm in this way. A somewhat similar difficulty has arisen in our port sanitary districts. Captains and masters of vessels, knowing that at a certain port a hospital exists, enter that port and expect to have cases of infectious diseases taken off, so that they may proceed on their journey without risk. The difficulty with us has been mainly a financial one, for southern ports, for example, do not care to be burdened with the cost of

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isolating and maintaining the infectious sick whose destination is London or some other port; and one at least of them has demanded that if they are expected to perform what they term imperial health functions, the State should pay the cost. The attitude is one by no means easy to meet. Every district, in a certain sense, protects others as well as itself, and the line between local and imperial work cannot be drawn in as simple a way as some imagine. But it ought to be possible to charge upon owners of vessels the cost incurred in the removal of the infectious sick from their vessels and in subsequently maintaining them. As yet the patient, who is often a poor sailor, can alone be charged. The Barbadoes question may eventually be solved on some such lines, for it is not likely that, having provided a hospital because of the disaster on board the barque *Mozart*, they will ever run the risk of a similar occurrence so long as beds are available on Pelican Island.

ADMISSION OF MINISTERS TO ISOLATION HOSPITALS.

A DIFFICULT question in Guildford has been raised by the Rev. Reginald Fowler—namely, the right of a Roman Catholic priest or any other minister to visit his people at any time while they are inmates of an isolation hospital. He not only maintains the reasonableness of this rule, but gives letters from the authorities of the Metropolitan Asylums Board and other institutions to show that any clergyman wishing to visit a patient would be admitted. Mr. Fowler writes to the *Surrey Advertiser* complaining that he has been informed by the medical officer in charge that he cannot be admitted to see patients unless they are on the point of death and by his permission. The question is a delicate as well as a difficult one. The committee of the isolation hospital support their medical officer and defend their rule. One remark is obvious, that the question raised is not one of liberty of conscience at all; liberty of conscience is not invaded in the least. The Catholic patient has his Catholic priest, and the Protestant patient has his minister according to his own choice. It is simply a question of expediency. The object of an isolation hospital is isolation—namely, the reduction of the chances of conveying infection. The priest should be admitted whenever necessary, but not unnecessarily. The medical officer should not be rigid in sanctioning the visits of ministers of religion. On the other hand, ministers of religion should not expect the same liberty to visit in an isolation hospital which they have in a private house. Their visit may carry risk to outsiders, it may be injurious to the patient himself, and it may disturb other patients. According to our view, the medical officer of a public institution and the minister of religion should consult together in this matter, and should have no difficulty in safeguarding the interests of all the patients.

A CASE OF SYPHILITIC REINFECTION.

THE following interesting account of what would seem to be an undoubted case of syphilitic reinfection is published by Professor Alexis Pospelow of Moscow. A patient, towards the end of October, 1882, fourteen days after exposing himself to the liability of syphilitic infection, noticed a sore of the size of a lentil in the sulcus behind the glans penis. He was seen by Professor Tarnowsky, who diagnosed a hard chancre, and ordered the local application of mercurial ointments. On Dec. 20th a well-marked eruption of syphilitic roseola appeared on the body, and, there now being no doubt as to the correctness of the previous diagnosis, he was placed under treatment by mercurial inunction. Shortly afterwards mucous patches appeared on the fauces, mouth, and lips, for which iodide of potassium was prescribed; but this produced such violent diarrhœa that its use had to be discontinued. The mercurial treatment was kept up until the end of March, when the rash and ulceration of the throat had disappeared. However, in May he had a troublesome attack of palmar psoriasis, for which he was recommended to resume the inunctions, and to visit the sulphur baths at Piatigorsk in the Caucasus. Upon his return to Moscow three months afterwards, no trace of his former attack could be found. In spite, however, of this freedom from symptoms, he spent the summer of 1884 at Piatigorsk, and resumed the mercurial treatment. In the autumn he again returned to Moscow, and remained under supervision for the next two years. As there was during this period no appearance of any relapse, he was given permission to marry, which he did in 1886. Nine months afterwards a healthy child was born, and both the mother and infant remained in good health during the whole period of lactation. Subsequently he separated from his wife in consequence of matters not connected with his health, and remained so for three years. Unfortunately, towards the end of this period he again ran the risk of infection, and contracted a double chancre at the root of the penis, followed by sore-throat and roseola. The case was seen by several medical men, and was considered to be undoubtedly one of reinfection.

THE PROFESSION IN WALES AND THE GENERAL MEDICAL COUNCIL.

AT the North Wales Branch of the British Medical Association a resolution was unanimously passed approving the principle of a direct representative for Wales in the Medical Council. Mr. Jones Morris pointed out that there were only 800 medical men in Wales, and said it would be somewhat puerile to agitate for a Welsh representation. But Mr. Richard Williams of Liverpool urged the consideration of the question from "a national" point of view, and this naturally carried a Welsh meeting. Put in the form of a problem of mere numbers it could scarcely be seriously argued. For these 800 gentlemen to have one direct representative all to themselves and the 18,000 of England to have only three would obviously be a greater anomaly than the present joint and equal representation of England and Wales. We commend this aspect of the question to our Welsh readers.

GENERAL PARALYSIS IN A BOY.

IN the *Archives de Neurologie* for March an interesting case, apparently of general paralysis of the insane, occurring in a youth of sixteen, the first manifestations of the disease having been at the age of fourteen, is recorded at length by MM. Charcot and Dutil. The boy had been bright and intelligent at school, and had had no previous illness of any significance. He was one of a numerous family, eighteen in all, and of these he was one of three survivors. His father was alcoholic, and had had an attack of alcoholic delirium soon after the boy was born. His family and personal history otherwise presented nothing noteworthy in respect of neurotic tendency. When he came under observation he was found to look younger than his age, the marks of puberty being little apparent, as if his physical development had undergone a somewhat sudden arrest. He had the characteristic, uncertain, awkward gait, but he showed fair capacity for attention to questions. He was, however, manifestly feeble intellectually, and his memory was notably impaired. He also had tremor of the tongue and lips and difficulty in articulating, while the tremor in his hands was marked, and his writing was characteristic. The pupils were unequal, and he was subject to attacks of peculiar sensations in different parts of his limbs, chiefly on the right side. In one such attack

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there was well-marked interference with speech function. No exalted ideas were present, but the case presented so many other characteristic features as to leave little doubt that it should be placed in the category of general paralysis occurring at an unusually early age, like several cases already recorded in this country and in France. With reference to the age of incidence of general paralysis of the insane the opinion of Mickle is quoted—viz., that the age at which general paralysis develops nowadays is an earlier one than it was formerly, and that this is the result of a premature senility among individuals, and is a precursor indicative of the decadence of the race. But, perhaps, as is suggested in the paper under notice, it is really a result of our being now able to diagnose the condition when its signs are much less manifest than they had to be before the disease could be recognised in past times.

LADIES' DRESSES AND CONTAGION.

WE have already (THE LANCET, Aug. 22nd, 1891) had occasion to notice the supposed influence of the trains of ladies' dresses in spreading contagion. The matter has been warmly taken up in Vienna and Pesth, and we now learn that a regular crusade has been instituted by the Sanitary Board of Hungary against the obnoxious fashion. It is not to be expected that the justice of this course will pass unquestioned. By very many persons it will certainly be regarded as an instance of the mere enthusiasm of sanitation, having but the slightest foundation in reason or science, and as little connexion with practical cleanliness. There is some room for argument on both sides, nevertheless. Granted that the germs of disease abound in a given quarter, no ordinary means could more effectually ensure their dispersion than the broom-like action of a flowing skirt. On the other hand, it is to be remembered that this very movement implies an admixture of air and oxygenation of the dust-cloud. Then, again, one is tempted to inquire whether a reduction of the length of train is the best method of dealing with this question of germ dispersion by means of street dust. Would it not be better, in combating whatever contagion may linger among its particles, in spite of a purer surrounding air and sunlight, to rely upon the sanitary water-cart or hose and the scavenger's brush? If dress fashions are to be held responsible and forbidden, are the whirl of traffic and the bustle of hurrying pedestrians, though they wear no trailing robe, to be restrained also? We admit a cordial dislike to this latter garment, both on account of its close and clinging unwholesomeness as regards the wearer and on the ground of its public inconvenience. Nevertheless, the surest remedy for infection by means of dust is, in our opinion, rather to be sought in the cleansing of thoroughfares than in the restraint of fashions in dress.

PATHS IN THE CORD.

IN the recently published number of *Brain* an abstract by Dr. David Inglis of Detroit is given of a paper by himself. The paper was read before a meeting of the American Neurological Association, and had for its subject Friedreich's ataxy and its relation to the conducting paths of the cord. Taking Friedreich's own summary of the characters of the disease, in which it is described as a progressive paralysis of the faculty of combination of movements, he reviews the conditions found in the thirteen recorded necropsies. These are a progressive sclerosis always affecting the columns of Goll, also the column of Burdach, but not so completely, and the direct cerebellar tract, with Clarke's column in most, and the crossed pyramidal tract in some cases—that is, the disease is one which affects chiefly the tracts which degenerate upwards. It should be stated, however, that Dr. Inglis does not mention the direct pyramidal tracts, which are certainly degenerated in some cases. He contends that the symptoms of Friedreich's ataxy afford a demonstration that those tracts do not convey sensory impulses upward, for sensation is not impaired, but that they are the main tracts for the conveyance of coördinated motor impulses downward; that their anatomical relations with the medulla, cerebellum, and mid-brain, as well as the facts of Friedreich's disease, agree in showing them to act in coördinating motor impulses of the mid-brain, cerebellum, and higher and lower levels of the cord. The facts of embryology are also claimed as strengthening the theory; for it is stated that the infant is characterised not by voluntary control of its muscles or by accuracy of sense perception, but by an extensive coördination of involuntary motor functions, and that at this time the posterior columns and direct cerebellar tracts are fully developed, while the pyramidal tracts are still undeveloped. Further, it is stated that the direction of Wallerian degeneration is not necessarily the same as the direction of normal physiological impulses in any given tract.

HEALTH OFFICER FOR THE COUNTY OF NORFOLK.

A SPECIAL COMMITTEE has been appointed by the Norfolk County Council to consider the question of the appointment of a county health officer. One of the principal reasons given for this is the need of support to local health officers who have reported as to the housing of the working classes, and the mover of the resolution pointed out that such officers were some of the worst paid in England. A paltry remuneration for health purposes has undoubtedly at times had its cause in a desire that but little should be done which would involve cost to house and cottage owners. But there are happily many ill-remunerated local health officers who are doing their duty in the matter of the housing of the poor, and in Norfolk such officers would doubtless welcome the support of a supervising county officer.

THE HEALTH LAWS OF THE BIBLE AND JEWISH LONGEVITY.

THE *Asiatic Quarterly Review* of January contains a report of a paper on the above subject, read before the Oriental Congress by Mr. Marcus N. Adler, M.A., F.S.S., Fellow of University College, London, in which are set forth in compact form some of the more important points of the Mosaic law which have a bearing on the health and longevity of the Jews. There are certain statements with which those who have studied the subject will not agree; but, on the whole, we find in this article a very compact *résumé*, which, to most minds, will be perfectly convincing. It is difficult to understand why the quantity of gelatine that "pig meat" contains should be selected as one of the points to indicate its special unsuitability for food, "gelatine being a favourite nutriment of morbific bacilli"; most of those who have attempted to cultivate morbific bacilli in "pure" gelatine find that it is a very bad medium. It requires to be specially prepared and diluted before it is of much value. The part it plays in solid culture media is purely mechanical. Then, too, actinomycosis, which is here quoted, can scarcely be looked upon as a disease which leads to much infection amongst human beings. A very interesting part of the paper is a table drawn from the American returns, in which is given a comparison between the death-rate amongst Jews and that amongst the general population from phthisis, diabetes, and diseases of the spinal cord, and also of the number of the insane amongst people similarly classified. The figures are as follows: From phthisis the mortality amongst the Jews per 1000 was—males 36·57, females 34·02; whilst amongst the general population it reached—males 108·79, females 146·12.

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From diabetes, Jews per 1000—males 19·85, females 19·59; and the general population—males 2·74, females 1·21. From diseases of the spinal cord, Jews per 1000, males 9·40, females 6·18; general population, males 3·73, females 3·32. Although these diseases, spinal complaints and diabetes, have such an important influence on the mortality of the Jews, and are supposed to arise principally from nervous and mental strain (to which the exhausting business pursuits and head work of the Jews are supposed to subject them), the number of insane amongst them is only 44·5 per 100,000 of population; whilst amongst the general population of the United States it is 336. Mr. Adler sums up that Jewish longevity, fertility, and immunity from certain diseases cannot be looked upon as specially racial; he considers that they are due to moral and religious influences and are the outcome of Jewish habit, education, and environment; and he further maintains that these advantages will endure as long as such influences are permitted to operate, but that they must disappear, as to some extent they are disappearing, where the bonds of religion and traditional laws are relaxed.

THE COBWEB AS A STYPTIC.

WHEN Bottom was "translated" and introduced to the attendants of Titania, he endeavoured to ingratiate himself with Good Master Cobweb by saying, "When I cut my finger I will make bold with you." To arrest bleeding the application of a cobweb to the wound has long been a rural custom. Experience has shown that the gossamer of which the web is composed forms a very useful styptic; but a very fatal objection to its use arises from the fact that as an application to an open wound it can never be guaranteed to be surgically clean, forming as it does a net for insects, and at the same time for the germs of many an infectious disease. Evidence of this was produced before the Liverpool coroner recently touching the death of Martha Roberts, who, following the time-honoured custom, had applied a cobweb to her wounded hand to stop the bleeding. Blood poisoning followed upon its application, and this terminated, unhappily, in a fatal issue. It is not a solitary case. The principles of asepticism have not yet become part of the intellectual equipment of the people, neither have its lessons succeeded in overcoming prejudice.

GASTRIC ACTIVITY IN INFANTS.

M. VAN PUTEREN has made a long series of examinations of the digestive process in infants. A summary of the results of experiments made on 248 healthy infants is given in the *Boston Medical and Surgical Journal* of March 10th, 1892. The following points are noted:—1. After a meal of from sixty to eighty grammes of milk the stomach may be readily pumped out after an hour and a half, but the quantity ejected rapidly diminishes during the first hour. At the end of two hours only from twenty to thirty cubic centimetres may be obtained, and this disappears slowly in the course of half an hour. 2. The acidity of the infant stomach is much less than that of the adult stomach. This was tested by neutralising with one-tenth normal soda solution, using phenolphthalein as an indicator. The average results showed an increase of from 0·03 to 0·038 per cent.—that is, from 0·3 to 0·9 parts in 1000—for digestive periods of from ten to ninety minutes, after which no increase of acidity was apparent. The lowest acidity observed was 0·022 per cent., while the highest (0·121 per cent.) was only a half or a third of the amount considered normal in the adult. The determination of the character of the acid met with some difficulties, since many of the more usual colour reactions are uncertain in digesting mixtures of such feeble acidity. By the use of more exact methods M. Van Puteren convinced himself that hydrochloric acid is the normal acid in the infant stomach during the first two months, lactic acid being only exceptionally present. 3. The anti-fermentative action of the gastric juice seemed to be exceedingly feeble. Plate cultures made at successive periods of the digestion showed no marked difference in the number of colonies. The conclusion arrived at is that the gastric juice of the infant is not very efficient as a germ destroyer, and the infantile digestive organs are therefore particularly prone to disturbances, which, however, may for the most part be prevented by the use of sterilised milk. 4. The milk-curdling ferment (rennet) was always absent in infants up to twenty-four days, and could only be definitely demonstrated at thirty to forty days of age. M. Van Puteren's results as to the peptonising power do not seem sufficiently exact to be interesting. Albumen (by which is presumably meant a substance coagulable by heat) has generally disappeared by the end of the first hour, and peptone is constantly present twenty-five minutes after feeding and until the end of the digestive process. Sugar was always found, and fat also, so long as peptone was present. Free fatty acids (as the result of a fat splitting ferment, or of the similar action of the pepsin hydrochloric acid) could not be found.

THE DURHAM STRIKE AND MEDICAL MEN.

THE *Newcastle Daily Journal* has some very pertinent remarks on the hard case of the medical men in the pit districts. The miners who so light-heartedly continue their ruinous strike do not the less need medical attendance. On the contrary, disease is apt to assert itself in more serious forms under the conditions of a strike, and the colliery surgeon is expected not to strike. The inconsistency of human nature is well illustrated here. The miner would be appalled if his medical man struck, and declined to answer a summons to a fracture or a confinement. There are classes of men who on simple grounds of humanity do not strike, and yet attend to those who do. But they are all the more entitled to have a clear understanding with the miners as to their reward when the strike is over. A correspondent of the above-named journal suggests that the miners should agree to a deduction of 6*d.* a week from their wages when work is resumed till the debts are paid. The proposal is a reasonable one, and no honourable miner will refuse to agree to it.

THE REPORTED DISCOVERY OF THE MEASLES BACILLUS.

DR. CANON and DR. PIELICKE, of the Moabit Hospital, the former of whom was one of the first to demonstrate the presence of the influenza bacillus in the blood, have now turned their attention to measles, and it is reported (as will be seen by reference to our Berlin correspondent's letter) that they have been so far successful that they have been enabled to demonstrate the presence of a specific bacillus in connexion with this disease. This discovery has naturally attracted considerable attention; for although *a priori* we should expect measles to be the result of the action of such a germ, we have hitherto been unable to associate it directly with any such causal agent. In fourteen patients they have succeeded in finding what they assume to be a specific bacillus in the blood, in the expectorations, and in other secretions. This bacillus is stained with methylene blue in the same way as the influenza bacillus, the colouration being specially intense at the ends. The different individuals differ considerably in length, being from $\frac{1}{3000}$ to $\frac{1}{1000}$ of an inch. Its characteristics are said to be different from those of any other bacillus known, and artificial cultures have already been obtained. If once we are enabled to study the life history of this organism, there seems to be a possibility that we shall be able to take some efficient

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steps in the protection of children against this disease. The further observations on this organism and on its power of producing the disease will be awaited with additional interest from the fact that it appears to be so like the influenza bacillus in its distribution, and also to a certain extent in the effect it produces, in spite of the fact that it is very different in structure and appearance from the influenza organism. We hope that this is not another cry of "Wolf," unless it be the final one.

DENTAL LECTURES AT HASLAR HOSPITAL.

AT length something has been done to give some instruction in dental surgery to the medical officers of the navy, and we heartily hope this will be a forerunner of a similar step with regard to the army. Surgeon Herbert Canton has been appointed to the *Victory* for Haslar Hospital from May 16th, for the purpose of giving a short course of lectures in dentistry to surgeons passing through the course at the hospital, and to otherwise educate them in the simpler operations of dentistry. He will also perform all the dental operations required at the hospital and on board the *St. Vincent*, and in the interval between the two courses of instruction visit the *Boscawen* at Portland periodically, and if possible the Marine Division at Chatham and the Marine Depôt at Walmer.

NURSES AND RELIGION.

PROFESSOR VIRCHOW, in the Berlin Municipal Council and in the course of a debate on the new Municipal Hospitals, has been speaking in his most vigorous style against what he is pleased to call "the intrusion of religious arrogance" into hospital nursing work. "Everybody knows," he says, 'that creeds claim supremacy in the healing of the sick; but we are profoundly interested in keeping away this conflict from the sick bed, and in permitting the spirit of humanity alone to assert itself there. ..... The community establishes numerous hospitals, and thus has an opportunity of providing for the training of sick nurses without regard to creed." Such is the gist of Professor Virchów's characteristic deliverance on this question. We are bound to admit that the advocates of "creeds," as distinguished from the advocates of religion in the large, broad, human sense of that indispensable word, have fairly exposed themselves to this attack. They have often laid themselves open to the charge of using the hospital and the accident of sickness as means of proselytising. But whatever it may be in Germany, we cannot in England afford to divorce religion from hospitals. They are a field on which Jews and Christians, Protestants and Catholics coöperate, and even learn to respect each other's religions. Hospitals in this country so far are neither State institutions nor Municipal ones, but voluntary. And religious people have been their chief founders and supporters. The "spirit of humanity" has its chief expression and example for us in Him whose supreme test is in the words "I was sick, and ye visited me." If religion will keep on such lines it will not be easily expelled from our hospital service. If it does not, but worries the sick with narrow questions of sect and creed, it will be dislodged from its high position.

PUBLIC HEALTH AND VACCINATION IN FRANCE.

A PUBLIC HEALTH BILL for France is proposed by the Minister of the Interior, who includes in his office a sub-department of public hygiene, and in accordance with a very useful French custom the Bill is accompanied by an *exposé des motifs*, which sets out a detailed statement of the advantages of the Bill generally, and an explanation of the significance and value of each separate section. Lengthened quotations are contained in this *exposé*, embodying the views of such men as Fauvel, Rochard, Brouardel, Proust, and A. J. Martin; but it is impossible not to see in the document the handiwork of M. Henri Monod, the energetic and able head of the department of Public Health. M. Monod has made himself thoroughly conversant with the results of sanitary administration in other European countries, and he does not fail to point out to his countrymen the advantages they will secure if in certain respects they follow the lead of others. The document is especially complimentary to England and to the sanitary administration which is organised under the supervision of the Local Government Board, and the French nation is reminded that if they could succeed in securing a saving of life from the more preventable diseases such as has been obtained in this country since the passing of the Public Health Act (1875) they would gain no less than 130,000 lives annually. The Bill contains a compulsory clause which in its working is not unlike Section 299 of the English Public Health Act, although the initiative in providing works without compulsion does not appear to lie so completely with the inhabitants of the actual district to be benefited by them as is the case with us. Article No. 8 is instructive at a time when we in this country seem to be hesitating as to compulsion with regard to vaccination. The clause follows rather the Prussian than our existing English precedent. It enacts that primary vaccination shall be compulsory before the end of the first year of life, and that revaccination shall also be compulsory, a first time during the tenth, and a second time during the twenty-first year of life.

REJECTION OF THE STOKE NEWINGTON HOSPITAL SITE.

BY a majority of one, the motion to build another fever hospital for the purposes of the Metropolitan Asylums Board at Stoke Newington has been rejected. The objections to the site were, in the main, two in number. First, deterioration in the value of property—an evil that must be faced anywhere if a hospital is to be provided within reasonably easy reach of those whom it is to serve; secondly, the fact that the New River runs through an angle of the site. Small-pox was not in question, and we have thus far no definite evidence to the effect that the contagia of the other specific fevers would so travel aerially as to contaminate an adjacent flowing stream. On the other hand, it cannot positively be asserted that no such occurrence is possible, and hence, had the site been taken, it would have been proper to have culverted the river at this point. But, on the whole, the decision arrived at is perhaps the wisest.

THE ROYAL COLLEGE OF VETERINARY SURGEONS.

IT would appear that the members of the veterinary profession are no more agreed among themselves as to their position with regard to the Council of their Corporation than are those of our own profession, though they have less cause for complaint. It seems that some years ago the Royal College of Veterinary Surgeons applied for and obtained a new charter, giving it power to institute a Fellowship degree. This degree was conferred upon a certain number of the more distinguished of its Members who had been some years in practice, and on payment of a specified sum. These were Foundation Fellows. Afterwards the Fellowship was given only to those who had been at least five years in practice, and were certified by three Fellows to be fit and proper persons, after passing a written and oral examination and paying a larger examination fee than the Foundation Fellows had done. The inducement held out to Members to become candidates for the higher grade, was that Fellows alone were to be eligible to

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act as members of Council and of the Examining Board. For ten or eleven years Members have become Fellows and paid their money with this inducement before them; but now another charter is applied for which is to deprive Fellows of the sole privilege of being members of Council, and this is resented by a number of the Fellows, who have appealed to the Privy Council against the deprivation, pointing out that they have spent time and money and suffered much inconvenience to obtain the proffered privilege. They also show that by having gentlemen as councillors who have been a certain number of years in practice, have a recognised social position, and have given proof of their zeal and capability, the public and the Government have a guarantee that the affairs of the profession are in good hands. How far the Privy Council is likely to accede to the desire for a new charter, or whether it will recognise the agreement between the College and the Fellows as binding and to be maintained, it is, of course, impossible to tell. But it appears that every Member who has been five years in practice can become a Fellow on the prescribed conditions, so that there is nothing prohibitive to becoming a Fellow. Another important matter is that every registered Member of the College can vote for members of Council, voting papers being sent to them for every election. This, it will be seen, is a very different case to that of Members of the Royal College of Surgeons.

THE SANITARY STATE OF SOUTHEND.

WE regret to have to recur to the subject of the sanitary state of Southend. But, in view of the past history of this town and of our former comments on it, we should take upon ourselves a serious responsibility if we did not at least warn holiday-makers to seek medical advice before deciding on the houses they intend to occupy. The most recent information which reaches us is as to sewage-flooded cellars in the town, and we need hardly say that houses that have thus suffered are not residences to be occupied even by the healthy, to say nothing of those who, after heavy work, seek for a brief space the rest and healthful influences of a seaside resort. We would at the same time call attention to the fact that the Local Board of Health have shown their determination to rid their town of its present unwholesome influences by calling in the services of Mr. Mansergh, C.E., and if they do all he recommends, they will at least have taken ample measures in so far as the public sewers are concerned.

APRIL WEATHER.

AMPLE proof has been afforded us during the past three weeks of the proverbial fickleness of April weather. Ten days before Easter we were in the apparently settled enjoyment of a season mild, sunny, and dry, the precarious foretaste of summer which commonly cheers for a brief space the later days of spring. Then follows the biting chill of winter winds, with rain and the very unusual addition of a snowfall worthy of December. The variations in temperature during the month have been correspondingly wide, falling repeatedly to near freezing point, and again on the same day reaching a level of 40°, 50°, or 60°, and even higher. It would have been extraordinary indeed if we could not trace the incidence of changes so frequent and so sudden as these by corresponding effects upon the health of those exposed to them. Such undesirable evidence is to be found in the recent prevalence of catarrhal ailments, though these have not been associated in the degree which might have been expected with inflammatory illnesses of a more serious character. In view of the present atmospheric depression, alike as to temperature and density, we may fitly recall the fact that the present season follows on a period of similar depression in the physical power of individuals, which reaches its close at the spring equinox. It is consequently no time for the remission of what may appear to some superfluous precautions in the matter of bodily warmth, and in particular of warm clothing. There are many persons who readily forget this fact in the temporary discomfort caused by wearing somewhat heavy clothing during a short and summer-like interval. This is natural, no doubt, in its way, for vegetable growth, in like manner, trusts the passing time and comes forth, to be afterwards nipped by a chill. Even in this case, however, man is in the greater error. In the case of the plant exposure is gradual; in that of man, too often immediate. With the former, too, each interval of mildness has to be snatched, as it were, for development; but man can wait for the luxury of physical comfort. In the interest of that greatest comfort, health, we would advise him to wait, until at all events the chilly nip, which always comes about the middle of May, is over, or even until the month itself is "out."

CLOSETS FOR THE WORKING CLASSES.

THE Midland Branch of the Association of Medical Officers of Health have unanimously condemned the midden-privy system and the pail-closet system for large towns. They maintain that water-carriage, by means of which excreta are rapidly removed from the neighbourhood of dwellings, is the only desirable method; and Dr. Bostock Hill, who brought the matter forward, urges that the Birmingham automatic slop water-closet has solved the difficulty. The report which was recently issued by the medical officer of the Local Government Board on this subject, taken together with the opinion of the health officers, will doubtless serve to stimulate action in this direction; but, on the other hand, it must be borne in mind that several requisites are essential to the proper working of this system, and that, unless these requisites are obtainable, the slop water-closet cannot be regarded as a proper one to supply to the working classes. Amongst these conditions are an ample water-supply actually laid on to the houses, means for storage of slop water, and means for its discharge automatically in bulk. Where these are not available, dry systems offer a better chance of freedom from nuisance, and such failure as has attached to this latter method has often been due to faulty construction of closets and neglect of the sanitary authorities to undertake their cleansing—evils that can easily be avoided.

ANTI-VACCINATIONISTS DEFEATED.

WITH what sounds very like the first warnings of a small-pox storm in the country it is gratifying to have to record the triumph of common sense in the form of a decided defeat of the anti-vaccination candidates in the recent guardians' elections at Guildford. They were not only beaten in all the parishes, but they were beaten by larger majorities than on the last occasion. Small-pox is the real schoolmaster to direct people to the vaccination stations. But the majority of English parishes should have sense enough to take the account of small-pox from history or from the experience of others, without waiting till it attacks themselves or those dearer to them than their own life.

SANITARY PROGRESS IN VICTORIA.

SINCE Dr. Astley Gresswell was appointed chief health officer to the colony of Victoria he has been most actively employed in learning the sanitary circumstances of the population, and he has at every opportunity sought to rouse the inhabitants to the realisation of the necessity of a higher standard of health, basing his advice very largely on the experience which he gained in this country, and which he knows so well how to adapt to the local circumstances prevailing in his present sphere

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of labour. Some of the reports which he issues on local outbreaks of disease remind us very much of our practice at home; one set being prepared by local inquirers and prefaced by him, in order to bring out those lessons which are of general application; others being exclusively from his own pen, and these deal ably, but at times trenchantly, with the local sanitary shortcomings. Amongst the most recent documents issued is one as to the need of providing means of isolation for persons affected with communicable diseases in Melbourne, and here also Dr. Gresswell sets out many of the arguments which in this country have aided in promoting the extension of a system by which isolation hospitals are provided by sanitary authorities.

FOREIGN UNIVERSITY INTELLIGENCE.

Berne.—Dr. Tavel has been appointed to the chair of Bacteriology.

Clausenburg.—Dr. Ladislaus Udránzky of Buda-Pesth has been offered the post of Extraordinary Professor of Physiology, vacant by the transfer of Professor Klug to Buda-Pesth.

Innsbruck.—Dr. Philipp Biedert, of the Bürge Hospital of Hagenau in Alsace, has been offered the Professorship of Children's Diseases.

Prague.—Bohemian University: Dr. Carl Chodounsky, *privat-docent* in Pharmacology &c., has been granted the position of Extraordinary Professor. German University: Dr. Rudolf Fischl has been recognised as *privat-docent* in Children's Diseases.

Vienna.—Dr. Paul Dittrich has been officially recognised as *privat-docent* in Forensic Medicine.

Würzburg.—Dr. Gustavus Klein has been recognised as *privat-docent* in Midwifery and Gynæcology.

THE academic world in Italy is congenially employed in celebrating the fifth centenary of the University of Ferrara, a decaying seat of learning, which the Town Council recently memorialised Government to suppress. There are too many universities in Italy, and graduation at them is so easy, particularly in the faculty of law, that the country is more than overstocked with "avvocati." To halve their number and to double their efficiency is what many of her reformers are urging.

THE Medical Society of London will give a conversazione in their rooms, 11, Chandos-street, Cavendish-square, on Monday, May 2nd. The oration on "Sex in Education" will be delivered by Sir James Crichton Browne, M.D., F.R.S., at 8.30 P.M. There will be a reception by the president at 9.15, and smoking will be permitted at 10 o'clock. The string band of the Royal Horse Guards will attend.

A Reuter's telegram from Genoa states that the steamer *Duchessa di Genoa*, with 872 passengers from Brazil, arrived there with yellow fever on board. Five deaths had occurred during the voyage. The vessel is lying in quarantine off the coast of Sardinia.

THE death of Elijah Whitney, M.D., the oldest practising physician of New York, has occurred at the age of ninety-four. He was a personal friend of Webster, Clay Calhoun, Wendell Phillips, and all the men prominent in Government circles before the War of Secession.

SIR JOSEPH FAYRER has been elected a corresponding member in the Class of Mathematical, Physical, and Natural Sciences of the Royal Academy of Science of Lisbon.

MR. REES MORGAN, L.R.C.P.Edin., L.F.P.S.Glas., has been appointed deputy coroner for the Eastern Division of Carmarthenshire.

PROFESSOR STEWART'S LECTURES
AT THE
ROYAL COLLEGE OF SURGEONS OF ENGLAND.

PROFESSOR STEWART, Conservator of the museum of the Royal College of Surgeons, delivered last month in the theatre of that institution a series of six lectures on "The Physiological Series of Comparative Anatomy in the College Museum." He said no collection in the museum was more richly supplied with specimens than the physiological series, and it was probably the portion which was dearest to the heart of Hunter, since he of all men felt most clearly the importance of studying the various forms of living things, believing so thoroughly that they threw light one upon the other, and that some knowledge of them was at all events desirable for the medical man, not only as a form of culture but as a means of broadening his mind and of giving him a view of the phenomena of life which the study of man alone could in no way bring about. The rearrangement of this series had been a task ever present before Professor Stewart as one of the most immediate necessities of the future. In order, as it were, to lay the foundation for this work he had drawn up a scheme, provisional in its nature, for his guidance in the contemplated work. He proposed to break up the physiological series into a number of groups indicated by letters of the alphabet and each to be independently numbered. Thus, regarding first those structures concerned in the preservation of the individual or to its advantage, in Group A, taken purely as a matter of convenience, which he had been obliged to consider, rather than any rigid or absolute law, he included the endoskeleton, by which is meant all those more or less deeply seated structures concerned in giving support, strength, rigidity, and protection to more deeply seated parts; and in some cases furnishing the levers and fulcra for the movements of parts of the body and giving attachment to the muscles, its physical properties being independent of life. In the next group, B, he intended to arrange all flexible bonds of union and support, either as connecting soft parts or rigid structures; C would contain the contractile and muscular systems; D, organs for locomotion, floating, boring, and fixation; E, the nervous system; F, organs of special sense; G, integumentary system and exoskeleton; H, luminous and electric organs. Regarding, in the second place, those organs concerned in nutrition, Group I would include reserve stores of food and calorific matter; K, the organs of direct absorption; L, the organs of digestion; M, nutrient fluids and organs that prepare them, including the ductless glands of unknown function, blood, lymph, and blood and lymph elaborating organs; N would deal with the circulatory system and body cavity. Under the third great head of blood-purifying and sound-producing organs would come—O, the respiratory system; P, sound-producing organs (including the larynx and syrinx; Q, urinary organs (including kidneys and bladder); R, specialisation and division of labour amongst "persons" or "individuals." In the fourth great head, the structures concerned in the preservation of the race would be arranged thus: S would include the reproductive system; T, structures for the protection of the young (including eggs, egg capsules, nests, &c.); U, structures concerned in the nourishment of the young, including mammary glands and placentæ; V would possess illustrations of the various steps in the development of different creatures, and would be supplemented by models. Then would follow certain series not falling under any of the previously mentioned heads, but of which it would be convenient and necessary to have examples. Under W would be brought together all the specimens which serve to illustrate secondary sexual characters—that is, those characters which distinguish the sexes from one another, but which are not directly or indirectly concerned in reproduction. This would include also sexual dimorphism and polymorphism. Under X would be grouped illustrations of normal variations of species; and Y would show the association of different species with or without modifications of structure, those curious associations which may be either for the advantage of one without injury to the other (commensalism), for the advantage of all the associated forms (symbiosis), or for the advantage of one, more or less at the expense of the other (parasitism).

The six lectures were intended to illustrate as far as

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possible the idea underlying the proposed grouping of the series as recorded above; and it is with a view of showing this—as well as of presenting to our readers the intensely interesting nature of these lectures of Professor Stewart, illustrated throughout as they are with such artistic facility and beautiful specimens, and abounding with information regarding living organisms which cannot fail to stimulate the hearers to seek further knowledge of such subjects—that we give the following brief outline of the course. Beginning with Group A—which includes all structures that function, as endoskeleton, whether derived from ectoderm, mesoderm, or endoderm, or the equivalent embryonic layers,—and first taking up the lowest forms and the simplest types, the lecturer showed instances in plant life of the existence of an endoskeleton. The fibro-vascular bundles of plants, familiar to many as giving the stringiness to celery and other plants, were not only merely conducting tissue, but acted also in part as an endoskeleton. These bundles were, however, so much concerned in conduction that they would fall under another group. Certain red and green algæ might have a hardness and rigidity due to lime salts which clearly was not endoskeletal in nature or function. But examples of a true endoskeleton could be found among the algæ as bundles of prosenchymatous cells with some extra thickness of their walls. In delesseria sanguinea this condition is found as the tissue traversing the axis of the thallus and lateral branches diverging from it. Amongst the fucaceæ it is present, and attains its maximum development in various species of turbinaria. Of these the structure was demonstrated on the blackboard. In ferns and club mosses deep-seated bands of this tissue of extreme hardness contributed towards the strengthening of the stem. In palms similar structures were found associated with each of the fibro-vascular bundles, and the duramen or heart wood of the ordinary exogen might also be considered as endoskeletal; though also in part it is the place where sundry waste products in the way of resins and colouring matters may be deposited. In the remarkable African plant, the Wellwitschia mirabilis, an extreme development of large thick-walled spicular cells, giving it strength and stiffness, was noted. He then alluded to the modified crystals of lime (raphides) salts found in the squill, hyacynth or tulip, serving to defend them from slugs or insects which subsist on vegetable tissue. These plants often had an exceedingly acrid taste, not due, as has been supposed, to their juice, but to the mechanical irritation of the tongue caused by these crystals (raphides). Proceeding to the animal kingdom examples were sketched from the heliozoa and the radiolaria. In the latter the endoskeleton was present as a perforated organic capsule separating the inner and outer portions of the protoplasm. In addition to this there might be spicule-like bodies of acanthine or siliceous material or a complex network of solid siliceous bars.

In the metazoa an endoskeleton might be present as isolated spicules of a calcareous nature in the calcareous sponges, and of a siliceous nature, and exceedingly varied in form in the siliceous sponges. The various forms were admirably sketched on the blackboard. In the horny sponges it consisted of a network of horny fibres closely allied to elastin, with which foreign bodies were sometimes incorporated. Coming to the hydrozoa, a structureless supporting lamella between the two layers of the body wall formed the endoskeleton, a layer which became thickened in the smaller medusæ; and in the more complex forms acquired a character resembling the connective tissue of the umbilical cord, from the migration of cells into it and the formation in the matrix of a fibrillary structure. It was interesting in these forms to notice that the endoderm might enter into the formation of the endoskeleton, the solid prolongations of this layer into the tentacles often acquiring a character resembling the notochord in the chordata. This gradual development was illustrated in detail by sketches of the structure of various creatures representing its stages. In the echinodermata the lecturer said that it was convenient to consider only such specially deep-seated parts of the skeleton—as, for instance, the jaw apparatus and auriculæ of the echinoidea and the circumoral plates of holothurians, which gave attachment to the great longitudinal muscles of the body and the axial plates in the arms of ophiurids—as examples of this structure. In the higher arthropoda, as the lobster, involutions of the integument which formed a calcified cuticle formed the endophragmal system and performed the function of an endoskeleton. Besides this, another form of endoskeleton derived from the mesoderm was present in some. In apus, for example, there lay a deep-seated plate, with outlying processes giving attachment to the muscles situated between the nervous system and the alimentary canal, and possessed of the structure of fibro-cartilage, but having the chemical composition of chiten. This peculiar portion was known as the endosternite. This endosternite attained large dimensions and much importance in the limulus, in which creature it had essentially the same structure. In the spiders it acquired very great complexity of form, but maintained essentially the same minute structure. In the scorpion, a portion of it formed a broad plate, separating the abdominal region from the cephalo-thoracic. In insects, amongst the lepidoptera (butterflies and moths) a curious rod-like body is described by many naturalists lying in the abdomen immediately above the central nerve cords. Further investigation of the structure was much required. In the great group, mollusca, the development of the shell removed the necessity for any large development of endoskeleton, but certain cartilaginous plates existed, forming, as it were, a bed on which to rest the rasp-like tongue, and to which the muscles of that organ were attached. In cuttlefish, active free swimming forms, a large development of a cartilaginous endoskeleton existed, most of the cartilages showing in the matrix, cells, freely communicating with one another by processes of their substance. One of the cartilages of the globe of the eye (equatorial) differed from the others in the cells being without such processes, but each was surrounded by a small amount of firm intercellular substance. These cartilages were drawn, and a beautiful preparation was used to illustrate the anatomical features. In the chordata forms, which had as a common feature the detachment of a rod-like group of cells from the alimentary canal in order to form the cartilage-like notochord, the structure was found as an axial support of the tail in urochorda. Of this an account of the general structure of the appendicularia was given as an example.

In the hemichorda the anatomy of a remarkable worm-like form (balanoglossus) was sketched, the notochord being shown to be present as a rod extending from the first part of the alimentary canal into the proboscis. In amphioxus the notochord was shown as a rod stretching the whole length of the body. Besides this, a series of cartilage-like structures were present to support the dorsal crest, a delicate rod-like bit on either side of the mouth, with extensions into the oral fringe, and a bar-like thickening extending along either side of the body walls. In the craniate forms of true fish, in lampreys and their allies, a highly developed cartilaginous skeleton could be found. In the elasmobranchs (sharks &c.) the endoskeleton was mainly composed of cartilage, but with minute plates of calcified cartilage usually present on its surface. Calcification of cartilage, such as occurs in the larynx of old people, occurred in this group as a normal feature. The lecturer recapitulated the views held on this subject. Possibly the group of cells in each plate was descended from one parent-cell, having something in its character which prevented the calcification extending into neighbouring groups. Each plate remained distinct from its neighbour, and each plate showed a radiating arrangement of the cartilage cells contained within it. In the bony fish and ganoids, where the structure was hardened by lime salts, great and interesting differences were found in the minute structure of the tissue. In the common garfish or green-bone the bones were remarkable for the emerald green colour of the matrix, and the bones of the head at all events showed a complete absence of lacunæ and their canaliculi, the tissue having a character resembling dentine due to branching tubes extending inwards from the surface, as is shown in Fig. 1.

In the bones of the seahorse similar tubules were to be found radiating from all the vessel containing channels. As these were much finer than in the former case the resemblance to dentine became exceedingly close. Some idea of its structure will be obtained from Fig. 2.

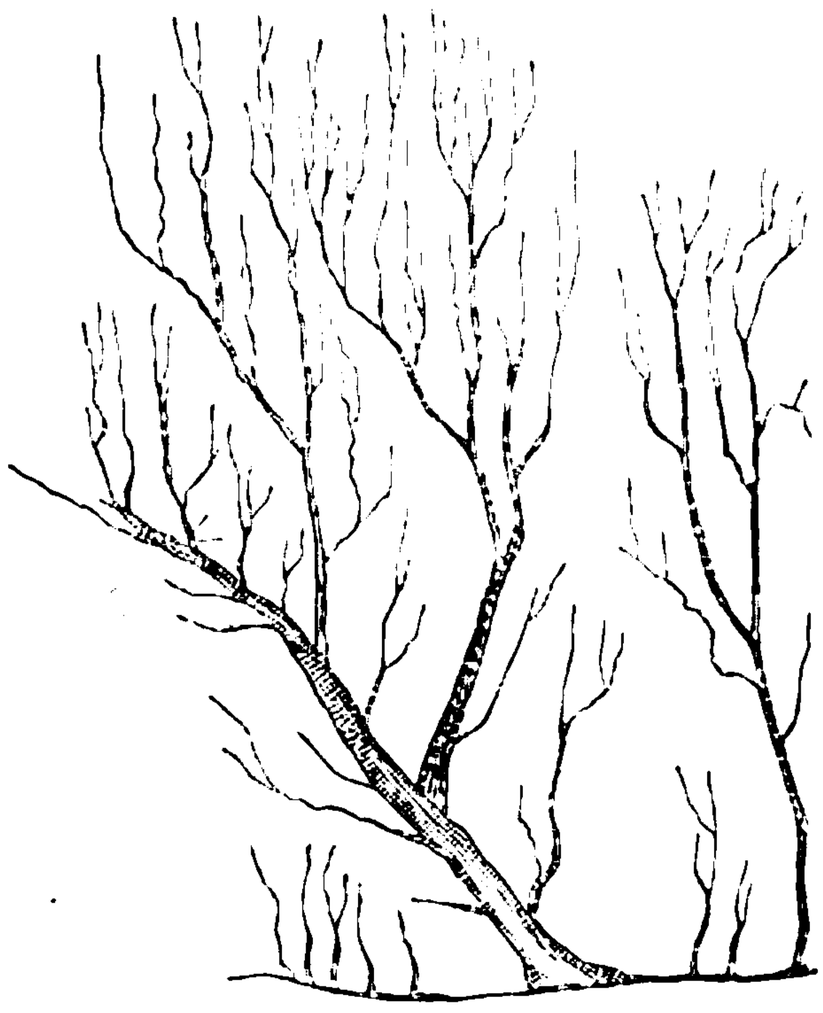
The intensely hard bone of the swordfish, the microscopical structure of which is given in Fig. 3, consists of a solid bony matrix surrounding each vascular channel. Evidence of its intense hardness and strength, and of the force with which the fish can propel itself through the water, was given by the exhibition of a specimen of a preparation of the hull of a ship, which the fish probably had mistaken for a whale, of which the copper sheeting, teak, and oak, amounting in thickness to thirteen inches, had

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been completely penetrated by one thrust of its bony weapon.

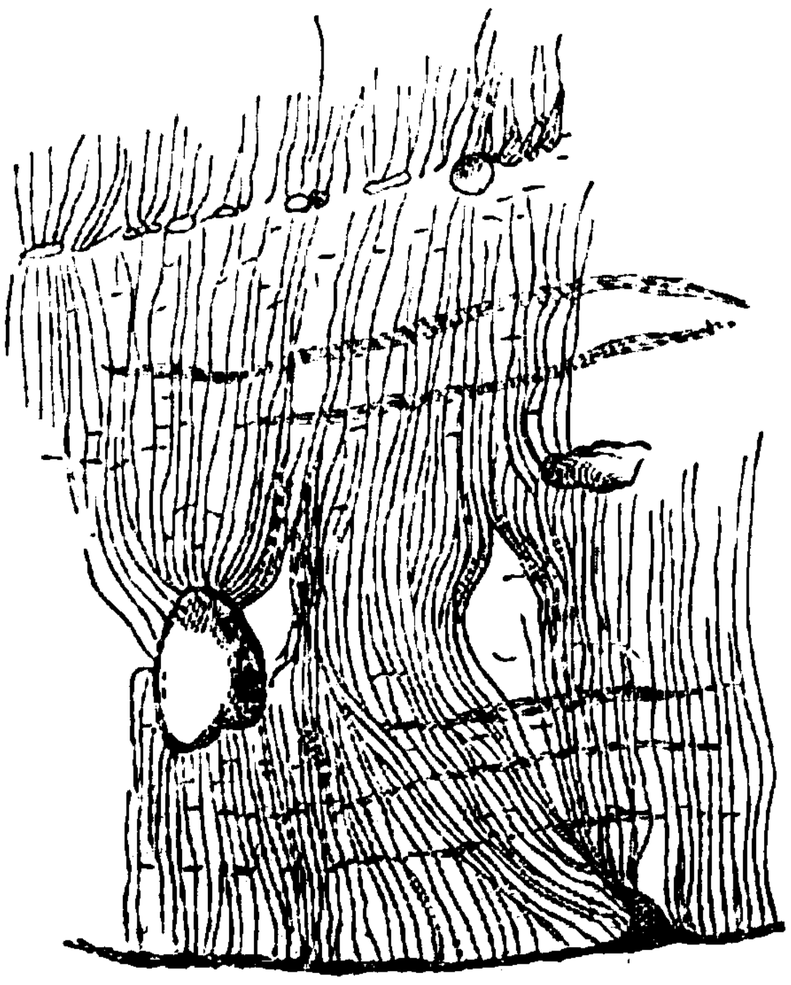
In amphibia the large and varying proportion the cartilage bore to bone constituting the skeleton was indicated, and the fact pointed out that the large bones of many extinct reptiles were rendered light by their medullary cavities being occupied by air-filled chambers continuous with the great air sacs, which communicated with the lungs, a feature similar to that which is well known in most birds,

FIG. 1.



but which has, however, no relation to flight, but served simply to lighten the skeleton for any purpose. The greater number of Haversian canals, the more tortuous canaliculi connected with the lacunæ, was pointed out as being a common characteristic of the bones of birds, and the pneumatic feature either in them or in reptiles was always associated with circumferential lamellæ, in them always bounding the medullary cavity instead of the outer surface of the bone. The typical mammalian structure was of

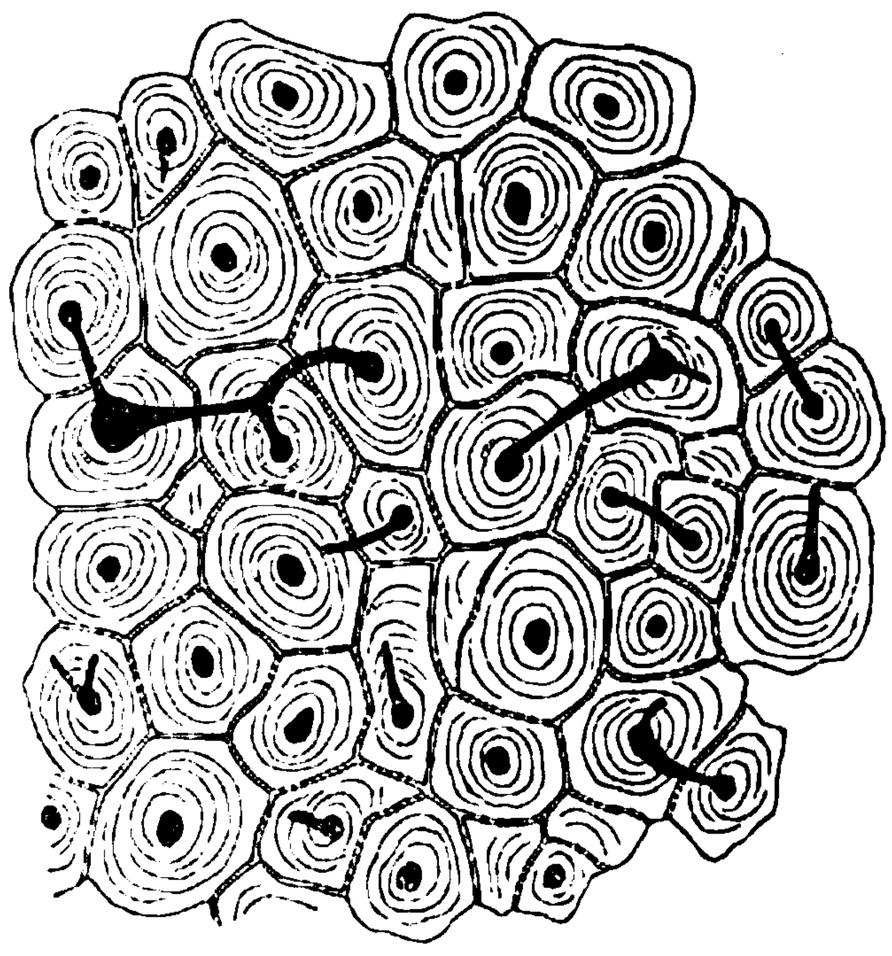
FIG. 2.



course presented by human bone, of which it was not necessary to speak with detail; but a peculiar feature was pointed out in the ornithorhynchus—namely, that although lacunæ with their canaliculi were present, yet many of the Haversian canals showed long tubules directly radiating into the surrounding matrix, resembling one of the dentine-

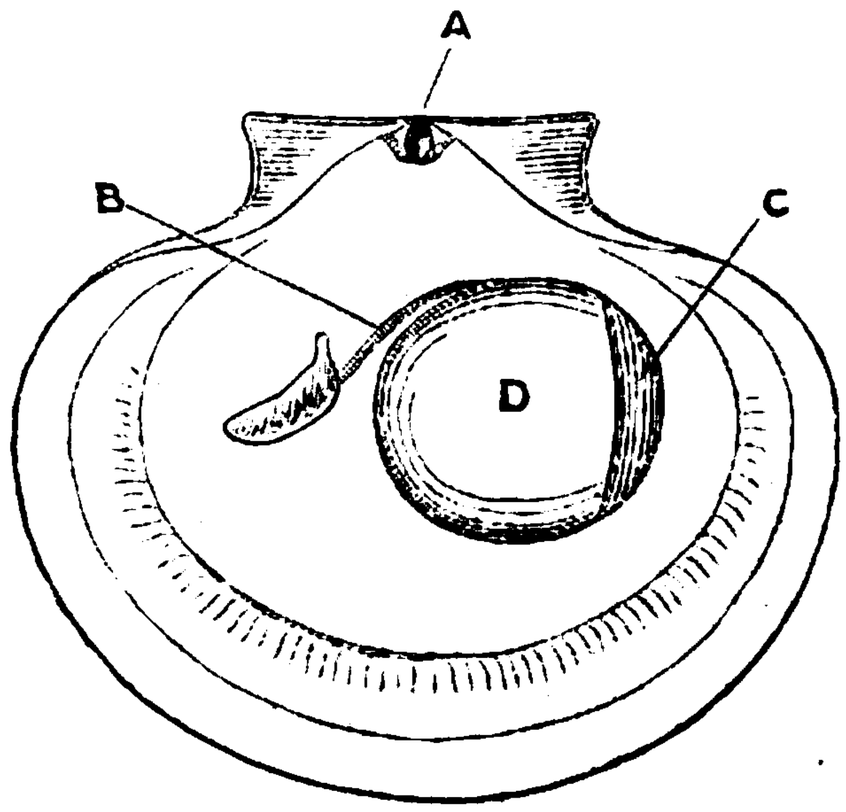
Group A, the lecturer next went on to illustrate the mode of arranging Group B by giving a general account of the familiar structure of areolar tissue formed by the web-like interlacing of wavy bundles of white fibrous tissue and fibres of yellow elastic. It loosely connects and supports parts allowing movement in any direction with spontaneous return to position of rest. The illustrations were drawn on the blackboard. Yellow elastic tissue was next exemplified by the specially developed layers of the abdominal walls of

FIG. 3.



ruminants. Then the bonds of union connecting hard parts were taken up. The crustacea furnished examples of these, certain portions of the cuticle remaining flexible and free from calcification, and serving to unite the stiff calcified regions. A drawing was made to illustrate these two parts. Examples of elastic union were taken from the internal or external elastic ligaments of the bivalves. The common pecten furnished an illustration (see Fig. 4) of an elastic spring compressed when the valves were closed, and by which they were forced apart when the muscles ceased to contract. The elastic ligament of the cockle, on the other

FIG. 4.



A, Elastic ligament. B, Retractor of foot. C, Non-striated, for closing valve. D, For swimming—striated.

hand, being placed outside, was stretched when the valves were closed, and served to pull them apart by recoil when the muscles were relaxed. Then the great class of ligaments belonging to the endoskeleton and which were extensile and elastic, was illustrated by the ligamentum nuchæ, say, of the giraffe and the ligamentum subflava. Examples of non-extensile ligaments were taken from the ligaments of the vertebræ, the structure of which was given, and [illegible]

muscular systems, a general account of the movements of protoplasm, with the phenomena of movement in the sensitive plant, was recounted. The arrangement of muscular tissue in various groups of animals, beginning at the lowest, was described and drawn. After giving the structure of the two great groups of muscular tissue, it was pointed out that to a great extent it might be considered true that the more complex striped tissue was associated with quickness of contraction, it being present in the quickly contracting muscle of the subumbrella of hydrozoa, in the tentacles of hormiphora, in all the muscles of the arthropoda with the single exception of peripatus, which had unstriped muscle like a worm. In the branchopods a remarkable exception to the usual character was found to the usual unstriped character of the muscular tissue, in that the posterior occlusor muscle is beautifully striped. In bivalves the greater portion of the great adductor muscle in pecten, which is used for swimming, is striped; while the small posterior part used in maintaining the closed condition of the valves is unstriped. Then, in the sea-squirts the heart muscles are striped, but the mantle of the fixed forms is unstriped; but where the mantle muscles are subservient to locomotion they are striped, as in salpa. The lecturer remarked in passing that the presence of hæmoglobin in the buccal muscles of many gastropods and in the sphincter at the mouth of the sea anemones might possibly in these cases account for their greater energy of action.

LIFE ASSURANCE AND THE MEDICAL PROFESSION.

THE interest manifested by many of our readers on the subject of Life Assurance has led us to examine with some care the various reports and statements of account which have reached us during the present year, and to prepare for the information of those among them who are concerned with the subject the following notes upon what appear to be their most salient points:—

The *Alliance* is a comparatively young but vigorously administered office, which annually receives a large accession of new members. Its report for the past year exhibits no striking feature, but records a steady advance along the accustomed lines of movement. The *Atlas*, as a very old established office, produces a report in which the most salient feature is the great age of the deceasing members, the amount shown as disbursed in claims having been paid to the extent of more than 60 per cent. in respect of deaths occurring among persons upwards of seventy years of age. The *Equitable of the United States* is a younger office, and, as its name indicates, of American origin. But it brings out results of the most astonishing magnitude, and with an income exceeding £8,000,000 a year it fitly supports the reputation of America for doing things upon a large scale. The *Marine and General Mutual Life Assurance Society* is not as old as the *Atlas*, nor does it transact as large a business as the *Equitable of the United States*, but its premium income has been well sustained during the past year, and, what is much more important, the pressure of working expenses upon the revenue has been appreciably lightened. An excessive mortality, due probably in greater or less degree to the prevalence of influenza during the period under review, has marred the financial result of the year's operations, though without making the mortality experience of the company abnormal if a period of three years past is included in the review. The *Railway Passengers' Assurance Company* is at once the largest and best known of the companies which transact accident insurance business. Its report shows that compensation of the kind provided by its policies has during the year been paid to an amount approaching £150,000, a figure which indicates not only widespread connexion, but also an incalculable amount of relief of the pecuniary distress which every-day misadventures cause. *The Economic Life Assurance Society* has just undergone a process of remodelling by the substitution of new rules and regulations for the deed of settlement under which its business has heretofore been carried on. The directors report that they have availed themselves of these new regulations to revise and improve the conditions upon which the Society's policies are granted. *The English and Scottish Law* makes the growth of its business during the past year the great feature of its report. The accounts disclose a very heavy rate of working expense, which does more to explain than to justify the popularity of which the directors make their boast. *The London and Lancashire* is a comparatively young office, but it obtains a very considerable proportion of new business. Like most other young assurance companies, it obtains its results at a comparatively heavy working cost; but the fault is one which it tends to outgrow. The *Mutual Life Assurance Society* exhibits a record which, upon the crucial question of economy of resources, is entitled to very high rank. The present annual report presents the result of consistent attention to this matter in the shape of a very handsome surplus for distribution among the policy holders as the outcome of a recent valuation. The report of the *Law Union Fire and Life Insurance Company* records the result of an amalgamation recently effected with the *Crown* office. The accession has naturally produced a large augmentation of revenues; but in the life department it has been made the occasion of providing for depreciation of securities and extension expenses by the sinking of a sum of £20,000, an item which quite spoils the financial result of the year's operations. The *Gresham Life Assurance Society* transacts so large a proportion of its very extensive business abroad that it is difficult to find a standard of working cost by which to test the merit of its administration in respect of economy. The valuation test yields a very satisfactory result in the shape of a divisible surplus of upwards of £80,000 as the outcome of three years' working and the result of a 3½ per cent. valuation. An important change has just been effected in the constitution of the Society, by which its policy holders acquire a larger interest than heretofore in the surplus from time to time divided. The *New York Life Insurance Company* has undergone during the past year a very searching investigation, from which it has emerged by no means scatheless. The report of the Insurance Commissioner of New York has, however, established the all-important point of the Company's solvency, and in their present report the directors refer to changes of *personnel* which they say will remove whatever doubt may have been felt as to the future administration of the Company's affairs. The *London Life Association*, an office which has long and deservedly enjoyed the very highest reputation among "those who know" for economy and the efficiency which results from economy, has just issued a new premium table, under which half-premiums only are at first chargeable, the bonus being expected to reduce the full premium to something like the same figure as the original half-premium by the time that the half-premium term has worked out. The scheme is intended to compete with the "assessment" schemes which have attained to a great, though wholly unmerited, popularity within the past few years; and being undoubtedly sound, whether regarded from this point of view or in the broader aspect of a new attempt to adjust the means of a life assurance scheme with some precision to its ends, it is deserving of great praise.

(To be continued.)

THE CONTAGIOUS DISEASES ACTS.

A LEADING article in the *Times of India*, published at Bombay on Feb. 26th last, draws attention to the evil caused by the abrogation of the Contagious Diseases Acts. Last year the editor of this same paper felt it a duty, distasteful though the subject must be, to draw public attention to the statistical revelations of the spread of the disease throughout the European army in India as contained in the last annual report of the Sanitary Commissioner with the Indian Government. The writer notices with gratification "that the outcry against this fatal mandate of repeal is becoming at home more powerful year by year as the evidence of the ruin wrought among men and women alike in garrison and seaport towns accumulates with sickening intensity." After glancing at the state of matters in the army and navy at home before the passing of the Act of 1864 and subsequent Acts, at the results of the Acts in effecting a reduction of disease wherever they were enforced, and the results of

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their repeal, the writer passes from the men to the women in words which may well be reproduced :—

The social evil is one of the saddest blots on the progress of civilisation, nor is it the shrieking sisterhood alone who are left to bewail it. If shrieks could abolish it all humanity would join in the hue and cry. Unfortunately, it is a stern fact, which the best endeavours of the wisest and kindest of mankind can only do something to modify. These wild agitators forget that the policy they advocate is as heartless as it is blind and inconsequent, for it strikes at the very people whom they most design to save. Let the men, if it must be so, suffer the consequences of their folly; but is that any reason that the unfortunate women, more sinned against than sinning, should be abandoned to the horrible consequences of the life they lead? It should be proclaimed with emphasis that the other sex reap at least as large benefits, and it is humane to see them protected from the consequences of their misfortune, their ignorance, or their guilt. We do not envy the spirit of cruel inhumanity that, parading under the sacred mantle of morality, abandons the most pitiable of their sex to the fellest of diseases to protect themselves from its ravages just as they like and however they can. That these Acts should be attacked in the name of womanhood is proof of one of the most signal outbreaks of demented fanaticism that was ever provoked by a hysterical cry. It is precisely womanhood in its most helpless and appealing conditions of abandonment, reckless of the consequences from the very nature of its environment, it is womanhood that ought to be rescued and cared for, and protected from the physical disorders of its own despair. The Acts had this consequence directly, but their indirect assistance in reclaiming poor women to a better life was also immense, though not capable always of demonstration by statistics. It is impossible that the higher influences for good under which they were brought in hospital, by the kindly visits of clergymen and others, should not inspire, if not absolute conversion, at any rate wholesome leanings that are not without appreciable fruit. The wickedness of allowing such diseases to run riot through the army, taking into account the taint it impresses on an innocent posterity, has been harped upon sufficiently to open the eyes of the blind. Altogether, from whatever side these Acts are regarded, they are seen to be directed only to the operation of a truly benevolent work, and nobody with a fair mind and with a capacity for weighing the simple issues of a painful problem will for a moment charge the supporters of the Acts with the oblique purpose of making immorality safe.

It is hopeless to expect anything to be done, either by inquiry or legislation, during the existing Parliamentary session so far as the Government is concerned. But much might be done on the part of local authorities in reducing at least some of the worst phases of the "social evil" by providing hospitals for those who are diseased, by prosecuting those wretches, both male and female, who live on the wages of girls' and women's shame, and by increasing the provisions of "homes" and "refuges" in reclaiming those who are still reclaimable. We trust that the subject will be considered worthy of notice by some of the leading daily papers. We have done our part through evil and good report. Let the lay press do theirs.

FRENCH WORKMEN'S SANITARY CONGRESS.

DR. DUJARDIN-BEAUMETZ ON FOOD.

ON the 9th inst. the first of the preparatory lectures for the forthcoming French Workmen's Sanitary Congress was delivered by Dr. Dujardin-Beaumetz. There was a very large and attentive audience, almost all the trades of Paris were represented, and the workmen throughout manifested the greatest attention. The lecturer was introduced by M. Lavy, the Deputy for Montmartre, who represents the Possibilist labour party in the French Parliament. M. Lavy explained the reason why these lectures were delivered. The programme of their party had been affirmed with sufficient emphasis, and it was now time to turn from theory to practice. The object of the forthcoming Congress would be the study of the means of saving life. Workmen were now going to ask men of science what were the results of their investigations. Men of science were to tell the men of the workshop what they had learnt. It was with faith and with gratitude that the workmen constituted themselves the pupils of the learned professors who were about to address them. Their dreams of human equality did not prevent their recognising and paying homage to intellectual superiority. But they thought that those who had received much from society owed much to society. M. Lavy was glad to record that the professors who held the most eminent position in the domain of sanitary science had certainly placed their scientific [illegible] ing men. They would see that labour conferred a mark of dignity, whatever might be the nature of the work or the class by which it was performed. Nor would the advantage be exclusively on the side of the workmen present. The workmen would learn much; but when, in their turn, the workmen came and contrasted what was the actual condition of their lives with what the professors of sanitary science demonstrated as necessary for healthy existence, then perhaps the latter might learn something which had previously escaped their observation. After a few graceful and grateful compliments addressed to Dr. Dujardin-Beaumetz, M. Lavy invited the lecturer to deliver his address.

Dr. Dujardin-Beaumetz succeeded, with admirable tact, in explaining the technicalities of nutrition in such a manner as to be intelligible even to the simplest members of the audience. He first explained that nutrition depended on a sufficient supply of three chemical groups of substances. For a man at absolute rest 129 grammes of nitrogenous substances, 410 grammes of carbo-hydrates, and 35 grammes of fats were required. If the food-supply of Paris were examined, it would be found that it consisted of 120 grammes of nitrogenous substances, 330 of carbo-hydrates, and 70 of fats per head, which was not far from the theoretical amount considered necessary. This conclusion is, we presume, due to the including of children, infants, &c., in the number of the population, because the lecturer also explained that the French workman, when engaged in hard physical labour, required 190 grammes of nitrogenous matter, 600 grammes of carbo-hydrates, and 90 grammes of fats. The lecturer explained how much more heat was expanded when working, and greatly amused the audience by insisting that the human body was a very bad machine, inasmuch as it consumed nearly all its heat for its own maintenance, and barely spared more than one-fifth of its heat for the purposes of work. After describing the process of starvation and the evils of over-eating, he declared he did not believe in vegetarianism, excepting in hot climates. Wherever in cold or temperate climates meat was given, more work was produced. In spite of the doctrine so widely propagated that people could not be virtuous on beefsteaks, he thought that much of the success and energy of the British race was due to the fact that they were the most carnivorous people in Europe. With regard to alcohol, Dr. Dujardin-Beaumetz did not consider that it supplied heat. It was not an article of food, but it did act on the nervous system. It was a useful stimulant, but also a dangerous stimulant, for it produces inflammation and irritation wherever it passes. Finally, he was glad to note the growing preference given to coffee and tea, which stimulated the action of the heart and were far less injurious. The lecturer, having explained the nutritive qualities of various common articles of diet and how they could best be combined, insisted that it was not only necessary to have the required food, but it must also be digested. This latter problem must be solved by the housewife. Dr. Dujardin-Beaumetz was especially applauded when he showed that practical experiments demonstrated that more work was done in less time when better and more food was given. This had been proved more particularly when dealing with the mining populations. In conclusion, the learned professor thanked the Labour party for the initiative they had taken in organising their Sanitary Congress, and was sanguine that good results would ensue.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 5572 births and 4080 deaths were registered during the week ending April 16th. The annual rate of mortality in these towns, which had been 22·2 and 23·3 per 1000 in the preceding two weeks, declined again last week to 20·9. In London the rate was 19·4 per 1000, while it averaged 21·3 in the thirty-two provincial towns. The lowest rates in these towns were 13·2 in Burnley, 14·6 in [illegible], 15·2 in Croydon, and 15·1 in Wolverhampton; the highest rates were 25·4 in Halifax, 25·9 in [illegible], and 26·2 in Liverpool. [illegible]

177 resulted from measles, 173 from whooping-cough, 50 from diphtheria, 43 from diarrhœa, 32 from scarlet fever, 19 from "fever" (principally enteric), and 1 from small-pox. The lowest death-rates from these diseases were recorded in Brighton, Portsmouth, Plymouth, and Halifax, while they caused the highest rates in Huddersfield, Sunderland, Swansea, and Sheffield. The greatest mortality from measles occurred in Leicester, London, Birmingham, Sheffield, Liverpool, and Huddersfield; from scarlet fever in Cardiff; from whooping-cough in Salford, Sheffield, Manchester, Bolton, Sunderland, and Swansea; and from diarrhœa in Birkenhead. The mortality from "fever" showed no marked excess in any of the thirty-three large towns. The 50 deaths from diphtheria included 32 in London, 3 in Salford, 3 in Newcastle-upon-Tyne, and 2 each in Portsmouth, Manchester, and Sheffield. A fatal case of small-pox was registered in Cardiff, but not one in any other of the thirty-three towns; 45 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 11 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1296, against 1227 and 1289 on the preceding two Saturdays; 146 new cases were admitted during the week, against 139 and 166 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding four weeks from 523 to 403, further fell last week to 348, and were 75 below the corrected average. The causes of 71, or 1·7 per cent., of the deaths in the thirty-three towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Sunderland, Newcastle-upon-Tyne, and in eleven other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Salford, Blackburn, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·2 and 24·1 per 1000 in the preceding two weeks, declined again to 22·5 during the week ending April 16th, but was 1·6 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 15·3 in Paisley and 15·6 in Leith to 25·5 in Glasgow and 27·5 in Perth. The 625 deaths in these towns included 24 which were referred to whooping-cough, 18 to measles, 10 to diphtheria, 9 to diarrhœa, 8 to "fever," 4 to scarlet fever, and not one to small-pox. In all, 73 deaths resulted from these principal zymotic diseases, against 65 and 66 in the preceding two weeks. These 73 deaths were equal to an annual rate of 2·7 per 1000, which slightly exceeded the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 24 and 30 in the preceding two weeks, declined again to 24 last week, of which 17 occurred in Glasgow. The deaths referred to measles, which had been 15 and 14 in the previous two weeks, rose to 18 last week, and included 17 in Glasgow. The 10 fatal cases of diphtheria considerably exceeded those recorded in any recent week; 5 occurred in Glasgow and 3 in Dundee. The deaths referred to different forms of "fever," which had been 8 and 5 in the preceding two weeks, rose again to 8 last week, and included 5 in Glasgow. The 4 fatal cases of scarlet fever corresponded with the number in the previous week. The deaths referred to diseases of the respiratory organs in these towns, which had been 158 and 160 in the preceding two weeks, declined last week to 130, and were 12 below the number in the corresponding week of last year. The causes of 62, or nearly 10 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the preceding three weeks from 40·1 to 33·0 per 1000, further fell to 30·6 during the week ending April 16th. During the thirteen weeks of last quarter the death-rate in the city averaged 38·4 per 1000, the rate for the same period being 28·2 in London and 19·8 in Edinburgh. The 205 deaths in Dublin during the week under notice showed a decline of 16 from the number in the preceding week, and included 14 which were referred to measles, 6 to "fever," 5 to whooping-cough, 2 to diphtheria, 2 to diarrhœa, and not one either to small-pox or scarlet fever. In all, 29 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·3 per 1000, the zymotic death-rate during the same period being 3·0 in London and 1·2 in Edinburgh. The fatal cases of measles, which had been 24 and 23 in the preceding two weeks, further declined to 14 last week. The deaths referred to different forms of "fever," which had been 1 in each of the previous three weeks, rose to 6 last week, with one exception a higher number than in any week of this year. The 5 fatal cases of whooping-cough exceeded by 2 the number in the preceding week; and the 2 deaths referred to diphtheria were the first recorded in the city since the middle of January last. The 205 deaths in Dublin last week included 25 of infants under one year of age, and 52 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a decline from the numbers in the preceding week. Seven inquest cases and 7 deaths from violence were registered; and 54, or more than a fourth, of the deaths occurred in public institutions. The causes of 21, or 10 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

Surgeon-Captain A. P. Blenkinsop is under orders for India.—Surgeon-Captain F. P. Nichols has been posted to the Secunderabad District, Madras command.—Surgeon-Captain W. Hallaran has been appointed to Bangalore, and Surgeon-Captain F. W. C. Jones to Mhow District, Bombay command.—Surgeon-Captain J. J. C. Watson has joined Aldershot, for duty, on arrival from Singapore.—Surgeon-Lieutenant Mitchell has been posted to Devonport.

Correspondence.

"Audi alteram partem."

THE OPIUM QUESTION.

To the Editors of THE LANCET.

SIRS,—I trust that it will not be considered an unkind reflection on the 5000 signatories of the anti-opium manifesto to suggest that there is probably a confusion in their argument where a clear distinction ought to be drawn. It arises from a certain ambiguity in the use of the word drug. On the abstract principle that any drug which has poisonous properties should be sold only under the regulations of the Pharmacy Act there is little dispute. On the practical point whether it is expedient that opium shall be sold in the countries to which it is indigenous only as a poison, experts of the highest authority give a negative answer. If we consider the subject medically we find that Sir Joseph Fayrer, Sir George Birdwood, Sir W. J. Moore, and many others well qualified to judge, affirm decidedly that the habitual moderate use of opium is not injurious, and that they "see no reason for abrogating the present regulations concerning opium in India." From the administrative standpoint we read that the Indian Government finds it to be the "unanimous opinion of its responsible officers that it is impossible to devise any machinery by which the consumption of opium could be suppressed, while the attempt to enter upon any such policy of suppression would involve gigantic evils" under the wholly different conditions of life and society in India compared with those in England. These evils are connected chiefly with the impossibility of preventing smuggling and illicit consumption, with the certainty of increasing the use of deleterious drugs, with disaffection caused by interference with national habits, and with revenue difficulties. If we look more to moral considerations we find that the large majority of Chinese opium-smokers are respectable people of the better class and well-behaved labourers, while carefully authenticated statistics of the frequenters of the Bombay smoking houses show that, "at the fewest, 70 per cent. are regular craftsmen and labourers." Mr. James, of the Bombay service, although opposed to the practice of smoking among Indians, testifies, "from his own observations when travel-

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ling in the north of China, that opium smoking, in 99 cases out of 100 in China, is a harmless habit, like cigar smoking among Europeans."

To recur to the working of the abstract principle. Let us suppose that a European nation were under the rule of a Mahomedan power, and that, acting on principle, this Government decreed that alcohol, being a poison, should be sold only for therapeutic purposes. With what feelings would the ordinary "native" look upon the prohibition of taverns, beershops, and houses of public entertainment? Now consider the Mahomedans of India and the Chinese. They have not malt and hops, and they have not vineyards. Are we to prohibit their chief luxury for the sake of an abstract opinion, and because some enthusiasts picture imaginary evils? Rice, fruits, sweetmeats, and tea—are the races of the East to be limited to these alone? We cannot judge of the effect of habitual moderate use of an indigenous drug without seeing the conditions under which it is employed; but perhaps it will bring the question more home to English readers if we advocate the claims of a society for the total suppression of the trade in alcoholic beverages. This is more urgently wanted, more philanthropic, and equally practical with the scheme of the Society for the Suppression of the Opium Trade. We demand, in the first place, that our Government shall cease to derive any revenue from such a harmful drug as alcohol. We demand that our authorities shall not sanction by licence the infamous sale of a poison which has wrought incalculable harm. We can point to the multitudes in the East of the Mahommedan creed who do without spirits, and remark that even the millions of China produce very few drunkards. Why should not our Government stop the vice which reduces the morality of the public streets below the level of those of Eastern barbarians? If anyone wishes to know something of the issues involved in the opium question, let him procure the *Journal of the Society of Arts* for April 1st and the Blue-book on the Consumption of Opium in India, C. 6582, 1892. Dr. Watts' article on "East India Opium" is very full and instructive, and is published by Messrs. Eyre and Spottiswoode.

I am, Sirs, yours faithfully,

Watford, April 12th, 1892. W. D. SCOTT, M.D.

OPERATION FOR SPASMODIC TORTICOLLIS.

To the Editors of THE LANCET.

SIRS,—In an important annotation upon the subject of spasmodic torticollis in THE LANCET of March 26th you have directed the attention of your readers to the operative measures at present most relied on for its relief. Nerve stretching and nerve section having failed to have ever given more than temporary relief, the more drastic method of nerve excision and removal has been adopted; and as, like its predecessors, it is supremely empirical and unsupported by any pathological justification, it must also prove a failure. "Surgery," as Dr. Goodhart said, in his Harveian Lecture, "can happily accomplish now much of what it undertakes, but it needs to remember that it has not yet attained to the enucleation of the neurotic constitution. Operations of this kind are on a par with some of those on a painful kidney or the destruction of Meckel's ganglion for tic; they are conspicuous for the failure of those higher and more fundamental arts of treatment that should have lifted the patient over this necessity." The narrative of Keen's new operation for wry neck, and that of sympathisers nearer home, read so painfully like vivisection, from which even the inferior animals are saved by legal enactment, that such sections and dissections should not be sanctioned by the profession save as the *dernier ressort*, and after all the other resources of civilisation had been exhausted. As I have not observed in our medical periodicals any reference to a simple yet effectual plan of treatment adopted in an obstinate case of spasmodic torticollis by that eminent neurologist, Dr. Morton Prince, physician for nervous diseases to Boston City Hospital, U.S., and published in the *Boston Medical and Surgical Journal* of October 14th, 1886, I have to request the favour of its republication in your influential journal. Dr. Prince, taking for his text the title of an article which appeared in THE LANCET of July 12th and December 6th, 1884—viz., "Tenderness of the spine in health and disease, and the therapeutic effects of blistering over the region of [illegible] subject, and among other successful results of the treatment he mentions one of spasmodic torticollis as follows:—"The most strikingly successful case was that of a woman of about thirty to thirty-five years of age, who had been under treatment in the surgeon's room at the dispensary for about four or five weeks without any improvement; she was finally brought to me. At this time she complained of great pain and tenderness in the back of the neck, the pain shooting upwards over the back and sides of the head. The muscles of the back were stiff, almost rigid, the head being in one position. There was great tenderness over the cervical vertebræ, and the slightest jar on the top of the head or movement of the head caused intense pain; indeed, it had been thought there might be caries of the vertebræ, especially in view of the physical condition of the woman, which was that of anæmia and debility. Her expression was indicative of prolonged suffering; there was also enlargement of the submaxillary glands. Finding also tenderness over the fourth and fifth dorsal vertebræ, I directed that a blister be placed over that region. The next day the woman returned, presenting an entirely different picture. The pain and tenderness were gone, the motion of the head was natural, and the look of suffering had disappeared from the face. Of course the pleasure exhibited by the patient at being at last relieved from pain was what might have been expected. She afterwards had some trouble with the enlarged glands, but the above symptoms never returned. I saw her about a year afterwards, when she stated she had had no return of the symptoms. Two other cases of the same character, but of less severity, were equally successful. One was that of a man whose surprise and delight at his sudden cure were truly comical. I have tried the treatment in one case only of vomiting of pregnancy, when it was eminently successful." He concludes his paper with this sentence: "Decided and beneficial effects may often be obtained by blistering over the fourth and fifth dorsal vertebræ in various neuroses."

I am, Sirs, yours faithfully,

ALEXANDER HARKIN, M.D., F.R.C.S.

Belfast, April 2nd, 1892.

SMALL-POX TRAMPS: WHO IS RESPONSIBLE?

To the Editors of THE LANCET.

SIRS,—I beg to lay before you the following case:—A "tramp" walked into the waiting-room of an infirmary the other day and stayed there until the house surgeon came in, who instantly diagnosed the case as one of small-pox; this was confirmed by other members of the staff soon after. The fact was then announced to the committee, which was at the time sitting, who immediately communicated it to the medical officer of health. This occurred about one o'clock P.M. The medical officer of health, after consultation with some members of the Town Council, decided that the sanitary authorities should not be called upon to take charge of the case; and the sick man was allowed to stay at the infirmary until the evening, when the relieving officer was requested to take him to the workhouse. He replied he had instructions not to do so, the sick man being "no pauper until he sought relief," and he declined to do anything in the matter, both the sanitary and the parochial authorities thus throwing the responsibility on the infirmary. A consultation was consequently held by two of the medical staff, who came to the conclusion that it was not consonant with the safety of other patients to admit the case into the house, there being no convenient arrangement for the treatment of small-pox. The poor man was therefore told he could not be attended to, and that the doors were open to him to go out. He took the hint and walked away. The case being one of modified small-pox, he was able to go as he had come in. In the course of the night the police took him to the relieving officer, who then took charge of him and provided him with lodgings. Subsequently the sanitary authorities stepped in. This case has caused great altercation among the authorities. I have endeavoured to state it as accurately as I can. Will you or anyone kindly inform me as to who was wrong in not taking the responsibility and not providing for the requirements of the case in the first instance?—I am, Sirs, yours faithfully,

April, 1892. A CONSTANT READER.

* * The above letter is very curious reading, [illegible] our boasts of sanitary legislation and [illegible] England. We feel inured to [illegible] of small-pox [illegible]

who, in a bad plight on the road, was passed by many persons, who contrived to convince themselves that *they* were not his neighbours, and were under no neighbourly obligations to him. We shall undertake at once to close all controversy on the above subject by declaring our opinion that the sanitary authorities were the principal culprits. The pedantry of the relieving officer is bad enough—excusing himself and his masters on the ground that the actual small-pox patient had not come to his door *in formâ pauperis*, though application was made on his behalf. But the action of the sanitary authorities quite eclipses that of the relieving officer and those who gave him his instructions. We can scarcely believe our eyes in reading that the medical officer of health, after consultation with some members of the Town Council, decided that the sanitary authorities should not be called on to take charge of the case! This is very much like the responsible officers at a fire station telling an urgent messenger that *they* should not be called on to put out a fire. What are we coming to? For what do sanitary authorities exist, if not to deal with a tramp suffering from small-pox, with a thousand thanks to anybody who will announce his presence and his movements, and to take immediate and entire charge of him, and all exposed to his infection, till all risk of further spread of the disease was over? The only approach to the Good Samaritan in this case was in the authorities of the infirmary.—ED. L.

THE CÆSAREAN OPERATION: A SUGGESTION.

To the Editors of THE LANCET.

SIRS,—The risk of fatal peritonitis supervening upon Cæsarean section, especially when the fœtus is putrid, might, it appears to me, be greatly reduced if the operation were performed in two stages, instead of one as at present. Other abdominal viscera and some intra-peritoneal abscesses are commonly treated in two operations when a communication with their interior for some purpose has to be established, and I would suggest a similar method of dealing with the uterus in Cæsarean section. At eight months and a half an incision through the abdominal wall sufficiently large to admit of the withdrawal of the fœtus might be made, and the edges of the wound accurately and carefully stitched to the uterus, as to the stomach in gastrostomy. Then at full term, when adhesions around the wound had shut out the peritoneal cavity, the second operation of opening the uterus and delivering might be performed with the minimum of risk as being extra-peritoneal. I do not think the after-treatment would be rendered more difficult. Post-partum hæmorrhage could be as easily controlled as at present. The adherence of the uterus to the abdominal wall might interfere with uterine contraction and complete sub-involution—to what extent experiment alone would decide; but as adhesions between the uterus and the abdominal wall generally form after Cæsarean section, the uterus would doubtless adapt itself in some way to its new anchorage. The uterine and abdominal incisions could be closed simultaneously at the second operation, drainage being arranged for by the cervix or abdominal incision, at the discretion of the operator. Further details of the operation would have to be considered.

I am, Sirs, yours obediently,

Margaret-street, W., April 20th, 1892. J. H. DAUBER.

A CORONER ON UNQUALIFIED ASSISTANTS.

To the Editors of THE LANCET.

SIRS,—It is observed in an article in THE LANCET of the 16th inst., on the death of Miss Bradshaw at Luton, that my connexion with Mr. Beart and non-appearance in the case require explanation: First, on Saturday I was called away on private family business before Mr. Beart could communicate with me, there being, as I thought, nothing serious to attend to. Had it been possible to send to me in time for the inquest I should have been there; but the coroner did not ask for me. Secondly, Mr. Beart has worked with me for ten years, and has always called me to any serious case under his care *at once*. This he was for once unable to do, but in his evidence states that he told them to send for someone else if the patient became worse. Mr. Beart has never, to my knowledge, represented himself to be other than an unqualified man. I scarcely think even an unqualified man, after twenty-five years' successful work under very competent surgeons, could make any gross blunder. In Dunstable he has earned a local reputation in obstetric cases. His prescriptions were produced in court, and I see no evidence of malpraxis or negligence. I see that the Home Secretary, acting on the actual depositions, and not a mere newspaper report, has declined to interfere.

I am, Sirs, yours truly,

Dunstable, Beds., April 19th, 1892. F. W. D. HENSLOWE.

THE ROYAL BRITISH NURSES' ASSOCIATION.

To the Editors of THE LANCET.

SIRS,—The application which the Royal British Nurses' Association has recently made to the Lords of the Privy Council for a charter of incorporation has led to the publication of certain articles and letters which are calculated to convey the following inferences: that there exists a body which is empowered to represent the collective opinions of the nurse-training institutions; that such a body is opposed to the petition and aims of the Association; that the register of trained nurses which is maintained by the Association is calculated to mislead the public and to be detrimental to the interests of the best class of nurses. In view of the fact that the questions thus raised will shortly be argued by counsel and judicially decided, the Association has thought it becoming to abstain from offering any specific or detailed reply; but, at the same time, it desires to make known that it is in a position to meet all such statements and implications with positive denial and effectual refutation.

We are, Sirs, your obedient servants,

CATHERINE J. WOOD,
W. BEZLY THORNE, M.D., } Hon. Secs.

THE SHOP HOURS QUESTION.

NATIONAL CONFERENCE AT MANCHESTER.

(FROM OUR SPECIAL CORRESPONDENT.)

THE Conference convoked to consider the Parliamentary aspect of the shop hours question has most emphatically confirmed and accentuated the evidence and arguments brought forward in the Reports of THE LANCET Special Commission on "Sanitation in the Shop."[1] The Conference was organised by the National Union of Shop Assistants, and met at Manchester on Easter Monday. It was thrown open to any association connected with retail trades, irrespectively of trade or sex, and whether representing the employed or the employers. Consequently the Women's Trade Union League was represented by Miss Marland, and the Master Grocers' Association of the Manchester and Salford district by four delegates. The shop assistants of Manchester, Salford, Sunderland, Newcastle, Middlesbrough, Jarrow, Liverpool, East London, Oldham, Ashton-under-Lyne, Barnsley, Leeds, Radcliffe, Cardiff, Swansea, Huddersfield, Bradford, Dewsbury, Hull, Leigh, Bolton, Wigan, Rochdale, Stockport, and Loughborough appointed delegates. Previously to the Conference the delegates of the various branches of the National Union of Shop Assistants held business meetings, where financial matters and the rules of their association were discussed and amended. Among other matters debated at this business meeting was the question of medical attendance. Complaints were made that some employers deducted 2*d.* per month from the salaries, and with this engaged a medical man to watch over the health of the assistants, and it was alleged that this arrangement was calculated to afford the shopkeeper timely warning, so that assistants could be discharged whose health was likely to fail. For about 2*s.* 6*d.* per annum per head the assistants could secure medical attendants who would not act in the interests of the employers, and this course was recommended to the various district branches; but each branch was left to do as it thought best, according to its

[1] See THE LANCET of February 27th and March 12th, 1892.

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financial resources. The delegates also briefly discussed Mr. Provand's Bill, and passed the following resolution: "The National Union of Shop Assistants are unanimously of opinion that nothing will effectually reduce to a reasonable limit the hours of labour in shops but an Act of Parliament, and the Bill introduced in the House of Commons by Sir John Lubbock is the most practical of any of the schemes before the country at the present time." This resolution was accepted unanimously, and signed by all the delegates.

In the afternoon the open conference was held in a room lent for the purpose by the Young Men's Christian Association. Mr. H. J. Roby, M.P., was in the chair, and Mr. W. Mather, M.P., who is a member of the Select Committee on Mr. Provand's Bill, was also present.

Mr. Roby, M.P., in opening the proceedings, took a cheerful view of the situation, inasmuch as in the present instance the interests of the employed and of the employers were identical. Both would benefit by shorter hours. As for the public, so long as shops were open they would choose their own time; but it was not impossible for the public to shop earlier in the day. Throughout the country the movement in favour of limiting the hours of labour was spreading fast; and this was shown by the introduction of the Miners' Eight Hours Bill. On inquiring whether such limitation should be obtained by consent or by legislation, the speaker was met by loud cries in favour of legislation. He acknowledged that the tendency of the day was in favour of legislation; and such legislation was more easy with regard to the shop assistants, as it was not opposed by the employers. Mr. Roby insisted that all concerned should organise strong manifestations of opinion, and explained that Mr. Provand's view was that, while he doubted whether there was any chance of getting Parliament at present to limit the hours of grown men, a beginning might be made, as in the case of the Factory Acts, with the women, and thus Parliament would get accustomed to this principle of State intervention. At first there would be great opposition from both sides of the House to limiting the hours of adult males; but still, if they could show that such limitation was reasonable, and that the great majority of the trades concerned approved of such legislation, for his own part he thought they would ultimately succeed.

Mr. R. Davis of Cardiff, president of the National Union of Shop Assistants, then addressed the meeting on behalf of the Union. He urged that if any section of the community suffered, and were degraded physically and morally, this would not fail to affect the nation as a whole. There was danger in neglecting such matters. Mr. Provand had proposed to fix the maximum number of working hours per week. Sir John Lubbock would reduce the hours of work by allowing the majority of shopkeepers to fix the time of closing at night. At present they were constantly beaten by a small minority of shopkeepers who would not close early. At Swansea a canvass, undertaken conjointly by the Trades Council and the master shopkeepers, had shown that 98 per cent. of the shopkeepers, even in the poorest quarters, were in favour of early closing. For the last twenty years they had enjoyed the half-holiday in South Wales; yet, though so long established, this was only maintained by constant advertising and agitation. They wanted the law to render them secure in the possession of what they had so much trouble to maintain. As for the demonstrations of opinion which Mr. Roby desired, it was impossible for shop assistants to get employment without a reference, and many employers gave bad references to assistants who took public action. The master grocers of Liverpool had draughted a Bill in favour of closing at 7 P.M., and at the Master Grocers' Congress, recently held at Birmingham, the proportion of grocers in favour of early closing was in the ratio of 10 to 2. The degradation and the misery of shop assistants were such that parents were now beginning to make skilled artisans of their children instead of sending them to shops. Instead of working twelve hours a day as a shop assistant for 3*s.*, it was better to work eight hours a day for 6*s.* as a skilled artisan. The result was that experienced and really good shop assistants were becoming more and more scarce. A lower class of persons worked in shops, and these were more easily victimised. He also urged that public health and public morality had much to gain by early closing. [illegible] to get [illegible] to shop the husbands [illegible] to be [illegible] to the public [illegible] [illegible] [illegible]

instead, and many thousands of unfortunate girls would be thrown on to the street.

Mr. Davis, on behalf of 1200 organised shop assistants of Wales, of which one-sixth were women, said he did not approve of Mr. Provand's Bill.

Mr. Mathers, M.P.: "Then you all agree in condemning Mr. Provand's Bill?" At which there were some cries of dissent, one delegate rising to protest that, though the Bill was incomplete, insufficient, and unjust in its special treatment of women, still he would prefer such a Bill to no legislation at all. Several delegates seemed to agree with this opinion. The Conference then unanimously adopted the resolution introduced by Mr. Williams, as mentioned above, which suggests the amendments necessary to render Mr. Provand's Bill satisfactory, together with another resolution, to the effect "that all *employés* in these industries shall come within the jurisdiction of this Act, without distinction of age or sex."

Mr. Rowe of Manchester then read a paper on the Living-in System. For motive of economy, convenience, and discipline shop assistants were made to board on the premises. By this means they were disfranchised as Parliamentary voters, and were kept under an iron rule. They were harassed by any number of petty regulations, had no sense or enjoyment of home; the sanitation was vile, the table a snare and a delusion. The food was coarse; they were constantly disturbed at their meals to serve customers. It was a survival of the truck system in its worst form. What employers called plain fare meant workhouse rations, and the assistants were always obliged to be in by 10.30 P.M. No body of workmen would consent to be thus handed over body and soul to their employers, particularly as the acuteness of competition was rendering the employers more and more inhuman. The rate of wages was calculated on the basis of bare subsistence for a single man. Consequently, if a shop assistant wished to marry, he was discharged from his employ. The speaker protested that celibacy was contrary to the scheme of nature, and claimed for the shop assistants their natural right to marry. Sir Bartle Frere had raised the indignation of the British public by relating that the Zulu warriors lived in enforced celibacy. The British public were now invited to consider the condition of the assistants who worked in shops, which, in consequence of the enforced celibacy, had become hotbeds of immorality. He would not insist, he would draw the veil over this question; but if our social conditions were such as to render vice so attractive and virtue so repulsive, nature would surely take her revenge. Shop assistants were no worse than any other class, but, like others, had to yield to the force of surrounding influences. If these influences were exceptionally bad, the result would be evil in due ratio. Why also did it happen that there were so few elderly men among the shop assistants? The fact was that old men were flung out to swell the army of the unemployed. Members of Parliament knew little or nothing of their position; this was proved by the recent debates. Shop assistants had no votes, nor did their case present features out of which party cries could be contrived. But with the abolition of the living-in system they would acquire votes, and then redemption would draw nigh. Legislation must come; it was inevitable; the only question of doubt was how many more generations of shop assistants it would be necessary to kill off before such legislation became effective.

Mr. Davis was anxious the Conference should recognise that, if their interests had been neglected in some quarters, the press, in any case, had done a great deal to help the shop assistants.

Mr. Lomax of Loughborough had worked in a shop where during four years he never had an opportunity of putting on either his coat or his hat, except on Sundays. He left this place because he could not eat rotten potatoes. He had offered to eat half these potatoes if the employer would eat the other half, but this challenge was not accepted. At another shop he had good food, but not enough, so that his health broke down, and he went to work in the provinces. There, in one house, he found the food "was only fit for manure." One of the female assistants died, and, after her death, a bill was brought in for the food she had been obliged to purchase outside.

Mr. Almgilt of Barnsley related that at one of the most important shops in Sunderland, out of fifty assistants, only twenty were able to eat the food provided; they had to send out for food at their own expense. And the sleeping accommodation reminded him of what the third-class railway carriages used to be fifty years ago. At Hull he had found matters worse. There, after working for six months, he was so ill that he had to lie up for four months; net result, two months' profits. At Leeds he was also badly treated, but at Barnsley he had found a place where he had been able to build up his health again. But even here he had just lost a good companion, a fellow shop assistant, aged twenty-six, who had been dismissed for no other reason than that he was about to marry.

Mr. Macpherson (East London) thought that if male and female assistants were allowed to marry, they would become more settled and take a greater interest in the business. As it was, in many shops male and female assistants were dismissed if they were known to be in each other's company.

In answer to a question from Mr. Roby, M.P., Mr. Davis explained that in the provinces shopkeepers calculated the value of board and lodgings at 10*s.* a week; but he felt convinced that the board generally provided did not cost more than from 4*s.* 6*d.* to 7*s.* 6*d.* per head per week.

Mr. Jones described a firm which employed 200 assistants and only allowed their housekeeper 9*d.* per head per day for the food supplied. Was it possible that full-grown men, working hard all day, could be kept in a wholesome manner on 9*d.* per day?

The Congress then carried unanimously a resolution to the effect that "the living-in system should be abolished." This concluded the business, and after the usual votes of thanks the Conference adjourned.

It will be seen by the opinions expressed and by the evidence incidentally given in the course of the speeches briefly summarised that the views expressed and the facts described in the Reports of our Special Commission are fully borne out. The long hours, the want of freedom, the bad food, the bad sanitation—these are the main grievances. Legislative interference on behalf of the men as well as the women is considered the only means by which the moral, the material, the sanitary, and the social condition of the shop assistants can be improved.

Manchester, April 19th.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Medical Appointments.

AT a meeting of the board of guardians, held on the 20th inst., Drs. T. S. Short, J. O. W. Barratt, and A. H. Carter were elected visiting physicians to the infirmary. Some interest has attached itself to these appointments, since it was with a view to permitting their officers to apply that the rules of the General Hospital were lately altered. A wider range of choice is thus given to the guardians, along with the opportunity of securing the services of the best candidates. The first of the above-named gentlemen is at present assistant physician to the General Hospital, the second holds no hospital appointment, and the third is senior physician to the Queen's Hospital. The contest for the appointment of physician to the General Hospital, owing to the resignation of Dr. Wade, promises to be a close one, and is giving rise to some excitement. The election will take place on May 4th, and the elective body consists of the committee, *plus* fifty subscribers chosen by ballot. Dr. Foxwell, physician to the Queen's Hospital, and Dr. Wilson and Dr. Short, assistant physicians to the General Hospital, are at present the only candidates. Various interests are brought to bear in support of the claims of each, and the voting promises to be close.

The Workhouse Water-supply.

The special committee appointed to deal with the water-supply have issued their report. It states that they decided to invite specifications and tenders from practical well-sinkers for securing a daily supply of 150,000 gallons of water. In February it was reported that 70,000 gallons were obtained from the well sunk, and in addition 40,000 gallons from the corporation. It was recommended that another borehole should be put on at the bottom of the present well, at a cost of £500 or £600. The committee did not advise this, preferring to give the present arrangement a fair trial, as the quantity was increasing. The corpora-

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tion charged 6*d.* per 1000 gallons, the amount used being 130,000 gallons a day; so it was expected that a saving would be effected by the present plan of obtaining the supply.

Singular Deaths.

An inquest was lately held on the body of a man aged fifty-six, whose death was said to have been aggravated by taking large quantities of chlorodyne. He began by taking a few drops, and lately took a whole bottleful at once. He was found unconscious, and died soon afterwards. The heart was found to be fatty and atrophied. The second case was that of a child aged four years, who died from inflammation of the brain, caused by the presence of a bean in the ear. Attempts had been made to extricate this without success, once under chloroform. Some censure was administered to the father of the child for not keeping the deceased under medical care, after having been told to do so.

Birmingham, April 20th.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Assizes.

THOUGH the number of prisoners was large, and the nature of the crimes with which they were charged was grave, this last assizes has passed without any death sentence. The most serious feature in the calendar was the large number of criminal assaults upon women and children, in some instances by several men acting in company. Very severe sentences were passed upon those who were convicted, and it is to be hoped that these will have an effect in deterring others from committing such crimes.

A Drunkard's Tercentenary.

A woman whose name betokened her Irish nationality was brought before the magistrate on the 16th inst. for the 299th time! She was fined 10*s.* and costs, or ten days' imprisonment. It is almost certain that the wretched woman will complete what has been ironically termed her tercentenary. It is to be lamented that there is not some more satisfactory method of dealing with this and similar cases.

The Weather and the Easter Holidays.

In Liverpool, as elsewhere, the weather which prevailed on Easter Monday was wintry in the extreme, in spite of which there were a large number of cheap trippers who braved the miseries of a ferry passage under such inclement auspices. Although there was a falling off in the total number from that of last year, it was still very large, and it is satisfactory to learn that there have been no casualties.

April 20th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Durham Colliery Doctors and the Strike.

A DURHAM "Colliery Doctor" writes a strong letter to one of our local papers, in which he shows very clearly the heavy loss which is sustained by the colliery surgeons, owing to the loss of the miners' fortnightly subscriptions, which are deducted at the office, when working, from their pay. It is computed, he says, that 70,000 men are on strike, whose subscriptions to the doctors amount to £1750 per fortnight. To this must be added losses from non-payment for confinements, vaccination, &c., and further non-payment by small tradesmen and others dependent on the men; so that the total loss to the doctors cannot fall short of £2500 per fortnight. The worst of it is, the doctor is expected and does attend all these people at present free, and has besides to keep up his usual expenses of assistants, drugs, servants, and horses just the same as if he was being paid. "A Colliery Doctor," as a remedy, suggests that the men may be asked to pay up the arrears by degrees when they get to work, which arrears, with their consent, might be stopped at the office as before. He believes that this is a fair proposition to make to the men, and he believes that they will accede to it. He further asks for a meeting of colliery doctors to be held in Durham next week to bring this important matter before the men. He also fears that there is much work before the colliery doctors in the coming season, owing to the insanitary condition of the colliery villages from overflowing of ashpits, the effects of inferior food, insufficient clothing, &c. As bearing this statement out, I see that the medical officer of health for Willington has reported an outbreak of scarlatina there, and reports that the ashpits in the colliery rows were overcrowded with refuse. At the Durham School Board meeting, too, a serious outbreak of measles is reported; one of the schools was closed till May 1st, about seventy of the scholars being ill.

North Riding Infirmary, Middlesbrough.

The annual report of the North Riding Infirmary at Middlesbrough has been presented to the meeting of governors, and it shows that 614 new patients had been admitted, making a total of 663 who had received treatment. The revenue fell short owing to the decrease in workmen's subscriptions, consequent on closing of works. Reference is made to the loss the infirmary sustained through the deaths of Drs. Ketchen and McCuaig. The late Duke of Devonshire had also proved himself a friend of the institution.

Death of the late Treasurer of the Cumberland Infirmary.

The death of Mr. William Parker, J.P., of Careton-hill, is announced. Mr. Parker, who was about seventy-five, died rather suddenly from cerebral hæmorrhage after two days' illness. He was until recently treasurer of the Cumberland Infirmary at Carlisle, and entirely through his efforts the jubilee fund of £2500 was collected for the institution. Mr. Parker was a great favourite in Cumberland; he was a thorough sportsman, and a good shot—in fact, a type of the fine old English county gentleman.

Newcastle City Lunatic Asylum Extension.

The competitive plans for the important extensions of the City Lunatic Asylum, which will practically make it a new building when carried out, have been exhibited for some days in our Town Hall, and have attracted many visitors. The plans of Mr. J. W. Dyson of Newcastle have received the first premium, and will be adopted for the buildings.

Seaside Summer Camp for Poor Boys.

The annual report of this most deserving association, which provides a seaside holiday for poor boys every summer, has been issued. It shows that 209 poor boys, hailing in about equal proportions from Newcastle and Gateshead, were afforded a pleasurable and health-giving holiday in the camp on Hartley Links, which was open during the last season for 133 days. There had been no serious sickness in the camp, and there were only six cases of flagrant disobedience and insubordination entailing dismissal.

Ambulance Work in the North.

At Jesmond the Mayor and Mayoress of Newcastle have presented certificates to the members of the ambulance class who have passed the examination in first aid, under the auspices of the St. John Ambulance Association. Dr. Aitchison, the instructor, at the same time received a presentation from the classes.—At Hartlepool, the Mayoress has presented the certificates and medallions to the successful members. Dr. Ainsley, the instructor, was highly complimented on his work.—At Gainford, Durham, Dr. Ellerton of Middlesbrough examined and passed fifty-two candidates for the St. John certificates of efficiency, and a vote of thanks was given to Dr. Hickey for his kindness in giving the lectures, and the painstaking way in which he had instructed the classes.

Sudden Death of a Middlesbrough Cyclist.

On Saturday morning a young man aged twenty-two died at a hotel at Great Ayton in Cleveland from syncope brought about by over-exertion and cold. He was taken ill the previous night after a ride of forty miles. Two local medical men were sent for, and remained with him all night until his death.

Mr. Page's case of pyloroplasty, or Mikulicz's operation, at the Royal Infirmary, which I noted in this letter on March 15th, has done well, and the man has gained two stones in weight.

Newcastle-on-Tyne, April 20th.

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SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Graduation Ceremony at Edinburgh.

ON Thursday of last week the spring graduation ceremony at Edinburgh University took place. Among those presented for the honorary degree of LL.D. was the Hon Sir Charles Tupper, of Nova Scotia, who is a Doctor of Medicine of Edinburgh of 1843. Several gentlemen received the degrees of M.B., C.M., and M.D., but most of those presented were graduates in Arts, Science, or Divinity. Professor Carystal, of the chair of Mathematics, delivered the address to the graduates, taking for his theme the changes in the Arts curriculum and the influence and aim of University education.

Inspection of Food in Edinburgh.

Two additional food inspectors for the city are to be appointed, and it is satisfactory to note that the Public Health Committee have decided that these new officials are to be qualified veterinary surgeons. The salary of each inspector is to begin at £125 per annum.

Victoria Infirmary, Glasgow.

This infirmary is certainly not falling behind in material prosperity. In addition to the various large sums which have recently been received by it, a sum of about £35,000 now reverts to it through the death of a lady, widow of the late Lieutenant-Colonel Sharp. The Victoria Infirmary is the youngest of such institutions in Glasgow, and though some of those most experienced in such matters had some misgivings as to the propriety of adding to the number of our medical charities, it seems clear from the support it has received, and the amount of work being done within its walls, that it justifies its claim to be recognised as one of the established and useful charities of the city. The new buildings in connexion with the infirmary are progressing satisfactorily. One of them, the Nurses' Home, in which the nursing staff will be lodged, is finished, and was opened to-day (April 19th) by Mr. and Mrs. Renny Watson, who had made a donation of the sum necessary to furnish the home in commemoration of their silver wedding. The other building, consisting of a new pavilion, which will double the accommodation within the infirmary, is also making progress, and should be ready for occupation early next year.

Health of the City of Aberdeen.

The following cases of zymotic diseases were notified to the medical officer of health last week: Measles, 1; scarlet fever, 6; diphtheria, 5; typhus fever, 3; whooping-cough, 39; erysipelas, 6—total 60, being a decrease of 24 as compared with the previous week. There were no cases of smallpox, typhoid fever, or puerperal fever. In his report for the month of March, Dr. Hay states that the total death-rate (23·71 per 1000 per annum) is somewhat higher than the preceding month, and is considerably higher than in March of last year. As regards the mortality at different periods of life, the death-rate among aged persons has been exceptionally high, amounting to an annual rate of nearly 11 per cent. The death-rates at the other age periods show no marked deviation from the normal. The mean age at death was higher than usual, being 39·7 years, as against 36·6 in the preceding month, and 35·3 in March of last year. Compared with the corresponding month in the previous ten years, the past month exhibits a total death-rate which is higher by 1·85 per 1000 than the average. Cases of typhus fever have shown a marked increase during the month, 16 as against 7 in February. Cases of typhoid fever numbered 20 (which is unusually large) during the past month, as against 11 in February. Diphtheria also showed an increase, 10 cases being reported, of which 8 terminated fatally. Erysipelas showed a distinct decline, and there were no cases of puerperal fever.

Resignation of Professor Ogston from the Staff of the Aberdeen Royal Infirmary.

The announcement on April 12th of the resignation of Professor Ogston came as a surprise to all. Universal regret is being expressed, and a hope that such a disaster to our medical school may be averted is entertained. A largely-attended meeting of medical men, representative of the city and county, was held on April 18th at the residence of Dr. Ogilvie Will, for the purpose of considering what steps should be taken to induce Professor Ogston to reconsider his determination to resign the office of surgeon to the Aberdeen Royal Infirmary. Dr. Ogilvie Will presided. The following resolution, proposed by the chairman, and seconded by Dr. Jackson, was unanimously carried:—"That this meeting regards Dr. Ogston's withdrawal from the staff of the Aberdeen Royal Infirmary as a serious and almost irreparable loss to the institution, to the University, and to the general community; and that it pledges itself to use every effort to induce Dr. Ogston to continue in the office which he has for so long conspicuously adorned."

Another resolution was proposed by Mr. Profeit, Balmoral, seconded by Dr. MacGregor, and unanimously agreed to:—"That a deputation from this meeting be appointed to wait on the directors of the Aberdeen Royal Infirmary for the purpose of urging on them the extreme advisability of their using every means in their power to retain Dr. Ogston's invaluable services for that institution." The deputation appointed consisted of Dr. Ogilvie Will, Dr. Jackson, Mr. Profeit, and Dr. MacGregor.

An enthusiastic mass meeting of students was held in Marischal College yesterday afternoon to consider what steps could be taken with regard to Dr. Ogston's resignation. A resolution was unanimously carried expressing deep regret at Dr. Ogston's resignation, recognition of his great eminence as a surgeon and invaluable service as a clinical teacher, and begging him to reconsider his decision. A deputation was appointed to lay this resolution before Dr. Ogston, and send a copy to the directors of the infirmary.

Summer Session at Marischal College.

The summer session commenced on April 18th. There was an average attendance of students. Those commencing their medical studies now enter under the new regulations, and, therefore, begin a curriculum of not less than five years.

April 19th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

The Abolition of the Office of Visiting Physicians to Irish Lunatic Asylums.

THIS rule, which has recently come into operation and has caused such an outcry, was suggested, it may be stated, in a report prepared by Sir Arthur Mitchell, Mr. Holmes, and Mr. F. F. MacCabe, three gentlemen thoroughly acquainted with lunacy administration and lunacy legislation. It has been alleged that by the new arrangement an inspection from outside the resident officials becomes impossible, and that there are no safeguards as regards the management of the insane, and no person holding a position independent of the administrative officials. Those who make these statements appear to forget what has already been pointed out—viz., that each lunatic asylum is visited by governors, inspectors of asylums, chaplains, and that information could, if necessary, in many instances, be obtained from patients discharged cured, or from their friends who had visited them. Besides this, the visiting physician is replaced by a resident, who can be responsible for the proper treatment of the insane during the absence of the medical superintendent on leave of absence, and that a consultant can be called in when so desired in any case requiring his services.

Adelaide Hospital, Dublin.

It is satisfactory to learn from the recent annual meeting that the hospital is at present in a very flourishing condition. Ten new beds have been added, and the institution has now 136 beds open for the reception of patients. It is contemplated to supply a long-felt want—namely, a convalescent home, where those who leave the hospital may for some short interval be cared for before their return to work. It is hoped that the home may be built before next winter. The hospital is an excellent one, thoroughly well managed, and the expenditure, some £6000 yearly, is well recouped by the immense good done to the suffering poor.

Systematic Lectures in Hospitals.

The medical board of St. Vincent's Hospital intend making an application to the Council of the College of Surgeons, requesting them to recognise the systematic courses of lectures in medicine and surgery which the medical staff propose to deliver. They consider that these

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lectures delivered in hospitals could be largely extended without any additional cost to the student. The term that no "additional cost" will be incurred is somewhat ambiguous. It may mean that the authorities of the hospital in question intend charging, in addition to the ordinary hospital fees, the sum of 6 guineas for lectures in medicine and surgery, the same as charged by the medical schools, or, happily for the student's pocket, they may remit this item altogether. The board are of opinion that a hospital is *primâ facie* the proper place to teach medicine and surgery, and state that, acting on this view, the Senate of the Edinburgh University have recently recommended to the General Medical Council that lectures in these subjects should be transferred from the medical schools to the hospitals. It is, however, very improbable that the Council of the College will see their way to grant the request of the memorialists in the matter, more particularly as it would sensibly decrease the income derived by the schools of surgery which are under the control of the College.

Kilkenny Lunatic Asylum.

A large number of the governors having resigned office in consequence of the Board of Control having purchased additional land for the use of the asylum contrary to their wishes, his Excellency the Lord-Lieutenant has forwarded a communication to these gentlemen through the Under Secretary, which has caused them to reconsider their determination, and they have accordingly resumed office. He points out that the responsibility for seeing that lunatic asylums are properly equipped in the matter of land has been cast upon the Board of Control, but he acknowledges that the law in this respect is capable of improvement, and states that the Government hope when an opportunity arrives to legislate on this and other points connected with lunacy administration.

Superannuation of Poor-law Medical Officers: Deputation to the Chief Secretary.

On Tuesday, the 19th inst., a deputation waited upon Mr. Jackson at Dublin Castle for the purpose of urging upon him the desirability of promoting a Bill in Parliament, in order to give poor-law officers superannuation amounting to two-thirds of their salaries and emoluments after thirty years' service. The deputation included representatives from the following corporations and associations—viz., Royal College of Physicians, Royal College of Surgeons, Irish Graduates' Association, Irish Medical Association, British Medical Association, and Poor-law Officers' Association. The proceedings were private—a matter to be noted, seeing that Mr. Jackson was not able to receive the deputation at first, and that it is generally believed that he is averse to the proposed Superannuation Bill. Silence under these circumstances cannot be regarded as a favourable omen, and I fear the chances of obtaining Government support in the passing of the proposed measure are very slight indeed.

The Belfast District Lunatic Asylum.

From the sixty-second annual report of the Belfast Asylum I learn that during 1891 there were 203 admissions, which, with those already under treatment, make a total of 856. There were 31 deaths and 154 discharges, leaving a total of 671. Of the 203 admitted, 163 were cases of first attack, and 40 had been treated in the Belfast or other asylums before. As there has been no decrease in the number of admissions as compared with former years, the asylum accommodation has been greatly strained to meet the exigencies of the treatment of those admitted. In their memorandum of inspection on October 12th, the two inspectors of lunatics (Dr. G. P. O'Farrell and Dr. E. M. Courtenay) say that no post-mortem examination has been held during the year; but they trust that with the proposed alterations and improvements a suitable pathological room will be fitted up, as in so great a centre of medical science as Belfast the asylum should not be behindhand in the means of scientific research connected with the study and pathology of diseases of the brain and nervous system. It has now been arranged, they say, to meet the overcrowded condition of the asylum, to build a new asylum in the county of Antrim, and the existing institution

suggestion of the inspectors of lunatics, have decided to erect a detached hospital to accommodate fifty patients.

Ballymena Union Hospital.

For the post of medical officer of the Ballymena Workhouse, vacant through Dr. Kidd's death, there was a very keen contest, and on the day of the election (April 13th) Mr. Davidson was appointed by one vote, 24 voting for him and 23 for his opponent.

Extraordinary Mode of Testing Rabies.

A few days ago a calf was bitten in Market-hill, Portadown. That it suffered from rabies was established in a primitive fashion as follows. A black hen was placed in front of the calf, and according to the local veterinary surgeon it was expected that if the calf were mad it would become excited and plunge at the hen. In this instance the calf did not in that fashion, and those who witnessed the test were satisfied of the existence of the disease. The veterinary inspector having examined the calf afterwards, and having by a different method diagnosed the presence of rabies, the animal was destroyed.

The Guinness Trust Committee have expended £6000 in the erection of tenements close to Thomas-street, Dublin. The first block has been open since New Year's Day, and the second was opened early last month.

Mr. F. Alcock Nixon, surgeon to Mercer's Hospital and Professor of Surgical Anatomy Schools of Surgery, is a candidate for a seat on the Council of the College of Surgeons at the annual elections in June next.

Mr. Donovan has been appointed medical officer of Edgeworthstown Dispensary.

Belfast, April 20th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Protective Power of the Bacillus of Avine Tuberculosis against the Human Micro-organism.

SOME months ago, when Koch's tuberculin was the principal topic of conversation, the medical press seemed to be absorbed in the study of new remedies levelled at the giant tuberculosis. The comparative silence on the subject which has reigned for some time might have led some people to believe that the disappointment experienced at that epoch had paralysed all fresh efforts in this direction. A communication just made to the Académie des Sciences by MM. Héricourt and Richet (the last-named *savant* is still spoken of as M. Charles Richet, to distinguish him from his celebrated father, now dead and gone) disproves this conclusion. A reference to some of my previous letters will remind your readers that these twin observers had—unsuccessfully, alas!—attempted to render monkeys refractory to the invasion of human tuberculosis by the previous inoculation of the bacillus derived from the bird. Seeing this, the two *savants* turned their attention to the dog, an animal which is almost refractory to bird-tuberculosis, but very susceptible to the human variety of the disease. Four dogs were inoculated with cultures of human tubercle. Of these animals, two had previously received an intra-venous injection of bird-tubercle. The result was that the two unprotected dogs died in twenty-two days, whilst the two other animals are now, 122 days after the experiment, alive and well. It is thus fair to assume that the presence of the avine variety of the bacillus is inimical to the growth and development of the human species of that micro-organism.

Transmission by Inoculation of Chorea from One Dog to Another.

At the last meeting of the Société de Biologie, M. Babet reported that M. Triboulet, one of his pupils, had succeeded in transmitting from a choreic dog the disease to a healthy animal. The proceeding adopted was the following:—Having collected some blood impregnated by a choreic dog, this was cultivated, and the fertile culture was inoculated into three other animals. [illegible] already under the influence [illegible] by chloral [illegible]

trophic troubles. The third, aged three years, inoculated six months ago, is still alive, and presents all the symptoms of saltatory chorea identical with those found in the animal to whom he owes the disease. In this third dog there have also developed trophic changes of the nails and the skin, and a general muscular atrophy. His general condition is extremely grave. In the course of the discussion M. Nocard emphasised the importance of the fact that the dog rendered artificially choreic was an adult, seeing that in the puppy trophic and atrophic troubles with choreic movements were not unfrequently observed in distemper. These results seem to contradict the mechanical embolic theory of Kirkes and Hughlings Jackson; but it is not improbable that they will both be in time explicable on the microbian theory.

The Blood corpuscles as a Source of Animal Heat.

We are taught in text-books of physiology that the muscular system, the glands and the brain, are, in their relative order of importance, the chief sources of animal heat. Too little account has perhaps been taken of the thermogenic *rôle* played by the blood corpuscles. M. Mosso of Turin has recently communicated to the Société de Biologie the results of some experiments which appear to him to prove that the coloured elements of the blood are not entirely inactive in the maintenance of the standard of bodily heat. This observer, having previously curarised a dog, practised artificial respiration with hydrogen gas, so as to deprive the blood of any trace of carbonic acid. Sensitive thermometers were then inserted, on the one hand into the carotid artery, and on the other into different viscera of the animal; and it was noticed that directly artificial respiration with ordinary atmospheric air was commenced the mercury of the instrument placed in the carotid suddenly rose, while the column in the other instrument remained stationary. I must leave it to the experts to appreciate at their proper value these experiments, which we owe to a veteran who has worked for many years at the problem of the vascular mechanism.

French Surgical Congress.

The sixth session of this Congress was inaugurated last Monday morning in the great amphitheatre of the Faculty of Medicine. The room was decorated with the flags of different nations, and the blending of the colours of France, Russia, England, and other countries, once more proved that medical science is oblivious of artificial distinctions that unfortunately play such a large part in affairs mundane. The opening meeting was presided over by Professor Demons of the Bordeaux Faculty, the other gentlemen on the platform being Professor Lannelongue (Vice-President), M. Pozzi, the indefatigable secretary, and M Picqué, his lieutenant. Several papers were read by MM. Boiffin of Nantes, Masse of Bordeaux, Charvot of Paris, Routier of Paris, Auffret of Brest, Gross of Nancy, Villar of Bordeaux, Moty of Paris, Mony and Calot, on various subjects of surgical interest. A very full programme has been drawn up for the whole of this week, and visits have been arranged for to the great hospitals of the metropolis, where operations by such authorities as Verneuil, Terrier, Reclus, Bouilly, Nicaise, Guyon, Péan, Lannelongue, Lucas-Championnière, and others, will be performed. To-morrow, at 4 P.M., a visit will be made to the Institut Pasteur, and on Sunday operations will be witnessed at the Veterinary School of Alfort.

The Medical Profession in Japan.

From statistics recently communicated to the Comité d'Hygiène Publique by Professor Proust, we learn that that go-ahead country Japan boasts 38,620 practitioners of medicine. This, with a population of 40,000,000, gives one professor of the healing art to 1035 inhabitants. Unfortunately, 29,105 of these gentlemen are not provided with a diploma, and of the others, many possess qualifications which would hardly command confidence in European countries.

Hydrophobia and Muzzling.

Acting in conformity with a resolution passed by the Sanitary Council of the Department of the Seine, the Prefect of Police "invites" all owners of dogs who indulge in a walk in the public streets with their pets to either lead them by a string or to muzzle them. All stray dogs are to be secured and conducted to the pound, like our dear old friend Mr. Pickwick, of convivial renown.

Paris, April 20th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Measles Bacillus.

DRS. CANON AND PIELICKE of the Moabit Hospital here have discovered in the blood of measles patients a bacillus which they regard as the germ of that disease. They made this bacillus visible by staining preparations of blood with a solution of eosine-methylene blue. No other solution proved efficacious. When treated with the said solution the bacillus appears blue. Sometimes all parts are equally stained, sometimes only the edges of the middle part, and often the middle part is paler than the ends. The diameter of the bacillus is about equal to that of a red blood-corpuscle—but often much smaller. The component parts are frequently oblong, so that the bacillus looks double, or as if severed in the middle. It is often slightly curved, especially in the blood of patients in whom the disease has run its course. The bacilli were generally arranged in groups of from eight to twenty. They were found to be present during the whole course of the disease, but were most numerous during defervescence. They were detected in the sputum also, and in the secretions of the pituitary mucous membrane and the conjunctiva. Drs. Canon and Pielicke inoculated drops of blood taken from measles patients on the usual nutritive media, and found that the bacilli in question developed only in bouillon. They declare that the bacilli differ essentially from the micro-organisms of measles hitherto described.

Scientific Congresses.

The German Public Health Society will hold its annual meeting from Sept. 8th to 11th at Würzburg, just before that of the naturalists and medical men, which will begin on Sept. 12th at Nuremberg. The management of business connected with the former of these two congresses is entrusted to Dr. Alexander Spiess of Frankfort-on-the-Main.

Tuberculin and Mallein as a Means of Diagnosis.

At the instance of the Government of Baden, numerous experiments have been made at Karlsruhe on cattle with a view of testing the diagnostic value of tuberculin. All the animals which reacted were slaughtered and found to be tuberculous, while those which did not react were also slaughtered and found to be free from tuberculosis. It appeared that a dose of at least four decigrammes was necessary in order to produce a reaction in diseased animals. Two Russian veterinary surgeons, Kalning of Riga (who fell a victim to his experiments), and Hallmann of Dorpat, have applied the principle on which tuberculin is produced, and obtained from cultivations of glanders bacilli a substance, called mallein, which produces a characteristic reaction in horses suffering from that disease but not in others.

Appointments &c.

Professor Rumpf of Marburg has been appointed to succeed Dr. Kast, now professor of clinical medicine at Breslau, as head of the Hamburg Infirmary. His scientific publications treat mostly of diseases of the nerves.

Professor von Hippel of Koenigsburg is reported to have accepted a call to succeed Graefe as Professor of Ophthalmology at Halle.

Dr. Theodor Schuchardt, the founder of a chemical factory of world-wide fame, died at Görlitz on the 15th inst.

At a recent meeting of the City Deputies Professor Virchow emphatically condemned the mixing of religious propagandism with sick nursing.

Berlin, April 18th.

NEW YORK.

(FROM OUR OWN CORRESPONDENT.)

An Exposition of Modern Methods of Nursing.

THERE is much interest in the movement to display an emergency ward at the Columbian Fair, illustrating all the novelties connected with the system of modern nursing. An organisation has been effected for that purpose among the women physicians and trained nurses of Chicago. The spirit of emulation is aroused by the statement that a leading feature of the exhibit to be made by the women of Great Britain would be a complete exposition of the methods

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of nursing employed in England, and which have attracted so much attention. It is suggested that the friendly rivalry thus created between foreign methods employed here would lead to important improvements in the service.

Failure to Pass the Army Medical Examining Board.

At a recent meeting of the examining board of the Medical Department of the army only two applicants passed successfully in a list of twenty-four. This examination is very severe and exacting, but the percentage of failures is very large.

The Pan-American Medical Congress.

The progress made by the projectors of this new organisation is very encouraging. Twenty-six nationalities are to unite in the incorporation which has been effected, and the officers have been elected and the regulations governing the body adopted. The president is Dr. William Pepper of Philadelphia. It is provided in the regulations, among other things, that the membership hereafter shall consist of such members of the medical profession of the western hemisphere, including the West Indies and Hawaii, as shall comply with the special regulations regarding registration—viz., the payment of 10 dols. for members residing in the United States, but no fee by foreign members. There is to be an executive committee, consisting of one member for each constituent country. There are to be twenty-one sections, covering every branch of medicine, surgery and obstetrics, and all the specialties. The languages of the Congress are to be Spanish, French, Portuguese, and English. The officers of each section are an honorary chairman, an executive chairman, who shall organise the work of the section and deliver an inaugural address, one English and one Spanish-speaking secretary, and one secretary resident in each additional constituent country of the Congress. The first meeting of the Congress is to be held in the City of Washington on Sept. 5th, 1893. The organisation is now complete in British North America, the British West Indies, the Spanish West Indies, Guatemala, Nicaragua, United States of Colombia, Brazil, Uruguay, Venezuela, and the Argentine.

The Death of Dr. D. Hayes Agnew.

Dr. Agnew had attained the age of seventy-four, but he was still very actively engaged in professional work. His reputation and his age placed him at the head of the profession in this country. His most important work was his treatise on surgery in three large volumes, which illustrated his immense capacity for work, and the range of his knowledge of surgery. By the public his name will always be identified with the case of President Garfield, the treatment of whose gunshot wound he largely conducted. He left a legacy of 50,000 dollars to the hospital of the University of Pennsylvania, and 1000 dollars to the College of Physicians of Philadelphia.

Consular Officers in Russia required to report the Existence of Typhus Fever in their Districts.

The danger of the importation of typhus fever from Russia is so serious that the State Department has issued a circular to American consular officers in that country requiring immediate reports on the prevalence of typhus fever in their consular districts. When there is urgency the report must be by cable. By this means our Government will be constantly advised of the sanitary condition of the emigrant ports of Russia and of the condition of the emigrants who embark for this country. The frequent occurrence of cases of small-pox on steamships from Liverpool is explained by the consul at that port to be due to the constant existence of this disease in that city. On March 5th there were twenty-nine cases under treatment in hospital. The consul also states that in several instances recently he has at the request of steamship companies appointed a physician to examine parties of Russian Jews migrating to the United States, and to have their baggage thoroughly fumigated.

Tuberculin a Test of Tuberculosis of Cattle.

In a herd of choice Jersey cattle kept near Philadelphia one cow died, and on examination she was found to have had tuberculosis. A veterinary surgeon examined the herd, but could detect no evidences of the disease in the other cattle. He, as an aid in diagnosis, he employed tuber-

care, many of the animals being imported. Every precaution had been taken to preserve the health of the stock and to increase their constitutional vigour. In-breeding has never been practised, and the greatest care had been taken to secure good ventilation, the choicest food, plenty of exercise, and pure water. Experts regularly examined the herd and everything pertaining to their health. In this instance the value of tuberculin in diagnosis seems to have been fully demonstrated. This experience has excited great interest among health officers, as it proves that there is a simple method of determining the condition of the herds which supply milk to cities. A question of importance has been raised in this connexion—viz., as to the danger of using the milk of healthy cows that have been inoculated with tuberculin. The best authorities do not regard the milk in such cases as in the least affected.

New York, April 11th.

Obituary.

DR. D. HAYES AGNEW.

By the death of Dr. Hayes Agnew, Philadelphia has lost its foremost surgeon, and a man whose sterling character commanded the respect of all who knew him. He was born in 1818, his father being a well-known physician. After a careful preparatory education he took his medical curriculum at the University of Pennsylvania, and first of all practised in the country. But he soon moved to Philadelphia, and quickly became famous as a teacher of anatomy, attracting large classes to his lectures and demonstrations. With his zeal in anatomy he combined a great interest in pathology and morbid anatomy, and he founded the Pathological Museum of the Philadelphia Hospital. At about this time also he started the Philadelphia School of Operative Surgery. This work brought him very prominently before the profession, and his promotion and success were now rapidly attained. In 1854 he was appointed surgeon to the Philadelphia Hospital, in 1863 he was elected surgeon to the Wills Ophthalmic Hospital, and Demonstrator of Anatomy and Assistant Lecturer on Clinical Surgery at the University of Pennsylvania. In 1865 he was appointed surgeon to the Pennsylvania Hospital and to the Orthopædic Hospital; five years later he was chosen Professor of Operative Surgery in the University of Pennsylvania, and in 1871 Professor of Surgery and Clinical Surgery in that institution and in the University Hospital. He retired from these public posts a few years ago, and latterly had largely withdrawn even from private practice.

Dr. Agnew's transparent honesty of character and unhesitating devotion to his profession won for him the admiration of all who knew him, and the students who attended his classes were his enthusiastic admirers. Dr. Agnew had a very accurate knowledge of human anatomy, which he took pains to keep up, and he combined with this a sound and wide knowledge of morbid anatomy. He was ambidexterous in a marked degree, and by long practice, as well as by natural gift, became a very skilful operator. Naturally, a man of such parts was greatly sought after, and it was generally felt when he was summoned to attend the late President Garfield in his dying illness that a proper selection had been made. He enjoyed the confidence of the profession and of the public in an equal degree. He was a great worker, and has left behind him a monument of industry and learning in the form of a System of Surgery in three very large volumes. A second edition of this work was rather quickly called for, and Dr. Agnew had the satisfaction of knowing that the results of many years of patient toil were highly appreciated by the profession. He has died at the ripe age of seventy-four, full of years and full of honour.

THE QUINTON MEMORIAL FUND. A meeting of the committee of this fund was held on [illegible] 14th ult. The finances showed a [illegible] Rs. 10,432 8 7 [illegible] Philadelphia Public [illegible] Medical [illegible] to the disposal of the [illegible] Quinton [illegible] the sum of [illegible] specific condition) to devote the [illegible] of a new ward for the Dufferin Hospital in [illegible]

Medical News.

EXAMINING BOARD IN ENGLAND BY THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.—The following gentlemen passed the Second Examination of the Board in subjects indicated at a recent meeting of the Examiners :—

Anatomy and Physiology.—Ernest Coleman, of Guy's Hospital; Wm. Hardcastle and Ernest H. Fricke, of Charing-cross Hospital; Francis J. Coutts, Alfred H. Gerrard, Thomas A. Starkey, and Joseph N. Brown, of University College; Nevill E. Thomas, of Middlesex Hospital; George G. Genge and Astley C. Swinhoe, of St. Thomas's Hospital; Thomas B. Bokenham and John S. Chater, of St. Bartholomew's Hospital; Harold S. Basden, of London Hospital; Oswin Shields, of St. Mary's Hospital; Victor J. Blake, of University College; David W. Wiseman, Charles W. Young, Walter E. Wyborn, and Edwin C. Montgomery, of Charing-cross Hospital; Garnet Soilleux, of Melbourne University; John Currie, G. A. Crace-Calvert, and Montague D. Eder, of St. Bartholomew's Hospital; Bertie J. Mayne, of Middlesex Hospital; Edward O. Thurston, of St. Thomas's Hospital; Graham N. Smith, Henry E. A. Horsford, and Paul C. E. Tribe, of King's College; Reginald L. Norman, of St. George's Hospital; E. H. Read, John A. Stainsby, and William Wilson, of London Hospital.

Anatomy only.—Lionel H. Y. Stephen and Edward Fisk, of Guy's Hospital; Algernon C. Bean, of University College; W. F. Adams, William P. Thomas, and John J. Spears, of London Hospital; Martin A. Cooke and Arthur H. Beadles, of St. Bartholomew's Hospital; Charles J. Barnes, of King's College and Mr. Cooke's School of Anatomy and Physiology; J. W. Stokes, of University College; John H. Wigham, of Yorkshire College, Leeds, and St. Mary's Hospital; Morris Wilks, of University College; William Gilbertson and Michael A. Teale, of St. Thomas's Hospital.

Physiology only.—Willie N. Barron, of St. Bartholomew's Hospital; Francis A. Phillips, of St. George's Hospital; Sylvestre A. Francisco, of King's College; Arthur R. S. Freeland and Geo. A. T. Hayden, of London Hospital; William C. F. Hayward, of Charing-cross Hospital; Arthur A. Lewins, of McGill College, Montreal, and Mr. Cooke's School of Anatomy and Physiology.

Sixteen candidates were referred in both subjects; four in Anatomy only and seventeen in Physiology only.

UNIVERSITY OF EDINBURGH.—At the graduation ceremonial held on April 14th at the University the following degrees were conferred :—

Doctor of Medicine.—John Ardern Ashcroft, England, M.B., C.M., 1885; Charles Henry Bedford, England, M.B., C.M., 1887, B.Sc.

Doctor of Science.—Charles Henry Bedford, M.D., B.Sc.

Bachelor of Medicine and Master in Surgery.—Charles Frier, Frederick William Mackay, Frederick Linney Pochin, and George Richard Wilson, England; Alexander John Mackintosh, Scotland; Alex. Orford Schorn, India.

Bachelor of Science.—Charles Templeman, M.D.

UNIVERSITY OF ST. ANDREWS.—The following gentlemen, having passed the required examinations, had the degree of Doctor of Medicine conferred upon them on April 14th :—

Ashworth, J. H., M.R.C.P. Edin., F.F.P.S. Glasg., L.S.A., Halstead.
Barber, Oliver, M.R.C.S., L.S.A. Lond., Sheffield.
Fleetwood, Wm. John, L.R.C.P., L.R.C.S. Irel., Aintree, Liverpool.
Hardwicke, William Wright, M.R.C.P., L.R.C.S. Edin., Dovercourt.
Hyde, Samuel, M.R.C.S., Buxton.
Jennings, Robert, M.R.C.S., L.R.C.P. Lond., Haslingden.
Langston, Thomas, M.R.C.S., L.R.C.P. Edin., L.S.A., London.
Lee, Edward Samuel, M.R.C.S., L.S.A., London.
Rigden, Walter, M.R.C.S., L.S.A., London.
Smailes, Thomas, M.R.C.S., L.R.C.P. Edin., Honley, Huddersfield.

At a Convocation held in Bishop Cosin's Hall, Durham, on March 15th, the following gentleman was admitted to the degree of M.D :—

Arthur Taylor Wear, M.R.C.S., L.R.C.P. Lond.

BARON HIRSCH (says *Truth*) has set an excellent example to wealthy sportsmen of all creeds and nationalities. He has decided to devote the whole of his turf winnings of last season, amounting in all to £7000, to hospitals and institutions of a kindred nature. The North-West London Hospital, Kentish Town, is to receive £1000, and University College, the London, and the West London Hospitals, and the Hospital for Sick Children, Great Ormond-street, will receive £700 each. Other institutions will benefit according to their needs and claims to support, without regard to religious or other distinctions.

FOOTBALL CASUALTIES.—In a match last week between the Keighley Shamrocks and Otley Shamrocks, at Highfield-lane, a player of the former team sustained a fracture of his left wrist. Whilst playing in a combination match on Wrexham racecourse, on Good Friday, a Gorton Villa forward was injured and removed to the Wrexham Infirmary, when it was found that he was suffering from concussion of the brain. During a game on Saturday at Handsworth, a young man, aged nineteen, received a blow in the abdomen and sustained "internal injuries." He was admitted to the General Hospital.

CENTENARIANS.—Thomas Jex, a master bricklayer, died at Wisbeach last week at the age of 104 years.—Mrs. Paulina Harris, who was born at Warsaw in 1790, died in Liverpool on the 10th inst. at the age of 102 years.

ROYAL INSTITUTION.—The Friday evening meetings will be resumed on April 29th, when Dr. Benjamin W. Richardson, F.R.S., will deliver a discourse on the Physiology of Dreams.

THE INFLUENZA EPIDEMIC.—Dr. W. J. Lush and Dr. J. P. Williams-Freeman, medical officers of the Andover Union, have each been voted a sum of £20 by the guardians, in addition to their salaries, as extra remuneration for the increase in their work resulting from the late epidemic of influenza.

NOTTINGHAM GENERAL HOSPITAL.—The annual report just issued for the past year shows that the daily average of patients in the wards was 144·4, which had exceeded that of any previous year since the hospital was founded; while it is satisfactory to notice that there was no proportionate increase in the domestic expenditure. Anæsthetics were administered in 515 cases. Through the convalescent fund thirty patients had been sent to convalescent homes. The adoption of a resolution two years ago that a delegate of the Hospital Saturday Committee should be selected to serve upon the board of management had been attended with very satisfactory results. The legacy of £500 bequeathed by the late Dr. Massey had been invested at his express desire. The hospital is indebted to the bankers in the sum of £979 2*s*.

THE ÆSCULAPIUS LODGE, No. 2410.—The last meeting of this Lodge for the present Masonic year took place at the Café Royal, Regent-street, on Wednesday, the 13th inst. The Lodge having been opened, Bros. Montague Cheale, Frank Reid, Edward Stock Bell, and Clifford Luxmore Drew, M.B., barrister-at-law, were admitted to the third degree by the W.M. Bro. J. Brindley James. Bro. C. Montague Simpson, M.R.C.S., having been duly balloted for, was elected a joining member. Bro. Deputy Inspector-General Belgrave Ninnis, M.D., R.N., was unanimously elected W.M. elect for the ensuing year. Bro. G. Danford Thomas was also unanimously elected treasurer. The Lodge, having enjoyed a most successful year, was closed until October. The brethren afterwards partook of a banquet, spending an enjoyable social evening which produced some capital vocal talent.

DIPHTHERIA IN BROUGHTY FERRY.—The Sanitary Committee of the Broughty Ferry Police Commission have resolved to cause a general inspection of the drainage of the burgh to be made, and have instructed the sanitary inspector, along with the medical officer and surveyor, to do so. In the course of their examination the officials have been instructed to devote particular attention to the drainage of the schools. After the inspection a report on the subject will be prepared and laid before the Board. The idea of providing a cottage hospital has also been mooted, and will probably form a matter for consideration—a site in the neighbourhood of Barnhill being mentioned as suitable. Several additional cases of diphtheria are reported; one of a rather serious nature has occurred in Brook-street. There have been occasional outbreaks of the disease in the burgh for the past twelve months, the first having been reported in March last year.

NATIONAL HEALTH SOCIETY.—The general meeting of this Society took place on the 11th inst. in the Committee-room, 53, Berners-street. The secretary's report, which was read and formally adopted, showed the important national character of the Society's work, and how greatly it had increased during the past year. Amongst the most important of the Society's work was that undertaken under the auspices of the County Councils in sending into the various counties of England competent teachers to deliver series of practical "homely talks" to the working classes on nursing, cookery, and health, seven different counties having applied for such teaching. The courses in almost every case comprise a tour of twelve weeks consecutively, with an average of ten lectures per week. The county lecturers have been trained principally by the Society. Amongst the lectures organised for the students' instruction a course on Sanitation was kindly given by Dr. Thorne Thorne, medical officer of the Local Government Board.

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GIFT TO DORSET COUNTY HOSPITAL.—Colonel Williams of Bridehead, near Dorchester, has presented £1000 to this institution in memory of his father, the late Mr. Robert Williams.

PRESENTATION.—Mr. Chas. Sims, L.D.S. R.C.S., on his retirement from the chair of Dental Surgery at Queen's College, Birmingham, has been presented with a gold watch by present and past students and his colleagues.

HER MAJESTY'S GOVERNMENT having increased to £60,000 the grant of £25,000 originally made for the purposes of the British Section at the Chicago Exhibition, the Royal Commission for that Exhibition is enabled to dispense with the revenue it was proposed to raise by charging the exhibitors in proportion to the extent of space occupied, and therefore all space in the British Section will now be granted free of charge.

METROPOLITAN OPEN SPACES.—At a recent meeting of the Metropolitan Public Gardens Association it was announced that a legacy of £100 had been left to the Association (the first legacy it had obtained during the nine years of its existence). With regard to the Hilly Fields scheme, S.E., negotiations were pending to add four acres of glebe land to the forty-one acres it was proposed to acquire. About £6000 were still required to make up the purchase money. Steps were to be taken to secure several other grounds for the public use. The Duke of Westminster has presented the Edgar Field, at Handbridge, Chester, for the recreation of the poor children of that suburb, together with £1000 for its endowment. The grounds were formally opened by the Mayor of the city on Monday last.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.
A Treatise on the Parasites and Parasitic Diseases of the Domesticated Animals. By L. G. Neumann. Translated and edited by George Fleming, C.B., LL.D., F.R.C.V.S. Illustrated. 1892. pp. 800. Price 25s.
Colotomy—Inguinal, Lumbar, and Transverse. By Herbert W. Allingham, F.R.C.S. 1892. pp. 199. Price 6s.
How to feel the Pulse, and what to feel in it. By Wm. Ewart, M.D. Cantab., F.R.C.P. Illustrated. 1892. pp. 112. Price 3s. 6d.
A Manual of the Dental Laboratory. By Charles Hunter. 1892. pp. 171. Price 5s.

BATSFORD, B. J., High Holborn, London.
House Drainage. A Handbook for Architects and Building Inspectors. By G. A. T. Middleton. Illustrated. 1892. pp. 63.

CORNISH BROTHERS, Birmingham; and SIMPKIN, MARSHALL, & Co., London.
The Future Water-supply of Birmingham. By Thomas Barclay. Second Edition. 1892. pp. 48. Price 1s. net.

CHURCHILL, J. & A., New Burlington-street, London.
Materia Medica, Pharmacy, Pharmacology, and Therapeutics. By W. Hale White, M.D., F.R.C.P. 1892. pp. 614. Price 7s. 6d.
The Diseases of the Nervous System. By J. A. Ormerod, M.A., M.D. Oxon. 1892. pp. 328. Price 8s. 6d.

DORNAN, W. J., Philadelphia.
Transactions of the American Surgical Association. Vol. IX. Edited by J. Ewing Mears, M.D. 1891. pp. 508.

GREVEL & Co., King-street, Covent-garden, London.
My Water-Cure, tested for more than thirty-five years. By Sebastian Kneipp. Translated from his Thirty-sixth German Edition. Illustrated. 1892. pp. 395.

HIRSCHWALD, AUGUST, Berlin.
Grundriss der Klinischen Diagnostik. Von Dr. G. Klemperer. Dritte vermehrte Auflage. 1892. pp. 226.
Anleitende Vorlesungen für den Operations: Cursus. Von Prof. E. von Bergmann und Dr. H. Bochs. Zweite erweiterte Auflage. 1892. pp. 256.

LAND ROLL OFFICE, Lincoln's-inn-fields, London.
Land; its Attractions and Riches. By Fifty-seven Writers. Edited by C. F. Dowsett, F.S.I. 1892. pp. 910. Price 27s. 6d.

LIPPINCOTT COMPANY, Philadelphia.
The Diseases of the Mouth in Children (non-surgical). By F. Forchheimer, M.D. 1892. pp. 129.
The Complete Medical Pocket Formulary and Physician's Vade-Mecum. By J. C. Wilson, A.M., M.D. 1892.

LONGMANS, GREEN, & Co., London.
Elements of Materia Medica and Therapeutics. By C. R. Armand Semple, M.R. Cantab., M.R.C.P. Lond. Illustrated. 1892. pp. 490. Price 10s. 6d.

NEW SYDENHAM SOCIETY, London.
Lectures on Bacteriology. By Dr. C. A. Mycdd. Translated from the [illegible] German Edition by Robt. Hannay, M.D. [illegible] Vol. II. [illegible]

RAITHBY, LAWRENCE, & Co., Ludgate-circus, London.
Obstetric Hints for the use of Midwives. By R. J. M. Collis, F.R.C.P. Edin. Second Edition. 1892. pp. 99.

RENSHAW, HENRY, 356, Strand, London.
Stray Notes on Hygiene and on Influenza. By a Member of the Old School of Medicine, M.D. Erlangen Univ. 1892. pp. 68. Price 1s.

SAUNDERS, W. B., Walnut-street, Philadelphia.
Essentials of Physics. Arranged in the form of Questions and Answers; prepared especially for Students of Medicine. By F. J. Brockway, M.D. Illustrated. 1892. pp. 330.
Essentials of Bacteriology. By M. V. Ball, M.D. Illustrated. 1891. pp. 159.
Essentials of Medical Electricity. By D. D. Stewart, M.D., and E. S. Lawrance, M.D. Illustrated. 1892. pp. 158.

SMITH, ELDER, & Co., Waterloo-place, London.
A Junior Course of Practical Zoology. By A. Milnes Marshall, M.D., D.Sc., M.A., F.R.S.; assisted by C. Herbert Hurst, Ph.D. Third Edition. 1892. pp. 478.

STANFORD, EDWD., Cockspur-street, Charing-cross, London.
Epidemics, Plagues, and Fevers; their Causes and Prevention. By the Hon. Rollo Russell. 1892. pp. 508.

THE F. A. DAVIS CO., Philadelphia and London.
The Mediterranean Shores of America, Southern California: its Climate, Physical and Meteorological Conditions. By P. C. Remondino, M.D. Illustrated. 1892. pp. 160. Price 6s. 6d.

THOM & CO., Dublin; and LONGMANS, GREEN, & CO., London.
Royal University of Ireland: Examination Papers, 1891. A Supplement to the University Calendar for the year 1892. pp. 118.

WHITTAKER & Co., White Hart-street, Paternoster-square, London.
The Drainage of Habitable Buildings. By W. Lee Beardmore. 1892. pp. 89.

Experimentelle und Pathologischanatomische Untersuchungen über Croup und Diphtherie; von Dr. K. Middeldorpf und Dr. E. E. Goldmann (Gustav Fischer, Jena, 1891).—Chirurgische Technik: Ergänzungsband zum Handbuch der Kriegschirurgischen Technik enthaltend die übrigen Operationen; von Dr. Fr. von Esmarch und Dr. E. Kowalzig (Dulau & Co., London, und Lipsius & Fischer, Kiel und Leipzig, 1892).—Handbuch der Physiologischen Optik; von H. von Helmholtz; sechste Lieferung (L. Voss, Hamburg und Leipzig, 1892).—Index Medicus: Authors and Subjects: Index to Vol. XIII.: January—December, 1891 (G. S. Davis, Boston, Mass.; and Kegan Paul, Trench, & Co., London).—Wie behütet man seine Kinder vor Tüberkulosen Drüsen- und Gelenkerkrankungen, vor Diphtherie und Gliederverkrümmungen? Was kann man gegen die Entstehung der Blutvergiftung, des Krebses und der Unterleibsbrüche thun? Von Dr. Karl Roser (J. F. Bergmann, Wiesbaden, 1892).—Anglais et Nihilistes Alliés. Révélations dédiées à la Jeunesse Russe; par P. Denisow (Imprimerie Indépendante, Génève, 1892).—The Nursing Directory for 1892; first annual issue ("Record" Press, Limited, Strand, London); price 5s.—Annales de Gynécologie et d'Obstétrique; Tome XXXVII., Avril, 1892 (G. Steinheil, Paris).—Archives of Pediatrics; edited by W. P. Watson, A.M., M.D.; Vol. IX., April, 1892 (Fairchild and Company, New York; and H. K. Lewis, London).—Archives of Surgery; Vol. III., No. 12, April, 1892 (J. & A. Churchill, London); price 2s. 6d.—Revue des Sciences Médicales en France et à l'Étranger; No. 78, Avril, 1892 (G. Masson, Paris).—Two Cases of Hernia, both treated by Laparotomy; by W. W. Keen, M.D., Jefferson Medical College, Philadelphia (reprint from the International Medical Magazine, February, 1892).—Nephrotomy for Calculus Pyelitis; by W. W. Keen, M.D., and D. D. Stewart, M.D. (G. S. Davis, Detroit, Mich., 1892).—Amputation at the Hip-Joint by Wyeth's method, the patient being five months pregnant; by W. W. Keen, M.D. (Lea Brothers & Co., Philadelphia, 1892).—Brain; by A. de Watteville; Part LVII., Spring Number, 1892 (Macmillan & Co., London); price 3s. 6d.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BAIN, JAMES G., M.B., C.M., has been appointed House Surgeon to the Taunton and Somerset Hospital, vice B. W. Housman, resigned.
BARRS, A. G., M.D. Edin., M.R.C.P. Lond., has been appointed Physician to the General Infirmary at Leeds.
BROWN, O. P., M.R.C.S., has been reappointed Medical Officer of Health for the Knighton Sanitary District of the Knighton Union.
CANT, WM. JOHN, M.R.C.S., L.R.C.P., L.S.A., has been appointed Honorary Consulting Surgeon to the Lincoln General Dispensary.
COTTERELL, EDWARD, L.R.C.P. Lond., M.R.C.S., has been appointed Surgeon to the Out-patients, London Lock Hospital.
CLEMONS, GEORGE E., M.B., C.M. Edin., has been appointed House-Surgeon to the Infirmary for Children, Liverpool.
DAVIES, SIDNEY, M.D. Oxon, M.R.C.S., has been reappointed Medical Officer of Health for Plumstead, Kent.
DRANE, E., L.R.C.P. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Blakeney Sanitary District of the Towcester Union.
DONOVAN, P. H., M.B., B.Ch. Irel., has been appointed Medical Officer for the Dispensary District of Edgeworthstown and [illegible], Longford.
GIBSON, C. G., M.B., C.M. Edin., has been appointed Medical Officer of Health for the Rural Sanitary District of [illegible], vice Lunn, resigned.
GIBSON, JAMES, M.B., C.M., L.F.P.S. Glasg., has been appointed Medical Officer of Health for the [illegible] Cornwall Hospital, Penzance.

HARPER, H. C., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Stow Rural Sanitary District of the Stow Union, vice Smith.

HERSCHELL, GEORGE, M.D. Lond., M.R.C.S., has been appointed Physician to the National Hospital for Diseases of the Heart, Soho-square, London.

JACOB, ERNEST H., M.A., M.D. Oxon., has been appointed Physician to the General Infirmary at Leeds.

JOHNSTON, J. MCC., M.B., C.M. Glasg., has been appointed Medical Officer by the City of Glasgow Parochial Board.

LANE, J. ERNEST, F.R.C.S., has been appointed Surgeon to the In-patients, London Lock Hospital.

LAZENBY, F. H., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Sanitary District of the Clitheroe Union.

MARSH, F., F.R.C.S., has been appointed Assistant Surgeon to the Birmingham and Midland Ear and Throat Hospital.

MASON, GEORGE A., M.A., M.B., B.C. Cantab., has been appointed House Physician to the City of London Hospital for Diseases of the Chest, Victoria-park.

MORT, HERBERT BROWNLOW, L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Physician to the Governesses' Home, Southport, vice Wm. Mort, M.D., resigned.

MULVANY, JOHN, M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Cottage Hospital, Walsall, vice Kenneth W. Poole, resigned.

NETTLE, WM., M.R.C.S., has been appointed Medical Officer of Health for the Liskeard Urban Sanitary District of the Liskeard Union, vice Hingston, resigned.

RUDD, C. F., M.R.C.S., has been appointed Medical Officer for the Teignmouth Sanitary District of the Newton Abbott Union.

SAMUELSON, GERALD S., M.B. Edin., has been appointed Medical Officer to the Gundagai District Hospital, N.S.W.

SHARP, P., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Broughton Sanitary District of the Newark Union.

SMYTH, R. V. B., M.D. Dub., B.Ch., L.M.R.C.P. Irel., has been appointed Medical Officer for the South Mims Court Cecil, Marquis of Salisbury, A.O.F.

STREATFIELD, PERCY WM., L.R.C.P. Lond., M.R.C.S.E., has been appointed Medical Officer for the Sixth District, and Public Vaccinator for the Sixth and Seventh Districts of the Tunbridge Union.

WARNER, E. H., M.D., C.M. Edin., has been appointed Medical Officer for the St. Philip's South Sanitary District of the Barton Regis Union,

WILLIAMSON, CHAS. F., M.R.C.S., L.R.C.P. Lond., L.S.A., has been appointed Medical Officer and Public Vaccinator for the Third District of the Reigate Union, vice Jas. W. G. Farwell, deceased.

YUILL, JOHN L., M.B., C.M. Glasg., has been appointed House Surgeon to the Monkwearmouth and Southwick Hospital, Sunderland.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ALTON UNION.—Medical Officer and Public Vaccinator. Salary as Medical Officer £110 per annum, with the usual extra fees. The Public Vaccinator is paid by fees of 2s. for each case at his residence, and 3s. for each case at the out stations. (Apply to Mr. M. H. Moss, Alton, Hants).

BOOTLE BOROUGH HOSPITAL, Bootle, near Liverpool.—Assistant House Surgeon and Dispenser. Salary £40 per annum, with board, lodging, and washing.

BOROUGH OF LEICESTER.—Medical Officer of Health for the Borough. Total salary £500 per annum (£400 as Medical Officer of Health and Superintendent of Fever Hospital, and £100 as Public Analyst). (Apply to the Town Clerk, Town Hall, Leicester.)

BRIGHTON THROAT AND EAR HOSPITAL, 23, Queen's-road, Brighton.—Non-Resident House Surgeon. Salary at the rate of £50 per annum.

CHARING-CROSS HOSPITAL, London.—Surgical Registrar. Salary £40 per annum.

CHARING-CROSS HOSPITAL MEDICAL SCHOOL.—Lecturer on Biology.

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY.—Junior House Surgeon. Honorarium £25 per annum, with board, lodging, and washing.

GENERAL HOSPITAL, BIRMINGHAM.—Honorary Physician.

GENERAL HOSPITAL, Nottingham.—Assistant House Physician for six months. Board, lodging, and washing in the hospital provided.

HOLBEACH UNION.—Medical Officer for Tydd Medical District. Salary £21 per annum, and fees for surgical and midwifery operations.

HOLLOWAY AND NORTH ISLINGTON DISPENSARY.—Resident Medical Officer. Salary commencing at £120 per annum, with unfurnished house, gas, and coals. £20 allowed for servant. (Address Honorary Secretary, 68, Aldermanbury, E.C.)

KING'S COLLEGE, London.—Curator of the Museum.

LIVERPOOL DISPENSARIES.—Assistant Surgeon. Salary £80 per annum, with board and residence. (Apply to the Secretary, Leith Offices, 34, Moorfields, Liverpool.)

MAIDA VALE AND ST. JOHN'S WOOD DISPENSARY.—Vacancy in the Honorary Medical Staff.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT.—Resident Medical Officer, at Bowden, Cheshire. Salary £80 per annum, with board, apartments, and washing.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Resident Medical Officer for six months. Salary £50.

NORTH-WEST LONDON HOSPITAL, Kentish Town-road.—Assistant Resident Medical Officer for six months.

PARISH OF ST. MARY, ISLINGTON.—Medical Officer for the Third (A) District. Salary £85 per annum, with such extra medical fees as defined by the Orders of the Local Government Board. (Apply to the Clerk, Guardians' Offices, St. John's-road, Upper Holloway, N.)

PLYMOUTH BOROUGH ASYLUM, Blackadon, Ivybridge, Devon.—Assistant Medical Officer. Salary £125 per annum, with quarters, board, and washing.

ROTHERHAM HOSPITAL.—Assistant House Surgeon for six months. Rooms, commons (exclusive of alcoholic drinks), and washing will be provided in the hospital in lieu of salary.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester-square, W.C.—Honorary Assistant Medical Officer for Casualty work to the Convalescent Branch, "Bellgarth," Temple Fortune, Finchley-road, N.W.

SUSSEX COUNTY HOSPITAL, Brighton.—Assistant House Surgeon. Salary not exceeding £30 per annum, and board and residence in the hospital.

WEST NORFOLK AND LYNN HOSPITAL, King's Lynn.—House Surgeon and Secretary. Salary £80 per annum, rising to £100. Board, lodging, and washing in the hospital.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Senior House Surgeon. Salary £70 per annum, with board and apartments.

Births, Marriages, and Deaths.

BIRTHS.

BARCROFT.—On April 15th, at Amesbury, Wilts, the wife of Penrose John Barcroft, F.R.C.S.I., of a son.

BLOOD.—On April 11th, at Devonshire-road, Birkenhead, the wife of Surgeon-Major J. Blood, Bengal Medical Service (half-pay), of a daughter.

BRADSHAW.—On April 15th, at Clarence House, Everton-road, Liverpool, the wife of J. C. Bradshaw, L.R.C.P., &c., of a daughter.

BUNTING.—On April 12th, at Edensor, Southsea, the wife of R. O. Bunting, Surgeon and L.D.S., of a daughter (Dorothy Elsie).

GODDARD.—On April 7th, at Wembley, Harrow, the wife of Charles E. Goddard, L.R.C.P. Lond., M.R.C.S., of a daughter.

HARDYMAN.—On April 18th, at 43, Great Pulteney-street, Bath, the wife of George Hardyman, M.B., of a daughter.

MORTIMER.—On April 18th, at Horley, Surrey, the wife of J. D. Mortimer, M.B., F.R.C.S., of a daughter.

RELTON.—On April 15th, at Rugby, the wife of Bernard Relton, M.R.C.S., of a son.

VERNON.—On April 15th, at Drayton, Christchurch-road, Boscombe, Bournemouth, the wife of A. Heygate Vernon, F.R.C.S., of a son.

WELSH.—On April 17th, at Biggleswade, Beds., the wife of Dr. R. C. Welsh, of a daughter.

WHITCOMBE.—On April 8th, at Westerham, Kent, the wife of C. H. Whitcombe, F.R.C.S. Ed., of a daughter.

WILSON.—On April 12th, at Sparrows Herne, Bushey, Herts, the wife of Daniel Wilson, M.D., of a daughter.

MARRIAGES.

ABBOTT—ROBINSON.—On April 14th, at Bedford Chapel, Bloomsbury, W.C., by the Rev. S. A. Brooke, M.A., George Abbott, M.R.C.S., of the Pantiles, Tunbridge Wells, and 17, Upper Wimpole street, W., to Edith, eldest daughter of H. P. Robinson, Winwood, Tunbridge Wells.

BRIGGS—HALL.—On April 20th, at Prescot Parish Church, by the Rev. Harry Mitchell, Vicar, Henry Briggs, M.B., F.R.C.S. Eng., of 3, Rodney-street, Liverpool, to Annie Rosalie, eldest daughter of Egerton Francis Hall, M.D., The Ash Trees, Prescot.

BUTLER—TAYLOR.—On April 6th, at the Congregational Church, Peterhead, N.B., William Butler, M.B., C.M., Harlesden, London, to Isobel Anne, youngest daughter of W. L. Taylor.

GLASSINGTON—THOMAS.—On April 18th, at Holy Trinity, Brompton, Chas. W. Glassington, M.R.C.S., L.D.S., to Louisa Anna Catharina Thomas, elder daughter of the late Frederick Thomas, of Brompton-road.

KEAY—JOHNSTON.—On April 19th, at St. Thomas's Church, Stockport, John Keay, of Heaton Norris, Surgeon, to Edith, only daughter of John Watkins Johnston, of Stockport, Solicitor.

JOHNSTONE—FLEMING.—On April 6th, at Holy Trinity Church, Edinburgh, John Carlyle Johnstone, M.D., Melrose, to Catherine Annie, youngest daughter of Andrew Fleming, M.D., Deputy-Surgeon-General, Retired List, H.M. Indian Army (Bengal).

JOHNSTONE—HUDSON.—On April 18th, at the Church of St. Mary Abbot, Kensington, James Johnstone, B.A., M.B., C.M., F.R.C.S., son of the late Rev. Wm. Johnstone, M.A., Port Chalmers, New Zealand, to Rose Ethel, youngest daughter of W. L. Hudson, Esq., late of Manchester.

PARSONS—ALLAN.—On April 19th, at St. James's, Weybridge, Surrey, Dr. Frederic William Parsons, of Wimbledon, to Mary, fourth daughter of the late J. B. Allan, of Eddlewood, Weybridge.

RUSSELL—THORNBURY.—On April 19th, at Saint Jude's, Gray's-inn-road, by the Rev. W. D. Fanshawe, Vicar, William Fox Russell, M.B. &c., Holyhead, second son of John Russell, J.P., Glenview, co. Limerick, to Ethel Maria Thornbury, elder daughter of the late W. H. Thornbury, Natal, and granddaughter of the late Colonel Thornbury and Henry Collins, St. Bees.

DEATHS.

DODD.—On April 12th, at Westbourne-terrace-road, John Dodd, Esq., M.R.C.S., formerly of Portman-street, Portman-square, in his 89th year.

DUNN.—On April 17th, at the Torrs, Crich, Derbyshire, Christopher Blencowe Noble Dunn, M.R.C.S. Eng., eldest son of the Rev. Christopher Blencowe Dunn, of Howden, Yorkshire. Born August 23rd, 1836. Died April 13th (Easter Day), 1892.

WALKER.—On April 14th, at Spondon, near Derby, Benjamin Walker, L.R.C.P. Edin., M.R.C.S. Eng., L.S.A., aged 48 years.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, April 25.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. J. Kent Spender (Bath): The Rarer Complications of Rheumatoid Arthritis.—Sir Dyce Duckworth: Infective Endocarditis of the Right Side of the Heart.

Tuesday, April 26.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor Bonney: The Sculpturing of Britain—its Later Stages. (The Tyndall Lectures.)

ROYAL STATISTICAL SOCIETY (Lecture Theatre, Museum of Practical Geology, 28, Jermyn-st., S.W.).—7.45 P.M. Mr. R. Henry Rew: An Inquiry into the Statistics of the Production and Consumption of Milk and Milk Products in Great Britain.

SOCIETY OF ARTS.—8 P.M. Sir Edward Braddon: Australasia—its Progress and Resources.

Wednesday, April 27.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

HUNTERIAN SOCIETY (London Institution).—8.30 P.M. Mr. Hope Grant (with Dr. Snell) will show a case of Hydatid Membranes passed by Urethra and Rectum from Spleen after Fifteen Years.—Mr. H. W. Denton Cardew: On the Electrical Treatment of Graves's Disease.—Mr. W. Jang: On the Treatment of some of the External Diseases of the Eye.

SOCIETY OF ARTS.—8 P.M. Professor Robert Wallace: Egyptian Agriculture.

Thursday, April 28.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar: The Chemistry of Gases.

SOCIETY OF ARTS.—4.30 P.M. Sir William Wedderburn: Reorganisation of Agricultural Credit in India.

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square).—8.30 P.M. Mr. John W. Taylor (Birmingham): Some cases of Ectopic Gestation.—Mr. Berryman Jessett: Kyphotomy in a Woman with One Kidney

Friday, April 29.

[illegible] Hospital.—Operations, 2 P.M.

[illegible] P.M. Sir [illegible]: The Physiology

METEOROLOGICAL READINGS

(Taken daily at 8.30 a.m. by Negretti's Instruments)

THE LANCET Office, [illegible]

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp.	Rain.	Nature of Weather.
Apr. 15	29·79	W.	85	84	88	59	39		[illegible]
,, 16	29·51	E.	87	86	66	45	31	[illegible]	[illegible]
,, 17	29·78	N.E.	43	39	75	47	32		[illegible]
,, 18	30·03	N.E.	39	36	87	52	34	[illegible]	[illegible]
,, 19	30·35	N.E.	40	38	82	53	35	[illegible]	[illegible]
,, 20	30·38	S.W.	46	43	80	53	30	..	Cloudy
,, 21	30·12	S.W.	53	52	95	62	45	[illegible]	[illegible]

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

ADVERTISING PRACTITIONERS.

WE direct the attention of the profession to the following advertisements, not that they may be imitated. They occur in an advertising sheet of Huddersfield, and they candidly appeal to the public as the other advertisers do. It is discouraging to see graduates of universities using such methods.

"*Notice.*—Dr. Milligan begs to intimate to his patients that Dr. James Laird has succeeded him in his Surgery at 29, St. Peter's-street. In future Dr. Milligan's hours for consultation at South Parade (Surgery Entrance, corner Manchester-road) will be—Morning 9–9.45; Afternoon 2.30–3.30; Evening 6–8."

"*Notice.*—Dr. J. Laird wishes to inform the public of Huddersfield and District that he has succeeded to the practice till lately carried on by Dr. Milligan, at 29, St. Peter's-st. Dr. Laird's consultation hours will be—Morning 10–11; Evening 6–8; Sunday Evening 8–9. Dr. Milligan carries on his practice as usual at South Parade."

Mr. G. M. Polsue.—The important case referred to by our correspondent has already been noticed in our columns.

MEDICAL PRACTICE IN SOUTH CALIFORNIA.

To the Editors of THE LANCET.

SIRS,—Can you favour me with your advice as to how to get information regarding medical practice in South California? I am a young graduate, and I desire to make my home there in some growing health resort in a good farming part of the State. Where is suitable information regarding prospects, suitable openings, etc., to be obtained?

I remain, Sirs, yours faithfully,

[illegible]

April 19th, 1892.

A PIN SWALLOWED AND DISCHARGED BY [illegible]

DR. BOJANOWSKI mentions in a [illegible] the case of a little boy of between three and four years of age [illegible] pin, and for nearly half a year [illegible] extremities and [illegible] in time, however, he suffered [illegible]

INFLAMMABLE TONGUE DEPRESSORS.

WE learn from a correspondent that the proprietors of a certain beef essence are distributing gratis among the profession, as an advertisement, tongue depressors having the appearance of ivory, with the name of their preparation stamped on the handle. This instrument consists of the same material as the "inflammable buttons" lately referred to in THE LANCET, and might prove a dangerous aid to operation, especially in applying the actual or galvanic cautery to the throat or mouth. When touched with a glowing coal it instantly ignites and burns with a fierce flame leaving almost no ash.

Alpha.—The answer to the first question is in the negative. Answers to the various questions regarding the incidence of postage under the Infectious Diseases (Notification) Act appeared in THE LANCET of March 26th, page 713.

SCHOOL INFIRMARIES AND SANATORIA.

To the Editors of THE LANCET.

SIRS,—Can you tell me whether, as regards public schools, there is any fixed percentage of room for sick boys as compared with the total number of scholars? In some schools of which I am medical officer there are 100 boys, and only room for ten when ill. Fever or diphtheria cases are at once removed to the London Fever Hospital. My contention is that it is not enough. With an outbreak of measles, for instance, out of 100 boys there would surely be more than ten ill at once. The sick rooms are not detached from the main building. Do you think the amount of room is sufficient? Or, rather, ought there not to be accommodation for at least twenty boys? There are also four masters living on the premises, and one or more of these might be ill. I should very much like to know whether there is any customary amount of accommodation for the sick.—I am, Sirs, yours truly,

April 13th, 1892. W. G. G.

*** Our correspondent should obtain a copy of the pamphlet entitled "The Construction and Maintenance of School Infirmaries and Sanatoria," edited by Dr. Sheely and Dr. H. Alder-Smith, and published by Messrs. Churchill. The pamphlet is prepared by the Council of the Medical Officers of Schools Association. For the information of those of our readers who may be situated similarly to our correspondent we may add that the accommodation would be influenced by the ages and social status of the boys and other considerations. According to the pamphlet, 20 per cent. of accommodation ought to be provided for infectious diseases; but if that were done in large schools the sanatorium would in some cases be half as large as the school itself, which would be too costly. In the case of a large outbreak of measles or of influenza extra wards must be used. If fifty or sixty cases occurred in a large school, the spread of the epidemic could not be prevented, and hence ordinary wards could be utilised, or even a large iron building for an emergency. In a school of 100 boys there ought to be five beds at least for ordinary cases, and ten in a sanatorium, with another ten elsewhere in case of need. This is all that would be required for scarlet fever &c.; for if ten cases were to occur the school ought to be broken up. But in the case of measles twenty or thirty cases might be provided for. If masters have to be treated in the sanatorium, then more room would be required.—ED. L.

ARE THE PRESENT ROAD-LEVEL SEWER VENTILATORS EFFECTUAL?

To the Editors of THE LANCET.

SIRS,—I have before now gone into the question as to whether road-level ventilators are conducive to the public health; but there is another point of certainly equal importance which requires consideration, and that is as to their efficiency. Now, if anyone will take the trouble to inspect a series of these in any thoroughfare where there is a heavy vehicular traffic, he will find the greater part of the gratings completely filled with mud, and under these circumstances they can scarcely be said to be effectual in their operation. I would therefore say that both in point of safety and efficiency we have not yet arrived at the best method of ventilating our main sewers.

I am, Sirs, your obedient servant,

Surbiton, April, 1892. F. P. ATKINSON.

MADAME HENRI GREVILLE AND M. PASTEUR.

MADAME GREVILLE is well known not only as one of the most brilliant of French novelists, but also as an acute observer of the manners and customs of the people among whom she has journeyed and sojourned. M. Pasteur has in a letter given public expression to his indebtedness to her for her description of the *modus operandi* of the Muscovites in cases of hydrophobia. She had watched their treatment of such cases—immersion of the patient in a vapour bath raised to the highest possible temperature. The success of this seemingly desperate remedy was such as to cause her to bring it under the notice of M Pasteur long before he entered on his special studies in hydrophobia—studies in which Madame Greville's experiences, as he acknowledges, quickened his interest.

FRENCH PRISONS AND THEIR SANITATION.

DOCUMENTS lately made *publici juris* give a sombre picture of life in the prisons—especially the Parisian prisons—of France. It is only of late years that these institutions have been specially built for their purpose, the general rule having been to "adapt" some old edifice—sometimes a convent, sometimes an almshouse—for the reception of convicts. Take, for instance, the St. Pélagie, next to the Conciergerie the oldest prison in Paris. A convent in 1665, it was long a debtor's prison, and is now used as a penitentiary for those whose detention does not exceed twelve months. The besetting fault of French prisons—overcrowding—is seen at its worst in such a building, constructed on seventeenth-century lines, in defiance of what is now known as hygienic science, and, as a result, saturated to its very basement with fever germs. Disinfection, practised from time to time, remains powerless to reduce the prevalence of typhoid fever within its walls, no other prison in France—a large order!—contributing more inmates to the infirmary. Its 700 prisoners are distributed over eighty cells, from five to ten beds being the average in each dormitory. The young and comparatively innocent convict is thrown into closest contact with the inveterate jail-bird, by whom he is initiated in crime, and comes out an accomplished thief or burglar—a fact which explains the appalling return showing that, in 1889, out of 20,000 malefactors more than 16,000 were below twenty years of age. The solitary confinement practised in the great model prison of Paris, the Mazas, has been followed by evils which, in the case of a mercurial people like the French, are so pronounced as to engage the serious consideration of prison reformers. So terrible is the seclusion, so hopeless all chance of escape, that, rather than get committed to the Mazas, the French criminal classes endeavour, by aggravation of their offences, to incur the nominally more severe, but in their eyes more tolerable, punishment of transportation to New Caledonia, with its open-air life and its companionship, to say nothing of the possibility of giving the warders the slip. Detention in the Mazas is sooner or later followed by suicide among a vast proportion of its inmates, insomuch that one entire section of it is specially organised for those whose proclivities to self-murder are suspected. The Dépôt de Mendicité at St. Denis was lately destroyed, not a moment too soon, and replaced by another building less in the nature of a fever preserve. For forty-seven years the Dépôt had existed over a sewer of the old-fashioned type, which exhaled its effluvia among the overcrowded inmates.

L.S.A. Lond. & Dub. will see that we have not overlooked the question which he raises.

SPRAY PRODUCERS WITH CHECK ACTION.

To the Editors of THE LANCET.

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I am, Sirs, yours faithfully,

April 14th, 1892. POTESTAS.

TAXATION OF GAMBLING.

THE authorities of Paris, according to the *St. James's Gazette*, unable to prevent gambling, have hit on the plan of taxing gaming stakes for the benefit of the Assistance Publique. The result is that a considerable sum has just been applied to the purpose of constructing a new consumption hospital, and a further amount partly to like institutions, and partly to the furtherance of the revaccination campaign under the auspices of the Paris Academy of Medicine.

Viator.—It is both customary and reasonable to make an extra charge when more than one member of a family is seen.

"MICROSCOPICAL WORK."

WE have received several communications from gentlemen offering their services in the direction indicated by "M.R.C.S." in his letter of last week, under the above heading. It is obvious that we cannot publish them, as they would necessarily savour of the nature of advertisements. Perhaps our correspondent will furnish us with an address at which these gentlemen may communicate with him.

Anxious.—We must refer our correspondent to the Students' Number of THE LANCET, published on Sept. 6th last.

SURGEON-CAPTAIN G. E. HALE, D.S.O.

THE name of the officer of the Medical Staff on whom the Distinguished Service Order has been conferred for his gallant services in the field operations in Burmah is Surgeon-Captain G. E. *Hale* (not "Hare," as was erroneously printed in our annotation last week).

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COMMUNICATIONS not noticed in our present issue will receive attention in our next.

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NEWSPAPERS. — *Melbourne Argus, Cape Times, Observer (Adelaide), Glasgow Herald, Scotsman, Eastern Daily Press, Yorkshire Post, Hampstead Advertiser, Herts Observer, Norfolk Daily Standard, Scottish Leader, Surrey Advertiser, Birmingham Gazette, Guy's Hospital Gazette, Law Journal, Reading Mercury, Mansfield and North Notts Advertiser, Insurance Record, Mining Journal, Sanitary Record, Hertfordshire Mercury, Windsor and Eton Gazette, Weekly Free Press and Aberdeen Herald, Local Government Chronicle, West Middlesex Advertiser, Windsor and Eton Express, Times of India, Pioneer Mail, Local Government Journal, North Star, Electrical Review, City Press, New Zealand Mail, North China Daily News, Irish Times, Blackburn Standard, Dartmouth Chronicle, Hertfordshire Express, Manchester Examiner, Citizen, North Wales Chronicle, Tasmanian Mail, Sussex News, Newcastle Daily Journal, Llandudno Advertiser, Bath Herald, Australian, Le Temps (Paris), Huddersfield Chronicle, Wrexham Advertiser, Radical Review, South Wales Daily News, Bournemouth Visitors' Directory, Liverpool Mercury, Nursing Record, Liverpool Courier, &c.*, have been received.

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Lumleian Lectures

ON

CERTAIN POINTS IN THE ETIOLOGY OF DISEASE.

Delivered at the Royal College of Physicians on March 31st and April 5th and 7th, 1892,

BY P. H. PYE-SMITH, M.D., F.R.S.

LECTURE III.

MR. PRESIDENT AND GENTLEMEN,—We have now passed in review the general causes of disease—or, to use a term more consonant with our imperfect knowledge, the conditions under which diseases arise,—external and internal, exciting and predisposing, natural and accidental. I had prepared a series of notes on the etiology of the more important diseases, to serve partly as examples of the application of the etiological rules before discussed, partly as instances on an induction from which those rules have been, or may be, established. But the time which remains at my disposal is far too short for so extended a survey, and the data are at present too few and too unconnected to be otherwise than dry and tedious. I will, therefore, with your permission, occupy the present lecture with a particular consideration of a few only of the diseases most important and interesting from an etiological point of view. We will begin with a group of diseases of the nervous system, which includes one of the most common and obscure in its origin—chorea.

Spasmodic neuroses in general.—The etiology of the vast, and still in many places obscure, domain of diseases of the nervous system is at present an almost unexplored path. Even organic affections of the brain and spinal cord are in many cases so undetermined in their symptoms that those who have the greatest experience are most diffident of their diagnosis until it has been confirmed by a necropsy; while for functional neuroses we have not this safe, even though narrow, foundation for etiological theories.

Nothing but error and confusion can result from speaking of "nervous diseases" in general as inherited, as incident to a particular climate or occupation, or sex or age, or to ascribe them to intemperance, hard work, or any other cause; for the group is not a natural one, and can therefore have no common etiology. The most obvious, frequent, and recognisable clinical disease of the brain (apoplexy followed by hemiplegia) is pathologically disease of the heart or bloodvessels. In other cases cerebral symptoms are due to tumours as accidentally present in the brain, as a bullet or a crowbar; cerebral abscess is never "nervous" in origin, but is traumatic or secondary to suppuration elsewhere; meningitis is tubercular, traumatic, or infective, but never "nervous"; and "phrenitis," or primary congestion of the brain, does not exist. Among diseases of the spinal cord, we know that a large number of cases of paraplegia are due to tubercular caries, and a smaller number to malignant disease of the vertebræ. And so of the large and obscure group of functional neuroses, we must remember that if we knew their true pathology they might prove to be as unconnected as the convulsions of uræmia are with those caused by a cerebral tumour.

Some of them may be described as exaggerations of individual eccentricities, of bad habits, involuntary gestures, and tricks of movement which have never been repressed by education. It is remarkable how often among the lower orders the natural beauty of a child's face is marred by its continual grimaces. An inexperienced speaker will betray his nervousness or enforce his conviction by twenty odd movements and ungainly gestures which, if they became fixed and habitual, might fairly be called spasmodic neuroses. Some of them are emotional outbursts, others are consensual movements dependent upon the law of irradiation by which a powerful motor stimulus is apt to overflow beyond its intended channels. To the first group belong the smiles, the tears, the shuddering, and the involuntary applause of the spectator of a drama or of the auditor of an oration. To the second, movements of the face, the hands, the arms, and the whole body which accompany the words of a public speaker. These, when properly restrained and disciplined, form half the power and the charm of acting or of oratory; but they have their origin in the uncouth movements of a clown at a fair, or of an illiterate person painfully composing a letter. These involuntary, emotional, or consensual movements may, under certain circumstances, be developed into paroxysmal neuroses—on the one hand into spasmodic tic, on the other into hysterical convulsions; and in accordance with this supposed origin is the asserted fact that such functional disorders are more common in France and Italy than among the less emotional, less demonstrative, population of Great Britain.

Another kind of local spasmodic neuroses have a very different etiology. I refer to the group of nervous disorders named by Dr. Weir Mitchell "functional spasms," a phrase which does not refer to their having no anatomical basis, but to their following the too prolonged exertion of some motor function. Dr. Gowers calls them "occupation-neuroses," and in Germany they bear the neat and convenient designation, "Beschaftigungsneurosen," translated (without much sense of humour) as "professional spasms." Perhaps the phrase "fatigue spasms" is more significant and convenient than any other. The kind of cramp or tonic spasm following the over-use of muscles in a particular manœuvre includes the lock-spasm of watchmakers, of telegraph workers, and of milkmaids, and other effects of a habitual handicraft. Saltatorial spasms, eclampsia nutans, malleation, spasmus nictitans, writer's cramp, and the corresponding affection which sometimes attacks musicians are all etiologically related, for their origin can, in most instances, be traced to too constant exercise of the same set of muscles.

A distinct etiological group of spasmodic neuroses is almost confined to children, and more common in boys than in girls; it is closely related to rickets. Tetany or tetanilla carpopedal contractions, trismus neonatorum, and laryngismus stridulus, these may all be regarded as exaggerated and perverted reflex spasms occurring when the higher centres have not attained or have lost their inhibiting action over the spinal system. Their relation to one another and to rickets has been well brought out by Dr. Cheadle, and the remarkable association of the latter disease with infantile convulsions and zonular cataract is one of the contributions to the true philosophy of disease which we owe to Mr. Hutchinson.

Another very remarkable spasmodic nervous disorder—that described by Dr. Thomsen in 1876, and since generally known by his name—has relations in more than one direction: first, with reflex spasms; secondly, with emotional spasms, of which stammering is the best example; and, thirdly, with hysterical convulsions. Its peculiar etiological note is its remarkable distribution in families. Like Friedreich's disease, it is not always hereditary, but occurs in brothers or sisters without being transmitted from or to the next generation. This lateral rather than vertical distribution may be sometimes observed in rheumatism, insanity, and other diseases of more or less hereditary character. It seems to point to an etiological condition which is not directly derived from either parent, but is the result of two strains combining.

Chorea.—This remarkable neurosis was first described by Sydenham, and hence became known abroad as "chorea anglorum," and also as "chorea minor," to distinguish it from the "chorea sancti Viti major," the dancing mania of the Middle Ages. Dr Sturges has well insisted upon the relation of chorea to the fidgetiness, and face pulling, and ugly tricks to which I have just referred as the physiological type of certain neuroses. If a healthy child could not fidget and grimace, the symptoms of chorea would not be what they are: this I fully admit. But this only means that the symptoms of disease have a physiological basis, and has, I think, no peculiar bearing on the etiology of chorea. A soldier does not feel a wound until the conflict is over; a mother does not know her hand is burnt until her child is saved from the fire; and if temporary anæsthesia was not thus producible in healthy persons under strong emotional excitement, we should not see the hemi anæsthesia of hysteria. If a child did not laugh and cry and struggle when tickled, it would not have the mechanism by which infantile convulsions and adult epilepsy are produced. Morbid agents can only act upon the pre-existing physiological machine. All pathological states—fever, delirium, dropsy, inflammation—are but perverted working of the healthy organism. A cough is a physiological reflex action, but bronchitis is a disease. We all carry with us every day and all day long the faculty of disease in the mechanism and the functions

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of health. Although, to return to the example before us, the grimaces of chorea are those of a restless child, and the most violent movement of its limbs is effected by the same nervous and muscular mechanism which produces the corresponding voluntary gestures, yet we do not, I think, find that this disease is more frequent in fidgety children than in others, while the definite beginning, the pathological associations, and the clinical course of chorea stamp it as a true disease.[1]

The most important points in its etiology are: First, its marked predilection for childhood, or the period between the completion of dentition and the establishment of puberty. Secondly, its greater prevalence in girls than in boys, and the still more decided prevalence of adult chorea among women.[2] One occasionally sees a delicate ill-developed youth who, having been choreic before puberty, will continue subject to the disease up to twenty or twenty-five, and I once saw genuine chorea with rheumatic and cardiac complications in a man as old as forty. But while such cases are rare exceptions, chorea is not uncommon in girls up to the age of eighteen or twenty, and has long been recognised either as reappearing or appearing for the first time in the pregnant or puerperal state. The cases of senile chorea which have been from time to time described, first by Graves, since by Charcot and other French writers, and in this country by Dr. Saundby,[3] belong, I venture to think, to a separate pathological group.

Next to its well-marked relations to sex and age, chorea is undoubtedly associated with rheumatism, using that word as a synonym for rheumatic fever. This connexion was first pointed out on the Continent by Professor Sée, but had long previously been recognised in England by Dr. Copland, by Hughes, by Bright, and by the elder Babbington, who stated in his lectures so far back as 1811 that chorea "often follows rheumatism, and that these two diseases often come on alternately."

The following are the figures arrived at by many independent observers. Professor Sée's were collected in the Hôpital des Enfans Malades at Paris. They come near in point of time (1850) to those of Dr. Hughes' first series (1846). Dr. Sturges' cases were his own patients at the Hospital for Children in Great Ormond-street; Dr. Donkin's cases were his out-patients at the Westminster Hospital; Dr. Goodhart's were his patients at the Evelina Hospital for Children; Dr. Stephen Mackenzie's were from the London Hospital. Dr. Herringham and Dr. Archibald Garrod each published particulars of eighty cases in the seventy-second volume of the Medical and Chirurgical Society's Transactions (1889) from his own out-patients. Then come 439 cases reported from various sources and put together by the Collective Investigation Committee of the British Medical Association—statistics compiled, and therefore not homogeneous, but noteworthy as being drawn from private cases. Lastly, we have 475 cases from Guy's Hospital; 162 collected from his own patients by the late Dr. Hughes, with the help of Dr. Burton Brown; and 313 published by myself, partly from my own hospital patients, partly from in-patients of the hospital (long subsequent to Dr. Hughes' death) collected for me by Surgeon-Major Manser and Dr. Halstead (now of Ramsgate).

Chorea associated with Acute Rheumatic Fever.

Sée	Of 128	cases	61	had had acute rheumatism, or	48 per cent.
Sturges	„ 100	„	20	„	20 „
Donkin	„ 104	„	27	„	26 „
Goodhart ..	„ 130	„	89	„	68 „
S. Mackenzie..	„ 172	„	47	„	29 „
Herringham ..	„ 80	„	21 (or 35)*	„	26 „ (or 43)
A. E. Garrod..	„ 80	„	28	„	35 „
Collective Investigation.	„ 439	„	116	„	26 „
Hughes	„ 162	„	106	„	65 „
Pye-Smith ..	„ 313	„	95	„	30 „

* Twenty-one cases had a clear history of rheumatic fever; fourteen had a history of pains and swelling of the joints.

[1] I have said that the grimaces of chorea are like those of health; but there is a difference which would enable one to distinguish one from the other if represented by a skilful painter. In the choreic child the eyes do not show the emotion which is simulated by the mouth; they have a blank [illegible] expression which makes the facial [illegible] those of [illegible] moved by strangers.

[illegible]

The connexion between the two diseases does not rest on statistics alone, but upon the anatomical fact of endocarditis being almost always present in fatal cases, since valvular disease in children is in the great majority of cases definitely connected with rheumatism. Further, chorea resembles rheumatism in two important clinical characters: in the age of the patients it attacks, and in the frequency of its recurrence. It is more difficult to determine the nature than the fact of the connexion. The evidence seems to me in favour of regarding rheumatism as a predisposing cause to chorea, not *vice versâ*, and the cardiac murmurs, the endocarditis, and the occasional pericarditis of chorea as due to rheumatic inflammation. That in children the joints are often so little affected and the pyrexia so slight may well account for a history of rheumatism being often absent. I have seen, not its previous occurrence, but its present existence unsuspected by the patient's mother.

Phthisis.—The wide and deeply interesting question of the etiology of pulmonary phthisis received new, but not altogether unexpected, light by Koch's brilliant discovery of the bacillus of tubercle. That this is a definite and recognisable species of microphyte is certain, and certain also that it is constantly present in lesions which are histologically tuberculous, and in particular in all forms of chronic caseous inflammation of both lungs, beginning at the apex, travelling downwards, and marked by the presence of lobular pneumonia, ulceration, bronchitis, pleurisy and cicatrisation, with the presence of grey and yellow granulations. In other words, all pulmonary phthisis is tuberculous, infective, and specific. This has, I take it, been conclusively proved; but herein we have only a part of the etiology of phthisis. Without the specific microbe, no phthisis. That we admit; but how many other conditions besides its presence are necessary to produce the disease? The importance of hereditary predisposition is surely put beyond question not only by our daily experience in practice, but by the results of life assurance. The local effects of pulmonary catarrh in preparing the soil for the reception of the invader is sufficiently proved by the undoubted existence of a large pathological group of cases caused by the irritation of solid mineral particles. Tubercle bacilli are found in the lungs of grinders and potters; but no one is so foolish as to throw away previously acquired experience, and deny that such trades cause phthisis. They cause phthisis (we must now believe) by producing pulmonary catarrh, and thus facilitating the entrance, survival, multiplication and successful establishment of the parasitic plant which causes the anatomical lesions of phthisis. Moreover, we learn from the almost universal prevalence of phthisis in certain trades that the "seeds of the disease" (i.e., the specific microbes) must be constantly present in the workshops, say, of Sheffield grinders; probably more common than in hospital wards, in health-resorts for the phthisical, or in ordinary dwelling-houses; so that these workrooms are, literally and not rhetorically, "hotbeds of disease." The sputum which one reckless, high-paid, short-lived, phthisical workman ejects from his ulcerated lungs dries and becomes dust. This is carried into the air passages of his neighbour, whose lungs have already begun to suffer from the particles of silica which he inhales: he has already been wounded, and now the wound is poisoned. Passing through the stomata of the air vesicles into the subjacent lymph spaces the virus is conveyed to the lymph glands, and then more gradually to distant organs.

So far seems clear, but many other etiological problems await solution. Why are young adults most subject to phthisis? Are they more exposed to the poison than old people? Or more liable to the precedent pulmonary catarrh? Or more apt to become abscess? Or is lymphatic absorption in them more active? Is catarrhal lobular pneumonia, particularly that which follows measles and pneumoconiosis, the only local preparation for the seed? Why is not bronchitis? Why is not lobar fibrous pneumonia? Do the bacilli themselves [illegible] as an irritant as well as an infective agent? Why does not the virus more often enter the body through [illegible] mucous membrane? Is it ever absorbed [illegible] wound? How does it gain access to [illegible] Does the [illegible]

of the very rapidly generalised tuberculosis of children with but slight caseation of lungs or lymph glands?

Pulmonary hæmorrhage has again and again been assumed to be a local cause of phthisis, and numberless cases to prove the point have been recorded. The most ancient is one mentioned by Herodotus (vii., 88). When the army of Xerxes was marching out of Sardis on its way to Thermopylæ and Platæa, a general of cavalry, Pharnuches by name, was riding at the head of his squadron. A dog ran between the legs of his horse, which reared and threw his rider. When lifted from the ground Pharnuches was spitting blood, and was left behind at Sardis, where he fell into a decline and died. This ancient doctrine, formally stated by Morton in the seventeenth century and by Cullen in the eighteenth, was revived in our own time by Professor v. Niemeyer, and made part of his now exploded theory of phthisis. By the light of our present knowledge may we not say that a healthy lung never, or very rarely, bleeds under any strain, and that if it should, such primary pulmonary hæmorrhage is innocuous, or at least never produces phthisis? Hæmoptysis is not uncommon in cardiac disease, particularly in cases of aortic and obstructive mitral lesions, and yet phthisis does not follow it; traumatic hæmoptysis, as by a fractured rib, does not go on to phthisis; and blood, when injected into the trachea of dogs, does not set up caseous changes in the lungs. May we not, then, assert, in harmony with clinical experience, that hæmoptysis (without disease of the heart and aorta, without purpura or injury), though often the first symptom is never the first event in a case of phthisis?

The association of phthisis with damp, undrained soil has been established by the classical researches of the late Dr. Bowditch in New England, and by Sir George Buchanan in the old country; and I cannot mention the name of the latter distinguished Fellow of this College without expressing the admiration which we all feel for his long and useful public services and his fidelity to the best traditions of scientific medicine. Does this observed association depend on the frequency of pulmonary catarrh in damp dwellings and ill-drained soils, or on a general depression of the resisting, protective, or, if you please, phagocytic properties of the tissues? Do starvation, anæmia, and other depressing influences act by diminishing the resistance of the patient, or by favouring a preliminary inflammation of the bronchioles? The same question applies to hereditary predisposition, and to the dyspepsia, anæmia, and loss of weight which often precede pulmonary symptoms.

Happily, even the briefest discussion of the etiology of phthisis would be incomplete without consideration of the antagonistic as well as the favouring conditions of the disease. Of the former we may first mention the patient's age. Though senile phthisis is not absolutely rare, it is relatively so; and most of the cases I have seen have been very chronic, sometimes relapses after recovery from phthisis in youth. A first successful invasion of the infection is certainly very rare after fifty. Again, phthisis in children, though very fatal when it occurs, is far less common than after puberty, and congenital phthisis is almost without example.

Free ventilation is certainly inimical to the lodgment of tubercle; no doubt partly by diluting the contagium, and partly by keeping up the appetite and power of resistance, since to a great extent we depend on the stomach to cure the lungs. A very cold and a very hot climate seem both antagonistic to phthisis; but, while the former is in some measure curative as well as prophylactic, the latter is rather injurious than beneficial when the malady is once established. Cold probably acts directly on the bacillus, which does not grow below a certain temperature, and heat perhaps by diminishing the predisposition offered by pulmonary catarrh. Carnivorous animals are much less liable to tubercle than herbivorous, but the rule is liable to exceptions, as in the case of goats; and there is no reason to suppose that among human beings vegetable feeders are less exposed to phthisis.

Finally, even in diseases themselves, we sometimes find allies against phthisis. Pulmonary emphysema appears to render the development of tubercle in the lungs more difficult; probably by diminishing the vascularity of the lung and by obstructing its lymphatic channels. It seems to be well established that so far from permanent cyanosis (and particularly that caused by congenital disease of the heart) being antagonistic to phthisis (as Rokitansky supposed), the subjects of congenital pulmonary ("dextro-sigmoid") stenosis are particularly liable to phthisis if they survive puberty. But cyanosis from disease of the right side of the heart with pulmonary anæmia is one thing, congestion of the lungs from disease of the left side of the heart is another; and I believe that mitral disease is really a negative factor in the etiology of phthisis. I have myself had two or three cases in which the destructive lesions in the lungs were apparently checked by cardiac disease. There is a beautiful drawing by my late colleague, Dr. Moxon, which he made to illustrate the same doctrine. Probably tubercular ulceration does not flourish in these cases because the chronic passive congestion favours fibrous degeneration—the cicatricial process to which we look to limit and starve the more dangerous and rapid disease.

It has been asserted that gout is prophylactic against phthisis and phthisis against gout, but this is probably a mistake. I have observed the conjunction more than once; that they do not often coincide is to be expected from their incidence on different periods of life. A similar criticism will apply to the presumed opposition between tubercular and malignant disease. Carcinoma affects elderly persons for the most part, while the majority of phthisical patients are young adults. Children with tubercle die before they can develop sarcoma, children with sarcoma die before they can develop tubercle, and adults affected with tubercle too often die before the age at which cancer is most frequent. In a patient of my own, aged fifty-eight, who died since my last lecture of cancer of the stomach, we found both old and recent tubercles in the lungs.

Jaundice.—With respect to the etiology of this common condition it is remarkable how little has been accomplished since morbid anatomy and animal chemistry began to be studied. It is little more than a century since the foundation of pathology as a science of facts, apart from speculation, was laid by Morgagni, and the knowledge of the chemistry of bile began with Berzelius; yet Boerhaave and Mead were not more ignorant than we of the cause of the most characteristic and remarkable form of jaundice. They, like us, could understand how when the duct of a gland is blocked by a calculus the secretion accumulates, distends the channels in which it runs, and is thus mechanically detained in the body. But we, like them, cannot explain jaundice without obstruction. Even in the case of obstructive jaundice much remains to be learnt as to the nature of cholæmia. If the bile, or any of its constituents, is so poisonous, why does it circulate for weeks and months without producing its effects? If it is innocent, why are those effects produced at last? In either case, why is a manufactured excretion reabsorbed when the factory is reduced to ruins and the exit unimpeded? and why, in this case alone, are the symptoms of cholæmia as constant and speedy as in other cases they are tardy and uncertain? But it is the cases of jaundice which—by an almost subjective use of the word—we call simple, that are so puzzling in their etiology. We surely cannot be satisfied by the current explanations—which refer icterus simplex to obstruction by inspissated mucus, which no one ever saw; or by swelling of the duct or of the duodenum, of which there is no proof; or by the pressure of impacted scybala, of which the presence is entirely hypothetical. Do we find anything analogous in the case of the kidney, the pancreas, the mamma, the parotid, or the lacrymal gland? In many cases of jaundice is there the slightest evidence of duodenal catarrh or of preceding obstipation? On the other hand, do we not frequently see evidence at the bedside, and proof after death, of considerable catarrh of the duodenal mucous membrane, and sometimes of fæcal accumulation in the transverse colon, and yet never jaundice? I might also adduce the youth and health which usually mark the patient, and ask why the supposed cause of obstruction should, after a limited duration, disappear as mysteriously as it came. Nor do we gain any help in explaining the cause of simple jaundice from Frerich's hypothesis of virtual obstruction, owing to blood pressure being extremely low. In the first place, there is not the slightest evidence that in these cases blood pressure is lower than usual; in the second place, we know that the pressure in the duct of a gland is often higher than that in the bloodvessels which supply it without secretion being suspended or reabsorption taking place; and, lastly, when we do know that the blood pressure is abnormally low, as in prolonged syncope, in anæmia, and in distension of the right side of the heart from pulmonary obstruction, we do not meet with jaundice.

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The only case in which it does coincide with low pressure in the portal vein and high pressure in the hepatic is that of long continued organic disease of the heart, when we find evidence of mechanical pressure on the biliary ducts.

Surely it is better, instead of accepting vague hypotheses, which it is impossible either to prove or disprove, to regard jaundice, in the absence of demonstrable obstruction, as due to some other and as yet unknown condition. We shall thus at least regard each case we meet with in daily practice as a problem to be solved, not as an example of a well-understood physiological process. The fact is that, in spite of the great advances in our knowledge of secretion, among which are pre-eminent those due to our distinguished Bailey medalist, Professor Heidenhain of Breslau, much still remains to be done. The physical and chemical process, which ten or fifteen years ago seemed so beautifully clear—the blood, the basement membrane, and the secreting protoplasm, regulated by its vaso-motor and secretory nerves—though a true, is now found to be an inadequate, physiological conception. The unexpected results of partial removal of the kidneys and of complete removal of the pancreas in animals more closely allied to man than frogs or rabbits offer new problems—we may almost say new paradoxes—in physiology, which seem as hard and, so to speak, illogical as any that we meet with in disease.

This much, however, seems to be clear, that certainly most, and probably all, glands do much more work than secretion. When Bernard proved the glycogenic function of the liver, he showed that besides secreting bile it has a most important share in the metabolism of the body. Since then we have learned that the formation of urea has part of its process seated in the same great organ, so that it is probably as important in the transformation of proteids as of carbohydrates. And now two other functions, those of the accumulation of fats and of the formation of blood corpuscles, are more than probably associated with the liver. One used to explain these facts by the liver being in structure and vascular supply different from other secreting glands; but the effect of removal of the pancreas in producing glycosuria (as ascertained by von Mering) and the effect of removing the greater part of the kidney in producing polyuria with increased formation and excretion of urea (discovered by Dr. Bradford) shows us that glands constructed apparently on a purely secreting type have other functions—metabolic, destructive, or inhibitory,—the loss of which profoundly affect the vital processes of distant parts of the body.

But, in truth, this is only what we ought long ago to have learned from the familiar case of the testis. Castration is the most ancient of physiological experiments, performed in countless numbers, and even in this day of rebuke and blasphemy carried out without licence, certificate, or any legal restriction, and without anæsthetics, so long as the object is only the gratification of the palate or the convenience of life. Though forbidden for the trivial and unworthy objects of enlarging human knowledge and ultimately relieving human suffering, we are not forbidden from learning what experiments performed for other purposes teach us. The production of fat in the ox and the capon, the altered shape of the gelding, and the modifications of the teeth and horns and antlers in boars, and rams, and harts, prove how much the testis does beside secretion.

Lardaceous disease.—Our experience in this country seems to prove that the causes of this remarkable degeneration are far fewer and more definite than is commonly believed by German pathologists. It is certainly not produced by cachexia in general, nor by that of malaria or cancer in particular. Nor, we may say, from its absence in the great majority of such common diseases as syphilis and phthisis, is it directly the result of the ill health produced by either of these diseases. It belongs only to the latter stages of syphilis and to the most chronic forms of phthisis. It is only associated with disease of the bones, or with cancer, when they are attended with protracted suppuration; and it is found in cases of empyema and of accidental suppurative diseases, which have no so-called constitutional origin. The following table of [illegible] was drawn up by [illegible] they give the result of the post-mortem examinations held during a consecutive period of twenty-five years.

Cases of Lardaceous Disease at Guy's Hospital.

1855–75.			1876–1889.		Totals.
Prolonged suppuration	87	}	Prolonged suppuration	134	= 226
Some suppuration	5				
Phthisis	67	{	Phthisis	121	= 130
			Tuberculosis	9	
Syphilis	76	}	Syphilis	43	= 122
Probably syphilis	3				
No probable cause	6		No probable cause	13	= 19
	244			320	= 567

Syphilis, phthisis, and caries of bones are the three most frequent antecedents; but in nearly every case long-continued suppuration was present, while there were many cases of suppuration without phthisis, syphilis, or caries. The conclusion seems inevitable that the cause of the disease is, as Dr. Dickinson long ago maintained, continued loss of pus. Nevertheless, as that eminent physician once wittily remarked, nature is in the habit of letting us discover a major and a minor premiss, and then denying the conclusion. In these tables occur a few cases of general tuberculosis which may, but also may not, have been preceded by local caseous suppuration; and there are several cases of syphilis without record or anatomical evidence of prolonged ulceration or caries. Moreover, there are occasionally cases of prolonged suppuration in which no lardaceous disease results; as one, I may mention that of an elderly lady who had been for seventeen years the subject of empyema, with an external opening which daily discharged pus. In her last illness, when she died from bronchitis at the age of sixty-six, I found the liver and spleen unenlarged and the urine perfectly normal. Unless we argue not as pathologists but like a special pleader or like one maintaining a thesis, we must not try to get rid of the troublesome exceptions to any rule that we may discover.

The case is, after all, what we are well accustomed to in pathology and in natural history in general. No symptoms are pathognomonic, no *presagia mortis* are infallible. The great saying of Bishop Butler that probability is the guide of life, applies with striking truth to pathological and to remedial processes. In medicine, "always" and "never" must not be taken in their literal sense. If a statement is true of nine cases out of ten, it is practically valuable and theoretically important. The remaining exceptions must not be denied or explained away. We must not assume, because most cases are due to an ascertained cause, that all similar cases are due to the same. But on the other hand, the fact of exceptions must not lead us to neglect the remaining nine-tenths. Even in the exact and comparatively simple science of chemistry, the most refined and laborious experiments, repeated again and again by eminent observers in France, in Germany, in America, and in England, fail to confirm the truth of the familiar formula H_2O; although the results come so near the theoretical value that most men cannot help believing that the discrepancy is an accident. Nevertheless, the third place of decimals is intractable.

Gout.—The general etiology of gout has been settled by the consensus of popular and professional opinion from the times of Lucian to the present day, and we may assume that the intemperate use of liquor by the sufferer or his parents is the most important cause of this disease. But there still remain questions under what circumstances drink is most likely to produce gout, and what other conditions may develop it apart from drink.

In speaking of gout, I mean recurrent attacks of inflammation accompanied by the deposit of urate of soda in the articular cartilages. That there is a gouty diathesis, or rather, to use Latin instead of Greek, a disposition to gout, I admit. A man whose father and whose mother's father had this disease is more likely to have it than another; a man who has suffered from gouty arthritis three times is predisposed to a second attack. But this is not [illegible] of a child to tubercle, of one whose father died of phthisis to scrofula, or of those who [illegible] what we mean by this old word [illegible]

misleading associations, should be transferred to the chapter of antiquities which deals with the Galenical humours, the temperaments and dyscrasia of the blood. The disposition to a disease is either carried out or it is not. If the former, we have to deal with the fact of the disease; if the latter, we can never tell that the disposition exists.

The hereditary transmission of gout is undoubted. It is far more frequent than that of cancer, and perhaps than that of phthisis; but there are many cases of gout which are not hereditary. How are these acquired? Not all drink will produce it, for it is rare in Scotland; not all wines will produce it, for it is rare in Spain and Italy; not all malt liquors will produce it, for it is rare in Vienna and in Munich. Difficult as it is to explain the fact, this strange disease appears undoubtedly to belong to the most civilised, possibly over-civilised, times and nations, to the stronger sex, to the most vigorous period of life, to conquering races, to the higher classes of society, and to the most able of the community. The truth of the reflection with which Sydenham comforts himself under the pangs of this disease has been confirmed by every succeeding generation:—"At vero (quod mihi aliisque, licet tam fortunæ quam ingenii dotibus mediocriter instructis, hoc morbo laborantibus, solatio esse possit) ita viverunt atque ita tandem mortem obierunt magni reges, dynastæ, exercituum classiumque duces, philosophi, aliique his similes haud pauci."—*Tractatus de Podagra*, §15. No doubt the disease is far from being the exclusive appanage of rank and wealth. We see abundance of gout among our out-patients in London. But in them also it is hereditary, in them also it follows indulgence in strong drink, in them also it seems to choose the most vigorous and energetic for its victims.

Apart from hereditary disposition and from intemperance, there is no doubt we must recognise saturnine gout. It appears to be rare in the north of England,[4] and in the cases that have come under my own notice it has generally, if not always, been associated with beer-drinking and albuminuria. The relation of a fit of the gout to mental excitement or violent emotion seems too well attested for doubt; but there is no evidence that the disease was ever thus produced, and the fact may be plausibly ascribed to inhibitory action upon the excretion of nitrogenous products. Such nervous excitation would then take its place with an attack of indigestion as the exciting or determining cause of arthritis. In the same light we must regard mechanical injuries which will often determine gouty inflammation in a certain joint. In fact, it seems probable that the special liability of the ball of the foot and the root of the index finger to gouty inflammation depends upon their exposure to sprains and other injuries.

Rheumatism.—This term (*rheum*, *ῥεῦμα* from *ῥέω*) like gout (*gutta*) is historically associated with the exploded humoral system of medicine. No one now supposes that the latter depends on a drop of peccant humour distilling into a joint, or the former on a cold, moist catarrh flowing into the limbs and muscles; but just as the epithet "gouty" is by many applied with an arbitrary licence to bronchitis and dyspepsia, psoriasis, and iritis, so rheumatism is a convenient phrase for every ill-understood pain. In Germany the term "rheumatic" is commonly applied to every kind of disease which is believed, on more or less arbitrary grounds, to depend on the influence of cold. It appears to me that the word "rheumatic" should be used only as the adjective of the disease known as rheumatism or rheumatic fever, multiple synovitis with a definite clinical course, complications, and sequelæ. If it can be shown that an attack of tonsillitis, myalgia, urticaria, pleurisy, or pericarditis is related to rheumatic fever, we mark a real and valuable etiological point by calling them rheumatic. In the absence of such proof the use of the epithet is, I venture to think, of no value to our patients and mischievous to our pathological conscience.

The etiology of rheumatism as thus defined is still very obscure. The general belief that it follows exposure is certainly supported by striking cases. I do not remember, however, to have ever met with rheumatic fever following exposure to dry, cold, east winds, or to low temperature, as in a railway journey in winter. The most striking cases are those of men and women who get wet through and are unable to change their clothes. That some such relation to the weather exists seems shown by the geographical distribution of the disease, which is only too common in Northern Europe and the Eastern States of America, but is rare in the Mediterranean and the tropics, in Canada, Australia,[5] and the high, dry, and cold districts of America.

I endeavoured several years ago to ascertain whether the incidence of rheumatic cases in different periods of the year coincided with prevalent cold or wet, but the results are not easy of interpretation, and differ from those obtained by Dr. Gabbett[6] at the London Hospital and by M. Besnier[7] at Paris. Dr. Archibald Garrod, in his excellent monograph on rheumatism, comes to the same negative conclusion. Supposing that the connexion referred to is a real one, there are many reasons which may prevent its detection.

The following cases of rheumatic fever were admitted into Guy's Hospital during a period of ten years:—In September, 158 cases; in November, 136; in January, April, and October, 125, 126, 127; in June, August, and May, 111, 112, 108; in December, 102; in February and July, 99, 100.

Rheumatism is pre-eminently recurrent, and a slight exciting cause may bring on an attack in one who has before suffered from the malady. From an etiological point of view, we ought, therefore, to collect only first cases, but that would much limit our numbers. Again, the history of hospital patients is proverbially untrustworthy, and the chill to which they ascribe their rheumatism may have happened a week or more before the attack. Moreover, our climate is so uncertain that a man who is much subject to skyey influences, particularly if inadequately clothed, may be as effectually chilled with rain in July as in January. Even in hot weather people are apt to catch cold by throwing off woollen clothing and placing themselves in currents of cool air. During a wet month we often have few cases of rheumatic fever in our wards, and they are certainly often absent in the coldest time of winter.

The early age of the patients, its occurrence as a sequel of scarlet fever, and its undoubtedly hereditary character, are etiological facts which at present we cannot connect with one another, and time forbids dwelling upon them. But I must express my disbelief, or at least unbelief, in the chemical theory of rheumatism, which ascribes it to the presence of lactic acid in the blood. This conjecture, originally thrown out by Prout, was reasonable enough as the vague guess of a chemical pathologist; but since every endeavour to prove the hypothesis has rested upon chemical or logical fallacies, it is a pity that it still cumbers the ground. Moreover, we must remember that our exploded theories are not forgotten and do mischief to our patients. Probably most of us have been asked, as I have, whether lemons are not bad for lumbago, because rheumatism depends upon an acid in the blood.

The etiology of one of the diseases of the joints which used to be confounded under the title of rheumatism is now completely cleared up. I refer to gonorrhœal synovitis, a disease which we now know to be always and exclusively the result of urethral blennorrhagia, and to be totally distinct from gouty, rheumatic, syphilitic, or pyæmic arthritis.

A fourth kind of multiple articular disease, which Sydenham and Heberden described as "chronical rheumatism," and the great Irish surgeons Adams and R. W. Smith by the unfortunate title of "rheumatic gout," is obviously and widely distinguished from gout by the absence of deposits of urate of soda, and from true rheumatism by the age of the patients it affects, by its course and symptoms, and by the entire absence of inflammation of the heart. That osteo-arthritis, as it is called in our college nomenclature, regarded as an anatomical condition, may be the occasional result of rheumatic or gouty or gonorrhœal synovitis must be admitted; but that it has, in the great majority of cases, no such origin, but is, on the contrary, a separate clinical and pathological disease, is also beyond dispute.

My colleague, Mr. Lane, has with much ingenuity referred many of the distortions of the joints in this disease to traumatic causes. This explanation best applies to the cases in which one joint alone or one limb is the seat of the well known anatomical changes in question. Where a

[4] See Dr. Thomas Oliver's Goulstonian Lectures, 1891.

[5] So I am informed in Victoria and South Australia, but Dr. Church tells me that in the interior of New South Wales rheumatic fever is far from uncommon.

[6] Dr. Gabbett found the largest number of cases in November, October, and December, and the smallest in February, March, April, and May.

[7] M. Besnier found the largest number of cases in July, the next in June, April, and May, and the fewest in February, March, and September. The details are given by Dr. A. E. Garrod.

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similar morbid state of the joints is more general it has, I think, always been recognised that it is, in part, the result of slight and individually insignificant, but numerous and long-continued, injuries; in other words, that it is the result of wear and tear. It has all the characters of chronic inflammation—i.e., it is free from the four classical signs or pyrexia, and it leads to hypertrophy with new formation of connective tissues. From this point of view, the disease is found, as we should expect, in the later periods of life, and in those who have been hardest worked. In fact, this arthritis deformans may, in its etiology, be compared to arteritis deformans, or atheroma of the aorta and great vessels. The same condition of chronic deforming and hypertrophic arthritis is very common in the lower animals. Writing on the subject in 1887, I referred to a large series of specimens from horses showing the disease in very marked form, and these were in the joints of the feet, on which the stress of a horse's work falls.

But while fully admitting the importance of direct and obvious injury as an occasional, and of long-continued work and strain as a frequent, cause of osteo-arthritis, there is no doubt that the same anatomical condition often occurs when no such explanation is possible: and when, moreover, there has been no preceding attack of arthritis, whether gouty, rheumatic, gonorrhœal, or traumatic. Such cases may occur in comparatively early life, long before degenerative changes have begun; they are more common in women than in men, and they affect the smaller joints of the hand before those most exposed to injury and pressure. Moreover, the clinical feature of the disease, its course, and especially its progressive aggravation, after the unfortunate patient is no longer able to perform even the ordinary movements of the limbs, prove that in its most characteristic form it is not secondary to any other disease, and not the direct result of mechanical or chemical causes. It is certainly etiologically connected with climatic conditions, for it is most common in those most exposed to our English climate, and is probably more often met with in Ireland than in any other country. I have seen striking instances of its being averted, or checked, or cured by removal to the south of France or to the east coast of England—the one warm the other cold, but both comparatively dry. Whatever the immediate and determining cause of this remarkable disorder may prove to be, it is, I think, certain that the term "rheumatic gout" is misleading, and the hypothesis of hybrid origin which it favours is opposed to all experience and scientific medicine, fatal to advance in pathology, and practically mischievous, as leading to slovenly diagnosis and inefficient treatment. The task of diagnosis is difficult enough as it is. If diseases were of hybrid origin and mingled pathology, it would be impossible.

Traumatic and idiopathic dermatitis.—We come now to the last group of diseases with the etiology of which I propose to deal—those which affect the skin. Here all the ghosts of dead systems of medicine, all the idols of the forum and the cave, all the baseless hypotheses and unproved conjectures that have met us in other parts of pathology, are crowded together. Remote from the progress of physiology and pathology, dermatology was long obscured by an antiquated and barbarous nomenclature, by pedantic distinctions between trivial differences, with confusion between broadly differing pathological states, while the treatment was complicated, empirical, and ineffectual. Our eminent countryman Willan was an accomplished physician, and viewed disorders of the skin from a point of view of the best general pathology and practice of his time; accordingly, his work, though scanty and imperfect, is, with few exceptions, accurate as far as it goes. Hebra's great treatise was constructed on the principles of general pathology laid down by the pioneer in morbid anatomy, Rokitansky; indeed, the chief fault of Hebra's work is that he follows too closely, and almost slavishly, the footsteps of his master. Since then the application of the microscope to morbid pathology and the discovery of the true part played by parasitic fungi and invading bacteria have cleared up many obscure problems, and the observations recently made in this department in France, in England, and in America [illegible] a worthy continuation of those begun by Hebra. Still, however, we find traces of the old vices of [illegible]

guineous temperament"; "scrofula" where there is no tubercle, "gouty tendency" where there is no gout, and "syphilitic taint" where there is no evidence of the presence of lues. Species and subspecies are still too many, and new diseases are too readily admitted; while even yet the principle which obtains in all other departments of medicine is not generally followed, that the name we give a disease should express its diagnosis and connote our best knowledge of its origin. To call a disease eczema without excluding scabies or fictitious origin, or to apply eczema to a slight degree of traumatic dermatitis, or to diagnose psoriasis or lupus without excluding syphilis is [illegible] words and deceiving ourselves.

As in other departments of medicine, an etiological arrangement of diseases is the best possible, since it points to prevention as well as to cure. Unfortunately our knowledge of causes is here, as elsewhere, very imperfect, and even when a cause has been clearly ascertained, we find it is liable to such modification as to lose much of its importance. Of these more or less completely ascertained causes the most obvious is local, mechanical, thermal, or chemical irritation. The skin inflames when rubbed, when chafed by rough clothing, when exposed to hot sun, or a cold wind, or to salt water, to the presence of parasitic animals or plants, or to chemical irritants like cantharides. This reaction, which we may call "common dermatitis," corresponds to the effects of cold air, dust, or other irritation in the conjunctiva, and the fauces, and the bronchi, and to inflammation of the stomach by locally irritant poisons. The result scarcely differs, whatever the nature of the irritant; cantharides cause serous bullæ, and tartar emetic ointment a pustular eruption; but with these, and a few other exceptions, the result produced depends on the strength and duration of the irritant much more than on its quality. It varies, however, with the vulnerability of the individual, and this, again, diminishes under repeated irritation. This tolerance the skin acquires more easily than any other tissue, no doubt because it is more frequently exposed to irritants. The face and hands very soon become accustomed to heat and cold and wet. The habitually covered parts of the skin are less readily hardened; it is doubtful whether the fauces and the bronchial mucous membrane, different as is its susceptibility in different persons, can become inured to the irritation of cold, dry air, or of dust by frequency of exposure; and the internal organs seem to be nearly destitute of this power of adaptation. Thus continued irritation of the liver by alcohol does not bring tolerance, but gradual aggravation, and the joints never become accustomed to the presence of crystals of urate of soda.[8]

It was one of Hebra's merits that he showed how artificial eczema may be produced at will by applying irritants to the healthy skin, but I venture to think that an equally important fact was overlooked by him when he wrote of "artificial eczema" and of scabies as a kind of eczema—namely, that in the great majority of cases of eczema no local irritation can be found, the skin reacts as if it had been irritated, but the proof of irritation is absent. It is these cases of idiopathic eczema which, surely, must be taken as the type of the disease, and they gain little light in etiology or in treatment from observation of traumatic cases. The best way to put the facts seems to be to describe the results of direct irritation as common superficial dermatitis of traumatic origin, and to define eczema as an idiopathic common superficial dermatitis with a special local distribution, course, and natural history which distinguish it as a separate disease. Nevertheless, it is important to bear in mind the anatomical resemblance between the purely secondary and the purely idiopathic cases, to recognise that the latter have not unfrequently their origin in the former, and that there are innumerable gradations of responsibility to be adjusted between the irritabile and the irritans.

Parasitic and contagious dermatitis.—Pustular [illegible]

[8] There are, however, exceptions which show that even the internal organs, and particularly the nervous system, may, under [illegible] conditions as a result of habit, cease to react to [illegible] markedly than the skin itself. The [illegible] cause vomiting or colic in a youth who [illegible] tiger. The stockdove's [illegible] often repeated, affect [illegible] [illegible]

titis (impetigo) of the scalp in children is often the immediate result of the irritation of pediculi and of the scratching to which their presence gives rise. Prurigo senilis is no less the result of the itching and scratching caused by pediculi upon an aged skin; and scabies is nothing but common superficial dermatitis, papular, vesicular, or pustular in degree, produced partly by the presence of the parasite and partly by the efforts of the patient to relieve the pruritus thus caused. But in the case of pustular scabies and impetigo of the scalp we must add a second etiological factor—namely, the contagiousness of the pus secreted, dependent upon the presence of more than one variety of microphyte. This explains the spread of the disease, as pus is conveyed by the patient's fingers to parts uninfested by the parasite. Another example of the contagion of pus is afforded by the multiplication of furunculi. There is little or no ground for the opinion that they depend upon "poverty of the blood" or any "constitutional" cause. The accidental inflammation of a deep hair-sac leads to a minute slough, with acute surrounding suppuration; and from this adjacent hair-sacs are infected, particularly when the surrounding skin is softened and a transfer of pus rendered easy by the use of warm and moist poultices. The efficacy of a disinfectant and astringent treatment confirms the same view.

To the above causes of dermatitis—local friction, heat and cold, wet and dryness, the irritation of scratching, the irritation of animal parasites, and the contagion of pus—we must add the presence of microscopic fungi, which invade the epithelium, the hairs and the hair-sacs, and produce ringworm, favus, and the other varieties of tinea.

Erythema and toxic dermatitis.—A second etiological group of dermatitis is due to poisons, not external, but conveyed by the blood and acting chemically, and I believe that here a common etiology is associated with common anatomical and clinical features, distribution, course, and treatment. Just as traumatic dermatitis is the type of the group to which eczema, impetigo, and scabies belong, so may we take as the type of erythematous eruptions that which is called forth by copaiba or belladonna. Under this group we may include the various forms of erythema combined under the name "multiforme" by Hebra, the roseola of authors, urticaria, and some of the cases which have been described as herpes, hydroa, acute pemphigus and dermatitis herpetiformis. They agree with eczema as being superficial dermatitis, not leaving scars, but they differ from it in several particulars. First, in anatomy the inflammation never forms permanent papules, nor small vesicles, nor pustules and crusts, nor weeping surfaces; while, on the contrary, it is almost always accompanied by subcutaneous œdema, frequently by wheals, and sometimes by hæmorrhage. Secondly, it is most certainly produced, not by mechanical or thermal, but by chemical, irritation, by the poison of a bee's sting, or a gnat's bite, or the sting of a nettle. It is never chronic in course, but fugacious. It produces smarting rather than itching. It is not nearly so symmetrical as eczema or psoriasis, and its favourite localities are different from those of any other kind of dermatitis, the forearm and back of the hand, the shin and instep, while it may spread diffusely over the trunk and face as an acute exanthem. We may compare the erythema urticaria produced by copaiba to that which follows the ingestion of mussels, crabs, and certain other articles of food. Still more frequently the eruption follows gastric irritation, when otherwise wholesome food becomes to an individual or on a particular occasion poisonous in its effects. One example of this *erythema ab ingestis* is afforded by the veinous congestion, œdema, and hypertrophy known as gutta rosea, wrongly associated with acne under the title "acne rosacea," which is not a primary obstruction and inflammation of the sebaceous glands, but the effect of frequently recurrent subacute erythema of the nose, cheeks, and chin. These flushings are, no doubt, frequently the result of excess in drink, but often of gastric irritation from other causes, or of ovarian disturbance, particularly about the climacteric period. Another etiological factor in the production of erythema is rheumatism. This is proved by the not infrequent appearance of erythema while the joints are still inflamed and the fever is high; also by erythema nodosum, so frequently occurring in those who have suffered from rheumatism; and, thirdly, by the hæmorrhagic eruption called "peliosis rheumatica," which bears all the characters of a true erythema. The last etiological point in relation to erythema, urticaria, and the rest of the group is their more frequent occurrence in children and young adults than in elderly persons, and among adults in women more than in men.

Dermatitis of nervous origin.—Another etiological group of cutaneous inflammations we have clear evidence of is due to disturbance of vaso-motor and trophic nerves. There are numerous and well-attested cases of bullæ and sloughing ulcers following injuries to one of the nerves supplying the upper or lower extremity. A large number are recorded in Dr. Weir Mitchell's well-known work, and many additional ones in Mr. Bowlby's Astley Cooper essay, afterwards published, with important additions, under the title "Injuries and Diseases of Nerves." There is now little, if any, doubt that the sloughing of the cornea which follows injury to the fifth nerve, and the acute sloughing bedsore which so speedily follows certain affections of the cord, are trophic lesions. But at present only one idiopathic disease can be brought under this etiological group—that, namely, which used to be called herpes zoster, and is now generally called zona. Here, however, I must pause.

In concluding this course of lectures I hope to have shown that etiology, when regarded as a part of the natural history of diseases, is not without interest or without important practical bearing. Much of what I have laid before you has been negative, and, I venture to hope, destructive criticism. But we must get rid of superstitious remnants, misleading analogies, loose definition, and illogical arguments before we can make progress in any branch of natural science. When the ground is cleared a solid structure may be built.

THE ETHICS OF OPIUM AND ALCOHOL.

BY F. J. MOUAT, M.D. EDIN., F.R.C.S. ENG.

I HAVE heretofore taken no part in the anti-opium controversy, for reasons which I need not detail; but when I perceive in THE LANCET in a notice on the subject that opium and alcohol are comparable, and stand on the same platform in their moral and material relations, I venture to think that this is not a correct view of the matter, and I hope to be able to show the grounds on which I dissent from that opinion, quite apart from the party and political purposes of the discussion, with which, in this article, I have no immediate concern. I have had an unusually varied experience of opium in its commercial, chemical, judicial, medico-legal, and therapeutical relations, from the accidents of the official positions which I occupied in India; and I deem it desirable to place that experience on record, to enable those who have not had the same opportunities to weigh the evidence I can produce, and thus assist them to judge more dispassionately the matter in relation to legislative action than is possible from the passionate appeals made on the subject. These I hold to be based upon erroneous information, however pure and sincere may be the motives which animated the originators of the movement. One of the most far-seeing and capable of the rulers of India, the late Lord Metcalfe, is reported to have said, when removing the fetters on the freedom of the Press, that if India is ever lost to Great Britain, it will be in the House of Commons. Let us hope that in any case it will not be upon the opium question. Reasons, correct and unanswerable, have been adduced by some of those best qualified to form an accurate judgment on the subject of the danger of tampering with native habits and customs, which are cherished with a tenacity unknown to those who have not witnessed them. I had many opportunities of ascertaining this in the conversations which I had with the Sepoy mutineers, who passed through the Alipore gaol on their way to the Andaman Islands. The lesson then learnt ought not to be so soon forgotten.

My personal and practical acquaintance with opium commenced in 1840, when I was appointed to officiate as assistant opium examiner to the Government, an office which I held for a year. During that time I had to analyse a sample of opium taken from each of the chests sold by auction in Calcutta for transmission to China, and this analysis was produced at the sale for the information and guidance of the opium merchants. The chief constituent which determined its commercial value and consequent price was the amount of morphia contained in each

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sample. This information was sent to China with each consignment of the drug.

The subject was then new to me, and of so much interest that I wrote to an old fellow student practising as a medical missionary in Canton to know whether the chemical analysis was accepted in China as a correct estimate of commercial value; whether he had himself employed Indian opium in his practice; whether it was of greater or less efficacy than native opium; and if it differed from it, in what manner and to what extent? His answer was to the effect that so far as he could ascertain the Chinese paid little or no attention to our chemical reports, but judged it by a rule-of-thumb method of their own, based upon the smell, taste, and touch of the drug. He had no information as to its therapeutic action, as it was an expensive luxury beyond the reach of his patients, and was not used generally for medical purposes.

Shortly after this, in the following year, I succeeded Sir Wm. O'Shaughnessy as Professor of Chemistry and Materia Medica, and he made over to me the completion of the Bengal Dispensatory, which he was then compiling, and which was unfinished. I had therefore a far more minute and quantitative, as well as qualitative, analysis of the drug to make, and to institute a series of inquiries in the Medical College hospital regarding its therapeutic value, with a view if possible to ascertain to which of its constituent alkaloids it owed its anti-periodic virtues. These experiments were not concluded when he returned from furlough, and the work was restored to his hands; but as he was no longer connected with the College, and had no beds at his disposal, he did not continue the inquiry. He, however, completed and published the work. The net result of my inquiry, so far as it went, was that its properties as an intoxicant and anti-periodic were chiefly due to the morphia contained in it, but that it could not be substituted for quinine, which was at that time a very expensive curative agent.

I may mention here that Indian opium, carefully as the poppy was cultivated and the drug itself prepared, did not occupy the highest place in the scale, particularly as respected the most valuable of its constituents, morphia. The eminent French pharmacologist Guibourt assigned to it the fifth place, giving the highest positions to the opium of Turkey and Persia, which contained 14·78 per cent. of morphia, whilst Indian opium contained from 6·50 to 8 per cent. It is manifest, therefore, that if in India opium ceases to be produced as it is now, and is subjected to restrictions which are altogether inapplicable to that country, the finer varieties above mentioned will find their way to China (in these days of the daily increasing extension of commercial intercourse between all nations) as the luxury of the rich, thus being of doubtful advantage to the Chinese nation, and an injury to India, of which the magnitude and iniquity can scarcely be over-stated. This is not the place to discuss the physiological and therapeutic action of opium in the treatment of disease, but I believe it to be undoubted that it is a valuable febrifuge and pick-me-up in the fevers of all alluvial and marshy soils, and is procurable in the vast extent of thickly peopled districts, where no other remedy can be obtained. The older, and some of them are among the best, writers on tropical diseases placed great and well-founded reliance upon it. I have myself used it in my hospital practice in cases of pernicious remittent fevers, where there was an intolerance of quinine, and I had no reason to be disappointed with it.

I will now consider, as briefly as I can, its influence when used in moderation as a cause of disease and social disorder in the capital of British India. It is well known that alcoholic excess in Great Britain is responsible for a great part of the poverty and misery, of the crime and social disorders, and of the loss of reason which are national reproaches. In moderation alcohol is to a great extent comparatively harmless, and is in many cases valuable both as food and physic. But its indulgence in moderation is so difficult to secure as to have led for many years past to all kinds of repressive measures, but with very little effect, for the drink bill of Great Britain is still the greatest blot upon our escutcheon, and the most far-reaching instrument of evil against which we have to contend.

Some sixty years since a committee was appointed by the Government of Bengal to consider and report upon municipal improvements generally, and the provision of a fever hospital in particular, for the city of Calcutta. It was presided over by Sir John Grant, a senior puisne judge of the supreme court, and collected evidence for some years without arriving at any definite result, when, in 1843, I addressed the committee on the subject of the latter proposal, and suggested the building of such a hospital in the centre of the native town, to be attached to the Medical College, which was then under my administrative charge. This led to a considerable correspondence, which resulted in the building of such a hospital in 1848. In the course of the negotiations I was asked by the committee to afford them definite information as to the nature and extent of the accommodation required and the exact diseases treated in the then existing small and inadequate hospital and the out-door dispensary annexed to it. I complied with the request, and furnished tables of all the cases treated in both of the institutions mentioned for the years in which detailed records were kept, which were from the time of my appointment, when I introduced them, in 1841.

From that it appeared that in the male hospital there were admitted: In 1841, 1331 cases, with 179 deaths; in 1842 43 1230 cases, with 178 deaths; in 1843–44, 1676 cases, with 191 deaths; in 1844–45, 1297 cases, with 137 deaths. In the female hospital the admissions were: In 1842, 314 cases, with 27 deaths; in 1843–44, 389 cases, with 36 deaths; in 1844–45 380 cases, with 38 deaths. In both cases the beds were always occupied, so great was the need for accommodation. The average sickness in Calcutta, in a population then estimated at 300,000, was conjectured to be 18,000; but both figures were conjectural, as no census had then been taken. The out-door dispensary was of more importance. There were: In 1843, 12,330 cases; in 1844, 10,307 cases; in 1845, 14,552 cases; in 1846, 17,203 cases—in all, 56,392 cases. In the detailed tables furnished, all particulars connected with the diseases were contained. They included all classes of the native community, and a small proportion of Europeans and Eurasians. In the whole of this mass of sickness and mortality there was not a single case of either disease or death attributable to the use or abuse of opium, and yet there were not a few of habitual opium consumers in the city. There were a few—some eight or ten—cases of poisoning by opium, all of which were inquired into by the coroner, and none of them attributable to the ordinary employment of that intoxicant. The whole of the detailed particulars condensed into the figures above noted are contained in Appendix K to the third report of the Fever Hospital Committee, published in Calcutta in 1847, of which there is a copy in the library of the Statistical Society.

Next to disease in importance in dealing with substances which steal away men's brains, and depose sense and judgment from their seat to such an extent as to render them incapable of controlling their actions, is the commission of acts of disorder and crime. How stood Calcutta in this respect? I lived in the heart of the native city for thirteen years, during which time I was in constant communication with the magistrates and police superintendents, and most of the leading natives were personally known to me. On one side of me was a small, eminently industrious Chinese colony, all given to the habitual use of opium, and on the other side a very large aggregation of merchants and traders, of whom the up-country members were known to be given to opium. I traversed that city at least twice in every day in going to the European quarter, and never once saw an opium brawler, or heard of any one of them being in the custody of the police and in the courts for disorderly conduct under the influence of opium. What they did in their own quarters and dens, if the latter existed, for they were unknown to me, was confined to them, and never came under my personal observation. I am sorry to say that the worshippers of Bacchus were frequently in trouble, and were almost always European sailors from the shipping or soldiers from the fort. They were no worse than the same classes in those ports and garrisons in which they most do congregate. Many of them found their way to my hospital, generally brought in by the police, but the drunk, incapable, and disorderly were really few, the Calcutta gaol returns containing but 34 convictions in a single year, among 3921 inmates.

In 1868 I submitted to the Government of Bengal a special report containing the statistics of the whole of the prisons of the Province for the five years 1861 to 1865 inclusive. The prisoners sentenced were 302,374 in number, of whom all the particulars regarding caste, sects, classes, crimes, and sentences, as well as sickness and mortality, are contained

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in the volume referred to. Among this large number there was a daily average of 5 per cent. of sick, and a total mortality of 6717. Of these not a single case of either sickness or death was returned as caused by the use or abuse of opium. The same remark applies to the crimes for which they were incarcerated. A more striking proof of the negative part played by opium in the causation of moral, social, or physical evils could scarcely be afforded. The figures were collected with the greatest care in monthly returns, and subjected to the closest scrutiny to secure their accuracy. It is true that Bengal is not strictly speaking an opium province, but there is nevertheless a sufficient number of consumers of the drug either for pleasure or as a remedy against fever to have made known their existence had they appeared in the courts of justice, been confined in the prisons, or treated in the hospitals. Even in the notoriously opium province of Assam I carried out an order for the suppression of opium in the gaols, when it was considered to have become a necessary of life in those accustomed to it from infancy. This was accomplished without any injury to them when the period of depression on first entering the prison was safely passed by the slight medical treatment required and strictly enjoined. A similar return for all the divisions of the Lower Provinces in relation to the castes and other particulars of the criminal classes, exhibited the same results, and is contained in my gaol report for 1867. The absence of a reference to opium was complete and absolute.

In addition to all the above particulars, the evidence afforded by the lunatic asylums was equally if not more striking. I was the official visitor of those institutions for several years, while at the head of the Prison Department, and it was my duty once in each year to visit, examine, and report on the state in which I found them, as well as to see every inmate and verify the records regarding them all. As I have no longer access to the records of these institutions I speak of them with some reserve, as I do not consider it right to rely upon memory alone in such important matters; but, so far as I can trust to my recollection, opium was conspicuously absent, whilst the victims of gunja or hemp were neither few nor far between. I am glad to perceive that an inquiry into this matter will be instituted in India, and I hope that it will include all the other conditions referred to above.

It may be said that the evidence adduced by me from official returns and personal observation is of a negative character. It is so for the very good reason known to the codes of jurisprudence, and embodied in the apothegm or legal maxim—"De non apparentibus et non existentibus, eadem est ratio." Can the same be said of the demon drink in relation to public morals and manners, to the gravest social evils, to crime and punishment, and to loss of reason? Could it be exorcised, the gain to the nation and to all mankind would be incalculable. The loss by the suppression of opium in India would be as incalculable in the other direction, and so far as that country is concerned, would amount to a national calamity. It is simply idle to suppose that the restriction of treating it merely as a medicinal agent would remove any of the unjust reproaches now heaped upon it, or be practicable in such a country as India. Even on the small stage occupied by it in this country the abuse of morphia has already attained lamentable dimensions, and cannot be suppressed in the summary manner, calmly advocated for the millions to whom it would apply, were any Government rash enough to adopt or attempt it, or possessed of sufficient means to carry it into effect.

CERTAIN QUESTIONS ON THE TREATMENT OF DIABETES.

BY CHAS. H. RALFE, M.D.CAMB., F.R.C.P.LOND.,
PHYSICIAN TO THE LONDON HOSPITAL, ETC.

(Concluded from page 904.)

ADMITTING, then, the risks attendant on a proteid diet, I would ask, are the relaxations proposed calculated to obviate them? I think not. They may satisfy a craving or help a jaded appetite, but, from a careful consideration of a very fair number of cases, I can confidently assert that the admission of any article containing starch or sugar is always followed by an increase of the disorder, which if persisted in becomes a definite advance. This intolerance of any partial resumption of saccharine material is more marked in some patients than in others, and some more quickly rally from an indiscretion, whilst some forms of sugar are better tolerated than others. Still, the fact remains that any article containing sugar ingested increases the glycosuria and diuresis, and further lowers the assimilative processes in the body. Neither a modicum of wheaten bread nor of mashed potatoes, or, what is a more reasonable suggestion, the use of subacid fruits, is sufficient to counteract the danger arising from the morbid products of a defective proteid metabolism, which is a danger incidental to the disease itself; whilst they are decidedly hurtful in other directions. To obviate this risk other measures are called for, which cannot be discussed fully now, and which are indicated by improving and maintaining the patient's strength by every hygienic and therapeutic means at our disposal. Two measures, however, I may briefly touch upon. The one is in the regulation of the amount of proteid food as the assimilative powers flag. There is very little doubt that diabetic patients are often encouraged to eat more animal food than they require or can assimilate; and I have seen the greatest improvement follow a reduction in the amount of meat, as also in a change from beef and mutton to fish, poultry, and such light food as tripe, calf's head, &c. A Paris physician of some eminence called attention to this point some years since, and stated that during the siege of Paris he noticed that his diabetic patients made considerable improvement, which he attributed to their having their flesh diet greatly curtailed. The importance of taking plenty of green vegetable food should be insisted on, to say nothing of watercress and other green salads. The second measure to improve assimilation and promote metabolism is massage, both general and over the abdominal viscera. When thoroughly carried out I have seen it effect a wonderful improvement in the patient's condition, in the restoration of appetite, improved digestion, relief of constipation, and a general increase of vigour.

With regard to the second question, I fear but little time is left for its full consideration on the present occasion, but as it is rather to elicit information than to impart any fresh facts, it will not take me long. It is strange, indeed, that, with a drug which is acknowledged as the only reliable therapeutic agent available for the treatment of the disease, no definite rules have been formulated with regard to its administration. Amongst the patients who come to me who have already been under treatment by their family attendant, I find a certain number who have already been ordered opium or one of its derivatives, others who have only been restricted as to diet. On looking over the reports of published cases I find the same uncertainty of opinion; some relying only on diet combined with some other form of treatment, others in which both diet and opium have been administered. There is therefore no unanimity of opinion as regards the time when treatment by the drug should be commenced. Some give it quite early; some wait till the disease is no longer removable by diet alone; whilst others postpone its administration till quite a late stage, or only employ it when complications such as boils, carbuncle, or gangrene occur. Some give it freely; others employ it sparingly.

With regard to the mode of administration, till Dr. Mitchell Bruce's instructive paper in the *Practitioner*, 1887, it was not demonstrated experimentally that subcutaneous injection of the drug was much less effective in restraining the glycosuria than when taken by the mouth. Even up to the present time it is not decided whether it is best to administer the drug when the stomach is empty, or during the process of digestion, when the portal circulation is in full activity. It is not conclusively determined whether opium in its crude form, or one of its derivatives, is best employed, or whether a combination is not most effective. Lastly, there is no consensus of opinion on the very important point how far we are justified in pushing the drug when the disease is prolonged, or when a fresh exacerbation occurs.

My answer to these inquiries must be brief; but I hope the conclusions I have drawn from observation of cases under my notice will be found to coincide with those of others, and will be strengthened by the experience of those present to-night.

1. With regard to the period when opium or its derivatives should be commenced, I have come to the conclusion that whilst the glycosuria can be completely removed by

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diet the drug should not be administered, for this reason: that when it has once been administered, and then left off, on resuming it a much greater quantity is required to effect the same result than if even opiates had been continued throughout. This is in accordance with Dr. Mitchell Bruce's experience, for in one of his cases, quoted in the paper already alluded to in the *Practitioner*, in which the dose of morphia was reduced for a time, it was found that on again resuming the full dose it was necessary to increase it from four grains and three-quarters of morphia to seven grains before the same effect was induced. And here I would touch, parenthetically, on the danger of suddenly reducing the dose of this drug when it has been administered for some time, and especially in advanced cases. In two cases in which this has been attempted fatal results followed so shortly after that there could be no mistaking the cause. No hesitation, however, should be felt in commencing treatment by this drug as soon as the sugar fails entirely to disappear from the urine by mere restriction, as it is then that its power in maintaining the assimilative processes in the body is best exercised.

2. With regard to its mode of administration, the most decided results follow in diabetes when the drug is administered by the mouth, so that any other method need not be entertained. With respect, however, to the most effective period for administration, whether immediately before meals, so that it may quickly enter the portal circulation, or during digestion, when the assimilative processes are most active. I have found that administration about an hour after a meal has a greater effect in restraining diuresis than when taken on an empty stomach, that not much difference is effected on the sugar excretion, but that the dose taken shortly after food has one great advantage, especially when large doses of the drug are taken, of not disordering the stomach, or of causing nausea or impairing digestion as when taken fasting.

3. As to the best preparation of the drug. Solid opium, which was entirely relied on before the introduction of codeine by Dr. Pavy, has fallen into discredit, as I think undeservedly, and that alkaloid has almost entirely replaced it. But Dr. Mitchell Bruce has pointed out that morphine acts equally well as codeine as a sugar-restraining agent, and indeed is more active and more powerful, whilst quite as safe. Whilst endorsing all Dr. Mitchell Bruce says regarding the value of morphine in diabetes, and preferring it to codeine, on account of its greater uniformity of action, I have come to the conclusion that the full benefit of the drug in diabetes is not obtained unless some of its other derivatives are combined with the alkaloids. Though both codeine and morphine restrain the sugar excretion and the diuresis, still patients on whom the test has been made inform me that they experience a greater satisfaction when some preparation of crude opium has been added to either alkaloid. This can be done by combining liquor opii with acetate of morphia in solution, increasing or diminishing one or the other as circumstances seem to require; or else employing some of those extra pharmacopœial preparations which contain morphia as well as some other derivative of opium. Besides, I may say that diabetics often exhibit individual peculiarities as regards the different preparations of opium, which ought to be studied. In one case (a lady) codeine and morphine were tried on several occasions, and had to be given up on account of the headache and giddiness which were produced. Solid opium in the form of compound soap pill was, however, taken without any discomfort.

4. Lastly, in fixing the dose, at first it is important to find out the patient's own capacity for the drug, which varies greatly in different individuals, and discouragement should not be felt if the patient complains, or is in any way made uncomfortable on first commencing opium or its preparations. Each patient has his proper dose, and as soon as that is ascertained the full benefit of the drug will be felt. The real difficulty lies in determining the right time for increasing the dose, and when this becomes large to decide whether we should continue to increase it further. As a rule, we err, I think, on the side of too much caution, and often fail to obtain the full advantage of the effects of the drug by holding our hands when a certain effect has been produced. As soon, therefore, as the glycosuria ceases to be absolutely controlled by dietic restrictions, I venture to suggest that opium should not only be given in doses that sensibly affect the excretion of the sugar, but should be increased till either they entirely control the glycosuria, or no further reduction in the amount of sugar passed is obtained on increasing the dose. When this point is reached, we should recognise that the drug had been pushed to its fullest sugar-restraining capacity, and that the dose need not be increased till a further exacerbation of the disease takes place, always assigning as a limit to its increased use the point at which it ceased any longer to affect sugar excretion. How far and how long the use of opium or its derivatives may be carried without causing injury to the patient there is little means of saying. Diabetics are, as is well known, extremely tolerant of the drug, and it is impossible to judge of them, as regards the effects of opium, as is possible in the case of morphia *habitués*. Nor is it possible to ascertain what are the maximum doses that have been reached. Dr. Richardson, in a paper contributed to the Medical Society on the morphia habit,[1] mentions the case of a patient, a medical man suffering from diabetes, who for a period of eleven years took from one to three grains of morphia daily. Ultimately this patient died from what might be called premature old age. He was fairly happy up to a few weeks of his death, and Dr. Richardson had every reason to believe that his comparative easy life was considerably prolonged by the morphine. Dr. Mitchell Bruce, in the paper already alluded to, mentions seven grains of morphine as the maximum dose in one case, and six grains and a quarter in another, whilst under his care in the hospital. I have at the present time a patient who for two years has taken three grains and a half of morphine every day, having previously taken smaller doses. This patient has maintained his general health remarkably well; he is active, cheerful, and follows his occupation to his own and every one else's satisfaction, whilst the drug does not seem to have any of its usual effects—he is not drowsy or constipated; nor does he crave for the drug. For two years this dose has sufficed without any further increase being required; lately, however, the diuresis has increased, as well as the amount of sugar, and an augmentation of the dose must shortly be resorted to. The fact, however, that there has been this pause in the disease shows that opium, when given in effectual doses, does not need that these doses should be frequently added to. In this case, at the last increase, the dose of morphine was increased till no further impression was made on the glycosuria, which fell to about fifty grammes in the twenty-four hours, and has fluctuated between that and eighty grammes during the period mentioned. I have also given morphine to the amount of six grains in the day without observing any ill effects; but this quantity was only reached towards the end of the case, the longest period not being more than three months. So long, however, as opium or its derivatives affect a reduction in the excretion of sugar, I believe we may safely increase the dose; but as soon as the point is reached, and this frequently happens towards the close of the case, at which no further reduction is possible, and the sugar excretion rapidly gains ground in spite of dietetic restriction and the administration of opium, then I think it wise not to attempt any further increase.

I have thus, though I feel in a very incomplete manner, endeavoured to answer according to my own experience and observations the two questions which I proposed at the commencement of this paper for consideration, and trust they may be in accord with the general opinion of the profession.

Queen Anne-street, W.

[1] Transactions, vol. vii., 1885.

PARKES' TRIENNIAL PRIZE.—The prize of £100 and a gold medal for the best essay on "The Influence of Soil as a Factor in the Production of Disease, especially in Hot Climates; illustrated, as far as practicable, by Facts personally observed by the Writer," has just been awarded to Surgeon-Captain R. H. Firth, F.R.C.S., D.P.H., Medical Staff, now stationed at Dover. The assessors by whom the prize was adjudged were Dr. S. A. Monckton Copeman, M.A. Camb., of the Local Government Board; Dr. George Vivian Poore, F.R.C.P. &c., of University College; and Dr. J. Lane Notter, M.A., Professor of Hygiene at the Army Medical School, Netley. The essays sent in were five in number, and the assessors were unanimous in allotting the first place to the essay which was found to be the work of Surgeon-Captain Firth. The other essays will be returned to the writers on application to the secretary, Parkes' Memorial Fund, Royal Victoria Hospital, Netley.

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ENLARGEMENT OF THE SPLEEN IN YOUNG CHILDREN.[1]

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(*Concluded from page 909.*)

I COME now to the most important part of the subject—viz., the pathology of this enlargement of the spleen. Three diseases naturally suggest themselves as possible causes—ague, congenital syphilis, and rickets. We will discuss them in the above order. Ague is now so comparatively rare as an indigenous disease in London that one is apt to overlook it as a still possible cause of obscure conditions, and it is very necessary to bear in mind that although we may no longer meet with well-defined attacks of intermittent fever, yet malaria is much more insidious in its invasion in children than in adults, and may conceivably be the basis of the condition which has been described, especially as most of the patients came from the low-lying districts of Chelsea, Battersea, Fulham, and Putney, adjacent to the Thames. In vol. i. of THE LANCET of 1869, p. 325, is a statement by Dr. Andrew of St. Bartholomew's Hospital that almost every autumn he got some cases of ague which had originated in certain streets in Blackfriars. At a discussion at the Medical Society on Leucocythæmia, as lately as 1880,[2] Sir William Gull stated that there was malaria all over London; and in 1884 appeared a paper by Dr. W. R. Thomas of Sheffield,[3] describing cases of malaria, curable by quinine, amongst children in the low-lying districts of Sheffield, in which the spleen was generally more or less enlarged, sometimes enormously so. Moreover, malarial fever may be hereditary, at any rate from the mother. Henoch[4] mentions a case of splenic anæmia in which the mother stated that she had repeatedly suffered from intermittent fever during her pregnancy with the patient. In my cases the only hereditary histories obtainable were in Case 12, the father having had slight ague in Essex when a boy, and Case 15, in which the father had had ague twice, when in the army, before marriage; but probably during that period he had also contracted other diseases which had a more important bearing on the case. The connexion shown by Dr. Gowers to exist between leucocythæmia and ague is also suggestive of a possible connexion between the latter and splenic anæmia—a disease which, in many respects, seems to be allied to leucocythæmia. Such is the *a priori* reasoning in favour of ague being a possible cause of this splenic enlargement; but when we come to examine the cases individually we find but little evidence of such an origin. Of the children which were in the hospital, some of them for many weeks, or even months, not one had a temperature chart in the least degree suggestive of intermittent fever, only a pyrexia associated with pulmonary inflammation or the irregular febrile attacks similar to those occurring in the course of other profound anæmias; not one showed any improvement under quinine or arsenic. But more interesting and decisive is it to contrast the clinical history of the cases already described with that of an undoubted instance of ague with enlarged spleen in a child. A boy aged two years and a half was brought to me on June 19th, 1891. He had been born in Mooltan in the Punjaub. His father had been in India twenty years, and had had slight attacks of ague; his mother had had ague severely several times, both before and during her pregnancy with the patient. There was no suspicion of syphilis. When six months old the boy was seized with ague, and subsequently he had frequent and very definite attacks, with distinct cold, hot, and sweating stages. They had recurred since his arrival in England, a month before being brought to the hospital, and he had wasted considerably. When first seen the child was distinctly anæmic, fairly well developed, and not rickety; had slightly enlarged glands in the neck, axillæ, and groins; the liver was felt a full inch below the costal margin, the spleen projected two inches below it, reaching forwards to the nipple line and upwards to the seventh space in the mid-axillary line; the blood showed 70 per cent. of red discs, about one white to 100 red, and 60 per cent. of hæmoglobin. Here, then, was a case in which the physical signs and symptoms were absolutely identical with those of a moderately severe case of splenic anæmia—pallor and some wasting, the same condition of the blood, moderate enlargement of the spleen, and slight hypertrophy of the liver and lymphatic glands. The only difference was that in this case there was a definite history of repeated attacks of ague. Here, therefore, was a patient in whom the reaction to treatment might decide whether the resemblance was completed by a similar chronicity and unresponsiveness to drugs to that which characterises true splenic anæmia, and the test was a very fair one too, for the child must have been well under the malarial influence, not merely from exposure to infection after birth, but also by inheritance, in the most direct and powerful form, from the mother during intra-uterine life.

Here is the result: the child was given one grain of quinine three times a day; in a fortnight he seemed much better, and the spleen could only just be felt. In five weeks he had gained weight, and greatly improved in every way. The lymphatic glands were much as before, but neither the spleen nor the liver could be felt below the ribs; the red corpuscles had risen to 91 per cent., one white to 450 red; hæmoglobin 65 per cent. A more complete contrast to the progress of an ordinary case of splenic anæmia, a more convincing proof that the latter cannot, at any rate usually, be dependent upon malaria, could hardly be desired.

I turn now to the relationship to congenital syphilis, and here we have much stronger evidence of a definite connexion. In eight cases the infants were undoubtedly syphilitic, in six there was doubtful evidence, and in sixteen no evidence of specific disease; but even in several of the latter the possibility of syphilis could not, of course, in out-patient practice be by any means absolutely excluded. So far as can be ascertained, seven of the first fourteen cases died, and only three of the sixteen apparently free from specific taint. I think there is little doubt that the personal bias of the observer influences considerably, consciously or unconsciously, the percentage of cases in which, amongst a number of infants, hereditary syphilis will be diagnosed, some accepting as indisputable signs or evidence which others would either regard as worthless or would look upon with much doubt. Thus, if the observer start with a preconceived notion that these cases of splenic anæmia are essentially syphilitic, then he will probably find evidence, to him convincing, of syphilis in nearly every case, and will argue that as so many are proved to be syphilitic, any unexplained residue must be owing to insufficient knowledge of facts, which if known would probably confirm his view. If, like Parrot, we were to consider practically all rickets as due to specific taint, then, indeed, nearly every one of my cases would be syphilitic; so also, if cranial bossing or cranial tabes be regarded as sufficient proof in default of other signs, the percentage of cases of splenic anæmia due to syphilis would be at once increased; but this position has, I believe, been abandoned even by its original promoters, and my own clinical observations do not prompt me to make any attempt to rehabilitate the former faith. Necessarily, however, it must always be exceedingly difficult to say that a specific taint—insufficient it may be to lead to definite manifestations, but impossible to exclude absolutely—may not be at the bottom of an obscure disease like splenic anæmia. Apart, however, from all doubtful disputations, the fact remains that certainly a considerable percentage of these cases, and perhaps the worst among them, are associated with undoubted congenital syphilis; and the significance of the conjunction is not much diminished by the fact that in a large number of specific cases there is at no time any detectable enlargement of the spleen, although Cornil states that it is always hypertrophied. In the majority of hereditary syphilitic cases epiphysitis and interstitial keratitis are absent, yet no one doubts that they are essentially specific in origin. Often in examining syphilitic children I have found a slight splenic enlargement, the organ not feeling very hard, and there being no associated anæmia. This is doubtless comparable to the slight enlargement of the spleen described by Mr. Hutchinson in secondary syphilis, similar to that met with in the course of some acute specific diseases, and it usually soon disappears under treatment; but perhaps

[1] Paper read before the Medical Society of London, Feb. 8th, 1892.
[2] THE LANCET, vol. i. 1880, p. 173.
[3] Brit. Med. Jour., vol. i. 1884, p. 99.
[4] Diseases of Children, vol ii., p. 128. (New Sydenham Society.)

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at times the slight swelling may develop into a more pronounced hypertrophy, and eventually into a well-marked case of splenic anæmia. Probably all intermediate conditions obtain, and are illustrated among the thirty cases. Dr. Gee, in a paper read before the Medical and Chirurgical Society in 1867, stated that the spleen is enlarged by simple hypertrophy, so that it can be felt during life in about half the cases of congenital syphilis, and that in about one-quarter of the cases the enlargement is really great, and that sometimes the liver and lymphatic glands are hypertrophied as well; that the majority of cases of great enlargement die, but that sometimes the spleen gets gradually smaller; also that occasionally an enlarged spleen may be the only sign of an active syphilitic cachexia. In Wilks and Moxon's "Pathological Anatomy" it is stated that "in syphilis we often meet with hypertrophic enlargement of the spleen, no cirrhosis or lardaceous disease being present." But whilst fully realising the very remarkable connexion existing between congenital syphilis and enlarged spleen, we must admit that in a large number of cases, and many of them very severe, there is no evidence whatever of specific taint; cases too which run identically the same course and present the same pathological appearances as those associated with undoubted syphilis. But even more important is the result of treatment. The general rule in hereditary syphilis—at any rate as regards the earlier manifestations—is that the lesions either rapidly disappear under mercury, or else, if very severe and developed at an early period of life, soon progress to a fatal termination. But this is certainly not the case with hypertrophy of the spleen. The most active mercurial treatment, even in those cases in which the ordinary syphilitic manifestations are most pronounced, so far from being curative, appears to do harm rather than good, so far as the splenic condition and the anæmia are concerned. Of course it may be replied that anti-syphilitic remedies do not benefit locomotor ataxy due to syphilis, or quinine leucocythæmia started by ague; but these are very remote and indirect consequences of syphilis and ague respectively, whilst splenic enlargement, if due to syphilis, would surely have to be classed, from the period of its onset &c., amongst the conditions usually very amenable to treatment. We conclude, therefore, that though there must be a very close connexion between congenital syphilis and splenic anæmia, yet something further is required adequately to explain all the facts of the case, and that syphilis can be classed as a predisposing cause only.

Lastly, we have to consider the relation between rickets and splenic anæmia. In twenty-seven of my cases there was rickets, in four only slight, in the remainder more or less severe. At first sight these figures very strongly suggest that in rickets we have the true cause of splenic anæmia, and this was the view which Sir Wm. Jenner adopted in his classical lectures on rickets,[5] in which he says that "albuminoid infiltration of such a degree as to cause very great enlargement of the spleen is rarely seen except in those of the rickety diathesis." Before, however, we accept this seemingly tempting view, there are certain difficulties to consider: 1. That in the very great majority of rickety children no enlargement of the spleen can at any time be made out. I believe all observers have been and are agreed on this point. Although, as I have already said in regard to syphilis, absence of invariable association does not disprove a causal connexion, yet it at least suggests the probability of the action of some further cause, present only in a minority of rickety cases. 2. That there is no connexion at all between the severity of the rickets and the size of the spleen or the degree of anæmia. The splenic hypertrophy may be very great and the bone changes very slight, or *vice versâ*. Sir Wm. Jenner said that sometimes the bone disease is extreme and in others moderate or even trifling in degree. 3. In certain cases of splenic anæmia there is no evidence whatever of rickets. Case 7, in which rickets was absent, was first seen when the child was two years and a half old, and as she had only been suckled a short time, she might possibly have had a slight attack of rickets, all signs of which had disappeared; but the child (Case 17) which died at the age of only three months, with well-marked symptoms of splenic anæmia, had been fed exclusively at the breast; and Case 14 also, aged seven months, had had no food except the mother's milk. Of course it may be said that even in these cases, despite their early age and the absence of improper feeding, rickets would have been found if carefully looked for, and can, in fact, only be included by examination and section of the bones post mortem. It is interesting, however, that even Sir Wm. Jenner, after dwelling on the association of rickets with splenic hypertrophy, adds in a note: "I have now under my care a child, aged three months only, whose spleen reaches below the level of the umbilicus. The child is suffering from catarrh. There are no signs of rickets or tubercle." And so experienced and careful a pathologist as the late Dr. Fagge, in opening the important discussion on rickets at the Pathological Society in 1880, said that he had found a large fleshy spleen in many children who had been free from rickets.

But some supporters of the rachitic theory adopt a slightly different line of argument. Thus Dr. Dickinson, at the discussion just referred to, said that "where the visceral change is most marked, that in the skeleton is seldom extreme, as if the disease spent its force in one direction or the other"; or practically, in other words, that enlargement of the spleen alone may almost be considered sufficient evidence of rickets. It is, however, somewhat unfortunate, albeit perhaps rather suggestive, that *mutatis mutandis* the same thing has been said of syphilis. Thus Dr. Gee, as already quoted, says that sometimes an enlarged spleen is the only sign of an active syphilitic cachexia. Surely, however, this is begging the whole question; such a line of argument has the advantage of being necessarily unassailable directly; but it seems to me, whether applied to syphilis or to rickets, to be as incapable of proof as it is of disproof. Both the statements quoted may be true at times, particularly, I think, as regards syphilis, if some family histories are to be trusted; obviously both cannot always be true. Moreover, in some of my most extreme cases of splenic enlargement the rickety bone changes were very marked; in fact, as already stated, I can trace no definite relationship at all between the two conditions.

The foregoing remarks open up a question of wide interest as to how far we are justified in diagnosing rickets in the absence of distinct bone changes. I realise most fully that rickets is not a mere disease of the bones, but is a nutritional failure, affecting profoundly every one of the tissues and organs of the body; but, granting all this, may we not, ought we not to, admit that there may be conditions resulting from malnutrition in infants which are not necessarily rachitic—conditions which indicate a failure of nutrition along other lines than those producing the typical phenomena of rickets? In other words, are we not endeavouring to simplify our classification at the risk of collecting several distinct morbid conditions under one heading? True it is that under the rheumatic diathesis we have been able to bring together such apparently diverse conditions as arthritis, endo- and peri-carditis, chorea, pleurisy, tonsillitis, &c., to the great advantage of our pathology and treatment; but, on the other hand, how many totally different functional conditions have been accumulated under that convenient refuge word hysteria, with very many unfortunate consequences? That malnutrition may, and does, take on various forms is indicated by the fact that the most profoundly marasmic infants are seldom rickety. Should we not recognise more fully than perhaps we do at present that exposure to diverse unhygienic conditions—bad air, insufficient light, defects of diet, either as a whole or as regards one or more of the important constituents &c., acting in conjunction with different inherited tendencies or actual cachexiæ—may result in correspondingly diverse pathological conditions? In one case simple atrophy; in another ordinary rachitis with tendency to excessive fatness; in another rachitic bone change with more or less wasting; in another marked nervous weakness, shown by laryngismus, tetany, facial irritability, or by actual convulsions—conditions, without doubt, closely allied to rachitic bone change, but apparently bearing no very definite relationship to it, or finally, in some instances, leading to the condition with which we are now dealing—splenic anæmia. We know now that ordinary rickets is essentially due not only to improper feeding, but to a distinct kind of improper feeding. Is it not reasonable to suppose that other unhygienic conditions, acting alone or in combination, may have equally definite, though as yet not as clearly recognised, results? What the particular condition is which causes this splenic anæmia, whether it

[5] Published in 1880 in the Medical Times and Gazette.

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be inherited or acquired, whether it be dietetic or aerial, I know not. That it is closely allied to the syphilitic cachexia, and even more nearly related to the causes which produce ordinary rickets (perhaps because rickets is more common than hereditary syphilis), there can, I think, be no doubt; very probably without some such predisposing element it will not develop. That neither of these diseases alone is the efficient cause I am almost equally certain. Dr. Cheadle, in a paper on rickets read before the British Medical Association in 1888, suggested that the cases of rickets in which enlargement of the liver and spleen is found are those modified by syphilis. No doubt as rickets predisposes to splenic anæmia, and as congenital syphilis does also, the combination of the two might be supposed to augment greatly this predisposition; but, on the other hand, if it be established that the disease can exist apart from rickets and also apart from syphilis, any theory which requires for its production the combination of the two can hardly be satisfactory.

The assumption of various well-recognised predisposing causes of splenic anæmia, requiring, however, some definite but at present unknown exciting cause for its development, would explain the fact that, whatever its apparent origin, the disease appears to run an independent course; that it presents, as seems now to be generally admitted, identical pathological appearances in children, whether syphilitic, rickety, even malarial, or showing no other cachexia; and that, finally, special treatment has but little influence over it; so that even in the most notably specific cases mercury seems useless, and that when associated with marked rickets the splenic hypertrophy and the anæmia improve much more slowly than the ordinary rachitic phenomena. If it be doubted whether any such single and definite cause as I have suggested be likely to be found, it may be remembered that until recently some dozen different causes of rickets were described, and it is only during the last few years, owing to the experiments of Mr. Bland Sutton at the Zoological Gardens and the writings of Dr. Cheadle, that the disease has been attributed more and more definitely to deficiency of certain essential elements, notably of fat, in the diet.

One more interesting question arises which has a bearing on the possible cause of splenic anæmia—viz., as to its age incidence. Up to now I have described it as a disease of very early childhood. In my thirty cases the oldest is two years and a half, and I have only been able to trace one case, No. 6, now aged three years and a half, in which the disease has persisted much beyond infancy; but does it ever occur in later life? In Fagge's Medicine it is stated to be "certainly rare." In the article on splenic anæmia in Keating's Encyclopædia it is said that the disease may occur in children of all ages, as well as in adults; but the only case referred to is one published in 1856 by Friedreich in a boy of five years and three-quarters. In the Pathological Anatomy by Wilks and Moxon (third edition, p. 495) the subject is thus mentioned:—"There are other cases in which the spleen is enlarged to a great size, and this enlargement is the chief, if not the only, disease that can be discovered. Thus Sir Spencer Wells removed a spleen weighing six pounds, this being the only disease discoverable in the body, and the blood not being leukæmic; and Mr. Squire met with a spleen weighing thirteen pounds, while the blood did not show a positive excess of white corpuscles. Similar cases have been met with of simple hypertrophy of the spleen without leukæmia, both in the living and in dead subjects. They are generally, but not always, at least during life, associated with anæmia, and so, indeed, as a rule, are all long-standing diseases of the spleen. These cases are the only ones that can be properly considered as pure examples of hypertrophy of the spleen; the cause of the enlargement is unknown, and the accompanying clinical phenoma need further investigation." I have met with one case in a boy of seven years, which might be considered an example of splenic anæmia. He was admitted from my out-patients to the Victoria Hospital for Children, Chelsea, on Feb. 6th, 1891. There was no evidence of congenital syphilis or of ague, and no history of acute specific disease since infancy. He had been ill three months, with increasing pallor and weakness. The boy was well nourished, but markedly anæmic; the liver reached two inches below the ribs and the spleen below the level of the umbilicus; it was hard, smooth, not tender. A systolic murmur, probably hæmic, was heard all over the cardiac area; urine acid, no albumen. Red corpuscles 42·6 per cent.; hæmoglobin 30 per cent.; no excess of white discs, but it was difficult to distinguish the red from the white, there being apparently intermediate granular corpuscles. The boy had attacks of pyrexia lasting several days, during which the spleen got larger, and diminished in the inter-pyrexial periods. There were no hæmorrhages. The anæmia increased, and on March 18th the red corpuscles were 33·6 per cent., one white to eighty-four red; hæmoglobin 20 per cent. Neither arsenic nor quinine seemed to have the slightest effect. On account of the hospital being closed the boy was sent to St. George's Hospital. His friends afterwards took him home, where he died, and unfortunately no necropsy was obtained. Except for there being no excess of white corpuscles this case presented all the characters of leucocythæmia. Can it, and can the other cases to which reference has been made, be considered true examples of the splenic anæmia which occurs in infants? Perhaps others may be able to mention similar cases occurring after infancy. At any rate, we may, I think, safely conclude that splenic anæmia is excessively rare after the first two or three years of life, that it occurs in fact during the period of incidence of rickets, and this would tend to increase the etiological relationship of the two diseases.

As regards treatment I have but little to add to what has already been said by implication. Mercury, even in the most obviously syphilitic cases, has seemed quite useless. In Case 1 it was given both internally and externally, and after four months there was no improvement as regards the spleen, though ordinary syphilitic manifestations had disappeared. Mercurial inunction was tried for some weeks in Case 6, in which the spleen still remains enlarged; and also in Case 15, which proved fatal. In Case 17, for a month before death, mercurial ointment was applied and grey powder given by the month. The only patient in whom the spleen seemed to get smaller under mercury was Case 14, and this was a mild case from the first. Neither quinine nor arsenic had any apparent effect; thus in Case 4, liquor arsenicalis was given for five weeks in increasing doses up to three minims three times a day, and was eventually left off, owing to vomiting, without having caused any improvement. Also, in Case 8, two minims of liquor arsenicalis were given every four hours for some time without result. I should add, however, that in Case 5, a very severe one, the child was taken out of the hospital by the parents, after being in only a few days, and Mr. Mordaunt Wheler of Battersea-park-road, under whose care she then came, tells me that he treated her with increasing doses of bromide of potassium and liquor arsenici hydrochloricus for over twelve months, until complete recovery ensued. One great difficulty, especially in out-patient practice, in giving any of these remedies a fair trial lies in the frequency with which the course of special treatment is interrupted by attacks of gastro-intestinal or respiratory catarrh—often protracted and severe,—to which these anæmic children are particularly prone. As a rule, the most efficient treatment, in addition to suitable food &c., appeared to be cod-liver oil and iron, and I am inclined to think that the latter especially may be pushed with advantage. Thus in Case 8, one of the most severe of the series, the red corpuscles increased in six weeks from 37 to 63 per cent., and the hæmoglobin from 25 to 38 per cent. under reduced iron, given up to eight grains a day. It should, however, be added that in this case the anæmia had previously to the former estimation been unduly increased by severe epistaxis. Again, in Case 22, tincture of perchloride of iron was given up to five minims three times a day for several weeks, and during this time the spleen got very considerably smaller and the child's colour and general nutrition greatly improved. Thus, in the future, whilst of course treating any obvious symptoms of syphilis, I shall be inclined to rely for the improvement of the splenic anæmia proper upon the, as far as possible continuous, administration of large and increasing doses of iron.

In this paper I have not brought forward new facts or advanced novel theories, but have simply endeavoured, by describing, and as far as possible following out, the history of thirty cases of varying degrees of severity, to arouse interest, to promote inquiry, and thus to increase our common knowledge of the origin, course, and so ultimately of the successful treatment of a disease of which at present we can only say that its pathology is obscure, its prognosis serious, and its treatment very unsatisfactory. I have to

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thank my colleagues at the Victoria Hospital, Dr. Ridge-Jones, Dr. Colcott Fox, and Dr. Drewitt, for allowing me to make use of their cases in the wards, and the house physician, Mr. Gale, for valuable help in the examinations of the blood.

Bloomsbury-square, W.C.

A MODIFICATION IN JUNKER'S CHLOROFORM INHALER,

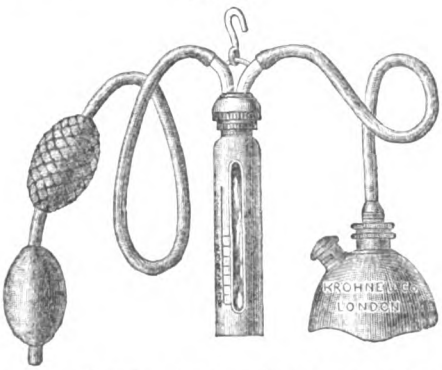
SPECIALLY DESIGNED TO PREVENT CERTAIN ACCIDENTS WHICH HAVE FROM TIME TO TIME OCCURRED WITH THE ORDINARY APPARATUS.

BY FREDERIC HEWITT, M.A., M.D. CANTAB.,

INSTRUCTOR IN ANÆSTHETICS AT THE LONDON HOSPITAL, ANÆSTHETIST TO CHARING-CROSS HOSPITAL AND TO THE DENTAL HOSPITAL OF LONDON.

JUNKER'S chloroform inhaler is now so widely used that there is no necessity to refer at any length to its merits or to describe it in detail. Many use this apparatus whenever chloroform has to be administered; some employ it only for maintaining anæsthesia during operations within the buccal or nasal cavities; there are others who consider the inhaler specially serviceable in obstetric practice, and only have recourse to it for allaying the pains of labour. But all will, I think, agree that Junker's apparatus is one of the most useful ever brought before the notice of the profession. I reproduce, for the benefit of those who are not fully acquainted with the ordinary inhaler, an engraving showing its main features.

FIG. 1.

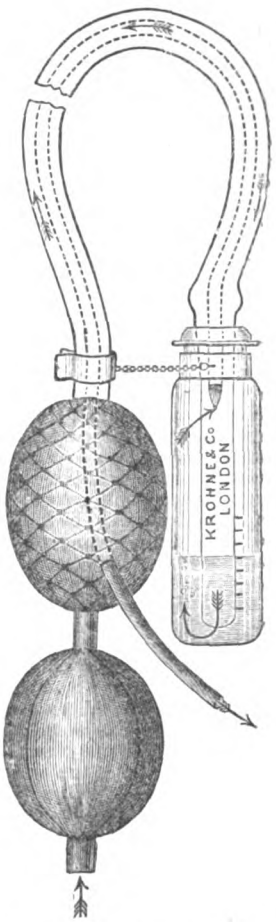


The bottle, filled to about one-third with chloroform, is suspended by a little hook from a button or button-hole of the coat of the administrator. Air is pumped through the anæsthetic by means of a hand-bellows, an indiarubber tube, and a *long* metal tube passing to the bottom of the chloroform bottle. The last-named must be imagined, as it is not seen—or, rather, is only partly seen in the engraving. The air, laden with chloroform vapour, escapes from the bottle by a *short* metal tube at its upper part, connected with an indiarubber tube terminating in a face-piece. The indiarubber tube leading from the bellows to the bottle may be termed the afferent or bellows tube; that leading from the bottle to the face-piece may be termed the efferent or face-piece tube. When it is desired to keep up chloroform anæsthesia without employing a face-piece, as in certain mouth and nose operations, the face-piece is disconnected, and the efferent tube, usually terminating in a bent metal mount, is passed into the buccal or nasal cavity.

Now there are two accidents which have from time to time occurred with this apparatus: 1. By an oversight the flexible afferent and efferent tubes have been attached to the wrong metal tubes of the bottle—i.e., the afferent or bellows tube has been fixed to the *short* metal tube of the bottle, and the efferent or face-piece tube has been connected to the *long* one. The result has been that liquid chloroform has been pumped into the face-piece, and in some cases, when a mouth- or nose-tube has been used, into the mouth or nose of the patient. 2. Owing to the bottle containing the chloroform being simply attached by means of a hook to the coat of the administrator, it is liable, unless constant care be exercised, to become tilted, so that the liquid gains access to the exit or efferent tube leading to the face-piece. This latter accident is most likely to take place if the bottle is suspended in such a manner that it is liable to touch the pillow of the table or couch when the anæsthetist is leaning over his patient. Should the administrator be tall, there is, of course, less liability to this accident than under opposite conditions.

Although the above accidents are rare, it seemed to me that it was worth while to try to prevent the possibility of their occurrence by some slight modification in the construction of the inhaler. Whilst fully recognising the undesirability of modifying such an excellent apparatus as that under consideration, I nevertheless felt that I might be excused if the attempt had the effect of overcoming the liability to

FIG. 2.



the accidents to which I have alluded. That such accidents have taken place there is ample proof; and, unfortunately, fatalities have on more than one occasion resulted. This, I trust, will be a sufficient reason for my adding another "modification" to the already long list. It may be argued that everyone who gives an anæsthetic should see that the apparatus is in order, and should be careful in the use of it. This must, of course, be admitted. But we are all of us liable to mistakes; operations are often conducted under conditions which are not the most favourable for forethought and attention to detail; and an apparatus such as Junker's may be so unexpectedly required during an operation that the anæsthetist may overlook the fact that the tubes have been reversed.

The accompanying engraving (Fig. 2) shows the modification which I have ventured to make in Junker's inhaler. It is a very slight one, and in no way interferes with the ingenious principle of the apparatus. Air enters, as usual, at a valve in the bellows. The indiarubber afferent or bellows

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tube is considerably wider than that ordinarily employed. The same may be said of the long metal tube in the bottle to which the bellows tube is attached. Air passes through these, as in the ordinary apparatus, to the bottom of the bottle, and, when the bellows is working, bubbles up through the chloroform, as shown in Fig. 2. The arrows indicate the direction of the air-currents. The air, now laden with vapour, returns from the bottle by very much the same route as that by which it entered, but through tubes contained within those already described. *The efferent tube travels back—in fact, through the afferent tube,* the space between the tubes serving for the afferent current. The efferent system commences at a small orifice in the upper part of the long metal tube of the bottle. To the inner aspect of this orifice in the wall of the long tube is soldered one end of a short metal tube of such calibre as to be readily contained within the larger tube. This small metal tube quickly joins the indiarubber efferent tube, and thus allows of a communication between the latter and the interior of the chloroform bottle. The rubber efferent tube passes on and on through the larger afferent tube (as shown by the dotted lines) till it emerges from the hand-bellows. Arrows indicate the efferent current. By this plan there is no possibility of the mistake above alluded to being made; the inlet and outlet tubes of the bottle cannot have the wrong indiarubber tubes connected to them.

The modified inhaler is very conveniently worked, as shown in Fig. 3. The wide afferent tube, which contains

FIG. 3.



the efferent tube, is passed round the neck. Attached to the upper part of the bottle there is a short chain, at the free end of which there is a clip for grasping the afferent tube. In this way a kind of collar is formed, and the whole apparatus is rendered much less mobile than usual. The bottle is so high up that there is no likelihood of its getting tilted by the pillow, even though the anæsthetist be of short stature. In addition to these points, I have found that there is a great convenience in being able to work the inhaler without the two long flexible tubes ordinarily supplied with it. When space is limited, and when there are several assistants, as in protracted and difficult jaw and mouth cases, the long tubes of the ordinary inhaler are liable to become entangled, or kinked, or to get in the way of the operator.

I may say, in conclusion, that I have used this apparatus for the last nine months, and find that it answers my expectations in every respect. Messrs. Krohne and Sesemann, of Duke-street, Manchester-square, are the makers.

George-street, Hanover-square, W.

THE TREATMENT OF THE PEDICLE IN OVARIOTOMY.

BY SKENE KEITH, M.B., F.R.C.S. ED.

WHEN we review the history of ovariotomy we find, in the treatment of the pedicle, a beautiful example of how our methods improve with increasing general knowledge; and how experience gained, perhaps in different branches of practice and of science, assists us in many ways. When we look back, with our increased knowledge and experience, and condemn some form of practice, we must not therefore judge and disparage those who adopted it; for although we now know that it is not desirable, yet at the time it may have been better than any other. It is easy to criticise the past by the knowledge of the present, and in doing so there is a proneness to forget that we also would, in all probability, have congratulated ourselves that we were doing the best for our patients had we followed a like practice. In the early days of ovariotomy it was evidently supposed that the distal end of the pedicle would, or might, slough, or that it would not be safe to leave a ligature in the abdominal cavity without having some means of exit kept open for its removal. The ligatures, therefore, were left long, and were brought outside at the lower angle of the wound. There was usually more or less suppuration, from which it was concluded probably that the distal portion of the pedicle became disintegrated. The ligatures loosened and came away easily, though at times their withdrawal was effected with much difficulty. Bearing in mind what was known of this subject thirty years ago, it was a great advance when, instead of allowing the pedicle to slough inside the abdominal cavity, as it was supposed to do, and sometimes undoubtedly did do, it was fixed by means of a clamp, so as to allow of its sloughing outside, and in a position of comparative safety. The results obtained by most surgeons with the clamp were not particularly brilliant, owing to want of knowledge and appliances. The results would have been not only successful, but brilliant, had it been recognised that septic formations about the clamp could have been prevented by the use of antiseptic dressings; or if formed, their access to the raw surface of the wound or passage into the peritoneal cavity averted. We have abundant evidence of this at the present day. Every now and again a woman, the subject of ovarian disease, presents herself for operation, who also suffers from prolapsus uteri. In those cases the womb must be fixed up by a clamp on the pedicle; and the patient recovers as easily and as well as when the pedicle is treated intra-peritoneally. A greater advance in every sense of the word was made when Baker Brown used the actual cautery. It must be remembered that no one at that time could explain why the short or long ligatures or the clamp seemed often to be responsible for the death of a patient. The value of rigid cleanliness—asepsis—was not thoroughly and generally understood, though it was evident that some surgeons did understand its value. It was not till Sir Joseph Lister insisted on the destruction of septic agents that there was any general and real advance in this direction; and it has since been found that they can be excluded or rendered harmless if everything be perfectly clean. Baker Brown did away with ligatures and with clamps; and by preventing bleeding from the pedicle by the hot iron, he eliminated one great source of danger and of death. The cautery gave unrivalled results, and its universal adoption in the treatment of the pedicle was, I believe, alone prevented by increase in our general knowledge, teaching us to have our ligatures in a condition of perfect cleanliness. The cautery has still advantages over the ligature, the chief one being that if there be bleeding it will occur at once, and not, as is the case with the ligature, some time after the abdomen has been closed. When the pedicle is specially broad the cautery does admirably. On the other hand, when thin and easily compressible, the ligature is as safe, and perhaps somewhat more easily applied. The method of use is simple; the pedicle is compressed by a clamp, and in spite of the numbers that have been made, that of Baker Brown remains the best. The blades are screwed together as tightly as possible, and a damp towel is placed below the clamp, to prevent burning of the skin. The cautery irons should be large, so as to give out great heat; and

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they ought to be used as hot as possible, a white heat being better than a dull red one. At first sight the principle of this may appear to be wrong. It is, however, not so; because the cauterising action is chiefly gained through the blades of the clamp, which are to be made so hot that the finger can just touch them. The pedicle is to be burnt down flush with the clamp, and by the time this is done the clamp will usually be hot enough. The pedicle is grasped below the clamp by a pair of forceps, so that the stump may not slip into the abdomen suddenly when the clamp is removed. The removal is carefully managed, the compressed portion of the pedicle will, if all be satisfactory, have the appearance of a piece of horn, and the pedicle is then allowed to sink into the abdomen. With properly heated cauteries all this can be accomplished in three or four minutes. In cases of exceptionally broad and fleshy pedicles, in which it is not advisable to ligature in two parts only, the cautery is seen to most advantage. Bleeding never occurs after the abdomen has been closed, and to prevent it at the time of operation the two essential points are the screwing up tight and the heating of the blades of the clamp.

The common and, indeed, almost universal way of securing the pedicle is by means of a ligature. Of all the different materials of which ligatures can be made silk is the best and most convenient, although before the days of antiseptics Dr. Keith obtained excellent results by using fine iron wire. The ligature of silk ought to be just so thick as to withstand the strain the operator can put upon it; there is not any advantage in having it thicker. The silk must be chemically and not only apparently clean. This condition may be obtained in various ways. As simple and effective a way as any is to boil it and then keep in a 1 in 20 solution of carbolic acid. In this solution it may remain for many months without deteriorating in strength, and the quantity of carbolic acid which is introduced into the abdomen is so small that no possible harm can result. There are various ways of applying the ligatures; the pedicle must always be transfixed unless it is exceptionally thin. The method of tying commonly used is either the Staffordshire knot or tying each half separately, the loops being interlocked, and the whole afterwards included in a single ligature. A better plan is to transfix, and tie each half without interlocking the loops, so as not to run any risk of drawing on the knot of the first loop when the second is tied. The two double ends are tied together, and when this is done it is remarkable into what a small compass the pedicle is drawn. The single encircling ligature is dispensed with, and it is difficult to see of what advantage it can ever be. Mr. Syme knotted together the double ends in this way when tying piles.

For the treatment of the pedicle of ovarian tumours I have used the cautery 132 times, in fourteen both pedicles being secured from hæmorrhage in this way; and while my own experience in the use of the ligature is somewhat greater than with the cautery, I believe that as time goes on I shall tend to use the cautery more, employing the ligature only for slender pedicles, and also, of course, for cases requiring enucleation, in these latter it not being necessary to treat *en masse* large portions of tissue.

Charles-street, Berkeley-square, W.

THE INFLUENCE OF MENTAL DISTURBANCE IN PRODUCING ORGANIC DISEASE.

BY H. GRABHAM LYS, M.D. LOND.

(Concluded from p. 905.)

Digestion.—I pass on to the relation between digestion and mind. No function is more closely related to mind than digestion; disorder of either will worry its fellow; irritability of temper may be attributed to indigestion on pretty ordinary principles; there is more difficulty in assigning the principles on which indigestion follows mental disturbance; but there can be no question of the fact. Maybe it checks secretion of the gastric juice. Physiologists do not indeed question a nervous influence on secretion and nutrition apart from vaso-motor change, though the question of separate trophic nerves may still be an open one. Mr. Hutchinson, at a meeting of the London Hospital Medical Society in 1888, dwelt on the influence of emotion on some of the secretions, and more especially instanced cases of persistent dry mouth following some mental shock. In the opposite direction, the lacrymal secretion affords a striking example. In a case of gastric fistula in man, Beaumont directly observed the arrest of the gastric secretions by anger and other severe emotions. Probably also movements of the stomach may be inhibited by emotion; irritability or sluggishness of bowels doubtless is often referable to mental disturbance according to its kind; the latter disorder reaches its climax in the extreme constipation of melancholia.

Jaundice.—Dyspepsia, however, can hardly be termed an organic disease, and I do not propose that it definitely leads to any organic disease of stomach, but it leads me on naturally to the subject of jaundice. Now, it is doubtless familiar to many of us that simple jaundice often directly follows some mental emotion. I might quote the well-known instance of Sir Thomas Watson's, where an unmarried woman rapidly became yellow on its being disclosed that she had borne children. But, indeed, I think a short experience is sufficient to convince one on this point. Two cases impressed themselves on my memory during my house physiciancy: one was a youth who was intensely disappointed at being discharged from the service of the Post Office because he had not grown tall enough; and the other was that of a girl whose *fiancé* was killed in a railway accident. In each case the jaundice followed very shortly upon the mental shock, and in neither was there any reason to suspect catarrhal or epidemic influence. I take this opportunity of endorsing the protest against the generic term "catarrhal jaundice" on these grounds. The question, how is jaundice caused by mental disturbance, is one which, so far as I know, has received no explanation. I do not see how it can be referred to any vaso-motor disturbance; still less to any obstruction in the ducts or any alteration of the proportion of bile reabsorbed; one can only say that it must be due to some influence on the hepatic cells, which, while leaving them competent in some degree to complete the formation of bile pigment, interferes with the excretion of it. But I have not yet done with jaundice; if I had to leave it there, I should not be able to claim in it, as I do, a most interesting example of the passage of functional disorder into definite organic disease, and the inference which may be drawn from the nature of that organic disease as to the pathology of the minor disorder. It is perfectly well known, not only that acute yellow atrophy often follows immediately mental shock and runs its course rapidly, but also that it often supersedes simple jaundice of weeks' duration. In acute yellow atrophy there is a definite disorganisation of liver cells, and I need not, I think, say more as to the direction in which these facts point in the pathology of simple jaundice.

Diabetes.—Next, diabetes, both mellitus and insipidus, is acknowledged by all authors to follow as a direct result of mental anxiety or shock. Fagge quotes from Dr. Herman Weber the case of a gentleman who became diabetic on two separate occasions, at an interval of nine years, under the pressure of intense anxiety from impending commercial ruin, recovering on each occasion at a turn in his circumstances. I think that cases of diabetes mellitus are rare without some history of mental disturbance more or less striking immediately preceding the attack. Diabetes insipidus is a much rarer disease, but mental shock and emotion are mentioned among its causes. The pathology of both forms is readily referable to vaso-motor dilatation. I have already dwelt on vaso-motor changes from mental disturbance, and the only difficulty in this case is its apparent limitation. In diabetes insipidus there would appear to be vaso-motor dilatation only in the renal circulation, while in diabetes mellitus, in addition to the renal, the hepatic circulation, or, if we follow Pavy's views, the whole splanchnic area becomes dilated. There is no cause to assume, as in the case of jaundice, any nerve influence on the gland cells; it seems to receive a ready explanation in mere vaso-motor change.

Cirrhosis of kidneys.—Granular kidney has from time to time been attributed to mental anxiety. Dr. Clifford Allbutt, writing in the *British and Foreign Medico-Chirurgical Review* in 1877, while refraining from any explanation, asserted as an undoubted clinical fact that granular kidney was very often caused by prolonged mental anxiety; he suggested that the change might be such derangement of the nutrition of the kidney as occurs in the liver in diabetes; but it is difficult to see how such derangement could cause granular kidney. Dr. George Johnson, writing later, says that the explanation of this view is that mental anxiety is

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a cause of dyspepsia, and functional albuminuria often depends upon the excretion of some abnormal products of imperfect digestion, and this has been mistaken for organic Bright's disease. The question whether granular kidney and arterio-capillary fibrosis may not be themselves primarily, like the cardiac hypertrophy and arteritis deformans, associated with them, the result of increased tension, is one which has, I believe, always hitherto been answered in the negative, but one which I think may still reasonably be entertained. Dr. Clifford Allbutt, to whose paper I have already referred, says that high tension cannot cause granular kidney, because it is so often absent in cases where the tension is high from cerebral disease. I doubt, however, whether, in this association, the cerebral disease is not always secondary to high tension, and whether, if the kidney were carefully examined, slight granular changes and thickening of its arteries, as of those of the brain, would not be found. We know from clinical experience that the degree of granular kidney cannot be measured by the degree of arterial degeneration, and therefore that there is some further cause for an advanced cirrhosis of the kidney beyond that which produces the general arterial degeneration; and that cause, doubtless, is the excretion through the kidney of the alcohol of over-drinking, or the deleterious excretives of over-eating.

Chorea.—Then, for the lack of an explanation, I must not pass over Chorea. Its pathology seems to me as inexplicable as that of any disease known. There can be no doubt that it is often due to fright; in many cases it follows such an event so immediately that it seems impossible to disregard it. Equally irresistible is the evidence which attributes it in some cases to imitation. How to reconcile these facts with its still more certain relations with rheumatism and endocarditis I must leave to others.

Cancer.—And now, lastly, what is the relation of malignant disease to emotional causes? I can only refer briefly to the conclusions which many who have had the largest experience of disease have arrived at. "Too often," says Sir James Paget, "cancer quickly follows deep anxiety, deferred hope, or disappointment." Dr. Murchison says: "I have been surprised at the frequency with which patients suffering from primary cancer of the liver have traced the commencement of their ill-health to protracted grief or anxiety. The cases have been far too numerous to be accounted for on the supposition that the mental distress and the cancer have been mere coincidences." Dr. Snow asserts, in THE LANCET of 1880, his conviction that the vast majority of cases of cancer, at all events of breast and uterus, are due to mental anxiety. Of course such a view does not seek to include those forms of cancer which are undoubtedly the result of mechanical irritation; it includes more especially the breast, and stomach, and, perhaps, liver and uterus—organs which are admittedly readily influenced by the condition of the patient's mind. Erichsen says: "Although the doctrine is incapable of proof, I cannot but look upon it as probable; we know by every-day experience that functional derangement of the abdominal and pelvic organs of the most inveterate character may be occasioned by mental disturbance, and it appears to me not improbable that such functional derangement may lead to perversion of nutrition terminating in malignant growth." It might be thought that all that the mental trouble did was to lower the general health; but cancer is not observed with anything like the same frequency when the general health is lowered from other causes, such as want. Many cases might be quoted in which the development of cancer has followed mental trouble in a singularly striking way; but no individual instance can go far in carrying conviction; it is rather the fact that the association is so very constant that carries weight. It is worthy of notice, too, that cancer is linked with insanity as the only diseases at present distinctly on the increase in this country. Now, I have brought forward only those diseases the dependence of which on mental causes seems to me almost beyond cavil, and in many of which the pathogenesis may reasonably be stated. Numberless other diseases and disorders have been asserted by various writers to depend on mental disturbance, and the cases they quote are often sufficiently striking. Among them are boils (Druitt) and dental caries (Marshall Hall). Variola and puerperal fever have been attributed to emotion, but I can find no reason to suppose that it renders persons exposed to contagion more liable to contract these diseases.

Pernicious anæmia.—Dr. Stephen Mackenzie has published three very striking cases where pernicious anæmia seems to have been caused by mental shock. In this connexion I might quote the views of Dr. Wilks, who says: "We hear sometimes of fear turning the whole mass of the blood; I believe this is literally correct. I have seen now so many cases of anæmia, some of them fatal, occurring upon a severe shock of the nervous system, that I have no doubt of the fact."

Many diseases, such as, for instance, rheumatoid arthritis or phthisis, depend on mental trouble only as one means of failure of general health. Other paroxysmal affections, such as asthma and megrim, undoubtedly often own mental shock as the exciting cause of individual attacks, and it seems that the development of paralysis agitans has a definite relation to some emotional disturbance. Purpura I have not mentioned, but one can readily credit that increased tension, due to mental cause, might be the determining agent in producing hæmorrhage. I need hardly, in passing, mention the frequent dependence of both amenorrhœa and menorrhagia on mental causes. Epilepsy is well known often to depend on mental causes; the fits are sometimes first excited by some great mental shock, while in other cases they begin gradually after long-continued anxiety. But epilepsy is not necessarily associated with organic changes; it is closely allied to insanity, and its only sequel is dementia, so I have not included it; it is rather a disease of the mind itself.

The subject I have dealt with would remain incomplete without a reference to two other striking conditions attributed to mental disturbance: they are fœtal malformation from emotion, and canities and alopecia from anxiety and fright. Of the former I quote just a few of the numberless recorded cases. A woman injured badly three fingers of the right hand in early gestation; the same three fingers of the right hand of the fœtus were arrested in development (Ormerod). A woman whose sympathy was much roused for her brother whose penis was completely amputated for carcinoma gave birth nine months afterwards to a boy whose penis was totally absent (Owen). Another woman during pregnancy saw a man with his right ear horribly mutilated; her child was born with no right ear (Mason). I might multiply such a list indefinitely, but I think I have given enough. Mr. T. Smith, in a paper on mothers' marks, mentions other striking cases, and says: "One cannot doubt that these marks occasionally appear on children in connexion with mental impressions received by the mother during pregnancy." Ten years ago considerable discussion seems to have been carried on in the medical periodicals as to whether the blood or nervous influence was the medium in such production; it seems to me exceedingly difficult even to have a theory as to the means, but the cases are so striking that I bring them forward. And, secondly, of alopecia and canities from fright and anxiety, the lines of Byron,

> "My hair is grey, though not from years,
> Nor grew it white
> In a single night
> As men's have grown from sudden fears,"

is no exaggerated dream of the poet. Complete canities and alopecia, sometimes all over the body, are undoubtedly brought about within a space of time to be measured rather by hours than by days under the influence of sudden grief or intense anxiety. Of course a large number of cases have been reported the evidence on which is not always complete and satisfactory. I am indebted to my friend Dr. Goodman of Kingston for directing my attention to the record of a case by Dr. Landois, in 1866, in which the blanching occurred in a single night, while the patient was under the daily observation of the physician. In this case microscopical examination showed that the hairs contained air-globules, and that there was no loss of pigment. It occurs without any evidence of impairment of general nutrition; the sufferer may not fail at all in his general health, and it is difficult to say in what way the change is brought about. To say that it is due to the fluid of the small capillary channels being absorbed does not get us much further; and such an effect on the hair is the more remarkable because we believe that growth of hair may continue not only during starvation, but even after death. In a number of THE LANCET published some forty years ago, I find a paper asserting most positively that in canities, subsequently to the transformation, there is a superabundance of calcareous matter in the hair, and that the effect depends on the quantity of lime in the system. It is

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remarkable, and argues against the accuracy of this view, that it has not received confirmation and had importance attached to it; but assuming it to be true, the dependence of the quantity of lime in the system on mental causes is an equal mystery. Of all the striking cases that are recorded, the most remarkable is one recorded by Staff-Surgeon D. P. Parry, writing from Aldershot, who gives the case of a captured rebel whose hair turned completely white in half an hour under his own observation. I do not intend to include with alopecia due to these causes the disease known as "area"; it has not much in common with the alopecia I have alluded to, and in it there is at all events rarely any history of mental disturbance—certainly not more often than can fairly be regarded as a coincidence.

My inferences and beliefs will be open to the severest criticism, because from their nature they cannot be proved step by step in a method of true scientific deduction; they must necessarily be more or less a matter for individual belief. But I do think that we *may* be over-scientific. There are facts in life beyond those which can be established by science; there are finer mental actions which, though they produce even death, cannot be measured in the chemical balance or demonstrated by microscope. The physical reactions of mind on body have been too much neglected. I cannot doubt that the imagination has a substantial influence over organisation and function. I believe that on it often depends the efficacy of a remedy. I hope that I have done something to bring home the fact that mind and body are inseparable; that mental disease and bodily disease are inseparable. There are diseases of body alone and diseases of mind alone, but there are numerous other diseases where the two are closely coördinated—some where the mental disturbance is secondary to bodily disease, others where the bodily disease is secondary to the mental disturbance. Alienist physicians continue to thrash out the former class, but general physicians have too much neglected the latter. I am sure that the study of mental disturbance must afford to each practitioner of medicine not only most valuable indications for prognosis and treatment, but also no small field for that most conservative of all our duties—the prevention of disease in the recognition of its cause.

Bournemouth.

NOTE OF

A CASE WHERE A MASS OF LEAD WAS IMPACTED IN THE TYMPANIC CAVITY, AND REMOVED BY THE AID OF METALLIC MERCURY.

BY A. MARMADUKE SHEILD, M.B., F.R.C.S.,
ASSISTANT SURGEON AND SURGEON IN CHARGE OF THE AURAL DEPARTMENT OF CHARING CROSS HOSPITAL.

ON April 11th, 1892, I examined a tall, strongly built man, seventy years of age, who was a plumber by occupation, a native of Glasgow, and of the phlegmatic temperament and hardihood characteristic of his race. Six weeks before I saw him he was carrying a pot of molten lead down the ladder in a ship. The vessel gave a lurch, and he fell, the molten metal splashing over the side of his head and severely burning it. Some of the material ran down the right ear. The agony this caused was indescribable. He lay for five weeks in the Poplar Hospital. The burns improved, and the violent pain and inflammation of the ear were treated by warm and sedative applications. When the swelling had subsided, Mr. Williams, the house surgeon, detected some lead deeply embedded in the ear. Mr. Corner, under whose care the patient had been admitted, kindly transferred him to me for treatment, and I must here acknowledge my indebtedness to his courtesy for the opportunity of seeing and treating this very interesting case.

On examination, I found newly healed burns over the right side of the head. The patient was haggard and worn, and complained of constant pain and discomfort over the right side of the head, originating in the ear. An abundant offensive discharge flowed from the ear, there were ozæna and total deafness on the right side. The tuning-fork was heard long and loud in the mastoid, and the facial nerve was not implicated. On cleansing the ear and examining it, a mass of metallic lead came into view. It had burnt through and destroyed the drum, and filled the tympanic cavity, the surface of the lead being just flush with the remains of the membrane. The metal had also entered the Eustachian tube, for on inflating only a feeble current of air could be made to enter the tympanum. A preliminary examination with probe and elevator showed the mass to be quite firmly impacted — indeed, the metal had obviously accurately moulded itself to the inequalities of the tympanic cavity, which it completely filled. On April 12th, under good illumination, I made prolonged and cautious attempts to extract the lead, or at least to shift its position. I introduced a sharp and small, but powerful hook between the floor of the tympanum and the lead. This being turned round took a good hold of the soft metal, and I thus exercised an amount of traction which only the gravity of the case could justify. I was able to take firm hold in like manner of other irregular parts of the mass, but all attempts utterly failed to shift it in the least, and only impressed my mind still more with the firmness of its impaction. I next thought of using a drill and burrs, but was deterred by the risk of the instruments slipping at this great depth, and the presentiment that the soft metal would "choke" the instruments. It seemed that the only feasible method of removal would be by detaching the auricle posteriorly and chiselling away the posterior wall of the bony canal; an operation I was ready to undertake if the symptoms should have continued severe.

I next began to reflect on the possibility of reducing the bulk of the lead by solvents. In conversation with my colleague, Dr. Mott, we discussed this question, and, influenced by his suggestions as to the possibility of mercury forming an amalgam with the lead in the aural cavity, I made some simple experiments. On the night of April 12th I placed pieces of sheet lead in mercury, in solutions of iodide of potassium, in acetic acid, in chromic acid, and in carbonic acid. After twelve hours I examined the lead, and found the specimen that had been in contact with the metallic mercury brittle, soft, and much reduced in bulk, while the supernatant mercury was dark and lead stained. The next day the ear was well cleansed and the patient caused to lie upon his left side. The right ear was filled with liquid mercury, which he was asked to retain as long as possible. On the 15th I noted with satisfaction that when the mercury ran out of the ear it was mingled with lead, being dark-coloured, and a plumbic stain was visible on the walls of the canal. A symptom of significance was furnished by the patient also, who felt the mercury run down his Eustachian tube into the throat for the first time. He spat it up at intervals. He also declared that he could feel the lead move. The quicksilver was soaked into the ear for about sixteen hours in the aggregate. The following day I applied a syringe with a long nozzle to the upper wall of the canal, and induced a powerful jet. Scales of lead escaped, and then followed the mass, which fell with a "chink" into the receptacle. It was of irregular shape, resembling the contour of the tympanum, and coated with mercury. It was reduced in bulk, and all protuberances and angular projections before visible had disappeared.

The mercury had obviously acted as a superficial solvent, had reduced the bulk of the lead, and so allowed the stream of water from a powerful syringe to eject it. The inner wall of the tympanum could now be seen white and bare, apparently necrosed, while abundant granulations were springing from the posterior wall of the cavity. The treatment of perforative otorrhœa must be long carried out. The ossicles seem quite destroyed. The Eustachian tube is quite patent, and a powerful jet of air can now be passed through it.

Pouring of molten lead into the ear was a species of torture well known in the dark ages. I am not aware whether the victims afterwards became surgical patients. So far as I know, this case is unique. The treatment by liquid mercury is also, I believe, novel; and the possibility of employing this agent in cases of impacted bullets at once suggests itself. The case is an important addition to the subject of foreign bodies in the ear, and well illustrates the manifold difficulties which some of such cases present in their treatment.

Stratford-place, W.

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A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

METROPOLITAN HOSPITAL.

A CASE OF RUPTURED EXTRA-UTERINE FŒTATION; LAPAROTOMY; NECROPSY; REMARKS.

(Under the care of Dr. W. J. GOW and Mr. ANTHONY BOWLBY.)

THIS was apparently a primary case of tubal pregnancy, which had burst and formed a secondary attachment to the broad ligament and pelvic peritoneum, thus becoming secondarily an abdominal pregnancy. The date of rupture of the primary tubal pregnancy corresponds presumably to the attack of pain three months before admission; the fœtus must then have been in its fourth or fifth week. The sudden pain and collapse of two days' standing correspond to the rupture of the secondary abdominal pregnancy, and this agrees with the apparent length of time the fœtus had been dead. The history of pain eighteen months ago is probably that of the perimetritis which was found post mortem. The operation was undertaken of necessity at a very unfavourable stage, the patient being in a condition of collapse in consequence of the sudden rupture and hæmorrhage, but it was the treatment most likely to save the patient. For the notes of the case we are indebted to the house surgeon.

E. C——, aged thirty-seven, was admitted on Feb. 3rd with the following history. She had had one child fourteen years ago. Since then she had had no pregnancies, and menstruation had been regular up to three months ago. Eighteen months before admission she suffered from pelvic pain, which apparently passed off in a few weeks. Three months before admission she had several attacks of pain in the right iliac region, accompanied by constipation and suppression of menses. From this date she noticed a swelling at the seat of pain, and also thought her abdomen was increasing in size; this, together with the amenorrhœa, made her suspect that she was pregnant. About two weeks before admission she lost some bright blood, and two days before admission she had a sudden attack of severe pain in the right iliac region, with collapse, soon followed by vomiting, swelling of the abdomen, and absolute constipation. On admission the patient was collapsed and anæmic. She was constantly retching and was unable to retain food. Pulse 120, regular, but rather small; respiration 20; temperature subnormal. The abdomen was considerably distended and tympanitic except in the flanks, where there was impaired resonance. There was no fluid thrill. An indistinct mass was felt in the right iliac fossa. Per vaginam the os uteri was felt to be soft, and admitted the tip of the finger. The uterus was anteverted and displaced to the left side; the uterine sound entered three inches. Occupying the right upper half of the pelvic cavity a mass could be felt somewhat irregular in outline and about the size of a fœtal head. Bimanual examination was difficult owing to the rigidity of the abdominal wall. A smaller mass was felt in the left posterior quarter of the pelvis (ovary and tube). About 5 P.M. on the same day Mr. Bowlby performed laparotomy. On opening the peritoneum about two pints of dark-coloured blood escaped, and about a pint more was sponged out of the pelvis, together with many large clots. On exploring the pelvis the case was seen to be one of extra-uterine fœtation, and a large mass consisting of placenta and blood-clots was found behind the right broad ligament. This mass was partly covered by a membrane-like peritoneum, and through a large rent in this blood and clots were escaping into the abdominal cavity. The mass of placenta and clots was at once removed, and the cavity plugged with sponges. The removal caused but little bleeding. A second mass of blood clot with fœtal membranes and part of the torn umbilical cord was removed from behind the uterus and the left broad ligament. Finally, a fœtus was found free in the peritoneal cavity close to the left kidney. The age of the fœtus was about the end of the fourth month or beginning of the fifth, and it had apparently been dead about two days. All blood-clots and blood being sponged out as far as possible till the cavity was dry, part of the fœtal sac was sewn to the abdominal wound; but as the sac was extensively torn it could not be completely shut off from the peritoneal cavity. A drainage-tube leading to the fœtal sac was placed at the lower end of the wound. As it was thought advisable to finish the operation as soon as possible no washing out of the peritoneal cavity was attempted. Shortly after the operation there was some escape of blood from the drainage-tube. The patient progressed fairly well for sixteen hours afterwards, when she became rather suddenly collapsed, and died in about two hours. No further escape of blood from the tube occurred.

At the necropsy the following condition was found. The uterus was slightly enlarged and contained a loose decidua. There was old perimetritis on the left side by which the end of the left Fallopian tube was completely occluded and the ovary drawn down towards the uterus. The end of the right Fallopian tube was dilated and formed part of the fœtal sac. The main part of the sac was fixed behind the right broad ligament and attached to the posterior surface of the ovary, and also to a loop of the small intestine. The right ovary contained a true corpus luteum. The pelvic cavity contained about half a pint of blood, and several clots, some of considerable size, were found in the pelvis and abdomen. The fœtal sac had apparently ruptured along its whole upper surface, allowing the fœtus to escape into the abdominal cavity. The intestines were distended with gas, but there was no general peritonitis.

LONDON LOCK HOSPITAL.

CASE OF PHAGEDÆNA, WITH LOSS OF ENTIRE PENIS.

IT is not uncommon to meet with cases of sloughing of a considerable part of the penis as a result of the action of phagedænic sores, but it is rare to meet with a destruction of the organ to an extent here described. It was apparently due to a chancre concealed beneath the prepuce, which became rapidly phagedænic. The inflammatory swelling, the tension of the tight prepuce and retention of septic discharge, added to the patient's age, personal neglect, and recent debauch, seem sufficient explanation of its occurrence and extent. It is some weeks since the sore was first noticed, and no signs of constitutional syphilis have yet appeared. The fact that no hæmorrhage occurred on the separation of the organ can be explained on the supposition that thrombosis had taken place in the chief vessels of the stump, which were thus safely occluded after the one attack of hæmorrhage. For the notes of this case we are indebted to Mr. John C. Barrs, house surgeon.

G. B——, a carman aged sixty-eight, came to the out-patient department of the Lock Hospital on Aug. 29th, stating that three days previously he had made up his mind to consult a surgeon about a "venereal disorder" he had contracted; and was on his way to do so, when, feeling a desire to micturate, he discovered that his penis had dropped off. He had passed urine twenty minutes before through a hole in the side of the organ, and was quite unconscious of his loss until he tried to pass it again. His history was that five weeks previously he had exposed himself to the risk of contagion. Three days afterwards he felt a sore under the prepuce, which was swollen and red, and much discharge issued from underneath. The redness extended until it involved the whole penis, and in four or five days more it turned black. He micturated through a hole about half way down the organ. There was no pain. Seven days before applying to the hospital he had a profuse hæmorrhage from the penis, which he managed to arrest by tight binding. It was four days after the bleeding that the organ was lost. No bleeding occurred at that time, but his right leg was streaked with a grumous discharge. On first glancing at the region on admission, it appeared that the penis had been swept clean off, flush with the pubes, which was actually

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the case. On close examination there was a small granulating protruberance, rounded off and somewhat mushroom-shaped, which was the remains of the corpora cavernosa. This, when made to project, by retracting the sheath around, was half an inch in length. Below, and cleanly dissected from the preceding, was the corpus spongiosum, with urethra, one-third of an inch long. The free end was very slightly contracted around the urethral orifice. Between the skin and the remains of the corpora cavernosa was a whitish, foul-smelling slough. No glands could be detected in either groin. No visceral disease was found on examination. The urine was pale and clear, of sp. gr. 1010, and contained no sugar or albumen. The patient had always possessed a long fore-skin, which he never retracted for purposes of cleanliness. He had not suffered from previous venereal disease, and had not sought professional advice before applying to the Lock Hospital. He had been drinking heavily of late. The slough separated in a few days, and the whole "stump" then cicatrised. The urethral orifice is not much contracted, and the patient is averse to any interference with it in the way of slitting it up and stitching it to the skin.

SALFORD ROYAL HOSPITAL.

A CASE OF COMPLETE EXTIRPATION OF THE LARYNX BY A SUICIDE.

PENETRATING wounds of the air passages are amongst the commoner class of injuries brought to our hospitals as a result of attempted suicide. This case is a very remarkable one, as indicating the amount of damage that a determined man can inflict on himself in such an attempt, and is worth recording for that reason. For the notes of this case we are indebted to Dr. R. E. Lord, house surgeon.

J. D——, aged fifty-eight, was brought to the Salford Royal Hospital at 4 A.M. on Feb. 25th, 1892. It was stated by his son that he had cut his throat an hour before with a potato knife, and that he had extracted from it a mass of gristle, which turned out to be the larynx. The patient was pulseless, but gave two or three gasps before he died in the accident room, five minutes after admission. On examination of the wound in the neck it was found to measure three inches across at its upper limit, which was formed by a triangular flap of skin which had been peeled up from the tissues. The right margin of the gap was also of triangular shape, its upper edge fitting on to the right edge of the upper flap and its lower on to the left margin of the wound, which was approximately straight and ran obliquely from above and to the left downwards, and to the right at an angle of about forty-five degrees to the horizontal line of the neck. On putting the finger into the wound the epiglottis was felt attached to the tongue, and the hyoid bone was *in situ*. The trachea had retracted about two inches below the level of the external wound. None of the great vessels were injured. The larynx, which had been brought by the friends, consisted of the thyroid and cricoid cartilages, the first ring of the trachea and the anterior half of the second ring. It measured two inches in front and one inch and three-quarters behind, from above downwards. On the right side, the upper border of the thyroid cartilage and the superior cornu had been cut off; and the ary-epiglottidean fold was divided at its posterior extremity, separating the right arytenoid cartilage, the cut extending slightly into the left fold. The right upper border of the thyroid showed three cuts, about three-quarters of an inch long, passing downwards and backwards, a piece of cartilage, one-eighth of an inch square, being completely cut out between the anterior and middle incisions. On the left side there was an incision in the cartilage passing downwards and towards the middle line for half an inch.

As regards the previous history of the case, there was nothing to point to any special delusion connected with the larynx. The patient had had an apoplectic seizure about a year before his death, and since then had suffered from right-sided hemiplegia with aphasia. The hemiplegia had improved considerably, but the aphasia had remained well marked. He had been very low-spirited for some months, but no delusions had ever been noticed, nor had he, as far as was known, ever threatened to commit suicide. It seems as if the patient had begun with the idea of removing, at all events, the prominent part of the larynx which he could feel in the neck, and to this end had made a right-handed incision, passing obliquely downwards and to the right, and then a second incision from the middle of this, passing upwards and to the right, and then peeling off the skin with his fingers. From the vertical cuts in the thyroid he seems next to have tried to cut off the projecting mass of cartilage; but, failing in this, to have cut in between the thyroid and the hyoid; then, having peeled off the larynx from the subjacent parts with his fingers, to have divided the trachea from behind, thus leaving two rings in front and one only behind.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Renal Dropsy.

AN ordinary meeting of this Society was held on April 26th, Sir Andrew Clark, Bart., President, in the chair.

Dr. DICKINSON gave a communication on Renal Dropsy, with especial reference to the circulation, together with some considerations relating to pulmonary apoplexy in renal disease. Although, as a general rule, the dropsy of renal disease varied inversely with the amount of urine, there were exceptions which suggested that other considerations must be introduced. Dropsy fluid was essentially the exudation from the capillaries which constituted the lymph. If too much of this was poured out or too little carried off dropsy resulted. There were two obvious agencies under which fluids passed through the capillary walls, and one which was hypothetical: (1) Filtration or transudation under pressure, acting on both colloids and crystalloids, albumen as well as salts; (2) diffusion or osmosis, acting on the salts, not on the albumen; (3) a secretory action on the part of the capillary wall, which had been inferred, but of which as yet we knew but little. The products of the first two processes must be different from each other, that of the third probably different from both. Dropsy fluids varied in composition more according to their position than their cause. Effusions in the serous cavities were always highly albuminous, though not equally so; œdema fluid was very slightly albuminous, whatever the disease to which it was due. The mineral salts were in much the same proportion whatever the place and cause of the effusion. If the albumen were the issue of filtration and pressure, these agencies were active in dropsy of every origin; if the salts were evidence of osmosis, this process was much the same in all. In obstructive suppression, where cardiac failure was obvious and low arterial pressure inferred, though urine might be totally absent, dropsy might be equally so. With nephritis dropsy was early and marked, arterial tension was increased, and the increase was borne out by early hypertrophy of the heart. The association of œdema and increase of tension were attributed to some condition of the capillaries due to abnormality of blood, which both hindered its passage and promoted transudation. This form of dropsy was commonly conjoined with obstruction in the lungs due to inflammatory change, but only a subordinate position was assigned to the venous retardation thus occasioned. Passing to chronic conditions a contradiction presented itself, for dropsy lessened with a further increase of arterial tension. This was commonly accompanied with increase of urine, but this did not necessarily remove dropsy, as was often seen in diabetes. Cases, tables, and cardiac diagrams were adduced in support of the position that the cardio-vascular change of advancing renal disease was the antagonist of dropsy. There was shown to be much dropsy with slight hypertrophy in nephritis; little dropsy and much hypertrophy with the granular kidney so long as the heart remained undilated; and, finally, on the stretching of the heart, increase of dropsy, and often pulmonary apoplexy. Pulmonary apoplexy was insisted on as a direct and simple result of advanced renal disease, irrespective of any lesion proper to the mitral valve. The relations of lardaceous disease to dropsy were considered, with the conclusion that this form of renal dropsy was brought about differently from that of nephritis and the granular kidney. The following conclusions were presented as not admitting of doubt: 1. Osmosis alone was not sufficient to account for dropsy, whether renal or of other kinds. 2. With the access of the dropsy of nephritis there was increase of

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arterial pressure. With a further increase of arterial pressure as the disease became chronic, and cardio-vascular changes were established, there was diminution of dropsy. 3. Finally the heart gave way, and mitral regurgitation, pulmonary apoplexy, and increase of dropsy resulted. Further deductions, advanced less confidently, followed. The connexion between dropsy and uræmia was not simple, for the most extreme uræmia sometimes existed, while dropsy was totally absent. Neither had anæmia any necessary connexion with dropsy, though often associated with it. With pernicious anæmia dropsy was usually totally absent. With chlorotic anæmia there was sometimes slight œdema, but here another consideration intervened, for there was reason to believe that the pulse-tension was increased rather than diminished, and possibly a special poison and vascular obstruction were present. The relation of hydræmia to dropsy was also complex. Water had been injected into the vessels of an animal without producing œdema; and although slight dropsy resulted from the introduction of a large quantity of saline fluid into the veins of a diabetic patient, yet there was reason to believe that the effect was due rather to increase of intra-vascular pressure than to simple hydræmia. With the increased arterial pressure of nephritis, though neither the anæmia nor the hydræmia was as extreme as in other conditions, dropsy presented itself, and it was inferred that the process was essentially due to some change in the capillaries, produced by the state of the blood, of which obstruction and transudation were consequences. It was inferred that the obstruction belonged to the capillaries rather than to the arterioles. It was, of course, admitted that the aterioles were muscular and apt to contract, especially under nervous influences; but the capillaries would seem to be especially concerned in the process under consideration. What the nature of the capillary obstruction was must be left undeclared. Changes in the blood might affect its passage in many ways. Fluids of different sorts passed through inanimate tubes with different degrees of facility; besides which, the capillaries, though not muscular, had been demonstrated to be contractile. Proceeding to chronic disease and the granular kidney, the diminution of dropsy with the further increase of arterial tension required explanation. With this concurrence we had hypertrophy of the left ventricle, thickening and narrowing of the arterioles, and increase of urine. It was submitted that the constriction of the smaller arteries must cut off the blood from the capillaries, and presumably lessen pressure in them and exudation from them. Further, that the thickening of the ventricle must necessarily increase its expansile power and suction action, and thus draw upon the pulmonary circulation and relieve the veins and interstices. Next came the beginning of the end in the yielding of the ventricle, regurgitation, increase of dropsy, and often pulmonary apoplexy. Putting aside lardaceous disease, the points of resemblance and of difference between renal and cardiac dropsy came into prominence. In both the accumulation, as was well known, was essentially, however modified, that which exuded from the capillaries and constituted the lymph. Under heart disease there was diminished absorption without any presumption of increased exudation, or not to any important extent. Under kidney disease there was increased exudation without any necessary or constant diminution of absorption. Both were essentially connected with modifications of blood pressure—in one from obvious obstruction to the venous return, in the other from some presumably obstructive condition of the capillaries, which was attended with enhanced exudation from them, and associated with increased pressure within the arterial system.

Dr. GEORGE JOHNSON was not quite sure whether the author had modified the views he formerly held as to the function of the arterioles. Dr. Dickinson originally believed that the hypertrophy of the arterioles was simply in order the better to drive the blood onwards towards the capillaries, the impediment being really in the latter vessels. The question was whether the impediment to the circulation was seated in the arterioles or in the capillaries. He himself believed that it was in the arterioles. As to the main function of these vessels, it had been abundantly proved that they were the regulators of the blood-supply to the various tissues and organs. The phenomena observed during asphyxia threw much light upon their method of action, and he had fully set forth his views regarding this question in THE LANCET of April 4th and 11th of last year. Dr. Rutherford took a large dog, paralysed the voluntary muscles by a moderate dose of urari, and then opened the pericardium, the external carotid being divided and connected with a kymograph. As soon as breathing was suspended, pressure rose in the carotids, and the left heart, especially the auricle, became distended; later the right heart followed suit. Since then Dr. Rutherford's experiment had been repeated, with this addition, that the pressure in the pulmonary artery was gauged also, and it was found that when the pressure in the systemic circulation began to fall that in the pulmonary commenced to rise. He quoted some experiments to prove that the obstruction resided in the arterioles. Urari, atropine, and amyl nitrite, if introduced in sufficient quantities into the system, would all paralyse the arterioles. If a cat were urarised by the introduction of the poison into its peritoneum and the heart were exposed, with a kymograph in the carotid, as soon as artificial respiration was suspended the arterial pressure began to fall. If under artificial respiration the animal was restored for an hour, and meanwhile urine was passed (containing probably a considerable elimination of urari) it would then be found that when respiration was suspended pressure would rise in the carotid. The same result followed the introduction of atropine. Then, again, if nitrous oxide were inhaled the right side of the heart became distended, but with the administration of amyl nitrite the right-sided distension rapidly passed off. All these were decided evidences of the power possessed by the arterioles to impede the movement of the blood, and he knew of no evidence of this kind to prove a like power in the capillaries. Physiologists had admitted that young animals had some power of contraction of the capillaries, but this had not been proved to be true of the adult, and, even if it were true, it would surely not account for the great impediment to the circulation existing in Bright's disease. Even if it were admitted that they did contract to some extent, he failed to see how that explained dropsy through their walls, for the flow through them would be lessened. He believed that renal dropsy was the result of an active vital secretory process consequent on an accumulation of various morbid fluids and solids in the blood. As to cardiac dropsy, it was not as a rule much till the urine became scanty, and in this it resembled renal dropsy; it was not purely mechanical, but due to an accumulation of morbid substances in the blood. As to the access of dropsy in granular kidney, with the hypertrophy of the arterioles there came a hypertrophy of the left ventricle; and this increased ventricular power he believed might be great enough to compensate for the obstruction in the arterioles. He thought that the author attached too much importance to the mechanical view. As to pulmonary apoplexy, in the last stage of renal disease hæmorrhages were common from various mucous membranes, and they were the result of a blood disturbance combined with degeneration of the vessels. A copious hæmorrhage occurred into a bronchial tube, and not all was expectorated, but some was driven back into the smaller tubes and air cells; hence the apoplexy resulted. He summed up his views shortly as follows. That the arterioles could impede or arrest the circulation; that there was no evidence that the capillaries possessed a similar power; that there was no evidence of an increase of capillary pressure in renal dropsy, but probably that it was diminished; that it was difficult to explain effusion through capillaries mechanically, and that renal dropsy was best explained by regarding it as a vital act of the endothelium excited to eliminate certain noxious solids and fluids from the blood.

Dr. PYE SMITH, while admitting the weight of Dr. Johnson's views, held that the author had raised a much wider question than the part played by the arterioles or capillaries respectively. The method of the action of the arterioles was now established beyond controversy, and formed but a small part of the general question. He himself agreed with the author that cardiac dropsy was due entirely to pressure. As to osmosis, it was an affair of passive effusion dependent on the crystalloid or colloid character of the fluids dealt with, and was quite independent of pressure; but the transudation of fluids through membranes under pressure was a quite different matter. The mechanism of cardiac dropsy was clear. There was increased pressure in the small veins and capillaries, and difficulty of entrance of the lymph from the main ducts into the great veins. This constituted an obvious and complete explanation of the dropsy; but such an explana-

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tion did not serve for renal dropsy. In that disease there were really two separate dropsies, the early or especially "renal," found with the large red or large white kidney, and then there was the dropsy of the later stages of granular kidney; the clinical characters of these two were quite different. The later one was "hydraulic" and cardiac in origin; it came on when the arteries were soft and the cardiac hypertrophy had given way to dilatation. The dropsy of obstructive cardiac disease and that of anæmia had probably a similar explanation. But the more proper early "renal" dropsy could not be explained in the same way. It might have some connexion with the secretory power of the capillary endothelium. Heidenhain had recently proved conclusively that this epithelium did possess an active selective influence, for he found that the introduction of certain substances into the blood would cause an increased flow of lymph independently of any rise in blood pressure. It might be ultimately proved that this was the case in renal dropsy, but the demonstration was yet to come. It certainly was not hydraulic, for in the early stages of an acute nephritis there was high blood pressure, but often no dropsy at all, and the dropsy would continue after the condition of high tension had passed off. Then the distribution of the dropsy showed that it was not subject to gravity. If it were not hydraulic, it was probable that it was not a dropsy at all, but an inflammatory effusion. Such inflammatory effusions were common in acute Bright's disease, the pulmonary œdema, the effusion into the pleura and the ascites were often inflammatory. He believed that the anasarca should also fall under this head as an active inflammatory change in the connective tissues.

On the motion of Dr. Sturges, seconded by Dr. Powell, the discussion was adjourned.

MEDICAL SOCIETY OF LONDON.

The Rarer Complications of Rheumatoid Arthritis.—Infective Endocarditis of the Right Side of the Heart.

THE last ordinary meeting of this Society for the present session was held on April 25th, the President, Mr. Hutchinson, in the chair.

Dr. KENT SPENDER of Bath read a communication on the Rarer Complications of Rheumatoid Arthritis. He had made an analysis of a very large number of cases which had been under his care during the last few years, and he had picked out certain unusual instances which illustrated in a marked degree some of the rarer complications of the affection. He alluded to the fact that the primary symptoms were not necessarily arthritic at all; there might be an unusual force and frequency of the cardiac beat; the skin might present patches of abnormal pigmentation; there might be irregular profuse perspirations, and but little might be complained of about the joints. It was not so much the osteo-arthritis as the grave dynamic commotions which accompanied it. In his classification of this disease he excluded the hip-ache of old people, and he likewise put aside the cases of septic arthritis. He then proceeded to detail at length the case of a lady sent to him in June, 1891, who presented arthritic trouble in a marked degree. Later the joint affection waned, but she began to complain of feeble action of the masseter muscles, of difficulty in protruding the tongue, and of progressive muscular atrophy of various muscles about the neck and trunk. She was seen by Dr. Buzzard, who recognised it as a case of neuritis with consecutive changes in the spinal cord; later, further degenerative lesions occurred. and Dr. Suckling of Birmingham, who saw her, regarded then the chief lesion as a scleroderma. The case went through three phases, being first a joint disturbance, then associated with profound nerve disorder, and finally trophic lesion of the skin. This suggested that the whole was due to a far-reaching neurosis. Some of the extreme cases of arthritis showed a profound disturbance of the circulation, the vagus not exercising its functions in its usual manner, the pulse being always above 120, though the patients had no palpitation or valve disease. In the major forms of this affection no good resulted from treatment, but in the minor cases the cardiac trouble diminished as the health improved. In other extreme cases there was a xanthoma as marked as in advanced cases of Addison's disease, and there would be a coming and going of small areas of discolouration like bruises on the affected limb. Then followed a common atrophy of both muscle and skin: in some there would be a to-and-fro spasm of one arm with an extremely cold, damp hand, glossy skin, and athetotic movements. In other cases neuralgia was a marked feature, the pain being often in inverse proportion to the weakness, and there might be gastric crises which marked a kinship between rheumatoid arthritis and locomotor ataxy. Lastly, there might be vaso-motor derangements of an extreme type, involving both limbs and viscera. He advocated the early use of the dynamometer as being a ready indicator of approaching muscular weakness. His conclusions were that rheumatoid arthritis was from its history and symptoms to be regarded as a disease of the nervous system; that it might receive an impulse from rheumatism or gout through either the nerves or the bloodvessels; that when fully developed it possessed what might be called an arthritic cachexia; that this cachexia was associated with diminution of nutrition, atrophy, and errors of nerve control, and that if taken early it might be ameliorated or cured; but later it became entirely unmanageable, and as intractable to treatment as a malignant disorder.—The PRESIDENT questioned the advisability of using the term "rheumatoid arthritis," and he thought that some of the cases quoted as examples of complications were really instances in which other maladies joined with the arthritis in producing a multiple disorder. The vaso-motor system took a share in the production of almost all diseases, but it was excessively difficult to say whether it exerted the primal influence in departure from health. He believed that the old term "rheumatic gout" was still the best for this group of cases; on the rheumatic side it proceeded from a nervous and on the gouty side from a blood origin.—Dr. ORD thanked the author for bringing forward his interesting considerations regarding osteo-arthritis, which, however, he preferred to regard not as an objective disease, but as a symptom belonging to a number of conditions; whether we were studying or treating the malady, the latter was the most philosophical standpoint. This characteristic condition of osteo-arthritis, whether overgrowth or atrophy, was met with in varying conditions; in gout, after acute rheumatism, in affections of the nervous system, either as a direct sequence of lesion in the anterior horns of the cord, in pachymeningitis, peripheral neuritis, or lead poisoning, or in association with internal mischiefs not originally of nervous origin, such as congestive uterine affections &c., in lesions of the prostate and adjacent urethra. It might be associated with injury of a joint, either sudden, as a blow, or more gradual, as in chronic strain, or with injuries of bones near joints, the latter not being affected. He was not prepared to say how far sepsis should be included as a cause. The first thing was to recognise that the joint affection might occur in a large number of conditions, and then so far as possible to recognise the conditions which surrounded each. In the case quoted by the author at length there was the osteo-arthritis followed by the spinal trouble and the so-called scleroderma, but this sequence had often been noticed in cases of chronic anterior poliomyelitis and of chronic spinal pachymeningitis, and in peripheral neuritis likewise. In conclusion, he thanked the author for the interesting account he had given of such correlative symptoms as abnormal pigmentation and local perspirations.—Sir DYCE DUCKWORTH would confine his remarks to one aspect of the question. He held the view strongly of the nervous origin of this affection, and he admitted that many conditions might lead up to the disease. He hoped that the therapeutics of the author were not those of despair. Many cases, no doubt, were tedious and intractable, but in many amelioration could be brought about by treatment directed towards invigorating the nervous system and the local application of thermal waters.—Dr. BLAKE thought that the Bath school should have helped more in elucidating the pathology of the rheumatisms, and he enumerated in what he considered to be the order of frequency the most common causes of rheumatism in males and females respectively. He had seen the same poison give rise to the three manifestations of rheumatism, chorea, and urticaria in the same subject. He felt sure that sepsis played a large part in the production of tachycardia.—Dr. SANSOM, referring to the Presidential remarks, said that undoubtedly the term "rheumatic gout" was good in a certain class of cases in which the symptoms of both were commingled, but those were not under discussion in the paper. The author was referring to such cases as the following:—A middle-aged woman would present vague symptoms, palpitations, gastric crises, and anomalous kinds of pain

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here and there; then changes in the joints might be found, such as thickenings of the knuckles in which there was no pain. One then went more deeply into the case, and found that the heart was unusually quick—not paroxysmal, but constant, and persisting for years; in other cases it was markedly irregular; in all, arthritic phenomena would be found unaccompanied by uratic deposits. Such cases were a strong argument in favour of a change in the central nervous system. It was unlikely that the cardiac condition was due to an irritation of the accelerator mechanism, but it probably followed an alteration of the relation between the vagus and the sympathetic, and the cardiac action thus resembled the exaggerated reflexes seen when certain parts of the nervous system were cut off from the control of the higher centres. The term "osteo-arthritis" might not be well chosen, but it served to indicate the joint lesions which followed changes in the central nervous system.—Dr. ARCHIBALD GARROD agreed that the ulceration of cartilage &c. should not be looked upon as a disease, but as a symptom; and the various conditions which the author had enumerated as complications should rather be looked upon as morbid associates, all being due to a central cause. As to the local sweatings and pigmentations, these and other symptoms were far from being constant; pigmentation especially was common in elderly people who were not affected with osteo-arthritis. The influenza epidemic appeared to have materially increased the amount of osteo-arthritis, and in cases where the disease had already commenced it had been made much worse.—Dr. KENT SPENDER, in reply, said that he saw from 200 to 250 fresh cases of this affection every year, and out of this mass of material he had compiled his paper, selecting especially the very extreme and unusual types. Numberless other cases, though they presented one or more of the symptoms alluded to, only showed them in a slight degree; called them "connoting" symptoms because they helped to a diagnosis. In only about one case in ten would none of them be present.

Sir DYCE DUCKWORTH contributed a paper on a case of Infective Endocarditis of Right Side, with Pneumonia and Cerebro-spinal Meningitis. The patient, a potman aged twenty-eight, of intemperate habits, was admitted into St. Bartholomew's Hospital on June 25th, 1891, for severe pain in the chest. On June 21st he shivered, and suffered from dyspnœa and cough. Next day he was worse, with increase of pain, and took to bed. Another shivering occurred, and all his symptoms being aggravated, he was sent to the hospital. The family and personal history were unimportant. There was no history of the occurrence of rheumatic fever. On admission, the patient was found to be fairly well nourished. The face was flushed and dusky, and the large veins turgid; there was some painful cough and dyspnœa; the skin was moist, alæ nasi dilating, and conjunctivæ icteric; no herpes on the face; tongue thickly furred posteriorly. Great pain was complained of on the right side of the chest. The temperature was 102°, respiration "catching," 48, and the pulse 140 soft. Loss of appetite. The chest expanded feebly. Percussion-note fairly good under each clavicle, dulness in the right axilla. Over the right front, double friction audible and faint bronchial breathing, especially with expiration. The left front was also dull at the level of the sixth rib, and in the axilla, and friction and doubtful pleuro-pericardial friction were audible. Posteriorly, both bases were dull as high as the lower angles of the scapulæ, with impaired note as high as the spines. Bronchial breathing, friction and bronchophony audible, and very few crepitations. The sputum was tenacious and of greengage-plum colour. The heart's apex was just inside the left nipple line. The sounds were clear. No increase of cardiac dulness noted. The abdomen was natural. The extremities rather dusky looking. Moisture in the palms of the hands. Some diarrhœa was present at first.—June 26th: Delirious during previous night, but not noisy. Temperature rose to 102·4°. Took nourishment well, including six ounces of brandy. A mixture with quinine, digitalis, and nux vomica was given. The pulse rose to 144, and was occasionally dicrotic. Sputa became more rusty in character. Carphology was noticed.—27th: Less delirium. On this, the seventh day, an apparently critical fall of temperature occurred, 98·6° being reached in the morning; but the pyrexia was not checked. Redux crepitation was noted in the chest. Pulse dicrotous. Some apparent improvement was observed for the two or three following days, the temperature averaging from 101° to 102°, but the pulse continuing rapid. Nourishment was well taken. Subsequently there was a return of delirium, and urgent dyspnœa supervened with signs of carbonæmia. Strychnine was employed hypodermically, and ether freely given. Oxygen gas was also inhaled, but without any benefit. Shortly before death on July 6th, the sixteenth day of the illness, some convulsive seizures occurred. The highest temperature was recorded on the fourteenth day, 103°. At the necropsy there were found a few adhesions in both pleuræ, with general engorgement of the lungs. In the right lung irregular consolidation of the base, and towards the centre of this an abscess the size of a pigeon's egg. Red hepatisation at the base of the left lung. There was no pericarditis, and no hypertrophy of the heart. On the auricular surface of the tricuspid valve was found a large irregular botryoidal growth, equal in size to three or four small grapes, soft and friable. It was dark grey in colour, and already putrid. In the abdomen were some adhesions about the spleen, which was large and soft, but free from infarcts. The liver was swollen (75 oz.), pale, smooth, and fatty. The kidneys were large and engorged. At the base of the brain was found an exudation of lymph, extending into Sylvian fissures, between the two halves of the cerebrum and down the spinal cord. Ventricles dilated with sero-purulent effusion. Brain substance soft. In this case a correct diagnosis was not arrived at during life. The signs and symptoms agreed with those which might be expected in a case of double pneumonia in a drunkard. Nothing pointed to any cardiac disease, the heart sounds being clear whenever examined. The delirium and adynamia were not remarkable in such a case, nor were diarrhœa and carphology. The rigors were confined to the early days of the illness, and there were none after admission to the hospital. The enlarged spleen was not detected during life. There were no marked sweatings or high flights of pyrexia, the highest temperature being reached on the fourteenth day. Death occurred on the sixteenth day, and was only preceded by convulsive seizures, which were apparently due to carbonæmia. No plain indications of cerebro-spinal meningitis were observed. The necropsy threw a clear light on the case, and showed that the pneumonia was septical, and that the nervous symptoms were in part, at all events, due to septic or infective cerebro-spinal meningitis. The saprogenic mass in the right auricle was too decomposed to allow of any profitable quest after specific micro-organisms. It was urged that cases of this nature might probably often escape detection during life, where instances of infective endocarditis involving the left chambers of the heart could now hardly escape recognition owing to more obvious and widely spread results. The origin of the disease remained in doubt and obscurity.—The PRESIDENT referred to a drawing in his possession taken from a case of osteitis, in which there was pus beneath the endocardium of the right heart, together with ulceration.—Dr. BENHAM imagined that it was a case of pyæmia due to absorption from some focus. He asked if the ears were carefully examined at the necropsy.—Dr. GASTER alluded to a case which had been published which was much like that related. The patient had been under treatment for some joint mischief when a fatal pneumonia developed. Right ulcerative endocarditis was found, and the lung was riddled with abscesses.—Dr. SANSOM said that attention had been called to the connexion between septic pneumonia and endocarditis, and also between osteomyelitis and ulcerative endocarditis. The right side of the heart was certainly disproportionately involved in these cases; in some probably the organism was carried to the heart by way of the lymph circulation.—The PRESIDENT added that as osteomyelitis was essentially endophlebitis, it was easy to understand why the right side of the heart should be affected in these cases.—Mr. SHEILD had seen a number of cases of acute necrosis which were often mysterious in their onset, being mistaken for rheumatism because of their joint effusion and pericarditis. The condition of the heart was probably always secondary to that of the bone. The occurrence of hæmaturia might be expected owing to renal embolism, and gangrene of the limbs might likewise result.—Dr. CHAPLIN said that he had shown recently at the Pathological Society the pulmonary valve of a heart affected with ulcerative endocarditis, there being exuberant vegetative growth. There were small vegetations also on the tricuspid and aortic valves. The temperature was very high, and the lungs were pneumonic and contained infarcts.—Sir DYCE DUCKWORTH, in reply, said that there was no history of ear disease. The case was difficult to recognise during life because there were no symptoms attributable to the heart.

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CLINICAL SOCIETY OF LONDON.

Cirsoid Aneurysm of Eyebrow.—Syphilitic Disease of both Knee-joints.—Neuritis following Fracture of Arm.—Myxœdema treated by Injections of Thyroid Juice.—Sequel to Case of Myxœdema.—Ligature of Common Carotid for Hæmorrhage after removal of the Tonsil.

A "CLINICAL" MEETING of this Society was held on April 21st, the President, Sir Dyce Duckworth, in the chair.

Mr. G. R. TURNER first introduced a girl aged sixteen, the subject of a Congenital Pulsating Tumour of the Forehead of doubtful nature. He regarded it either as in part a venous nævus associated with a cirsoid condition of the temporal artery, or as an aneurysm by anastomosis. It occupied the greater part of the right eyebrow and eyelid and the right side of the forehead, and there were distinct pulsation and thrill. It was fed by the anterior branch of the temporal artery; the supra-orbital was not apparently implicated.

Mr. TURNER next showed a sailor aged forty, who had been an inmate of the Seamen's Hospital with disease of both knee-joints, simulating tubercular arthritis. There were likewise signs of breaking down at the left pulmonary apex, and there was effusion into both ankles and into the left elbow-joint. He had a chancre fifteen years ago, but there was no history of secondary symptoms. After his admission he suffered from ulceration and sloughing of the palate, and this led to the administration of anti-syphilitic remedies, with the result that the trouble in all the joints disappeared except the right knee, which remained in an ankylosed condition. He regarded it as an instance of gummatous deposit about the synovial membrane, and the case was interesting as showing how syphilis could imitate tubercular disease.

Mr. LUNN brought a woman aged thirty-eight, who, in June, 1891, sustained a Comminuted Fracture of the Right Humerus. On examination six months later there was an inch shortening, and the lower end of the humerus was much thickened. Pain was complained of shooting down both sides of the forearm, and there was numbness in the fingers supplied by the median nerve, with weakness of the muscles, especially the flexors. In February he cut down on the prominences over both condyles and removed spicules of bone which were pressing on the median and musculo-spiral nerves. The patient had since lost the numbness of the fingers, and muscular power was returning.

Dr. ARTHUR DAVIES exhibited a woman aged sixty-two, who was the subject of well-marked Myxœdema. The disease began more than two years ago in the eyelids and feet. There was no albuminuria.

Dr. DAVIES likewise introduced a man aged forty-three, who had suffered from Myxœdema since 1879, and had been for some time under the president's care. Since last December he had been injected in the back three times a week with half a drachm of sheep's thyroid juice prepared according to the formula published in the *British Medical Journal* of Oct. 10th, 1891. The injections caused a gradual rise of temperature, followed by diuresis, and they had produced a very remarkable improvement in the man's condition.

Sir DYCE DUCKWORTH read the sequel to a case of Myxœdema already reported to the Society, with an account of the post-mortem examination. The first part of the case was related in November, 1880, and the patient, a women aged fifty-seven, came in for the third or fourth time to St. Bartholomew's Hospital in May, 1891. The earliest signs of myxœdema began about 1876, and her case was observed at intervals for eleven years. There was progressive enfeeblement, and gradual onset of most of the well-recognised symptoms of the disease. Some improvement always followed her sojourn in the hospital. The temperature was commonly subnormal, and there was an intractable condition of gastric catarrh and dyspepsia, with a tendency to diarrhœa. The features became more and more bloated, and the hands larger and more clumsy. The hair fell off, and left a spare and very coarse covering on the scalp. The voice became very hoarse and guttural, and the speech very slow. The skin was harsh and dry. The knee-jerks were first noticed to be absent in February, 1891. Plantar reflexes were normal. A little albumen was constantly present in the urine, and the urea was several times found to be excreted at the rate of 1 per cent. The teeth fell out. The rectum became much loaded, and ptyalism occurred with much anal excoriation. Bronchitis set in finally. At the necropsy there were found few noteworthy changes in any of the organs. The arteries were somewhat thickened. Many superficial circular ulcers were found in the cæcum and colon, coalescing in places into irregular patches (probably so-called distension ulcers). The kidneys were slightly granular, and weighed together 11 oz. There were submucous hæmorrhages in the bladder. The uterus was natural, and the ovaries firm and white. Some dilatation was found in the central canal of the cervical portion of the spinal cord. The thyroid body was small, white in appearance, and weighed two drachms and a half; it was natural in shape. It was contrasted with that from another body examined at the same time, which weighed five drachms and a half. The whole duration of the case might be reckoned at fifteen years, and might possibly have been longer.

Mr. ARBUTHNOT LANE gave the clinical details of a case of very severe Hæmorrhage following Removal of the Tonsil, in which ligature of the common carotid and transfusion were followed by recovery. The patient was a man aged twenty-one, who had his tonsil removed at the Throat Hospital on Dec. 16th. At the time of the operation, and during the few hours following, he lost about half a pint of blood. On Dec. 19th he lost another half pint. Bleeding recurred on the evening of the 20th, and continued steadily in spite of local applications. He was urged by Dr. Herron, his medical attendant, to go to the hospital, but refused. Mr. Lane saw him on the 22nd, when, as he was evidently dying, his friends consented to his removal into Guy's Hospital, a distance of only a few yards. He was carried directly into the operating theatre from his house on a stretcher. As he was in such an extremely collapsed condition, normal salt solution had to be introduced freely into the circulation before any other operation could be done. He reacted at once to the injection, when Mr. Lane tied the common carotid. It was not necessary to inject more than three and a half or four pints of salt solution, his pulse being then 96, large and full. He left the hospital within a few days, quite well. The point of interest about the case, besides the perfectly successful result of the saline intravenous injection, was the delayed onset of the bleeding, which recurred more than four whole days after the excision of the tonsil. On carefully examining the excised area after the operation, as the patient's condition did not admit of it before, no evidence of any injured vessel could be seen. The tonsil had been very freely removed, but probably not more so than is very commonly done. There was nothing in the man's history or in the behaviour of the wounds at the time of the operation which suggested that he bled more readily than other people.—Mr. HARRISON CRIPPS, while congratulating the author on the success of the operation, said that according to his view, while the result was good, the surgery was bad. Though it might be impossible to seize the bleeding points and to apply pressure, yet it was not good surgery to tie the common carotid, which gave the worst results of any artery when tied for hæmorrhage. Half died from brain symptoms, either at once or later from softening, and a considerable number perished from recurrence of the bleeding. The chief blood supply for the tonsil arose from the external carotid, which should be tied between the superior thyroid and lingual, and after its ligature recurrent hæmorrhage was very rare indeed.—Mr. HULKE congratulated the author on the success of his treatment. Mr. Cripps seemed to think that it was impracticable to apply pressure to the tonsil, but this could be efficiently done by means of a pair of long-bladed forceps padded with lint, one limb being passed inside the mouth and the other resting opposite to it outside the neck. Though it might be better to tie the external carotid, yet that operation took longer, and the condition of the patient might be so urgent as to drive the surgeon to ligature the common vessel.—Mr. LANE replied that he had found no difficulty in controlling hæmorrhage from the tonsil by means of digital pressure. In the case under consideration he exposed both the external and common carotid in his incision, but he found that a large ascending pharyngeal was present, and that the branches of the external were arising very close to its origin. He therefore had no alternative but to tie the common carotid. He had had no cerebral trouble after ligature of this vessel, because in the cases in which he had done so he had always injected salt solution, and he believed that if a similar practice were carried out in all such cases it would abolish this complication.

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Reviews and Notices of Books.

A History of Epidemics in Britain. By C CREIGHTON, M.D., M.A. Demy 8vo, pp. 706. Cambridge University Press. 1891.

THE syndics of the University Press are to be congratulated on the publication of this work. The first of its kind in this country, it is not only a monument of industry and erudition, but is marked throughout by a scientific discrimination strongly contrasting with the credulity of some previous workers in the same field. The labour of the medical historian is far more difficult than that of the politician or statist, his materials are more scanty and less palpable, while learned and vulgar ignorance and superstition, erroneous diagnosis and fossilised theory, confused conceptions and ambiguous expressions, the verbalism that reigned supreme for centuries, and the changes of meaning that the most familiar terms have undergone, present obstacles and pitfalls from which other fields of history are free. But while Dr. Creighton has avoided these sources of fallacy with consummate skill, and has elicited his conclusions from the most unsatisfactory materials, truth compels us to recognise in the work a manifest bias towards a theory of the nature of specific and infectious disease, not in agreement with the opinions of the leaders of modern epidemiology. He adduces ample and irresistible evidence in favour of the influence of fluctuations of the ground water, in determining the outbreaks of disease, which has been insisted on by Pettenkofer; but it is significant that from the first page to the last there is no mention of or allusion to bacteria.

It would be a labour lost for us to enter here on a defence of bacterial pathology, but *fas est ab hoste doceri*, and we frankly admit that the author has brought forward much evidence from which the reader may learn to modify, or rather to perfect, his theories. Without bating one iota from our belief in the essential connexion between bacteria or their products and disease, we may—indeed we must—with him, recognise evolution as a factor in the etiology of even the most specialised of these diseases, since the alternative hypothesis of their origin in separate creative acts is at once improbable and utterly unscientific. Reading thus between the lines, and interpreting "the gradual transition of one form of disease into another, with the rise of new diseases *appropriate* to new material and social conditions" as processes of evolution whereby bacteria acquire new characters under altered surroundings, we shall find his views on the relations of typhus fever and plague, of dysentery and yellow fever, and, though more speculative, of ecthyma and small-pox, in the highest degree suggestive and fraught with instruction. Dr. Creighton takes as the termini of the "Middle Ages" the two greatest plagues the world has ever seen—that in the reign of Justinian, A.D. 542 and the following years, and the black death, which ravaged this country in 1348 and 1349. The former did not reach these islands until the seventh century, while the latter was pandemic. But for 700 years pestilences were in this country constantly associated with famines, especially in the terrible period that elapsed between the Conquest and the accession of Henry II. Civil wars were frequent enough; but as Philip de Comines observed of the Wars of the Roses, England enjoyed "the special grace" that the only sufferers were the actual combatants, the nobles and their armed retainers. It was only in the earlier years of the struggle between Charles I. and the Parliamentary forces that war was attended by pestilence, as it always was on the Continent—a combination of horrors which reached its climax in the Thirty Years' War. Ergotism was also almost unknown in this country, where rye or "black" bread has never been the staple food of the common people. The "sidelights" thrown on the history of the people in the consequences of famines and pestilences seen in the altered circumstances and relations of the several classes of the community are of far wider interest.

The chapter on Leprosy is extremely interesting, inextricably mixed up as are the contemporary notices of this disease with syphilis and with all kinds of cutaneous affections. This is indeed implied in the Levitical instructions for its diagnosis by the Hebrew priest; but scriptural associations gave a sentimental or religious glamour to the disease, and the sufferers or "pauperes Christi" were the objects of special legislation and of lavish charity, in which, no doubt, syphilitics and impostors enjoyed a large share. Though naturally shunned by society, their segregation was due rather to the repulsive character of the disease than to any belief in its contagion—a belief, in fact, held in respect of those forms only which we can now clearly recognise as venereal. From these various causes the amount of true leprosy in England at any time has doubtless been greatly over-estimated. Dr. Creighton ridicules the notion of its having been imported from the East, and finds its origin in the use of coarse and unwholesome food, especially of decomposing and ill-cured flesh or fish, together with "misery" of every kind—drawing a parallel between leprosy and pellagra, which is well known to be connected with the consumption of spoilt and mouldy maize by the indigent peasantry of Lombardy and Roumania.

The Black Death was like the pestilence of Justinian's age, the bubonic plague in an intensified form, though presenting in its distribution and incidence some points of difference from other epidemics of the same disease. Dr. Creighton's theory of the origin of plague virus, deduced from a mass of evidence ancient and modern, gathered from mediæval Europe, from Egypt and Arabia, from India and China, is, that while filth and famine tend to generate spotted typhus fever, the bubonic plague has constantly been associated with cadaveric pollution of the soil, whether from the accumulation of unburied corpses after inundations or devastating wars, or from superficial interment, or from intra-mural sepulture carried on through a long succession of generations. Among the results of the depopulation effected by the black death was the mobilisation and consequent enfranchisement of the agricultural classes, whose material prosperity was never so great as in the following or fifteenth century, notwithstanding the civil wars; their subsequent pauperisation coinciding with the commercial development of the nation and the enclosure of common lands by the nobles, who, under the Tudors, turned their attention from domestic feuds to the cultivation of the arts of peace. The plague remained endemic, with epidemic outbursts from time to time, until about 1667, when it abruptly and unaccountably disappeared; certainly not in consequence of the Great Fire, since it had been far more severe in the out parishes than in the city, and in some provincial towns than in the metropolis itself. It is strange, too, that while attention was constantly directed by the authorities and the medical profession to surface filth as a cause of fever and plague, the saturation of the soil of London with the products of putrefying corpses seems never to have given rise to misgivings.

The Sweating Sickness will always remain an insoluble riddle, alike in its etiology and pathology. It first appeared in England in 1485, and it vanished from the earth in 1551. Each of its five visitations was of short duration; they were separated by intervals of from eight to twenty-three years; it fell mostly on the well-to-do classes, and the fatality exhibited the widest differences. It did not appear on the Continent until 1529, and, while it ravaged the Netherlands and Germany; France, Italy, and Spain escaped. It

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was in, fact, confined to England for forty-three years and to the Teutonic race for the next twenty-three.

It is a curious historical coincidence that registration and sanitary legislation have attained their highest perfection in the reign of our present Queen, the prime motor having been the invasion of cholera, whilst it was under Queen Elizabeth that, in view of the prevalence of plague, the first systematic attempts at these measures were undertaken by the company of parish clerks or choristers, who were at once registrars of christenings and deaths and sanitary inspectors. The "gaol fevers" or outbursts of typhus fever which marked the several "black assizes" of the Tudor period presented in some instances, though not in all, the remarkable phenomenon of men, who, though subjected to insanitary conditions of the most aggravated kind, had not manifested any signs of a definite disease, but who infected healthy persons almost immediately with a fever of the most virulent type—a paradox to which we shall refer in connexion with the origin of yellow fever.

Much obscurity surrounds the stories of epidemics of those times, even after English physicians began, in the sixteenth and seventeeth centuries, to write from their own observation, instead of servilely reproducing the works of foreign authorities. The name "influenza" was not naturalised in this country until the eighteenth century; ague fevers was the vernacular for *febres acutæ*, with no connotation of periodicity; measles once meant persons suffering from skin diseases (*miselli*, diminutive of *miseri*); and even later we find small-pox and measles used indiscriminately for variola and morbillæ. The confusion between the great-pox and small-pox, or between syphilis (which was formerly mixed up with leprosy) and variola, is no less embarrassing. No doubt syphilis is coeval with venereal debauchery, but the earliest accurate descriptions and recognition of its specific character are connected with the epidemic of 1494. When popularly associated with the invasion of Italy by Charles VIII. of France it acquired the designation of the French pox.

For the early history of small-pox we are indebted to the Arabs, from whom we learn with certainty that it appeared among the Abyssinian troops at the siege of Mecca A.D. 570. Dr. Creighton is inclined to look on it as an evolution from ecthyma under the conditions presented by the people and climate of Africa, and draws a parallel between it and the yaws. He does not, however, seem to be acquainted with the early accounts of small-pox in Hindoo writings. But recent outbreaks of epidemic ecthyma in Africa, to which he refers, are in favour of his theory. At any rate there is no doubt as to small-pox having been brought into Europe from the East by the Crusaders, though there is no direct evidence of the existence of small-pox or measles in England before the fifteenth or sixteenth centuries. Kellwaye, however, in 1593, gave unmistakable directions for the differential diagnosis of the three diseases which we call variola, varicella, and measles.

The history of Sea Scurvy begins with the long voyage of which that of Vasco di Gama in 1498 was the first. It offers nothing remarkable except the account of a disease which broke out among the crew of the *Desire*, under Cavendish, in 1588, in consequence apparently of their having been driven to subsist on badly dried and rotten penguin flesh. It was not true scurvy, and Dr. Creighton sees in it a nearer resemblance to beri-beri. The origin of yellow fever is one of the most interesting questions in epidemiology. It is intimately connected with the history of the slave trade, and dates from 1647. Dr. Creighton's views are not new, having been already ably propounded by Hirsch. He adduced a great deal of evidence bearing on the subject. Though a soil poison, bred in the mud of the stagnant lagoons and estuaries of the West Indian Islands and the shores of tropical America, limited in its extension by temperature &c., it is not a malarial fever proper, or indigenous to the countries. Its foci are exclusively those harbours which have been the centres and ports of debarkation of the slave trade, to which it owes its existence; yet the negro race enjoys complete immunity. The only explanation is that on those muddy shores where the slave ships were careened, and the bilge water, dysenteric ordure, and filth of every kind were discharged, with no tides to carry them out to sea, a new disease was developed, and the microbes of dysentery acquired new characters and powers fatal to the European constitution but against which the negro is immune. Dr. Creighton does not refer to the fact that negroes, when compelled to adopt the use of soap and water in place of their customary greasy inunction, are by no means proof against malarial influences; but he points to the still more striking fact that the most pestilential mangrove swamps and lagoons are free from yellow fever, provided they have been innocent of the importation of negro slaves. In short, where typhus fever has been cultivated in the soil it is transformed into bubonic plague, and where the dysentery of negroes during the horrors of the voyage has been cultivated in the warm brackish mud, it develops into yellow fever—a disease of the white man alone; and the cultivation theory is probably capable of throwing light on the origin and evolution of other specific and communicable diseases.

OUR LIBRARY TABLE.

Report on the Social Economy Section of the Paris Universal Exhibition of 1889. Prepared by JULES HELBRONNER, Member of the Royal Labour Commission, and printed by order of the Canadian Parliament at Ottawa, Canada.—There is always this inconvenience about international exhibitions and congresses, that the reports relating to the same appear so long after the event as to seem out of date. Nevertheless, there is no denying the value of facts, especially such as those contained in the volume before us. Most of these relate, it is true, to the economic rather than to the hygienic condition of the working classes in the civilised countries of the world; but there are chapters especially devoted to the laws and institutions that directly affect health. Also it is impossible when dealing with the working classes and all those who only possess very small incomes—and this represents the enormous majority of the population of all countries—to separate the economic from the sanitary problem. What is the use of model artisans' dwellings if the artisans do not earn enough to pay the rent for such dwellings? Consequently, even the chapters of this volume which deal purely with economics give information that is most useful to the sanitary reformer. They show what efforts have been made by profit-sharing, coöperation, trades unionism, by philanthropic effort, and by laws and legislation to improve the economic situation of the poorer sections of the community in a great variety of countries. A very rich collection of facts substantiated by official documents is given. Then there are chapters devoted to such questions as the housing of the working classes, where an account will be found of some of the most celebrated continental building societies. Other chapters deal with the various methods employed and organisations existing for the prevention of intemperance. There is also a short account of the International Congresses on Cheap Dwellings; on Accidents in Workshops, Factories, &c., and on the Intervention of Public Authorities in Economic and Sanitary Matters. As an example of the sort of information to be found in this volume we may mention that, according to the evidence given by Dr. Du Mesnil, inspector of lodgings, the mortality in a quarter of Paris where but 9 per cent. of the lodgings were producing

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under £12 rental amounted to 14 per 1000 of the population. In another quarter, where 59 per cent. of the lodgings are worth less than £12 a year rental, the death-rate is equal to 39 per 1000 of the population. The tenants in the large Canadian cities, adds Mr. Helbronner, are no better lodged. At Montreal, in the rich ward of St. Antoine, only 14·97 persons die per 1000, while in the workmen's quarters of Ste. Marie and St. Gabriel the mortality is 36·3 and 40·66 per 1000. In England the average life among the rich class is fifty-three years; it is forty-one years for the general population, and only twenty-nine years and a half for the labouring classes. Mr. Helbronner's report, if properly studied, will be found useful, and the Canadian Parliament has rendered a public service in causing it to be printed.

Archives de Physiologie de Dr. Brown-Séquard. No. 2, 1892. Paris: Masson.—This part contains no less than nineteen separate memoirs, of which the following are the more important:—1. M. A. Nicolas: Contribution to the Study of Gland Cells, especially dealing with those of the Lacrymal and Parotid Glands, with a Plate. 2. M. C. Phisalix: Physiological Researches on the Chromatophores of the Cephalopoda. 3. MM. Garnier and Voirin: On Alcaptonuria. 4. M. Laulanié: On the Relation between Thermogenesis and the Exchange of Gases in Respiration. 5. M. Hédon: On the Pathogeny of Diabetes consecutive upon Extirpation of the Pancreas. 6. M. Contrejean on the Gastric Juice and the Peptic Digestion of Albumen. 7. MM. Abelous and P. Langlois: Researches on the Functions of the Suprarenal Capsules. 8. M. Kaufmann: On the Circulation in Muscles in Action. 9. M. Prénant: On the Division of Cells, with a plate. 10. M. Gley: On the Function of the Thyroid Gland. 11. MM. Morat and Dufourt: Consumption of Sugar by the Muscles, and the Probable Origin of Muscle Glycogen. 12. M. Maurice Arthus: On Glycolysis in the Blood, and on the Glycolitic Ferment. 13. M. Girard: On the Formation of the Semicircular Canals of the Ear in the Frog. 14. Dr. Brown-Séquard: On the Localisation of Cerebral and especially of the Auditory Functions. 15. Sterilisation of Cold Liquids by Liquefied Carbonic Acid Gas, by M. d'Arsonval; and 16. Reflex Inhibition of Tonus and of the Gastric Movements.

Bacteriological Diagnosis: Tabular Aids for Use in Practical Work. By JAMES EISENBERG, Ph.D., M.D. Vienna. Translated and Augmented, with the permission of the Author, from the Second German Edition by NORVAL H. PIERCE, M.D., Surgeon to the Out-door Department of Michael Reese Hospital; Assistant to Surgical Clinic, College of Physicians and Surgeons, Chicago, Illinois. Philadelphia and London: The F. A. Davis Co., Publishers. 1892.—Dr. Pierce's translation of Eisenberg's "Bakteriologische Diagnostik" will be useful to those students of bacteriology who have no knowledge of German, as it appears to be both well arranged and well translated, though some of the terms used would sound rather strange to the ordinary English ear, especially the literal translation of such a term as "mycel," with the plural "mycels." For those, however, who can read German even moderately well, this work will be of little use, as, although the date of the imprint is 1892, the translation is made from Eisenberg's second edition—an exceedingly unfortunate circumstance, as a third edition appeared in 1891. From this latter edition the appendix on cultivation and staining methods has been added—an appendix that will prove of great value to laboratory workers. How far out of date the translation is may be gathered from the fact that all Eisenberg's preliminary tables have been omitted, and there are described in the translation only 138 species, whilst in the third German edition there are no fewer than 376 organisms included in the tables. The work is bound in oilcloth, a capital binding material for any book that is destined for consultation in the laboratory.

The Practical Guide to Algiers. By GEORGE W. HARRIS. Second Edition; Revised up to date and considerably Enlarged. London: George Philip and Son. 1892.—Making no pretence to the archæological lore, or the historic and ethnological research, which raises Murray's "Handbook of Algeria and Tunis" to a place of permanent authority in our libraries, Mr. Harris possesses knowledge enough of the region to act as a most serviceable guide to all who go as sojourners in search of the salubrious, the picturesque, and the generally interesting. No visitor to Algiers and the chief resorts in its neighbourhood need be at any loss in knowing his "way about" with the "Practical Guide" in his travelling bag; while, as to its excellence in regard to such far-famed watering-places as Hammam Meskoutine and Hamman R'hira, we can, from personal experience, pronounce a very favourable opinion. Mr. Harris prepares the reader for no more and no less than what he will find—thus obviating, on the one hand, all disappointment, if, on the other, preventing all chance of "agreeable surprise." The means of access, whether by coasting steamer, by railway, or by diligence; the hotels, under the several heads of accommodation, cuisine, and prices; the mineral waters; the features of interest from the artistic or historical point of view—all these, and many cognate details, are given by him with an accuracy that never creates false impressions, and with a fulness that satisfies without satiating. If we may venture a hint, we should advise him to enlarge his book in subsequent editions by dwelling more on the distant health resorts, like Biskra, called by Arabs the "Queen of the Desert," and remembered by grateful visitors as the seat of a "rest-cure" available when every place of sojourn on the Mediterranean is chill and cheerless. Biskra, indeed, is destined, before the century is out, to form the portal to the great "sun-bath of the Northern races," as the Sahara has been called—a sun-bath which is at its best when the Riviera and the Mediterranean seaboard generally are at their worst—rich, too, in verdant retreats provided by the neighbouring oases, which bring the "world's tired denizen" into immediate contact with the still life of patriarchal times, like so many pages out of Old Testament history. The good hotels of which it can now boast must, however, be made more accessible by rail—a consummation to which Mr. Harris can contribute by impressing on the unenterprising French directorate their neglected opportunities of reaping a golden harvest.

Analytical Records.

GASKIN'S COLONIAL COCOA.

(ANDERSON & COLTMAN, 155, FENCHURCH-STREET, E.C.)

COCOA when properly prepared is an excellent article of diet, and there are now in the market many good cocoas to select from. It is somewhat refreshing, therefore, to hear of a new claim made in respect to the above sample. Gaskin's cocoa is said to be made in British Guiana, where it is grown, and the advantage gained by this procedure is to secure a greatly improved flavour. The decoction it yields is characterised by a markedly rich and pleasant taste, and all excess of objectionable fat has evidently been carefully eliminated.

CELERY COFFEE.

(CELERY COFFEE COMPANY, 654, EGLINGTON-STREET, GLASGOW.)

Celery has been regarded by some as aphrodisiac as well as carminative, and it has a popular reputation of being a

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cure for rheumatism. This latter reputed quality has doubtless prompted the preparation of the above article. In appearance and odour it is like ordinary coffee, though not so strongly aromatic, and yields a rich and not unpalatable infusion tasting like coffee, although the peculiar and pleasant flavour of celery can also be detected. Under the microscope scalariform vessels, which of course are highly characteristic of celery, may be readily observed. Celery coffee yields on ignition a bulky ash which contains carbonate of lime and an important quantity of soluble phosphate.

ESSENTIA MALTI KEPLER.

(MESSRS. BURROUGHS, WELLCOME, AND CO., SNOW-HILL BUILDINGS, E.C.)

According to our experiments, one part by weight of this preparation completely converts in one hour at 100° F. into dextrine and sugar no less than 8 parts of pure potato starch, and in two hours 16·66 parts. It is evidently, therefore, quite as active as regards diastase as well prepared extract of malt. In fact, the essence may be regarded more as a digestive agent than as a food, although it contains nearly 60 per cent. of solid malt-derived substances in addition to 0·65 per cent. of soluble phosphates. It is characterised by an agreeable flavour of malt, free from excessive sweetness, while from its fluid character it obviously presents certain advantages over the more viscous preparations. The fluid essence may be more conveniently used, for example, for mixing with aerated waters, plain water, or milk. With milk it forms not only a pleasant drink, but a valuable food.

MISCIBLE LIQUID EXTRACT OF COCA.

(WRIGHT, LAYMAN, AND UMNEY, SOUTHWARK.)

An abundance of cocaine was successfully extracted from this preparation, and the alkaloid was recognised by two tests—that of its numbing effect on the tongue and by the peculiar peppermint-like odour developed when the liberated alkaloid was evaporated to dryness with fuming nitric acid and afterwards moistened with a solution of potash in alcohol. The extract is not prepared by the addition of alkalies, but by a new process, which secures the elimination of useless chlorophyll and wax. It is a spirituous extract, and is marked by a strong, agreeable flavour. Moreover, it is perfectly miscible with water, and therefore admirably adapted for the extemporaneous preparation of coca wine and for admixture with malt extract or other suitable menstrua.

WYETH'S BEEF JUICE.

(JOHN WYETH AND BROTHER, PHILADELPHIA.)

The following analytical notes and results testify unmistakably to the excellence of this preparation. It is a dark reddish-brown liquid of pleasant beef-like flavour, and free from objectionable preservatives. It contains not only the albuminous principles of beef in an active and soluble from, but in the condition in which they occur in the freshly expressed juice of beef itself. Viewed with the spectroscope a dilute solution is seen to give two absorption bands, characteristic of fresh blood or hæmoglobin. The liquid loses this property, however, as soon as it is boiled; while the coagulated albuminous principles assume a blood-red tint. According to our experiments no less than fourteen grains of solid albuminous principles in every fluid ounce are thus precipitated. The following figures gained in analysis will convey some idea of the eminent degree of concentration through which this preparation has been carried. Notwithstanding this, the vital elements of beef juice it contains have been preserved unchanged. Moisture, 44·87 per cent; organic matter, 38·01 per cent.; mineral matter, 17·12 per cent. The organic materials contain 4·57 parts of nitrogen, and the mineral matter consists largely of common salt and, of course, soluble phosphate. Results like these make it safe to assert that as an example of preparations of this class Wyeth's beef juice is little short of perfection.

MALTO-RICINOL.

(KINGSFORD & CO., 54, PICCADILLY, S.W.)

It is well known that castor oil is one of the best of all simple purgatives, but its unpleasant taste is in many instances a drawback to its use. Like cod-liver oil, it appears to form an emulsion, as in the above excellent preparation, with active malt extract. The product so obtained is, according to microscopical examination, devoid of free fat globules, until water is added, when the preparation assumes at once a milky appearance. Malto-ricinol has an aromatic flavour, is not unpleasant to take, and contains besides half its weight of castor oil, all the valuable principles of active malt extract. It rapidly transforms starch jelly into soluble starch, and finally into dextrine and maltose. This preparation will doubtless prove a valuable addition to therapeutics.

GODESBERGER MINERAL WATER.

(THE GODESBERGER CO., 17 & 18, ST. DUNSTAN'S-HILL, E.C.)

A natural sparkling table water, peculiarly soft to the palate and free from organic matter. On evaporation a saline residue was obtained, amounting to 324 grains per gallon. Each bottleful, according to our tests, exhibits an alkalinity equal to 20 grains of bicarbonate of soda. The residue consists chiefly of carbonates of magnesia, lime, and soda, and sulphate of soda. The spectroscope showed also the presence of potassium. On account of its softness to the palate Godesberger water makes an excellent drink with milk, while, being practically free from iron, it mixes well with spirits.

MALT PASTILLES.

(ROWNTREE AND CO., YORK.)

Owing to the fact that the amylolytic activity of diastase is destroyed at a temperature exceeding 150° F., it has been found practically impossible hitherto to prepare sweetmeats containing active malt extract. Messrs. Rowntree have lately succeeded, however, in preparing malt pastilles in which the diastasic activity of the malt is really preserved. We have tried the action of the pastilles on starch, and find that they perceptibly dissolve and eventually convert the starch into dextrine and sugar. The pastilles have a pleasant taste, and, besides forming an elegant sweetmeat, may help to lighten the labour of digestion.

MOSQUERA'S BEEF MEAL AND JELLY.

(MOSQUERA JULIA FOOD CO., DETROIT, MICH., U.S.A., AND 16, COLEMAN-STREET, E.C.)

Two distinct preparations, beef jelly and beef meal, have been submitted to us by this firm. Both contain nourishing fibrine as well as peptone, the former being recognised under the microscope, and the latter by the well-known biuret reaction. Fat was also recognised. The meal on analysis gave the following results: Moisture, 8·60 per cent.; organic matter, 87·68 per cent.; mineral matter, 3·72 per cent.; and the jelly results as follows: Moisture, 22·10 per cent.; organic matter, 62·46 per cent.; ash, 15·44 per cent. The meal contained over 10 per cent. of nitrogen. In the face of these results it is evident that both preparations are foods particularly rich in restorative and nourishing elements. Further, they are of excellent flavour, and the entire absence of objectionable preservatives was ascertained.

THE Earl of Darnley on the 22nd inst. opened the new wing of the Kent County Ophthalmic Hospital. There was a large attendance at the ceremony.

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THE LANCET.

LONDON: SATURDAY, APRIL 30, 1892.

BY the nomination of a new Royal Commission to take into consideration the means of forming a Teaching University for London another, and we hope a final, step has been taken. Just four years ago a Royal Commission was appointed to inquire "whether any and what kind of new University or powers is or are required for the advancement of higher education in London." This Commission was composed of Lord SELBORNE, Vice-Chancellor J. T. BALL, Sir JAMES HANNEN, the Hon. G. C. BRODRICK, Sir W. THOMSON, Sir G. G. STOKES, and the Rev. J. E. C. WELLDON. A more capable and judicious selection could scarcely have been made. The one blot in its composition was the absence of a thoroughly representative member of our profession who would have been able to assist in the solution of the medical difficulty which must be so inextricably mixed up with any scheme for improving higher education in London. The Hon. G. C. BRODRICK retired after the first meeting of the Commission. After hearing a large mass of evidence, and considering the petitions laid before them, the Commissioners reported to Her Majesty in April, 1889. They unanimously came to the conclusion "that a great demand exists for medical degrees attainable in London more easily than at present, and that it may be desirable to provide for that want in some proper manner," but they refused to grant a charter of incorporation to a Senate proposed to be formed of the Royal Colleges of Physicians and Surgeons, on the grounds that they were colleges of no academical character, and that the creation of a new examining and degree-giving University in a single faculty was undesirable. They also recommended that a reasonable time should be allowed to the Senate and Convocation of the University of London to consider whether they would apply to the QUEEN for a new charter extending their functions and duties to teaching; for, according to their opinion, the general case for a Teaching University was made out. The three practical teachers on the Commission would have preferred the establishment of a new Teaching University for London, but acquiesced in the recommendation that an attempt should be made to unite the teaching and examining functions in a single University. After numerous negotiations and conferences, the Senate formulated a scheme, and asked Convocation in June last to join in an application for a new charter, which was requisite for the carrying out of their proposed new functions; but by a very large and decisive majority the members of Convocation declined to do so. This was the first stage.

On the refusal of Convocation, the Privy Council took into consideration the question of granting a Charter to University and King's Colleges to form a University in and for the London district, with power to confer degrees, as prayed for in their petition which was presented to the QUEEN in Council at the same time as that of the Royal Colleges. Instead of remitting this subject to the Royal Commissioners, it was decided by the Lord President of the Privy Council to appoint a Committee of the Privy Council, composed of the Lord President, as chairman, and Lords SELBORNE, MONK BRETTON, BASING, and SANDFORD, to hear counsel in support of, and against, the petition. With the exception of that referring to the name, the objections of the University of London were disallowed, and the claim of the Royal Colleges to a control of the Medical Faculty in the new University was declared to be "not admissible." The medical schools of London were allowed time to consider whether they would take a part in the new University, and in July last agreed to do so. The charter of the Albert University, to be composed of University and King's Colleges and the London medical schools, was then passed by the Committee of the Privy Council. It was then too late for this charter to be laid on the table of the Houses of Parliament for thirty days as required by statute, but this was done immediately on the reassembling of Parliament in February last. Meanwhile, negotiations had taken place between the committee of Gresham College and the promoters of the new University which resulted in a welcome change of name from "Albert" to "Gresham." This constituted the second stage.

A new difficulty now arose. The provincial schools of medicine took alarm at the prospect of a new University for London which would have a strong Medical Faculty, and made strong pressure on their local parliamentary representatives to prevent the Charter being granted. They were joined in their opposition by members of the Convocation of the University of London, the authorities of Bedford College, and also by members of some other institutions, such as the Birkbeck Institution, the Working Men's College, the University Extension Society, and others, which did not appear before the Privy Council. This opposition proved so strong that the Government decided to reopen the question, and it has therefore been referred to another Royal Commission. This Commission was nominated on Monday last, and the terms of the reference are as follows: "We, taking the premisses into consideration, do authorise the said Commissioners to consider and, if they think fit, alter and amend, and extend the proposed Charter remitted in compliance with an address of the House of Commons, so as to form and report to us a scheme for the establishment under Charter of an efficient Teaching University for London." There is therefore no longer any question as to whether a Teaching University is needed; the matter the Commissioners have to consider is the formulating of a scheme for such a University by altering, amending, and extending the Gresham charter if they think fit. This is obviously a great advance upon the terms of the reference to the former Commission. The *personnel* of the Commission is altogether altered. No members of the former Commission are reappointed, and the selection appears to have been made on an entirely different plan. Instead of legal and educational authorities uninterested in the London problem, we have now a Commission composed of representatives of nearly all the bodies interested, and they are practically called together to agree on an efficient and workable scheme. Earl COWPER, the chairman, has no special interest in the question; Lord REAY is intimately connected with University College, and was the first chair-

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man of the Association for Promoting a Teaching University; Bishop BARRY is a member of the Council of King's College, and was formerly its Principal; Sir LYON PLAYFAIR, as Member for South Leeds, and Vice-Chancellor RENDALL of the Victoria University, will safeguard the interests of the provincial colleges; Professor RAMSAY of Glasgow will represent the Scotch Universities; Professor SIDGWICK is one of the most active teachers in Cambridge; Canon BROWNE is a most ardent supporter of the University Extension system; Mr. JAMES ANSTIE is a member of the Senate of the University of London, and has had a considerable part in drawing up many of the schemes for reforming that University; and Mr. R. C. PALMER is a most influential member of the Gresham Committee and of the Mercers' Company. The members of the medical profession are Sir W. S. SAVORY, Sir G. M. HUMPHRY, and Professor BURDON-SANDERSON; but they practically represent the Royal Colleges and the medical schools of Cambridge and Oxford. Considering how seriously the interests of the medical schools of the metropolis are concerned, an active and representative London teacher should be added, and the Commission would have been still stronger if it had also included a general medical practitioner familiar with the advantages and defects attending London medical education under its present conditions.

THE term "tropical diarrhœa" is apt to be misleading; for although this condition has been investigated by the most able observers, yet it is by no means clear what is its pathology or morbid anatomy. Dr. THIN has done good service in this direction, especially with regard to the condition named by him "psilosis linguæ et intestini." In a paper recently read before the Royal Medical and Chirurgical Society, he has again drawn attention to the principal features of this complaint. Dr. THIN, following the doctrines of the Dutch physicians of Batavia, considers that psilosis, or, as it is commonly called, "sprue," is specifically distinct from the ordinary diarrhœa prevalent in the tropics. This distinction does not seem to be made in India or by French observers, whose statistics show that they group all cases of muco-enteritis into one class. Psilosis is characterised by a specific inflammation of the mucous membrane of the tongue, cheeks, soft palate, and œsophagus, superadded to the intestinal symptoms.

The condition of the tongue is especially characteristic, and may be apparent before the occurrence of diarrhœa. According to the severity of the symptoms the tongue may be slightly furred, with red, cracked, sensitive tip and edges, and very red patches on the dorsum, with enlarged papillæ. In a more advanced condition the tongue is free from fur, smooth, extremely red, with or without crevices, sometimes showing no trace of papillæ. When the patient is very anæmic the tongue may be pale and white towards the tip. The mucous membrane of the cheeks and lips may be pale and smooth or congested, the under lip and cheeks near the angles of the mouth being found sometimes extremely raw and tender, and covered with slight abrasions. In long-standing cases the remains of this inflammation may be present in the shape of an opaque thickening of the mucous membrane, which is liable to crack. In advanced stages slight superficial limited ulcerations occur on the mucous membrane of the cheeks as well as on the tongue. The extremely superficial character of the ulcerations is characteristic; they often vanish in a few days without leaving a trace. In a necropsy made by Dr. WETHERED on a case of psilosis, it was shown that the walls of the ileum were greatly thinned, the mucosa being completely denuded, contrasting very markedly with other forms of tropical diarrhœa in which the characteristic pathological changes were thickening of the walls of the intestines, and only partial destruction by ulceration of the mucous coat.

Another feature in these cases is of general interest—namely, the condition of the stools. Diarrhœa is indeed the rule, but it is not invariable. The condition of the bowels may be more accurately described as irregular. When diarrhœa does occur, the evacuations consist of a frothy, pale-yellow or clay-coloured, more or less pulpy, mass. When the motions become solid, the patient usually passes, once daily, a formed white colourless stool, and this colour is maintained, although the diet may consist of milk, farinaceous foods, fish, eggs, chicken, with a moderate amount of vegetables and fruit. Large creamy, soft masses are also passed occasionally, which have been shown to consist of almost pure cultivations of bacteria, a rod-shaped bacterium of moderate and definite size largely predominating over the other organisms present.

The fact of persistent white stools being passed when the patient is on a mixed diet raises the question whether colourless motions necessarily imply absence of bile. Dr. WALKER of Peterborough has shown that when the pancreatic duct is obstructed white stools result, and argues therefrom that the pancreatic secretion is a necessary ingredient of the colouring matters of the fæces. In the only necropsy of a case of psilosis which has been reported, the liver, pancreas, and their ducts were all normal. Dr. WYNTER BLYTH made an analysis of the stools of one of Dr. THIN'S patients, and showed that the general percentage composition was: water, 82·73; organic solids, 14; chemical matters, 3·27. More than half of the organic solids consisted of neutral fats, apparently milk fat, which had passed without being digested or saponified. Nearly 6 per cent. of bile acids were present as soap, thus showing that bile was not altogether wanting. As the fat in the stool was only a fraction of the quantity taken in the milk, it followed that a considerable proportion of the milk fat had been digested, thus affording clinical evidence of the presence of the pancreatic secretion. In fact, milk is the only diet that many of the patients affected with this disease can take.

The practical importance of these observations is obvious. It has generally been held that colourless stools denote serious interference with the functions of the liver or pancreas, either due to disease of the organs themselves or to obstruction of their ducts. We see, however, from the observations which we have just considered, that such is not necessarily the case; and it is a question well worthy of serious consideration whether in numerous other cases we are right in concluding that the liver and pancreas are not acting normally because this symptom (colourless stools) is present. Dr. THIN suggests that the colouring matter of the

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fæces in psilosis is destroyed low down in the intestinal canal by bacterial action, and until some other agency has been discovered or this theory shown to be untenable we must conclude that the views hitherto held as regards the white stools, although probably correct in the majority of cases, are not complete, and that further investigation is necessary before the matter can be considered to be satisfactorily settled.

BRITISH gold used to form an essential factor in the war budgets of continental Powers, and history tells us how the aggressive policy of revolutionised France was kept in check by the subsidies doled out to Austria by the younger PITT. Nowadays no European State counts on such a source of supply in war time. "British gold" is otherwise and much more advantageously employed. And yet there are countries to which the inflow of that peculiarly precious metal is as indispensable as were PITT'S subventions to Austria—so indispensable, in fact, that a falling off in that source of revenue is felt as equivalent to a failure of crops or the exhaustion of an industry. Take Switzerland, for example. Is the tourist-wave from Great Britain kept back on some temporary account or deflected into another channel? A wail rises up from the cantons like the "bitter cry" from Lower Egypt when the fertilising Nile flood is over-due. Still more is this the case in Italy. Compared with her Swiss neighbour, the peninsula is much less developed in agricultural or industrial resource, and *pro tanto* her dependence on the fecundating tourist-wave is much more intimate. It is indeed a dire public calamity when for a season that wave refuses to flow through her Alpine passes or to caress her Mediterranean shores. Ten millions sterling we have heard Italian publicists mention as the sum annually spent among them by our compatriots, and if to that be added the seven millions estimated by American consuls in Italy as the contribution of their countrymen, and four millions as that of the Russian, the German, and the Frenchman, a total is arrived at of £21,000,000, computed in a recent paper by our first Secretary of Legation at Rome as the yearly amount poured into Italian pockets from the outside world.

The "human import" is indeed a source of revenue to Italy, before which her collective exports assume a comparatively humble figure; and the question now arises, What steps does she take to keep up so essential a factor of her income? The Swiss, we freely admit, show themselves alive to the value of the "human import"; they house him in model hotels; they feed him well; they maintain at his beck and call the best drilled army of waiters the world can show; above all, they are duly solicitous as to his health, and if they grudge him the power of calling in a practitioner of his own nationality, they do their best by first-rate sanitary arrangements to keep zymotic or preventable disease at a safe distance. And they have their reward in a fairly continuous inflow of tourists and in a yearly accession to their income, which, if it enriches the hotel-keeping beyond the professional citizen, has the compensating advantage of maintaining the general standard of comfort at an exceptionally high level. But Italy, owing far more than her Swiss neighbour to the foreign visitor, is far less careful as to his legitimate wants and claims. Her native hotels are still in many towns a byword—"thoroughly Italian" being the accepted definition in the guide-books for all that is mean in accommodation, insufficient in fare, defective in cleanliness, and risky as to hygiene. Could she but realise her opportunities she would regard it as a *prima cura* to make her guests—particularly her English-speaking guests—tolerably comfortable. They would then be attracted to regions of her beautiful and historically inviting peninsula which are practically closed to all but the adventurous and the robust. How many a delicious sun-trap on her Calabrian or Sicilian seaboard is still denied to the wistful valetudinarian from the north, on account of its squalid accommodation, its repulsive food, its defiance of the first principles of sanitation or common decency, its lack of all medical assistance, but that of some local SANGRADO? Even in the great centres of population—centres which successive generations of English-speaking residents have done something to civilise—the requirements of the British guest are but sparingly and grudgingly met. We say nothing as to the hotel system, which, when not in Swiss or German hands, is too often bad and dear; we mean the requisites which Italian citizens themselves should be the last to neglect—those of pure water-supply, prompt and effective drainage, removal of public latrines to quarters where they cease to assail every sense. This last is a crying evil in Italy, ay, even in such developed capitals as Rome and Florence. There the refined or properly-nurtured visitor, female even more than male, cannot thread the narrow lanes without incessant risk of having every propriety shocked by a worship of CLOACINA as promiscuous as it is unabashed. Public opinion has yet to be formed in Italy, and, when formed, to be exerted for the rehabilitation of manners and the observance of decency in out-of-door life. Other directions there are in which she has yet to improve upon semi-mediæval tradition, if she is to attract or retain her English-speaking guests. Her postal service, for instance, is of the poorest and most vexatious. Even abroad the Briton is alive to the value of time, and likes to have his letters punctually delivered or forwarded. But if the consensus of our countrymen even in such cities as Florence can be trusted, the posts are a daily source of worry and annoyance, neutralising much of the pleasure and benefit derivable from a sojourn in the beautiful city. Ill-advised economies in the service have undermanned it to the point at which efficiency is impossible, and mistakes in sorting and consignment are as irritating as they are frequent. Then, again, her custom-houses are the most exacting and provoking in Europe, and give the new arrival at her frontier anything but an appetising foretaste of the treatment in store for him when fairly within her gates. Italy has had warnings of the deterrent effect which her characteristic proceedings exert upon the visitor; and the ominous risk she lately ran of losing the advantages she draws from carrying our Indian mails by the Brindisi route convinced her, not a moment too soon, that she must improve her hôtel accommodation, moderate her custom-house pedantries, and put her public, including postal, services in order if she is not to see that lucrative line of traffic transferred to another Power.

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The "human import," however, can connive at loss of comfort, at extortionate charges, at unlovely habits on the part of the natives, if only he can count on exemption from sanitary risks; and it is these which Italy still shows a reprehensible backwardness in removing. A few more lessons like those given her by the falling off in her "guest-friends" of late years, and she must find it imperative to put the prime requisites of health and life itself in the very front of her internal reforms. Had these been vouchsafed their due attention, no such falling off would have occurred; there would have been a substantial increase in the "import" in question; and the enriched country would have felt far less keenly the weight of her army and navy budgets, of her railway expenditure, of the cost of her colonial policy. It is not yet too late for her to retrieve her financial situation. But let her proceed properly to work. Not by economies here and imposts there, but by such sanitary rehabilitation as may do justice to her natural and historical attractions, will she recover the ground she is losing. And for that consummation let her draw her inspiring power not from statecraft merely, but from hygienic law befitting the country of BAGLIVI and MORGAGNI not less than of MACHIAVELLI and CAVOUR.

QUESTIONS of moral progress or retrogression are amongst the most interesting and important of all questions, and are constantly engaging attention, but the data for their scientific investigation are still scanty. Dr. ALBERT LEFFINGWELL has recently published a treatise,[1] which, he informs us, is the first work in the English language upon the subject with which it deals, although the question has attracted much attention upon the Continent. The materials for its elucidation, although still very imperfect, are rapidly accumulating, and Dr. LEFFINGWELL deserves the thanks of all scientific inquirers, social reformers, and politicians for the succinct and lucid manner in which he has marshalled his facts and drawn his conclusions.

The table of statistics of illegitimacy in Europe shows that Ireland stands at the head of the list with the lowest rate of all the European countries—viz, a rate of 26 illegitimate births in every 1000. This fact should be remembered to the eternal honour of the sister country. The English rate is 48 per 1000, and the Scotch no less than 82 per 1000. Thus we may roughly say that for every child born out of wedlock in Ireland two are born in England and three in Scotland. Looking again at the European table, we find that Ireland is closely followed in her place of honour by Russia, with the low rate of 28 per 1000, and by Holland with the rate of 32 per 1000. The Italian and French rates of illegitimacy are respectively 74 and 82 per 1000, being thus considerably in excess of England, and comparable rather to Scotland. Among the countries that show the highest proportion of illegitimacy are Sweden, Saxony, Bavaria, and Austria, in which the rates range from 100 to 140 per 1000. Austria is at the opposite pole from Ireland, and takes the lowest place among the European nations, with a rate of 146 per 1000.

[1] Social Science Series: Illegitimacy. By Dr. Albert Leffingwell. London: Swan Sonnenschein and Co.

When we study the detailed statistics of the British Islands many interesting and striking facts become apparent. We find the most marked differences in the illegitimate rate of the different counties and districts, and these differences are not arbitrary or fluctuating year by year but are remarkably constant, pointing to the operation of natural laws. As regards England, Dr. LEFFINGWELL points out that "if an outline map of England and Wales be taken, in which the county boundaries are distinguished, it will be found that a continuous, though irregular, line can be drawn from the east coast between Essex and Suffolk, across England to the British Channel; and that while every county below this line, without exception, has an illegitimate rate below the average, every county above it, with only one exception (viz., Lancashire), has a rate above the average." The extremes are shown by Essex, Middlesex, and Surrey, with rates respectively of 34, 35, and 40 per 1000, and Norfolk, Cumberland, Hereford, and Shropshire with rates respectively of 74, 76, 76, and 82 per 1000. Thus there are important districts in England where the rate of illegitimacy is almost as low as in Ireland; while in other districts it is almost as high as in Scotland. Turning to the latter country we find the same variations according to county and district. Ross and Cromarty, the Shetland Isles, Dumbarton, and Renfrew, at one end of the scale, have the comparatively moderate rates respectively of 47, 52, 54, and 59 per 1000; while Banff, Wigtown, Elgin, and Dumfries have the enormous rates of 164, 159, 153, and 147 per 1000. It is startling to find that these latter Scotch counties have actually one of the highest, if not the very highest, illegitimate rates in Europe. In Ireland, Mayo, Sligo, and Galway show the lowest rates—viz., 5, 8, and 10 per 1000; while the highest Irish rates are afforded by Antrim, Down, and Londonderry with 52, 51, and 46 per 1000 respectively.

The inquiry into the causes of these varying rates of illegitmacy raises many complicated but most interesting problems. Dr. LEFFINGWELL remarks that the causes generally supposed to be the principal factors in the production of vice and crime are poverty, ignorance, and the contamination of great cities. He examines the influence of these upon the prevalence of illegitimacy, and finds that it is very slight, if indeed it can be said to be operative at all. Thus, as regards poverty, we find astonishingly low rates of illegitimacy in poverty-stricken Mayo and Sligo, compared with the relatively high rates in prosperous Antrim and Down. It is also noteworthy that Russia, a very poor country, has a much lower rate of illegitimacy than such prosperous countries as France and England. Other facts too numerous to mention point in the same direction. Dr. LEFFINGWELL warns us, however, that "poor districts are not invariably the most virtuous," but adds that "there is nowhere such uniform relation between the indigence of a people and the prevalence of illegitimacy as to justify the hypothesis that this phase of moral delinquency in any district or country can be accurately described as caused by its poverty." As little can the influence of great cities account for the prevalence of illegitimacy. Thus the illegitimate rates of London, Birmingham, and Liverpool—viz., 39, 50, and 62 per 1000—are actually much lower than those of many of the purely rural districts. Education, again, seems to have

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very little influence. Thus in the province of Finisterre in France, the most illiterate province in the country, the rate of illegitimacy is only 34 per 1000, as low as the lowest rate in any of the counties of England, Wales, or Scotland. Nowhere, unfortunately, can it be shown that the advance of education is marked by a relative decline in the rate of illegitimacy. Creed seems equally impotent to stem the tide of immorality. The low rates of illegitimacy in Catholic Ireland and Catholic Brittany are balanced by the high rates in Catholic Bavaria and Catholic Austria. Scotland and Sweden do little credit to Protestantism. We find the rates so variable under the same creed in different countries that to trace any causal connexion between belief and morals in this particular seems impossible.

We cannot at present adequately consider the real causes of the varying rates of illegitimacy. Race and heredity are apparently the most important, and next to these come legislation, restraints upon early marriages, social usage, &c. It is very satisfactory to find that on the whole the rate of illegitimacy in the various divisions of the United Kingdom is slowly declining. We may return to this subject, and in the meantime we commend Dr. LEFFINGWELL'S work to everyone interested in the study of morals and to all who are anxious to raise the investigation of these questions from the low level of sentiment to the higher plane of science.

Annotations.

"Ne quid nimis."

SIR GEORGE BUCHANAN AND THE LOCAL GOVERNMENT MEDICAL DEPARTMENT.

A VERY pleasant evening was spent at Limmer's Hotel on Saturday, April 23rd, when Sir George Buchanan entertained at dinner his late colleagues, the medical inspectors and clerks of the medical department, as well as the officials of the National Vaccine Establishment. After dinner the speeches were brief, but pointed and telling. The host introduced the new chief of the department, Dr. Thorne Thorne, in a few felicitous phrases, whilst the latter at somewhat greater length expatiated upon the severe loss they all experienced in Sir George Buchanan's retirement, and the eminent services he had rendered to the State in maintaining, as he had done, the prestige of the department. In reply, Sir George Buchanan claimed for Sir John Simon the lion's share in shaping the destinies of the inspectorate, to the direction of which he had succeeded; and he coupled the toast of "Absent Friends" with the names of Sir John Simon and Mr. W. H. Power, who was prevented attending from illness. Afterwards Dr. Blaxall, who has recently retired from the office of medical inspector, warmly welcomed the junior members of the staff to a service which he assured them would be one of which they would be proud in their after years. Altogether a most enjoyable gathering took place, which augurs well for Dr. Thorne's chieftainship.

THE ROYAL COMMISSION ON WATER-SUPPLY.

IT is satisfactory to learn that the members of the recently appointed Royal Commission on Water-supply mean to lose no time in starting their laborious task. A meeting was held on Monday last, when there were present Lord Balfour of Burleigh (chairman), Sir G. H. Bruce, Sir Archibald Geikie, Professor James Dewar, Mr. G. H. Hill, Mr. James Mansergh, and Mr. F. Gaskell, the secretary. The Commissioners had under further consideration several matters connected with procedure, and with the preparation of the maps and plans requisite for the inquiry; and they are believed to have expressed the hope that the preliminary statements for which the water companies and the principal public bodies interested in the inquiry have been asked will be in their hands before the close of the present month. If this should be the case, the Commissioners intend to proceed without delay to hear evidence, and will probably call first on the representatives of the existing water companies. Further, they have resolved to admit to the sittings at which evidence will be taken members and officials of any public body interested, as well as any official connected with any water company. Provision will also be made for the accommodation of a reasonable number of representatives of the press. No doubt many will gladly avail themselves of this opportunity of hearing evidence on a subject of paramount importance and of vital interest to the citizens of London.

CRUELTY TO CHILDREN ON THE CONTINENT.

WE may thank the framers of the Act for the prevention of cruelty to children that they have placed an effectual check upon those who in this country were wont to abuse the infirmities of children for begging purposes. The miserable show-infant cannot now be exposed in our streets without entailing serious risk upon the exhibitor in the event of detection. Anything like a wholesale manufacture of human objects of pity could not fail to draw down upon the perpetrators a penalty severe enough to prohibit its continuance. We have not, indeed, in this fact any occasion for boastfulness. Our assumption of preventive powers in the matter is far too recent even to encourage such an attitude. We cannot, however, be wrong in mentioning the circumstance by way of suggestion to authorities elsewhere who have still to witness, but apparently without power to punish, the monstrous practice in question. Take by way of illustration the frequent exhibition at French fairs of those artificially produced cripples known as *culs de jatte*, the term implying a shrivelled condition of both legs, deliberately induced in childhood by means of ligatures which interfere with the circulation in the limbs. The cripple-farmer pays the parents of his victim, usually a delicate child to begin with, a few centimes daily, and keeps his miserable charge as a means of lining his own pocket with the coppers of the compassionate. It is a proof of the extraordinary ignorance, credulity, and heartlessness of the Spanish peasantry, to whom these wretched creatures belong, that they should be allowed because born weak thus to suffer at the hands of impostors under the sorry pretence that only so can they make a living. It is evidently high time for preventive action on the part of the Spanish and French Governments, and no circumstance could provide a fuller justification for the introduction by either authority of a Children's Act which would deal effectively with instances of such tyrannous cruelty.

STREET CLEANSING.

A BRIEF *résumé* of observations on street cleansing contained in the recent report of Colonel Haywood, the engineer to the City of London Commission of Sewers, will serve to give some idea of the waste resulting from the ordinary wear and tear of City traffic. The report informs us that the number of persons entering the City on one day of last year was 1,186,000; that of vehicles, 92,000. We learn from it also that in order to maintain due cleanliness

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all carriage-ways have to be swept daily, once at least. Some 150 boys are in constant employment as street orderlies. Many thoroughfares are cleansed by means of the water-hose, a total volume of about 3,500,000 gallons of water having been expended last year in the process. The cleansing of slums is a daily charge upon the authorities, and the total mass of refuse of all kinds removed during the year amounted, it is said, to 71,055 van-loads. Such facts as these will assist us in forming a judgment, however imperfect, respecting the properties of street dust. In view of their teaching, we can have no doubt as to the importance of securing effectual ventilation by the demolition of insanitary hovels and tenements, and the construction of wide thoroughfares. The work of daily cleansing becomes evident as a matter of mere necessity, and the water-cart or hose gains a new importance as a means of laying the pulverised refuse, laden as it must be with putrefying matter. The wisdom of vestries in using disinfectant solutions for this purpose during summer needs no commendation. Neither need we say much to impress the evident importance of maintaining in full working efficiency all street gullies, and of cleansing these frequently by means of antiseptic substances.

THE PROGRESS OF SMALL-POX.

SMALL POX continues to show indications of considerable activity in different parts of the country. A recrudescence has taken place at Dewsbury, cases recur at Batley, and odd cases are occurring at such places as Cleckheaton, North Bierley, &c. The result is a rush for isolation accommodation, and we fear that the erection of hospitals having been allowed to stand over until the disease has appeared, many structures which will be ill-adapted for anything but emergencies will be run up. One of the most serious attacks is at Great Yarmouth, where the hospital is full of small-pox patients. This is very ominous at a season of the year when further extension may be anticipated. Cases still occur in the metropolis, some being due to importation by Swiss waiters and other foreigners. Dr. Sykes of St. Pancras draws attention in his last monthly report to the fact, which he sets out in tabular form, that cases sent to hospital as small-pox are returned as being chicken-pox, although the houses and localities from which they were sent are infected with small-pox. We believe the Metropolitan Asylums Board are not allowed to isolate cases coming under the designation of chicken-pox.

THE SURGERY OF THE GALL-BLADDER.

DR. IVANOFF has collected the particulars of 278 cases of surgical interference with the gall-bladder on account of gall-stones or of distension from obstruction. Thirty cases were in males and 185 in females. The majority of them occurred in persons between the ages of forty and fifty years. In 64 cases the diagnosis was not made out, in 13 it was doubtful, and in 24 it was mistaken, being correct in the remaining 177. Of the 24 cases in which a mistake was made, in 7 movable kidney was diagnosed, in 6 hydatid of the liver, in 3 tumour of the omentum, in 1 ovarian tumour, in 1 cancer of the gall-bladder, in 1 cancer of the stomach, and in 1 acute peritonitis. There was a perceptible tumour of the region of the gall-bladder in 120 cases. An icteric colouration from obstruction of the flow of bile was present in 48 cases, in 30 of which it was persistent; in 10 of these last it was due to malignant disease of the parts which obstructed the passage. In the remaining 20 it was caused by obstruction of a gall-stone. In 40 cases there was an impacted stone found at the operation. Stones were found in some parts of the biliary passages at the operation in 140 instances. In one case there were 300 stones and in another as many as 1000. Empyema of the gall-bladder was found 16 times; adhesions to the abdominal walls and neighbouring organs occurred in 30 cases. The biliary passages were rendered impassable by contractions due to cicatrices in 5 cases, and by cancer affecting either the biliary system or organs in the immediate neighbourhood in 14 cases. There was icteric fever in 28 cases, independently of those in which the pyrexia was due to empyema of the gall-bladder; of these 28 cases, 10 proved fatal. Of the whole 278 cases, 36, or about 13 per cent., were fatal; 24 deaths followed normal cholecystotomy (i.e., the formation of an external biliary fistula), 6 followed cholecystectomy, 3 ideal cholecystotomy (i.e., the gall-bladder is sutured and returned into the abdominal cavity), and 3 followed cholecysto-enterotomy (i.e., the formation of a cysto-intestinal opening). The immediate causes of death were: in 9 cases collapse, in 1 uræmia, in 8 peritonitis, in 6 hæmorrhage, in 7 cancerous cachexia, in 7 pulmonary tuberculosis, in 1 pulmonary embolus, and in 3 cases the proximate cause of death could not be made out. The time taken by the artificial fistula to heal varied from five weeks to three years. Operative measures are, according to Dr. Ivanoff, indicated whenever there is great suffering, with more or less clear indication of obstruction of the bile-ducts. Normal cholecystotomy is generally the best and safest operation. When there is incurable impermeability of the bile-duct, the only effective operation is the performance of cholecysto-enterostomy.

ATHLETICS IN FRANCE.

WE are all familiar with the fact that, whatever qualities may be wanting in the French character, it clearly exhibits a perception—sometimes even too keen and too fearless—of logical sequences and of their practical issues. This national trait was illustrated, though in an eminently useful and rational degree, at the Physical Education Congress which recently met in Paris, and which, doubtless after due discussion, has left on record a series of creditable resolutions. These, if carried out, should at all events ensure the upturning of every available stone in order to rear the fabric of a sound physique. They make provision for the maintenance of a variety of forms of healthy recreation, from cycling to the juvenile matter—albeit no trifle in its own place—of ordinary school play. It cannot be said that any nation, not even France, has a monopoly in the practice of gymnastics, fencing, cycling, and the like; but it is something new to be confronted by competition from across the Channel when football is in question. Surely we had in this something like a British monopoly, and yet we find that a game played in Paris last week, though decided in favour of the visitors from our island, was closely contested. The omen is a good one, and suggestive of international comity under the best conditions. May it prove to be such; we for our part shall not grudge a form of rivalry which will go as far to ensure the mutual better acquaintance of neighbouring peoples as to promote their healthy physical development.

LEPROSY.

OUR contemporary the *Globe* publishes a brief notice of a report of the British consul at Riga, which deals with the prevalence and spread of leprosy in that city and its neighbourhood. It appears from the tone of this report that the usual dispute has been raging among medical practitioners at Riga as to the question whether leprosy is or is not spread contagion—or infection, as we should prefer to say. Of late in this district of Russia—as is, we incline to believe, also the case elsewhere, and out of Russia—the belief that leprosy is spread by virtue of its being an infectious disease is gaining much, and apparently rapidly, in both medical and popular opinion. Dr. Bergmann has, according to

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this version of the consul's report, written a book which "effectually proves that the disease is spread by contagion." We quote from the statement in our contemporary of April 23rd, not from the consul's report, which we have not yet seen. Dr. Bergmann's book is, it appears, written with special reference to leprosy as it is seen in Riga and its neighbourhood, and his writings seem to have produced a considerable effect in favour of the "infectionists'" view of leprosy. The Riga authorities have, we are told, erected a leper asylum, with accommodation for forty patients—twenty men and twenty women,—besides rooms for bacteriological research in connexion with leprosy. There is, however, no power of compulsion vested in the Riga authorities when they have to deal with lepers. Hence there are only eighteen patients in the asylum, although "ninety-eight authenticated cases of leprosy are known to exist in the town alone ..... They [the lepers] continue to live at large exercising their daily occupation, and the disease is propagated." It may not be out of place (we believe it is very much *ad rem*) to remind our readers that this liberty of movement and perfect freedom to follow their various callings in life—e.g., salesmen in the bazaars—are precisely the conditions which obtain to-day in British India with regard to lepers. We conclude what we have to say for the present upon this most important subject by quoting a sentence from the notice in the *Globe* which is in the highest degree suggestive of many things. This is the sentence: "It is, however, difficult to discover the victims of this dire malady, as their relatives and friends hide them from the sanitary inspectors."

THE MEASLES BACILLUS

WE gladly draw attention to Dr. P. Murray Braidwood's letter published on another page. There is no doubt that the researches of our English workers are too frequently ignored, not only abroad, but at home. Dr. Ransome's observations on a measles bacillus, which were published some eight or nine years before Dr. Braidwood's paper was read before the Pathological Society, might claim priority were it not that in it, as in Dr. Braidwood's, no description of the organism or organisms as to size, structure, &c., sufficient to enable us to identify the organism is given. The work, exceeding good work for the time when it was done, was not accurate enough from the modern bacteriological point of view. The reaction of the bacillus to stains, then almost unknown, could not be determined, pure cultures could not be obtained, and the life history of the organism could not be studied. Any observations made at that time could only be purely tentative, and as the researches were never continued, and have been but little quoted in this country, it is perhaps little matter for wonder that workers abroad should have lost sight of them.

TREPHINING FOR EPILEPSY.

IN the *Boston Medical and Surgical Journal* Dr. Knapp records two cases of what he calls traumatic epilepsy, which were treated surgically by trephining. Every case of this nature, in the present state of cerebral surgery, is of the utmost importance, even if the result may not be all that is desired. The first case recorded is that of a girl who had an insane mother, and who, four years after an accident which rendered her unconscious for three days and necessitated a stay in hospital of several months, became subject to epileptic fits. In some slighter attacks she apparently did not lose consciousness, but the ordinary attacks commenced with turning of the head and eyes and culminated in general convulsion. She had a small stellate cicatrix on the forehead a little to the left of the median line at the spot where she had been struck with a stone five years previously. Underneath this was an area of rough, irregular bone with some depression. Bromides failed to relieve her, and operation was advised. The operation consisted in removing a circular piece of bone at the point where the cicatrix was, and excising a piece of thickened dura mater and some cicatricial tissue. The wound healed by first intention, but the patient had a convulsion about a fortnight after the operation, and the convulsions continued until she disappeared from observation. The second patient was a young man of eighteen, with nothing significant in his family history, who at the age of twelve had received a severe blow on the right temple. In less than a year he began to have seizures of various kinds—severe convulsions, slight lapses of consciousness, &c. Medicine did not relieve him, so far as it was tried, and he was trephined over the seat of injury. He also had a convulsion about a fortnight after the operation, and has continued to have them up till the present time. These cases are not very encouraging; but it must be borne in mind that, although the history of a head injury was clear enough in each, in one no fit had followed the injury until a year had elapsed, and in the other so long a period as four years intervened between the injury and the first convulsion. In the latter instance especially it is open to anyone to affirm, and with a fair amount of reason, that this was not a case of traumatic epilepsy strictly so-called, and this contention would receive support from the fact that the patient had an insane mother. The cases are by no means test cases; but, as we have already remarked, in the present condition of brain surgery every case of epilepsy operated upon is of the utmost importance, and should be recorded.

SIR GUYER HUNTER, M.P.

WE regret that among the many members who contemplate retiring from Parliament at the dissolution is Sir Guyer Hunter. Sir Guyer Hunter has been a very useful member, and has done a great deal of hard work in committees. He is among those who suffered severely from influenza, and who have still only imperfectly recovered from its effects. As a medical member of Parliament he will be much missed by all who know the difficulty of exciting attention in the House of Commons to questions affecting the health of the public or the interests of the medical profession.

YELLOW FEVER AT SANTOS.

THE reports as to yellow fever at Santos are very serious. Santos is the second commercial centre of Brazil, it being the only port to the rich province of San Paulo. It is situated on a low, marshy island, and contains some 20,000 inhabitants. The recent fatality from yellow fever is stated to have been really appalling; and this is largely attributed to certain works intended for the improvement of the port. For centuries the harbour has been made the receptacle for the filth of the town, besides receiving the refuse from vessels, and there being little or no tide, a thick deposit of filth has taken place. This stuff has recently been, and in all probability is still being, dredged up, and with a view of reclaiming certain portions of the foreshore it is being deposited there. The result is that a mass of feculent material, containing besides all sorts of organic refuse, lies exposed to the sun and contaminates the air around. And not only so, but the water of the harbour itself has become exceptionally foul by reason of the disturbance of the deposit, and it is under these circumstances that crews have been more than decimated by yellow fever. In connexion with a view that the emanations from the water itself are associated with the production of the disease, the *South American Journal* relates the following circumstance. Whilst in Santos the captain of one of the royal mail steamers gave strict orders

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that the decks were not to be washed, but merely swept, and then sprinkled with a solution of carbolic acid. Not a single case of yellow fever occurred on this ship, though both the preceding and succeeding steamers which used the harbour water for washing down the decks were infected. On shore the disease has also made much havoc, and many of the inhabitants have fled from the place. Happily, with the advent of colder weather, the outbreak now gives distinct signs of abatement.

HYPERTRICHIASIS AND MENTAL DERANGEMENT.

DR. ANDREA CRISTANI has written a paper on this subject in the *Archivio di Psichiatria*, and an abstract of it appears in the *Neurologisches Centralblatt*. He has investigated 272 cases of insanity in females and a similar number of sane women with reference to the development of hair on various parts of the body, in which it is not found under ordinary circumstances. The insane ranged in age from twenty to eighty years, while the sane were all over sixty-five. He found that hypertrichiasis in the face as well as elsewhere is present much oftener amongst the insane than among the sane, that it is associated with signs of degeneration, and that it is more frequently present amongst insane patients in whom other signs of degeneration are present than amongst those who do not show degenerative symptoms. He also finds that the hairs are thicker and stiffer, and closely resemble those of the inferior races. The facts elicited are curious and interesting, and they are not easily explainable.

THE ORGANISATION OF VACCINATION IN FRANCE.

THE Comité Consultatif d'Hygiène Publique de France, sitting at the Ministry of the Interior under the presidency of Professor Brouardel, have issued the following statements with a view of securing the regular practice of vaccination by their fellow subjects. The rush for vaccination when the practice is allowed to stand over until small-pox appears leads to most unsatisfactory results, and it appears that the immediate cause of the issue of the statements which we quote has been the sudden demand for vaccination by 1000 people at Rheims—300 being brought for primary vaccination and 700 coming for revaccination:—1. Vaccination does not always preserve against small-pox. Experience has shown that after the lapse of some years a vaccinated individual can contract the disease. Commonly, in such a case, the small-pox is benign in character, but it no less contributes to propagate a formidable malady; hence the value of revaccination. 2. It is therefore a matter of general interest that individuals primarily vaccinated should be revaccinated after a lapse of time which experience has set down as ten years. Thus, a child of ten years old ought to be subjected to revaccination. 3. If this minor operation results in characteristic cicatrices, the individual is certainly protected against small-pox for a renewed period of ten years. 4. For this reason, so long as revaccination has not been successful, it is important to repeat the operation annually, and in case of an epidemic at even shorter intervals. So, also, it should be borne in mind that revaccination does not ensure protection for ten years except it has been practised with successful results. 5. Under these circumstances, revaccination, to give the utmost protection, should be repeated every ten years. 6. Revaccination does not of itself involve inconvience or suspension of work. 7. In brief, revaccination is a duty imposed on every good citizen. 8. To summarise: Vaccination is the most salutary of practices; it is also most harmless when surrounded by the precautions which in the present day have been clearly defined. It is, in reality, the only efficacious means for stamping out small-pox epidemics. The operation is so little painful, it takes so little time, and, since it involves no break of daily occupation, we are unable to understand why people hesitate to submit to it, in order to avoid a disease which is often fatal, which destroys eyesight, which deforms the features, and may result in active complications which are often incurable.

MEDICAL CORONERS.

WE have received a communication in which an objection is raised by a medical correspondent to medical coroners. He forwards us a newspaper report of an inquest held in Birmingham by Mr. Pemberton. That gentleman asked the medical practitioner, who was called to the deceased man when he was discovered dead, why he had not informed the coroner's officer of the death. Receiving an unsatisfactory answer, the coroner stated that it was the duty of everyone, including members of the medical profession, to inform the coroner of any sudden death, and that in future those doctors who failed to inform him of any such death to which they were called would not be called as medical witnesses, and that another practitioner would be called in their place. Our correspondent asks us "if this is our idea of medical coroners, and if we are aware that they are not usually kind to their professional brothers." We certainly fail to see any unkindness on the part of Mr. Pemberton in this case, and we must here remark that newspaper reports have the defect of not being able to report the tone in which coroners' remarks are made, or the expression of face with which they are accompanied. Many medical practitioners do inform the coroner of any death to which they are called; and as this, though involving very little trouble, is a great convenience to the coroner, it should be generally adopted, both as a duty and a courtesy to all coroners, whether medical or legal. Curiously enough, we have before us another letter in which medical coroners are objected to as being liable to screen their medical brethren when the latter are to blame. It is quite clear that Mr. Pemberton will not commit this error, and in thus acting he is only following in the footsteps of Mr. Wakley, Dr. Lankester, Dr. Hardwicke, Dr. Danford Thomas, and many other medical coroners who have shown that they can perform the judicial office of coroner with perfect impartiality to their medical brethren as well as to the public. Only last week we noticed that a legal coroner had appointed a doctor as his deputy. This, with the preceding facts and other cases which have recently occurred, are the best answers which can be given to those who doubt the perfect impartiality of medical coroners.

MULTIPLE NEURITIS.

IN an article in a recent number of the *International Medical Magazine* Dr. C. K. Mills of Philadelphia has published a clinical lecture dealing with this condition and its complications. The notes of several cases are given, some mild, some severe, one complicated with acute rheumatism, another with posterior sclerosis, and another with a cerebral lesion, causing apparently a slight condition of right hemiplegia. The descriptive account of each case is brief and to the point, but the chief interest of the paper lies in the few pages in which the subject of the treatment of such cases is considered. Dr. Mills insists upon absolute rest as a preliminary, and he emphasises the importance of gentle care in nursing patients suffering from neuritis on account of the excessive pain which handling and movement produce. He is not in favour of half measures in regard to the stoppage of the alcohol which is in most cases the toxic agent, and, except in the case of a few broken-down old topers, he thinks it should be withdrawn at once and

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entirely, while the greatest care should be given to careful and abundant feeding. In a few sthenic cases he is inclined to advocate bloodletting, especially should there be any signs of congestion or inflammation of the spinal cord. For the relief of pain hot applications frequently renewed should be resorted to, and opium, best given hypodermically, may be necessary. As recuperative agents, strychnia by the mouth or hypodermically is recommended, as well as cinchona and digitalis; while such foods as milk and beef extracts will tend to have a similar effect. In the early stages salicylic acid or salicylate of soda, salol or oil of gualtheria, are recommended as anodynes which are especially useful if there is a rheumatic condition present; while cerebral symptoms are best counteracted by the bromides or antipyrine or acetanilide. Baths, simple or electrical, are also useful, but extreme care is necessary in giving them lest the patient should be in any way exposed to the danger—a very great one in those cases—of cold. Massage and passive or active movements can only do good when the stage of acuteness and excessive pain is passed, and the same is true of electricity in whatever form it may be found desirable to give it. The use of some anodyne ointment for massage is also recommended, but even with those numerous means of combating the condition, great patience and long-continued treatment are necessary if success is to be attained.

SCARLET FEVER AT THE FOUNDLING HOSPITAL.

FOLLOWING somewhat rapidly on the recent outbreak of enteric fever in the Foundling Hospital, there has occurred within the past three weeks a sudden outburst of scarlet fever amongst the inmates of the same institution. Its suddenness seemed to indicate milk as a vehicle of the disease; but whether this may turn out to be the case or not, it is the bounden duty of the governors no longer to delay making ample provision for the proper isolation of cases of infectious disease occurring within their walls. Dr. Sykes has strongly impressed this matter upon the governing body, and it is believed that they will use the utmost expedition in carrying out the necessary buildings.

THE LEGAL USE OF MEDICAL TITLES IN AUSTRALIA.

THE question of the legal use of medical titles is receiving the advantage of public discussion and the decision of the courts in Australia. Mr. Nicolson recently, in the District Court, fined a medical practitioner, one of the advertising fraternity, for two offences—first, for signing himself M.D. when he was not an M.D.; and secondly, for prefixing the title "Dr." to his name, he being registered only as a Member of the Royal College of Surgeons. Another case is that of a man calling himself "Dr. Singleton, oculist." He was convicted by the justices at Fitzroy for using the term "oculist." On the door-plate was "J. Singleton, oculist and aurist." Alfred Hardie stated that in going to the house he asked the defendant whether he was Dr. Singleton, oculist, to which the defendant replied, "Yes." The case was taken by way of appeal to the full court constituted by Mr. Justice Wood and Mr. Justice Williams. The defence was that the word "oculist" is not a medical or surgical name or title within the meaning of Section 11 of the Medical Act, 1890. The Court delivered the following judgment: "Now it lies upon the defendant in this case to establish that the conviction is wrong. We do not decide, or intend to decide, in this case that the term oculist may not be a name which is not a medical or surgical name or title within the meaning of Section 11 of the Medical Act, 1890. It is a term of double meaning. It may be such term or it may not be. But it appears from the evidence that there was evidence on which the magistrates could find that the defendant intended to use the term oculist on this occasion as being a medical or surgical name or title within the meaning of Section 11 of this Act, because when he was asked whether he was 'Dr. Singleton, the oculist,' he answered 'Yes.' Therefore, without deciding that this term oculist is, and must be, in all cases a term within the meaning of this particular section, we think there was evidence that the defendant intended to use the term in that sense, and therefore we think the magistrates were right, and the order will be discharged with costs." Mr. Duffy appeared to move the rule absolute. There was no appearance to show cause. These decisions have given rise to the usual controversy over the use of medical titles, and especially of the prefix "Dr." On the one side, it is strictly and jealously guarded as the right only of men with the degree of M.D. from the medical faculty of a University; on the other, it is treated as a trade-mark by which medical men are to be indiscriminately labeled. This controversy is perennial, and is not likely to be ended even by unmistakable legal decisions. There is, however, a growing tendency among medical men to respect their own titles and not to use those attaching to other qualifications. The public use of a prefix is not the question in dispute, but rather the legal and legitimate use of it in such a way as can be defended as a matter first of right and then of taste. To our thinking, the trade label theory of the prefix is an objectionable one. The whole question, however, is one of extreme difficulty. The public, as the result of some incomprehensible usage, choose to designate members of our profession under the generic description of "Doctor," a title properly appertaining to certain university degrees and by no means restricted to the Faculty of Medicine. If the universities had been content to employ the title of "Master," as is done in some cases, for their higher degrees, the difficulty would not have arisen; as matters stand, however, we cannot recommend self-respecting medical practitioners to lay claim to the prefix of "Doctor" unless it is theirs by right of a university degree as well as "the common consent of humanity."

EHRLICH'S TEST IN TYPHOID FEVER.

IT is now ten years ago since Ehrlich announced the discovery of a reaction that he claimed to be characteristic of the urine of typhoid fever. The value of the test, however, has been differently estimated by various writers. It was very soon shown that the reaction occurred in many acute diseases in addition to enteric fever, notably in measles and croupous pneumonia. It has undoubtedly a negative value; for if a reaction does not occur, the disease is in all probability not typhoid fever, although exceptions to this rule occasionally occur. Dr. A. R. Edwards of Chicago has made a large number of observations on this subject, and his results are published in the *Medical News* for April 2nd, 1892. One hundred and thirty cases of typhoid fever were examined. From two undoubted cases the reaction was absent throughout the disease, and the reaction was lacking in six in the period of defervescence. The test bears no relation to the ultimate issue, being equally brilliant in fatal and recovering cases. In sixty-three cases, in which the exact date of disappearance was noted, the average life of the test was thirteen days, although in some cases the reaction lingered until the forty-second and fiftieth days. Further, the reaction bore no direct ratio to the temperature. The general conclusions at which Dr. Edwards arrives are as follows:—1. The reaction is independent of any single disease or any group of diseases. 2. It is frequently found in urine containing albumen, peptone, biliary substances, sugar, aromatics, and possibly leucomaines or ptomaines. 3. Ehrlich's test is not always present in typhoid fever, even at the acme.

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of the disease; it was absent in 1½ per cent. of the cases examined. The reaction, therefore, is at best only a presumptive, not a positive, evidence of typhoid fever. Its value is on a par with that of gurgling and tenderness in the right inguinal region, and inferior to the temperature, roseolæ, and splenic tumour. 4. Together with more reliable signs and symptoms, as temperature, enlarged spleen, &c., it may contribute to a diagnosis of typhoid fever, and conversely, when absent, in 98½ cases of 100, the disease is other than typhoid fever. 5. It is found in many other diseases, some of which, in certain clinical features, may simulate typhoid fever—e.g., septicæmia, uræmia, tuberculosis in its varied aspects, intestinal, peritoneal, miliary, &c., as well as enteritis, malaria, and pneumonia. In differential diagnosis, therefore, when other distinctive symptoms are lacking, the sulphanilic acid test is untrustworthy. It fails when most keenly wanted, and may be absent in otherwise typical cases of typhoid fever. 6 If much reliance is placed on the test, a typhoid fever relapse may be confounded with complications. Dr. Edwards observed as complications early sequelæ yielding the reaction, acute nephritis, lobar pneumonia, pulmonary tuberculosis, pleurisy, &c., and therefore he would have been at a loss as to the cause if confidence had been reposed in the test. 7. Inasmuch as it occurs typically in many diseases in which the causes and elaborated products differ, and since the various compounds with which the diazo-benzine sulphonic acid unites are as yet unknown, the reaction cannot commend itself to the scientific chemist, however it may be regarded clinically.

THE ROYAL COLLEGE OF SURGEONS.

THE Morton Lecture on Cancer and Cancerous Diseases will be given in the theatre of the Examination Hall, Victoria Embankment, by Dr. G. Sims Woodhead, on Thursday next, May 5th. Fellows and Members of the College are admitted, as to the other College lectures. Gentlemen who are not Fellows or Members can gain admission on presentation of their private visiting cards. The lecture will be delivered at 4 P.M.

SCHOOL WALKING TOURS

AMONG the various diversions of Easter we would note as of particular interest the new idea of holiday-making which was recently developed and applied in practice by the secretary of the Children's Country Holidays' Fund. This consisted in a walking tour in Kent and Sussex carried out by a contingent of forty boys from a Limehouse night school. Notwithstanding the cold and somewhat unsettled weather the excursion was completely successful in attaining its result in recreation without mishap to the members of the party or serious inconvenience to the country people who hospitably received them. A project of this kind, if well managed, possesses evident advantages over the ordinary stampede from town which occurs at each holiday season. It ensures the refreshment of country air for a certain period, of exercise without the necessity of overstrain and of a kind in which every limb and sinew is utilised, of mental change, in the direction of new scenes and places, which is in itself a means of education, and, lastly, it provides, at one stroke and economically, for the common happiness of many. We would not by any means repress or discountenance as objectionable the more customary attractions of the day out of town if order be reasonably considered, as happily it usually is. Still, it will be allowed that, after all, the swing-boat and the merry-go-round, with all their junketing accompaniments, the final train crush (of which we have just seen such an appalling example, as illustrated by the Hampstead catastrophe), and the weary home coming, can hardly promise the same wholesome result as the boys' pedestrian outing. Of course, like anything else, this will not suit every case. For able-bodied boys in their teens it has many advantages, and we therefore hope that, with due regard for special conditions of personal stamina, weather, clothes, housing, and the like, it will be often repeated in holiday times to come.

CHOLERA INTELLIGENCE.

CHOLERA is prevailing very extensively at Benares. Up to the end of last week there had been 180 cases and 130 deaths. A rumour has prevailed as to cholera in Paris; but the attacks were few in number, and even stated to be cases of cholera nostras only.

UNREGISTRABLE COLONIAL DEGREES

THE only colonial degrees and diplomas at present recognised and registrable under the Act of 1886 are those of Ceylon, New Zealand, Victoria, and New South Wales. On the 22nd inst. an inquest was held by Dr. Danford Thomas on a child, Thomas George McKerr, which had been attended by Dr. Thomas Joseph McDonald, living at Judd-street, Euston-road. On the death of the patient, Dr. Mcdonald declined to give a certificate, not being an English medical man. He stated that he held the degree of M.D. and C.M. of the University of Toronto; that he had bought a practice in Judd-street, to be carried on for him, till he could procure an English qualification, by Mr. Harrison, who had suddenly left him. Hence the difficulty and the necessity for an inquest. Dr. Thomas did rightly in advising Dr. McDonald not to continue practice under such conditions.

ENGLISH PORT SANITARY ADMINISTRATION.

THE sanitary committee of the Liverpool Corporation have lately been discussing the question of the mixed duty of Customs, Board of Trade, and sanitary officials in the matter of infectious disease on board ship within their port district. The subject was resumed at their last sitting, mainly because it is alleged that infection is constantly being conveyed into the city by means of passengers landed at the wharves. The sanitary committee are advised by Dr. Stopford Taylor that they do all they can to prevent this, but because the visiting officials of Government departments do not advise them of all cases of infectious diseases amongst passengers, emigrants, and others, infection is constantly introduced into Liverpool. And at the instigation of their medical officer of health, the corporation have addressed the Government urging a modification of the law so as to place all questions of quarantine, inspection of vessels, crews, emigrants, and others, under the single authority of the Local Government Board, instead of dividing it as hitherto between that body when cholera and ordinary port sanitary administration are concerned, the Board of Trade when it is a matter of emigrants, the Customs when cholera and quarantinable diseases such as plague are concerned, and lastly, the Privy Council Office, who alone administer the Quarantine Acts, but who are helpless to carry them out unless a vessel happens to sail straight into their one quarantine station at the Motherbank. The truth is that quarantine, as such, is a thing of the past for England, and hence the country has been lenient in allowing this absurd subdivision of duty to remain as an anomaly about which no one cared so long as quarantine was not carried out. But now that port sanitary authorities are determined to demand that they should not be turned into portals by which infection from any part of the globe may enter them, without their being so much as informed of the occurrence, it becomes clear that sooner or later the law must be altered. Our ports do not want to prohibit arrivals of infected people by sea any more than they do by

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land, but they demand the notification of such cases so that they may adopt the necessary measures of protecting the public against injury.

BRIGADE SURGEON KENNETH McLEOD.

THIS officer retires from the service this month, and may shortly be expected in this country. We are glad to notice that the Senatus of the University of Aberdeen has conferred upon him the honorary degree of LL.D., and we cannot allow Dr. McLeod to retire without adding a few words of tribute to his long and admirable services in India. He is well known to be a man of great energy and culture, a capital surgeon, and in connexion with the Medical College Hospital and the Calcutta Medical College he has done much to advance the science of surgery and make for himself a well-merited reputation. Dr. McLeod is one of the many workers and men of distinction which the Indian Medical Service has produced. During his service in India he has filled many important posts, and the excellent character of his work has been generally recognised. He was the editor of the *Indian Medical Gazette*, and we need not remind our readers that he has contributed a good deal to medical literature. He founded the Calcutta Medical Society, and his departure from that city will, we feel sure, be a source of great regret to his friends, pupils, and patients.

COMPENSATORY HYPERTROPHY OF THE OVARY.

DR. ARISTOFF in his dissertation on the compensatory hypertrophy of the ovary, the materials for which he obtained from the pathological department of the St. Petersburg Medico-Chirurgical Academy under Professor Ivanovski, states that according to his observations when one ovary has been removed the other one increases in size and weight, the follicles coming more rapidly also to maturity and withering more quickly, besides which the medullary layer increases. In observations made on rabbits it was found that the hypertrophic process had begun within two months of the operation, and that at three or four months it had nearly doubled the size of the remaining ovary. After the fifth month the remaining ovary became smaller again.

SURGEON-CAPTAIN C. H. MELVILLE, M.B.

WE are glad to notice that attention has been called to the gallantry shown by Surgeon-Captain C. H. Melville, M.B., Army Medical Staff, during the late rising in North Lushai. This officer is serving in the Bengal Command according to the Army List. It is said that he displayed great bravery and coolness under very trying circumstances, and the occurrence affords another example of the gallant way in which medical officers behave when occasion requires.

VACCINATION IN THE WATFORD UNION.

ONE of the public vaccinators of the Watford Union has appealed to the guardians on account of the refusal of a parent attending his vaccination station to allow him to take lymph from the arm of a child who had been vaccinated by him. Oddly enough, the chairman urged upon the public vaccinator to be cautious, since reporters were present and the matter might get abroad. Why he did so is not very clear, for the guardians have a definite duty to see that the Vaccination Acts are carried out, and one section of the Act provides for the punishment of parents acting as this one did. People who come for gratuitous vaccination at public stations expect to find lymph available, and it would be absurd if the progress of the arm-to-arm work were to be stopped by reason of permission to take the lymph necessary to the maintenance of the station being refused. If the chairman had announced his intention to carry out the Act and to proceed against persons thus violating its requirements, the presence of the reporters could only have been helpful.

FOREIGN UNIVERSITY INTELLIGENCE.

Lemberg.—The local authorities have been authorised to spend 245,000 florins on a gynæcological clinic.

Prague.—Dr. Julius Pohl has been recognised as *privat-docent* in Pharmacology.

Vienna.—Dr. Dittrich has been officially permitted to become a *privat-docent* in Forensic Medicine.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Professor Franz Seitz, the Nestor of the Munich Medical Faculty, at the age of eighty.—Dr. Max Schrader, First Assistant in the Strassburg Medical Clinic, who is known by reason of his researches on the brain.

IN pursuance of an Act passed in the third year of the reign of His late Majesty, King William IV., intituled "An Act for regulating Schools of Anatomy," the Right Hon. Henry Matthews, Her Majesty's Principal Secretary of State for the Home Department, has appointed William Henry Bennett, Esq., F.R.C.S., to be an Inspector of Anatomy in England and Wales, in the room of Charles Hawkins, Esq., F.R.C.S., deceased.

WE understand that questions are likely to be put in the House of Commons to elicit from the Chancellor of the Exchequer a statement of the facts relative to the income-tax paid by medical men which will convey a more just impression of the case than the vague generalisations in his Budget speech.

WE are informed that the Home Secretary will shortly appoint a Committee to consider how best to deal with habitual drunkards, and specially to inquire into the working of the existing Inebriates Acts. We hope shortly to be able to announce the names of the Committee.

THE late Dr. Beaney of Melbourne has left the sum of £1000 in aid of the British Medical Benevolent Fund.

THE EXHIBITION OF THE ROYAL ACADEMY.

THERE may be less creative power in this exhibition than in some of its predecessors, but there is gratifying evidence of a more widely diffused artistic talent reaching a more uniformly excellent standard than in most we can call to mind. Proficient draughtsmanship and command of colour are of obviously more general attainment in the exhibitors, and their work is thus far less frequently impaired by *gaucheries* in execution or technical "causes of offence." But while it attests the higher special education, the more finished dexterity of the artist, it reveals him in all but a few cases deficient in ideal, conventional in inspiration, and conformingly *banal* in effect. He is still too much of the mere "reporter" of nature or of incident—too little of the poet, in fact, to interpret either of these in their nobler aspects. It would be invidious to give examples of what we miss in the majority of the works on view; let us rather indicate the direction in which genuine artistic power might make itself more distinctly felt than it seems—in many cases—to have given itself the chance of doing. Choice of theme is generally a sure test of that power; but how limited is the range within which the artist appears to interest himself t

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We fear Thackeray's reproach is still relevant—there is a lack of reading, of mental cultivation in its higher sense, on the part of our painters and sculptors. The student of history could suggest an infinitude of subjects yet awaiting artistic interpretation and treatment if only he could be sure that his artist friend would do them justice. Let us venture on one or two—in sculpture first. Cicero discovering the tomb of Archimedes at Syracuse affords a really grand opportunity for plastic genius—the noble Roman standing from out the brambles and the brushwood, just cleared away, and looking down reverentially on the stone engraven with the insignia of the mighty engineer's calling—reverentially, but also with the proud consciousness that it was reserved for him, a man of Arpinum, to find out what Syracuse had not found to that day—the grave of her noblest citizen. And behind the dramatic situation, as rendered in the Tusculan Questions, there is its finely symbolical significance—the tribute paid by literature to science, which, but for literature, would often be without a voice and fade from the minds of men. Again, in the sphere of painting, what more striking theme could the artist select than Alexander the Great drinking off the potion in presence of the physician unjustly suspected of a design to poison him? The story is given with consummate power in the history of Q. Curtius Rufus—not the only one which appeals to the artist in that work,—but, in spite of its unique openings, has hitherto addressed itself to but the classical student. A yet more tempting subject for the painter is that prescribed for him by Puccinotti in his picturesque "Storia della Medicina"—young Harvey entering, arm-in-arm with Galileo, the anatomical theatre of Fabrizio Acquapendente just as that great teacher and investigator has been demonstrating the semi-lunar valves which Harvey himself was to utilise so effectively in establishing the circulation of the blood. Other themes, yet more susceptible of artistic treatment, would readily occur to the painter or sculptor if only he widened his mental horizon by that extended reading which Thackeray recommended for him. It would, however, be ungrateful to withhold from contemporary British art the debt we owe it. Creative in one sense, that art is recreative in another, rehabilitating the jaded faculties by the mental alterative, the moral eye-douche, so to speak, of ennobling scenes, of refining impressions, of inspiring sentiments, too often crushed out of sight or out of experience by the prose of daily circumstance. Refreshing to every sense, mental and physical, are such exquisite transcripts from nature as Peter Graham's "Sea-worn Rocks," or Henry Moore's "Perfect Weather for a Cruise," or MacWhirter's "June in the Austrian Tyrol," where "you scarce can see the grass for flowers." Sir J. E. Millais' "Halcyon Weather" is another of these, idealised by the true poet's touch; still more the same consummate artist's "The Little Speedwell's Darling Blue," as dainty a piece of presentation as heart could wish. Mr. Francis W. Loring's "Great Bridge at Chioggia, near Venice: Return of the Fisher Boats in the Evening," is a bit of Venetian colouring at once delicate and rich; and the praise of admirable finish in figure drawing and in colour is also due to Mr. Yeames' pictures from the Balearic Isles. The antique foretime re-lives for us in Sir F. Leighton's noble "Garden of the Hesperides" and Mr. Briton Rivière's "Dead Hector," for which the appropriate motto should have been—

Κεῖτο μέγας μεγαλωστὶ λελασμένος ἱπποσυνάων

and in Mr. F. Dicksee's "Startled," as lovely a pair of nymphs as ever fled before Horace's Faunus. The weird and sombre in art are powerfully rendered in Mr. Waterhouse's "Circe Poisoning the Sea"; in Mr. Johnston Inglis's "Idwal"—a mountain-side half veiled in ghostly mist and bathing its feet in a tarn as melancholy as a nocturne of Chopin; in Mr. Albert Goodwin's "City of Dis"—a powerful illustration of Dante's Inferno. Of purely medical subjects we remember but one, Mr. Dering Curtois's "Spring Afternoon: Johnson Ward, Lincoln County Hospital," where the contrast between the patients—one of them with the "facies Hippocratica"—and the reviving year without is touchingly rendered. We have but little space to indicate more than a sprinkling of the works that impressed us in our first walk through the exhibition; but we cannot close without a word of praise for Mr. Pettie's "Prince Charles Edward Stuart in the Cave of the Robbers of Glenmoriston," or Mr. Ernest Crofts' dramatic scene from the "Gunpowder Plot," or Mr. Val Princeps' "Broken Idol"—a powerful episode in the story of early Christian persecutions. In portraits, Mr. Herkomer and Mr. Ouless are equal to their best manner, and a word must be given to Mr. William Carter's speaking likenesses. Landscape we have already touched upon in Graham's and MacWhirter's work; but Mr. Ponsonby Staples' "Old Garden" deserves to be noted, as also Mr. Leader's Welsh scenes, and Mr. Chas. Stuart's "End of a Summer's Day," for their true sense of the lovely and the picturesque. In water-colours, Miss Mildred A. Butler's "High Court of Justice" is very clever in grouping and detail; while in sculpture the palm undoubtedly rests with Mr. Alfred Gilbert for his bust in bronze of Sir George Birdwood—a work of characteristic power and refinement. Other busts are not only interesting in themselves as works of art, but also for their subjects. Such are those of Dr. W. A. Guy, Dr. Lionel Beale, Dr. Weber, and the late Professor John Marshall.

SOME RECENT CONTRIBUTIONS TO OUR KNOWLEDGE OF THE PROCESSES OF BLOOD COAGULATION.

PROF. PEKELHARING'S name has of late been prominently before the scientific public in connexion with his important paper in Virchow's *Festschrift*. That paper consists for the most part of the setting forth of an ingenious hypothesis which is designed to bring facts which have long been known concerning fibrin ferment into harmony with the newer discoveries in connexion with blood coagulation. We have now two further papers from his pen, which contain some interesting facts bearing especially upon the researches of the late Dr. Wooldridge. The papers referred to are in the form of communications made to the Academy of Sciences at Amsterdam.[1] To appreciate these new-coming facts in their connexion with the old we may pass the history of the subject in rapid review. The advance in our knowledge with regard to blood coagulation has come in a series of waves. One of the great impulses to research into this question started from the discovery of fibrin ferment by Alexander Schmidt, and from the subsequent labours of his pupils upon the properties and the physiological importance of that substance. The results of Schmidt's work were briefly as follows:—He laid down that fibrin was formed by the union of a fibrinogenous and a fibrino-plastic element under the influence of fibrin-ferment, and he ascertained with something approaching to certainty that while the fibrinogenous element was contained in the plasma, the fibrino-plastic element was derived from the disintegration of white blood-corpuscles. Schmidt further identified the fibrinogenous element with the fibrinogen of the plasma, and he regarded para- (or serum-) globulin as the fibrino-plastic element.

Hammarsten now entered upon the investigation of the subject, and by improved methods succeeded in isolating plasma fibrinogen and paraglobulin, and in obtaining these substances in a condition of satisfactory purity. He then proceeded to investigate their relation to the processes of blood coagulation, and was able to demonstrate, first, that fibrinogen could be converted into fibrin under the influence of fibrin ferment quite independently of any addition of fibrino-plastic elements; and, secondly, that purified paraglobulin did not contribute any factor to the formation of fibrin. At the same time Hammarsten confirmed Schmidt to the extent that impure paraglobulin, such as could be precipitated from the serum, invariably increased the yield of fibrin obtained from a fibrinogen solution. The work of Schmidt and Hammarsten thus appears to have established the following propositions:—(*a*) The fibrinogen of the plasma is a mother substance of fibrin; (*b*) fibrin ferment has the power of inaugurating coagulation in fibrinogenous fluids; (*c*) there is in addition to the fibrinogen some other substance in the blood which contributes an element to the formation of fibrin; and (*d*) this fibrino-plastic element, whatever it may be, is certainly not paraglobulin. Fibrin ferment was in all these researches accredited with the *rôle* of presiding over and inaugurating coagulation, whether that coagulation was conceived of as a conversion of a

[1] Koninklijke Akademie van Wetenschappen te Amsterdam, Afdeeling Natuurkunde, Jan. 30th and April 2nd, 1892.

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single mother substance (Hammarsten) or dual mother substances (Schmidt) into fibrin. As the presumptive first cause of all coagulation in extra-vascular plasma, fibrin ferment was now subjected to a number of searching trials with a view to eliciting its powers upon the intra-vascular plasma. The results of these experiments are well known. It was found that fibrin ferment did not cause any coagulation when it was injected into the vessels of the living body. What was held to be true in the case of the extra-vascular plasma therefore signally failed to establish itself as true with regard to the intra-vascular blood of the living body. Investigation had up to this point been following up an auriferous lode. It apparently came to a fault here. We find, therefore, that research branched off at this point into two different directions. Green[2] set himself to study what we may call the inorganic substratum of fibrin. He was the first who succeeded in clearly eliciting the importance of calcium in connexion with coagulation. The study was pursued by Ringer and Sainsbury,[3] and it culminated in the brilliant discovery of Arthus and Pagés[4] of the possibility of keeping the blood liquid by decalcification. The practical importance of these discoveries in connexion with the subject of transfusion and the arrest of hæmorrhage has been called attention to by Wright. At the same time that the importance of the calcium salts in coagulation was receiving the attention of investigators, Wooldridge in a characteristically brilliant way opened up a new field of research by his discovery of the effects of tissue fibrinogen on the blood. He found that the injection of this substance led to the occurrence of immediate intra-vascular coagulation, and he ascertained that the injected substance contributed a factor to the fibrin formed. Wooldridge also showed that where an injection of tissue fibrinogen was not followed by intra-vascular coagulation the blood lost its power of spontaneous coagulation. This loss of coagulability was described by Wooldridge as the "negative phase" of coagulability in contradistinction to the "positive phase" which was associated with increased coagulability and thrombosis.

Wright, who took up the question after Wooldridge's premature and lamented death, investigated the matter further. He showed that tissue fibrinogen was a nucleo-albumen,[5] and that the positive phase with its associated intra-vascular coagulation occurred only where the blood is supervenous.[6] He further showed that the injected nucleo-albumen became broken down in the blood into an albumose,[7] and that the phenomena of the negative phase were identical with the phenomena observed after albumose (peptone) injections. We have, further, on this subject the just-published researches of Pekelharing of Utrecht, which bring confirmation and expansion of these facts.

Pekelharing has discovered the presence of a nucleo-albumen in the plasma.[8] He surmises that it was originally derived from the white corpuscles which have disintegrated in the blood, and he finds that it is identical with the substance which Wooldridge obtained by cooling the plasma. He finds, further, that this nucleo-albumen, when injected into the blood, produces the same phenomena of a positive and a negative phase as those obtained after the injection of Wooldridge's tissue fibrinogen. He confirms[9] Wright as to the influence of a venous condition of the blood in favouring the intra-vascular coagulation, and quotes an experiment where he obtained, in lieu of coagulation, all the symptoms of peptone poisoning. This was in a dog, which was injected with tissue fibrinogen after thorough arterialisation of its blood by artificial respiration. Pekelharing goes a step further than Wright here; for, instead of only surmising the setting free of albumose in the blood from the symptoms, from the characters of the blood, and from its excretion in the urine, he obtains actual evidence (by Devoto's method) of presence of albumose in the blood of the negative phase after tissue-fibrinogen injections.

Lastly, Pekelharing takes essentially the same view as Wright[10] of the bearing of these matters on the theory of blood coagulation. The nucleo-albumen, whether obtained from the plasma by Pekelharing's method, or directly from the leucocytes, as in the preparation of Wooldridge's tissue fibrinogen, constitutes in the view of these observers the fibrino-plastic element which Schmidt asserted to be derived from the white corpuscles and erroneously assumed to be identical with paraglobulin. This nucleo-albumen, whether prepared from the plasma or leucocytes, has, from Pekelharing's account, solubilities which to some extent resemble those of paraglobulin. It is, for instance, entirely precipitated by $MgSO_4$, but only partially by saturation with NaCl. Probably it is identical with the substances originally described by Halliburton as cell globulins. We thus see that Pekelharing's researches appear to go some way towards reconciling certain of the diverging and apparently contradictory views which have been held on the subject of blood coagulation.

[2] Journal of Physiology, vol. viii.
[3] Ibid., vol. xi. [4] Arch. de Physiologie, 1890, No. 4.
[5] Brit. Med. Jour., Sept. 19th, 1891.
[6] Jour. of Phys., vol. xii., No. 2, 1891.
[7] Proc. Roy. Irish Acad., Dec. 14th, 1891.
[8] Koninklijke Akad. van Wetenschap. te Amsterdam, Jan. 30th, 1892.
[9] Ibid., April 2nd, 1892.
[10] THE LANCET, Feb. 27th and March 5th, 1892.

SANITARY APPLIANCES.

REPORT OF INTERNATIONAL JURY OF 1889.

French Drain Pipes.—Practical Experiments by the Jury of the Universal Exhibition held at Paris.

BY special favour we have been able to study the proof sheets of the report drawn up by the jury of Class 64 at the Universal Exhibition of 1889. This report was prepared a long time ago, and in some respects it is out of date, nevertheless it is not yet published. It is a Government report, and, like many other official documents, is hampered by so much red-tapeism that its publication has been delayed beyond all reason. Still, it is a very important report. Class 64 was devoted to hygiene, to public assistance or poor relief, and to mineral waters. This is the first time in France that a special class has been devoted to hygiene. It was formerly combined with and subordinated to medicine and public assistance. The progress of hygiene on the Continent has been, however, so great that it was converted into a class of its own situated close to Civil Engineering; and under the wing of Hygiene was placed Public Assistance, as if to show that the relief of the poor was a measure of public health. As mineral waters are an important and useful resource which nature offers for the prevention and treatment of disease, they were also put in the same category. The jury consisted of Drs. Brouardel, Proust, A. J. Martin, Th. Roussel, Napias, Le Mardeley, and Netter, all eminent French medical men. Then there were M. Bechman, chief engineer for the sanitary services of Paris; M. Henri Monod, chief to the Hygiene Department of the Ministry of the Interior; M. Nicholas, Councillor of State; M. Dislère, councillor and ex-director of the Colonial Department; M. Chérot, civil engineer and expert; M. Hudels, expert and demonstrator of physics at the Central School of Arts and Manufactures; M. Albert Lévy, chief of the Chemical Service at the Observatory of Montsouris; M. Louis Masson, expert and Chief Sanitary Inspector of Paris; and M. Mesureur, expert and President of the Syndical Chamber of Master Plumbers. There were but few foreign representatives on the jury. Still we note the names of Señor Palacios, Consul-General of Costa Rica, who was vice-president of the jury. Dr. Brouardel, dean of the Paris Faculty, was president, Dr. Proust, general inspector of the sanitary services of France, was the reporter of the jury, and Dr. A. J. Martin, secretary. Dr. Trinidad Pardos de Tavera represented Spain; Mr. Geo. F. Waring, jun., civil engineer, the United States; Dr. Faure Miller, Great Britain; and Dr. Reverdin, Belgium. Though the foreign element on this jury is undoubtedly weak, still it is impossible not to respect the verdict rendered by so highly distinguished and honourable a body of men. As we described at the time, the most elaborate and impartial experiments were made, and subsequently it was known which of the exhibitors had won medals. But what is more important, and what as yet has not been made public, are the exact nature and results of these experiments. In England especially is this knowledge needed, and it is regrettable that it has been withheld for so long. The fact is that England, first in the field and the leader in matters of practical hygiene, is now rapidly losing ground, and foreign manufacturers are beginning to make better drain pipes, better closets, better flushing apparatus, and better disinfecting stoves than those we place on the market. We take

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it that the sooner this fact is known and understood the better.

There is, we think, no reason to be ashamed of such a result. On the contrary, to English sanitary reformers and to the manufacturers who have sought to apply in practice the principles these reformers taught, appertains the honour of having first solved the problems at issue. The English were the first to show how a closet should be built so that it might be absolutely inoffensive and self-cleansing. They also showed, notably during the Health Exhibition held in 1884 at South Kensington, how the merits of a closet could be tested by a jury. Now the French have at last realised the necessity of practical domestic hygiene, and they have quickly profited by the forty or fifty years' experience acquired in England. They have imitated nearly all our English models. In some cases the imitations are inferior to the original; but, in other instances, there are distinct improvements, particularly where nature, aiding, provides better clays than we have in England. Thus but a few years ago it was impossible to buy from a French manufacturer the wherewithal to construct a proper sanitary closet. English inhabitants and hotel-keepers catering for English patronage had to import from England the needful apparatus. Messrs. Doulton and Co., George Jennings, and others did a considerable business in France in the sale of closet pans, flush tanks, drain pipes, &c. French sanitary reformers readily recognise the debt of gratitude they owe more especially to Messrs. Doulton and Co., who have lavished large sums of money in making known throughout the French trade what constitutes a proper sanitary apparatus. It was the competition of these English manufacturers as much as the teachings of the professors of hygiene that finally induced the French manufacturers to mend their ways and adopt the new doctrines. Now the lesson has been so well conveyed, so thoroughly taught, that the pupils have in several instances outstripped their teachers. Not only is it easy to purchase in France from French manufacturers all the necessary sanitary apparatus, but in some respects these objects will be found superior to what can be obtained in England. Indeed, we have come to this, that unless English manufacturers bestir themselves we shall soon be importing drain pipes and other similar objects from France into England. Already thirty-three of our finest English mail steamers have a French disinfectant stove on board, as this apparatus is apparently superior to any of the kind offered for sale in England. The investigations of the jury demonstrate that, on the whole, better hardware drain pipes are made in France than in England. By experimental demonstration it was shown that some of the closet pans, the syphon traps, and the water waste preventing flush tanks, manufactured in France, are, to say the least of it, quite as good as those produced by the best English firms. Thus, in a very few years, we have not only been overtaken, but actually outstripped in the race for sanitary excellence.

On the other hand, this fact is so far of theoretical rather than of practical importance. The number of dwellings in France where these apparatus are in use is very limited. We know, for instance, that though in Paris there are more than 90,000 houses, barely 6000 out of this number can be considered as satisfactorily drained. Even in these cases shoddy wares have been introduced to a very large extent. It is an established fact in the trade that plumbers can purchase wholesale a waste preventer flush tank, a closet pan, and syphon trap, all complete, for the sum of 16s. Though at first closets thus cheaply bought seem to work well, they very soon get out of order, and thus wear very badly. This, however, is distinctly to the advantage of the plumber, who looks forward to being called in at an early date to effect the necessary repairs. This grievance is so widespread that the sanitary authorities are now promoting a Bill in Parliament by which it shall be illegal to employ sanitary apparatus in the construction of dwellings which have not been previously tested and approved by the municipal authorities of Paris. M. Louis Masson, the chief sanitary inspector of Paris, is now constructing a laboratory in which the test experiments will be made. But unfortunately a year at least, and perhaps two years, will elapse before the Bill becomes law and these experiments are rendered obligatory. In the meanwhile, a very large quantity of inferior wares will be manufactured and sold to the jerry builders of the French capital. We need hardly remark that similar defective closets are largely used in England, where a law on the same lines as that now submitted to the French Legislature would prove a great benefit in ensuring the satisfactory condition of our domestic drainage.

The experiments made by the International Jury are all the more valuable as the medals won by the exhibitors are no criterion whatsoever as to the merits of any one particular apparatus. The exhibitors were awarded medals for their exhibits as a whole, and the same exhibitor frequently displayed a very inferior apparatus by the side of another of exceptional excellence.

M. Louis Masson, chief sanitary inspector of Paris, M. Cherot, sanitary engineer, and M. Mesureur, deputy for Paris and president of the Syndical Chamber of Master Plumbers, were entrusted with the long and difficult experiments made to test the value of the closets exhibited. The first step taken was to measure and record the details of each pan. The distance from the rim of the pan to the level of the water within the pan was first noted. Then the amount of water retained in the syphon was ascertained and the depth of the dip forming the syphon carefully measured. These details having been obtained, each pan was submitted to a flush from identically the same flushing tank. These tanks gave a uniform discharge of ten litres, or a little more than two gallons of water at each flush. The pan was painted round with lamp-black, and careful note was taken as to how far the lamp-black was removed by the flush. The pan was now again painted a second time with the black, and small pieces of paper, uniform in number and in size, stuck upon the lamp-black. A second flush was given. Finally pieces of paper were floated in the trap, together with a certain number of potatoes measuring three centimetres in diameter, or wooden balls of the same size. A note was then taken as to the manner in which these various objects were cleared out of the syphon by the flush. The jury also examined how the pan and syphon were manufactured; whether the form was symmetrical, the materials good, the enamel sound, and, above all, whether at the joints between the pan and the syphon there was any roughness or risk of leakage. It was considered indispensable that the pan and the syphon should be of identically the same materials, and a porcelain or hardware pan affixed to an iron syphon would have been condemned. After completing these experiments, the jury reports: "Sanitary pans are now manufactured in France with as much success as in England. The French hardware and porcelain are as good, the shape of the pan is often better. The French potters have in a few years created manufactories of sanitary apparatus, and it is in part to their efforts that we owe the results which the jury has been happy to record. The pottery works of Rambervilliers, which were the first to make pans with syphons, and the pottery works of Pouilly-sur-Saône, whose exhibits were placed in an elegant pavilion, should be more particularly mentioned for their very excellent hardware, some of which was highly decorated, and looks almost as if it were porcelain. The society formed by the firm of Pillivuyt and the principal manufacturers of Paris exhibit objects that are excellent both in quality and in workmanship. The hardware of Mehun might be mistaken for porcelain."

The jury very energetically denounces the form of the seat of most closets manufactured in France; and we might add that this criticism applies equally well to the majority of English closets. The pan is generally placed within a sort of box, which reaches from wall to wall of the closet. In this obscure corner the workmen building the house throw any rubbish they are desirous of hiding. The box-like seat covers all this over. When the house is inhabited the rubbish under the closet seat gets wet whenever water is spilt or splashed, and thus, precisely at the spot where we need the most air, the most light, the greatest cleanliness, we have, in the dark and unventilated recesses that surround the pan of the closet, moist dirt and corruptible matter. The jury therefore strongly recommend the newer closets, where the pan is not covered over, and where the seat consists of a small piece of wood some four inches broad, that lifts up and down, to cover the rim of the pan.

In respect to the flush tanks, the jury did full justice to the first initiator and inventor of this style of apparatus, Mr. Rogers Field. They also congratulate the firm of Messrs. Doulton and Co. for being the first to introduce into France flush tanks of this description. They, however, now claim that the flush tanks manufactured by

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Messrs. Geneste and Herscher possess all the practical qualities desired. These are, we need scarcely remark, simplicity in make and durability.

It is not necessary to follow the jury in their dissertations on the best methods of making syphon traps, on the dangers of syphonage, on the necessity of ventilating all pipes so as to prevent suction, on the need of openings into the syphon so as to clear away any obstruction that may occur. These are all questions with which plumbers who have been properly trained in sanitary plumbing are familiar. The point that is of interest is the fact that the doctrines so long preached by sanitary reformers in England formed the basis of the principles which the jury applied in testing the merits of the exhibits, and they found that several French manufacturers had attained this high standard of excellence. There is one feature in these foreign closets which should be carefully considered by those who in England build houses destined to be inhabited by a large number of poor people with dirty habits, and who use the closets in common. In that case it becomes a moot question as to whether it is wise to persist in providing seats for such closets. If the population of such dwellings is English, perhaps it would be better to persist in the English custom and trust to the influence of sanitary inspectors and others to bring about the required cleanliness. But where, as with the foreign Jews in Whitechapel or in the houses of Saffron-hill, inhabited exclusively by Italian organ-grinders and penny ice men, we have to deal with a foreign population, we must remember that the foreigner considers that the sitting down on a closet is at once a dangerous

TABLE I.—RESULTS OF EXPERIMENTS BY INTERNATIONAL JURY ON CLOSET PANS AND SYPHONS.

Name of the Exhibitor	Description of the Apparatus.	Distance between Edge of the Pan and Level of the Water in the Syphon.	Height of the Water in the Pan.	Syphon.		Effects of the Flush.		General Observations.
				Volume of Water retained in the Syphon.	Height of the Dip.	In the Pan.	In the Syphon.	
No. 1. — Usine de Rambervilliers.	Cuvette à plongée d'eau.	0·265 m.	—	0·0027 m.c.	0·05 m.	Good.	Good.	Good apparatus.
No. 40.—Rambervilliers.	Cuvette ovale de petite dimensions	0·225 m.	—	0·0012 m.c.	0·045 m.	Strong outside projection of water.	The papers were not cleared away.	Essay made with four litres of water. The pan must be rejected.
No. 5.—Messrs. Doulton & Co.	Oval porcelain pan (D²).	0·23 m.	—	0·0025 m.c.	0·052 m.	Good.	Good.	Good apparatus.
No. 6.—Messrs. Doulton & Co.	Oval porcelain pan (D¹).	0·265 m.	—	0·0023 m.c.	0·059 m.	Fairly good.	Incomplete.	Mediocre apparatus.
No. 20. — Jennings.	"The Pedestal" pan.	0·25 m.	0·025 m.	0·0012 m.c.	0·052 m.	Good.	Good.	Very good apparatus.
No. 13. — Jennings.	The "Osba" pan.	0·318 m.	—	0·0024 m.c.	0·043 m.	Insufficient.	Bad; wooden corks remained.	Apparatus to be rejected.
No. 29. — Pulliyuyt & Co.	"La Combinaison."	0·28 m.	0·02 m.	0·0012 m.c.	0·045 m.	Good.	Good.	Good apparatus.
No. 26.—Pulliyuyt & Co.	"La Chimère."	0·23 m.	—	0·002 m.c.	0·058 m.	Good.	Fairly good; one wooden cork remained after a second flush.	A bad copy of the Hellyer pan.
No. 34.—Pouilly-sur-Saône.	White round pan, syphon with narrowed entrance.	0·223 m.	—	0·0015 m.c.	0·02 m.	Flush sufficient, but some water thrown outside.	One wooden cork was not cleared out.	Fairly good apparatus, but the dip of syphon insufficient.
No. 33.—Pouilly-sur-Saône.	Cuvette à combinaison.	0·312 m.	0·017 m.	0·0015 m.	0·018 m.	Fairly good.	Bad; the papers and wooden corks were not cleared out.	Apparatus badly manufactured, though well studied in respect to form; dip of syphon insufficient. To be rejected.
No. 31.—Schellier & Co.	Round pan in porcelain; iron syphon.	0·26 m.	—	0·0025 m.c.	0·03 m.	Good.	Good.	Apparatus rather large, and requires a great deal of water.
No. 33.—Schellier & Co.	Round pan with syphon that can be applied to old closets.	0·233 m.	—	0·0026 m.c.	0·027 m.	Fairly good; some water thrown outside.	Flush defective; some papers remained.	Apparatus to be rejected.

TABLE II.—EXPERIMENTS OF THE INTERNATIONAL JURY ON THE ABSORPTION OF MOISTURE BY DRAIN PIPES.

Name of the Potteries.	Diameter.	Length.	Thickness.	Weight.		Quantity of water absorbed.	Observations.
				When dry.	After immersion in water.		
	Metres.	Metres.	Metres.	Kilogrammes.	Kilogrammes.		
Pouilly-sur-Saône ..	0·150	0·640	0·016	11,850	12,000	0·150	Immersed in water for 24 hours after being baked for 14 hours.
Ditto	0·100	0·650	0·013	7,300	7,700	0·400	Broken by 900 kilogrammes pressure.
Valabrègue	0·150	0·665	0·018	11,900	12,575	0·675	Immersion for 24 hours after 14 hours in oven.
Rambervilliers	0·150	0·665	0·018	14,200	14,350	0·150	Ditto.
Ditto	0·095	0·650	0·018	9,200	9,300	0·100	Crushed by 2400 kilogrammes pressure.
Muller	0·100	0·630	0·015	6,900	7,000	0·100	Crushed by 1000 kilogrammes pressure.
Ditto	0·150	0·655	0·020	13,800	14,800	1·000	Immersion of 24 hours after 14 hours in stove.
Noël	0·150	0·650	0·015	11,900	11,920	0·020	Crushed by an even pressure of 900 kilogrammes.
Ditto	0·100	0·630	0·016	8,100	8,200	0·100	Crushed by 1835 kilogrammes pressure.
Doulton	0·150	0·660	0·019	13,100	13,800	0·700	Crushed by a weight of 1200 kilogrammes evenly distributed.
Ditto	0·100	0·650	0·015	8,000	8,500	0·500	Crushed by a weight of 1600 kilogrammes.

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and a dirty custom. There are also men of science who argue that the sitting posture is not in keeping with the anatomy of the human form. A number of French manufacturers exhibit closets the floor of which consists of fluted or seriated plate glass, the moisture running in the indentures of the glass; the feet have dry surfaces to tread upon. From the floor a small opening conveys by gravitation into the pan above the trap all liquids. The surroundings of the pan are of cement or hardware, the walls of enamelled tiles, and the window of thick glass with conical perforations. Thus every part of the closet is watertight and can be sluiced with buckets of water, while fresh air enters day and night through the perforated window panes. This form of closet is the best suited for people who do not take sufficient care in respect to cleanliness. The jury publish tables giving the results of all the experiments made. These are too numerous and too lengthy for us to reproduce, but we append some of the figures and facts relating to some of the best and some of the worst closets exhibited. These will serve as a specimen of the work accomplished by the jury. With equal care the jury tested the quality of the various drain-pipes exhibited. Those made of iron or of cement have been in use for many years in France; but Messrs. Doulton and Co. were the first to introduce hardware drain-pipes in France.

From Belgium and from Germany a smaller quantity of such pipes were also imported into France. But soon the French manufacturers began to organise for the production of goods of this description, and many specimens of this new French industry were sent to the Exhibition. Each pipe was submitted by the jury to four different test experiments. First, it was placed under a lever. A weight attached to this lever was pushed gradually towards the end of the lever, thus increasing the pressure on the pipe at each forward movement. The lever was practically a scale, and it was thus easy to ascertain how many pounds pressure was required to break the pipe. The second experiment had for purpose the testing of the force required to burst the pipe by inside pressure. The pipe was placed vertically on a table, the two extremities hermetically closed by heavy metallic planks with indiarubber flange. Each metal covering had a hole in the centre. From the hole on the top water was poured in till the pipe was filled. The hole was then closed with a screw nut. From the hole below a pipe communicated with a hydraulic press, by means of which internal pressure was gradually produced till the pipe burst. A manometer fixed on a branch tube recorded the amount of pressure brought to bear. The third experiment consisted of testing how far the pipes could resist the shock of a blow. For this purpose a metallic sphere weighing nine kilogrammes was allowed to fall from various measured heights on to the centre and upper portion of the pipe. The pipe was laid on a wooden groove, so contrived as to disengage the socket of the pipe, so that its protuberance should not effect the fragility of the pipe. The fourth experiment was conceived with the view of ascertaining how far the drain-pipes absorb the water which passes through them. Each pipe was placed in the portable stove supplied for baking the bread of the French army. The pipes remained for twelve hours in this stove, and might therefore be considered as perfectly dry. They were then immersed for twenty-four hours in water. Each pipe was carefully weighed before and after this immersion, and the increase in weight after the operation showed to what extent water had been absorbed.

The result of all these experiments was, it must at once be confessed, not satisfactory so far as the English exhibitors were concerned. It was in respect to the pervious nature of the hardware that the English goods were most at fault. The jury made a calculation so as to ascertain the coefficient of each exhibitor. The maximum number of marks attainable was 1300. The Mousen Pottery Works obtained 970 as their co-efficient, the Rambervilliers 960, the Pouilly-sur-Saône 920, Messrs. Doulton 860, and the Muller Potteries 830. It was in respect to the porous character of the materials employed that the last two failed to come up to the mark. Thus we find that they obtained no marks whatsoever in respect to permeability, whereas the firms of Mousen and Rambervilliers obtained each 300 marks, and Pouilly 260. On the other hand, when tested for their power of resisting shocks or blows, the drain-pipes of the Mousen potteries received no marks at all, and the Rambervilliers and the Pouilly potteries obtained but 100 marks each, while the Muller potteries obtained 300 marks, and the Doulton potteries were at the head of the list with 320. The fact of the case seems to be that the clays found in France are better suited for the manufacture of pipes of an impervious nature.

We cannot reproduce in detail all these experiments, but give some specimens. With regard to the closets, we reproduce from the report of the jury the best and the worst specimen exhibited by six of the best makers. The other exhibits fell below the mark of what is here recorded. (See Table I.).

With respect to the drain pipes, it would take too much space to give the measurements of each pipe tested and the results acquired, but here, for instance, are a few figures taken from the extremes of good and bad. The pipes of the Rambervillier's potteries were crushed by weights amounting for the best specimens to 2500 kilogrammes and 2200 kilogrammes, for the worst to 1100 and 1200 kilogrammes. For the Muller potteries the extremes were 1850 kilogrammes the best; 1000 the worst. For Pouilly-sur-Saône, 1350 kilogrammes, the best; 800 kilogrammes the worst. For the Valabrègue works, 1800 kilogrammes the best; 600 kilogrammes the worst. For the Haine St. Pierre works in Belgium, 2450 kilogrammes the best; 900 kilogrammes the worst. For the Boussieux works in Belgium, 2050 kilogrammes the best; 800 kilogrammes the worst. The other trials show an almost equal difference of merit, but it is the coefficients rather than actual results that are instructive, and these we have already given. With the hydraulic press the rupture from internal pressure, varies for the Pouilly-sur-Saône pipes, from 4 kilogrammes to 11 kilogrammes. For the Rambervilliers pipes, from 1·5 kilogramme to 10·5 kilogrammes. For the Doulton pipes, from 4 kilogrammes to 10 kilogrammes. For the Haine St. Pierre Belgian pipes, from 6 kilogrammes to 18 kilogrammes, and from the Valabrègue, from 3·5 kilogrammes to 4 kilogrammes. Then in conclusion we have the results of the experiments made to test the absorption of moisture by hardware drain pipes given by the jury. (See Table II.).

THE INTERNATIONAL CONGRESS OF THE RED CROSS.

AN Italian correspondent writes:—The historic *Sala degli Orazi e Curiazi* (Hall of the Horatii and Curiatii) in the Palazzo dei Conservatori, in the Capitol, was on Thursday, the 21st inst., the scene of a brilliant assembly—that of the Fifth International Congress of the Red Cross. Of the 172 delegates, Italian and foreign, invited to take part in the proceedings, all but a very few were in attendance. The majority wore on their breasts the insignia of the knightly orders to which they belong, and the foreign delegates were grouped according to their respective nationalities, each group being indicated by a reduced copy of its national flag. At the dais, on which the President (the Senator della Somaglia) was seated, there figured among the artistic decorations a large red cross bearing the rubric "Ginevra, 22 Agosto, 1864" (Geneva, 22nd August, 1864)—the date of the foundation of the International Society. Supported by General Cosenz, by the distinguished statesmen, Signors Pelloux (War Minister) and d'Arco, representing the Government, and by the Prefect and Syndic of Rome, Count della Somaglia opened the Congress in French, summarising the history of the philanthropic movement, its steady development, and the benefits it had already conferred on humanity. Having touched on the programme of this, the fifth, Congress, he read a communication from the Secretary-General of the Ministry of the Royal Household. The following are its terms:—

"Their Majesties the King and Queen of Italy, desirous of attesting their high appreciation and approval of the Fifth International Congress of the Association of the Red Cross, which takes place in Rome, have resolved to open a competition resulting in prizes for the best contributions to the cause which the philanthropic institution has at heart. The august sovereigns, convinced that promptitude in aiding the wounded is the most effective factor in the happy issue of their tendance, have determined that the subject of the present congress shall be exclusively the perfecting of the means for the immediate clearance

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(*sgombero*) of the battle-field, by the transport of the wounded to the relief-stations, from these to the advanced posts of medico-surgical treatment, and finally, from these to the places of first temporary hospital accommodation. With this view, their Majesties have placed at the disposal of the President of the Congress the sum of 10,000 Italian lire (£400) to be divided into two prizes, besides acts of honourable mention embodied in silver medals bearing their Majesties' likeness, which will be provided by the Ministry of the Royal Household. The competition will be international, and will be held in Rome, where it will remain open till the end of June, 1893. Their Majesties leave it to the Congress to establish the details of the conditions of the programme and the other formalities connected with the competition. The august sovereigns are earnest in their wish that the happy issue of the competition may conduce to the furtherance of those philanthropic endeavours undertaken by the Congress, whose proceedings they will watch with lively interest as additional proof of the glorious conquests already won in the field of civilisation and human brotherhood."

Loud applause ensued on this characteristically generous and enlightened action of the House of Savoy, after which the Count della Somaglia, concluding his address, made use of these words: "Let me therefore express the hope which is in the hearts of one and all of us that this sentiment may become so developed among peoples and Governments as to restrain them from the resort to arms, and that there may finally descend on the world an aureole, the messenger of concord, to unite the nations in one sole thought, the ideal of peace, of fraternity, of progress." Signor Pelloux, speaking in the name of the Italian Government, echoed the Royal and Presidential hopes, and, representing his colleagues, welcomed the members of the Congress to their labours in Rome. He dwelt on the mighty services already done by the Red Cross in war, services it is capable of doing on a yet greater scale, first among which will be the solution of those means of prompt transport of the wounded from the battle-field which the Congress has more particularly undertaken. The Syndic (the Duke of Sermoneta) extended the right hand of fellowship, on the part of Rome, to the foreign delegates, and dwelt on the fond anticipation of seeing the Red Cross, by enlarging its functions, bring about peace and goodwill among all men. This anticipation, or rather hope, he liked to associate with the august day of their meeting—the 21st of April—the birthday of the city of Rome.

Dr. von Coler, of the medical staff of the German War Office, referred also to the coincidence of the meeting of the Conference with the 530th *lustrum* of Rome's foundation—a meeting convened under the auspices of a Royal house which by its universally acknowledged philanthropy had won the respect and admiration of the world. "The Emperor of Germany," he added, "always inspired by true sentiments of charity, had expressed to him the wish that everything that can conduce to the better tendance and relief of the wounded should constitute no secret, but become the common patrimony of all the nations of mankind." Dr. von Coler further indicated the noble charities of the Empress Augusta and the Empress Victoria as showing that the Geneva Convention had won the heart of Germany, in the name of whose sovereigns and people he concluded by a cordial greeting to the members of the Congress.

Business thereafter commenced.

A discussion started on the following order of the day, that "the Fifth Congress expresses the desire that the signatory powers of the Geneva Convention should unite to extend the benefits of the said Convention to maritime warfare under the conditions and in the degree applicable to the said warfare," elicited some difference of opinion as to the rights of belligerents which might possibly be compromised by the action of the Red Cross. An alternative order of the day was outvoted and the original one adhered to. Next came the report of the committee on the prompt transport of the wounded from the battle-field, according to which it appeared that there is a common effort now in progress among the military authorities of all civilised countries to promote facilities for that most desirable object. Questions, however, have yet to be solved before a practical *modus operandi* can be set on foot—questions relating to the risk incurred by the *personnel* of the Red Cross in removing the wounded under fire. Herr Criegern (from Saxony) urged the necessity of having the places for receiving the wounded as near the scene of action as possible, the preference being given to the more severely wounded. Stretchers specially made *ad hoc*, and special cars, all under the management of military companies told off by the War Office authorities for the purpose, and assisted, if need be, by volunteers, were among his recommendations. Further, the Powers in time of peace should have prepared, against the outbreak of war, a sufficient supply of mattresses and beds, and an organisation for serving to the wounded in action such cordials or restoratives as they may require when lifted from the ground and during their transport. An order of the day embodying Herr Criegern's proposals, and referring them to the Central Committees of the Red Cross, was carried.

Dr. Gurlt, Professor of Surgery in the Berlin School, was the most prominent speaker on another branch of the subject—the improvement of means of transport for the wounded. He strongly recommended those on the von Döcker system as having hitherto given the best results. Professor Postemski, of the Roman University, urged that the question, as a medico-technical one, was beyond the sphere of the Congress to discuss, and proposed its being left to each country to choose its own system—a proposal which was eventually carried.

M. de Hardenbrock (from the Netherlands) proposed: first, that in distant wars, or in wars beyond sea, the Red Cross societies whose service is invoked should place themselves *en rapport* with the military authorities and the army medical staff of the belligerents through the medium of the Red Cross societies belonging to those belligerents, or through diplomatic intervention; secondly, that in wars between signatory powers and others the society whose assistance will be invoked should have the right, as a primary condition, to demand that the Power which has not adhered to the Convention should be compelled to conform to its provisions. The Marchese Vitelleschi found this a very important question, and proposed its being referred to a special commission. After various arguments, in which France and Russia were represented, the Marchese Vitelleschi's proposal was approved.

The discussions were relieved by a visit to the Monte Celio, where the "Treno-Lazaretto-Tartaruga" was exhibited. It consists of four waggons with sixty beds, and is provided with every requisite for a field hospital, which may occupy a fixed position for as many days as may be necessary, while, in case of need, it can be moved to any distance with the maximum of swiftness and the minimum of vibration or discomfort to the wounded inmates. It evoked universal admiration as a great and effective improvement on the movable tent system found so useful in African warfare.

(To be concluded.)

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6272 births and 4253 deaths were registered during the week ending April 23rd. The annual rate of mortality in these towns, which had been 23·3 and 20·9 per 1000 in the preceding two weeks, rose again last week to 21·8. In London the rate was 21·0 per 1000, while it averaged 22·3 in the thirty-two provincial towns. The lowest rates in these towns were 13·9 in Brighton, 14·9 in West Ham, 15·7 in Croydon, and 15·8 in Plymouth; the highest rates were 25·8 in Manchester, 26·2 in Wolverhampton, 28·0 in Salford, and 28·3 in Derby and in Bolton. The 4253 deaths included 541 which were referred to the principal zymotic diseases, against numbers increasing from 427 to 495 in the preceding three weeks; of these, 197 resulted from measles, 172 from whooping-cough, 58 from diarrhœa, 46 from diphtheria, 44 from scarlet fever, 20 from "fever" (principally enteric), and 4 from small-pox. No fatal case of any of these diseases occurred last week in Plymouth; in the other towns they caused the lowest rates in Brighton, Croydon, Halifax, and Nottingham, and the highest rates in Sunderland, Salford, Sheffield, and Bolton. The greatest mortality from measles occurred in Birmingham, Sheffield, London, Liverpool, Sunderland, and Leicester; scarlet fever in Cardiff and Gateshead; whooping-cough in Burnley,

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Blackburn, Wolverhampton, Preston, Sunderland, Salford, and Bolton; and diarrhœa in Salford. The mortality from "fever" showed no marked excess in any of the thirty-three large towns. The 46 deaths from diphtheria included 29 in London, 5 in Sheffield, 3 in Newcastle-upon-Tyne, and 2 in Manchester. Two fatal cases of small-pox were registered in London, one in Oldham, one in Leeds, but not one in any other of the thirty-three towns; 48 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 10 in the Highgate Small-pox Hospital on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1400, against 1289 and 1296 on the preceding two Saturdays; 219 new cases were admitted during the week, against 166 and 146 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 523 to 348 in the preceding five weeks, rose again to 389 last week, and almost corresponded with the corrected average. The causes of 103, or 2·4 per cent., of the deaths in the thirty-three towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Portsmouth, Norwich, Birkenhead, and in four other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Preston, Sheffield, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 24·1 and 22·5 per 1000 in the preceding two weeks, declined again to 22·3 during the week ending April 23rd, but was 0·5 per 1000 above the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·7 in Perth and 15·1 in Aberdeen to 24·8 in Greenock and 26·0 in Glasgow. The 622 deaths in these towns included 22 which were referred to whooping-cough, 17 to diarrhœa, 15 to measles, 6 to diphtheria, 2 to "fever," 1 to scarlet fever, and not one to small-pox. In all, 63 deaths resulted from these principal zymotic diseases, against 66 and 73 in the preceding two weeks. These 63 deaths were equal to an annual rate of 2·3 per 1000, which was 0·5 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 30 and 24 in the preceding two weeks, further declined last week to 22, of which 11 occurred in Glasgow, 4 in Aberdeen, and 3 in Dundee. The 17 deaths from diarrhœa considerably exceeded the number in any recent week, and included 6 in Glasgow, and 3 each in Edinburgh, Dundee, and Aberdeen. The fatal cases of measles, which had been 14 and 18 in the previous two weeks, declined again to 15 last week, of which 14 were recorded in Glasgow. The 6 deaths referred to diphtheria showed a decline of 4 from the high number in the preceding week, and included 3 in Glasgow. The fatal case of scarlet fever occurred in Paisley. The deaths referred to diseases of the respiratory organs in these towns, which had been 160 and 130 in the preceding two weeks, rose again last week to 163, and exceeded by 20 the number in the corresponding week of last year. The causes of 60, or nearly 10 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the preceding four weeks from 40·1 to 30·6 per 1000, rose again to 35·8 during the week ending April 23rd. During the first three weeks of the current quarter the death-rate in the city averaged 33·1 per 1000, the rate for the same period being 20·9 in London and 19·6 in Edinburgh. The 240 deaths in Dublin during the week under notice showed an increase of 35 upon the number in the preceding week, and included 33 which were referred to measles, 10 to whooping-cough, 2 to diarrhœa, 1 to "fever," and not one either to small-pox, scarlet fever, or diphtheria. In all, 46 deaths resulted from these principal zymotic diseases, equal to an annual rate of 6·9 per 1000, the zymotic death-rate during the same period being 3·3 in London and 1·4 in Edinburgh. The fatal cases of measles, which had declined from 24 to 14 in the preceding three weeks, rose again last week to 33, a higher number than has been recorded in any week since July, 1887. The deaths referred to whooping-cough, which had been 3 and 5 in the previous two weeks, further rose to 10 last week. The 2 fatal cases of diarrhœa corresponded with the number in the preceding week. Only one death was referred to "fever," against 6 in the previous week. The 240 deaths registered in Dublin last week included 43 of infants under one year of age, and 46 of persons aged upwards of sixty years; the deaths of infants showed a marked increase, while those of elderly persons showed a further decline from recent weekly numbers. Six inquest cases and 3 deaths from violence were registered; and 71, or nearly a third, of the deaths occurred in public institutions. The causes of 28, or nearly 12 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

NEW REGULATIONS FOR ADMISSION TO THE ARMY MEDICAL STAFF.

THE attention of all intending candidates for the Army Medical Staff is called to these regulations, which have been furnished to us by the Director-General, regarding some additional requirements to the existing qualifications for admission to examination:—"The following will be inserted after paragraph 2 in the Regulations issued with Army Order 242 of 1891: 2A. After March 31st, 1893, every candidate for a commission in the Medical Staff of the Army must produce, in addition to the documents specified in paragraphs 1 and 2—(1) A certificate of having discharged the duties of a medical clinical clerk during six months, and of a surgical dresser during another period of six months, of which, in each case, not less than three months must have been spent in the wards of a hospital. (2) A certificate of having attended a course of instruction during not less than three months at an Ophthalmic Hospital, or the Ophthalmic Department of a general hospital, which course shall include instruction in the errors of refraction."

ARMY MEDICAL STAFF.—Surgeon-Lieutenant-Colonel H. W. A. Mackinnon, D.S.O., has taken over the charge of the 3rd Station Hospital, Aldershot.—Surgeon-Lieutenant-Colonel E. Townsend has been appointed to the Station Hospital, Mandalay; Surgeon-Captain M. F. Macnamara to duty in the Secunderabad District; Surgeon-Captain G. H. Younge to the Station Hospital at Malapuram; Surgeon-Captain H. E. Dowse to duty in the Belgaum and Bangalore Districts; Surgeon-Captain F. A. B. Daly to the Station Hospital, Wellington; Surgeon-Captains F. S. Le Quesne, V.C., and J. Donaldson to the Belgaum and Bangalore Districts; Surgeon-Captain J. F. Donegan to the Station Hospital, Belgaum.—Surgeon-Major-General Alfred Malpas Tippetts is placed on retired pay (dated April 5th, 1892); Surgeon-Colonel Thomas Norton Hoysted to be Surgeon-Major-General, vice J. Sinclair, M.D., retired (dated March 28th, 1892); Brigade-Surgeon-Lieutenant-Colonel Thomas Maunsell to be Surgeon-Colonel, vice C. H. Y. Godwin, seconded (dated March 10th, 1892); Brigade-Surgeon-Lieutenant-Colonel Alexander Francis Preston, M.B., to be Surgeon-Colonel, vice T. N. Hoysted (dated March 28th, 1892); Surgeon-Lieutenant-Colonel Henry William Alexander Mackinnon, D.S.O., to be Brigade-Surgeon-Lieutenant-Colonel, vice T. Maunsell (dated March 10th, 1892); Surgeon-Lieutenant-Colonel James Lane Notter, M.D., to be Brigade-Surgeon-Lieutenant-Colonel, vice A. F. Preston, M.B. (dated March 28th, 1892); Surgeon-Captain Wm. Jones Crofton, M.B., is placed on temporary half-pay on account of ill-health (dated April 7th, 1892).

INDIAN MEDICAL SERVICE.—Surgeon-Major Russell, M.B., B.Sc., Civil Surgeon, Patna, and Principal, Temple Medical School, goes to Darjeeling as Civil Surgeon; Surgeon-Major Nicholson takes his place at Patna.—Surgeon-Major Owen, on return from furlough, takes up his post of Surgeon to his Excellency the Commander-in-Chief.—Dr. Edwards, Surgeon to the Commander-in-Chief, will proceed to Quetta, where he has been appointed Civil Surgeon.—Surgeon-Colonel R. Harvey, D.S.O., is transferred from the administrative medical charge of the Punjab Frontier Force

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to that at Calcutta, vice Surgeon-Colonel J. C. Morice, proceeded to England on leave.

NAVAL MEDICAL SERVICE.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon Brien Patrick Sarsfield McDermott has been placed on the Retired List of his rank (dated April 15th, 1892).

MILITIA MEDICAL STAFF.—Surgeon-Major T. Allman, 3rd Battalion the Connaught Rangers, to be Surgeon-Lieutenant-Colonel (dated April 23rd, 1892).

VOLUNTEER CORPS.—*Artillery:* 3rd Kent (Royal Arsenal): Surgeon-Lieutenant-Colonel W. W. Coleman resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Corps on his retirement (dated April 23rd, 1892).—*Royal Engineers:* 1st London: Lieutenant Sidney Reginald Dyer, M.D., to be Captain (dated April 13th, 1892).—*Rifle:* 3rd Volunteer Battalion, the South Staffordshire Regiment: Thos. Ridley Bailey, M.D., to be Surgeon Lieutenant (dated April 23rd, 1892).—1st (Inverness-shire) Highland Volunteer Battalion, the Queen's Own Cameron Highlanders: Surgeon-Lieutenant J. Macrae, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated April 23rd, 1892).—20th Middlesex (Artists'): Henry Darville Brook, Gent., to be Surgeon-Lieutenant (dated April 23rd, 1892).

VOLUNTEER MEDICAL STAFF CORPS.—The Edinburgh Company: Surgeon-Lieutenant W. H. Barrett, M.B., resigns his commission (dated April 23rd, 1892).

Correspondence.

"Audi alteram partem."

THE MEASLES BACILLUS.

To the Editors of THE LANCET.

SIRS,—In the last issue of THE LANCET attention is directed to a paper by Drs. Canon and W. Pielicke, published in the *Berliner Klinische Wochenschrift*, on the Bacillus of Measles. The work of English observers is seldom noticed in French or German journals. It is incomprehensible that an observation of this kind, which I made fifteen years ago, and which was fully described and illustrated in the "Third Contribution to the Life-History of Contagium,"[1] should have its originality dedicated to the Germans. Original work done in this country receives scant recognition. I exhibited slides showing these spores and bacilli at the conversazione of the Royal Society on April 25th, 1883, and at a meeting of the London Pathological Society in May, 1878. I found the bacillus of measles in the breath, lung tissue, and skin of patients. Dr. Ransome of Manchester published in the Transactions of the Literary and Philosophical Society of Manchester, 1869, similar observations on the breath of measles patients. Since then Dr. J. M. Keating, M. Le Bel, and others, have obtained this bacillus and cultivated it. In Dr. Quain's "Dictionary of Medicine" (1882), art. Measles, I find my discovery mentioned. For the credit of English scientific medicine, which in many respects is on a par with continental work, I trust you will draw attention to this letter.

I am, Sirs, yours obediently,

P. MURRAY BRAIDWOOD.

Willesden-green, N.W., April 26th, 1892.

To the Editors of THE LANCET.

SIRS,—The bacilli found in the blood of patients with measles are said by the observers, Drs. Canon and Pielicke, to be different from the micro-organisms hitherto described in connexion with that disease. They refer to the work of MM. Cornil and Babes, Paris, 1886, where a short bacillus is mentioned in this connexion; but not to our Pathological Society's Transactions for 1878, p. 422, where Dr. Braidwood and Mr. Vacher describe elongated bodies with abrupt ends found in the breath of children during measles; also p. 422, "Sparkling, spindle-shaped, staff-shaped, or canoe-shaped bodies" after death, probably the germs or organisms with which the contagium of measles is intimately associated. Again, in the lung "staff-shaped, fusiform, or ovate bodies, slightly tinged with carmine, and appearing as dark rods," are sufficiently distinguished from the pneumococci of other pulmonary inflammation. It cannot be said that Dr. P. M. Braidwood and Mr. Vacher attached no importance to these bacilli, and it seems to me that they are in no way essentially different from those found by Drs. Canon and Pielicke in the blood of patients suffering from measles.—I am, Sirs, yours &c.,

WILLIAM SQUIRE, M.D., F.R.C.P.

Harley-street, W., April 26th, 1892.

[1] Brit. Med. Jour., 1882.

"THE SMOKE NUISANCE."

To the Editors of THE LANCET.

SIRS,—The letter of my friend, Mr. Thomas Bond, advocating support for an Act of Parliament to deal with "the smoke nuisance," suggests the question whether it would not be better to see how this can be done before asking Parliament to undertake what is impossible, until a reasonable remedy is at least proposed to it. The exhibition at South Kensington a few years ago did not result in any simple solution of the question, and I doubt whether you would feel disposed to encourage the discussion of a subject which belongs rather to the province of the chemist or the engineer than to that of medical science, but for the circumstance that there are questions of health of great importance connected with it. The origin of the smoke nuisance is to be traced in the method of burning soft coal in open fireplaces which find favour in this country. Now the first step towards curing the "smoke nuisance" is to make the public fully appreciate the fact that this custom is attended with such enormous waste and pecuniary loss as to make the matter of economy quite as deserving of thought as that of the "nuisance." It may be fairly calculated that no profit is derived from half the coal burnt in domestic fire places, that is so far as benefit is obtained for warming purposes. More than half the heat generated by the coal goes up the chimney, and is absolutely wasted. What the actual cost of the coal in London may be, which is consumed in open fireplaces, I am not able to state; but it must be over £2,000,000 per annum; and if so, £1,000,000 is lost by waste. In order to perceive that this is a matter of medical interest, we must realise that in the use of open fireplaces the question of ventilation is involved to as great an extent as that of warmth; and it would be fair to ask whether sanitary requirements demand the amount of ventilation obtained by open fireplaces. If we go to the other extreme and consider the great defects in ventilation which attend the use of closed stoves, we shall be able to appreciate the nature of the problem which has to be determined before we can fairly ask Parliament to interfere. Now medical science has settled the question of ventilation, just as accurately as it has decided the areas, superficial and cubical space, which are necessary for apartments of all kinds. It would be quite easy to prove that open fireplaces produce an amount of ventilation which science does not require; and that while the stove on the one hand is seriously injurious to health, the open fireplace on the other is not only wasteful of heat and causes in one way too much ventilation, but is nearly as injurious to health as the other by the smoke it produces. To medical science, then, the public has a right to put the question, What amount of ventilation ought to be provided in an apartment of any given dimensions? and this being already answerable, the problem simply reduces itself to determining the mean between the open fireplace and the closed stove, or to such an arrangement as would reduce the waste of up-draught in chimneys to the requirements of health. There is a mean which can be arrived at without much difficulty, but that is not a subject which would interest your readers, as it is connected with physics, the combustion of coal, and the laws of ventilation. Let this question of waste, which I think I have greatly under-estimated, of gigantic useless waste, be appreciated by the public, and the remedy will soon be found.

I am, Sirs, yours truly.

Savile-row, W., April 23rd, 1892. ROBERT LEE.

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SMALL-POX TRAMPS: WHO IS RESPONSIBLE?

To the Editors of THE LANCET.

SIRS,—My attention has just been called to a letter in your issue of the 23rd inst., purporting to give an account of the treatment which a small-pox-infected pauper has received here, and to your comments thereon. As this case has caused considerable feeling throughout North Wales, and as your comments reflect discredit upon the action of the urban sanitary authority over which I have the honour to preside, may I ask you, in justice to myself, the chairman of the sanitary committee, and the medical officer of health who had the matter in hand, to give space for the publication of our version of the case? The first notification we received was in a letter from the chairman of the infirmary committee to our medical officer, which stated: "A tramp came to the infirmary this morning, and he is pronounced to be ill from small-pox; in the meantime he is put in an isolated room." Next we received a certificate in which he was referred to as "an inmate of the infirmary." How he got into the institution it was not our duty to inquire, but our medical officer, on visiting the place, found him located in a room known as the fever ward, which is more or less apart from the rest of the infirmary, and into which infectious patients have from time to time been received. The Infectious Diseases Prevention Act has been adopted in this borough, but so far it has not been thought necessary to avail ourselves of the permission given in the Public Health Act of 1875 to public authorities to provide a fever hospital, the town being a small one, and outbreaks of this kind very infrequent. And even had such a hospital been provided, it is doubtful what use it would have been, as the sanitary authority have no power to remove a patient into hospital unless he is "improperly housed or living in a room which is occupied by more than one family," neither of which reasons held good in this case. Consequently we had no means of finding shelter for this patient, which would not have endangered the lives of the townspeople generally.

The duties of a sanitary authority, under circumstances of this kind, are most clearly defined by law, and we carried them out to the best of our ability. We took immediate steps to destroy the bedding on which the tramp had slept the previous night, and to disinfect the common lodging-house. We considered that the fever ward at the infirmary, in which he had been kept all day, was already infected by his presence, and that it was our duty to take every precaution to isolate him there. We were doing so, when the extraordinary announcement was made to us that he had been turned out of the infirmary, at about half-past seven o'clock at night, by the authorities. We, or rather the union authorities, were therefore compelled to find him a shelter in the same common lodging-house in which he had passed the previous night, kept by an old man and his wife. Here he has since been isolated as far as possible, though the house is situated in the midst of the most thickly populated district in the town. The case happened on a Thursday. On the following Tuesday the parish doctor, who is also one of the medical officers of the infirmary who ejected the man, visited him for the first time. Naturally, this has caused a great deal of ill-feeling in the neighbourhood. These are the facts of the case. If you are still of the "opinion that the sanitary authorities were the principal culprits," perhaps you will kindly state in your notes what steps you consider should have been taken by them, and also by what authority or Act of Parliament they should have been guided.

I am, Sirs, your obedient servant,
T. A. WYNNE-EDWARDS, Mayor of Denbigh.
April 27th, 1892.

UTERINE DILATATION.

To the Editors of THE LANCET.

SIRS,—When the idea first occurred to me of dilating the uterus by means of continuous elastic pressure I employed conical plugs surfaced with a wide and swiftly travelling screw, precisely the same as those recommended by Dr. Reid. I tried them both by manual rotation, and by a simple method of continuous gentle elastic tension. I found, however, that while they acted as a rule fairly well, every now and then they gave rise to inflammatory trouble. I therefore adopted the simple conical plug, and applied the distending force from a waist belt as described in THE LANCET of Nov. 1st and 8th, 1879. Since then a few improvements in detail have been effected, and now they are made absolutely perfect by Messrs. Lynch and Co. (Aldersgate-street(of aluminium. This system of dilatation of the uterus has been employed in my practice many hundreds—I think I may say thousands—of times, and has not given rise in any one instance to the slightest cause for alarm. The apparatus is practically automatic, and the process throughout requires only a very few moments' attention. If conducted slowly it is free from pain, but should circumstances require a rapid dilatation, this can easily be secured by the aid of a morphia syringe.—I am, Sirs, yours truly,

Birmingham, April 23rd, 1892. LAWSON TAIT.

OPERATION FOR SPASMODIC TORTICOLLIS.

To the Editors of THE LANCET.

SIRS,—The letter in THE LANCET of April 23rd upon the above subject from Dr. Alexander Harkin hardly, I think, applies to cases of *confirmed* spasmodic wry-neck. That some cases of a neurotic nature may simulate such an affection and be cured by such a simple method as the application of a blister may be perfectly true, but that cases like that first operated upon by Campbell de Morgan, and those recorded by myself, and published in my recent pamphlet upon "Spasmodic Wry-neck," were of this kind is not, I think, a reasonable deduction. Ablation of a piece of the nerve or nerves supplying the offending muscles does not probably get to the root of the evil, but that patients whose lives have been a misery to them are by this operation relieved is a fact, which will have far greater influence with practical surgeons and suffering victims of the disease than any amount of objection based upon theoretical or sentimental grounds. To describe, as Dr. Harkin does, a practically safe but, perhaps, somewhat difficult operation as "vivisection" seems to me absurd; but to urge that operative measures should not be undertaken unless absolutely necessary is a reasonable argument. I will leave it for others to judge whether the cases in which I have operated, and to which you refer in your annotation, were undertaken without sufficient necessity. In the first one violent and continuous spasms had existed for sixteen years, and in the other for six years. Both patients had been subjected to extensive treatment by drugs innumerable, and by electricity, without the smallest benefit, while since the operations they both remain perfectly well. In the first case the period of immunity has now reached two years, and in the other one year. In conjunction with these patients, and apparently in opposition to Dr. Harkin, I venture to suggest that treatment by operation is a far less severe one than that previously employed in these cases. I have lately operated upon two other patients, but sufficient time has not elapsed to judge of the result.

I am, Sirs, yours faithfully,

Queen Anne-street, W., April 23rd, 1892. NOBLE SMITH.

MEDICAL DEGREES FOR LONDON STUDENTS.

To the Editors of THE LANCET.

SIRS,—The recent pass list for the M.B. of the University of Durham illustrates the wants of the London medical student in the matter of degrees. It will be found that the whole list comprises forty successful candidates, of whom fourteen only came from the Newcastle College of Medicine; and of the remaining twenty-six, eighteen came from the following London schools: St. Bartholomew's, 5; St. Mary's, 5; Guy's, 4; St Thomas's, 2; Middlesex, 2. As the Durham degree necessitates one year's residence in Newcastle, it is obvious that these eighteen candidates must have incurred some considerable additional expense in order to attain their object.

I am, Sirs, yours obediently,

April 26th, 1892. A LONDON TEACHER.

NEW ZEALAND.—John Hay Honeyman, M.D. St. And., L.R.C.P., L.R.C.S. Edin., was entertained on Jan. 26th last at a complimentary supper by the members of the Auckland Branch of the New Zealand Medical Association, in recognition of his having presented the branch with the nucleus of a medical library.

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MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Influenza.

THIS city has, as has been previously shown in THE LANCET, been remarkably free from influenza during this year's epidemic. Cases have, it is true, been constantly occurring up to the present time. Since the commencement of February the medical officer of health for the city, Dr. Tatham, has sent out special weekly forms, with the purpose of obtaining trustworthy returns of the cases of this disease occurring in hospitals and dispensaries and in the home-patients' districts attached to the various hospitals. The total number of cases thus returned was 28 in the week ending April 16th, whereas in the three previous weeks it had been 42, 65, and 78. A constant and steady decline is thus shown. The deaths attributed directly to the epidemic were 7 in number last week, a slight increase on the deaths in the two previous weeks. Neighbouring towns and surrounding districts appear to have suffered much more severely from influenza than Manchester itself has. However, the continued occurrence of cases makes it appear possible that a more severe outbreak may still occur. Last year's epidemic did not assume great severity till the commencement of May. Several cases of pneumonia and acute phthisis have even now come under notice which, apparently, were sequels of attacks of influenza.

Small-pox.

Some apprehension has been caused by the appearance of small-pox. Altogether, however, only five cases from the city of Manchester have been reported. The admissions to the fever hospitals for this disease are, however, diminishing, and it may reasonably be hoped that the outbreak will not be of a serious nature. There have been no fatalities.

Healthy Homes Society.

This Society, which has existed for two years, has for its object the instruction of the working classes in the direction of the sanitary improvement of their houses and of their mode of life. It has so far had a great success, the attendances at the meetings increasing steadily. Last week Dr. Harris, physician to the Royal Infirmary, gave a short lecture on "Germs and their Influence in producing Disease," and was listened to with great attention by a crowded audience of precisely the class of people for which the society exists—operatives from the mills and factories of one of the largest industrial districts of the city.

The Spreading of Infectious Disease.

Another case of alleged ignorance of the law and certainly of the greatest thoughtlessness came before the stipendiary magistrate last week. A child known to be suffering from scarlet fever was conveyed by its relatives in a cab half way across the town. Before the sanitary authorities could make an order for disinfecting the vehicle it had been again used by several healthy persons. Such cases are of too common occurrence. The fine of one pound on each defendant may help to remind them in future that ambulances for the conveyance of fever patients are kept by the Corporation, and are at the service of those wishing to have infectious patients removed.

Manchester, April 27th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Strikes and Distress in the North.

IT is stated that the engineers' strike will be settled, and that most of the men will return to their work this week. Meantime, it is calculated that the loss of wages on the Tyne and Wear during the past twelve months will amount to the enormous total of one million pounds, while the distress produced by this enforced idleness has been very far reaching and severe. Great collective and individual effort has been made by all classes to mitigate this. For instance, since Christmas 10,000 children have received breakfast at the Bath-lane Hall, Newcastle, and soup kitchens have been opened in nearly every district in the city. At South Shields and district the distress has been very severe. On Saturday last about a thousand children received a substantial midday meal at the Royal Assembly Rooms in that town, the funds being raised for the purpose by two ladies; and a large number have been fed at breakfast, the number of meals provided in this way being over ten thousand. Still, when all has been done, there must have been very much suffering; so that we are all pleased at the prospect of the strike coming to an end. The chief constable of Newcastle, Captain Nicholls, in his report for the last quarter, states that there has been a decrease of felonies and misdemeanours as compared with the corresponding quarter of last year. Drunkenness also shows a considerable decrease, and he further says: "It is only right that I should acknowledge the exemplary good conduct of the working classes throughout the existing strike."

Newcastle Nurses' Home.

The annual meeting of the Newcastle Nurses' Home has been held, and a very satisfactory account has been given of the last year's operations of the institution, showing that at present there are fifty-nine trained nurses and ten probationers on the staff. The house in Ellison-place was still retained by the committee for the reception of patients attended by their own medical advisers. During the year the nurses had attended 445 cases. Dr. Black was thanked for his kind attendance, as well as Mrs. Barnes for her donation of £100.

Scarlatina in the Hexham Union.

At the last meeting of the Hexham Union rural sanitary authority the medical officer reported forty cases of scarlet fever, which were principally in the Stocksfield district, in children attending a school, which it had been considered advisable to close for a while.

Small-pox and Football.

At the monthly meeting of the Hartlepool port sanitary authority attention was drawn to the risk the town would run of being infected with small-pox should an advertised match take place with the Batley team at the former place. It was shown that the risk was not so much from the players as from their followers from Batley, and, taking into account the lateness of the season for football, and the fact that, should the Hartlepools become infected, it would be a serious thing for all vessels leaving the port, which would involve their detention in quarantine for a certain period. I have not heard that these matters were taken into account; I hope so, and that the match has been cancelled.

Ambulance Work in the North.

The members of the North-Eastern Railway Company's Servants' Ambulance Class, at Consett and Blackhill stations, have been examined by Dr. Jepson of Durham. The class, which has a good number of members, underwent their exercises in such a manner as to call forth the highest praise from the examiner. The conductor of the class was Dr. Macintyre of Consett. The Mayor of Tynemouth has presented certificates to seamen at North Shields. The class has not been long formed, but 108 sailors have been enrolled. A course of lectures has been given by Dr. F. C. Mears of North Shields to an average attendance of 71 pupils, and 27 of these have been examined and passed by Dr. Squance of Sunderland. The Mayor, in making the presentations, spoke of the advantages of ambulance knowledge to the seafaring classes. The Cullercoats Volunteer Life Brigade has just received a splendid addition to the library, which was formed in the brigade house a few years ago. Messrs. Cassell and Co. have gratuitously forwarded a complete set of their "National Library," which is an almost entire representation of our national literature, containing upwards of 300 volumes. The hearty thanks of the brigade has been forwarded to Messrs. Cassell and Co. for this valuable gift.

Darlington Hospital.

The third annual ball in aid of the funds of the Darlington Hospital has taken place after its postponement by reason of the death of the Duke of Clarence and Avondale. There was a considerable decrease in the attendance owing to the postponement, but it is not anticipated that the hospital funds will suffer any loss, owing to the fact that several special subscriptions have been handed in to prevent this.

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"German Sausages."

At the Gateshead Police-court a case of alleged ill-treatment of a pony was recently dealt with. The inspector stated that the animal in question was unable to travel, and he found it being taken from Gateshead to Newcastle. He further explained to the bench that a higher price was given for a live animal at a certain yard in Newcastle, where animals, after being killed, were cut up and packed in barrels and forwarded to Antwerp, where the flesh was made into German sausages.

The Fatal Lamp.

An inquest was held at Sunderland on Monday last upon the body of a woman aged sixty-eight, who died from the effects of burns received on Saturday night. It was shown that the lamp exploded, and that the deceased was in the habit of blowing it out, which, the coroner remarked, was a very dangerous habit. The verdict was in accordance with the evidence.

The late Mr. E. M. Bainbridge, J.P., of Newcastle, who in his lifetime was a munificent benefactor to our charities, bequeathed about £7000 to various medical and religious institutions, and directed all to be paid free of legacy duty, including the following: Newcastle Royal Infirmary, £1000; Newcastle Dispensary, £1000; Newcastle Blind Asylum, £1000; Fleming Memorial Sick Children's Hospital, Newcastle, £1000.

I hear that Mr. Frederick Page of this city has been offered the post of hon. consulting surgeon to the City Lunatic Asylum, in the place of the late Dr. Heath.

Newcastle-on-Tyne, April 27th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh University General Council.

THE statutory half-yearly meeting of this body was held last week. The Vice-Chancellor, Sir William Muir, presided. There was only a small attendance. A report on behalf of the Council's Committee on Communications to the University Commissioners was submitted by Mr. Taylor Innes, advocate. The general conclusions of the report were that the ordinances, as a whole, should be reconsidered, and for that reason should be opposed by a petition to Her Majesty, praying her to withhold her consent from the ordinances as issued, an exception being made in the case of the ordinance on the graduation of women. The committee asked for powers to cooperate with the representatives of other University councils and others who might have an interest in the matter. The ordinances, it appears, are now out of the hands of the Commissioners, and it is not competent for them to change what they had done; and the best means provided by the statute for their reconsideration was, in the opinion of the committee, by approaching the Privy Council through the House of Commons. The recommendations of the committee were carried, only two dissenting. From this it will be seen that the action of the General Council, and probably of the Association for the Reform of Medical Education also, is about to develop another stage in trying to influence Parliament.

Health of Edinburgh.

The mortality last week was 82, and the death-rate 16 per 1000. Diseases of the chest accounted for 28 deaths and zymotic diseases for 4. The intimations for the week were: Typhoid fever, 5; diphtheria, 4; scarlatina, 34; measles, 40.

Opening of the Summer Session in Edinburgh.

The summer session in the Medical Faculty will open on Tuesday, May 3rd. Most of the lecturers and professors in the school have been out of town during part of the current month, but the end of the week will see most of them back.

Public Health in Glasgow.

In Glasgow there were in the past fortnight 684 deaths registered, an advance of 45 as compared with the fortnight preceding, and giving a death-rate of 26·6 instead of 24·8 per 1000. Two of the deaths were from typhus fever, of which ten cases were reported. In connexion with this outbreak, Dr. Russell remarks that it well illustrates both the direct punishment brought on those who overcrowd and the indirect injury done to others who may be living in unexceptionable circumstances. In the southern district, which is notorious for overcrowding, four cases occurred, in two one-apartment houses, both overcrowded; the victim in one case is a person who has been previously fined for this offence. In quite a different locality, in a house of three apartments, a solitary case occurred in the person of a young man who, it was discovered, had visited a house which consists of two overcrowded apartments, 11½ adults occupying the cubic space of 5½ adults, according to the Glasgow standard. Of these adults, ten are under treatment for typhus fever.

Queen Margaret College.

In a report presented at a recent meeting of those interested in this College it was stated that 203 students had matriculated during the past session. In the medical school there were 27—namely, 12 in the first year, 11 in the second, and 4 in the third. In the medical school a scholarship of £25, founded by Mr. Arthur of Barshaw, and to be held for three years, will be awarded in October next. Reference was also made to the bazaar, by which it is hoped to raise the College funds to £25,000. It was further stated that the affiliation of the College to Glasgow University would probably become an accomplished fact in the course of the summer.

April 26th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Consulting Physicians to Irish Asylums.

THE controversy still rages, and the latest contribution to the subject is a statement issued by Mr. Conolly Norman, medical superintendent of the Richmond Lunatic Asylum, who is the Irish secretary of the Medico-Psychological Association of Great Britain and Ireland, setting forth why a repeal of the Privy Council Order providing for the future abolition of the office of consulting physician would be very undesirable in the interests of the insane, and of the proper management of asylums in this country. Mr. Norman expresses the hope that those who are responsible for the recent reform in the Privy Council rules will pause before they yield to the clamour which has been raised for their repeal, and considers that to retain the office of visiting physician will be to go against the current of modern opinion on this subject, and to disregard the views so plainly expressed by the many committees of visitors of English and Scotch asylums, who have during the last forty years given their gratuitous services to the insane with such brilliant results.

Royal College of Surgeons.

The candidature of Mr. Nixon for a seat on the Council, referred to last week, is for a by-election and not for the general election of office-bearers in June next. The vacancy has arisen owing to the resignation of Mr. Stoker, and will be filled up on May 2nd.

Dublin Hospital Flower Mission.

The South Dublin Hospital Flower Mission distributed last season upwards of 23,000 miniature bouquets to the sick and suffering in hospital wards in the city. Last week the Earl of Annesley forwarded over 12,000 daffodils from the Park at Castlewellan to the North Dublin Flower Mission, for distribution among the hospitals on the north side. The amount of pleasure given to the sick and weary by these silent messengers of sympathy is incalculable.

Zymotic Diseases in Dublin.

During last week the deaths from zymotic diseases amounted to 55, being 34 in excess of the average for the corresponding week of the last ten years, and 19 over for the week ended the 16th inst. Measles still prevails, and on last Saturday there were 174 cases of the disease under treatment in the various city hospitals.

April 26th.

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PARIS.

(FROM OUR OWN CORRESPONDENT.)

A Case of Hermaphroditism.

THE case recently reported by M. Boekel of Strasburg to the Académie de Médecine being, so far as I know, unique, I have deemed it worthy of record in your columns. The subject of this vagary of Dame Nature is a man aged twenty years, who since his birth had suffered from inguinal hernia. He readily agreed to the proposal of a radical cure, the operation for which yields some surprises. The hernial sac was found empty, but in its posterior wall there was found, covered by peritoneum, a triangular body, which was supposed to be an intestinal diverticulum. Further examination, however, showed that the inguinal canal was empty, and that the organ in question had no connexion whatever with the digestive tube. Compression of the abdomen above the ring resulted in the extrusion through the external inguinal ring of an ovoid pearly body resembling the testicle. Lying parallel and above this body, and united to it, was a fringed cystic organ, which could not be anything else but the Fallopian tube. All these strange structures were carefully isolated by a process of dissection and extirpated. Cicatrisation was complete at the end of ten days. Examination of the extirpated mass revealed (1) a bicornate uterus, the mucous membrane of which was lined by ciliated epithelium; (2) a Fallopian tube and a testicle provided with an epididymis and a vas deferens; (3) a broad ligament enclosing these organs. This is the only known example of female sexual organs being contained in the scrotum of a man whose physical conformation would certainly not have given rise to a suspicion of any such mixture of the sexes.

New Treatment of Dupuytren's Contraction of the Fingers.

The introduction of antiseptic principles into the field of surgery has had the effect of rendering operators more adept in their measures, and consequently nothing which falls short of thoroughness will satisfy the modern surgeon, even when the disease he has to remedy is nothing more than an infirmity. When, years ago, Adams devised his method of multiple subcutaneous divisions of the retracted palmar fascia for the cure of that comparatively common condition, contraction of the fingers, surgery was supposed to have done its utmost in this direction. But time showed that relapses were not uncommon after this operation; and now M. Berger tells us (Académie de Médecine, April 19th) that nothing short of complete extirpation of the retracted fasciculi of the palmar fascia, together with the overlying and adherent skin, can bring about a permanent cure of this condition. The loss of substance thus caused is repaired by the Taliacotian operation—viz., the insertion into the wound of a skin flap derived from the trunk and left adherent by its pedicle until its complete adherence to its new bed is assured (autoplasty by the modified Italian method). M. Berger presented a patient who had been operated on by the above method. The inserted flap was supple, movable on the surrounding parts, sensitive and healthy, and no tendency to recurrence of the contraction was present.

On the Use and Abuse of Mercury in Eye Diseases.

Professor Panas states (Acad. de Méd., 26th inst.) that he cannot agree with M. Landolt in his view that mercurial medication is useful only in ocular diseases of syphilitic origin. M. Panas has frequently seen cases of non-syphilitic plastic iritis and choroiditis, as also myopic sclero-choroiditis, greatly benefited from the administration of a salt of mercury. But all depends on the mode of introducing the metal into the system. M. Panas prefers the hypodermic method, and he employs for this purpose a solution of mercuric iodide in sterilised olive oil. Each injection (a Pravaz syringeful) contains from four to five milligrammes of the salt, and it is repeated every day or every other day, according to the susceptibility of the subject. If the solution be introduced into the muscular mass of the loins or the buttocks, no fear of abscess or induration need be entertained. The introduction of a total quantity of ten or fifteen centigrammes, spread over an interval of one or two months, has often sufficed to cure the above maladies without provoking any gastric or other inconveniences.

Rumoured Appearance of Cholera in Paris.

Alarming rumours of the appearance of the dread disease cholera in our midst have recently been published in lay journals, and, however unfounded such reports may be, it is only right that they should not be allowed to pass unnoticed in your columns. The abrupt atmospheric changes to which we have been treated of late are doubtless responsible for the somewhat numerous cases of diarrhœa which every Paris practitioner has recently been called upon to treat. When these cases begin to flow into the hospitals it is easy to understand how the cry of "cholera" arises. In this morning's medical papers not one word is said of such cases, nor is the word "cholera" mentioned. In the last *Bulletin Hebdomadaire de Statistique Municipale* only one death from diarrhœa in persons above the age of five years is reported. In order to bring my information up to date, I have just paid a visit to the Beaujon Hospital, which is said to have been the scene of the recent cholera epidemic. I am informed that five adults out of a batch of six recently admitted with symptoms much resembling cholera have succumbed at that institution. One, the remaining case, is still under treatment, transfusion of serum having been practised. The staff hope to save this patient. All these persons hail from Nanterre, a village distant from Paris about five or six miles, and situated in the valley of the Seine. No similar cases have been admitted into any other Paris hospital. Too much stress cannot be laid on the fact that not one of the victims of a disease which is certainly not cholera was an inhabitant of this capital. Bacteriological and other researches are proceeding with regard to this strange occurrence, and the results will be duly published in the columns of the medical press. It only remains to state that the general health of Paris is satisfactory.

Application of the Sclerogenic Method to the Treatment of Ununited Fracture.

M. Ménard reported to the French Surgical Congress the cure of a case of ununited complicated fracture of the leg which had resisted the usual methods of complete immobilisation for five months. M. Ménard injected into the insufficient callus 1 gramme 25 centigrammes of a 10 per cent. solution of zinc chloride. From that moment consolidation made rapid progress, and in a month the patient began to walk. Here we have another success scored for the method devised by Professor Lannelongue.

Paris, April 27th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Eleventh Congress for Internal Medicine.

THE eleventh Congress for Internal Medicine met at Leipsic on the 20th inst., Professor Curschmann in the chair. The assembly was very numerous, and included Professors Leyden, Ehrlich, Senator, Fürbringer, Fräntzel, A. Fränkel, and Guttmann of Berlin, von Ziemssen of Munich, Nothnagel of Vienna, Mosler and Landois of Greifswald, Lichtheim of Tübingen, Bäumler and Thomas of Freiburg, Ebstein of Göttingen, Immermann of Bâle, Rosenbach and Neisser of Breslau, Edgreen of Stockholm, Unverricht, Stadelmann, and Dehis of Dorpat, and Martius of Rostock. Almost all the medical professors of Leipsic were present. After the chairman's opening address and speeches of welcome, from the Minister of Education, the Burgomaster of Leipsic, and the Rector of the University, Professor Birch-Hirschfeld spoke on "Severe Forms of Anæmia." The discussion filled up the afternoon, and there was a great banquet in the evening. In the forenoon sitting on the 21st the subjects were diabetes mellitus, the diet of diabetic patients, and immunity. On the same day Dr. Binswanger of Constance spoke on hypnotism and suggestion, and Professor Klebs of Zurich on the treatment of tuberculosis with tuberculocidin—i.e., tuberculin as purified by him. He has treated 130 tuberculous patients, and reported excellent results.

Statistics of Suicide.

The number of suicides between the ages of ten and fifteen in Prussia in 1890 was 2·2 per 100,000 of the population, between fifteen and twenty 13·3, between twenty and twenty-five (in which the period of military service generally lies) 22 5, between twenty-five and thirty 21 7, between

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thirty and forty 24·7, between forty and fifty 37 5, between fifty and sixty 45·8, between sixty and seventy 50 2, between seventy and eighty 58 9, above eighty 68·3.

A Homœopathic Hospital.

The Berlin Society of Homœopathic Doctors, in conjunction with several other homœopathic societies here, recently petitioned the magistrates of Berlin to establish a special homœopathic hospital, or at least to set apart a ward in one of the city hospitals for patients who wish to be treated homœopathically. The magistrates have resolved to reject this request, on the ground that it is not expedient to establish a special hospital for the adherents of a special therapeutic system deviating from that of modern medical science.

A New Balneological Association.

Several physicians at watering-places and heads of bathing establishments have founded a General German Balneological Association at Leipsic.

Statistics.

In the week which ended on the 9th inst., 1 person died here of erysipelas, 1 of puerperal fever, 1 of articular rheumatism, 1 of syphilis, 3 of scarlatina, 5 of typhus fever, 7 of influenza, 8 of measles, 9 of whooping-cough, 9 of diarrhœa, 9 of diarrhœa with vomiting, 11 of cerebral apoplexy, 17 of diphtheria, 19 of gastro-intestinal catarrh, 27 of senile decrepitude, 70 of pneumonia, and 102 of pulmonary phthisis. There were 2 deaths by poison, 1 of which was suicidal; 22 persons died by violence, 15 of whom committed suicide. In the same week the death-rate of Dresden was 19·6, of Berlin 19·8, of Hamburg 21·3, of Breslau 23·7, of Frankfort 25·2, and of Munich 33. Of the German cities Stettin had the lowest death-rate (16·3) and Chemnitz the highest (34·1).

News Items.

Professor Thiersch of Leipsic celebrated his seventieth birthday, and Professor Leyden of Berlin his sixtieth, on the 20th inst.

Professor Seitz of Munich died on Easter Monday, aged eighty. He was a medical writer of high repute, and one of the founders of the *Munich Medical Weekly*. A considerable number of his writings treat of epidemic diseases.

Professor Unverricht of Dorpat has been appointed head of the new hospital in Magdeburg.

Professor Delffs of Heidelberg celebrated his eightieth birthday on the 21st instant.

Professor Frommann of Jena died on the 22nd inst.

Berlin, April 26th.

Obituary.

CHARLES HAWKINS, F.R.C.S.ENG.

MR. CHARLES HAWKINS was born on May 29th, 1812, and died on April 4th last, having nearly completed his eightieth year. His father was a doctor of medicine, "of an old Monmouthshire family," says the *Tablet*, "and he was educated at Oscott, together with two brothers older than himself, one of whom died some years ago, and the other only recently, in the January of this year." The other brother, the late Mr. Robert Hawkins, a well-known barrister and an active governor of St. George's Hospital, was a Protestant. The family was in no way connected with that of the late Mr. Cæsar Hawkins. Mr. Charles Hawkins entered St. George's Hospital on Jan. 28th, 1829, as a perpetual pupil of Mr. Brodie, and was appointed house surgeon in 1836. His father had by this time settled in London, in Upper Brook-street. After twelve months spent in this post Mr. Hawkins entered into practice as a consulting surgeon, having become a Member of the College of Surgeons in 1837. His abilities and his high character had early attracted the notice and won the friendship of Brodie, and he began to assist that great surgeon in his practice. Brodie was then at the height of his fame, and had almost more patients than he could attend to. Mr. Hawkins used to say that for eight years Sir Benjamin Brodie never quitted London, except to fulfil some professional engagement. With such an introduction Mr. Hawkins saw and profited by the best surgical practice of the day, and he only required a hospital appointment to become one of the most accomplished surgeons of his time. As it was, he was an excellent practitioner, and was peculiarly well versed in those branches of surgery in which Brodie was pre-eminent. This was afterwards proved by his admirable article on Lithotrity in the "System of Surgery," edited by Mr. Holmes in 1864, and republished with the necessary additions in the second edition of that work in 1870. Any reader of this concise and judicious little treatise will recognise in it the hand of a master, and there are many contributions from Mr. Hawkins in the Pathological Transactions and other periodical publications on the same subject which show how profound and practical Mr. Hawkins' knowledge of this branch of surgery was. Amongst these we may mention a most interesting case of recto-vesical fistula in the male, in which a calculus formed round fæcal accumulation in the bladder, successfully treated by lithotrity, which was related in the forty-first and forty-second volumes of the Medical and Chirurgical Transactions.

Mr. Hawkins' chief title, however, to remembrance in the literature of surgery is as editor of Sir B. Brodie's works and of the autobiography of that great surgeon and philosopher. To this autobiography Mr. Hawkins prefixed a short notice of his life-long friend and master, which ends with these touching words: "When the Wellington despatches appeared a distinguished foreigner remarked, 'What a noble monument Colonel Gurwood has raised to the Duke—one more enduring than marble or brass.' The task of arranging such a monument to the best of friends and most indulgent of instructors has been to me a labour of love."

Mr. Hawkins remained Sir B. Brodie's nearest and most intimate friend during the whole of his long life, watched over him in his last illness, and attended him to the grave. This edition of Brodie's works is one of the classics of the profession, and will keep Mr. Hawkins' memory alive to the remotest time. Otherwise Mr. Hawkins did not contribute much to the literature of the profession, but to its institutions he gave a most active and untiring coöperation. He was an admirable man of business, clear-sighted in his aims, resolute in his purpose, and indefatigable in his pursuit of the essential object in view. He was a vigorous and respected Fellow of the Royal Medical and Chirurgical Society, of which at the time of his death he was about the oldest resident member, and which he had served in almost all its chief offices—secretary, treasurer, councillor, and vice-president. He took the liveliest interest in this great society, and advocated warmly the scheme for affiliating the minor societies to it. He served also for some years on the Council of the College of Surgeons, and favoured the reforms in the constitution of that body which have been always advocated by THE LANCET.

But it was to the hospital which he had chosen as his school that Mr. Charles Hawkins felt the most ardent attachment and rendered the most constant and the most efficient service. His own career there was indeed in one sense unsuccessful, for when he presented himself in the year 1843 to the governors as a candidate for the office of assistant-surgeon he was unsuccessful, although he had the powerful support of Sir Benjamin Brodie. The causes of that defeat were personal entirely. No one could doubt Mr. Hawkins' capacity as a surgeon; but his opponent, Mr. Henry C. Johnson, was overwhelmingly popular with the members of the school; and Mr. Hawkins' religious belief possibly alienated some of those who would otherwise have followed Brodie's lead. The election was marked by almost the excitement of a Parliamentary struggle, but its event was decisive. Mr. C. Hawkins never again sought the position, and on the next vacancy, in 1848, allowed his friend, Mr. Prescott Hewett, to be elected without opposition. Grave, however, as this disappointment must have been, it did not alienate Mr. Hawkins' affections from St. George's Hospital; on the contrary, he gave to its internal concerns and to its management a degree of attention and an amount of time which would have been impossible had he been performing the arduous duties of one of the surgical staff. He took the leading part in the government of this great hospital, and for many years exercised an almost unquestioned sway over it. The admirable country branch of St. George's Hospital which by the bequest of Mr. Morley was founded at Wimbledon was organised mainly by him, and he always supported the medical staff in resisting the conversion of this branch hospital into a

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mere convalescent asylum. Mr. C Hawkins was for several years the acting treasurer of St. George's Hospital, and on his resignation of that office was elected vice-president. He knew the importance to the hospital of a good and flourishing medical school, and did all in his power to promote the success of that which had been rendered so illustrious by Brodie's connexion with it. The infirmities of age rendered his attendance at the hospital of late infrequent, but he was always received there when he came with affectionate respect.

Mr. Hawkins' services were highly valued by the numerous members of his own faith in London, and when in 1860 Cardinal Wiseman was seriously ill at Rome, Mr. Hawkins was sent for to attend him there, and received from Pope Pius IX. a gold medal in recognition of his services to the cardinal. It was not till a few years ago that Mr. Hawkins gave up his house in Savile-row and practically retired from active life, though he retained his appointment as inspector of anatomy, and was often to be met with at the Athenæum Club, where he loved to talk over old times with old friends. Few men indeed could talk better or were more interesting companions, and his health was good enough to enable him to enjoy society down to the end of last year, when he was attacked by bronchitis, which was aggravated by his imprudently, though conscientiously, persisting in the attempt to carry on the duties of his office. Confinement to the house and the watchful care of his medical friends had restored him to comfort and he began to take the air again. He had been chatting quietly with one of his St. George's Hospital friends on the last day of his life. Another coming in half an hour later found him sitting dead in his chair. He was never married, nor were his brothers, with the exception of the eldest, Mr. Henry M. Hawkins, who did not follow any profession. Mr. Hawkins was a man of vigorous character, strong in the assertion of his opinion, and ardent in his attempts to bring about what he thought right. Hence he encountered a good deal of opposition and controversy, and he was a formidable opponent; but he never bore any grudge against an honest adversary, and allowed the same freedom which he claimed for himself. His power of oratory was considerable—he spoke with clearness, force, and feeling,—and his talents for business were still greater. He had a cultivated and accurate taste, and would have filled with dignity and power an even higher position than he obtained. This, however, though below his merits, was sufficient to secure him the universal respect of the profession and the affection of a wide circle of intimate and attached friends.

ROYAL COLLEGE OF PHYSICIANS.

AT an ordinary meeting of the Comitia held on April 28th, Sir Andrew Clark, President, in the chair, the licence of the College was granted to one hundred and thirty-three candidates who had successfully passed the required examinations.

A communication was received from Mr. Garner, the Bedell, resigning his appointment at the end of twenty years' service, and on attaining the age of seventy. This resignation was accepted, and the question of pension was referred to the Finance Committee.

A formal communication was received from the Secretary of the Royal College of Surgeons. A short memorandum was received from the War Office, bearing upon the regulations for admission to the Army Medical Staff appointments.

The Solicitors to the College indicated that there was little probability of the case of the Royal College of Physicians *v.* the General Medical Council being reached before Whitsuntide, as it came late on the list. The College then proceeded to the election of Fellows.

A report from the Committee of Management relating to the various exemptions which are necessitated under the five years' curriculum was, after some discussion, referred back to the committee. A report from the By-laws Committee relating to the enactment, alteration, and repeal of sundry by-laws and regulations was proposed to be adopted for the first time.

The report of the examiners for the Murchison Scholarship announced that no candidate had been found worthy of the scholarship.

A report from the Council announced the nomination of Dr. Benjamin Arthur Whitelegge as Milroy Lecturer for 1893.

The quarterly report of the Finance Committee and the quarterly report of the examiners for the College Licence were received and adopted. The list of books presented during the last quarter was received, and, with a vote of thanks to the donors, the College adjourned.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—At an ordinary meeting of the comitia held on April 28th, the following gentlemen were elected Fellows of the College:—

Donald William Charles Hood, M.D. Camb.; John Ebenezer Ranking, M.D. Oxon.; Harrington Sainsbury, M.D. Lond.; Thomas Colcott Fox, M.B. Lond.; William Arthur Foxwell, M.D. Camb, John Phillips, M.D. Camb.; Wm. Dobinson Halliburton, M.D. Lond.; Lauriston Elgie Shaw, M.D. Lond.; William Collier, M.D. Camb.; Hector Wm. Gavin Mackenzie, M.D. Camb.; Frederick Walker Mott, M.D. Lond.; James Reid, M.D. Aberd.

The following gentlemen were admitted as Members:—

John William Campbell, M.B Camb.; George Frederick Crooke, M.D. Edin.; Charles John Macalister, M.B Edin.; John Inglis Parsons, M.D. Durh.; William Japp Sinclair, M.D. Aberd.; Walter William Hunt Tate, M.B. Lond.

UNIVERSITY OF DURHAM: FACULTY OF MEDICINE. The following candidate obtained the Licence in Sanitary Science (L.S.Sc.) at the recent examination held at the College of Medicine, Newcastle-on-Tyne:—

Hall, Cornelius Scamp, M.R.C.S., L.S.A.

ROYAL UNIVERSITY OF IRELAND.—The following candidates (all of whom may present themselves for the further examination for Honours) have passed the Third Examination in Medicine of the University:—

Upper Pass Division.—Alfred G. Coldwell, Emily W. Dickson, W. Hanna, Patrick Joyce, William J. Maguire, and J. J. Wallace.

Pass.—Robert Allen, Charles Birmingham, James M. Browne, Joseph Clements, Thomas J. Connolly, Joseph A. Corbitt, Jas. De Blaquiere, Joseph Furey, Patrick Gerety, Michael Halfpenny, Purcell N. Lalor, Joseph P. Maguire, John Mathewson, Herbert C. Mooney, John Morrow, Alexander Park, John Reid, John Rusk, Michael J. Ryan, T. H. Scott, William Scott, John Shine, Maurice Sisk, and J. Young.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following candidates have passed the Second Professional Examination:—

C. A. Black, C. J. S. Cahill, H. G. F. Dawson, Marie Goodwin, J. W. Griffin, Christian Kapp, A. J. Kearney, E. Kennedy, H. E. W. Kinsella, W. P. Lappin, J. M. Longford, R. J. Maguire, J. P. Martin, H. McAvory, P. J. McHale, H. F. Nolan, P. Van Homrigh, and R. G. S. Whitla.

FOOTBALL CASUALTIES.—Last week, during a Rugby match at Warrington between Warrington and Leeds Parish Church clubs, a Warrington three-quarter back sustained a fracture of the clavicle. At Norbiton Park, on Good Friday, a similar accident happened in a club match to a player for the Gordon Club (Malden). On the 18th inst., during a match at New Mills, Derbyshire, a player broke his arm. On the 22nd inst. a youth playing in a game on the Woolwich-road, East Greenwich, fractured his leg.

LONDON POST-GRADUATE COURSE.—This course has now reached its eighth term, which will commence on May 2nd and end on June 25th. There are eleven distinct courses—on diseases of the chest, of the nervous system, of the skin, of children, of the eye, of the mind, of the throat, of women, and on sanitary science, bacteriology, and pathology. The lectures extend over eight weeks, and those who wish to enter for a shorter period can do so. All information can be obtained from the secretary, Dr. Fletcher Little, of 60, Welbeck-street, W.

PRESENTATIONS.—Dr. John Somerville, on his resigning the post of resident medical officer to the Union Infirmary, Firvale, Sheffield, which he has held for the past two years, has been presented by the nurses, the master, and matron, and other officers of the workhouse, with a handsome cake basket and reading lamp.—Dr. A. McNeill D'Evelyn of Ballymena has been presented by the members of the ambulance class, on the close of a course of lectures to the class under the St. John Ambulance Association, with a carriage clock.

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MEASLES.—It is reported that the elementary schools in Loughborough, Lincolnshire, are to be closed for a month in consequence of an outbreak of measles.

MELBOURNE, VICTORIA.—John Fulton, M.D., C.M. Glasg., of Melbourne, has been appointed a justice of the peace.

THE discussion on Dr. Dickinson's paper on Renal Dropsy, which was read at the meeting of the Royal Medical and Chirurgical Society on Tuesday evening last, was adjourned to the next meeting on May 10th.

SMALL-POX.—A serious epidemic of small-pox prevails at the Pembroke Dock, Cardiff. Twenty-four cases are at present reported, and one death is said to have occurred. Certain streets in the town have been declared by the military authorities as "out of bounds," and a Wesleyan mission room and a Sunday school are closed. The authorities have not been able to prevent publicity being given to so formidable a disease. The first case was reported to the Local Government Board in a letter dated March 15th. The matter is exciting considerable local interest.

THE MANCHESTER CREMATORIUM.—The Duke of Westminster has shown his interest in this undertaking by contributing another £100 towards the building. A great effort is now being made to open the same freed from debt. The scheme includes a lodge, the ornamental laying out of the grounds, and an organ, and the total cost is expected to reach £7750, towards which a sum of about £5000 has already been subscribed. Further subscriptions will be received by Mr. J. Harvey Simpson, of 15, Princess-street, Manchester, the secretary to the company.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.—Sir James Paget, president, took the chair at the quarterly court of directors of the Society, held on April 13th. Five deaths of members were reported, and only one new member was elected. Sixty-one widows and seventeen orphans applied for assistance, and it was resolved to distribute among them at the next court the sum of £1381. The deaths of three widows in receipt of grants were announced, and one orphan had, through age, ceased to be eligible for further assistance. The expenses of the quarter amounted to £58. It was resolved to recommend for election, at the annual general meeting, as vice-presidents Sir William Savory, Mr. Christopher Heath, and Mr. Aikin, to fill the vacancies caused by the deaths of Sir Prescott Hewett, Sir William Bowerman, and Mr. Lord; and as directors, Dr. Hare, Dr. John Williams, Mr. Warrington Haward, Mr. Alfred Cooper, Dr. Travers, and Mr. Lynch, in place of the six seniors who retire. It was agreed to hold the annual general meeting on Friday, May 20th, at 5 P.M.

BEQUESTS AND DONATIONS TO HOSPITALS.—The Clothworkers' Livery Company has made a donation of sixty guineas to the Royal Hospital for Diseases of the Chest, City-road.—The Goldsmiths' Livery Company has voted £250 to the London Fever Hospital, Liverpool-road.—The late Mr. Thomas Butlin of Camden-square, London, bequeathed £100 to the Great Northern Central Hospital, Caledonian-road.—The workmen of Sir W. G. Armstrong, Mitchell, and Co., at Elswick, Newcastle, contributed to the local medical charities £214 5*s.* 8*d* for the quarter ending the 31st ult., of which £149 8*s.* was apportioned to the Royal Infirmary.—By the death of Mrs. Sharp of Row, Dumbartonshire, the Victoria Infirmary at Glasgow succeeds to the whole estate of her first husband, Mr. Couper of Cathcart, Glasgow, estimated at from £30,000 to £40,000.—Mr. Richard Holtby of Filbert Grove, Nafferton, has given a donation of £100 to the Driffield Cottage Hospital.—Mrs. Bell of Newbridge has given £1000 towards the endowment of a trust at the Wolverhampton Eye Infirmary, in remembrance of her deceased brothers, Mr. Thomas Wilkinson Shaw and Mr. Edward D. Shaw of Wolverhampton.—The late Mr. Samuel Meriden of Compton-road, Wolverhampton, bequeathed £500 each to the Wolverhampton and Staffordshire General Hospital and the Wolverhampton Eye Infirmary. His will also stipulated that if the estate realised the amount, each institution was to receive an additional £1000.—The late Mr. John Bingham of Carolgate, Retford, bequeathed £400 to the Retford Dispensary and Cottage Hospital.

DEATH OF A CENTENARIAN.—The death of Mary Tesdale of Nunsbush, near Newborough, Northumberland, aged 102, was reported on the 26th inst., at the Hexham Board of Guardians. She was a native of Kirkhaugh, Cumberland, and leaves a number of descendants.

THE ROYAL COMMISSION ON VACCINATION.—We understand that the Royal Commission on Vaccination have issued an interim report, and that it has been delivered to Mr. Ritchie, the President of the Local Government Board. The report is stated to contain only the views of the Commissioners on the subject of cumulative fines for non-compliance with the vaccination laws.

LAMBETH AND THE PUBLIC HEALTH (LONDON) ACT.—Last week this vestry resumed the discussion of the report of the Sewers and Sanitary Committee. The committee, in accordance with a suggestion from the medical officer of health, submitted several proposals having in view a more adequate and efficient sanitary administration of the parish. There was a prolonged discussion, the ultimate result being that the subject was referred back again to the committee, with instructions to prepare, in concert with the board of guardians, a scheme excluding a house-to-house inspection.

FOOT-AND-MOUTH DISEASE IN LONDON.—The Board of Agriculture have notified their inspectors that, as no outbreaks of foot-and-mouth disease have been reported in London during the past three weeks, it is proposed for the present to discontinue the daily inspections until further notice. These inspections were ordered when the disease first became known, and, after being discontinued from March 6th until March 10th, were resumed in consequence of further outbreaks. It is now confidently hoped that the complaint has been effectually stamped out, and that some of the restrictions placed upon the movement of cattle may be removed at an early date.

MEDICAL NOTES IN PARLIAMENT.

A London Teaching University.

IN the House of Commons on the 25th inst., Sir A. Rollit asked the First Lord of the Treasury whether he was able to state the terms of the reference to a Royal Commission of the question of University education in London, and the names of the Commissioners. Mr. Bartley had a similar question on the paper. Mr. Balfour: 1. The terms of the reference (as received at the Home Office from the Privy Council Office) are:—"We, taking the premisses into consideration, do authorise the said Commissioners to consider and, if they think fit, alter and amend and extend the proposed charter remitted in compliance" with an address of the House of Commons, "so as to form and report to us a scheme for the establishment under charter of an efficient Teaching University for London." 2. The names of the Royal Commissioners are as follows:—Earl Cowper, K.G. (chairman), Lord Reay, G.C.S.I., G.C.I.E., Bishop Barry, the Right Hon. Sir Lyon Playfair, K.C.B., LL.D., Sir William Scovell Savory, Sir George Murray Humphry, M.D., LL.D., Mr. George G. Ramsay, LL.D., Rev. Canon Browne, B.D., Mr. Henry Sidgwick, Litt.D., Mr. John Scott Burdon Sanderson, M.A., Mr. James Anstie, Q.C., Mr. Ralph Charlton Palmer, and Mr. Gerald Henry Rendall, M.A.—Dr. Farquharson asked why the representation of the medical profession was restricted so exclusively to the surgical side. Would the right hon. gentleman take into consideration the desirableness of appointing someone to represent the general practitioners of the United Kingdom.—Mr. Balfour: I will inquire of my noble friend, who is responsible for the submission of this list to her Majesty. But I think the hon. gentleman will find that the subject of increasing the number of Commissioners is a difficult one. I believe Sir G. Humphry is not merely a surgeon, but is also a doctor of medicine.—On Thursday, in reply to Dr. Farquharson, the First Lord of the Treasury said the Government were not disposed to add to the number of the Commissioners. It would not therefore be possible to add a representative of the general medical practitioners.

Plumbers' Registration Bill.

The House went into Committee on this Bill, but progress was immediately reported.

New Bill.

Leave was given to bring in the following Bill, which was read a first time:—The Lord Advocate,—Bill to amend the Housing of the Working Classes Act, 1890, as to Scotland.

Naval Medical Officers.

Dr. Tanner has given notice that he will inquire of the First Lord of the Admiralty whether any and if so what steps have been taken to carry out the promise given by the First Lord of the Treasury that medical officers in the navy will be granted permission to attend, while on full pay, the medical schools in Great Britain, after having been certain periods afloat.

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Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ARKLE, CHARLES, M.D., M.R.C.P., has been appointed Pathologist and Curator of Museum at Charing-cross Hospital.

ATTERBURY, WALTER, M.D. Irel., M.R.C.S., has been appointed Government Medical Officer and Vaccinator for the District of Hillgrove, New South Wales.

BAILEY, T. R., M.D., C.M. Edin., has been reappointed Medical Officer of Health for Bilston.

BARRATT, J. O. W., B.Sc., M.B. Lond., F.R.C.S., has been appointed Visiting Physician to the Birmingham Workhouse Infirmary.

BARTLETT, RALPH C., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Teignmouth, Dawlish, and Newton Infirmary.

BRANNIGAN, H. C., M.D., M.Ch. Irel., L.R.C.P., L.R.C.S. Edin., has been appointed a Surgeon to the Queensland (Land) Defence Force.

BROWN, JOHN G., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of the Bowen Hospital, Queensland, vice De Vis, deceased.

CARTER, A. H., M.D. Lond., F.R.C.P., M.R.C.S., has been appointed Visiting Physician to the Birmingham Workhouse Infirmary.

CHADWICK, C. M., M.D. Oxon., M.R.C.P. Lond., M.R.C.S., has been appointed Senior Honorary Assistant Physician to the Leeds General Infirmary.

CROWTHER, THOS., M.D., M.R.C.S., has been appointed Medical Officer of Health for the Warley Urban Sanitary District of the Halifax Union.

CUMINE, J. M., L.R.C.P., L.R.C.S. Irel., has been appointed Medical Officer of Health for the Tunstall Urban Sanitary District of the Wolstanton and Burslem Union.

EDDIE, ROBT., M.B., C.M. Aberd., has been appointed Government Medical Officer and Vaccinator for the District of Bombala, New South Wales.

EDWARDS, ARNOLD J., M.B., B.Ch. (Vict.), has been appointed House Surgeon to the Manchester Southern Hospital and the Manchester Maternity Hospital.

GANGEE, L. P., L.R.C.P. Lond., M.R.C.S., has been appointed Obstetric and Ophthalmic House Surgeon to the Queen's Hospital, Birmingham.

GIBB, WM., L.R.C.P., L.R.C.S. Edin., has been appointed a Public Vaccinator in South Australia.

GRAY, A. C. E., M.B., C.M. Edin., has been appointed House Surgeon to the Royal Maternity and Simpson Memorial Hospital, Edinburgh, vice Fraser.

GRIFFITH, THOS. W., M.D. Aberd., C.M., has been appointed Honorary Assistant Physician to the Leeds General Infirmary.

HAWKINS, W. R. T., M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the Barton Regis Union.

HAYMAN, F. DELL, M.R.C.S., has been appointed Public Vaccinator at Birregura, Victoria, South Australia.

KER, C. B., M.B., C.M. Edin., has been appointed House Surgeon to the Royal Maternity and Simpson Memorial Hospital, Edinburgh, vice Wield.

LERMITTE, C. G., M.R.C.S., has been appointed a Surgeon-Lieutenant in the Medical Department, South Australian Military Forces.

LUTHER, E. L., M.B., B.Ch. Dub., has been appointed a Surgeon to the Queensland (Land) Defence Force.

LOWE, G. M., M.D., C.M., L.R.C.P., L.R.C.S. Edin., has been appointed Honorary Surgeon to the Lincoln General Dispensary.

MACALLAN, THOS., M.B., C.M. Aber., has been appointed Public Vaccinator for the District of Danevirke, New Zealand.

MCILWRAITH, CHARLES H., M.A., M.B., C.M. Glasg., has been appointed House Surgeon to the Paddington-green Children's Hospital.

MATHEWS, T. G., M.B., C.M. Edin., has been appointed House Surgeon to the Cumberland Infirmary.

MOUNSEY, G. H., M.B., C.M. Edin., has been appointed Medical Officer of the Lincoln General Dispensary.

NICKSON, W. J. R., M.B., C.M. Dub., has been appointed Honorary Medical Officer to the Newcastle Hospital, New South Wales.

ORR, HERBERT H., M.B., C.M. Dub., has been appointed Government Medical Officer and Vaccinator for the District of Lower Clarence River, New South Wales, vice Todd, resigned.

PATTON, A. S., M.D., B.Ch. Dub., has been appointed Government Medical Officer at Georgetown, Queensland.

PICKELS, J. A., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Jessop Hospital for Women, Sheffield, vice T. Robinson, resigned.

PRITCHETT, S. J., L.R.C.P. Lond., M.R.C.S., has been appointed House Physician to the Queen's Hospital, Birmingham.

ROBERTS, FRANCIS H., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Urban Sanitary District of Llandrindod Wells, Radnorshire.

SAMUELSON, G. S., M.B., C.M. Edin., has been appointed Medical Officer of the Gundagai Hospital, New South Wales.

SHAW, HENRY, M.A., M.B. Camb., has been appointed Assistant House Surgeon to the Derbyshire Royal Infirmary, Derby, vice L. Winter Dryland, resigned.

SHORT, T. S., M.B. Lond., M.R.C.S., has been appointed Visiting Physician to the Birmingham Workhouse Infirmary.

STEAD, G., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Queen's Hospital, Birmingham.

UNDERHILL, C. E., M.B., F.R.C.P., F.R.C.S. Edin., has been appointed Physician to the Royal Maternity and Simpson Memorial Hospital, Edinburgh, vice Hart.

WHITE, HOWELL, M.B., C.M. Edin., M.R.C.S., D.P.H. Camb., has been appointed Medical Officer of Health for the Central Sanitary District of the Corwen Union.

WHITE, SINCLAIR, M.D., M.Ch. Irel., D.P.H. Camb., has been appointed Honorary Surgeon to the Sheffield Public Hospital and Dispensary.

WHYTE, ANDREW, M.D., C.M. Aberd., has been appointed Medical Officer of Health for the Brecknock Urban Sanitary District of the Brecknock Union.

WILLIAMS, J. T. C., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Rural Sanitary District of the Narberth Union.

SDEN, ALFRED M.B., C.M. Aberd., has been appointed Junior Assistant Medical Officer to the Retreat, York.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOOTLE BOROUGH HOSPITAL, Bootle, near Liverpool.—Assistant House Surgeon and Dispenser. Salary £40 per annum, with board, lodging, and washing.

BRECON INFIRMARY, 6, Bulwark, Brecon, South Wales.—Resident House Surgeon (unmarried). Salary £70 per annum, with furnished apartments, board, attendance, fire, and gas.

CHELSEA, BELGRAVE, AND BROMPTON DISPENSARY, 41, Sloane-square, S.W.—Physician.

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY.—Junior House Surgeon. Honorarium £25 per annum, with board, lodging, and washing.

GENERAL HOSPITAL, Nottingham.—Assistant House Physician for six months. Board, lodging, and washing in the hospital provided.

HOLLOWAY AND NORTH ISLINGTON DISPENSARY.—Resident Medical Officer. Salary commencing at £120 per annum, with unfurnished house, gas, and coals. £20 allowed for servant. (Address Honorary Secretary, 68, Aldermanbury, E.C.)

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, W.C.—Medical Registrar and Pathologist for one year. Honorarium of 50 guineas at the expiration of that term.

HOSPITAL FOR WOMEN (LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistant.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST AND THROAT.—Resident Medical Officer, at Bowden, Cheshire. Salary £60 per annum, with board, apartments, and washing.

METROPOLITAN HOSPITAL, Kingsland-road, N.E.—Vacancy for a Medical Man on the Provident Department Staff. Honorarium at the rate of £100 per annum.

NORTHAMPTON FRIENDLY SOCIETIES' MEDICAL INSTITUTE.—Assistant Medical Officer (out-door). Salary £200 per annum, with part Midwifery fees. (Apply to the Secretary, 22, Cromwell-street, Northampton.)

ROTHERHAM HOSPITAL.—Assistant House Surgeon for six months. Rooms, commons (exclusive of alcoholic drinks), and washing will be provided in the hospital. No salary.

ROYAL SURREY COUNTY HOSPITAL.—Clinical Assistant for six months. Board, lodging, and washing provided.

ST. JOHN'S HOSPITAL FOR DISEASES OF THE SKIN, Leicester-square, W.C.—Honorary Assistant Medical Officer for Casualty work to the Convalescent Branch, "Bellgarth," Temple Fortune, Finchley-road, N.W.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Senior House Surgeon. Salary £70 per annum, with board and apartments.

WEST HAM HOSPITAL.—Junior House Surgeon. Salary £50 per annum, with board, lodging, and washing.

WEST NORFOLK AND LYNN HOSPITAL, King's Lynn.—House Surgeon and Secretary. Salary £80 per annum, rising to £100. Board, lodging, and washing in the hospital.

Births, Marriages, and Deaths.

BIRTHS.

BARKER.—On April 18th, at Staincliff, Sandown, I. of W., the wife of H. M. Barker, M.B., M.R.C.S., of a daughter.

BENNETT.—On April 23rd, at Tredegar-road, Bow, the wife of Dr. Frederick Bennett, of a son.

BENNETT.—On April 25th, at London-road, Leicester, the wife of F. W. Bennett, M.D., of a daughter.

FERGUSON.—On April 21st, at Rutland-street, Edinburgh, the wife of James Haig Ferguson, M.D., F.R.C.P.E., of a daughter.

HEWER.—On April 21st, at Leiston, Suffolk, the wife of A. A. Hewer, M.B., of a son.

HICKLEY.—On April 22nd, at Meltham, near Huddersfield, the wife of A. Mackenzie Hickley, L.R.C.P. Lond., M.R.C.S. Eng., of a son.

MILLER.—On April 11th, the wife of Dr. H. Miller, Harpenden, of a daughter.

MOODIE.—On April 22nd, at Park-avenue House, Stirling, the wife of Robert Moodie, M.D., B.Sc., of a son.

READ.—On April 24th, at 42, Foregate-street, Worcester, the wife of Mabyn Read, M.D., D.P.H., of a son.

THOMSON.—On April 21st, at the Norfolk County Asylum, Thorpe, Norwich, the wife of Dr. David G. Thomson, of a daughter.

VENN.—On April 23rd, at 122, Harley-street, W., the wife of Albert J. Venn, M.D., of a daughter.

MARRIAGES.

BARRITT—JONES.—On April 20th, at St. George's, Hanover-square, Gilbert Lacy Barritt, M.R.C.S., L.R.C.P. Lond., of Welland-terrace, Spalding, Lincolnshire, to Clara Lilian, eldest daughter of Sydney Jones, M.B., F.R.C.S., of George-street, Hanover-square.

DAVIDSON—MONEY.—On April 23rd, at Pirbright, Surrey, by the Rev. H Dunn, William Marshall Davidson, of Berkeley-square, W., to May, daughter of the late Rev. Kyrle Ernle Aubrey Money, of Much Marcle, Herefordshire.

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DIXEY—ATKINS.—On April 20th, at St. John the Baptist's, Kensington, Frederick A. Dixey, M.A., M.D., Fellow of Wadham College, Oxford, to Isabel, eldest daughter of the late Charles Atkins, Esq., of Lewisham.

ELLISON—BRADSHAW.—On April 20th, at St. Saviour's, Paddington, Ernest Henry Ellison, M.A., M.R.C.S., L.R.C.P., L.S.A., of Castleton, Derbyshire, to Maude Bradshaw, eldest daughter of the late J. Spooner Bradshaw, Esq., of Trinidad.

GRAY—TWYFORD.—On April 27th, at St Helens Parish Church, by the Rev. J. W. Willink, M.A., Vicar, Andrew Gray, M.D., St. Helens, son of James Gray, J.P., Dalkeith, N.B., to Alice Penrose, only daughter of Edward Penrose Twyford, M.D., J.P., St. Helens.

KENYON—WHAPLATE.—On April 21st, at Scotter, Lincolnshire, George Arthur Kenyon, M.B. Lond., of Chester, to Louisa Whaplate, of Scotter.

LICHFIELD—WELBY.—On Dec. 24th, 1891, at Umtali, Manica, South Central Africa, James William Lichfield, L.R.C.P. Lond., &c., Surgeon British South African Company's Service, to Bertha (Sister Beryll), fourth daughter of William Welby, Esq., of Canterbury.

LOGIE—ROOKE.—On April 20th, at St. Stephen's Church, Lansdown, Bath, Alexander Graham Speirs Logie, M.B., of Raglan, to Constance Mary Willoughby, only daughter of the late Willoughby Sandilands Rooke, of Bigsweir, Lieut.-Colonel Scots Guards.

MASON—TARVER.—On April 26th, at Sidmouth, by the Rev. H. G. J. Clements, Vicar, Arthur Henry Mason, M.R.C.S., L.R.C.P. Lond., of Oakwood, Walton-on-Thames, to Edith Selden Tarver, elder daughter of the late Edward J. Tarver, F.R.I.B., F.S.A.

RONALD—M'KELLAR.—On March 16th, at the Scots Church, Collins-street, Melbourne, Arthur E. Ronald, M.B., M.R.C.S., second son of Robert Bruce Ronald, of Pembury Grange, Kent, to Grange, youngest daughter of Thomas M'Kellar, of Strathkellar, Hamilton, Victoria, and Lerags, Argyllshire, N.B.

SIMPSON—COOPER.—On April 20th, at Christ Church, Cheltenham, by the Rev. C. Venn Childe, assisted by the Rev. C. T. Alexander, James Tracy Simpson, M.R.C.S., L.R.C.P., of "The Boltons," Farnborough, Hants, eldest son of James Simpson, of Leeds, to Emily Kate, eldest daughter of John Capps Cooper, of Ombersley, Cheltenham.

SMITH—PROCTOR.—On April 21st, at the Presbyterian Church, Regent-square, W.C., Dr. James C. Smith, of Belfast, to Mrs. D. Proctor, widow of the late Richard A. Proctor.

SUMPTER—CHARLTON.—On April 22nd, at St. Matthew's Church, Newcastle-on-Tyne, Walter John Ernely Sumpter, L.R.C.P. Lond., M.R.C.S., of Sherringham, Norfolk, eldest son of Walter Sumpter, M.D., of Cley-next-Sea, Norfolk, to Annie D'Anson, eldest daughter of the late G. Charlton, Esq., of Berwick-on-Tweed.

TODD—GREAVES.—On March 23rd, at St. George's Cathedral, Capetown, P. Everard Todd, M.B., son of the late Hon. Melchior Garner Todd, to Edith, daughter of Harry Siddon Greaves, F.R.I.B.A., of Capetown.

DEATHS.

KEATINGE.—On April 18th, at Cairo, Egypt, Janie Denslow, the beloved wife of Henry Pottinger Keatinge, M.B., M.R.C.S.

HARDYMAN.—On April 27th, Constance Christian, the beloved wife of George Hardyman, M.B., of 43, Great Pulteney-street, Bath, aged 24 years.

LILBURNE.—On April 23rd, at Duncrievie House, Glenfarg, Perthshire, James Lilburne, M.D., F.R.C.S., Deputy Inspector-General of Hospitals and Fleets.

MCKENDRICK.—On April 23rd, at Prince Albert, South Africa, aged 23, William James McKendrick, M.B., C.M., eldest son of Professor McKendrick, Glasgow.

THOMSON.—On April 16th, at his residence, Church-street, Brechin, John W. Thomson, M.D., C.M. Aberd., aged 44.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on April 26th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	221*	71	1	23	..	316	442
North-Western Hospital	215	34	..	7	1	257	411
Western "	107*	22	..	2	5	136	224
South-Western "	204	34	..	10	2	250	350
South-Eastern "	257*	10	..	17	2	286	424
Northern "	373	36	..	6	...	415	480
Totals	1377	207	1	65	10	1660	2331

* Infant with mother.

SMALL-POX.—*Atlas* hospital ship, 48.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, April 28th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Apr. 22	30·27	W.	56	53	102	70	51	—	Overcast
" 23	30·44	N.W.	52	49	110	68	47	—	Hazy
" 24	30·41	W.	54	47	109	65	43	..	Cloudy
" 25	29·91	N.W.	45	44	95	58	44	·05	Raining
" 26	29·89	N.W.	46	43	99	57	41	·09	Cloudy
" 27	29·84	W.	44	42	96	58	39	..	Hazy
" 28	29·57	N.W.	43	41	72	45	40	·26	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

We cannot undertake to return MSS. not used.

SUPERSTITION AND DISEASE.

EVEN among the intelligent and comparatively well educated Highlanders the superstitions which have been handed down from remote ages have many ardent believers. Superstition regarding the treatment of disease always dies hard. This receives striking corroboration in the ancient belief regarding king's evil. In connexion with this tradition the seventh son's seventh son was also credited with miraculous powers, and the following extract from a letter, written apparently by a person of some intelligence, which appeared in the *Glasgow Herald*, illustrates the tenacity of popular error. The writer says:—

"With us, in Scotland, it is well known and universally believed in, but with a difference. The last of seven sons born—no daughter intervening—is considered a natural doctor, and should not be brought up to any other profession, but has never, to my knowledge at least, been credited with the possession of extraordinary healing power; they were clever and successful doctors, but nothing beyond. It is the seventh son of a seventh son who is gifted with the marvellous power of healing by touch. Touching for evil by kings is a mere superstition, but that a healing power is actually possessed by 'Septimus Septimi' is an assured fact, and there is no secrecy or reservation whatever observed here with regard to its application. I had a servant once—Mary Keogh—whose father, being a seventh son's son, possessed this gift. Numbers of people came to him, and amongst many other things she told me of a woman who brought her child—a terribly diseased little boy—entreating her father to cure him, and Mr. Keogh consented. He made a slight cut on the inside of his own leg, just deep enough to draw blood; this blood he applied to the sores, whether once or oftener I cannot say, and the child recovered. 'And you may see him, mem, any day you please, as fine a young man as walks the streets of Dublin!' It is well known, and generally believed in the west of Ireland, that the blood of three Irish families—the Welches, *Keoghs*, and Cahills—is the 'finest thing in life' for the cure of any cutaneous disease—rose (i.e., erysipelas), wildfire, shingles, &c.; and I imagine that it may have been to him, as a *Keogh* the woman came, and with no reference to his birthright, of which it is not only possible, but probable, she may never have heard. Either way, the child *was* cured. I visited this person several times, intending to question him, but found him so ill that I did not like to do so, and he died on Jan. 17th, 1888. He had ten daughters, but only one son, and has left no inheritor of his marvellous gift."

Mr. Alfred E. Ward.—The particulars asked for are given in our present issue, p. 998.

M.D., B.S.—Registration alone gives validity to certificates.

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ADVERTISEMENT THROUGH HOSPITALS.

THE following is from the *Birmingham Daily Mail* of April 16th. The personal element in the advertisement is very marked, Mr. March's name and title occupying a well-leaded space. We should like to see a prompt and complete disclaimer from him of any responsibility in the matter:—

"*Notices to Patients.*—Mr. March, F.R.C.S. Eng., having been appointed Assistant-Surgeon to this Hospital, will see patients at 11.30 on Wednesdays and Saturdays, commencing Saturday, 23rd current.—By order of the Committee, Geo. A. Panton, Hon. Sec. Birmingham and Midland Ear and Throat Hospital, 109, Edmund-street, 8th April, 1892."

Mr. Samuel Davey.—The appointment of coroner rests, we believe, with the County Council, which controls the Newington district; but full information will, no doubt, be given in the leading daily papers. Our correspondent should lose no time in sending in his application with testimonials.

Major Fraser should consult his usual medical attendant.

EPISTAXIS.

To the Editors of THE LANCET.

SIRS,—*Apropos* of the subject of epistaxis, towards the successful treatment of which your correspondent, Dr. Philip, has made so valuable a contribution, may I ask the following question, in the hope of an answer from one of your many readers?

What is the *rationale* of instructing a patient suffering from epistaxis (as all authorities seem to do) to assume the recumbent position and to raise the arms above the head? The object aimed at, I take it, is to divert or decrease the flow of blood which passes to the nose; but to raise the arms above the head is surely to render the passage of blood by the subclavians more difficult, and therefore to leave the current free to choose the by so much easier passage by the carotids, and to lower the head is to assist the flow of blood thereto, and therefore distinctly to encourage just what we wish to avoid. If it be answered that by raising the arms above the head we discourage, by rendering more difficult, the passage of blood through the subclavians and the carotids together (though I think that the effect upon them must be, as I have argued above, antagonistic rather than coöperative), then surely we ought not, unless it be an impending syncope that we are afraid of, to minimise the effects of this salutary coöperation by assisting the blood to flow more easily, certainly through the carotids, but not so certainly through the subclavians, as we do by enforcing the recumbent position. Though one or other of these methods of treatment may be right, it appears to me that they cannot both be. Can anyone reconcile or justify them? I am, Sirs, yours faithfully,

Tulse-hill, S.W., April, 1892. A. B. STEVENS, M.B.

"SPRAY PRODUCERS WITH CHECK ACTION."

To the Editors of THE LANCET.

SIRS,—In connexion with the correspondence which has appeared in your columns on the above subject I should like to observe that I introduced a spray producer which was figured and described in THE LANCET of June 13th, 1885, the check action of which was secured by having a small aperture about half way along the outer portion of the air-pipe. With the left hand holding the bottle, the aperture was so placed that the left thumb could easily cover it; and as soon as it was found necessary to close the spraying the thumb was removed, allowing all the superabundant air to escape through the opening, instead of passing through the jet. It was originally designed for the purpose of using with cocaine solutions, to prevent waste when the alkaloid was expensive; but the apparatus can be employed for any purpose where a spray is indicated. I am, Sirs, yours truly,

Welbeck-street, W., April, 1892. H. PERCY DUNN.

To the Editors of THE LANCET.

SIRS,—We have only just read Mr. W. R. H. Stewart's letter in THE LANCET of the 16th inst. We beg to state that we had not seen and were not aware that a similar instrument had been made before, or we certainly should not have asked you to notice it.

We are, Sirs, yours respectfully,

Moorgate-street, April 27th, 1892. F. WALTERS & Co.

A DISCLAIMER.

To the Editors of THE LANCET.

SIRS,—My attention having been drawn to a personal notice published by a local paper, and reproduced by THE LANCET under the heading "Puffing of Medical Men by the Lay Press," I wish to state hereby most emphatically that I have had nothing whatever to do with it.

I am, Sirs, your obedient servant,

Abbey-road, N.W., April 24th, 1892. A. GASTER, M.D., M.R.C.P.

"MEDICAL PRACTICE IN SOUTH CALIFORNIA."

To the Editors of THE LANCET.

SIRS,—If "Quercus Ilex" will communicate with me I can give him the information he requires, having passed last summer in Southern California.—I am, Sirs, your obedient servant,

G. C. BRIGHT, M.D.Oxon., F.R.C.P.Lond.

Chalet Magali, Cannes, France, April 26th, 1892.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Stanley S. Argyle, London; Mr. Auld, Glasgow; Dr. Austin, West Norwood; Sir James Crichton Browne; Dr. Blandford; Mr. Blackett; Mr. W. H. Brown, Leeds; Mr. Branthwaite, Rickmansworth; Dr. J. S. Bury, Manchester; Mr. Bowes, Blythe; Capt. Blount, Chelsea; Messrs. Brady and Martin, Newcastle-on-Tyne; Dr. R. H. Barkwell; Dr. P. Murray Braidwood, London; Dr. G. C. Bright, Cannes; Dr. R. P. Banerjie, Rajputana, India; Dr. H. Benjafield, Hobart Town, Tasmania; Mr. A. H. Butcher, Birkenhead; Dr. H. Collins, Paignton; Mr. Harrison Cripps; Dr. Churton, Leeds; Messrs. Churchill, London; Messrs. Cason and Son, Dublin; Mr. Clark, Wolverhampton; Messrs. Cassell and Co.; Mr. J. Court; Mr. Cameron, Strathpeffer; Messrs. Carter and Barber, London; Mr. Carver, London; Dr. C. L. Drew; Dr. Sidney R. Dyer, London; Mr. S. Davey, London; Dr. P. Dunn, London; Mr. Davies, Newport, Mon.; Mr. Davidson, Hastings; Dr. Morgan Dockrell, London; Mr. T. A. Wynne Edwards; Mr. Francis, Norwich; Dr. A. Gaster, London; Dr. Griffith, Manchester; Mr. Gill, Formby-by-the-Sea; Mr. Hornibrook, London; Dr. H. Handford, Nottingham; Mr. Humphreys, London; Messrs. Hockin, Wilson, and Co.; Dr. T. W. Hime, Bradford; Mr. Hyde, Buxton; Mr. Reginald Harrison; Mr. Chas. Higgens, London; Mr. J. Jackson, Upper Norwood; Mr. A. Jessop, Hull; Mr. Knight, Northampton; Mr. Kelly, Nottingham; Mr. Keay, Eastbourne; Messrs. Ledger, Smith, and Co., London; Dr. R. Lee; Mr. H. Lowrieson, London; Dr. Fletcher Little; Dr. Lauder, Manchester; Mr. Lewis, London; Mr. Hugh Lane, Bath; Dr. W. H. Murray, Galashiels; Messrs. Maythorn and Son; Mr. M. Moullin; Mr. McIlwraith, Worcester; Messrs. Macfarlan and Co., London; Dr. Matthews, Shanghai; Mr. E. Merck, Darmstadt; Dr. Otiski Neville, Boston, Mass.; Mr. Norbury, London; Messrs. Oliver and Boyd, Edinburgh; Mr. Pollard, Wakefield; Mr. J. R. Philpots, Dorset; Dr. Reginald Pratt, Leicester; Mr. Bilton Pollard, London; Dr. H. T. Rutherford, London; Messrs. Riddle and Co., London; Dr. G. W. Roberts, Denbigh; Mr. E. Rouse, Southgate; Mr. Rendall, Somerset; Mr. Reid, Rotherham; Mr. Gwinnett Sharp, Walsall; Dr. C. Scilla, Italy; Dr. A. B. Stevens, Tulse Hill; Dr. W. Squire; Dr. Shand, Edinburgh; Messrs. G. Street and Co., London; Dr. Silk, London; Mr. Sharp, London; Mr. Noble Smith, London; Mr. Spencer, Devonport; Messrs. Shelley and Co, London; Mr. W. Tallack, London; Mr. Lawson Tait, Birmingham; Dr. Thomson, Norwich; Dr. J. Hilton Thompson, Bolton; Dr. J. C. Voigt, Southport; Dr. Wood, Pontypool; Dr. J. Walker Downie, Glasgow; Mr. A. E. Ward, Cork; Messrs. Woodland and Cooper, London; Mr. T. Woods, Dorset; Messrs. Wood and Co., New York; Mr. Watt, London; Mr. C. F. Warren; Messrs. White and Son, London; Mr. Williams, Montgomery; Messrs. Whitworth and Stewart, Manchester; Mr. Wallace, Colchester; Kentigern; London Pen Co., London; M. E. M.; M.D. Lond., London; Sanitary Wood Wool Co., London; The Director-General of the Army; A London Teacher; Hall, Malvern; Pimm, London; Maltine Manufacturing Co., London; Anglo-Swiss Condensed Milk Co.; Humphreys, Ltd.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Paine, Worthing; Dr. Fox, Finsbury; Dr. White, Sheffield; Messrs. Smith and Son, London; Mr. Williams, Caersws; Messrs. MacBryan, West Derby; Mr. Bensley, York; Dr. Crook, Margate; Dr. Bourke, Earl's Court; Mr. Read, Worcester; Mr. Marshall, London; Messrs. Keith and Co., Edinburgh; Mr Stephens, Cornwall; Mr. Trimble, West Bromwich; Mr. Philip, Belfast; Mr. Casey, Luton; Messrs. Godfrey and Cooke, London; Miss Maclaren, Brighton; Messrs. Barrell and Co., Liverpool; Mr. Waterhouse, Rotherham; Messrs. Stent and Son, Guildford; Mr. Ewart, Wolverhampton; Mr. Marston, Wood Green; Mr. Mason, Andover; Mr. Hickley, Meltham; Mr. Crumble, York; M. Lorette, Paris; Mr. Lewis, Kent; Mr. Simpson, Cheltenham; Mr. Norman, Devon; Mr. Savory, Newark; Mr. Eyre, Eastwood; Miss Frank, Salop; Mr. Watt, Workington; Mr. Thin, Edinburgh; Mr. Adkins, Paignton; Mr. Waldron, Leicester; Mr. Cross, Darlington; Mr. Pead, Norwood; Mr. McLeod, Lydd; Messrs. Ealand and Co., Bath; Mr. Williams, Richmond, Yorks; Dr. Willey, South Nutfield; Mr. Ruck, Maidstone; Mr. Pryce; Mr. Pagenstecher, West Ham; Mr. Bourne, Stourport; Mr. Gilyard, Bradford; Mr. Parker, Sittingbourne; Mr. Dromgoole, St. Helens; Mr. Heywood, Manchester; E. F., London; W. L., London; Secretary, Great Yarmouth Hospital; Cash, London; Mac, London; C. H., London; R. H., Guy's Hospital; Dens, London; Medicus, Cardiff; Galen, London; Onyx, London; Dux, London; Graduate, London; Felix, London; Justus, London; Cosmo, London; A. W., London; Medicus, Yorks; J. M. S., London; Medicus, London; L. H. H., London; B. R. K. I.; W. W., London; Liverpool, London; Bradbury, Bewdley; S. M. J., London; Dr. S. H., London; Londoner, London; Alpha, Manchester; Janion, London; X. Y. Z., London; N. T., London; M.A., London; Friendly, London; Lloyd, London; Presto, London; Locum, London; Scott, Birmingham; Surgeon, Aberbeeg; J. L. A., Birmingham; A. W. A., Putney; Fidelis, London; Iota, London; Emptor, London; Medicus, Peterborough; Quidnunc, London.

NEWSPAPERS.—*Birmingham Post, Scottish Leader, Bradford Observer, Western Mail, Enquire Within, East Anglian Daily Times, Newcastle Journal, Sheffield Independent, Sussex Daily News, Bristol Mercury, City Press, Surrey Advertiser, Reading Mercury, Natal Mercury, Times of India, Lurgan Mail, Whitehall Review, Canterbury Journal, Grantham Times, Brighton Gazette, Pioneer Mail, Thanet Guardian, Derbyshire Free Press, Glossop Times, Annandale Observer, Evening Express (Liverpool), Falkirk Herald, Johannesburg Star, Peterborough Express, Halifax Guardian, Dunstable Borough Gazette, United Service Gazette, Eastern Morning News (Hull)*, &c., have been received.

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Medical Diary for the ensuing Week.

Monday, May 2.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. R. Marcus Gunn: External Examination of the Eye.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Heart, Valvular Lesions.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. A. Wynter Blyth: House Drainage.
ROYAL INSTITUTION.—5 P.M. Annual Meeting.
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq., W.C.).—8 P.M. Mr. S. A. Coxon: Cystic Sarcoma of Superior Maxilla—Sir Wm. Mac Cormac will kindly speak (patient in attendance).—Mr. Stanley Boyd: Suggestion of a plan for preventing Lateral Displacement of the Chin after Removal of a portion of the Lower Jaw (with case).—Mr. Stanley Boyd: A case of Removal of one Condyle of the Lower Jaw for Closure of the Jaws (patient shown).—Mr. E. W. Roughton: An Ivory Exostosis removed from the Lower Jaw.
SOCIETY OF ARTS.—8 P.M. Mr. Percy F. Frankland: Recent Bacteriological and Chemical Research in connexion with the Fermentation Industries.
MEDICAL SOCIETY OF LONDON.—Annual Conversazione. Oration at 8.30 P.M. by Sir Jas. Crichton Browne, F.R.S., on "Sex in Education."

Tuesday, May 3.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Jonathan Hutchinson: The more rare forms of Lupus.—Bethlem Hospital: 2 P.M., Dr. Percy Smith: Hysteria, Delirious Mania.
ROYAL INSTITUTION.—3 P.M. Professor Bonney: The Sculpturing of Britain—its Later Stages. (The Tyndall Lectures.)
PATHOLOGICAL SOCIETY OF LONDON.—Mr. C. B. Lockwood: Polypus of Small Intestine associated with Intussusception.—Mr. E. W. Willett: Fibroma of Dura Mater depressing the Rolandic region of the Brain without Symptoms.—Dr. E. T. Wynne: Hæmatoma Auris.—Dr. Arnold Chaplin: Two Hearts with Stenosis of Mitral and Tricuspid Orifices.—Dr. W. Edmunds: Aneurysm of Internal Carotid Artery. Dr. H. P. Hawkins: General Arteritis in a Child, with narrowing of the Abdominal Aorta.—Mr. E. H. Fenwick: Primary Malignant Growth of Corpora Cavernosa.—Mr. S. G. Shattock: Paradidymal Cyst.—Mr. W. W. H. Tate: Malformation of Heart. Card Specimens:—Dr. E. T. Wynne: Sarcoma of Gall-bladder and Genital Organs.—Dr. H. D. Rolleston: Guinea-worm in Subcutaneous Tissue of Calf twenty-eight years.—Mr. Alban Doran: Adeno-sarcoma of Breast weighing 8 lb.—Mr. W. F. Haslam: Sebaceous Horn.—Mr. S. G. Shattock: Columnar-celled Carcinoma of Male Breast.

Wednesday, May 4.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. C. Theodore Williams: The Diagnosis of Pulmonary Tuberculosis.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Quarry Silcock: Glaucoma.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Mr. Alban Doran, Dr. Cullingworth, Dr. John Phillips, and others. Dr. Lewers: Six Cases of Craniotomy with Remarks on the Relative Position of Craniotomy and Cæsarean Section.—Dr. W. S. A. Griffith: A case of Galactorrhœa during a first Pregnancy.
SOCIETY OF ARTS.—8 P.M. Mr. James N. Shoolbred: The Bradford Corporation Electricity Supply.

Thursday, May 5.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Mr. Edmund Owen: Selected Surgical Cases from the Wards.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Charlton Bastian: Aphasia and other Speech Defects.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Mr. W. R. H. Stewart: The Examination of Ear Cases.
ROYAL INSTITUTION.—3 P.M. Professor Dewar: The Chemistry of Gases.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Dr. G. S. Woodhead: Cancer and Cancerous Diseases. (Morton Lecture.)
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Patients and Card Specimens at 8 P.M. Mr. Kingdon: Fatal Disease of Infancy, with Symmetrical Changes at the Macula Lutea.—Mr. Higgens: Spontaneous Cure of Cataract.—Mr. Spicer: Vasculitis in Inherited Syphilis.—Mr. Sydney Stephenson: Scarring of the Conjunctiva from Ophthalmia Neonatorum.—Mr. Story: Detachment of the Choroidea.—Mr. Wherry: Orbital Neuroma (card).—Mr. Doyne: (1) Fragment of Steel embedded in Iris for twelve years; (2) Plugging of Arteria Centralis Retinæ; (3) Epithelioma (?) of Cornea (cards).

Friday, May 6.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. C. Theodore Williams: Pulmonary Cavities.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: The Microscope (Types of Bacteria).—Charing-cross Medical School: 8 P.M., Dr. Herman: Amenorrhœa.
WEST KENT MEDICO-CHIRURGICAL SOCIETY (Greenwich).—Adjourned Discussion on Influenza.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital).—8 P.M. Specimens:—Dr. A. Clemow: Calcification of Spleen.—Mr. W. P. Mallam: Obstructed Gall-duct. Paper:—Dr. Handfield Jones: A Clinical Study of the Causation and Treatment of Cervical Dysmenorrhœa.
ROYAL INSTITUTION.—9 P.M. Captain Abney: The Sensitiveness of the Eye to Light and Colour.

Saturday, May 7.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Mania.
ROYAL INSTITUTION.—3 P.M. Mr. E. Dannreuther: J. S. Bach's Chamber Music (with many Musical Illustrations).

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An Oration
ON
SEX IN EDUCATION.

Delivered at the Medical Society of London on May 2nd, 1892,

BY SIR JAMES CRICHTON-BROWNE, M.D., LL.D., F.R.S.,
LORD CHANCELLOR'S VISITOR.

MR. PRESIDENT AND GENTLEMEN,—When that eccentric father of a family of geniuses, the late Rev. Mr. Brontë, desiring that his children should speak freely and without timidity, put them behind a mask and questioned them on various subjects, he was told by his son Branwell, then seven years old, in answer to one of his interrogations, that the best way of knowing the difference between the intellects of men and women is by considering the differences between them as to their bodies. That deliverance of the precocious boy seemed to his father at the time a wise saying, worthy of being recorded, and I daresay it seems the same to us as medical men to-day; but it is incontestable that there are now large numbers of cultivated persons to whom it must sound as foolishness, and a mere infantile echo of a barbarous prejudice. Their reply to Mr. Brontë's question would be that it is impossible to distinguish between the intellects of men and women, as there is no difference between them. Bodily differences cannot be overlooked; they are still obtrusive and are admitted. Certain emotional differences are perhaps conceded; but, as regards intellect, we are told that in its pure atmosphere all gross sexual characteristics disappear. The intellect of woman, it is maintained, except in so far as it has been enfeebled by long ages of subjection, is as good as that of man, if not better. And even where this extreme view is not theoretically held, it is often practically acted on, for those who admit that there are certain differences between the male and female intellect still not rarely advocate the coequal and coördinate employment of men and women in all intellectual exercises and pursuits. There is a growing tendency around us to ignore intellectual distinctions between the sexes, to assimilate the education of girls to that of boys, to throw men and women into industrial competition in every walk of life, and to make them compeers in social intercourse and political privileges. And as to my thinking this tendency is unphysiological, and likely, if indulged, to lead to some unfortunate results, I seize the opportunity which, by your kindness, I enjoy this evening to vindicate the wisdom of Master Branwell Brontë, to insist that there are differences between the intellects of men and women, and that these are best understood by a study of the differences in their bodies, and to suggest that forgetfulness of these differences is already doing injury in one department of education—I mean the high-school education of girls.

Now, to catalogue in the briefest way the bodily differences between men and women which underlie their intellectual disparities would be exhaust the time at my disposal. They are universal and intimate, and involve every organ and tissue. They extend from cuticular appendages to the marrow of the bones, from the crown of the head—for, according to Broca, the female cranium is less elevated than that of the male—to the sole of the foot; for, according to Delaunay, woman has a plantar arch flatter than that of men, which perhaps accounts for her partiality for high-heeled boots. I shall not attempt such an extensive anatomical survey. My present purpose will be served by directing your attention to certain sexual differences in one bodily organ—the brain,—differences which have been greatly lost sight of, which much require further investigation, but which are of peculiar significance in connexion with intellectual manifestations.

And first amongst cerebral differences between the sexes I would refer to mass and weight, qualities with which one almost insensibly associates power and strength. Now, it is a matter of common observation that women have smaller heads than men, and it is a matter of scientific observation that in all peoples and races, without exception, the absolute weight of the entire brain is on the average greater in men than in women, though of course individual women do sometimes possess larger and heavier brains than individual men. But it is also a matter of scientific observation that there is a correlation between brain weight and stature, and, laying hold of this fact, the advocates of women's rights and mights have argued that the deficiency in her brain weight when compared with that of man is no more than is to be accounted for by her fewer inches. But this position is quite untenable. I do not know a trustworthy standard of the brain weights of healthy natives of this country to which to appeal, but I can submit to you a table showing the results of the weighing of the brains of a large number of insane persons, all English, Scotch, or Irish, but mostly English, which, in this relation, is absolutely reliable. In this table are summed up the brain weights

TABLE I.—*Brain Weight.*

Sexes.	Average weight of brain.		Average height.			Excess of male over female brain wght.		Excess of male brain weight after allowance for height.	
	Grms.	Ounces.	Metres.	Feet.	Inches.	Grms.	Ounces.	Grms.	Ounces.
945 Males ..	1350·54	47·64	1·702	5	7	127·68	4·50	29·71	1·05
655 Females	1222·86	43·14	1·575	5	2	—	—	—	—

of 1600 persons—945 males and 655 females—ranging from ten to eighty years of age, the weighing of the brain having been in each case conducted by myself or under my own supervision. You will observe that the brains of males exceeded those of females in weight by 127·68 grammes (or 4·50 ounces) on the average; and that, after allowing for differences of stature—taking 5 ft. 7 in. as the average male height, and 5 ft. 2 in. as the average female height,—there is still an excess of brain weight of 29·71 grammes (or 1·05 oz.) in favour of the male. This is a very substantial difference, and if we recollect that the brain of the ant, of the mental powers of which Sir John Lubbock has spoken in such complimentary terms, declaring that they differ from those of man not so much in kind as in degree, is of the size of a pin point, we shall realise that an extra ounce of brain matter within the human cranium may imply an enormous mental difference. But it is certain that the actual difference in brain weight between healthy English men and English women is much more than one ounce. My table, as I have told you, deals with lunatics dying in asylums, and amongst them organic diseases of the brain, involving loss of substance, are at least twice as frequent in men as they are in women. Women are oftener attacked by insanity, but men oftener die of it. General paralysis of the insane, atrophy and softening of the brain, senile dementia, and other diseases causing wasting of the convolutions, are far more fatal to men than to women, who, when they die in asylums, succumb most frequently to bodily diseases which do not seriously interfere with the nutrition of the brain. And so it comes about that of the brains weighed in the post-mortem theatre of an asylum, those of men are on the average much more water-logged and reduced below their normal bulk than those of women. The effect of organic diseases and the atrophic changes they induce in lowering, in my tables, what is the normal difference between the male and female brain may be statistically demonstrated from these tables themselves. It is from thirty to fifty years of age that the mortality from general paralysis, which destroys four men to one woman, and from other fatal forms of organic brain disease, preferentially attacking men, except, of course, senile dementia, almost exclusively occurs, and it is in this section of life that the sex difference in brain weight in my tables falls to the lowest point at the very time when, under normal circumstances, it ought to be greatest. The average excess of weight in the male as compared with the female brain from thirty to fifty years of age in my tables was 123·5 grammes, or 4·37 ounces, while from twenty to thirty years, when deaths from organic brain disease are rare, it was 169·9 grammes, or 6·01 ounces. All available evidence points to the conclusion that the

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male brain exceeds the female brain in weight in this country to an even greater degree than has been hitherto supposed. And that the smaller size of the female brain is a fundamental sexual distinction, and is not to be accounted for by the hypothesis that environment, educational advantages, and habits of life, acting through a long series of generations, have stimulated the growth of the cerebrum in one sex more than in the other, is made clear by the fact that the same differences in brain weight between men and women has been found in savage races. And not only is the male brain heavier than that of the female, but it has a wider range of variation in weight. The very big brains and the very small brains are encountered, just as are geniuses and idiots, giants and dwarfs, more frequently amongst men than amongst women.

I have said that an extra ounce of brain matter within the cranium might involve an enormous mental difference. It would do this were it generally and equally distributed, and it would do so in a still more striking manner were it localised in a certain region of the cerebrum; and there are grounds for believing that there is a difference in the balance of parts in the male and female brains respectively, and this difference I adduce as the second sexual distinction between them. Broca, no mean authority, has declared that the occipital lobes are more voluminous in the female than in the male, and my own observations, published in *Brain* in 1880, confirm, as far as they go, his conclusion, and show that while the frontal lobes are equally developed in both sexes, the parietal lobes corresponding roughly with the motor area of Ferrier are larger in the male than in the female, and the occipital lobes, certainly sensory in their functions, are larger in the female than the male.

The third brain difference between the sexes to which I would allude is one of convolutial arrangement which cannot yet be accurately defined, but which the examination of a series of photographs of brains of men and women, which have been stripped of their membranes, pretty clearly reveals. The brains of women, like their bodies generally, are, upon the whole, more symmetrical than those of men. The difference which I have found in the weight of the hemispheres points to this conclusion, for in males the right hemisphere exceeds the left in weight by 3·7 grammes, and in females by only 2·1 grammes; but pathological considerations as to the regional distribution of wasting in organic diseases forbid me to attach too much importance to this observation, and I prefer to trust to mere ocular inspection, which will, I think, bring home to anyone who diligently uses it the superior symmetry of the female brain, due to its comparative poverty in secondary gyri.

It is in the internal structure of the brain, in the depth and arrangement of its grey matter, in the size, form, and connexions of the cortical cells in different areas, that the most essential differences between the male and female brain in all probability reside; but the internal structure of the brain in this relation is as yet uninvestigated. I may mention to you, however, one fact which suggests some difference in the constitution of the grey matter of the brain in the two. During a very laborious inquiry into the specific gravity of the grey matter of every gyrus of the brain, which I carried out some years ago, I succeeded in obtaining three standard brains of perfectly healthy adults—two men and one woman—killed in accidents, and in these I found that while the specific gravity of the medullary substance of the brain was alike in all in each region—namely, 1044—that of the grey matter varied remarkably. To take the frontal convolutions as an example in the one male, the grey matter of these had a specific gravity of 1037, in the other of 1036, but in the female its specific gravity was only 1034. And not only in the frontal region, but in every convolution the specific gravity of the grey matter was lower in the female than in the male. I do not lay any great stress on the observation of a single case, but in several cases of death during acute insanity, which I examined, in which there had not been time for the establishment of degenerative changes, the specific gravity of the grey matter in every lobe of the brain was lower in the female than in the male, while the specific gravity of the white matter always closely corresponded in the two. In all degenerative diseases of the brain, and especially in senile decay, there is a reduction in the specific gravity of the grey matter, which sometimes falls as low as 1028, in the frontal region; and the fact—if it be a fact—that the grey matter in the female brain is of less density than that in the male brain must mean that it is a less highly nourished and developed tissue.

And there is still another brain difference between men and women which I must submit to you, and that a very momentous one—namely, vascular supply. During the last four years Dr. Sydney Martin and I have, as opportunity has offered, carried on an inquiry as to the size of the great arteries that supply the brain. The details of our observations, which have been conducted by Dr. Sydney Martin with scrupulous care, and by new methods insuring, I believe, great accuracy of measurement, will be communicated to the Royal Society when they are complete; but I may mention now one or two of the results at which we have arrived. We have found that the diameters of the internal carotid and vertebral arteries, taken together, are slightly greater in the male than in the female. Their combined diameter is 8·2 millimetres in the male and 8·0 millimetres in the female; but when the difference in weight of the male and female brain is taken into account, it is found that in proportion to brain weight their diameter is greater in the female than in the male, and so it appears that upon the whole the female brain receives a larger supply of blood in proportion to its mass than does the male brain; but of course it is to be remembered that the blood going to the female brain is poorer in quality than that going to the male brain, and contains only 4,500,000 corpuscles to the cubic millimetre, instead of 5,000,000 in the case of the male. But Dr. Sydney Martin and I have found further that the internal carotid and vertebral arteries, when measured separately, display a marked difference in calibre in male and female brains respectively. In ten male brains of adults free from brain disease, and ranging from twenty-five to thirty-six years of age, the internal carotid arteries had an average diameter of 2·8 millimetres on the right side and 2·75 millimetres on the left side, while the vertebral arteries had an average diameter of 2·2 millimetres on the right side and 1·875 millimetre on the left side; whereas in ten female brains of adults free from brain disease, and ranging from twenty-five to forty-three years of age, the internal carotid arteries had an average diameter of 2·6 millimetres on both sides, while the vertebral arteries had an average diameter of 2·3 millimetres on the right side and of 2·075 millimetres on the left side. It thus appears that the distribution of the blood in the male and female brain respectively varies to a considerable extent. The internal carotid arteries, with their great branches—the anterior and middle cerebral arteries supplying the supra-orbital convolutions and island of Reil, the gyrus fornicatus, the Rolandic area, the angular gyrus, and the first temporo-sphenoidal lobule—are much larger both absolutely and relatively in the male than in the female brain; but the vertebral arteries which supply the occipital and temporo-sphenoidal lobules are larger in the female than in the male brain, and the basilar artery, which is practically a continuation of the vertebrals, is also larger in the female brain, where its average diameter is 2·8 millimetres, than in the male brain, where its average diameter is 2·675 millimetres. It might be thought that the free anastomosis provided by the circle of Willis renders comparatively unimportant differences of calibre in the internal carotid and vertebral arteries, and must equalise the blood currents to the different regions of the cerebrum; but the fact is that the posterior communicating arteries, which, when dilated after the occurrence of any pathological obstruction on the cardiac side of the circle of Willis, maintain the circulation in the brain in tolerable integrity, are incapable while normal, by their calibre and position, of adjusting the balance between the direct currents of the carotid and vertebral arteries, and it is certain that the result of the difference in the diameter of these in the two sexes which I have recorded is this: that the anterior region of the brain is comparatively more copiously irrigated with blood in men and the posterior region in women. And vascular supply is in some degree a measure of functional activity, the flow of blood to an organ or part having always a relation to its working power. But the region of the brain which in men is most richly flushed with blood is that which is concerned, we have reason to believe, in volition, cognitions, and ideo-motor processes; while the region which in women is most vascular is that which is mainly concerned in sensory functions, and we thus see that there is a relation between the size of the cerebral arteries, and what observation has taught us as to the intellectual and emotional differences of the sexes.

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The structural differences between the male and female brain, which I have briefly referred to, justify the conclusion that they are organs broadly distinguished from each other, and that they have to some extent different kinds of work to do, and an inquiry into the functional relations of each with other viscera of the body, did time permit of it, would strongly confirm this view. All through life the male brain differs from the female in capacities, aptitudes, and powers. Differences early assert themselves. Thackeray has said that little girls make love in the nursery and practice the arts of coquetry on the page boy who brings the coals upstairs; and as for the page boy, it is certain that his pugnacious propensities are already fully developed and have brought him into conflict with his brother buttons. And differences are most patent of all in the prime of life when man "for contemplation and for valour formed" by "his fair large front and eye sublime" declares "absolute rule," and when woman, "grace in her steps, heaven in her eye, in every gesture dignity and love," stands conspicuous for "softness and sweet attractive grace." And differences subsist to the last. The aged spinster, left in "maiden meditation fancy free," lavishes her altruistic emotions on cat, poodle, or parrot; and the hoary veteran, fidgety and irascible, concentrates his egotistic attention on his own liver. And these differences in brain structure and function, which at every stage of existence separate the sexes, have, as I shall presently show, a special pathological significance at the period when sexual divergence is taking place most rapidly, and when education is being pushed forward with most vigour. Education from first to last can only be safely conducted in the light of cerebral physiology, but unfortunately those charged with the conduct of education too often dispense with that light, or regard it as misleading. It is to point out to you the risks that are run by dispensing with that light at a particularly dark and tortuous part of the educational highway that I am here this evening. I am going to notify for warning and guidance some of the perils to health which seem to me to attend the high-school education of girls, which is now so popular.

I have no wholesale indictment to bring against high schools for girls. They have done good service to sound education, have widely diffused its benefits, have supplanted second-rate boarding and venture schools which were hotbeds of namby-pambyism, and have opened up to girls interests and helpful attainments which were formerly denied them, thus saving some of them from a vapid and weary existence. But, at the same time, it seems to me that these schools have serious drawbacks attending on them, and that their work is apt to involve very grave dangers to health—dangers immediate and prospective—which have not yet been sufficiently appreciated.

Even from an educational point of view, the work done by high schools for girls is not all pure gain. Their eulogists would have us believe that they have led forth great hosts of girls from a wilderness of ignorance and ineptitude into a land flowing with wit and learning. But that is sheer nonsense. What they have done is to conduct them from the unkempt meadows of natural growth into the trim gardens of artificial culture. Excellent are orchids and camellias in their way, but do not let us forget the buttercups and daisies. Before the high-school era dawned girls lived and learned and reasoned in a way, and in introducing them to the higher erudition these schools have withdrawn them to a large extent from homely household occupations which were not without their educational value, and have substituted the dogmatic teaching of the hireling for the precept and example of the mother. So much is this the case, and so impossible is it for growing girls exhausted by five or six hours of school-work and private study daily to make themselves acquainted with domestic economy, that it seems to me essential that high schools, if they are faithfully to prepare their pupils to become efficient wives and mothers, should add housewifery in all its branches to their present curriculum. Two years ago I met in the country a high-school girl who was reading Lucretius for her recreation, but she failed lamentably in the task I prescribed for her—that of boiling a potato. Now I am sure much more of the happiness and wholesomeness of life hinges on the boiling of potatoes than on the interpretation of Lucretius and his dark and doubtful sayings. And not only do high schools for girls deprive their pupils to a considerable extent of home-lore and practice in the simple but captivating arts of the kitchen and the still-room, but they tend to induce in them sameness and narrowness of intellect. These schools cannot vary or adapt their teaching to individual tastes and talents, but have one keynote for all, and so sacrifice to clearness of utterance many delicate inflections and cadences of faculty. They tend to make education mechanical. Then they so absorb the energies of their pupils, and so persuade them of the paramount importance of their school work, that these pupils have neither inclination nor strength to travel beyond their compulsory studies. With brains like wrung sponges, and well assured that there is nothing worth knowing beyond the attainments of the sixth form, high-school girls rarely leave the groove in which they find themselves. It will not be denied that home-reared girls read much more widely than do high-school girls. "They browse unconfined," to quote Mrs. Gaskell, "on the wholesome pasturage of English literature," while high-school girls are stall fed on condensed primers; and the result is that there is often a breezy freshness and interesting diversity about these home-reared girls that contrasts not unfavourably with the dry precision and monotonous uniformity of their more systematically educated sisters.

But it is not about the educational advantages or drawbacks of high schools for girls that I wish to speak, but about the dangers to health which lurk in their aims and methods—dangers very real, very serious, very imminent—all arising out of forgetfulness of sexual differentiation, and out of the futile attempt to educate boys and girls on exactly the same lines.

Now, I do not hesitate to affirm that over-pressure is rampant in high schools for girls in this country to-day. Of course there are high schools and high schools. Much depends on the head mistress. If she is judicious and sympathetic, over-pressure is reduced to a minimum. If she is hard and keen, it is raised to a maximum. But, whatever the disposition of the head mistress may be, over-pressure exists and is promoted by directors jealous of the honour of their schools and not averse to dividends; by parents anxious about their daughters' prospects in life, earnest to obtain the best possible return for fees paid, or not unwilling to hide their own dulness under the lustre of having clever children; and by the girls themselves, who, when the spirit of emulation is stirred in them or the fear of failure conjured up, strain eagerly forward and ignore all warnings and restraints. I willingly admit that in high schools for girls generally there is a sincere desire to avoid over-pressure, and that precautionary measures to prevent it are adopted; and I have no doubt that during the last five or six years there has been considerable mitigation of it, as a consequence of a limit put to the scramble after examinations and certificates. But I am confident that, notwithstanding all precautions and mitigations, over-pressure still prevails in these schools extensively, and sometimes acutely, and that it will prevail as long as they imitate schools for boys, fail to recognise sexual distinctions, and to modify their methods in accordance with these. They are, as I have said, pushed on to over-pressure by certain extraneous forces; but the tendency to it is inherent in their constitution, and will assert itself from time to time with greater or less violence, apart from outside influences, until that constitution is altered. I have no doubt that this statement of mine that over-pressure exists in high schools for girls will be strenuously, perhaps scornfully, denied. These schools have many attractive features, and are doing good work; the girls seen streaming in and out of them look healthy and happy enough, and those who are content to judge by superficial appearances will pronounce them sound to the core. Stethoscopy and endoscopy medically applied are necessary to get at their weak points. Then, again, there are those who believe that over-pressure is merely a medical myth; that there never was or could be such a thing in the beneficent realm of education, and they will of course dispute my thesis. I read some time ago a paper by a distinguished authority on educational subjects, Dr. Emily Bryant, in which she argued that it is impossible to overwork girls, their inherent indolence and frivolity being proof against any stimulus that can be applied to them. Well, I would answer Dr. Emily Bryant that it is possible to overwork horses—witness splints, curb, thorough-pin, and back sinew; and surely girls are not more obdurate than horses. And I would tell her further that a cloud of competent witnesses can be summoned against her, for while many high-school mistresses will doubtless deny

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that girls are overworked in the establishment under their care, they will one and all admit that overwork is a contingency against which they have to be constantly on their guard. Some high-school mistresses of the more enlightened type frankly admit and deplore the existence of over-pressure even now. One of them said to me not long ago: "Certainly some girls in the upper forms are delicate, owing to too close application to their studies, and it is terrible to contemplate the ruin that might be wrought amongst them were they to be ruthlessly urged on and subjected to competitive excitement."

For obvious reasons it is difficult to get direct and trustworthy evidence about over-pressure in high schools. These schools are naturally disinclined to permit the exposure of blots on their own escutcheons, and individual cases of over pressure have to be delicately handled. But, thanks to the kindness and magnanimity of the head mistress of one English high school—one, too, in which special precautions against over-pressure were taken,—I obtained a few years ago a return which I regard as of great interest, and which throws some light on the matter. (See Table II.) The facts on which this return is founded were got at by questions, put and answered in writing, the answers sent in by each girl being afterwards tested by private cross-examination by her form-mistress, and in some cases by communications with parents, so that the return is, I believe, absolutely reliable; and it is certainly not a little remarkable to find from it that of 187 girls belonging to the upper and middle classes, well fed and clad and cared for, and ranging from ten to seventeen years of age, as many as 137 complained of headaches, which in sixty-five instances occurred occasionally, in forty-eight frequently, and in twenty-four habitually. Sir Richard Owen once said to me: "Children have no business with headaches at all, and if you find that these occur frequently in any school, you may depend on it there is something wrong there." And so, I take it, there must be something radically wrong in high schools that produce so copious a crop of cephalalgia. That the headaches dealt with in this return were connected with school work is, I think, made probable by the fact that, while in twenty-six cases they are stated to have occurred in the morning, in as many as seventy-six they are set down as of most frequent occurrence in the afternoon and evening, when, as you will notice, according to an immense majority of the girls, the hardest part of the day's work falls on an already jaded brain. And there are other significant facts in this return, besides those relating to headaches, for you will observe that as many as thirty-seven of the 187 girls were shortsighted, and that four of them exhibited choreic movements. And this return represents no exceptional state of things. Inquiries made quite lately satisfy me that a very large proportion of high-school girls still suffer from headache, that neuralgia is common amongst them, and that they display multifarious indications of nervous exhaustion. It is no infrequent occurrence, I am told, for the more delicate girls, who return after the holidays looking tolerably well, to break down in the middle of the term, to be absent from school for a few days or weeks, to return and struggle on with their work, but finally to shirk the examination at the close of the term. But if we had no evidence of suffering or disability immediately resulting from high-school training as it is now carried on, we, as medical men, should not hesitate to pronounce that training in some respects pernicious, from a consideration of its character alone. Two-thirds of high-school girls will attest that the hardest part of their work—preparation, which involves the opening up of new ground, an advance on what has been already learnt, and effort in surmounting obstacles—has to be performed in the evening, when they are already worn out, at the very time when in the cycle of daily life, their brains are least capable of exertion. And no inconsiderable number of high-school girls will attest that this arduous work of preparation is often carried on until ten, sometimes even until eleven o'clock at night. Within the last month I came upon two girls attending a London high school, bright, clever, ambitious girls of fifteen, high in their classes and determined to hold their places, who admitted that, in spite of all restrictions, they were working up till ten o'clock two or three nights a week, and in one of them I could discern, in stunted growth, round shoulders, and intense nervous susceptibility, the effects of this ill-timed diligence in study. A friend of mine in the north of England tells me that he has recently removed his two daughters from a high school and placed them under private tuition, because he found that they were regularly working up till ten o'clock at night.

The high-school authorities will of course pronounce such proceedings irregular, and endeavour to shift the responsibility for them on to the shoulders of parents. Their rules as to home work look reasonable enough on paper. This work, they will tell us, should be done during the afternoon, either in school or at home; but girls who have been in school from nine till one, using their brains, are not dis-

TABLE II.—HIGH SCHOOL FOR GIRLS.

Form.	No. in form.	Average age.	Which part of your work do you find hardest?	When do you do your home work?	Do you suffer from headaches?	How often do your headaches occur?	At what part of the day do your headaches occur?	Short-sighted.	Muscular twitchings.
VI. and V.	17	17	Home work .. 15 Class work .. — Equal 2	Afternoon .. .. 4 Evening .. .. 2 After. and even. 11	No .. 5 Yes .. 12	Occasionally .. 7 Frequently .. 3 Habitually .. 2	Morning .. .. 2 After. and even. 2 No special time.. 7	3	None.
IV.	25	16	Home work .. 22 Class work .. 1 Equal 2	Afternoon .. .. 5 Evening .. .. 4 After. and even. 16	No .. 3 Yes .. 22	Occasionally .. 9 Frequently .. 9 Habitually .. 4	Morning .. .. 5 After. and even. 14 No special time.. 3	7	None.
Upper III.	19	15	Home work .. 16 Class work .. 1 Equal 2	Afternoon .. .. 4 Evening .. .. 3 After. and even. 12	No .. 4 Yes .. 15	Occasionally .. 9 Frequently .. 5 Habitually .. 1	Morning .. .. 5 After. and even. 10 No special time.. —	6	None.
Middle III.	26	15	Home work .. 7 Class work .. 3 Equal 16	Morning .. .. 3 Afternoon .. .. 6 Evening .. .. 6 After. and even. 11	No .. 3 Yes .. 22	Occasionally .. 11 Frequently .. 7 Habitually .. 4	Morning .. .. 7 After. and even. 12 No special time.. 3	4	One.
Lower III.	24	14	Home work .. 15 Class work .. — Equal 9	Afternoon .. .. 7 Evening .. .. 3 After. and even. 14	No .. 8 Yes .. 16	Occasionally .. 11 Frequently .. 3 Habitually .. 2	Morning .. .. 3 After. and even. 11 No special time.. 3	3	One.
Upper II.	29	13	Home work .. 20 Class work .. — Equal 9	Afternoon .. .. 15 Evening .. .. 4 After. and even. 10	No .. 3 Yes .. 26	Occasionally .. 12 Frequently .. 5 Habitually .. 9	Morning .. .. 1 After. and even. 11 No special time.. 3	5	None.
II.	32	12	Home work .. 19 Class work .. 10 Equal .. .. —	Afternoon .. .. 19 Evening .. .. 3 After. and even. —	No .. 12 Yes .. 17	Occasionally .. 6 Frequently .. 10 Habitually .. 1	Morning .. .. 4 After. and even. 10 No special time.. 3	5	None.
I.	15	10	Preparation in this form is done in the morning. No home work.	Morning 15	No .. 8 Yes .. 7	Occasionally .. 6 Frequently .. — Habitually .. 1	Morning .. .. — After. and even. 6 No special time.. —	4	Two.

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posed to resume work immediately after their mid-day meal. They need change, fresh air, and exercise, which in this climate must, for a great part of the year, be taken in the afternoon, if at all; and many of them continue brain work in the afternoon under the veiled form of accomplishments, such as music and drawing. For these reasons, as well as from the claims of family and social intercourse, it comes about that a large proportion of high-school girls postpone their preparation until the evening, when they do it slowly, laboriously, with least benefit and most risk. The work which was calculated to occupy two or three hours is spread over three or four, and perturbs the brain just when it should be subsiding to rest. The time-tables or cards issued to pupils and parents, defining with the utmost nicety the number of minutes that are to be devoted to preparation in each particular subject on each particular day, fixing a maximum duration of home work (generally from two to three hours), which is not to be exceeded without an intimation of the fact to the head mistress, are practically useless, and sometimes worse than useless, for they lead to deception. Not one girl in ten steers by these charts; not one parent in ten reports the transgression of their terms. Girls work at very different rates, and at very different rates in different subjects, and the number of minutes allowed for Euclid, Latin, German, History, or Science respectively, which may be amply sufficient for a girl of nimble wits, may be altogether inadequate for one of slow comprehension, and hopelessly ill-adjusted for one of special gifts. The relation between the time allowed for home work and the amount of home work allotted is often very difficult to discover, and the highly conscientious girl who tries rigidly to adhere to the instructions given will generally find herself at a disadvantage at school. Parents for the most part ignore the school time-tables. They do not always know the exact length of time given by their daughters to home work; it is sometimes secretly prolonged when they supposed it to be finished; and they find that any expostulations as to its amount which they may address to the head mistress are highly distasteful to their daughters, who fear that they will be regarded as stupid or as a drag on the class for failing to accomplish their tasks in the prescribed time, or that blame for over-burdening them will be laid on their form-mistress, and of course blame does not conduce to amiability of feeling towards those who have procured its infliction.

The truth seems to be that the checks imposed upon home work are nominal and not real, and that what high-school authorities have to do is largely to reduce it in amount, and in the case of young girls to abolish it altogether. The drudgery of education should be done in school with skilled assistance, when the brain is in its prime vigour, not at home unaided, or with only precarious parental help, when the brain is already fatigued. I feel strongly that no girl from ten to seventeen years of age should have any forced brain work to do after 7 P.M., and that a reduction is required in the number of hours that high-school girls are now called on to give to brain work. Our brawny colliers clamour to have their bodily labour restricted to eight hours a day. Shall we permit our fragile girls to engage in mental toil for an even longer shift?

I have given prominence to the question of home work in connexion with high-school education, because I regard it as one of the chief evils of the system; but in connexion with the school work there are several topics that are eminently worthy of medical consideration. A criticism of the curriculum and of the subjects taught cannot be undertaken here; but a word must be said about the competition which is still encouraged in some quarters. Nineteenth-century girls at the age of puberty cannot stand competition. It is intellectually and morally injurious to them, and disturbs the equilibrium of health. "Nothing," says Ruskin, "is ever done beautifully which is done in rivalship, nor nobly which is done in pride," and nothing, I would add, is ever done safely by girls which is done in emulation. That should be banished from their education, and marks, places, and prizes tabooed. And examinations, too, which harass and agitate, should be as much as possible avoided. For girls who have to earn their own living examinations may be necessary trials of fitness; but for the bulk of high-school girls they are gratuitous miseries, or mere opportunities of vainglorious display.

I have admitted that in some high schools the authorities are on the alert on the subject of over-pressure, and according to their lights do their best to ward it off. But it is a melancholy fact that some of the expedients resorted to with this purpose tend to aggravate rather than to abate it. One head mistress told me proudly that her practice was, whenever the girls in any form began to get very sluggish and drowsy at their work, to close the books and give them ten minutes' hard drill. She thought I was joking when I said that she had much better put them to bed and give them candle; but I was quite serious, for muscular fatigue is not the remedy for cerebral exhaustion, although it is very commonly believed to be so. Indubitably there is temporary easement in shifting a burden from place to place. A man who has been standing on one leg for some time finds it a relief to change to the other; but the expenditure of nervous energy is going on all the time, and the brain that is wellnigh drained dry needs rest and will not be replenished by merely altering the channel of outflow. Drill is highly to be commended in its proper place—so are gymnastics, so are games; but they will not create a tolerance of mental over-pressure or counterbalance its evils. It is quietism, not athleticism, that has to be preached in high schools in the first place. I have even my doubts about compulsory hockey and cricket in the country on half-holidays. I cannot help thinking that a girl should have just a little scrap of her own life left to her to do with exactly what she likes, and with all respect for physical education—the boom of which is upon us—I have more faith in the life-saving qualities of a good, merry, spontaneous, exuberant romp, than in all its ingenious, elegant, and hygienically designed exercises.

The evils resulting from over-pressure in high schools for girls—whether that over-pressure be due to home work, or competition, or examination strain—are brought about through its influence on the cells of the brain, and it is not difficult to understand how these cells are affected. It is unquestionably true of all cells that when they are in any way stimulated in excess of their powers of taking up nutriment, or deprived of an adequate supply of nutriment, they utilise as food material their own protoplasm, and so induce disordered metabolic processes with subsequent degeneration. In pyrexia, in the presence of which metabolic activity is always increased, we find that the protoplasm of the muscular fibres of the heart and of the cells of the liver passes through a stage of cloudy swelling, indicative of increased activity, which merges ultimately into fatty degeneration. And when to the stimulating influence of pyrexia is added that of toxic materials circulating in the blood, as during typhoid fever and diphtheria, we find that degenerative changes are not confined to the excretory glands and heart, but invade the nerves and muscles generally. Well, it appears to me that the fever of the mind which over-pressure sets up is capable of influencing cell protoplasm in much the same way as ordinary pyrexia. Its effects have not yet been traced out with the same precision. No doubt they differ in degree and distribution, but they are probably much the same in kind. When the cells of the brain are stimulated in excess of their powers of taking up nutriment, as they are during forced mental labour, or when suitable supplies of nutriment are cut off from them, as may be the case during the impairment of digestion which forced mental labour not rarely entails, then the metabolism in these cells is, we may infer, altered, and they degenerate and secondarily induce widespread degenerative changes throughout the system. The group of symptoms which is characteristic of the mental failure which follows upon severe over-pressure, and which may be summed up as acute or apathetic dementia, is almost identical with that seen in cases in which mental failure has followed upon acute specific diseases, and in mental failure of the former kind, not less than in the latter, we have also sometimes dilatation of the heart and changes in the liver, kidneys, and voluntary muscles; and in both kinds of mental failure recovery takes place if the fatty degeneration has not so far advanced that the active protoplasm of the cells is absorbed, whenever the cells which have had extra work thrown upon them are allowed absolute rest, and are placed in favourable conditions as regards nutrition.

I have referred to acute or apathetic dementia as the most characteristic of the pronounced mental changes which severe and continued over-pressure acting on a neurotic subject may induce, and the slight mental changes which are similarly induced are most generally akin to it, and are but the buds of the symptoms which it presents full blown.

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Thus it is no uncommon event to hear overworked high-school girls complain that their power of acquisition and attention is impaired, that they take far longer to their work than they used to do, that they cannot remember what they have learnt, that they read their lessons without understanding them, that they sometimes lose themselves and forget where they are, and that what they call "queer thoughts" keep coming into their minds, while the observation of these girls at the same time reveals that they are languid and irresolute, or unusually irritable. Such slight departures from normal mental states for the most part go no further, but are rectified by the holidays; but now and again they advance into that mild coma which corresponds with apathetic dementia. But, besides apathetic dementia, there are, of course, many other mental aberrations to which over-pressure may lead up, the nature of these in each case being determined by the inherited tendencies, antecedents, or environment of the girl. We may have cyclones of mania, or anticyclones of melancholia, hurricanes of morbid impulses, or the settled bad weather of moral perversion. And as regards certain minor mental changes which thus arise, it is noteworthy that they are often concealed by girls who do not comprehend and can scarcely describe them. This is particularly the case with reference to those voluminous mental states described by Dr. Hughlings Jackson which are sometimes the harbingers of epilepsy.

I cannot pretend to classify or describe the vagaries of nervous disturbance that present themselves to medical observation in girls in these days, and in the production of which over-pressure plays some part, but I would name insomnia of the commonest occurrence, often of evil import, sopor or sleep so deep and difficult to break as to be almost cataleptic in nature, neuralgia, chorea, and hysteria. And, besides nervous disturbances, there are many ailments and diseases begotten or fostered by over-pressure which medical men are familiar with in high-school girls in these days. Chief of these are anæmia and general delicacy. Women suffer from anæmia in far larger proportion than men. In the ten years 1881 to 1890 the deaths from anæmia, chlorosis, and leucocythæmia in England and Wales were 33·29 per 1,000,000 amongst men, and 54·83 amongst women. And, as is well known, chlorosis and anæmia show themselves in girls from ten to twenty years of age more frequently than at any other period of life, and may be induced by mental worry or excitement, which causes a diminished production of blood-corpuscles. In his very able investigation into the physical and mental condition of school children, Dr. Francis Warner has satisfied himself that mental stimulus applied to children "does lower their general nutrition." He found that pale and delicate-looking children are proportionately more numerous in schools attended by children of an upper social class and presumably well fed, than in schools attended by children of the poorer class, presumably not well fed; and the only explanation of this he has to offer is that better-class children are subjected to more mental stress than children of a poorer class. A single glance at some high schools, and the complexions of the girls assembled in them, convinces that they are deficient in red corpuscles, however rich they may be in blue stockings.

The anæmia encountered in high-school girls is sometimes due to the direct action of mental tension on the blood-forming apparatus; but it is sometimes due also to the action of that tension on the digestive functions. Large numbers of high-school girls suffer from loss of appetite; a certain number go to school without breakfast. Worn out, they oversleep themselves, and leave scant time for the morning meal; or, after a night of broken rest, they rise unrefreshed, swallow a cup of tea, the neurotic properties of which they have already discovered, but decline solid food, or merely trifle with it. They labour under a gastric disorder now so common that it might receive a distinctive appellation, and be called *anorexia scholastica*, in which the lessened flow of energy from the exhausted nerve centres retards the functions of all the abdominal viscera. Buns in the forenoon, a regular institution at all high schools now, are very well in their way, but they do not compensate for a lost breakfast, and I hold that no girl who has shirked that meal should be allowed to go to school or engage in brain work. It is an axiom that nutrition comes before education.

I have spoken of some of the immediate evil effects of over-pressure in high schools—effects which medical men have long recognised, which parents are beginning to perceive—and I wish now to direct your attention to what will probably be its remote effects if it be allowed to go on—effects for which we must wait, but which we have grounds to anticipate with some confidence. The ailments of girlhood which we have ascribed to over-pressure do not always end with the cause that induced them, but are apt to plant themselves permanently in the system they have infested, or to blossom into something worse. The headachy girl is not unlikely to grow into the migrainous and invalid woman. A voluminous mental state may develop into epilepsy, somnambulism may lead to hysteria, insomnia lay the foundation of insanity, and anæmia at the growth period may entail lifelong debility. Over-pressure operates upon the high-school girl at a great epoch of her life—at puberty and during the pre- and post-pubertal periods—when momentous changes are taking place in her body and mind, and when a wave of irritability sweeps through her nervous system. The increase of stature and weight of the girl, according to Dr. Bowditch's recent observations, goes on much more rapidly than that of the boy from the tenth to the fourteenth year, and, while her pelvis is expanding, her special organs and mammæ and sebaceous glands are developing and becoming more vascular, and her physical energies are gathering strength under the governance of new impulses, there exists in the girl a special proclivity to disease, and to the assumption of morbid tendencies. This epoch from the tenth to the seventeenth year is unquestionably the plastic period—it is the golden opportunity for education; but the education that goes on then is not limited to the higher cerebral centres, as teachers fondly imagine, but pervades the tissues. Functional habits are being everywhere formed, and vicious habits are not unlikely to be contracted by certain organs if habits of thought are too assiduously practised. The grand truth to be inculcated in all high-school authorities is this—that they have to deal with girls at a period of life when vital resistance is greatly reduced, when the liability to disease is proportionately augmented, and when physiological indiscretions are peculiarly hazardous.

The proof of this can be readily supplied. Let us examine the incidence of zymotic affections upon the sexes. Throughout life, in every quinquennium, the mortality of males from small-pox exceeds that of females, and that in a very marked degree, except in one quinquennium from the tenth to the fourteenth year, when the female exceeds the male mortality, being again but very slightly behind it in the succeeding quinquennium from the fifteenth to the nineteenth year. At all ages the male death-rate from enteric fever exceeds that of females, but the female mortality is very considerably higher from the third to the twentieth year of life. In infancy and also in old age the male mortality from diarrhœa and dysentery exceeds the female mortality, but in the child-bearing period, from fifteen to forty-five years of age, the mortality is distinctly higher amongst females. And even more striking in this connexion are the statistics of phthisis than those of zymotic diseases. As you will notice in this table, phthisis

TABLE III.—*Phthisis: Mean Annual Death-rate per Million living at successive Age Periods and per "Standard Million" at all Ages during the Ten Years 1881–1890.*

AGES.	MALES.	FEMALES.
All ages.	1876 Standard million.	1602 Standard million.
0–	527	493
5–	250	322
10–	349	712
15–	1317	1839
20–	2350	2355
25–	3083	2850
35–	3614	2748
45–	3574	2085
55–	2863	1496
65 and upwards	1534	830

is more fatal to males than females under five years of age; but then a change takes place, and from five to ten it is much more fatal to females than to males, while from ten to fifteen it is more than twice as fatal to females as to males. From fifteen to twenty phthisis is still much more fatal to females than to males; from twenty to twenty-five the mortality from it is exactly equal in the two sexes, and

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from twenty-five to thirty, and at all subsequent ages, the mortality from it is much greater amongst males than amongst females.

Now this distribution of phthisis mortality, especially when viewed in connexion with the fact that the reduction in it, which is happily going on at all ages, has been proportionately less of late years amongst females than amongst males from five to fourteen, is highly significant. It is not of course suggested that high-school operations have had anything to do with this diminished reduction. The total number of girls attending these schools is so small in comparison with the population that no amount of mischief they could do would appreciably affect the Registrar-General's returns. But the fact that there is a special proclivity to phthisis in girls from five to twenty years of age, and that girls between these ages are not sharing as fully as boys in the benefits of the preventive measures which we owe to modern sanitation, viewed in connexion with the conditions of high-school work, suggests very pointedly that one of the remote evils of over-pressure in them will be the propagation of phthisis in those who have been subjected to that over-pressure. The nervous erethism which is characteristic of the growth period in girlhood obviously much increases the liability of the sex to phthisical disease, and as over-pressure aggravates that nervous erethism, it must still further increase that liability. The connexion between states of the nervous system and pulmonary tuberculosis has not yet been clearly defined, but this much may be taken as established, that nervous depression and exhaustion alike open wide the door for the invasion of the tubercle bacillus. And so it is that the nervous exhaustion due to over-pressure in high schools for girls may be expected to induce a peculiar vulnerability of the pulmonary tissue, which must be intensified by the conditions of work in these schools. The in-door life of the girls, their sedentary habits, and the stooping posture in which they pass much of their time, bring the lungs into a state that is favourable to tuberculous infection. The lungs are comparatively immobile, and there is consequent inactivity of the respiratory current in them, with a tendency to congestion and catarrh.

If it were our object to secure an abundant harvest of phthisis, I do not know how we could better set about it than by providing for general over-pressure in schools for girls. Keep a large number of town-bred girls in a constant state of nervous tension, so as to abbreviate sleep and impair appetite, deprive them as much as possible of fresh air, insist on their writing and poring over books for prolonged periods, and scatter amongst them a few cases of tubercular disease, and you will inevitably in the fulness of time have a rich growth of phthisis. My own experience is necessarily of the most limited description, but I have seen a case of phthisis in a high-school girl and two cases in high-school mistresses which I was disposed to attribute to high-school life; and of this I am sure, that phthisis must be one of the most certain and disastrous of the more remote effects of the over-pressure of girls during their growth period.

But the special proclivity to disease of girls at the growth period, and the influence of the nervous erethism by which they are then visited, may be traced out not only in zymotic diseases and in phthisis, but in nervous diseases themselves. Suicides which spring from causes identical with those that are productive of insanity, and which are an expression of mental disorder, are four times more numerous amongst men than women, and the male death-rate from suicide is much greater than the female at all ages, except, strange to say, from fifteen to twenty, when the female death-rate rises considerably above the male. The rate of increase of suicides during the last twenty years has been much higher amongst women than amongst men. Chorea, which is at all ages more fatal to females than to males, reaches a rate of mortality amongst females from ten to twenty years of age that is phenomenal when contrasted with the rates at other ages and in connexion with the mortality from this disease; it is of extreme interest to note that, while the male mortality due to it has declined during the last thirty years, the female mortality has risen, and has risen rapidly, during the last ten years. Chorea is seldom fatal, and the increase of the death-rate from it amongst girls must betoken a large increase of the malady in its milder forms. And chorea, be it remembered, is a malady which, perhaps more than any other, may be directly attributed to over-pressure and nervous strain.

I might go on enumerating nervous and other diseases the mortality from which mounts up from ten to twenty years of age in girls, but enough has been said to show that there is a dangerous instability of the nervous system at this epoch. And indeed the most convincing proof of this instability is to be found, not in the mortality returns, but in the extraordinary prevalence, during this section of female life, of functional nervous disorders, which do not kill, but cripple and perplex, and are often the source of misery long drawn out. Man is at all ages more prone than woman to organic diseases of the nervous system, but woman is more prone than man to certain functional disorders, and especially to such functional disorders as display themselves about the period of puberty. Then it is that women succumb to epilepsy, neuralgia, hysteria in all its protean shapes, chorea, migraine, neurasthenia, the milder forms of insanity; then it is that the nervous system is unstable and explosive in a peculiar degree, and especially liable to be influenced, for weal or woe, by the treatment to which it is subjected. Judicious treatment at this time gives it balance, and perhaps steadies it for life. Injudicious treatment—and what treatment can be more injudicious than over-pressure?—either makes it topple over at once or sets it swaying in a way that must mean final overthrow on the occurrence of any further interference, however slight. Let high-school authorities ponder all this.

It has just been mentioned that men are much more liable than women to gross structural lesions of the nervous system, including the various forms of inflammation of the brain and spinal cord, and their membranes, paralysis, locomotor ataxia, muscular atrophy, and abscess and tumours of the cerebrum; and there can be little doubt that their greater liability to these lesions is dependent upon—firstly, the innate higher metabolic activity of their nerve centres; and, secondly, their greater exposure, during the struggle for life, to the causes of nervous disease. Women owe their comparative immunity from organic nervous disease to their anabolic habit, and to the comparatively tranquil and sheltered lives which they have led. But if all this is to be altered, if women are to be made as katabolic as possible, and are to take part in the struggle for life on equal terms with men, then it follows that they will have to a great extent to sacrifice the comparative immunity from organic nervous diseases which they have hitherto enjoyed. During the ten years 1881 to 1890 409 men per million living died in England and Wales from the effects of fractures of bones, but only 100 women per million living so died. The explanation of this is clear. The number of men engaged in occupations which expose to accidents is to that of women engaged in such occupations as 4 to 1. But if in our wisdom we ordained that men and women should share equally in manual labour of all sorts, it is indisputable that we should have the mortality from fractures amongst women mounting to as high a point as it has now reached amongst men; nay, the probability is that it would greatly transcend that point, for the employment of women in all sorts of labour would probably increase the number of accidents, while their anatomical configuration would involve their suffering more severely from their effects. During the ten years 1881 to 1890 2·69 men per million living died of tetanus in England and Wales, but only 0·84 women per million living; clearly because for every one woman who in her employment has to handle earth three men have to do so. Expose men and women in an equal degree to inoculation by the tetanus bacillus and they will in equal degree perish from its attacks. Now will it be doubted that the same thing holds good with regard to other causes of disease which operate upon the nervous system, and that the comparative exemption of women from organic nervous disease is to be attributed largely to the fact that they have not been exposed to these causes to anything like the same extent as men? Five men suffer from the motor form of writer's cramp for every one woman who so suffers, and the explanation of this lies on the surface, in the fact that men are employed in writing far more numerously than women. Four men die of general paralysis of the insane for every one woman who so dies. Is it not feasible to suppose, then, that women owe their comparatively small liability to this fell malady to their comparative freedom from the stress and striving of professional and business life, which so often lead up to it in men? To make women katabolic—and that is, I maintain, what high-school education tends to do, to throw them into competition with men, and that is, I maintain, what some high-school education aims at—is to ensure to them a largely increased liability

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to organic nervous disease. And so over-pressure from ten to seventeen years of age may have amongst its remote consequences, not only the reproduction in the same or modified forms of the functional nervous disorders which so often manifest themselves at that period, but a crop of gross nervous degenerations, which have, up to this time, been rarely seen in women. And notwithstanding all Weismann's arguments, I would say, "Woe betide the generation that springs from mothers amongst whom gross nervous degenerations abound!"

The study of the effects of over-pressure, immediate and remote, on the monthly rhythm, and on the fitness and capacity of the woman to reproduce the species and to bear healthy children—health implying both bodily and mental vigour—must be kept for separate examination at some other time. So also must a study of the effects of secondary over-pressure, as applied, in colleges and halls, to young women at from eighteen to twenty-four years of age. Admirable culture is supplied in these colleges and halls; but they, too, have their risks, notwithstanding that their pupils are all picked lives. The suicide of a pupil, who had just undergone examination at one of them, was reported two months ago. I must, however, even now express my belief that the University of St. Andrews, in deciding, as it has lately done, to open all its classes in Arts, Science, and Theology to women as well as men, has taken not a retrograde step—for our ancestors never did anything so foolish,—but a downhill step towards confusion and disaster. Its now empty benches may be thronged with pupils, its professors may batten for a time on duplex fees; but the attempt to educate young men and women, not only on the same lines but in the same coaches, cannot but prove injurious to both. "What was decided amongst the prehistoric protozoa cannot," it has been well said, "be annulled by Act of Parliament," and the essential difference between male and female cannot be obliterated at a stroke of the pen by any Senatus Academicus. To essay such work is to fly in the face of evolution. Amongst unicellular organisms the conjugating cells are exactly alike, and do exactly the same work in the world; but amongst multicellular organisms they are dimorphic, and from that point upwards differentiation in structure and function goes on. With occasional aberrant variation the sexes diverge from each other, not merely in primary and secondary sexual characteristics, but in functions, not directly associated with sex, as we ascend in the animal kingdom, and it is in the human species that sexual distinctions, bodily and mental, are most marked.

And with this divergent differentiation of the sexes has come more reciprocal dependence and higher harmony. It is no question of superiority or inferiority of the one sex to the other. Each sex is higher; each is lower; together they make up the perfect whole. Separate they are infirm; in union they are strong; in competition they are mutually destructive. It is in the sympathetic accord of the differentiated sexes that human progress can alone be hoped for.

> "He is a half-part of a blessed man,
> Left to be finished by such a she,
> And she a fair divided excellence,
> Whose fulness of perfection lies in him."

And blindness to this complementary relation of the sexes, so patent to Shakespeare, it is that leads wise men—wise but ignorant, or contemptuous of biology—to sanction intersexual competition in education, and for subsistence with its ruinous effects. Men and women are constitutionally adapted to do different work in the world. To set them to do the same work is wasteful, and detrimental to the sex that is less adapted to it. It is impossible to contemplate with complacency some of the experiments in this direction which are being carried out, and it is impossible to speculate, from a medical point of view, without apprehension what the outcome of such experiments may be, or what high-school, and college, and hall education may do for the country in a few generations, if they be pushed on with relentless zeal.

Those tall, graceful, lovely English girls whom we see around us so plentifully to-day, and never in the world's history has woman's beauty been so beautiful as it is in England to-day—those tall, graceful, lovely girls are the offspring of mothers who had not the advantage of a high-school education. What will the next generation of English girls be like? I saw a vision once that has haunted me ever since. It was of a score of sweet girl graduates from a celebrated college, standing together in a group on the platform of a provincial railway station, waiting for trains to carry them home at the end of the term. Sweet they were I doubt not; most of them carried musical instruments, but they were not, upon the whole—well, not just—"fairest of the fair" to look upon. I am afraid I shall be called ribald and profane, but I should describe them as pantaloon-like girls, for many of them had a stooping gait and withered appearance, shrunk shanks and spectacles on nose. Let us conserve the beauty of our English girls very jealously. I would rather they remained ignorant of logarithms than that they lost a jot of it.

ABSTRACT OF

The Morton Lecture

ON

THE ETIOLOGY OF CANCER.

By G. SIMS WOODHEAD, M.D.,

DIRECTOR OF THE RESEARCH LABORATORY OF THE CONJOINT BOARD OF THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS.

MR. PRESIDENT AND GENTLEMEN,—I understand that the Morton lectureship was established by its founder with the view, in the first instance, that the lecturer for the time should gather together and give in the form of a summary any fresh light that may from time to time be shed on the subject of cancer. Beyond this, however, the primary object of the founder was to stimulate thought and research in connexion with a disease the importance of an accurate knowledge of which is at present only equalled by the futility of all the efforts that have been made to elucidate even a few of the problems that a most cursory glance at the subject must at once suggest. We owe to histology and to statistics almost all the knowledge we have hitherto acquired, and most of the answers to such questions as have been solved. The clinician, to whom cancer has been one of the most absorbing studies, has done all that was within his power; but beyond determining the bounds of the periods of life during which it may occur, and the nature of the hereditary predisposition of certain subjects and tissues, this all has been but little. Even the attempts to associate the growth of cancer (and by cancer I shall to-day mean cancer in the strictest limitation of the term) with any specific causal agent have hitherto failed, and I must confess that until quite recently I have remained strongly of opinion that, although cancer may possibly be the result of certain forms of irritation, it can scarcely be looked upon as due to the vital activity of any specific micro-organism, whether animal or vegetable; in fact, I am not yet prepared to depart entirely from this position, though I must acknowledge that comparatively recent observations have been made which, if confirmed, would go far to limit the range of irritants which possibly may give rise to the proliferation of the special tissues with their special arrangement so characteristic of cancerous growths.

What I have to say to-day may be arranged under three heads:—1. The conditions within the tissues that may predispose to the formation of cancerous tumours. 2. What we know as to the nature of the irritants that are now assumed to play a specific etiological part in the production of cancers. 3. What is to be gathered in respect to the treatment of cancer from recent researches on the subject. It has frequently been insisted upon that the nucleus plays a most important part in determining the multiplication of cells. We may say, indeed, that the nucleus is the active part of the cell, in the sense that it is always the first part of the cell to undergo division. From the extraordinary size and distinctness of the nucleus and nucleolus of the cancer cell, some have gone so far as to indicate that these are practically sperm and germ cells respectively. Within these undoubtedly there is during the normal life of the individual a power of multiplication, a power which greatly varies at different stages of this life. As this power dies out under normal conditions a man dies of old age, and it is necessary for the continuance of the species that there should be a recurrence to a process of direct reproduction through the well-nourished ovum and the highly differentiated sperm cell, by the conjuction of which the cycle is recommenced.

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Here we have, just as really as in the case of certain parasitic organisms, a kind of cycle or alternation of generation.

More than forty years ago, when Virchow brought forward his epoch-making doctrine that in all pathological as in all physiological processes cells beget their like, he at the same time shadowed forth the idea that, although all cells are begotten of other cells, the progeny only resemble their parents when they are produced under general conditions and surroundings, circumscribed within certain very definite limits. We now regard it as a well-known fact that by varying the conditions of nutrition, the facilities for excretion, and the nature and amount of stimulation or irritation, we can, to a certain extent, control or alter the character of the cells produced by certain tissues. Elsewhere I have indicated that it is necessary to study the epithelial tissues and the connective tissue separately, in order that we may be able to gain some insight into their relation to tumour growth. All epithelial surfaces are covered with a single layer or with several layers of cells, the forms of these cells varying very considerably according to the function that is assigned to them; in fact, they can only become fully developed as the necessity for some special function comes into play. Whatever epithelial cells we examine, and in whatever conditions, it may be accepted that the greater their vegetative power, the less completely is their functional activity developed. We have an exceedingly good example of this in what takes place in the embryo, where, development and growth going on rapidly, the cells are called upon to exert little or no function, and no draft is made on their energy and nutrition for carrying on of such function; the whole of these may therefore be devoted to reproduction. At the same time the connective-tissue cells are extremely active, although they in turn do not become fully developed, as we see from the mucous tissue that is found as the forerunner of the subcutaneous areolar tissue. It is during this period that all the in-foldings of the epithelium that take place in the fœtal tissues occur. Here we have the scaffolding of the whole gland erected long before it is called upon to perform any function; whilst in the developing mammary gland of the adult, when it first becomes active, the initial draft on its resources is in connexion with an active proliferation of the cells of the gland acini, and is not associated directly with any functional activity. During this period of development of the embryo within the uterus, and of the breast at puberty, we cannot describe either of the groups of tissues as being in a *stable condition*, and we can readily imagine that with any great nutritive disturbance, especially when this impairment is due to increased demand on the cells, due to local irritation, it may result in tumour growth.

Why do we get the age distribution of tumours that was insisted upon, now many years ago, by Virchow and Paget? Why are sarcomatous tumours so much more common during fœtal and early life than in old people? Why are the tumours of adult life those which have no great tendency to become malignant—adenomas, cystic glandular tumours, fibroid adenomas, or cystic sarcomas, in which we have always an increase in both sets of tissues, and which vary in one direction or another, becoming more sarcomatous or more glandular according to the age at which they are developed? Why are epitheliomas, as a rule, met with in old age, or rather at the end of adult life? May it not be that similar stimulating or irritating agents are capable of giving rise at different periods of life to these different forms of tumours, and that the essential difference consists in the different nutrient and developmental conditions of the tissues? I shall have something to say against this theory, but for the present let us look at it as affording some explanation of the occurrence of different tumours at different periods of life. In the embryo and during the first years of growth we have as yet an unbalanced condition of the tissues; the building-up process in which the connective tissues are specially concerned is going on at a great rate, and tumours occur in those tissues—the connective tissues,—on which the greatest strain is put under ordinary developmental conditions, and which therefore are, as it were, in a condition of unstable equilibrium; a comparatively slight increased stimulation being sufficient to maintain the vegetative activity at the expense of the true connective-tissue-forming power. In adult life, as has been frequently pointed out, the two sets of tissue may be looked upon as growing equally side by side; they are now both past the great vegetative strain, the connective-tissue framework has been completed, the functionally active gland cells have taken their position and part in the economy of the tissues, and both sets have settled down to their every-day work and to their every-day nutrition; the nutrition and function of the one appearing to be dependent in a very marked degree on those of the other. An increased growth of the one is accompanied by a similar growth of the other, and in both cases the cells are so far stable that their vegetative activity is never excessive. Local irritation or increased blood-supply may set up a localised hypertrophy, as it were; but beyond this we have no tendency to the formation of malignant tumours. During the period at which cancer is most usually developed, but when of course sarcomatous tumours may also occur, the connective tissues have passed their prime. The epithelial tissues have also reached their zenith, and are now on the turn; but, as we know, they have still great vitality, sufficient, indeed, when diverted from the imperfect functional to a vegetative activity, to give rise to very large masses of imperfectly developed epithelial cells which, as in the embryo, appear to have the power of invading the connective tissue. I have long been of the opinion that in classifying cancers and epitheliomas, the age of the patient is not the only factor that had to be taken into account; the organ affected must also be taken into consideration. We know that epithelioma of the skin and mucous membrane-tissue—which function is never highly specialised, but which remains longer than in the more specialised glandular cells—is usually developed later in life than cancers of the uterus and breast in which the function is lost at a comparatively early age. Epitheliomas, for instance, are probably commoner between the ages of sixty and seventy than at any other period.

Some time ago I examined a series of tongues taken from patients of different ages, and afterwards Dr. T. W. Dewar continued the investigation of the changes that take place in the epithelial tissues in a large number of tongues taken from patients at various periods of life. As the result of this examination I should like to bring under your notice several important facts which, up to the present, have not been systematically studied. If the tongue of an old person be examined the appearance is quite different from what is seen in the tongue of an infant; the subepithelial tissue is distinctly less in amount, whilst here and there are groups of small round cells; the fibrils of the connective tissue are wider apart and appear to be considerably atrophied. The epithelial covering, on the other hand, has assumed a very different appearance. The masses of cells, instead of being simple, are more or less ramified, small finger-like processes passing down from the main column into the connective-tissue spaces; until in some cases we might almost imagine that we were examining an epithelioma, especially where there are small cell-nests formed in the thickened epithelium. When this condition of affairs is normally present—for such a condition appears to be present in the tongues of most old people—it is easy to understand how some comparatively slight but long-continued irritation at this point may give rise to an epithelioma; we have practically an invasion of the much-atrophied and non-resistant connective tissue by the highly vegetative epithelium. Similarly in old people it has often been remarked that as involution of the breast proceeds the connective tissue becomes opener, the spaces larger, and the cells fewer; in fact, it becomes atrophied, and this atrophy becomes more marked as age advances. If during this period of atrophy there is no irritation, there comes a time at which the epithelium also undergoes atrophic changes, and there is a steady involution. Should there be any irritation, however, instability of the epithelial cells results; we have proliferative activity of these cells, an invasion of the non-resistant atrophied connective tissue, and the formation of a cancer.

It may be accepted for the present, then, that malignant tumours are to be looked upon as overgrowths of certain tissues started into activity by some unknown cause. This unknown cause has been a subject on which the pathologist has bestowed the most earnest attention. It has been recognised that it is necessary to search beyond the condition of the tissues themselves for a primary causal factor such as would account for the peculiar proliferation of different sets of cells under definite conditions and at certain periods of life. It has been found that malignant tumours of an epithelial type cannot be produced in healthy tissues, although certain adenomatous forms have been ascribed to the action of such irritants on compara-

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tively healthy tissues. It has also been indicated that if the irritation that brings about this formation of simple tumours be continued for a considerable period, or if during the process of irritation a "cancerous age" is reached, a cancerous element—that is, rapid vegetative power of the epithelium leading to invasion of the lymphatics—is developed. What, then, can be the exciting cause of cancer formation? We have already spoken of the unbalanced condition of the tissues and of the vulnerability to invasion of connective tissues by epithelial cells under certain irritative conditions and at certain ages, first indicated by Thiersch. For the development of cancer it is necessary that there should be a continuous irritation, and one capable of multiplication. After the demonstration of the fact that bacteria were capable of setting up proliferative changes in the connective tissues, great efforts were very naturally made to determine whether similar organisms might not play an equally important part in setting up cancerous proliferation. Some observers thought they had succeeded, but the organisms were shown to be common saprophytic germs. We are, then, compelled to look elsewhere for an exciting agent, an agent which must act continuously in the sense that it has the power not only of persisting, but of increasing in quantity and in activity. It must also have, under certain conditions, the power of acting almost specifically on epithelial cells, and of setting up proliferation in them at the expense of their functional power. All these qualities must be inherent in the irritant that has the faculty of stimulating epithelium into cancerous activity; this we know from our observations on the nature of the disease.

It has long been known to zoologists, especially to those interested in the animal parasites, that we have a number of parasites most of which affect epithelial cells, which exhibit little motion, are more or less homogeneous in structure, but which are surrounded by a hard smooth cuticle. This class of organism has been specially described as occurring in the liver of the rabbit, where, under the name "coccidium," it is known to set up a peculiar irritated condition of the bile ducts, which ends in the formation of psorosperm nodules, which are really cysts containing papilliform projections covered with rapidly proliferating epithelium, in the cells of which are numerous protoplasmic bodies answering in all respects to the description above given. Similar organisms, setting up similar proliferative changes, have been described as present in the epithelial cells lining the intestine of the mouse, the dog, cat, rabbit, and even of man. On examining the literature and descriptions given of these parasites, and of the effects they produce, one cannot but be struck by the very marked similarity, not only as regards the naked-eye appearances, but also as to the histological changes generally (especially those that are found in the epithelium), between psorosperm nodules and cancerous growths. We have here, then, in the lower animals organisms which, as parasites of the epithelial tissues in which they set up and maintain continuous proliferation, and comply with all the conditions required, theoretically, in the irritant that should be the cause of cancer. This being the case, it was natural that in psorosperm infection, observers should look for the cause of epithelial cancers, and for long there has been a vigorous strife between those who believe that certain structures met with in the epithelial cells are merely colloid bodies and those who maintain that some of them at least are parasitic organisms which have a definite structure and play a definite part in the production of cancerous growths. An important paper was published by Russell, in which he pointed out that he was able to stain certain structures in cancerous tissues very brilliantly, and that these structures appeared to bear a definite causal relation to the growth of cancer.

With the assistance of Mr. Douglas Stanley, M.B., I have been able to examine a very large number of tumours kindly supplied to me by Mr. Hulke, and have so been able to confirm Russell's observations as regards the presence of his so-called fuchsin bodies. Russell looks upon these bodies as being probably somewhat closely related to the yeasts, and he describes in them a kind of reproduction by budding, which, he thinks, supports his contention. On careful examination of many specimens specially hardened with bichloride of mercury and alcohol, I was, however, led to believe that these bodies resembled the coccidia group more than any other known organism; in the larger ones especially, where there appears to be a distinct investing capsule, there is often a rather more deeply stained centre, sometimes granular, sometimes perfectly homogeneous, whilst the differentiation between the central portion and the periphery is frequently well marked, the central portion being irregularly mottled with small radiating projections, which may be sharp-pointed or club-shaped. Again, the protoplasm within the capsule sometimes assumes a stellate form. Wherever these larger organisms are found, small fuchsin-stained points can always be distinguished in or near the nucleus of the proliferating epithelial cells; they are quite distinct from the nucleus, and the only thing to which they can be compared is the adnuclear body. In some cases the nucleus is pushed to one side, forming a crescent around one end of the fuchsin body, whilst in other cases the nucleus has almost disappeared, and the fuchsin body appeared to be surrounded by a ring of protoplasm, the remains of the epithelial cell with a little granular matter, the remains of the nucleus, at one corner. Soudakowitch's observations, recently announced in the "Annales de l'Institut Pasteur," offer most important confirmatory evidence as to the nature of these intra-cellular organisms, important because he has been able to demonstrate the possibility of throwing these objects into much greater relief than has ever yet been done. On account of the thick chitinous capsule of the coccidium, its contained protoplasm appears to be little affected by the action of weak chromic acid or Muller's fluid, and the organism continues to live and then to undergo degenerative changes after the protoplasm of the epithelial cells has been partially fixed by the hardening reagents. By fixing the tissues rapidly with bichloride of mercury, osmic acid, Fleming's solution, or absolute alcohol, the structure of these organisms is retained, in some degree at any rate, and then, by staining with logwood or with logwood and saffranine, this structure can be brought out fairly distinctly. After examining specimens so prepared, so great an authority on zoology as Metchnikoff pronounces the organisms to be undoubtedly coccidia. Dr. Ruffer and Mr. J. H. Walker have placed at my disposal a number of sections stained with a combination of aniline dyes, some of which are under the microscope; others we have been able to photograph under a magnification of 800 diameters. A careful examination of these sections removes all doubt as to the nature of these bodies; they are certainly not the result of degenerative processes; they are not leucocytes or red blood-corpuscles taken into the epithelial cells, though small cells appear to find their way into the proliferating epithelial cells in some cases; equally certain is it that they are not vacuoles. They have, indeed, as Metchnikoff points out, all the characters of coccidia. In some of the capsules there appears to be a process of division going on, whilst here and there are capsules in which several (four to twelve) small rounded or crescent-shaped psorospermæ, in other respects like the coccidia except that they have no capsule, may be made out. In one or two instances these appear to be lying free between the epithelial cells, from which they have probably escaped on the breaking down of the mother capsule. They are of very various sizes, from the diameter of a red blood-corpuscles to three or four times that size. On examining a section of a rapidly growing secondary cancer in which these bodies are present, the proliferation of the epithelium is always most marked where the encapsuled bodies are most numerous. In the larger alveoli many of the cells contain these organisms, and in the long narrow spaces, where we have simply a single row of epithelium cells, every third or fourth cell may be seen to contain at least one, whilst in transverse sections of these spaces a single one of these bodies fills up the whole of the cavity. We are still very far from the proof that these organisms are the actual cause of cancer. Why should they make themselves felt only under certain conditions and at certain periods of life? We have already spoken of some of the conditions favourable to the production of cancer, and it may be, as Mr. Jonathan Hutchinson says in respect to the production of tubercle by the tubercle bacillus, that a special kind of soil, and one to which special kinds of manure have been added, is required for the nutrition of the psorospermæ. The conditions of parasitism are such that the healthy dry epithelial tissues are enabled to resist the attacks of even the most vigorous parasite; when once, however, their functional activity is impaired or their vitality somewhat lowered, the coccidia may find a nidus in which they may develop, secrete the products of their protoplasm, and so act on the epithelial cells, giving rise to proliferation and allowing

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them to become fully developed, and thus by their irritation bringing them back to their embryonic form, during which their vegetative activity is increased in proportion to the impairment of their functional activity. It is this vegetative activity that enables them to invade the lymph spaces of the connective tissue. Beyond this, however, these same products of metabolism must exert an irritant effect on the connective tissue in the immediate neighbourhood of the proliferating epithelial cells, and so give rise to what is practically granulation tissue; the greater the departure of this from the normal fully developed connective tissue the more readily does it allow of the invasion of the proliferating epithelial cells. May not these secretions also play an important part in the cachexia so marked a feature not only in cancer, but in all cases of coccidial disease both in man and in animals? One extremely weak link in the chain of evidence is that hitherto all inoculation experiments with cancerous material have failed most signally to produce any cancerous reaction. At first sight this appears to be an almost insurmountable obstacle to the acceptance of coccidia as the primary causal agent in the production of cancer; but it must be remembered that the evidence offered by zoologists as to the nature of these organisms indicates that they are exceedingly fastidious, both as to the positions in which they will grow and the kind of nutriment they will take up.

In the inoculation experiments that have been made the cancerous mass has usually been introduced into the connective tissue, into the veins, or into the abdominal cavity; in which position, although it has been demonstrated that coccidia can retain their vitality for three days, the tissues in which they are lodged, and eventually the coccidia themselves, are absorbed by the new connective tissue that is formed around them, a small mass of such connective tissue being all that is left to indicate the locality of the inoculated tissue. As soon as the epithelial cells disappear, the coccidia have nothing on which they can subsist or in which they can grow, and they immediately undergo degenerative changes, and are removed just as were the epithelial cells. Under the most favourable conditions for their growth and development they appear to be able to continue their existence only when protected from the connective tissue by the proliferating epithelium in which they are lodged. It is little wonder, therefore, that inoculation experiments have not succeeded. A coccidial origin of cancer, if proved to be correct, would render it necessary that we should throw aside the doctrine that cancerous epithelium can be developed from anything but epithelial cells. We can, no doubt, find various kinds of epithelium, according to the seat of origin of the cancer, the rapidity with which the cells proliferate, and the extent of the invasion; but in every case we find epithelium which resembles in a greater or less degree normal epithelium. From what has already been said as to the relation of the coccidium to the epithelial cell, it is evident that, in order that a primary cancer may be developed or a secondary cancer grow, epithelium must be present in which the coccidium can maintain its existence and perform its parasitic functions. Before I conclude I wish to say a few words under my third head.

In all our researches as to the nature and etiology of cancer we have in view the alleviation of the suffering of those who are affected by this disease; and hitherto our main object has been to determine how far it was necessary to remove certain structures in order to minimise as far as possible the chance of any return of the disease. From a careful microscopical investigation of many hundreds of cancers that have been submitted to me for examination, I am firmly of the opinion that many surgeons make the mistake of not removing sufficiently freely either the tissues in which a cancerous growth has made its appearance or the lymphatic glands associated with it. Quite recently Mr. Harold Stiles, of Edinburgh, has carried on an extensive and careful investigation into the question of how far the immediate tissues around the naked-eye cancer of the breast are affected. His method is based upon the effect which nitric acid has upon the tissues, causing the connective tissue to become clearly differentiated from the epithelium. From a careful study of sections so prepared, both by Mr. Stiles and myself, as well as from microscopic examination, I am convinced that the only safe rule to be observed in removing cancer of the breast is to remove not only the main mass of the gland, but all outlying portions of glandular tissue, so that if on cutting away the margins of the tumour, treating with methylated spirit and nitric acid and then with water, any opaque columns or fragments are to be seen still, I should consider that the removal has not been free enough. Of course, the part of the tumour that should be specially examined in such a case is that near the sternum, where, on account of the shape of the incision usually adopted, as pointed out by the late Charles Moore and mentioned to me by Mr. Hulke, there is the greatest danger of fragments of the gland being left. I shall not to-day attempt to enter into any discussion as to the relative frequency of the spread of cancer by bloodvessels and by lymphatics, although latterly some doubt has been thrown on the accuracy of our present teaching in regard to this question. I will merely state that I am more and more convinced that cancer extends almost entirely by the lymphatic vessels, that this takes place not only locally by direct extension, but in some cases where the lymphatics are especially wide, and especially after they have been called upon to do temporary extra work, the cells may make their way for some distance without leaving any intermediate trace between themselves and the parent mass. It may appear that I am taking much for granted, and of which at present we have extremely insufficient proof; but I hold that until we have more definite knowledge on all these points, we must for the sake of our patients accept them as proved, and certainly take them into consideration when planning out our method of treatment.

OUR MISTAKES.[1]

BY WILLIAM MURRAY, M.D., F.R.C.P. LOND.

THE man who makes no mistakes seldom or never does anything worthy of note. Life is so closely interwoven with tentative efforts on the part of those who keep its machinery in motion, that it would be strange indeed if mistakes were not often made. As experience, often dearly bought, on the part of both doctor and patient, is our best guide amidst the pitfalls which surround us, I think it is a most profitable task to go over the ground of our past experiences and gather up the lessons taught us by our failures and mistakes. A great general was once found making a careful survey of the field of a battle which he had won. On being asked what he was doing, he said he was *studying his mistakes*—a lesson well worthy of our imitation. Our mistakes may be divided into (1) those which can and ought to be avoided by every intelligent, well-taught, and experienced practitioner; (2) those which can only be avoided by an unusual amount of experience and insight; (3) those which no amount of care, experience, or insight would enable us to avoid. I shall give examples of these as we proceed. In disease nature is for ever making fresh experiments before our eyes, and we are to watch how she varies the experiment, lest its many variations from the normal type of the disease mislead us into a false diagnosis. Each disease varies as much in expression as the human countenance. In my experience no two cases are exactly alike. What is described as a typical case exists only in the imagination of the writer of a text-book or a lecturer to his class. This typical case is like the archetypal vertebra, which exists only in the brain of the anatomist; all real vertebræ are, like all real diseases, variations from the typical. To push the analogy, just as the skilled anatomist can amplify the most rudimentary vertebra into one possessed of all its parts, so the skilled physician can grasp the true nature of a case and build up a diagnosis from the faintest indications; and, further, he can simplify and reduce to order the most irregular and complicated manifestations of a difficult case. It is by the exercise of this constructive faculty on the one hand, and by that analytical faculty on the other, that our difficulties are to be overcome and our mistakes avoided.

With regard to the first class of mistakes—namely, those which ought to be avoided,—let me remark that the best of us will sometimes be caught napping. "Nemo mortalium omnibus horis sapit." We somehow get on the wrong scent in a case, and becoming occupied by a train of minor symptoms, miss its main features; or we are the victims of

[1] An Address delivered before the Newcastle Clinical Society.

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a preconceived opinion, and it shuts our eyes to facts which would be patent enough if we brought an open mind to the case. I shall give one or two illustrations of the kind of thing which occurs. There is no more common source of error in diagnosis than the subtle development of hydrothorax or empyema after an acute illness. When these diseases arise from an attack of pleurisy pure and simple there is little fear of their being overlooked—in fact, they are then often diagnosed when they can hardly be said to exist. But when they supervene on another acute illness, such as typhoid or scarlet fever, the practitioner is liable to miss their existence, and to attribute the rapid breathing, quick pulse, and fever to some other sequel, such as tubercular disease, bronchitis, or albuminuria; yet the faintest suspicion would lead to the easy detection of the true state of affairs. The immovable chest wall, the absence of respiratory sounds, the dulness on percussion and the absence of vocal fremitus, are indications too clear to be easily mistaken. The mistake arises from a want of suspicion or a want of alertness, or from a want of care in making a thorough and frequent examination of the patient.

"Strip him!" is a motto which ought to be engraven on all our minds. This brings me to another source of error; that is, the want of a thorough examination of the various canals and cavities—the mouth, the throat, the nares, the ear, the rectum, the generative and urinary tracts, &c. I need not say that I refer to an examination by all the specular aids we possess. No small number of failures and mistakes arise from inattention to this point. Let me give one or two illustrations. Whenever we are at a loss to account for high temperature, the throat should be examined. There may be a good deal of mischief there without any complaint on the part of the patient. I well remember being called to two consecutive cases—one of supposed pneumonia, the other of quasi-puerperal fever,—in each of which I found that diphtheria was the true cause of the illness. Within a very short time a gentleman called on me, with an apparently feverish cold. As he did not get well, he asked me to call on him; and I, thinking his symptoms were due to the above cause, handed him over to the care of an exceedingly acute local practitioner, who discovered at his first visit that our patient had a diphtheritic throat. Most medical men will agree that such mistakes are not uncommon, and we need to add to our first motto, "Strip him!" another equally golden rule—to examine the canals and cavities. Another illustration may be added. A short time ago I was asked to see a child suffering from obstinate hæmorrhage from the bowels, and I said at once, "I shall find a pediculated polypus in the rectum," which was found and detached at the moment. My experience at the Children's Hospital had taught me this lesson years ago.

A further illustration still occurs to me. A gentleman whose name is now a household word throughout the world called on me in great alarm on account of an attack of blood-spitting, which came on while he was dressing. I saw a good deal of blood on his handkerchief, and on examining his chest heard, or thought I heard, rough breathing and fine crepitation over the left apex. I told him this, and treated him accordingly. On going to his shop he, knowing something about dentistry, looked into his mouth, and discovered that the bleeding was from a spongy gum, which he had doubtless lacerated with his toothbrush. I need not say that he lost confidence in me, and I lost my patient. Time would fail me to make further remarks on these casual cases, where mistakes are often made for want of thought and care.

I will now relate a series of cases of cancer where a diagnosis was only to be made by an unusual amount of care, experience, and insight; and if I seem to be egotistical by taking praise or blame to myself, I trust my unintentional fault will be pardoned. I am going almost entirely on my own experience, and I am thus compelled to speak of myself oftener than I like. Cancer of the internal organs rarely fails to puzzle us at the outset, and a diagnosis is seldom made until the disease has made considerable progress. In the absence of distinct physical signs, and with only subjective symptoms, such as pain, to depend on, we are very liable to be landed in a grave difficulty of diagnosis. If we suggest there is, or may be, malignant disease, the responsibility is great; if we risk an opposite opinion the responsibility is equally great, as the sufferings of the patient are often urgent and demand an explanation. Mistakes can only be avoided here by the utmost caution and the most watchful investigation. There is, however, one feature about these cases which occurs to me when I look back on a long series of them. It is this, that most of them have given at a somewhat early period just the faintest hint of what is going on. I have often felt too late that a wise interpretation of this or that faint hint would have saved me and others from the ignominy of being forestalled in our diagnosis by someone else. It is easy to name a full-blown flower, but difficult enough when that flower is in the bud. I shall now give an experience founded on five cases of internal cancer, which will illustrate my meaning.

Some years ago a case occurred in the practice of the late Dr. Douglas of Gateshead, in which the chief, and for a long time the only symptom was pain in the tibia. The man was emaciated and suffered intensely. He was seen by two or three physicians and one or two leading surgeons. None of us could form a diagnosis. There was no swelling, heat, tenderness, or alteration in the shape or appearance of the limb. At length some softness and shining of the skin marked the seat of pain, and even then grave doubts were entertained as to the nature of the disease. Within a few days of his death I was called to see him again, and I found he had expectorated some currant-jelly-like matter; but even this failed to suggest a true diagnosis, and so the man died of "no one knew what." Meditating on this case, it all at once flashed into my mind that the red-currant-jelly expectoration was a hint of the true nature of the case, and that the man had doubtless died of cancer of the lung, following or accompanied by malignant disease of the leg. I felt that a serious error by default of diagnosis had occurred, and was much humiliated thereby.

Not long after this I was called to see a case in Weardale, and was told on arrival that the patient was suffering from congestion of the lungs. The expectoration, which was shown me before I examined the patient, at once convinced me that this was a case of cancer of the lung. There were, however, no physical signs; and on mentioning my conviction to the medical attendant he was very sceptical, and threw on me the enormous responsibility of giving an opinion based on the one isolated fact of currant jelly expectoration. I therefore re-examined the chest and discovered a cancerous nodule in the right mammary gland, which of course set the diagnosis at rest. An unfavourable opinion was given, which soon afterwards proved mournfully correct.

A short time after this I was called, with my friend, Dr. Adam Wilson, to see the married daughter of the above lady. We were informed that her arm had been amputated above the elbow by Sir Joseph Lister for disease in the forearm. The patient was then complaining of pain at the posterior base of the right lung, but the physical signs were faint and doubtful. We therefore reserved our opinion, but privately agreed that it was probably a case of cancer of the lung, and that Sir Joseph Lister had amputated high for malignant disease of the forearm. In due time came the currant-jelly expectoration, and she died of cancer of the lung. In these cases the faintest hints were given at the outset, and errors by default of diagnosis could only be avoided by paying heed to them. We ought to make ourselves well acquainted with this red- and black-currant-jelly like expectoration of cancer of the lung so as to be able to distinguish it from the bistre or sooty tint of pulmonary apoplexy and old hæmoptysis.

Pursuing this subject, two other instructive cases occur to me. About fifteen years ago the late Mr. Manford had a case which puzzled several of us. The chief symptom in this case, for at least six months, was an intolerable pain on the front of the right thigh three inches above the knee-joint. All sorts of opinions were expressed, and of course hysterical knee was the favourite. At last it occurred to me that, this region being supplied by terminal twigs of the obturator nerve, we ought to examine that nerve along its whole course, and this could only be done per rectum. On passing the finger the secret was at once discovered to be a carcinomatous mass springing from the side of the pelvis, and growing into that part of the pelvic cavity which is traversed by the obturator nerve.

(To be concluded.)

EAST LONDON HOSPITAL FOR CHILDREN, SHADWELL.—Baron De Hirsch has forwarded a donation of £700 to this institution.

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REMARKS ON THE

STATE OF THE VESSELS OF THE PIA MATER IN BRIGHT'S DISEASE ("ARTERIO-CAPILLARY FIBROSIS").

BY A. G. AULD, M.D.

(From the Pathological Laboratory of the Western Infirmary, Glasgow.)

IN the course of the past eighteen months I have examined the vessels of the pia mater in all (or nearly all) brains removed for examination in the post-mortem room of the infirmary during that period. In each case the pia mater was hardened for a long time in Müller's fluid, and afterwards in alcohol. The method adopted for examining the coats of the vessels consisted in washing out the alcohol, soaking in gum and sugar solution for a few days, then freezing the membrane *en masse*, and cutting sections. It cannot be said that the resulting sections were the best that could be desired from an artistic point of view; but after careful staining and mounting, I have made out by means of high powers what appears to be the true nature of the "hyaline-fibroid" thickening of Gull and Sutton. As is well known, these authors, in their celebrated papers, contended that in chronic Bright's disease the vessels throughout the body generally, and especially those in the pia mater, had their outer coats thickened by a "hyaline-fibroid material," while the muscular coat showed atrophic changes, and the tunica intima was generally unaltered, though occasionally thickened. With respect to the muscular coat, such an atrophy has generally been denied, and Johnson especially laid stress on a true hypertrophy of this layer, quite apart from any question of an *apparent* hypertrophy from contraction occurring at death. On the other hand, all observers are agreed as to a thickening of the outer coat. First, as regards the larger vessels, my observations go to show that in Bright's disease (though not limited to this affection) a hypertrophy of all the coats is the condition most generally observed, and of the three, that most frequently excepted from hypertrophy is the inner, while that most constantly involved is the outer. The thickening of the inner coat consists in an endarteritis, such as forms the first stage of atheroma, causing the intima to be represented by a more or less thick and unequal layer of very cellular tissue—a tissue produced by a rank cellular proliferation. This was very characteristic of cases presenting the atrophic stage of large white kidney, and was not so pronounced in cases of ordinary granular kidney. As regards the muscular layer, in most of the cases there was undoubted increase of the muscle nuclei. There was then always hypertrophy of the left ventricle of the heart. In a few cases the muscular layer showed a degree of atrophy, unequally distributed, and some fatty degeneration of its cells; there was then usually some fatty change in the heart. Occasionally not much alteration from the normal was detected. With respect to the condition of the outer coat, as stated, all observers agree that this coat is thickened, and sometimes very greatly so, in the cases under consideration. It presents in the arteries and arterioles alike a homogeneous, somewhat translucent, aspect, which in the larger vessels is particularly marked in that portion which lies nearest the muscularis. Gull and Sutton held that there was a deposition or formation of a "hyaline-fibroid" substance, giving this coat the appearance described by Dickinson, "as if swollen with translucent structureless exudation."[1] Johnson and others considered this hyaline appearance to be a delusive result of reagents—e.g., glycerine, acidulated mounting fluids. In any case, the cause of the hyaline-fibroid formation has not so far been determined. Now I have invariably made out by means of oil-immersion objectives (Zeiss) the existence of branched corpuscles with large and frequently divided nuclei embedded in this hyaline-fibroid substance. Further, after maceration in picric acid and exerting pressure over the cover-glass this homogeneous-looking layer was seen at the cut extremity of the vessel to be split up into exceedingly fine fibrils. In short, it was clearly demonstrated that this formation is ordinary connective tissue derived from connective-tissue corpuscles after the manner of inflammatory tissue. And not only in the outer coats of the vessels, but likewise throughout the whole tissue of the pia mater, this corpuscular change was usually seen, leading to a more or less general thickening.

From these observations it is to be concluded: 1. The hyaline-fibroid thickening of the outer coat of the vessels is not of the nature of an exudation or deposition of a foreign substance, nor yet a transformation of existing structures. 2. The effect of reagents is, after all, but unimportant. 3. The thickening of the outer coat is unquestionably due to proliferation of connective-tissue corpuscles embedded therein, leading to new formation of tissue; in short, is a slowly progressing periarteritis. 4 This change is probably general throughout the entire tissue of the pia mater. 5 The muscular and inner layers of the vessels show hyperplastic changes at first; latterly atrophic and degenerative changes set in.

In the case of the smaller arterioles their muscular elements were certainly increased in volume, if not also in number, and their delicate investment of connective tissue was represented by a thick, homogeneous-looking cylinder. It is particularly to be noted, however, that their endothelial lining showed no deviation from the normal, in this respect presenting a marked contrast to the condition prevailing in the larger vessels. The diameter of the channels in these thickened arterioles suffered great diminution; not infrequently it measured just the diameter of the wall. Such a diminution suggests an adequate explanation of the cardiac hypertrophy in chronic Bright's disease. I hope, however, to return to the consideration of this point.

In conducting these observations, I may say that it was impossible not to be struck with the marvellous advance made in this department of pathology by the distinguished authors of "arterio-capillary fibrosis."

Glasgow.

[1] On Albuminuria, p. 309.

PLACENTITIS AND MISCARRIAGE.

BY CHARLES GAYFORD, M.D. DUR., M.R.C.S., &c.

THIS case is one of more than ordinary interest, and will doubtless be of service to other members of the profession.

On Feb. 13th I was summoned hastily to see Mrs. C——, whom I found seated on a commode in which was lying a fœtus of about five months. She said the expulsion had come on quite suddenly, though she had been ailing for some weeks. The following history was elicited. On Boxing-day she had shivering and great headache, but she did not go to bed. A day or two after, while still feverish and in some pain, she came on unwell, and lost freely for two days, more than at ordinary monthly periods. The loss then lessened, and she, still keeping about, thought she must have made a mistake in her opinion as to pregnancy. A second loss occurred a few days subsequently, followed by a very copious discharge of "whites." Still she kept about, though often feeling extremely ill and unfit for her duties, which were those of a matron of a boys' home. In this way some five weeks passed before the mishap occurred for which I was called in, and during this time she had only once seen a doctor. She had all the time been in failing health. On my arrival I severed the cord, which was bloodless; and the fœtus, which was discoloured, had probably been dead several days. There was no trace of any membranes, nor was there any evidence of amniotic fluid. After getting the patient on to the bed I examined her for the purpose of removing the placenta. I could trace the cord up to the point of attachment on the uterine wall, which presented at that point a puckered, rough, and somewhat hard surface, but no further evidence of the presence of a placenta. After waiting a little time for uterine contractions to come on, as I had given ergot, I made a further attempt to get the placenta away, but in vain. The cord was firmly attached, and any force seemed likely, owing to the condition of inertia in which the uterus was, to bring about prolapsus, if not inversio uteri. I left my patient for a time, with orders to call me at once if any need arose. After an interval of an hour I saw her again, when the same state of things was found. There had been no pains and there was no hæmorrhage, nor had the cord become detached. After giving another drachm

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dose of ergot I left, giving instructions to be called at once if necessary. This time I was two hours away before calling, and when I arrived found a considerable amount of hæmorrhage. I emptied the uterus, removing several clots, which were small and all carefully examined, and in doing so, without using any but the gentlest traction, the cord got released from its attachment and came away. It showed evidence of attachment to what had been placenta merely. It was spread out to about the size of a two-shilling piece. Its attachment showed nothing more than a spreading out of the outer covering of the cord; there was no evidence of membranes or any portion of placenta attached to it. There was the same condition of uterine wall. The hæmorrhage ceased, and I left my patient, to be seen again later in the day. I ordered the use of an injection of 1 in 5000 bichloride of mercury solution and a mixture of bromide of potassium and liquid extract of ergot. The next day her temperature was 100·2° F., but it went back to normal in the evening and remained so during the whole of the convalescence, which was uninterrupted. I allowed her to get up on the fourteenth day, and she has since been about as usual. There was no placenta discharged, no hæmorrhage after the one I have spoken of, nor any ill-smelling discharges. At the month after the occurrence she had a slight flow, but nothing to speak of, for two days. At the next period she lost freely for three days. She has resumed and still continues her somewhat arduous duties, and is in good health.

My diagnosis in this case was miscarriage following placentitis. My belief is that she had influenza the week after Christmas, and that this set up the trouble. This is her fifth pregnancy. There is no evidence of specific mischief, though she has been singularly unfortunate. Two of four children were born at full time dead. Shoulder presentations. The others were one shoulder and one breech presentation, both of whom are living and healthy children. Both parents are young people and healthy. I should be glad to hear of any similar experience, for my own feeling is that the evil effects of the so-called influenza show mischievous ramifications so widespread that hardly any portion of the body can claim immunity from its ravages.

Fleet-street, E.C.

ACUTE INTESTINAL OBSTRUCTION; OPERATION BY SHORT CIRCUIT.[1]

BY EDWARD ATKINSON,
SENIOR SURGEON TO THE LEEDS GENERAL INFIRMARY.

G. F——, aged twenty-two, was admitted into the General Infirmary, under Dr. Churton, on Wednesday, Nov. 25th, suffering severe pain in the right side of the abdomen. In Dr. Churton's absence Dr. Jacob asked me to see the patient with him, when the following history was elicited:—Nine days previously he was seized with severe pain in the epigastrium and right side of the abdomen. He left his work and remained at home two days, taking castor oil and other medicines, which were vomited, together with all the food that he took. The third day, feeling better, he went to work again for two days, when the symptoms returned, and on Friday, the 20th, he kept his bed. The next day acute pain came on and vomiting, nothing having passed the bowels for some days. On the Sunday he passed a small motion and felt somewhat better for it, but on Monday the pain and vomiting returned, and lasted without intermission till his admission on Wednesday afternoon (the 25th), and no more motion had passed. On examination the abdomen was tense and tympanitic, especially on the right side. The patient complained of pain of a sickening character right across the hypogastrium, and he had manifest tenderness on pressure over a limited area in the right iliac region. There was resonance over the whole abdomen, and the movements of the small intestine could be distinctly seen. The patient said he had passed a little flatus in the morning, but two enemata given him after being admitted into hospital had not been followed by any further relief. The symptoms seemed partly to point to the cæcum or vermiform appendix, but the vermicular movement of the small intestine suggested that the obstruction was higher up. However, the fact that he had had no opiate, and his statement of having passed a little flatus, induced me to order a hypodermic injection of morphia, as it was late at night, and to wait till the morning. The next day he was no better, and so I resolved to explore. At 10 A.M., under chloroform, I made an incision five inches long over the outer border of the right rectus muscle. On opening the peritoneum a quantity of clear fluid escaped. Nothing suggestive of typhlitis or perityphlitis was found, but distended coils of small intestine presented at the wound. These were united to one another and to the iliac fossa by broad bands of adhesion, not recent, and prevented my being able to draw them forward or trace their course. These bands were evidently not the cause of obstruction. Being unable to see or feel any large intestine, I carefully tied and divided one or two of the broad bands, which enabled me to turn aside a coil of small intestine, and then found the cæcum behind it empty. It being now evident that the matting of the bowels rendered any further search for the cause of the obstruction impossible, the only course which seemed available was to bring the small intestine out of the wound and make an artificial anus; but Mr. Littlewood, who was present, suggested to me that the expedient of short circuiting, which he had performed in the case which he read to the Society a fortnight ago, would be equally applicable here. Accordingly I opened the collapsed colon, as much above the cæcum as I could reach, and inserted a Senn's bone plate; and after isolating the nearest coil of ileum, and securing it by tying a piece of indiarubber tubing round it, I opened it and inserted the corresponding plate. The large and small gut, being now brought into apposition, were further secured by marginal sutures around the plates, and the peritoneal wound was closed with deep silk sutures and silkworm gut for the external wound. Altogether the operation lasted an hour and a quarter. Within twelve hours after the patient had two large liquid motions, and next morning he expressed himself as feeling quite comfortable. His recovery has been uninterrupted, except for an abscess in the abdominal wall about a week afterwards, which soon cleared up. He was kept without food for three days, then small quantities of milk were allowed, and in a week afterwards he took rice pudding and mincemeat, and is now on ordinary diet.

It will readily be seen how immense an advance this procedure offers in the treatment of those cases of acute obstruction where the cause is, after careful search, either undiscovered or out of reach; and which otherwise would have to be relegated to the category of incurable cases, or dealt with by the formation of an artificial anus. With this new departure one may hope that few cases of obstruction will arise in which relief is unattainable, if treated in time.

Leeds.

[1] A paper read on Dec. 18th, 1891, before the Leeds and West Riding Medico-Chirurgical Society.

A CASE OF

SECONDARY CANCER OF THE RIB, VERTEBRÆ, AND OVARY,

OCCURRING AFTER REMOVAL OF THE PRIMARY DISEASE IN THE MAMMA, AND COMPLICATED BY MYOMA OF THE UTERUS.

(From the Pathological Laboratory of the Glasgow Royal Infirmary.)

BY JOHN LINDSAY STEVEN, M.D.,
PATHOLOGIST, GLASGOW ROYAL INFIRMARY;
AND
JOHN BROWN, M.D.,
DISPENSARY SURGEON, GLASGOW SAMARITAN HOSPITAL FOR WOMEN.

THE following case is of interest as affording an illustration of the recurrence of mammary cancer in the bones. It is unfortunate that no accurate and exhaustive clinical record of the earlier period of the case is now possible, as the operation was performed at the patient's home, and I have been able to obtain only very meagre information as to the opinion held at the time regarding the nature of the primary tumour.

Mrs. C——, aged forty-six, housewife. The patient has had two children, both delivered by instruments; the last,

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born in 1872, died soon after birth. Menstruation has always been normal in quantity, regular, and without pain up to September, 1890, when it ceased. In May, 1889, the right mamma was removed by Mr. H. E. Clarke for malignant disease. She was admitted into the Royal Infirmary, Glasgow, on Feb. 16th, 1891, with the following symptoms: Extreme constipation, no passage of fæces by bowel being obtainable without an enema; no appetite; the constipation and loss of appetite dating from August, 1890. She complained of severe pain in the left lumbar region, which had commenced in September, and also pain on the outer side of the left thigh, which she compared to cramp. In December the left leg became paralysed. Before her admission to hospital a tumour in Douglas's pouch was diagnosed as attached to the body of the uterus posteriorly. Operation was refused, and she was dismissed from hospital on Feb. 25th. She was readmitted on Jan. 11th, 1892, with all the above symptoms. During the past three months the urine required to be drawn off by catheter. An exploratory incision was made on Jan. 31st, and as the uterine tumour did not account for all the symptoms, nothing further was done; but the incision closed, and the patient died the following day. The family history was unimportant.

Necropsy.—The body was that of a woman apparently about fifty years of age, much emaciated; pupils equal and medium; rigor mortis passing off; abdomen deeply discoloured, and a sutured incision extended from a little above the pubes almost to the umbilicus. Nothing remarkable was noted in the cicatrix of the mammary operation. On opening the thorax, the pericardium was found to contain a couple of ounces of deeply blood-stained fluid. The lungs were non-adherent and fairly voluminous. With the exception of a slight catarrh of the bronchi and a slight emphysema of the anterior borders, both lungs appeared healthy. The right lung weighed nineteen ounces, the left sixteen ounces. The aortic curtains were competent; the lining of the heart and great vessels were deeply stained with blood-colouring matter. The heart muscle was fairly firm, but the heart was small, weighing eight ounces and a half. The abdomen contained a large quantity of opaque brick-red fluid. The coils of intestine appeared healthy. The spleen was healthy, weighing four ounces and a half. Both kidneys were somewhat congested, but otherwise healthy (the capsules were easily removed); the left weighed five ounces and a half; the right four ounces and a half. The liver showed a slight amount of fatty infiltration, but appeared otherwise healthy; it weighed forty-five ounces. The mucous membrane of the stomach, except a slight amount of congestion near the cardiac extremity, was healthy. The left ovarian vein was very large and convoluted. The vena cava inferior was enormously distended. On removing the great vessels from the front of the spine a distinct prominence of the second lumbar vertebra was noticed. On sawing out a wedge-shaped piece from the bodies of the vertebræ, the first and second lumbar vertebræ were found to be extensively diseased. A tumour about the size of a small hen's egg was found protruding into the thorax from the third right rib about two inches external to the spine. The rib in the neighbourhood of this tumour was very friable and the tissues around much congested. On removing the pelvic organs a tumour was discovered in the posterior surface of the uterus; it had a broad base, being attached to nearly the whole of the posterior surface, the only portion free being the space of about half an inch between the fundus and the tumour. The tumour was about the size of a large walnut. A hard nodule was found on the outer end of the left ovary, about the size of a horse bean. The brain and spinal cord were not examined.

Microscopic examination.—The histological relationships of this case are of a most complicated and rather confusing description, especially in view of the circumstance that the primary mammary tumour is said to have been a sarcoma—a diagnosis which the present research seems on the whole to disprove. The nodule in the left ovary presents the characters under the microscope of an acute scirrhus; in some places the alveolar stroma with the contained cancer elements are very typical; at other parts, and probably most commonly, the corpuscular elements are not so clearly in regular alveoli, but are arranged in irregular branching columns separated from one another by a fibrous tissue with many spindle-shaped nuclei. On examining the tumour of the rib it is found to consist of a highly corpuscular mass, the corpuscles being similar in character to those observed in the ovary; but the new growth in the rib differs from the ovarian chiefly in the circumstance that the stroma is much less abundant. At some places the similarity of the costal tumour to the ovarian in respect of the arrangement of the cancer elements in branching columns is sufficiently striking. In addition to the cancer corpuscles, here and there enormous collections of red blood-corpuscles are observed, which, on careful consideration, are regarded as extravasated. The naked-eye characters, as well as the histological, are indicative of very active proliferation. After decalcification the nodules of the vertebræ are examined, and are found to present a typically cancerous structure, well-formed alveoli, with cancer elements, being abundantly present. The uterine tumour is obviously a myoma, and has no relationship to the cancerous disease. It is clear that the nervous phenomena of this case were due to the involvement of the spinal column in the malignant disease, and to pressure upon the nerve trunks of the lumbar plexus &c. It is interesting also to find a secondary cancerous nodule in the ovary and a simple myoma in the uterus.

Glasgow.

NOTE ON

CERTAIN MODES OF TREATMENT WHICH INTERFERE WITH THE DIAGNOSIS OF SYPHILIS.

BY ARTHUR COOPER,

SURGEON TO THE WESTMINSTER GENERAL DISPENSARY.

THE earlier phenomena of acquired syphilis, when not interfered with by inappropriate treatment, are for the most part regular in their development and easy of diagnosis; and when difficulty and doubt do arise, if we put aside conditions due to some peculiarity in the patient himself, the most frequent cause, as far as I have been able to judge, is one or more of these three things:—1. The application of irritants (chiefly nitrate of silver) to a doubtful sore. 2. The application of irritants (chiefly iodine paint) to the groins. 3. The untimely administration of mercury. As all these modes of treatment are not uncommonly employed, and as they are all capable of giving much unnecessary trouble to the doctor as well as to the patient, I would venture briefly to state some of the reasons why they should be avoided. The application of nitrate of silver to a sore of uncertain nature, apart from the unnecessary pain and irritation produced by it, is more especially to be avoided because it is so liable to cause inflammatory hardness which may be either itself mistaken for syphilitic hardness, or may mask true syphilitic hardness. Irritation of the skin over inflamed glands is to be avoided for two reasons: First, because suppuration may be induced; and secondly, because so much infiltration and hardening of the skin and cellular tissue may be set up as to hide the enlarged glands of syphilis, if that disease has been contracted. Mercury should not be given while the diagnosis of a venereal sore remains in doubt, because the drug may either so modify the early signs of syphilis as to render them difficult to recognise, or perhaps may even prevent some of them altogether.

In illustration of these points, let us suppose such a case as this, which fairly represents a state of affairs not infrequently met with in practice: A man acquires a venereal sore. Perhaps he is married, or for some other reason is most anxious that—as he expresses it—"something should be done" at once. Unfortunately, this something often means the vigorous application of a stick of nitrate of silver. This sets up irritation and inflammation, and, if the situation of the sore be favourable, often phimosis as well. Then some enlargement and tenderness of the inguinal glands probably follows. Now something else has to be done, and this further something usually consists in a liberal use of iodine paint to the groins. The irritated glands may resent this by suppurating, or, on the other hand, infiltration and hardening of the superficial tissues may ensue to such an extent that it becomes impossible to say what may be the condition of the glands beneath. The patient by this time has probably become convinced that he is suffering from the worst possible form of disease, and

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he urgently demands that mercury should be begun "as a precaution," or "to be on the safe side" as he puts it. The treatment up to this point having been merely local, its mischievous effects are usually only temporary, though it may entail careful watching of the patient until the extreme limit of the incubation period of syphilis has been passed. But if the demand for mercury be satisfied, the true nature of the case may be permanently obscured. Let us assume for the moment that the original lesion was a simple one, and that there is no syphilis. By-and-bye, the irritation having subsided, the sore heals, the glands subside, and the whole thing is at an end. But if mercury has been given it is very difficult to be sure of this, bearing in mind the remarkable rapidity with which syphilis in some cases is influenced by the drug. Supposing, on the other hand, that syphilis has really been contracted, that the induration of the initial lesion has been hidden by the inflammatory hardness produced by the nitrate of silver, that the characteristic adenopathy has been hidden beneath the effects of the iodine paint, that both these important signs have been further affected by the mercury, and that the same potent remedy has also prevented, delayed, or so modified the early rash that it, too, becomes unavailable as a trustworthy aid to diagnosis. The natural consequence of all this is a state of muddle which is complete for the time, and, worse still, one which may never be cleared up. By this time the patient is probably getting a little tired both of the treatment and of the state of uncertainty as well. And as, thanks to the mercury, which has been taken in quantity sufficient to check, but not to cure, the disease, nothing definite appears at the time, he imagines himself cured, leaves off treatment, dismisses the whole affair from his mind, and gets married. Then probably the next thing is an outbreak of syphilis in the wife or child, or both, and perhaps later signs in the patient himself. But even if none of these things actually happen, a time usually comes sooner or later when he thinks of marrying, and seeks an opinion as to whether he may safely do so. The history he is able to give is, of course, worse than useless, for it is confusing; and if there happen to be nothing discoverable about the patient's body to assist the diagnosis, it may remain uncertain throughout his life whether he has had syphilis or not. The consequence is, he is afraid to marry; or, if he does marry, he is perpetually haunted with the fear of infecting his wife, or of having "tertiaries" himself, or of becoming the father of a spotty, snuffling infant.

I have by no means exhausted the list of disasters for which the modes of treatment in question may be responsible; but probably enough has been said to show cause why they should be abandoned. If this were done, there can be little doubt that the number of obscure cases of syphilis would be considerably diminished.

Old Burlington-street, W.

CITY OF LONDON LUNATIC ASYLUM AT STONE.—The report for the year 1891 states that the health of the patients had been good. The death-rate, as for some years past, was abnormally low—viz., 4·34 per cent. of the number under treatment, against 8·19 in other asylums. With regard to receiving private patients, it was deemed desirable that facilities should be afforded to persons resident in or near London, to place in the asylums any affected members of their families, and a resolution had been adopted to admit private patients for a guinea a week. The expenditure for the year amounted to £17,400.

A COTTAGE HOSPITAL FOR FALMOUTH.—The report of the subcommittee with reference to the establishment of a public cottage hospital in this town was last week submitted to the committee and subscribers of the Falmouth Dispensary. The report stated that it was desirable such a hospital should be provided for Falmouth and the neighbourhood in connexion with the dispensary, to accommodate six beds to commence with. The resident medical practitioners were generally favourable to the proposal, and would render gratuitous medical services to the poor. The estimated cost of maintaining the hospital was £200 per annum. Upwards of £500 was in the hands of the Dispensary Committee, and consequently there would be no difficulty in securing the building. It was resolved to call a public meeting, with the view of raising the necessary funds for carrying on the proposed hospital.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

METROPOLITAN HOSPITAL.

CASE OF DIABETES MELLITUS; SLOUGHING ABSCESS OF HAND; CARBUNCLES; PYÆMIA; DEATH; NECROPSY.

(Under the care of Dr. A. HAIG and Mr. WALSHAM.)

THE effect of ordinary inflammation on tissues whose vitality has been lowered by diabetes is well emphasised by this case. Gangrenous and phagedænic ulcerations take the place of slight inflammations or small, quickly healing abscesses, in healthy tissues. The destructive processes pass through the stages of inflammation, abscess, molecular gangrene, and sloughing, and it is interesting to observe that, as in this case, there is a point at which, owing to the extremely low vitality of the tissues, even necrotic changes cease. The condition of the right lung was peculiar, and, though there were no infarcts or abscesses in the other lung, or in any other organ, it was suggestive of pyæmia; and, considered in conjunction with the temperature charted during the last week of life, justified that diagnosis. The empyema might be part of the same pyæmic process. Though the case was regarded as hopeless from the first, it is probable that, but for the pyæmia, the diabetes might have been held in check and life considerably prolonged. It is worth notice that a considerable diminution of the proportion of sugar as to urea took place while the patient was taking salicylate of soda. A similar result under the same treatment was obtained by Dr. Haig in some interesting cases reported by him in the St. Bartholomew's Hospital Reports, vol. xxv., though in the case under consideration it is doubtful whether the diminution was not due to the high temperature. Certainly drugs had not a fair chance under such desperate circumstances. For the account of this case we are indebted to Mr. R. Fraser Standage, house physician.

N. T——, aged eighteen, a servant girl, came to the out-patient room of this hospital on Jan. 17th, 1892, complaining of a painful swelling on the dorsum of the right hand. She described the swelling as of fourteen days' duration, but knew no cause for it. She also complained of lumps at the back of the neck, which she had noticed for a week. The swelling of the hand—an abscess—was incised and boracic fomentations applied. She reported herself again at the hospital, and as the resulting sore did not do well she was admitted.

On admission, in the cleft between the third and fourth fingers a sloughy, ulcerated wound, leading to an abscess cavity over the dorsum of the hand, was found. The cavity extended about 1½ inches over the dorsum of the hand but not into the palm; it discharged thin, foul pus and some sloughy tissue. The edges of the opening were ragged and undermined. No bare bone was felt. On the nape of the neck was a fluctuating swelling about the size of a pigeon's egg, covered with thin, red skin, with very slight induration around it. Behind the right ear was a similar swelling, which had burst and was discharging foul sloughs and thin pus similar to the discharge from the sore on the hand. The girl was emaciated, the skin dry and harsh, and it was deemed advisable, before any further surgical treatment was adopted, to have her medically examined. This was done, with the result of eliciting the following further facts. Twelve months before admission she noticed that she passed an abnormal quantity of urine. This has continued to the present time. She next noticed that her skin became dry and

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itching, and she began to suffer abnormally from thirst. Lately, she has lost flesh rapidly and has been much troubled by muscular exhaustion, being often quite unable to do her work. She has suffered from pruritus vulvæ, and is obstinately costive. She gives no history of hæmatemesis.

On examining the chest, resonance was found impaired in front at the right apex. Breath sounds were louder at the right apex than at the left. There were also bronchophony and whispering pectoriloquy, but no abnormal signs behind. Heart sounds were well heard through the extremely thin chest walls, but no murmur. Abdomen: No definite swelling was made out, but the intestines were distended with flatus. The edge of the liver was not felt below the costal cartilages. Legs: There was slight œdema over the tibiæ. Urine: The amount passed in twenty-four hours was 108 oz.; sp. gr. 1033; acid; thick cloud of albumen. An examination of the urine made after removing the albumen by boiling and filtering gave: urea 95 per cent., total 472 gr; sugar 5 per cent., total 2494 gr.; proportion of urea to sugar 1 to 5·2; amount of sugar per oz. urine 23·083 gr. The hand was treated with a continuous hot boracic bath, and with fomentations for six days, but the ulceration became more phagedænic. Further incision was made dorsally, and iodoform dressings applied. The patient was put on a suitable diet and took a pill containing half a grain of powdered opium three times, and a draught containing fifteen grains of salicylate of soda four times daily.

Jan. 30th.—The swelling on the nape of the neck burst, discharging thin, foul pus, like the other sores, through several openings. These discharging sores, which now resembled carbuncles, were treated with boracic fomentations frequently changed. Another swelling formed on the neck above the first one. Chest: The dulness has extended downwards from the right apex to the third rib in front, and over all this dull area bronchial breathing, moist rales, and bronchophony are heard. A further estimation of the urine showed a slight increase in the percentage of urea, though there was still much albumen. Amount passed in twenty-four hours 160 oz.; sp. gr. 1035; acid; urea 1 per cent., total 739 gr; sugar 5 per cent, total 3696 gr.; proportion of urea to sugar 1 to 5. The general condition was worse, there being now fever of a hectic type, the morning and evening readings showing a difference of from 2° to 4°. The emaciation was extreme and the thirst constant and distressing.

Feb. 3rd.—Ulceration of hand ceased, and the carbuncles on the neck have improved and are cleaner, most of the sloughs having separated. Urine: Amount in twenty-four hours, 106 oz; sp. gr. 1032; acid; a thick cloud of albumen; epithelial casts; urea 1 per cent, total 489 gr.; sugar 4·2 per cent., total 2048 gr. This showed a relative decrease in the amount of sugar passed. Temperature at night 103°.

4th.—Had a sudden attack of pain over the right side of the chest; breathing became very laboured, and the movements of the right side on respiration were diminished. There is absolute dulness on the right side in front below the third rib, resonance being impaired above it; also absolute dulness in the right axilla below the fifth rib. Breath sounds are inaudible over the dull area. Some pleuritic friction sounds over the upper part of the dull area can be heard; breathing distant over the right apex. Patient is very collapsed, pale, and comatose. Pulse 108; scarcely perceptible. She gradually sank, and died comatose on Feb. 5th.

Necropsy by Dr. HAIG (Feb. 6th).—External appearances: Extreme emaciation. Sores as detailed above. Brain: Meningeal vessels congested. Nothing abnormal in the brain substance; no excess of fluid in the ventricles. Chest—right lung: Costal and visceral pleura covered with recent lymph. There was about a pint of pus in the pleural cavity; no changes at the extreme apex, but the rest of the upper lobe was completely disorganised, with infarcts at the anterior border. A cavity the size of a walnut, about an inch and a half below the apex, contained thin, foul pus. No connexion existed between this cavity and the pleura. No tubercle. The left lung and heart were normal. Abdomen: The kidneys were congested, dark in colour, cortex indistinct, capsule not adherent; no pyelitis. The bladder was not hypertrophied. Liver: Dark in colour, enlarged, and firm in texture.

ROYAL PORTSMOUTH HOSPITAL.

CASE OF HERNIA STRANGULATED IN THE UPPER PART OF THE INGUINAL CANAL; ABDOMINAL SECTION.

(Under the care of Dr. WARD COUSINS.)

THIS was one of those comparatively rare examples of intestinal obstruction due to hernia in which no evidence of protrusion could be found at any of the ordinary sites of hernia. Dr. Ward Cousins has expressed his opinion of the occasional value of this method of operating by abdominal section for diagnostic purposes in some cases, and as a means whereby additional aid may be permitted in some complicated cases. Our readers will remember the discussion on median abdominal section for hernia which took place at the meeting of the British Medical Association of last year in the section of Surgery, over which Dr. Ward Cousins presided. For the report of this case we are indebted to Mr. T. H. Bishop, M.B., house surgeon.

P. G——, aged fifty-one, a blacksmith, was admitted into the Royal Portsmouth Hospital on the morning of Feb. 15th, 1892. He was suffering from internal obstruction, with collapse and urgent symptoms of peritonitis. The history was as follows:—He had been ruptured for twenty years, and was in the habit of wearing a truss. On the evening of Feb. 11th, after a fit of coughing he found his hernia had come down to a greater extent than ever before. He attempted to reduce it, but had considerable difficulty. After trying for half an hour he was successful, but he stated that he had to use some force, suffered pain, and that when the hernia did go back reduction seemed to be sudden. From this time intestinal obstruction was complete. He was seen by a doctor late on the night of Feb. 14th, who, finding signs of peritonitis, with stercoraceous vomiting, ordered his immediate removal to the hospital. On examination the rectum was found empty, and the inguinal rings and other usual sites of herniæ appeared free. Injections of warm oil with turpentine were employed, but failed to give relief to the obstruction. Dr. Ward Cousins then decided on abdominal section, as, owing to the urgency of the symptoms, exploration held out the only hope of relief. Accordingly the patient was put under chloroform, and a small incision made in the median line. On introduction of the finger into the abdominal cavity a knuckle of kinked and adherent bowel was found in and around the upper part of the right inguinal canal. This was released and examined. The abdominal cavity was then washed out with warm water and the wound closed. The patient survived the operation nearly three days, dying on Feb. 18th at midday. No fæces were passed after the operation, but on several occasions flatus was. Signs of peritonitis were well marked. Post mortem nothing was found beyond general peritonitis. The portion of bowel released at the operation was recognised by its dark colour.

Remarks by Dr. WARD COUSINS.—Unfortunately, surgical aid in this case occurred too late. Strangulation had existed several days, and at the time of the operation peritonitis was well marked, attended by intestinal paresis. The hernia had been incompletely returned by the patient himself. Over and over again he had successfully manipulated it when it had slipped down behind his faulty truss. It is very probable that chronic inflammatory changes had recently taken place around the neck of the sac, and a portion of the intestinal surface had become adherent around the internal ring. At the time of the operation the inguinal canal appeared to be empty, and I regarded the accident as a reduction in mass or a strangulation returned with constricting bands at the neck of the sac. The case was clearly one for treatment by median abdominal section after the method advocated by Mr. Lawson Tait, for relief would have been impossible by any other procedure. A small portion of collapsed intestine was found partly kinked within the canal and partly adherent around the orifice. The operation was both easy and simple, and by gentle exploration with two fingers an accurate diagnosis was made and the cause of the obstruction easily removed.

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Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Polypus of Small Intestine associated with Intussusception.—Fibroma of Cerebral Dura Mater depressing Rolandic Region without Symptoms.—Hæmatoma Auris.—Mitral and Tricuspid Stenosis—Aneurysm of Internal Carotid Artery.—General Arteritis.—Primary Malignant Growth of Corpora Cavernosa.—Par-epididymal Cyst—Malformation of Heart.—Pregnancy in Bicornate Uterus.

AN ordinary meeting of this Society was held on May 3rd, the President, Sir George Humphry, in the chair.

Mr. LOCKWOOD showed a Polypus of the Small Intestine which was associated with Intussusception. The polypus was globular, and had a diameter of about three-quarters of an inch. It was fastened to the wall of the ileum by a short neck. Its point of attachment was about two and a half feet from the cæcum. It was of a firm consistence, and covered with mucous membrane, with its interior composed of fibrous and muscular tissue, and with a calcareous nodule in the centre. Below the polypus was an intussusception about five inches long. The mesentery having been dragged into the bowel with the intussuscepted gut, the tumour was held against the posterior abdominal wall. As these conditions caused intestinal obstruction, laparotomy was done; but all attempts at reduction were unavailing, and therefore the intussusception was excised. Owing to collapse, the ends of the ileum were not united, but brought out of the wound by Mr. Thomas Smith. The polypus was discovered during this operation, and removed. It seemed clear that the polypus was of long standing. The patient was a woman aged thirty, and the calcareous nodule suggested that she had had it many years—perhaps all her life. Its occurrence at or near the position of the vitelline duct also suggested that it had a congenital origin. The relation of the polypus to the intussusception was also a point for discussion. Usually the polypus was pendant from the lower end of the intussusceptum, but here it lay above. Probably the sequence of events had been that the polypus had caused an obstruction, and the intussusception had been formed during violent peristalsis and by the lower gut invaginating over the upper.—The PRESIDENT remarked that he presumed the calcification indicated degeneration of some previously existing active tissue.—Dr. CHARLEWOOD TURNER said there was a specimen similar to that shown in the London Hospital museum, in which the polypus was at the top of the intussusception, and probably stopped the latter from increasing.—Mr. SHATTOCK observed that calcification of fibromata was rare, while that of myomata was common, and he suggested that the tumour in the present case was of muscular nature.—Dr. HALE WHITE referred to a specimen he had shown some time ago of polypus attached to the upper part of the jejunum. There was no calcification, but it was associated with intussusception.—Mr. STEPHEN PAGET asked whether growths commonly occurred at this point or new formations other than Meckel's diverticulum.—Mr. LOCKWOOD, in reply, thought it was the tightness of the mesentery which stopped the progress of the intussusception. As to the histology of the polypus, it had been macerated in the gut for some time, which obscured the details of its structure, but it was certainly not a pure myoma. No other pathological condition was present. Constrictions were sometimes met with in this position, though he admitted that the explanation of these narrowings would not equally account for polypus.

Mr. EDGAR WILLETT showed a specimen of a Fibroma, measuring nearly two inches in diameter, which arose from the dura mater, and had caused a corresponding depression in the cortex over the upper part of the fissure of Rolando. The interest lay in the fact that no symptoms whatever existed during life, the patient being a healthy woman, who died from acute double pneumonia. Microscopical sections of the tumour were also shown.—The PRESIDENT remarked on the extreme pressure the brain had undergone without producing symptoms.

Dr. E. T. WYNNE brought forward several specimens of Hæmatoma Auris. Having referred to the described pathological accounts of this lesion by Tishkoff and others, he exhibited a series of horizontal sections through the ear, which demonstrated not only the amount of the deformity, but the situation of the blood-clot. His specimens showed that degenerative changes took place in patches in the cartilages; then vascular processes developed from the perichondrium, and, passing inwards, entered and broke up the cartilage into segments; blood was also extravasated in the subcutaneous tissues. The deformity of the ear was caused by the fracture of the cartilage in this manner and the fixation by blood-clot of the displaced fragments. The specimens were taken from patients who were chiefly general paralytics from thirty to fifty years of age.

Dr. ARNOLD CHAPLIN showed two specimens of Stenosed Mitral and Tricuspid Cardiac Orifices. The first was taken from a girl aged eighteen, who was admitted with shortness of breath, swelling of the legs, and subnormal temperature. There was also ascites, with a greatly enlarged liver. At the cardiac apex there was a presystolic bruit, followed by a faint systolic murmur; the lungs were much congested, and there was an attack of hæmoptysis two days before death. There was no history of acute rheumatism or of chorea, but an attack of scarlet fever occurred two years ago. The shortness of breath had existed for the last three years. At the necropsy there was found stenosis of both mitral and tricuspid valves, and there were recent infarcts in the bases of the lungs. He thought the tricuspid disease was due to congenital causes, and that it had given no trouble until the mitral stenosis developed later, the latter being due to a rheumatic attack associated with scarlatina. The second specimen was removed from a patient aged twenty-five, who had suffered from rheumatic fever when fourteen years of age, and since then had had shortness of breath, swelling of the legs, œdema, and cyanosis. The heart was enlarged, there being hypertrophy of all the chambers, the mitral valve being much stenosed and the tricuspid little so. He thought that in this case the narrowing of the tricuspid orifice was the result of chronic inflammation due to strain thrown on the right heart.—Dr. ROLLESTON said that in nearly all the collected cases there was stenosis of both sides, and if this were so, the lesion was presumably not congenital, for congenital disease usually attacked the right side alone. He held that the tricuspid lesion was secondary to the mitral, and due in all cases to chronic inflammation produced by strain. If the case had lasted a long time stenosis was more likely to occur than regurgitation.

Dr. WALTER EDMUNDS showed an Aneurysm of the Internal Carotid Artery, with syphilitic occlusion of the left subclavian and narrowing of other arteries. The patient, a male, aged thirty-six, was admitted to St. Thomas's Hospital, under the care of Sir W. Mac Cormac, on Nov. 6th, 1891, suffering from a pulsating tumour in the neck. It had been noticed a month, and had been rapidly increasing in size; it caused no pain or discomfort, but was somewhat tender to the touch. A few days before admission he had had a sudden attack of giddiness which caused him to fall, but he soon recovered. The tumour was on the right side of the neck, and situated near the bifurcation of the carotid; it pulsated forcibly and expanded with pulsation. Examination of the tumour sometimes caused an attack of faintness. There was no pulsation in either temporal artery, nor could any pulsation be detected in any part of either arm; a loud murmur could be heard about the base of the heart. There was a history of a venereal affection twelve years previously, and of cutaneous ulcers and of hair falling out two years ago. No operation was undertaken, the patient being very ill. He died comatose Nov. 18th, 1891. At the necropsy the heart was somewhat enlarged, pericardium adherent, but adhesions could be readily broken down; a rounded prominence, two inches in diameter, projected from the groove between the right auricular appendage and the pulmonary artery. On section this proved to be a gumma which was breaking down in its centre. The arch of the aorta was uniformly thickened, the thickening being mainly of the outer coat; the thickening extended to the innominate. The second part of the right subclavian was greatly thickened in its outer wall, and the lumen was so reduced as only to admit the passage of a bullet probe; the right axillary, brachial, and radial arteries were small and thin-walled, but showed no sign of disease. The right common carotid was nearly normal. The right internal carotid had springing from it, close to its origin, a globular aneurysm two inches and a half in diameter. After the origin of the aneurysm the internal carotid continued normally. The external carotid was narrowed and adherent to the aneurysm.

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The left common carotid was greatly narrowed at its origin from the aorta, and would only just admit the passage of a bullet probe; the left external and internal carotids were also narrowed. The left subclavian was narrowed at its origin, and at the distance of three-quarters of an inch from the aorta it became completely impervious, ending in a fibrous cord. The descending aorta was enormously thickened, the thickening being mainly in the outer coat. The abdominal aorta and iliac arteries and also the intracranial arteries were normal. The liver, kidneys, and spleen were all enlarged, but showed no sign of past syphilitic disease.

Dr. HERBERT HAWKINS showed the Aorta of a child aged eleven, who died in St. Thomas's Hospital, as it was supposed, from acute nephritis. It was found at the post-mortem examination that there was disease of the aorta from end to end; of the common carotid, subclavian, and internal carotid arteries of both sides. The renal arteries were thrombosed. The disease consisted of grey translucent patches, which showed microscopically a development of uniform cellular tissue between the elastic lamina and the epithelium, and some of the patches showed a deposition of firm white clot upon the endothelium. The spleen showed signs of old disease. For three inches above the bifurcation of the aorta there was a lamina of firm clot nearly closing the lumen. There was also similar disease throughout the pulmonary arterial system. There was no definite history of congenital syphilis, but two other children had died in infancy, and he thought the case was probably of syphilitic nature.

Mr. HURRY FENWICK showed a specimen of Acute Traumatic Epithelioma of the Root of the Penis. The patient, aged forty-seven, began to suffer from priapism three days after the receipt of a blow in the crutch. Hæmaturia appeared at once, and continued until near the termination of the case. The penis became erect, increased rapidly in girth, and finally sloughed away. The duration of the case was three months. Secondary deposits were found in the right kidney, liver, and lung, the initial deposit being apparent in the region of the bulb.—Dr. RATCLIFFE asked if calculi were found in the carcinomatous kidney, for stone had more than once been found in connexion with squamous epithelioma of that organ.—Mr. SHATTOCK was able to confirm this observation, and added that a large sarcoma of the crus penis was recently removed in St. Thomas's Hospital.—Mr. FENWICK, in reply, said that no calculi were present, and he had only found stone in one case out of eight of malignant disease of the kidney under his observation.

Mr. SHATTOCK showed a Testicle between which and the vas deferens and, in close relation with the epididymis, was a cyst, which from its relations, had clearly arisen in a vas aberrans. He named it "Parepididymal," since, like the organ of Giraldès, such vasa aberrantia were remnants of Wolffian tubuli related to the epididymis. That the cyst shown had no connexion with the Müllerian duct appeared from the fact that the hydatid of Morgagni between the head of the epididymis and body of the testicle was present. In a case of persistent Müllerian duct lately reported by Mr. Lockwood, the duct, as in Dr. Ord's well-known case, descended from the kidney towards the prostate; and on the corresponding side the hydatid of Morgagni was absent. Why, in both these instances, the upper end of the persistent duct remained connected with the kidney and did not migrate with the testicle into the scrotum had not, so far as the author knew, been satisfactorily explained.—Mr. DAVIES COLLEY inquired as to the contents of the cyst, which appeared to him clinically to resemble a spermatocele or an encysted hydrocele.—Mr. SHATTOCK replied that the contents were not examined, but that they were probably of the same nature as those of an ordinary encysted hydrocele.

Mr. W. W. H. TATE showed a specimen of Malformation of the Heart taken from a man aged twenty-three, who was admitted into University College Hospital, under Dr. Vivian Poore, with pneumonia. There were loud systolic and diastolic murmurs heard over the mid-sternal region. There was no cyanosis and no history of previous cardiac disease. The patient died of pneumonia five days after admission, and at the necropsy a communication between the aorta and right ventricle was discovered, there being a passage from the aorta at the lower part of the sinus of Valsalva and ending in a perforation in a trumpet-shaped membrane situated between the septal and infundibular segments of the tricuspid valve. He believed that the case was unique, and that it arose from a hernial protrusion of the aorta into the right ventricle, which afterwards perforated.—Dr. HALE WHITE said that a boy three years of age, who had had influenza, came under his notice at Guy's Hospital with a loud to-and-fro murmur over the whole of the chest. At the post-mortem examination there was found an aperture in the undefended space at its upper part, and there was a funnel-shaped projection, like that in the specimen shown, which passed into the right ventricle. He regarded the case as one of congenitally imperfect septum in which the aorta had bulged into the right ventricle and had then given way. A systolic murmur was present whenever the left ventricle communicated with the right, and to this a diastolic murmur was added if the aorta also opened into the right ventricle.

Dr. J. R. RATCLIFFE of Birmingham showed a Uterus Bicornis, the left horn of which was pregnant. The patient was a woman aged thirty, who was brought into the General Hospital at Birmingham after a crane accident, and she died of fractured pelvis. The uterus showed two horns of nearly equal size, both measuring four inches and a half in length and six inches in circumference. In the left horn was a fœtus of between the second and third month of gestation; the placenta was attached to the posterior surface of the cavity. The vagina was five inches long and very broad, with a ridge on its anterior and posterior walls. The right ovary contained a well-marked true corpus luteum. The woman had had one normal labour and no abortions. She was not aware that she was pregnant, for she had menstruated regularly. This latter fact made the case of great interest on account of the possibility of superfœtation, and the specimen also raised the question of the manner of transference of the ovum from the right ovary to the left horn.

The following card specimens were shown:—

Dr. E. T. WYNNE: Sarcoma of Gall-bladder and Genital Organs.

Dr. H. D ROLLESTON: Guinea-worm in Subcutaneous the Tissue of Calf twenty eight years.

Mr. ALBAN DORAN: Adeno sarcoma of Breast weighing 8lb.

Mr. W. F. HASLAM: Sebaceous Horn.

Mr. S G. SHATTOCK: Columnar-celled Carcinoma of Male Breast.

Mr. J. H. TARGETT: (1) Congenital Myxoma of Neck; and (2) Ulceration of the Intestine after Fracture of the Spine.

HUNTERIAN SOCIETY.

Hydatid of Spleen.—Graves' Disease.—Eye Diseases.

A MEETING was held on April 27th, F. Gordon Brown, M.R.C.S., in the chair.

Dr. JAS. GALLOWAY read for Mr. HOPE GRANT and Dr. E. A. SNELL notes of a case of Hydatid Disease of the Spleen, with the discharge of membranes from the rectum twelve years later. The patient, a female, when aged eighteen years suffered from a large tumour in the left side of the abdomen, having a notch in front. Two years later a copious watery discharge, filling two chamber utensils, came away with the urine, and the tumour nearly disappeared. Ten years later, having in the interval enjoyed good health and borne five children, she passed, after much forcing pain, a mass of membranes per rectum, and she continued to pass pus both by rectum and urethra. There was still a small tender swelling in the splenic region. The membranes were shown. Dr. Galloway had examined them, and found very characteristic hydatid structure.

Mr. CARDEW read a paper on the Electrical Treatment of Graves' Disease. He recommended the use of the continuous current from two to three milliampères in strength; the positive electrode, three inches in diameter, to be placed on the nape of the neck opposite the seventh cervical spine; the negative electrode, one inch and a half in diameter, to be moved up and down the side of the neck, along the anterior border of the sterno-mastoid. The electrodes to be well soaked in hot water and applications to last about six minutes, three times daily. The immediate effect, as demonstrated by sphygmograms taken immediately before and after an application, was a diminution of the suddenness, violence, and rate of the heart beat, with less feeling of tension in the eyes when exophthalmos was present. A

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stronger continuous current was found to cause, as evidenced by sphygmograms, an increase of the cardio-vascular excitement. A strong faradaic current had a like effect; whilst a weak faradaic current produced no effect; with a moderate current either no effect or the same as with the continuous current was produced. This latter method was therefore adopted as the most effective, and also because it was self-applicable. He found that if prolonged the application caused an increase of excitement; he therefore never used it for more than six minutes at a time. At least three applications a day were needed, since the effects lasted but for a few hours. A small portable battery, having an electromotive force of about six volts, and a water voltameter to test the battery, were all that were required. It was difficult to order the treatment, so to speak, by rule of thumb, owing to the great variation in the resistance of the human body; but for all practical purposes this might be estimated at from 2000 to 3000 ohms, so that a battery having an electro-motive force of about six volts would be sufficient to produce a current of from two to three milliampères. The patient must be encouraged to persevere with the treatment and not be discouraged by temporary relapses.—Dr. HINGSTON FOX said that the erratic course of Graves' disease made one cautious in receiving therapeutical results. There were two leading means of general treatment: moral and hygienic control for the over-sensitive, excitable nervous system; and, secondly, nutritional helps. As to special means, belladonna had seemed useful in slighter cases; iodide of potassium, with bromides (and sometimes iron), in others. Leiter's cold coil to the thyroid was worth further trial. But nothing cured in the bad cases. He had used the weak constant current in about six cases, from a half to two milliampères. The patients liked it, and were willing to continue it long, and on the whole the results were encouraging. A cheap battery for out-patients' use was a desideratum.—Mr. MARK HOVELL approved of the electrical treatment.—Mr. E. A. BURGESS had used in India the inunction of red iodide of mercury ointment over the thyroid with exposure to the sun, and had found much benefit.—Dr. F. J. SMITH asked how the electricity acted. Did it increase nervous energy, or did it increase the power of the nervous system to restrain the energy when formed? The general measures detailed by Dr. Fox could not be applied to indigent persons, and here electricity seemed to step in as a substitute.—Mr. W. LANG alluded to Dr. W. Fitzgerald's masterly paper on the disease in a Dublin journal, where experiments on rabbits were described, showing that disorder in the central nervous system close to the medulla was the acting cause. His own experience was limited to cases in which exophthalmos was complained of; he found potassium iodide and iron useful.—Dr. ARTHUR DAVIES asked as to the average duration of the electrical treatment, and at which stage Mr. Cardew began it. A case he had brought before the Society had recovered without special treatment; in another case the symptoms were of twenty-two years' standing.—Mr. CARDEW, in reply, said the moral and hygienic measures were of course needed. Cases might be divided under three categories: those which recover unaided, those which recover with drugs or electricity, and those which do not recover. Many of his cases were of long standing, and had been under good physicians. The dry battery he used cost £1; it could be made for about nine shillings. He could not tell how the electricity acted, or through what nervous structures. He had not had a case under treatment for longer than ten months, and he treated them at all stages.

Mr. W. LANG read a paper on the Treatment of certain external Eye Affections—chiefly epiphora, follicular conjunctivitis, phlyctenular ophthalmia, and corneal ulcers and opacities.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

Influenza.

A MEETING of this Society was held on April 1st, Mr. H. W. Roberts, President, in the chair.

Dr. PITT opened the discussion on this subject by reading a short paper on the history and etiology of the disease. He referred briefly to the epidemics of 1693, 1733, 1762, and 1833, and described in detail the manner in which the recent epidemics—viz., that of Christmas, 1889; February, 1891; and November, 1891—first appeared, and how they spread. The disease is undoubtedly contagious, and there is a contagium vivum, but bacteriologists are not quite certain yet that it has been identified. The incubatory period is about two days. The contagium is capable of multiplying in the atmosphere, the infectiousness being enormously increased at crowded meetings of men, where ventilation is defective. It has been suggested that the air currents which descend to the earth in anti-cyclonic areas may be the means of the convection of disease simultaneously to places situated some degrees apart. On many occasions the epidemics have been known to occur among horses a short time before men were attacked. Unstable weather, fogs, and unusual swarms of insect life have frequently preceded attacks.

Dr. PRIOR PURVIS gave a short account of the epidemic of 1837, as it occurred in Greenwich in cases under his own observation. The mortality was very excessive in those advanced in life, one of the most striking symptoms being the rapidity with which patients became asphyxiated by the blocking up of the bronchial tubes, with a very tenacious mucus like bird-lime. The treatment at first adopted was "antiphlogistic," and the patients were bled, but, as this proved fatal, it was given up, and salines and ammonia were exhibited.

Mr. LOCKHART said that he remembered the 1837 epidemic when it occurred in Liverpool. The treatment there with ammonia and salines was very efficacious.

Mr. MOORE drew attention to the fact that Pfeiffer and others claimed that they had discovered the influenza bacillus.

Sir WILLIAM MOORE then read his paper on the Comparison of Influenza with Dengue. He said that the symptoms of dengue were chiefly at first headache, restlessness, chilliness, debility, pains in the back, limbs, eyeballs, and joints—febrile excitement. Sometimes the pains in the joints and fever commence suddenly, there being no preceding feelings of malaise. In from twelve to twenty-four hours an eruption appears like scarlatina; the glands of the neck, groin, or axilla may become tender; the joints swell; there is generally sore-throat, and the testicles may swell. During the eruption the temperature rises to 103° or 105°. This rise only lasts one or two days, disappearing as the rash disappears, after which there is almost total remission for three or four days. Then, with an accession of fever, a second eruption resembling measles appeared. A third attack may occur. Albuminuria may be a sequel, but gradually disappears. Dengue, therefore, more resembles scarlet fever than influenza, but differs from it in its being more decidedly epidemic, high temperature more rapidly attained and dissipated, the severe muscular and joint pains very characteristic of dengue but not scarlet fever, and in the fact that dengue does not confer protection against recurrence. Dengue is regarded as infectious, but the following experience appears to prove that it is non-infectious. In the autumn of 1874, when dengue was prevalent in all the villages of the country, the camp of the chief Political Officer of the Native States of Rajpootana, some 1500 strong, marched about 300 miles, from Aboo to Agra, at the rate of ten or fifteen miles daily, encamping as usual near the different towns, and no measures to prevent communication were or could be enforced. As Superintendent-General of Dispensaries in Rajpootana, Sir W. Moore was passing daily from the camp to the villages, and he constantly saw persons suffering from dengue; but not a single case occurred amongst the camp people, although there were the usual number of agues and ordinary maladies at the camp hospital. Possibly the tent life, with fresh air and ventilation, rendered the poison of dengue innocuous.

Mr. THOMAS MOORE followed with a paper on Differential Diagnosis. He mentioned the sudden invasion, malaise, depression, rapid rise of temperature, slow pulse, tongue moist and furred with red edges, and the thick, tenacious expectoration. He said the diseases it was most difficult to diagnose from were rheumatism, ordinary catarrh, and neuralgia. In rheumatism the characteristic rheumatic tongue and acid perspiration helped the diagnosis. Again, when pneumonia was present, was it a sequel of the influenza or quite unconnected with the epidemic? He thought that the pneumonia of influenza was very rarely lobar pneumonia, and the sputum was less rusty coloured. The very great prostration afterwards was the most characteristic symptom and helped the diagnosis "after the event."

Dr. FRANCIS TAYLOR then read his paper on Complications. The troubles referred to the respiratory tract claim the first place, and of them bronchitis is at the head. The

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smaller tubes were specially liable to be implicated, and the bronchitis of influenza was very often of a marked suffocative type. With regard to pneumonia, although ordinary cases of croupous pneumonia were rather common at the time of the epidemic, as a complication of influenza he had only seen one doubtful case. Phthisis, pleurisy, empyema, sore-throat, and tonsillitis were met with as complications. Non-suppurative and suppurative otitis media have been fairly common. With regard to heart complications, in pericarditis secondary to pleurisy, with weakness of the heart muscles, he had not noticed the slow pulse during the febrile stage, but at the end of that period had seen it fall to 50 or less. Angina pectoris and pseudo-angina were met with. Nervous system: Had seen a case of meningitis. Various forms of neuralgia were very common, some of them being due to local neuritis; jaundice, prostatitis, cystitis, and suppurative parotitis were mentioned as complications. Finally, he remarked on the prolonged convalescence, which was generally longer in those who used their brain, and was often accompanied by mental depression.

The President, Messrs. Lockhart, Moore, Hartt, Cable, Marshall, and MacGavin, and Drs. Prior Purvis, Horrocks, Pitts, Tayler, Moore, Wainewright, Peachey, and Ernest Clarke took part in the discussion which followed the various papers.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.

Exhibition of Cases.

A MEETING of this Society was held on April 8th, Dr. D. Lloyd Roberts, President, in the chair.

Dr. WALTER, of Manchester, showed a patient who had for many years suffered from a growth of the vulva, and asked the opinion of the members as to its nature.

Dr. LAUDER, of Manchester, showed two patients who lately had each a large fibroid tumour of the uterus removed at the Manchester Southern Hospital, and exhibited the specimens. The operation might be briefly described as an amputation of a myoma of the uterus by means of anterior and posterior flaps, consisting of peritoneum. After the tumour had been lifted out of the abdominal wound, the large vessels entering it from the broad ligament on either side were ligatured close to the growth with strong silk, and then divided. Running from the two lateral wounds thus made anterior and posterior incisions through the peritoneal covering of the tumour were carried, at a distance calculated to ensure flaps sufficient to cover in the stump. These incisions were made gradually, each portion of peritoneum being ligatured separately before being cut. The peritoneum was at the same time peeled downwards, and its raw surfaces united by means of silkworm gut sutures. After thus enucleating the tumour any large vessels, from which hæmorrhage might be feared, were tied separately with catgut. The flaps of peritoneum were then more accurately adjusted, and during this process any hæmorrhage which might occur was easily controlled by including the bleeding vessel in one of the sutures. Finally, the stump was dropped, a glass drainage-tube inserted behind it, the peritoneal cavity flushed, and the abdominal wound closed in the usual way.—Dr. WALLACE, of Liverpool, said that he had done this operation years ago, but had of late given it up, as it had one drawback—viz., the uterine cavity was liable to be opened. Still, he thought that he might again have recourse to it.

Dr. WALLACE, of Liverpool, showed a specimen of Tubal Gestation, which had been removed by operation. It was probably unique, as the fœtus was partly extruded from the fimbriated extremity of the tube, so that its development had taken place between this end of the tube and the ovary.

Mr. WRIGHT, of Leeds, related a case in which an unfortunate accident occurred during abdominal section. During the removal of a double dermoid ovarian cyst a pair of torsion forceps was placed upon a large adhesion, in the neighbourhood of the liver. On account of faintness the operation had to be hurriedly brought to a termination. The patient made a good recovery, but subsequently complained of tenderness in the epigastrium. Later on, a nodule was found to have formed at the upper part of the cicatrix. This was, seven months after the operation, cut down upon, when the pair of torsion forceps was found, and removed with difficulty. A fæcal fistula afterwards formed, but ultimately closed, and the patient did well.

Dr. HELLIER, of Leeds, exhibited drawings (1) of an apoplectic placenta; (2) of an impacted Zwanck's pessary.

Dr. MARTIN, of Sheffield, read the notes of a case of puerperal eclampsia.

Mr. R. FAVELL, of Sheffield, described a case of abdominal section for a small impacted ovarian tumour (specimen shown), where death was caused by omental adhesions.

Dr. DONALD, of Manchester, read a paper on the treatment of placenta prævia.

Reviews and Notices of Books.

Outlines of Theoretical Chemistry. By LOTHAR MEYER. Translated by P. PHILLIPS BEDSON, D.Sc. Lond., B.Sc. Vict., F.C.S.; and W. CARLETON WILLIAMS, B.Sc., F.C.S. London: Longmans, Green, and Co. 1892.

A CAREFUL and intelligent reader should gain a very clear conception of the modern views of theoretical chemistry from a perusal of this comparatively small but none the less classical work. Lothar Meyer is one of the best living authorities on the subject of chemical theory, and no apology need be offered by the co-elaborator of the great law of the periodicity of the elements for issuing a text-book under the above title, although similar works have already been published by Polis, Remsen, and Ostwald. The volume contains practically a *résumé* of the arguments advanced in the same author's larger work on the "Modern Theories of Chemistry." Professor Bedson, of the Durham College of Science, and Professor W. Carleton Williams, of the Firth College, Sheffield, are the translators of both volumes, and they have done their task well. The old but ever-fascinating story of the development of the theories of chemical science is gradually told that not merely students, but the "friends of scientific investigation who have neither the intention nor the time to concern themselves with the details of chemical investigation, may become acquainted with the general conclusions deduced." Thus, the definition and the scope of chemistry are first discussed; then follow, in natural order, short but fully instructive sections on methods of investigation, the quantitative composition of compounds, the law of multiple proportions, the atomic hypothesis, Dalton's views, isomorphism, specific heat, the kinetic theory, molecular weight, classification of the elements, the periodic system (in which section, by the way, Newland's work is distinctly recognised), until at last the reader is brought to study the more recent bases of argument. Round numbers as representing the atomic weights of certain elements are rigidly avoided, as indeed they should be in a work devoted to the discussion of theory. The weight of the atom of oxygen, for instance, is regarded as 15·96, not 16; and silver, 107·66, not 108; carbon, 11·97, not 12; and sulphur, 31·98, not 32. In the section on the molecular weights of gases it is shown how the kinetic theory of gases has afforded a means of estimating approximately the weight of a single molecule. Thus a particle or molecule of hydrogen, the lightest of all gases, has been calculated to weigh ·000,000,000,000,000,000,000,004 gramme (or, as it is obviously misprinted, grammes). In other words, one quadrillion molecules of hydrogen weigh about 4 grammes. Similarly a cubic centimetre of hydrogen measured at 20° C., and under a pressure of 760 millimetres of mercury, contains so many molecules that if they were laid side by side they would cover 9500 square centimetres, or very nearly a square metre. Accordingly, for each twenty trillion particles but a very small surface would be required to accommodate them, for in the length of a millimetre from four to five million particles could be arranged in a series! Of

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course these numbers cannot lay claim to any special accuracy, still they serve to give some idea of the minuteness of molecules and of atoms also. One important kind of phenomenon appears to have been overlooked—namely, that while certain sections are devoted to optical isomerism and to a dissertation on asymmetrically linked carbon atoms, there is no mention made of the molecular magnetic refraction of bodies: the subject which Perkin so ably investigated. He showed that although under normal conditions an organic substance cannot affect a ray of polarised light unless its molecule contains an asymmetric atom of carbon, yet when surrounded by a coil of wire conveying electricity, or placed between the poles of a powerful magnet, any substance will become active. Proceeding on these lines he has obtained some very valuable results, which have materially added to our knowledge of the constitution of organic compounds.

English chemical literature has during the last year or so been considerably enriched by the additions of translations of standard German works. The large works of Beilstein, Wagner, and Lothar Meyer are cases in point; and now to these must be added the work before us, for it is a volume which should grace the shelf of all scientific libraries, whether private or public.

Outlines of Zoology. By J. ARTHUR THOMSON, Lecturer on Zoology in the School of Medicine, Edinburgh. With thirty-two full-page Illustrations. Edinburgh and London: Young J. Pentland. 1892.

IN a short preface Mr. Thomson states that this work is intended to serve as a manual which students of zoology may use in the lecture-room, museum, and laboratory; and as an accompaniment to several well-known works, we consider it fulfils its intended purpose well, and those who wish to make themselves acquainted with the progress that has been made in this subject may with advantage compare the sections of the present volume with those of Rymer Jones's "General Outline," published in 1871, or of Carpenter's "Zoology."

The volume may be divided into three parts: the first embraces general physiology, morphology, reproduction and life history, palæontology, geographical distribution, and evolution of animals; the second part deals with the characters and classification of the invertebrata, and the third with those of the vertebrata. Nearly the whole of the first part is the product of the researches that have been made during the last half of the present century, and, though lightly dealt with here, are yet sufficiently discussed to render the work a useful companion to any systematic course of lectures. In the chapter on Echinodermata Mr. Thomson discards the "fin-worm" theory of Haeckel, and agrees with the embryologists that the holothurians are, in form at least, nearest to the worm-like ancestor, whilst the interpretation which regards the five-armed starfish as a decentralisation of a flattened sea urchin is, he thinks, more plausible than that which regards the sea urchin as the concentration of a puffed-up starfish. A plate with description is devoted to the typical structure of each of the divisions of the echinoderms, and drawings are given of the several larval forms of auricularia: pluteus and bipinnaria. This arrangement is carried out in all the sections, and Mr. Thomson does not hesitate to introduce a few remarks in regard to the geological relations of the various orders or genera when these are of interest. Thus he points out that the race of scorpions is of very ancient origin, one having been found in Silurian strata, and others nearly resembling those now alive in the carboniferous formations. In like manner he enlivens his pages with comments on the natural and life-history of the animals he describes. Thus, in speaking of spiders, he remarks that the males are much smaller than the females. It has been calculated that the disproportion is sometimes such as would be observed if a man six feet in height and weighing about 11 st. were to wed a giantess about eighty feet high and weighing 200,000 lb. He believes that the smallness of the males is in great part due to the fact that they are males, though some explain it by saying that the smaller the males are the less likely are they to be caught by their frequently ferocious mates. He acknowledges that it is difficult to understand how this characteristic smallness, though perhaps advantageous and likely to be favoured by natural selection, could be entailed on the male offspring only. In evidence of the careful manner in which the author has done his work, we may remark that Dr. E. C. Sterling's new type of marsupial notoryctes typhlopod is given, and the chief points in its structure are described.

We recommend the book very strongly as a full and reliable guide to the zoological student. The plates, though rough and diagrammatic, are clear and accurate. The paper, print, and general get-up of the book are excellent, and reflect credit on the publisher.

A Practical Treatise on Fractures and Dislocations. By FRANK HASTINGS HAMILTON, A.B., A.M., M.D., LL.D., late Professor of Surgery in Bellevue Hospital Medical College &c. Eighth Edition, Revised and Edited by STEPHEN SMITH, A.M., M.D., Professor of Clinical Surgery in the University of the City of New York, and Surgeon to Bellevue and St. Vincent's Hospitals, New York. Illustrated with 507 Woodcuts. London: Smith, Elder, and Co. 1891.

DR. HAMILTON'S work on Fractures and Dislocations has for so many years held the first place among modern treatises on this important branch of surgery that we are glad to see that its publication is not to cease with the life of its distinguished author. No better choice of an editor could have been made. Dr. Stephen Smith was closely associated for many years with Dr. Hamilton as his pupil, colleague, and friend; he knew the great aims Dr. Hamilton had in writing the book originally, and in preparing its successive editions, and the devoted labour he for years lavished on this work. In preparing this edition for the press, Dr. Smith has maintained the high character of the work most fully, and has not departed from Dr. Hamilton's lines except in small details. Some methods of treatment which are quite out of date now have been omitted, and modern plans of treatment, such as the operative treatment of fracture of the spine, are judiciously referred to. The most recent works on the subject have been consulted and drawn upon, many quotations from Mr. Pick's monograph, for instance, being intercalated. The number of the illustrations has been greatly increased—by over 100—but these additions, while very welcome and a great improvement to the book, are not novel, most of them being taken from Erichsen's, Bryant's, Stimson's, Pick's, and Pye's well-known works. The editor, in spite of these additions, has succeeded in reducing the bulk of the book by no less than 160 pages. This has been done by placing the clinical records of cases, extracts from other writers, and tabular matter, in a smaller type. On the whole, this edition is the best that has yet been published, and does equal credit to the memory of the author and the tact and ability of the editor.

The Rational Cure of Deafness and Discharge from the Ear. By Drs. SEXTON and DUANE. New York: J. H. Vail and Co. 1891.

IN this little work the authors bring forward their operations of removal of the tympanic membrane and ossicles in cases of chronic deafness with tinnitus and

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in obstinate perforative otorrhœa. They do well to point out forcibly that the indications for the performance of these operations must be very carefully studied before they are undertaken. They also lay stress upon the difficulty of their execution, and it is obvious that they should not be attempted by anyone who has not large experience in the ordinary manipulations of aural surgery. Details of the operations and requisite instruments are not given. The reader is referred for these to Dr. Sexton's work on Diseases of the Ear. Eleven cases of the operation for chronic catarrh and nine for suppurative disease are quoted. These are but few out of many similar ones, and are not to be looked upon "as mere isolated instances of lucky cures." The results of the cases related are certainly remarkable, and we naturally ask, Have no failures resulted in the large experience of the operators? Have no serious results ever occurred? The very completeness and universal success which the authors seem to claim for these operations raise a legitimate feeling of doubt in the minds of those accustomed to follow and accurately note the results of even the simplest operations of surgery.

In cases of chronic catarrh, with adhesions and tinnitus, we can easily see how inflammatory affections of the secondary membranes or subsequent cicatricial formations, would cause the operation to fail. In cases of chronic otorrhœa, should the operator feel assured that the malleus and incus are mere carious sequestra, he would do right to remove them. But all practical surgeons and pathologists know that in a considerable proportion of the worst cases caries exists in the walls of the tympanum, and especially in the mastoid, the pus finding its way to the tympanic cavity through long and complicated sinuses. In such cases, the operation here given could hardly succeed. Again, the treatment of otorrhœa by ordinary methods is by no means so generally unfavourable as the authors would have us believe. Many such patients, by systematically practising the ordinary principles of cleansing the ear, pass through a long life unscathed by suffering or serious disease. It is in the neglected cases that the fatal results of this affection so often come before us.

The authors are entitled to have full consideration shown to their views, and certainly they should not be opposed with the "savage bigotry" complained of in the preface. We fear, however, that they claim too much for these operations. Any surgeon who proposes to undertake them will remember the difficulty of their full performance, will long study the indications present in any particular case, and will especially bear in mind the responsibility of operating in a cavity in close proximity to the brain and its meninges, and among parts difficult to render aseptic, which have been sodden for years in fluids swarming with micro-organisms of the most dangerous nature.

OUR LIBRARY TABLE.

The Archives of Pediatrics. Edited by WILLIAM PERRY WATSON, A.M., M.D. Vol. IX. No. 97, January, 1892. New York: Fairchild and Company.—The January number of the *Archives of Pediatrics* is above the average. It opens with an interesting original communication, by Dr. Northrup of New York, on "Scorbutus in Infants; American Cases (illustrated)." The details of eleven cases are given. The writer has taken considerable pains to obtain reports of cases, and his monogram (in which full justice is done to Dr. Cheadle and Dr. Thomas Barlow) is the best contribution to the subject we have seen from the American continent. There are two other original treatises. One, by Dr. Howard, jun., on "A Case of Congenital Malformation of the Heart"; the other, by Dr. O'Dwyer, on "An Improved Method of Performing Artificial Forcible Respiration." This is a modification of a method of producing artificial respiration devised by Dr. Geo. E. Fell of Buffalo. His method consists in forcing air into the lungs by means of a foot bellows—the connexion between the bellows and the lungs being effected by means of rubber tubing attached to a cannula in the trachea or to a mask applied over the mouth and nose. Dr. O'Dwyer has improved on this plan by devising a set of tubes which establish direct communication between the bellows and the lungs through the natural passages. Professor Jacobi contributes a clinical lecture, in which, amongst other things, he strongly advises in spinal paralysis the use of strychnia subcutaneously in preference to its administration by the mouth. Dr. Jacobi has little regard for proprietary medicines. We are inclined to think the profession will agree with him when he says, "Whatever medicines you hear about from me are officinal." Several interesting clinical cases are given, and there is a good "current literature" on hygiene and therapeutics, medicine, and surgery in their bearing on diseases of children.

The Dietetic Value of Bread. By JAMES GOODFELLOW, F.R.M.S. London: Macmillan and Co. 1892.—While, of course, it is extremely desirable that so important an article of food as bread should be made with scrupulous care, we can hardly go so far as the author of this text-book, who thinks that the people of England have been in a particularly bad state of health owing to the unsatisfactory way bread has hitherto been made. Yet this is the aspect of things which he assumes to have existed, for in the first chapter he expresses the belief that bakers, guided by a sound knowledge of certain particulars (that is, regarding hygienic requirements and the food value of bread), will do more than all the theoretical food reformers in England to help the people back to perfect health. The volume contains, however, a clear and lucid account of all that pertains to the "staff of life," its value as an article of diet and its chemical composition; and it would appear to be the only work that deals exclusively with the dietetic value of bread, although we are aware of one excellent work which deals certainly with the chemistry of the subject, besides also with many details of technical importance. Mr. Goodfellow has divided his book into six sections, and these when enumerated will give some idea of the scope of the work. Section I. treats of food, diet, and digestion; Section II., of white bread; Section III., of whole-meal bread; Section IV., of special breads; Section V., of diseases of bread; Section VI., of the medicinal properties of bread. The sections are in turn subdivided into chapters. The author makes some very sensible remarks concerning the value and use of whole-meal bread, as well as on adulterations and impurities in ordinary bread. Having made, as he states, an exhaustive series of examinations, he is entitled to speak with some confidence and authority on the latter subjects. Of the samples of bread examined by him in London, 333 out of 341 were pure, and only three were adulterated with alum. In the provinces, of 194 samples examined, 189 were pure, and only two contained alum. The work contains a valuable collection of analyses, and it will doubtless prove useful as a book of reference to students and others interested in the technics of bread. We have noticed but one serious error throughout the pages, and that is to be found in the formula of urea on page 11. It is written $(NH_2)CO_2$, instead of $(NH_2)_2CO$.

Bibliographie der Klinischen Helminthologie. Von Medicinalrath Dr. J. CH. HUBER.—Part II. gives the references to various works on Cysticercus Cellulosæ Rudolphi. After dealing very briefly with the history, the author follows the course laid down in the first portion of the work, and gives first the general literature on cysticerci in general; then general works on helminthology, in which the cysticercus

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is discussed; next the German dissertations and French works, statistics, the general pathology and pathological anatomy; then in chronological order is given a list of the descriptions of the cysticerci in the brain, in the spinal canal, in the subcutaneous connective tissue and muscles, in the heart, liver, &c.; and of the cysticercus occurring in the same individual along with the tænia form. The same remark applies to this portion that applied to the first. It should prove an exceedingly useful list of references to any one working at the subject.

Premiers Secours en Cas d'Accidents ou de Maladies à Invasion Subité. Par le Dr. A. LÉON. Bordeaux: G. Gounouilhou. 1892.—This small work of eighty-one pages is illustrated by several lithographs. It deals with first aid to be rendered in cases of sudden illness and accidents and injuries, such as are unhappily of frequent occurrence in all large towns, cities, and centres of industry. The nature of the information is indicated by its title, and we have only to remark that it sets forth methodically and practically what is to be done and to be left undone until further and more skilled aid can be procured. The application of antiseptic principles to cases of traumatism is briefly but clearly inculcated. The information is arranged in four chapters, with an appendix, together with an interesting notice of the objects, composition, and work done by the Bordeaux Ambulance Society since its formation.

New Invention.

AN IMPROVED EVACUATOR AND TUBES FOR STONE IN CHILDREN.

DR. O. K. NEWELL some time ago published in the *New York Medical Record* an article on the improvement of evacuators for litholapaxy, and the later developments of the operation, and described an evacuator and special construction of straight tubes for use in such cases as they were suited to, laying especial stress upon the value of the straight tubes in conditions approaching the normal in adults, but especially in children. He also called attention to the short or, as he called it, the surgical distance into the bladder when the passage is engaged by the calibre of a metallic instrument. This distance, varying anywhere from two inches and a half or more in children to six or eight inches in adults. He now sends us a description of his evacuator, which he has since improved, without making material alterations in the principle of its construction. The taper joints are so improved that the form of stopcock is readily and unfailingly operated with a single finger. The evacuator is constructed on the principle that all of the fragments are received at the upper part of the bulb, that they are shot rapidly towards the bottom, sink at once into the receiver, and do not return through the tube. This has been shown to be in every way true, for even fine dust and sand may be quickly trapped with this instrument. Its chief advantages over all others Dr. Newell considers to be the fact that it is the simplest effective evacuator yet devised, that it is without any trap or valve, the bulb with receiver being of itself a trap; it has the shortest evacuating canal thus far made possible. It is the lightest evacuator yet made. Its capacity is nine ounces and three quarters. The form of stopcock, as already stated, is readily movable with a single finger. The evacuator is non-corrodible, being made of rubber and glass. According to his experience he considers these tubes are perfect as far as their application for evacuation of fragments from a child's bladder is concerned, there being no enlargement of the prostate in these cases or other abnormal conditions. The tubes were at first made of aluminium, and their lightness was an advantage, but the difficulty of working this metal has decided him to abandon the use of such tubes for the nickel-plated brass or silver ones.

FIG. 1.

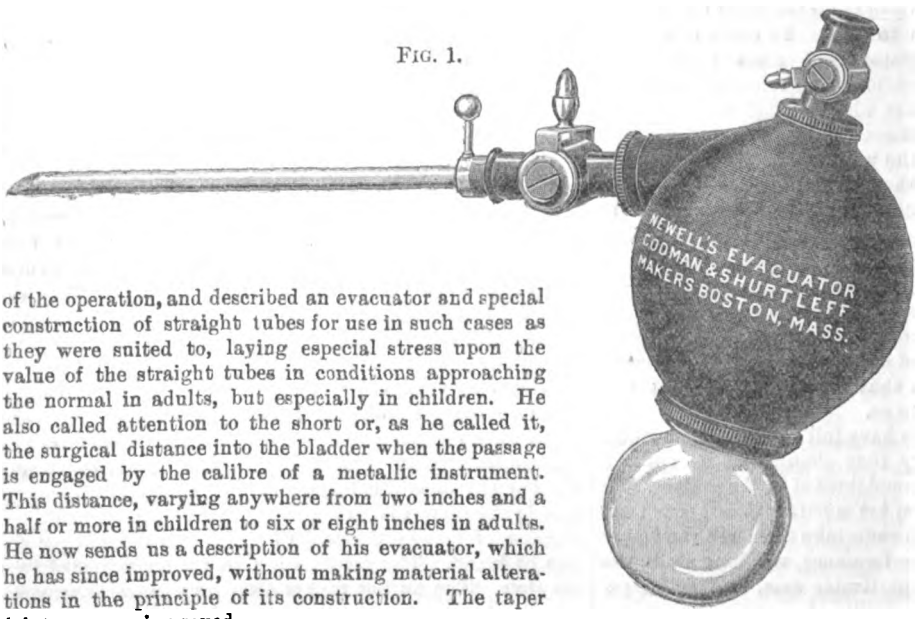
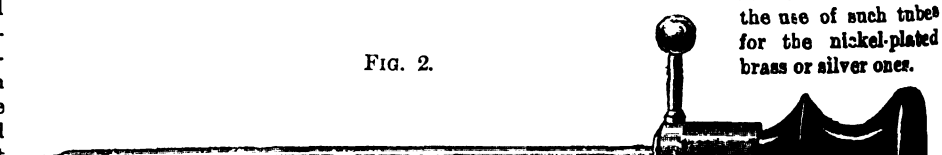


FIG. 2.



METROPOLITAN ASYLUMS BOARD.—At the usual meeting of the members of the Metropolitan Asylums Board, held on Saturday afternoon at the offices of the London County Council, Spring-gardens, the returns which were presented as to the fever and small-pox patients under the charge of the Board showed that, in regard to fever, 447 patients had been admitted during the fortnight, 45 had died, and 285 had been discharged recovered, leaving 1660 under treatment, or an increase of 117 as compared with the figures of the preceding fortnight. There were 54 small-pox patients in hospital, as compared with 45 in the preceding fortnight.

THE LADY AITCHISON HOSPITAL, LAHORE.—The annual meeting of this institution was held on Jan. 30th last, Lady Lyall presiding, in the unavoidable absence of Sir James Lyall. The report, which was read, was adopted. It was resolved to close the building and furnishing fund, paying the deficit of Rs. 30-4 1 from the current expenses fund. Some discussion took place as to the need of constructing a new City Dispensary; but, pending the receipt of funds for that purpose, a subcommittee was appointed to select a commodious house at a central part of Lahore city, and to report on the question of a new dispensary and its probable cost.

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THE LANCET.

LONDON: SATURDAY, MAY 7, 1892.

DR. PYE-SMITH'S Lumleian Lectures on "Certain Points in the Etiology of Disease" range over wide ground and raise many points of extreme interest and importance. The subject is handled not only with wide knowledge but with true philosophic temper. The results arrived at are, as the lecturer says, mainly negative and destructive, but he adds, "we must get rid of superstitious remnants, misleading analogies, loose definition and illogical arguments before we can make progress in any branch of natural science. When the ground is cleared a solid structure may be built." Pathology is now undergoing the process to which so many other departments of science have had to submit—the process, namely, of overthrowing the false, in order to found the true, of uprooting the weeds in order to give the wholesome grain a chance of life. In the progress of science the human mind has always two tasks before it—first, the collection of facts; secondly, their generalisation and systematisation. We must first observe, then philosophise; but the process of accurate observation being slow and difficult, while that of specious philosophising is easy, there is a constant tendency for the latter process to outrun the former. Hence pathology, like so many other departments of science, is encumbered with doubtful theories, plausible but unverified hypotheses, question-begging epithets and the like. He does a good service who shows us how far and in what manner our theories have outstripped our facts, but the tendency to philosophise is an ineradicable instinct of human nature, which can never be wholly checked. "We must philosophise or die," said one of the most famous of Greek thinkers; and in all our impatience at the cumbrous and obstructive theories which have often impeded the true progress of medical science, we must never forget that a fact, while it remains isolated, is comparatively barren, and that it only becomes truly fruitful and light-giving when we generalise it, connect it with other facts, bring it under some higher law—in other words, until we philosophise.

Dr. PYE-SMITH at the outset announces the principle that "disease is as natural, as physiological, as health. No living thing is immortal, and life is a constant struggle against surrounding forces, in which each individual organism succumbs after a while, by handing on its life to its successor when it has ensured the victory of the race. Pathology is only a chapter in physiology, which for convenience we have separated from the rest." Whether disease is as natural as health depends, of course, upon our definition of "natural." We can understand how decay is as natural as growth, death as natural as birth; but we are not sure that enteric fever or pneumonia can in any true sense be said to be "natural." They are not part of the necessary evolution of the individual, although they have, of course, their place in the evolution of the race. This latter is evidently the point of view of Dr. PYE-SMITH, who says: "Let us look upon diseases, not as unnatural, lawless, heterogeneous, abnormal, revolutionary, but as parts of the vast order of creation. They are not to be explained by any single all-mastering principle of physical evil. The various ancient systems of pathology which pretended to discover a common origin of disease are all outworn, dead, or dying, as obsolete as the correlative systems of therapeutics which pretended to deal with disease as a whole by some universal antagonistic principle."

Dr. PYE SMITH enumerates the external agents which can injure or derange the ordinary functions of a living cell thus: (1) Mechanical injuries, (2) electrical changes, (3) extremes of heat and cold, (4) chemical agents. In addition to these the cell may be (*a*) starved for want of food; (*b*) stifled for want of oxygen; or (*c*) poisoned by its own excreta. Here we have the chief etiological factors in disease. As regards the much-disputed question of the influence of cold or chill in the causation of the more important diseases, the lecturer evidently doubts whether the local application of cold to any part is a frequent cause of inflammation of the subjacent organs. He questions whether "we find that bronchitis, pneumonia, or pleurisy follows the application of cold to the chest, and that enteritis or peritonitis is produced by cold to the abdomen, or nephritis by cold upon the loins." He points out that ice applied to the chest in cases of pneumonia, whatever its efficacy as a remedial agent, which he doubts, at least never produces inflammation of the lungs, and that ice applied to the head in meningitis or to the abdomen in intestinal hæmorrhage never causes inflammation of those organs. He thinks we are driven to the belief that "cold applied to the surface of the body has no local result beyond the effect upon the skin." The real mischief seems, he thinks, to depend upon "a sudden impression which we sometimes feel when exposed to a draught on going out of a hot room in winter, or on sitting, after profuse perspiration in summer. ..... The effect does not appear to depend upon the locality or the severity of the chill. In most persons in this country, and in temperate Europe and America, a coryza with sore-throat, followed by a slight catarrhal bronchitis, is by far the most common result; but in many persons, especially in the summer months, precisely the same kind of exposure of the face or head, which causes a common cold, will produce diarrhœa and other symptoms of catarrhal colitis, local pain, with irregular peristalsis and discharge of mucus, with furred tongue, loss of appetite, and slight rise of temperature; while in India, China, and the Southern States of America a precisely similar chill produces an attack of ague." It is evident that in putting these diverse results down to "chill" we are not doing much in the way of real explanation.

Dr. PYE SMITH draws attention to an important point, upon which we can entirely endorse his remarks—viz, that not only do acute diseases pass often into chronic, but that they are often developed out of chronic affections. Thus, phthisis often appears to begin acutely, whereas careful inquiry often brings out the fact that there has been antecedent failure of health, loss of flesh, &c. Abscess of the brain appears to begin as an acute disease, but it is found always to be preceded by injury, caries, or by primary suppuration. Even enteric fever often ensues upon weeks of

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chronic diarrhœa. Genuine diphtheria is often preceded by non-specific and subacute angina.

Dr. PYE-SMITH strongly deprecates the frequent use of the term "diathesis." "To say that a man who has had rheumatic fever has a disposition to its recurrence is only to say that rheumatism is a disease which usually occurs more than once in the same person. We gain nothing by referring the occurrence of rheumatism to a preceding rheumatic diathesis." He "ventures entirely to deny that, apart from actual morbid events, either present or past, from hereditary taint or from such probabilities as exposure to disease from age, or sex, or occupation, that it is ever possible to predict the future advent of disease." Here, again, we seem involved in what is virtually a question of language. To say that an individual has a "tubercular diathesis" is only a short mode of expressing the facts that he has certain peculiarities of structure or function which experience shows are common antecedent conditions of tubercular invasion. Thus guarded, such a word as "diathesis" may serve a useful purpose; but we quite agree with the lecturer that the field of "diathesis," "dyscrasia," "temperament," &c., has been one of the happy hunting-grounds of false science.

The lecturer deals at great length, and with signal ability, with such questions as the influence of sex, age, occupation, climate, and race upon the etiology of disease. We cannot follow him into all the interesting questions which he raises. We may just note that he denies that gastric ulcer and pernicious anæmia are of more frequent occurrence in the female than in the male sex—as has so often been asserted; that he repudiates the idea that any change of climate has taken place during the last few hundred years; that he ridicules the notion that overwork, physical or mental, is a common cause of disease; that he does not accept the widely prevalent idea that there is any greater nervous wear-and-tear now than formerly, or that nervous disorders are on the increase.

Dr. PYE-SMITH, in his last lecture, discusses fully the etiological relations of such important diseases as chorea, phthisis, lardaceous disease, gout, rheumatism, osteo-arthritis, and some forms of dermatitis; but we must refer our readers to the original for information on these points. We have said enough to illustrate the value of these lectures. They will attract all thoughtful practitioners, especially those interested in taking a really philosophic view of the complex problems of disease.

EVERY surgeon is now familiar with the little dimple in the skin so frequently found in the crease between the buttocks over the tip of the coccyx or higher up over the lower end of the sacrum. It is usually called the "post-anal dimple." It varies from a very faint depression up to a deep dimple, which has been even compared in appearance to the anus, and when all forms and varieties of it are grouped together it is certainly a very common malformation. It is of no clinical importance, but it has great scientific interest, and many theories have been suggested to account for it. It has been supposed to have some connexion with the post-anal gut and the neurenteric canal, and another view is that it is the cicatrix of the spina bifida by which the human tail has been lost.

Of much less common occurrence are sinuses opening in the same situation and running upwards close to the coccyx or sacrum in the middle line, perhaps for an inch or so. These sinuses often have a very tiny aperture, and occasionally more than one opening is found. They may give rise to no trouble of any kind, and be only accidentally discovered; but at other times they become inflamed and suppurate, and then may give rise to a good deal of trouble, especially if their true nature is not recognised. For the suppurating tract remains open in spite of all ordinary surgical measures. Very commonly hairs are found in these sinuses, often growing from their interior, occasionally lying loose in their interior, and then they are stated to be hairs from the skin around, which have been pressed into the sinus by the friction and pressure of the clothes. These hairs are often supposed to be the cause of suppuration and of the obstinacy of the inflammation when once set up, or rather of the difficulty experienced in getting the sinuses to heal up. But the most important anatomical fact is that they are in all cases lined with epidermis, and it is this circumstance which throws light upon their origin and also upon their clinical peculiarities.

Occupying the same situation cysts are occasionally found, with a wall of thin skin, and usually containing fine hairs as well as fluid matters and fatty débris. It is easy to see the connexion between these cysts and the sinuses just referred to; alike in origin, the sinus has remained connected with the skin covering the part often by a very narrow orifice only, while the cyst has become entirely detached from it. We have the same association of sinuses and cysts in the neck in the situation of the branchial clefts. The most common explanation of the cause of these sacro-coccygeal sinuses and cysts is that they result from the imperfect closure of the lower ends of the dorsal laminæ of epiblast which rise up to enclose the neural canal. Their median position, their epiblastic origin, as shown by the nature of the lining of the cysts and sinuses, and the fact that the dorsal laminæ unite latest of all at the lower extremity of the spinal canal, all support this view. Quite recently, however, a slight modification of this view has been suggested by French and American observers, who, working quite independently, have arrived at precisely the same facts and conclusions. It is well known that in the early stage of its development the neural canal and the spinal cord extend the whole length of the trunk of the embryo, but that as development proceeds the lower end of the spinal cord recedes from the caudal end of the trunk, until at birth it is opposite the third lumbar vertebra. This has been usually attributed to the more rapid growth of the spine than of the spinal cord contained within it. With the object of throwing light upon this question, MM. G. HERRMANN and F. TOURNEUX in France and Dr. MALLORY in America have examined transverse sections made through the sacro-coccygeal region of fœtuses at different periods of development, and they find over the coccyx epithelial-lined tubes which are larger and more perfect in the earlier stages, smaller and more fragmentary in the later stages, of development. These canals and tubes are lined by epithelium, some-

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times distinctly squamous in character, sometimes prismatic; the cells showing a tendency, on the one hand, to develop into cuticle, and on the other hand, to develop into those of the spinal cord canal. It seems clear, therefore, that the lower end of the medullary canal is gradually obliterated as the fœtus develops, that this obliteration takes place irregularly, and that it is most often incomplete at the lower extremity. A failure in this obliteration produces either a cyst or a sinus, and the post-anal dimple must be regarded as a depression over the spot where the medullary canal and the surface epiblast were last of all in direct communication. Such a view is more in harmony with the general facts of embryology than the older notion of the disproportionate rate of growth of the spine and the spinal cord, and it explains in the simplest way the occurrences we are considering.

We have already mentioned that the sinuses over the coccyx are often very troublesome to treat. There is only one way of properly dealing with them, and that is by a deliberate and careful excision of the whole of the sinus wall. If even a small fragment of this is left failure may follow, and as these sinuses run deep, close to the bone, great care is often needed in this little operation. The cysts must, of course, be treated in a like manner. The analogy between these coccygeal dimples, sinuses, and cysts connected with the obliteration of the medullary canal, and the white spots, dimples, sinuses, and cysts connected with the closure of the branchial clefts is very striking.

"KNOWLEDGE comes, but Wisdom lingers," says the Poet Laureate, and, by something like the irony of Providence, it is in the field of Education itself that the truth of the saying is most pointedly exemplified. Here has knowledge been telling us, in tones the least mistakable, that in woman the physical substratum of the mental processes differs specifically from that in man, yet, deaf to the direct teaching of wisdom, we ignore this difference and we force the developing mind of the one sex into the mould prepared for that of the other, in fond expectation that the outcome of both will be equal, and that the distinctive features impressed by nature upon each will disappear in the educational laboratory. This disastrous procedure has scarcely been long enough in working to evolve its no less disastrous consequences. Little more than a generation has elapsed since the ill-inspired initiative of amiable but half-enlightened enthusiasts essayed "the intellectual equalisation of the sexes." But even already we have had indications of the Nemesis awaiting persistence in the attempt—indications which more than justify the mental physiologist and the truly scientific educator in agitating for its prompt and definitive abandonment.

Not for the first time, as these columns can too significantly attest, has the warning been given against the forcing system to which girls are subjected in so-called high-school education; nor has it anywhere been more authoritatively conveyed than by Sir JAMES CRICHTON-BROWNE. On Monday last, before the Medical Society of London, he returned to the theme—none the less opportunely, as the system he so strenuously opposes threatens to fructify in what CARLYLE has designated as "diseased developments" in literature and art, even in politics and religion. His oration, indeed, had but one fault, and that in its having been delivered to the auditory that least required its lessons. Interesting and, in some important respects, novel as were his demonstrations of the differentiating characteristics of the brains of the two sexes, it was to the so-called "educationist" rather than to the medical man, that they should have been addressed. The profession already knows, though its knowledge may lack the precision born of Sir J. CRICHTON-BROWNE'S experience in the deadhouse and the physiological laboratory, that the man's brain is not only heavier than the woman's, but that in weight it has a wider range of variation; that the distribution of the brain matter differs in both, the parietal lobes corresponding with the motor area of FERRIER being larger in the male, while the occipital lobes, which are sensory in function, are larger in the female; that the grey substance in the woman's brain is so inferior in density to the same substance in the man's as to mean, in her case, a less highly nourished, less highly developed organ; and that, finally, the circulation is more richly supplied in the male to that region of the brain which underlies volitional, cognitive, and ideo-motor activity than it is in the female, in whom, on the other hand, the sensory region is the more abundantly flushed with blood. These truths, recognised by the profession, though once again brought before it with admirable lucidity and force in the oration at the Medical Society, are, we repeat, so imperfectly realised by the educationist that it is on him by preference that they ought to have been inculcated, as it is by him, be it remembered, that the task of forcing the girlish mind has been assumed or rather usurped. Once let him fairly grasp the deep-seated differentiation in brain tissue and in brain function between the man and the woman, and we will do him the justice to say that his attempt to equalise their mental evolution would not survive the revelation. A change, if not an absolute reversal, of plan will then be his course, and with it an avoidance of those evils which, even if the plan were successful, would far outweigh any advantage so artificially won.

We need not follow Sir J. CRICHTON-BROWNE in his exposure of the many pathological results of the non-natural system of education which he combats, carried on as that system is under over-pressure. He tells us, what indeed is becoming notorious, that the more intelligent heads of girls' high schools are themselves awakening to the risks and positive evils of which they have been the unconscious instruments. So alive to these have many of them become that they seek for palliatives in the form of physical or even athletic exercises—again betraying ignorance of those physiological truths the disregard of which must prove fatal to all systems of education whatever. As Professor MOSSO has in his classic work, "Sulla Fatica," demonstrated, it is the most pernicious of mistakes to suppose, or to act on the supposition, that by substituting gymnastics for study during an hour or so of the day rest can be secured for the brain, and with it a greater alacrity and ability to resume head-work. We are glad to see Sir J. CRICHTON BROWNE adds his authority to that of the Turinese physiologist, and warns the conscience-pricked educationist that games, gymnastics, *a fortiori* drill, commendable in their proper place, will bring no tolerance of over-pressure or counter-

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balance its evils. "A man who has been standing on one leg for some time finds it a relief to change to the other, but the expenditure of nervous energy is going on all the time, and the brain that is wellnigh drained dry needs rest, and will not be replenished by merely altering the channel of outflow." As to the contention that woman possesses resources physical and mental which might yet be evoked and developed by discipline hitherto denied her, the answer is not less clear. Not promiscuous work, and that in excess, for the attainment of a non-natural and impossible ideal, but carefully selected and normally graduated work for the harmonious evolution of faculties peculiarly woman's own, is that which must be imposed by the educator of the future. It is vain to appeal to the exemplars, historical or legendary, of feminine proficiency in support of the hotbed system now in favour. A PORTIA in law, a TROTULA in medicine, a MARY SOMERVILLE in physics, are exceptions which it would be idle to force the generality of their sex to rival—exceptions favoured by organisation in the first instance, by special often accidental circumstances in the second, which the educationist cannot create at pleasure. "Woman," says the great singer we have already quoted, "is not undeveloped man but diverse"—most estimable when her diversity is, normally, most pronounced. Harmony in variety is the growing need of our civilisation; not the dead uniformity which JOHN STUART MILL, after doing so much to bring it about, came in his latter and better moods to deplore. Identity of conditions and environment is working too efficiently to induce identity in the human product—man becoming more and more the mere double of his fellow man. Are we to reinforce this tendency at the very time when it most needs correction by a strenuous and over-strained endeavour to equalise woman with her male complement? Such is not nature's manifest design. Even already persistence in the attempt is evoking the protest of physiological law, and the sooner the false idea that inspires it is replaced by the other and the true one the better for the generation that is rising around us and for the generations that have yet to be.

THE *Pioneer Mail* of April 14th has several paragraphs referring to the occurrence of cholera in India in connexion with the Hurdwar fair. The subject is one of great importance and of no little difficulty. Seeing that outbreaks of cholera have so frequently taken place at these immense gatherings, the question has been often asked why the Government of India does not stop these fairs altogether. That is a question easily asked, no doubt, but it would be a most unpopular measure for a Government to prohibit them. It is a great Hindu religious rite. Vast crowds of pilgrims, full of fanatical zeal, will make almost any sacrifice and run any risk to attend these fairs, and no Government likes to incur the odium or face the consequences, which would be serious and might even be disastrous, of abolishing them. The Government has to accept the situation and do the best it can by making the most practicable arrangements and taking all the sanitary precautions in its power; and, to do the Government justice, it spares no pains in these respects to accomplish its ends, and meets not infrequently with success. There were only two or three cases of cholera at the Hurdwar fair last year, although, as Dr. W. J. SIMPSON has informed us, cholera bacilli were found in the water of the bathing pool; whereas, at this year's fair, the disease appeared in an epidemic form, and the action taken by the authorities was to disperse the pilgrims. It is stated that the climatic conditions of this year's fair were of an exceptional character. The pilgrims go to Hurdwar from all quarters and from immense distances. The railway had brought 40,000 pilgrims, and they were still coming by thousands when the fair was broken up, and some 70,000 pilgrims were hurried away from the bathing place at Hurdwar. It is stated that some of the bathers stricken with cholera were taken from the stream only to die a few minutes afterwards. The unfortunate people are dominated by religious fanaticism and fatalistic belief. The action of the authorities in dispersing the pilgrims has been sharply criticised, as it is alleged that the disease was spread through the districts by the returning pilgrims. On the other hand, the *Pioneer Mail* asks what the mortality would have been if 500,000 pilgrims, wearied and fatigued by their journey, had assembled at Hurdwar and had been confined together on a relatively small area.

There are certain points connected with these gatherings and the prevalence of cholera which require to be studied and worked out with judicial care. Do the pilgrims bring the disease with them to Hurdwar, and are the country and hill villages in the vicinity of the fair quite free from cholera at the time of and before the fair? Has the disease shown any tendency or not to prevail among the populations occupying districts near Hurdwar at the particular season at which these fairs are held? How many of these gatherings have been attended with outbreaks of cholera and to what extent and in what respects did they differ from those fairs in which no epidemic occurred—e.g., as regards the numbers attending the fair, the climatic conditions, and the hygienic arrangements. When an outbreak of cholera occurs and the pilgrims disperse to their homes, suffering from and in numerous cases dying of the disease *en route*, to what extent have they carried the disease to others, and been the cause of its spread among those who have not attended the fair? Has an epidemic or an outbreak of cholera been originated in this way, or has the apparent spreading of the disease been attributable to a very small number of persons? What is wanted is a knowledge of the way in which the disease comports itself, based upon exact information as to what the facts really were, and recorded at the time, while they were fresh in the memory and capable of verification. When an enormous gathering of pilgrims has been cholera-stricken and dispersed, it is not so much whether *they* carry the disease and die of it as whether they give rise to its appearance or not in other persons and in the various directions in which they travel. There are, of course, a great many other points calling for investigation, but the opportunity offered by this Hurdwar epidemic of tracing out and recording the facts connected with its medical history will not, we hope, be lost.

There are two directions in which we may approach the study of cholera. The disease may be studied from the standpoint of the epidemiologist in its relation to time

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and space and its progress and direction under given conditions, as in the case of the Hurdwar epidemic in question; or the disease may be regarded from the standpoint of the local, scientific, or clinical observer, who deals with the phenomena presented on a small scale, in their relation to individuals and their environment, within narrow and circumscribed limits of time and space. The latter is likely to be the more exact and fruitful method of investigation; but both methods are obviously necessary, and they are complemental of one another. We want such an exact record of facts and observations in either case as shall tell their own tale and point their own moral.

Annotations.

"Ne quid nimis."

THE INTERNATIONAL MEDICAL CONGRESS OF 1893.

THE Fifth International Congress of the Red Cross Associations of Europe, of which we have given some account, was eagerly embraced by the delegates of the signatory Powers as an appropriate occasion on which to give expression to a cordial greeting to Italy, in view of the yet greater International Congress she is to hold in 1893. Their spokesman was, fittingly enough, Dr. von Coler, representing the court of Berlin at the recent Red Cross discussions, to whom the Berlin Congress of 1890 owed almost as much of its happy issue as to Virchow and Lassar. We take this pleasing initiative of goodwill towards Italy as of the best augury for the mighty gathering of 1893, for which she is making preparations that of themselves must command a memorable success. By her own generous admission she has taken a leaf not only from the Berlin Congress of 1890, but from the great Hygienic Congress held in London last year, and will spare no effort to make her return for the hospitalities she enjoyed in the British and German capitals equally worthy of her people and of the august city on which her unity and independence have set their seal. She could have no better promoter of her approaching international symposium than her distinguished consultant Dr. Guido Baccelli, to whom Virchow at the Berlin Congress gave the heartiest "Glück auf" in the language which to Baccelli is almost as much his mother tongue as his native Italian: "Gratias ago Baccellio nostro amicissimo quam maximas ex intimo corde. Spero fore ut eum videamus in Capitolio virum consularem triumphantem!"

THE OATH OF HIPPOCRATES.

EVEN in these days of advanced evolution in medicine there are many matters connected with its fundamental principles which must retain a perennial interest. Opinions respecting these may be ancient yet not antiquated, of primitive simplicity and yet accurate and even scientific. Thus it happens that the antique fathers of our art have still a place among us which does not belong to a departed though honoured memory—the place of those who seem to live and to labour in the permanence of the work which their genius organised. For, notwithstanding defects of observation and instruction, there was more in early medicine than a mere chaos of irrational conjectures. Glimpses obtained through the scanty records of those times reveal many signs of an orderly system. Of such a kind is the light which has been cast upon the views of Hippocrates by Dr. F. R. Smith of Baltimore, in a criticism published in the Bulletin of the Johns Hopkins University on the professional oath commonly attributed to that eminent authority. We may remind our readers that, as with other and later pledges of the same kind, ethics form the substance of this declaration. For the spirit of professional brotherhood which it breathes, for its fearless and explicit denunciation of criminal practice in an age when this was prevalent, for its portraiture of the practitioner as a model of regimen, and for the wise discretion enjoined upon him in his relations with his patients, the oath might still be studied with advantage. It is worth noting, too, that "precept, lecture, and every other mode of instruction" embodied the Hippocratic idea of medical education. In that day, as in our own, theory and practice, the book and the clinic, constituted the essence of true studentship. An expressed objection to the performance of lithotomy affords an early sign of the deepening cleavage between the provinces of the physician and the surgeon. The father of medicine doubtless acted wisely in advising the division of a labour destined to become colossal. We feel assured, however, that a mind like his could not have rested content within the far narrower limitations approved by modern specialists. He would rather have agreed with those practitioners of wider views who, recognising the finite conditions even of disease and treatment, are equally careful to apply, under sanction of time and opportunity, every particular means of relief, while duly maintaining touch with all vital conditions of a more general character.

THE SMALL-POX TRAMP AND HIS LESSONS.

THE fuller accounts which we have received of the unfortunate tramp with small-pox who applied at the Denbigh Infirmary, and of his treatment there, in no way improve our opinion of the sanitary and Poor-law authorities in that town. The case is very instructive as to the protection of those who rely on what the people of Leicester believe in—namely, sanitary police. The man had come unchallenged from Liverpool, after attending the races. On his way he stopped at Ruthin three or four nights, with the eruption upon him. He stayed for one night at Denbigh in a common lodging-house before presenting himself at the infirmary. It is not pleasant to think of the number of people who may have been infected during his journey. But the serious part is that when he reached Denbigh Infirmary, and the disease was duly diagnosed and notified to the sanitary authorities, they replied that they had no power to deal with it. They have since made up for their inaction by strongly denouncing the infirmary authorities for not keeping the man in, though obviously the infirmary was not a fit place for the detention of such a case. In fact, it would have been cruel to the rest of the inmates to detain him there. He was, in the language of the Act quoted by the Mayor of Denbigh in his letter to us last week, most "improperly housed"—that is, he was housed where infection was sure to spread quickly to already afflicted people. The case was a modified one; and after being detained several hours, to give the sanitary authorities time to make provision for him, he was told that he could not be treated there. The sanitary authorities ultimately succeeded in getting shelter for this poor fellow in the common lodging-house he had slept in the night before! A sanitary authority has no excuse for being found so unprepared as in this case. It has had years to prepare a place of isolation for such cases, and it has been sleeping all the time. When the inevitable need arose, it proved as deficient in resource as it had been in providence. Surely in a town of 6000 inhabitants a better place than a common lodging-house could have been found in six or eight hours. Let us hope that the other authorities of the

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country are not folding their arms in this fashion with no conception of energy except for the denunciation of others for not doing what they themselves should have done. We are not very hopeful on this point. The accounts of outbreaks in other places are not reassuring. The dreaded disease has been in such abeyance of late years that sanitary authorities have been neglecting their duties, and playing into the hands of anti-vaccinationists and other faddists. Now it looks as if a great test would soon be applied to them. All sensible people will see to their own protection. Those who do not are at the mercy of tramps who traverse the country unwatched, and of those whose interest it is to keep the disease concealed till it passes all bounds.

THE DISPOSAL OF STILLBIRTHS.

CASES showing the necessity for some change in the laws relating to stillborn infants occur with alarming frequency. Not long ago the county coroner for the West Derby district of Lancashire held an inquest upon the body of a deceased infant whose mother had tried to have it interred as a stillbirth, although it was the second child she had given birth to, both being illegitimate. More recently the same coroner held an inquest at St. Helens upon the body of an infant which was found in the possession of a local midwife. Whether it was stillborn or deceased could not be ascertained, as so much time had been permitted to elapse since its birth and discovery that decomposition was far advanced. Within the last few days we see reported a "burial scandal" at Strood, near Rochester, where it appears that a gravedigger, to save himself trouble, had, instead of digging a grave for the burial of stillbirths, deposited them in other persons' graves—a most reprehensible proceeding. The registration of stillbirths in this country appears to be as far off as ever, in spite of all that has been urged in THE LANCET and in the lay press. So long as it continues to be the law of the land that stillbirths are not to be registered, it becomes all the more imperative that their burial should be surrounded by every safeguard. This is evidently not the case now. A separate portion of each burial-ground should be set apart for these interments, the graves should be numbered, and there ought to be no difficulty in identifying that one in which any particular burial has taken place, and in exhuming the body within a reasonable period, should any circumstances render this desirable.

THE PHYSIOLOGY OF DREAMS.

AMONGST those who crowded the theatre of the Royal Institution last Friday evening to listen to Dr. B. W. Richardson's lecture on the "Physiology of Dreams" there were probably some who expected to hear of miraculous and mysterious events of dream and trance, whilst others would expect to receive from the discourse nothing more and nothing less than the latest views of a man of science on the subject of dreaming treated from its scientific side. The last-named had their way, for the lecture, although so prepared as not to be wanting in general interest, was exclusively an exposition of the phenomena and causes of dreams from the scientific side alone. There is no mystery in dreaming, it was contended, that is not already explainable on physical grounds, or that does not admit of being explained as investigations on purely physical methods progress. The phenomena of dreams were first discussed, and were classified under three heads. There are dreams which are entirely objective, brought about by the effect or effects of some external object or action; an external vibration acting upon the corporeal vibratorium. There are subjective dreams, dependent on some vibration occurring within the body itself, and carried by nervous conduction to the sensorium. And there are, thirdly, dreams due to a combination of the objective and subjective influences. These different kinds of dreams the lecturer defined from particulars which he, from his long experience in professional life, had noted down; and many details of a most interesting character were thus supplied. The dreams of fever, of indigestion, of exhaustion, of pain, of melancholy, of fear, of contention, of motion, of narcotism from inhaling different gases and vapours, and of circumstantial reasoning in sleep, were noticed and exemplified, the evidence in each case being to the effect that an external or internal influence was sustaining by vibration the condition of dream, and that such condition differed only from the waking dream in that it was less perfect and complete. In the second division of his discourse Dr. Richardson dealt with causes of dreams, in which he maintained that the dream is a purely physical phase of life; that it depends on two conditions, our own corporeal organisation, and the state, for a time, of the surroundings of our life. There is no more of mystery, of potency, of prescience, in the dream of sleep than there is in the dream of the wakeful day. We dream according to our nature, our habit, and our environment. Dream is a partial mental activity combined with a more or less complete physical repose. In illustrating this part of his subject, Dr. Richardson, from a series of beautiful plates, showed on the screen the parts of the nervous system directly or indirectly concerned in dreaming. Three of these, of the organic nervous system, were direct photographs from natural parts; another was from an original plate of Vesalius, rendering that great anatomist's view of the pneumogastric nerve in its course from the brain to the heart and stomach; and another still, showing the arterial skeleton, was from the famous drawing by Albinus. The mode in which vibrations could be carried from the external world through the senses to the sensorium, and from the viscera to the same centre, was in this manner delineated, and the cause of the objective and of the subjective dream made clear. A series of practical deductions brought to a close a lecture which came quite naturally within the domain of medical science, and yet from its every-day experience admitted of being discussed in a method perfectly understandable by a general audience.

THE ABUSE OF COCAINE.

MR. CONOLLY NORMAN of Dublin contributes a paper on this subject to the last number of the *Journal of Mental Science*. He says that undoubtedly much harm has resulted from a recent tendency to use cocaine as a help to break off the morphia habit, and from the mistaken notion that this drug can be employed safely and advantageously for this purpose. Cocaine, the author remarks, is more insidious than morphia; it fastens upon its victim more readily, and its hold is at least as tight. The special dangers of cocaine are said to be three: (1) That it is treacherous; (2) that it early produces breakdown, both in the moral and intellectual spheres; and (3) that it is intensely toxic, bringing about destructive tissue change after a comparatively short period of abuse. In the last respect it differs from alcohol and morphia, which may be long indulged in, in considerable quantities, without giving rise to serious structural change. In chronic cocaine poisoning, on the other hand, marasmus appears early and develops with extreme rapidity, convulsions are not uncommon, and chronic poisoning in animals produces, as Zanchevski has shown, degeneration in the cells of the medulla and spinal cord, and also in the nerve cells of the heart ganglia, and in the liver cells. The great danger of cocaine lies in the fact that it is the most agreeable and alluring of all narcotics. It causes no mental confusion, only a little more talkativeness than usual, the narcotic effects are not overwhelming, and there is no head-

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ache or nausea, and the pleasant effects are produced with a comparatively small dose. But toxic symptoms are rapidly developed, and within three months of the commencement of the habit there may be marked indications of degeneration, loss of memory, hallucinations, and suspicions. Dr. Norman has seen three cases of abuse of cocaine. In one the drug was given as a substitute for morphia, in the second it was first given for a painful affection of the nose, and in the third the patient was in search of a new stimulant. The symptoms in the first case were hallucinations, sexual excitement, and loss of sense of the passage of time. The second patient was elderly, and, after six months' use of cocaine, he fell into a state of mental hebetude, with loss of memory and broken irregular sleep. He was also tormented with sexual excitement. In the third case, a young man, the memory was failing, he was furtive and shifty in manner, and could not speak the truth. He also had visual hallucinations, and at first sexual desire was increased, but latterly diminished. These cases seem to furnish fair examples of the usual condition produced—a condition sufficiently serious to put medical men on their guard against prescribing too freely a drug so insidious and so dangerous.

THE INAUGURAL BANQUET OF THE ROYAL ACADEMY.

THE First Lord of the Treasury, in reply to Sir F. Leighton's toast of "Her Majesty's Ministers," touched felicitously on some of the blemishes of London life which time seems to intensify rather than diminish. "When almost every right of property," he said, "is criticised by somebody or other," there is one which is left unquestioned, "the right of every man to erect on his own ground the most hideous and shapeless structure of discoloured brick which may suit his commercial instincts—structures which even the hand of time will never render tolerable, and which even decay cannot make picturesque." While Mr. Balfour, parodying the well known aphorism of the late Archbishop of York, would rather "that Englishmen should be free than that Englishmen should be æsthetic," he is surely more than justified in his protest against the desecration of such noble sites as the margin of our "silent highway" by buildings that embody nearly every architectural fault. He had the edifices between Charing-cross and the river especially in view, the railway station with "the bridge that is appended thereto" being at once "an eyesore and an insult" to the citizens of London, who are, however, powerless to prevent such monstrosities before they become *faits accomplis*. A better cultured public taste finding expression through a more perfectly organised public opinion is the remedy we must look to, though the combination of the two in civic life is as yet remote enough. Art and literature have still much to do before that consummation is reached, but if we may believe Sir F. Leighton and the accomplished Hellenist, Professor Butcher, whom he associated with the toast of "Literature," the two main factors of improvement in æileship are beginning to work in the desired direction. Professor Butcher dwelt convincingly on the need of a still better understanding between literature and science than has of late years been manifested—literature insisting too exclusively on the claims of form, science on those of substance. That the two are not incompatible,—that when each is at its best they are found blended indissolubly—he had no difficulty in illustrating, particularly from those ideal *chefs-d'œuvre* which abound in the language he teaches. "The Greeks," he says, "were able even to make science literary and to produce a treatise on medicine which bears the stamp of the great masters of language." This is admirably true, and the physician who is also a man of letters could supply instance upon instance from the Greek, and even the Latin, writers on medicine, to whom the remark might apply. Take the first treatise in Littré's edition of the Hippocratic collection, that on "Air, Water, and Locality," and the reader will not have gone far before he feels himself under the guidance of a true artist in words as well as of a true genius in science. The description of impending dissolution, known to all time as the "facies Hippocratica," could have been spoken or penned by no one but a physician who was also a painter in language. Even the patrician dilettante in medicine, the Roman Aulus Cornelius Celsus, had so much in common with his master, Hippocrates, as to have drawn a picture of epilepsy which survives in our medical classics and inspires a memorable page in Sir Thomas Watson's "Practice of Physic." But of all Greek medical writers who have made a professional treatise a masterpiece of language the one whom Professor Butcher had doubtless in his eye was Aretæus, who, though as late as the second century, wrote in the purest Ionic Greek, and has left us a gallery of pathological portraits which distinguishes him as the Æschylus of medical delineation. He is, according to Paccinotti, the most tragic, in the dramatic sense, of our professional masters, as may be seen on a perusal of his work in the original edited by Dr. Francis Adams, or even in the same scholar's own translation, to say nothing of its brilliant rendering in Italian by Puccinotti himself.

SUICIDE DURING PARTURITION.

ALTHOUGH the pangs of labour are severe, and the dread of operative interference is great with some women, yet it is most unusual for a parturient woman to commit suicide. Recently, however, a case occurred in Wigan where the woman—after some hours of labour, and upon the midwife telling her that it would be necessary to have the aid of a medical man, owing to its being a breech presentation,—whilst the husband went for the doctor left the house, notwithstanding the protestations of the nurse, and when the doctor and husband returned she was nowhere to be found. The medical man waited some time while a search was made for her, and then left. Next morning her body was found in the canal with the newly born infant. The shock produced by sudden immersion must have caused the uterus to expel its contents. The woman had not far to walk, and it seems probable that she had previously planned her self-destruction. An inquest was held, and the jury returned a verdict of suicide whilst in an unsound state of mind.

SURGICAL TREATMENT OF EPILEPSY.

DR. SACHS of New York has contributed an interesting and suggestive paper on this subject to the *New York Medical Journal*, and an abstract appears in the last number of the *Neurologisches Centralblatt*. He is inclined to regard primary or so-called idiopathic epilepsy as a somewhat more uncommon affection than it is usually supposed to be, being of opinion that many such cases are really the result of accidents which happened years before any symptoms appeared, and that some of them are the consequence of cerebral lesions in infancy. He adheres to the views of Marie, Fé é, and Chaslin that the pathological equivalent of epilepsy is a sclerotic condition of the cortex which leads to a disturbance of the functions of the cells, and this sclerosis he regards as the result of some preceding traumatism. Months or even years may elapse, however, before the sclerosis has advanced sufficiently to give rise to discharges. From these views as to the nature and origin of epilepsy his therapeutic views are naturally enough deduced—viz., the removal, or impairment of the activity of the original irritant, or

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the prevention of the secondary sclerosis or the neutralisation of its effects. In other words, where there is an injury to the skull or a hæmorrhage in the cortex immediate operation is desirable; and if the symptoms of secondary sclerosis are already present, then removal of the affected cortex must be carried out. But, as Dr. Sachs remarks, the limits of the sclerosis are not easily defined, and he even urges immediate operation for any skull injury. Of his four cases of operation for epilepsy only one was notably improved, but he had better results in cases of epilepsy, the result of injury in childhood, in which operation was undertaken. The three cases which he records were much improved, the epileptic attacks remaining absent for three or even six months at a time. There is no doubt that the opinion is gaining ground, and may now almost be regarded as a surgical axiom, that at least all cases of depressed fracture, whether producing symptoms at the time or not, should be operated upon; but whether this rule should be extended so as to include even slight skull injuries, it is as yet not easy to decide. The dangers of head operations are now reduced to a minimum, so that it may be said that in any case in which there is a probability of injury to the underlying cerebral structures operation is not only justifiable, but ought to be carried out.

PENNY FEES AT DISPENSARIES.

THE biennial dinner of the Finsbury Dispensary was recently held at the Albion under the auspices of the Lord Mayor. Five hundred pounds was the result, which the funds of the dispensary, depleted by the strain of the influenza and the operation of the City Charities Act, much needed. This satisfactory result was due very much to the effective eloquence of the Lord Mayor. There is only one sentence in his lordship's speech which we feel disposed to criticise—the payment of a penny by the patients for medicine or advice. The Lord Mayor approved this rule as likely to give the poor some sense of being not altogether objects of charity. The rule has been adopted by many other dispensaries. The moral virtue of the payment is doubtful. As a standard of the value of medical services it is decidedly objectionable, and has perhaps something to do with the fact that in free dispensaries the medical officers get nothing, and in provident dispensaries a very poor remuneration.

PRISON REFORMATORIES AND THE INCREASE IN CRIME.

THE American system of prison reformatories is on its trial. So far it cannot be said to have proved a success if we are to judge of this from evidence of a reduction in the number of the criminal population. According to statistics quoted in a recent publication of the Howard Society the proportion of law breakers in the United States, which in 1850 was 290 per million, stood in 1880 at 1169 per million, and there is too good reason to believe that it has now reached a still higher level. At first sight it may seem extraordinary that crime, a disorder of the social system, should not have proved more amenable to such curative efforts as those put forth by the authorities of the institution at Elmira, yet these attempts, in the opinion of many experienced and careful thinkers both in this country and America, have not only failed to realise their proper object, but have been directly instrumental in promoting the increase of crime already referred to. This view, there is unfortunately reason to believe, is not unsupported by reliable proof. For the explanation of this fact we must search into the constitution of the reformatory system. As regards the wholesomeness of the reform contemplated by this agency there can hardly be two opinions. Clearly the mere infliction of punishment has not so far done more than check the lawless outbursts of criminal instinct. It is evidently inefficient for the purpose of reformation, and the methods applied at Elmira and elsewhere are so many tentative endeavours to arrive at a more truly remedial form of treatment. Unfortunately those methods leave much to be desired. Founded on a law of kindness, they have been indiscreetly genial in operation. The criminal, no matter how guilty, once within the walls of the reformatory lacks nothing of comfort or convenience save his personal liberty. He is well lodged, well fed, has recreation in varied plenty, work which is not always compulsory, and food of superior quality in abundance. He is allowed free communication with his fellow prisoners, notwithstanding the fact that this has often proved in the history of prison management a source of moral contamination. The tendency to this latter evil is combated, but surely it cannot thus be effectually overcome, chiefly by means of education imparted in the form of lectures, book study, &c. Religious training is not excluded, but its place among the customary usages of the reformatory is not a prominent one. Thus the agent which, however we explain its power, has been found the most potent in regulating conduct remains too little utilised, and its place is filled by the feebler presence of a lecture-code of moral axioms. It is to indiscretions like these that we must ascribe the comparative unfruitfulness of the prison reformatory system. If, therefore, we would enjoy its best results, we must alter its methods. Justice demands that crime shall bear its penalty: prison life must be of a kind rather to repel by severity than to attract by luxury.

INFLUENZA AND THE POSSIBILITY OF AERIAL INFECTION.

DURING the late epidemics it occurred to us that the most valuable evidence with regard to the possibility of the spread of the epidemic through the air might be obtained from some of the isolated lighthouses on our coast. Cases of influenza having been reported both at the Bishop's Rock lighthouse (off Scilly) and at the Caskets lighthouse (off Alderney), we placed ourselves in communication with the medical officers who attend the residents on those lighthouses, and have to thank them for their replies to our queries. It is clear from these replies that no sufficient proof of aerial infection has been established. As to the Bishop's Rock lighthouse it s very questionable whether the first case reported was really a case of influenza. With regard to the Caskets, there is no question that some of the attendants suffered from the epidemic; but inasmuch as fishing-boats from Guernsey, Jersey, France, and England very frequently called—especially from the first-mentioned place, where influenza has been very prevalent,—it is impossible to feel assured that the infection was not communicated directly from persons infected with the disease. It seems to us of the greatest importance, in view of the opinions which are held as to the mode by which this disease is spread, that these points should be definitely put on record, as the older investigations as to the spread of this epidemic at a distance are not altogether trustworthy.

CHLORODYNE.

THE numerous fatal accidents resulting from the sale, without any warning of their dangerous properties, of preparations containing opium or substances derived from opium, render the action of the Treasury in connexion with "Dr. Collis Browne's chlorodyne' peculiarly necessary. As a result of several coroners' inquests and of representations from various quarters this preparation has been officially tested, and a prosecution has been very properly instituted against

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the manufacturer rather than against any small retail shopkeeper, who might plead ignorance. That the case was regarded as one of considerable importance may be gathered from the array of eminent counsel employed. It was contended that chlorodyne was a proprietary medicine, and that the manufacturer had to take out an Excise licence and pay a stamp duty on every bottle. From a legal point of view a great deal appeared to depend upon whether the substance was a patent medicine or not. The prosecution maintained that the bottles should be labelled with the word "Poison," so that the public should know what they were actually buying when purchasing medicines containing a certain amount of poison, and children and adults with a tendency to commit suicide should be unable to obtain such dangerous drugs. For the defence it was urged that chlorodyne had been sold for over forty years, and that it was unwise to employ the word "poison" as it would tell people what to take if they wanted to commit suicide, and indeed that it might be safer to keep it as a medicine, as everybody disliked medicine, and the young particularly shrank from taking that which they knew to be a medicine. This curious contention strikes at the root of the matter, and questions the wisdom of the provisions of the Sale of Poisons Act. As a matter of argument, it may be admitted that for the purposes of suicide the red label appears to offer certain facilities; but it is relatively so easy to procure poisons that surely the true purport of the label is to protect the public against accidents through ignorance. For a medicine, even a patent medicine, containing 15 per cent. of chloroform and two grains to the ounce of morphine, to be retailed without any warning, all over the country, by drapers, grocers, and chandlers, is surely to invite accidents. The medicinal value of chlorodyne is not here in question—indeed, there is an official preparation much resembling it in the British Pharmacopœia; but then it is intended for use under medical advice and for sale by qualified chemists, and it is not dispensed freely for general, unskilled, haphazard employment in the treatment of coughs, colds, fever, and the like, as though it were absolutely free from danger.

EX-CATHEDRA UTTERANCES v. SCIENTIFIC CAUTION.

THE admission of medical controversial matter into the lay press is always, we think, to be deplored, and we certainly regret that, when scientific questions are mooted, they are not handled in the way in which men discuss them who have received a training in science and have acquired the spirit of caution which illumines the *savant* but darkens the counsels of the ignorant. No subject has suffered more in this way than that of anæsthetics. Men, whose education should have taught them better, have, when astride of their favourite hobby, thrown logic to the winds, and have not stopped even at personalities in their endeavours to force all the round men of the earth into the square holes which fit their own ideas and experiences. In a recent issue of the *Bombay Gazette*, for example, the cudgels have been taken up about the use of chloroform, and statements have been made which are as ill-judged as they are unjustified by facts. Thus a correspondent signing himself "Buggobutty Bose" takes Mr. S. Harris, M.R.C.S., to task for his supposed ignorance of the work of the Hyderabad Commission. He goes on to say that professional opinion was, before the session of the Commission, divided between the views of London chloroformists and those of Edinburgh, the former always taking the pulse as the guide, the latter always taking the respiration. He adds: "The Commission has proved that the Scotch method is right, and that to take the pulse as a guide to the effect of chloroform is unsafe. *It is therefore criminal.*" The italics are ours. The quotation reveals ignorance of the methods of London schools, which the discourteous sneers contained in the letter make the less excusable. The practice of London anæsthetists has been more than once put before the profession in our columns, and it is only fair to say that they attach quite as much importance to watching the respiration as the followers of Simpson and Syme. They differ, however, from them in believing that in human beings cardiac syncope may occur in various stages of anæsthesia, and that such an occurrence is not due to primary respiratory failure. Holding this belief, they consistently teach that the pulse should be watched *as well as* the respiration. It is not within our province to decide for one party or the other, but we must emphatically deprecate any aggressive writing on the part of disputants favouring one or the other view, especially when it does not stop short of preferring a charge of wholesale crime against the bulk of the English profession.

ANIMAL VACCINE LYMPH.

THE Local Government Board does not undertake to supply calf lymph to the profession for any other purpose than the vaccination of the first of a series of cases. Medical men have to rely upon their own efforts to maintain their stock of lymph, and as a result some private institutions exist in this country for the production of and the sale of calf lymph to those who desire to use it. We have had brought to our notice the institution which Dr. Hime has established at Bradford, and where he has evidently met with considerable success. The lymph is supplied in three forms—on points, in tubes, and as a conserve. Of the two first methods of preparation we have had ample experience in this country, but the use of conserve is limited, although in Germany and America it is much more commonly employed. The chief objection to calf lymph is that it must, if generally used, lead to arm-to-arm vaccination being replaced by vaccination with stored lymph, which has a less certain success. If Dr. Hime could obtain information as to the insertion success which attends the use of his lymph, the result would be of considerable interest. In the hands of many operators the skill of the vaccinators would no doubt vary, but this is equally true for arm-to-arm vaccination, and it would be well worth learning whether those who use calf lymph stored are less successful than when they vaccinate from arm-to-arm. Dr. Hime, in issuing his calf lymph, explains that it is impossible to collect it without some admixture with blood-corpuscles. This is undoubtedly the case, but after some years of experience of the use of calf lymph there is no reason to think that danger is caused by this circumstance.

THE VACANT CORONERSHIPS.

BY the death of Dr. Diplock another vacancy has occurred in the coroner's office, and we trust that those in whose hands the appointment of the coroners of Newington and district and of West London respectively rests will not have to look beyond the field of medical applicants for a suitable candidate to fill such important positions. The battle fought for the principle was toilsome and expensive, and the early results which followed upon the medical victory of 1838 are too obvious to students of forensic medicine and to those whose affairs lead them to deal with the coroner's court. The arguments in favour of the principle do not need to be reiterated in these columns. The battle was won on the strength of indisputable facts and indestructible arguments. We trust that the County Council of London will not dispossess the medical profession of an office which it has held so long with so much benefit to the general public. To

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break in upon the direct succession of medical coroners of Middlesex, which commenced with the late Mr. Thomas Wakley, M.P., would indeed be nothing short of a catastrophe. Several candidates eminently suited to act in this capacity are, we understand, in the field. Among others, Dr. Wynn Westcott, who has acted as deputy-coroner for Central London and Central Middlesex for nine years, and who during his tenure of office has held more than 2000 inquests, offers himself as a candidate. We are also informed that Dr. Drew, who, in addition to his medical qualifications, is a barrister, and possesses testimonials of a high character as to his forensic ability and medical knowledge, comes forward as a candidate. We understand also that Dr. Grierson Gledhill, a Bachelor of Medicine, Master of Surgery, and Licentiate of the Apothecaries' Hall, and a member of the Northern Circuit, intends to apply for the vacant office. No doubt other medical candidates will come forward for the vacancies, and it is to be hoped that, in respect of the coroner's office, no retrograde step will be taken by the electorate.

RELIGIOUS MINISTRATIONS IN INFECTIOUS HOSPITALS.

THE contest still goes on in the *Surrey Advertiser* between the Rev. Mr. Fowler and other ministers of religion and those who claim for the resident medical officer a voice in the question as to the fitness or frequency of their visits. We have already expressed our opinion that those who have the cure of souls and those who have the medical care of patients should take note of each other's functions and the interest of the patient, not forgetting that in an infectious hospital unnecessary visits are a danger to the public. Reference has been made to the rules of the Fever Hospital in London on this subject. They are as follows:

48. Ministers of religion of all denominations shall have free and equal access to the hospital, but no minister of any denomination shall receive any payment out of the funds of the hospital in respect of his ministrations.

49. It shall be a standing instruction to the committee and officers of the hospital that any minister of religion desirous of visiting or ministering to patients of his own denomination shall be received with all courtesy, and shall be afforded all facilities consistent with the wishes and welfare of the patients and the convenient conduct of the hospital.

The first rule secures impartiality as between ministers of different sects and freedom of access; the second qualifies the facilitation of the visits of ministers by regard to the wishes and welfare of the patients and the convenient conduct of the hospital. It is obvious that the resident medical officer is the best judge, and the only available one of the medical aspect of "the patient's welfare," and should not be ignored. But we can quite believe, as we are informed by Dr. Hopwood, the resident medical officer of the London Fever Hospital, that he has always received from ministers of religion of all denominations the most courteous assistance in carrying out these rules.

THE OPIUM TRAFFIC IN ITS COMMERCIAL ASPECT.

IT was only consistent with the conditions of the case that the controversy relating to the opium traffic should be largely concerned with its moral and medical aspects. But for this fact, our own position with regard to it would be entirely different from what it is. At the same time, however, if we would appreciate the questions involved in their full significance, we cannot ignore their connexion with Indian commerce and finance. In the opinion of the Government of India, the time has not yet come when the substantial revenue accruing from this trade can safely be surrendered. No equal profit can be extracted from other sources of supply; no substitute method of taxation would prove as tolerable to the population. Such is the official position. That it is maintained with reluctance in the face of the ethical considerations above referred to we are willing to allow. It does not follow that it is impregnable, and it has indeed been assailed with some energy. Thus, for example, Mr. David McLaren, ex-President of the Edinburgh Chamber of Commerce, claims to have found in the opium traffic the true explanation of an admitted fact—namely, the disappointingly slow development of a general trade between this country and China as compared with that with other countries. He brings out in prominence the great disparity in this respect between Japan, where the importation of opium is prohibited and where British exports in 1888–90 realised £3,982,271, and her colossal neighbour, which spent only £8,451,908. His argument is briefly summed up in the words of a Chinese magistrate: "Cease sending us so much opium and we shall be enabled to take your manufactures." Considerable thought has likewise been devoted to the financial aspect of this question by Mr. Joseph Alexander in a paper entitled "Substitutes for the Opium Revenue." He directs attention to the gradual diminution of the opium revenue of late years in consequence of increased production in China, and he suggests that even if the profits reaching the Indian Exchequer from the sale of opium were entirely done away with they could not but be made good by other means. Among such are included the preparation of medicinal opium (an industry at present practically unknown in India), the cultivation of food crops in the opium-growing districts, and retrenchment in the services, both civil and military. He does not approve of the gradual diminution of the opium revenue, but advocates its immediate suspension. He would have this country allow the Indian Government as compensation a sum of £10,000,000 for the repayment of which and for the maintenance of Indian solvency he would rely upon the profits of increased trade with China and upon such measures of reform as those above mentioned. Clearly there is a good deal to be said for this presentation of the case, but we must for fuller details refer our readers to the paper itself. It is published, as is also that of Mr. McLaren, by Messrs. King and Son, 5, King-street, S.W.

THE PROCTORIAL SYSTEM AT CAMBRIDGE AND OXFORD.

AS might have been expected, the case known as the "Spinning House case at Cambridge" has brought into renewed prominence the peculiar powers possessed by the proctors and the pro-proctors of that University in dealing with prostitutes and other disorderly females in the streets, as also with any members of the University who may be found accosting or being accosted by them. These powers are conferred by a very ancient statute, and are undoubtedly of a somewhat arbitrary character. About thirty years ago there was an alleged charge of a respectable girl having been arrested at Cambridge, taken to the Spinning House, and having had her hair cut. Other cases of a somewhat similar kind have occurred between that and the most recent case, which ended in favour of the defendant, the Rev. N. Wallis, the pro-proctor who ordered the arrest. No other result could have been expected. Whether the proctorial powers were designed, *inter alia*, to prevent the spread of venereal and especially of syphilitic diseases among the undergraduates may be questioned, but that they have had the effect of preventing these diseases is beyond question, and it is this circumstance which has induced us to notice the matter. The civic authorities of Cambridge have by a majority petitioned for the repeal of the Act which confers these special powers upon the University authorities, while the latter have, even by a larger majority, petitioned for their retention. It is scarcely reasonable for the former to demand that the keeping of order in the streets so far as

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regards women and their behaviour therein with undergraduates, should be left to the ordinary law, seeing what the result of this is elsewhere. Although it is an offence for any woman to "be loitering or to be in any thoroughfare or public place for the purpose of prostitution or solicitation to the annoyance of any inhabitant or passenger," in the words of the Act of Parliament; so sure as evening comes round will the streets of most cities and towns be the scenes of open violation of the law, the two of the only towns where the law is respected being Cambridge and its sister University city, Oxford, not by virtue of the ordinary law, but of ancient statutes. Writing on this subject some years ago in a daily paper, a clergyman indignantly observed, "Our magistrates should exercise the law—should clear the streets of every one of these infamous women, and make them at least decent, if they cannot make them moral and virtuous." Sir William Jenner observed, even more forcibly, "Law could do much to diminish the mortality from syphilis; it could prevent the prostitute from plying her trade in the public thoroughfares, and thus keep temptation to some extent out of the way of the merely irresolute and thoughtless. It is a disgrace to authority that it does not frame and put in force such a law." Oxford and Cambridge are at present free from this reproach, and it is to be trusted that they will remain so. Among so large a body of young men as are to be found any term in either University, there must be a certain proportion of the merely irresolute and thoughtless, and of the viciously inclined also. It would be easy to prophesy what would be the result of any abrogation of the proctorial powers. The ordinary uniformed police could not, in addition to their other duties, deal with the evil so effectually as a special police, not only in preventing immorality among young men and young women, but also in deterring the latter from being decoyed into a hateful means of livelihood.

THE TRIAL OF DEEMING.

FREDERICK BAILEY DEEMING, *alias* Williams, was put upon his trial at Melbourne on the 28th ult. for the murder of his wife about Christmas last. The counsel for the prosecution traced out the connexion of the prisoner with the crime with an amount of detail that left no link missing in the long chain of evidence that was forthcoming to convict him of the murder. The skull of the deceased had been fractured in several places and her throat cut, and the body had been buried under the cemented floor of the house in which they lived in Australia. No attempt was made to show that the prisoner was not the perpetrator of the deed, and the only defence that was offered was based upon the question of Deeming's sanity and responsibility for his acts. His counsel attempted to make out a case for the prisoner's insanity by a vigorous *ex-parte* statement. He claimed first of all that the evidence for the prosecution was wholly and solely circumstantial; and he went on to say that the prisoner had been punished as a thief and a bigamist, and that "if it were true that there was lunacy in the accused's family, that he was suffering from diseases which had been described to the court, and that he was labouring under an imperious mandate to commit murder, as prisoner imagined, by his mother, in a vision," the question which had to be asked was, "Is it possible to listen to all these statements and say this creature is human?" The evidence of the medical experts who were called on behalf of the prisoner's insanity was, like the statements of his counsel, of the most hypothetical and unconvincing nature, and we are not surprised that the jury, in returning their verdict of "Guilty," added a rider with the express statement that Deeming was not insane. The unwholesome and morbid craving for the sensational in crime that has manifested itself in this case of mere brutish appetite is almost the worst and most regrettable feature of its whole history, as having a widespread and destructive influence on the better feelings of individuals. From a medico-legal standpoint, there are many points connected with the case, and with the nature of the professional evidence given at the trial, that appear to demand further consideration and criticism. We hope to deal with these in an early issue.

SMALL-POX AT PEMBROKE DOCK.

SMALL-POX has broken out at Pembroke Dock, and in so far as adequate means of isolation are concerned, it seems to have found the sanitary authority quite unprepared. The medical officer of health, writing to the Local Government Board on April 25th, talks of the authority being then in treaty for a hospital. At the same time vaccination and disinfection have to a large extent been carried out, and it is stated that, although twenty-five cases have occurred, there have only been two instances in which multiple attacks in households have occurred. The latest intelligence is to the effect that no fresh cases are taking place

NOTIFICATION DEFECTS.

THE Act for the Notification of Infectious Diseases, like other Acts of a similar character, does not take effect as regards any building &c. "belonging to Her Majesty the Queen or to any inmate thereof." It is due to this that scarlet fever in the Exeter Town Barracks is not notified to the medical officer of health; and since the children from those barracks attend the ordinary town schools, some apprehension is expressed by the sanitary authority. We can quite understand that where Royal and Government departments are under the charge of officially appointed medical officers there may be no need for the intervention of the local health officer; but if notification returns are to be of real value they should be complete, and sanitary authorities who are responsible for public health ought at least to be apprised of disease which is going on in their districts, so that they may take any measures of precaution that may be necessary beyond the precincts of the buildings that happen to be exempt from the operation of the general law. The fact of the notification being necessary would be an additional guarantee that inside the exempted building the needed measures of prevention were being adopted. The point deserves notice in case of any amendment of the law as to notification.

THE FOOT-AND-MOUTH DISEASE.

NOTWITHSTANDING the efforts of the Government, this bovine affection still lingers in the country, its last stronghold being in Kent. Here it prevails among sheep, and appears most difficult to eradicate. The places where it is localised are completely isolated, as it were, cordons of police surrounding them, and no animals are allowed to leave the circle or zone drawn around them. If this vigilance is maintained the disease must be soon suppressed; but the invasion should convey a most salutary lesson in our live-stock dealing with infected countries. Notwithstanding the most careful inspection at the ports of debarkation of cattle from continental countries reported to be free from infection, this insidious malady has found entrance, and in spite of the elaborate, extensive, and expensive machinery at the command of the Government, which has full powers to deal with it, it has appeared in several parts of England and Scotland, has inflicted much loss, and caused very damaging inconvenience to graziers, breeders, the cattle trade, and all those concerned in it or with it; and after two months it still remains in the country. Surely it would be far better

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to dispense with the importation of live animals altogether, seeing that they form but a small fraction of our requirements, and rely only on a dead meat trade. This appears to be the course which it is desirable, both in the name of common sense and humanity, to adopt.

ROYAL MEDICAL BENEVOLENT COLLEGE.

THE annual general meeting of the governors of this institution will be held at the offices, 37, Soho-square, on Thursday, May 26th, when the results of the voting for the election of the pensioners and foundation scholars will be announced. The loss of the late Earl Granville as President of the College makes it necessary for the Council to appoint a successor to that office. It is proposed that the Right Hon. the Earl of Derby shall be elected at the forthcoming meeting of governors. Among the members of the House of Lords are some of the soundest, most intellectual, and earnest friends of education to be found in this country, and conspicuous among them is Lord Derby. He has largely devoted both time and talent on behalf of education. Speaking of Epsom College, the late Lord Granville said that to an educated assembly "nothing could be more grateful and agreeable than the progress of such a school or college which aims at material and intellectual advantage for the sons of medical men." We believe Lord Derby will share the views of his illustrious predecessor. Other business will be the election, as Vice-Presidents of the College, of Dr. Holman, who has for so long acted as treasurer of the institution; of Mr. J. J. Pernell, who has done great service to the institution; and of Mr. Wakley. In accordance with the provisions of the Act of Incorporation, ten members of the Council will retire at the meeting, and it will be proposed that nine of them—viz, Dr. Baines, Dr. Bradley, Dr. De Tatham, Dr. Drage, Sir John R. Jennings, Mr. J. J. Pernell, Sir Edward H. Sieveking, Dr. Waterworth, and Sir Arthur Watson, Bart., Q.C.—be re-elected for a further period of three years, and that Mr. Hugh E. Vardon, be elected to fill the vacant place.

THE SUPPOSED POISONING OF A RACE-HORSE.

MUCH sensation, amounting almost to consternation, has been excited in the horse-racing world for some days by the announcement that Orme, a most promising thoroughbred colt belonging to the Duke of Westminster, had been poisoned at the Kingsclere training stables. The horse had already given proofs of such excellence as a race-horse that he stood in high favour as a probable winner of the great events for which he has been entered. It came, therefore, as a most startling surprise to sporting men, and even to a portion of the public who do not claim to be particularly interested in turf matters or in betting, when it was reported that this favourite *par excellence* had been tampered with by poisoning, and that his chances of running in the important engagements in which, it had been predicted, he was certain to be successful were very small indeed. As usual, all kinds of rumours and surmises were afloat as to the object and mode of poisoning, as well as to the nature of the drug. And the suspicion that the colt had really been poisoned was confirmed by the publication of a reward of £1000 offered by his noble owner for information that would lead to the conviction of the presumed poisoner. Various versions of the case are given, but it would appear that the horse was in good health up to a certain day, when it was observed that there was some salivation and trouble in masticating. The teeth were supposed to be at fault, and a horse dentist was called in, who appears to have attempted to remove one or two teeth, a rather unusual operation, we believe, on a young horse in process of shedding its teeth and growing permanent ones. Afterwards the tongue was found to be swollen, and the veterinary surgeon who was consulted discovered blisters—one account says abscesses—under the tongue. Otherwise there was nothing whatever, it would seem, to show that the health was in any way affected. The blisters or abscesses were lanced, the tongue was soon all right, and the horse seemed to be progressing towards recovery, though later reports are not so satisfactory. From the very incomplete statement of facts which has been made we are not at all in a position to arrive at a definite conclusion, but we are inclined to think it was not a case of poisoning at all, but merely an attack of simple gingivitis or glossitis, to which horses and cattle, no less than human beings, are liable, and that the inflammation was greatly aggravated by the dental troubles. The specially localised lesion, the absence of sloughing or injury to the buccal mucous membrane, and the apparently rapid recovery, do not indicate injury by a corrosive agent. At best it is a mere suspicion, which has but very slight foundation indeed when we take into consideration the above-mentioned circumstances, the great watchfulness exercised by the trainer by night and day, the manner in which the colt is attended to and stabled, and the remote position of the training stables. This, too, seems to be the notion among those best able to judge of the event; and certainly, for the credit of mankind, it is the one we should prefer to entertain until there is more tangible evidence of poisoning. It is indeed most difficult to believe that an irritant poison would be administered to a horse with malicious intent by anyone in the employment of such an acute and careful trainer as he who presides over the establishment at Kingsclere. The drugging of race horses is not unknown, but in such cases it was done immediately before the horses had to compete in a race, and had for its object the rendering the animals merely temporarily unfit to win. So there is reason to hope and believe that the rumoured poisoning of Orme is a false alarm.

MIDWIVES' BILL.

THE following will be nominated as the Select Committee on the Midwives' Registration Bill:—Mr. Bright, Mr. Egerton, Dr. Farquharson, Sir F. Fitz-Wygram, Dr. Fox, Mr. Howorth, Sir G. Hunter, Mr. H. F. Pease, Mr. Rathbone, Mr. Stephens, and Mr. A. J. Williams. A chairman will be immediately appointed and a course of procedure agreed on. But the impending dissolution of Parliament is likely to make any progress towards the settlement of this question very improbable.

THE UNIVERSITY OF LONDON.

AT the meeting of Convocation of the University of London, which will be held on Tuesday next, at 5 P.M., the question of the Gresham University will be raised in the report of the annual committee, and will probably come under discussion during the meeting. The proceedings at the presentation on Wednesday will be exceptionally interesting, as it will be the first occasion on which the Earl of Derby, the present Chancellor, will preside.

THE MYTHOLOGY AND PSYCHOLOGY OF THE ANCIENT EGYPTIANS.

THE paper read at a recent sitting of the Anthropological Society by Mr. Joseph Offord, jun., on the Mythology and Psychology of the Ancient Egyptians was quite *hors ligne* in point of original research, besides showing rare familiarity with the findings of the later—chiefly French—Egyptologists. Every part of it was interesting, especially that devoted to the so-called Book of the Dead. We hope it will be made *publici juris*, confident that its acceptance with the ever increasing circle of readers for whom the early civilisation of the Nile Valley is perennially

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attractive must encourage Mr. Offord to continue his researches till he has thrown a fuller light than we at present enjoy on the healing art itself as it was professed and practised in the Egyptian foretime. Our standard histories of medicine—German, Italian, and French—are disproportionately meagre and unsatisfactory on this most interesting stage of the subject, and much yet remains to be contributed to our knowledge by investigators like Mr. Offord, whose labours bear the mark of special aptitude, prosecuted as they are in the intervals of other and by no means cognate avocations.

THE MEDICAL SOCIETY'S CONVERSAZIONE.

THE annual conversazione of this ancient Society was held on Monday last. Sir James Crichton-Browne delivered the oration on Sex in Education, a full report of which will be found in another part of our present issue. Afterwards the president held a reception, which was largely attended by the Fellows of the Society and by many distinguished guests. The oration was listened to with marked attention, and at its conclusion the orator received well-merited and marked applause. A vote of thanks to the orator was proposed by Dr. Hare and seconded by Mr. Henry Power. Cigars and refreshments were afterwards provided, and the string band of the Royal Horse Guards played a choice selection of music. The rooms were tastefully decorated with flowers and palms, and the electric light added much to the beauty of the effect, and the evening seemed to be well enjoyed by the large number of Fellows and guests who assembled. This method of happily terminating a session of useful work we heartily commend for imitation by the sister Societies.

THE ROYAL COMMISSION ON VACCINATION.

THE delay which occurs in the publication of the interim report of the Royal Commission on Vaccination is doubtless due to the method of procedure which has to be adopted. All reports of Royal Commissions have to be submitted by a Secretary of State to Her Majesty, and only after this has been done can they be laid before Parliament or made public. The Queen's journeys may in this case have added to the difficulty of complying with this invariable rule.

DIFFERENTIAL PULSE IN CERTAIN HEART AFFECTIONS.

PROFESSOR L. V. POPOFF, writing in the *Meditsinskoĭ Obozrênie* on the cause of a difference in the radial pulse on the two sides in certain heart affections, says that this phenomenon is frequently observed with mitral stenosis, associated with mitral incompetence, especially where there is considerable disturbance of the compensation, the pulse being small and irregular, and the dilatation of the heart, and especially of the left ventricle, very marked. Under these conditions the pulse in the left radial artery is found to be decidedly weaker than that in the right—sometimes, indeed, the latter may be easily counted while the former is scarcely perceptible. Sometimes the pulse is so small and weak that it will not give a sphygmographic tracing, and the difference can only be detected by the feel. As the heart's action improves the difference gradually becomes less and less marked. In explanation of this, Professor Popoff states that he found in these cases that there was a pressure of the enlarged auricle and its appendix, and even of enlarged pulmonary vessels, against the arch of the aorta, and especially against the part from which the left subclavian arises. Of course, if the heart's action is feeble such a pressure must diminish the circulation through the left arm in comparison with that through the right; but if the aorta is well filled out, this pressure may have but little effect. Again, probably the greater length of the arterial course on the left side, and the more acute angle which the left subclavian makes with the arch of the aorta as compared with that made by the right subclavian with the innominate, must be borne in mind, as it has probably some influence on the question. The differential pulse is more frequently observed in young or middle-aged subjects than in elderly people, as in the latter the heart, owing to the loss of elasticity and consequent elongation of the great vessels, lies lower, and therefore further away from the arch of the aorta.

HYDROCHLORIC ACID IN THE TREATMENT OF VOMITING

DR. ALKIEWICZ, writing in the *Nowiny Lekarskie*, mentions that in various kinds of vomiting he has found great benefit from small and frequent doses of hydrochloric acid, well diluted of course. In one case of the vomiting of pregnancy, where none of the ordinary remedies had any effect, hydrochloric acid proved successful, though it had to be given for a fortnight before it entirely arrested the sickness. In more than ten cases of cholera nostras in adults, with vomiting, hydrochloric acid was given with good results. Again, where vomiting was due to acute dyspepsia from errors in diet, and where it occurred in the course of influenza, scarlet fever, or other contagious diseases, the same remedy proved equally efficacious.

THE DISCIPLINARY POWERS OF THE ROYAL COLLEGE OF SURGEONS, EDINBURGH.

A CASE of some interest has been before the Calcutta High Court of Justice. Mr. Laurence Fernandez, M.D., and Licentiate of the Royal College of Surgeons of Edinburgh, carried on business in an institution known as the "Medical Hall," otherwise a chemist's shop. He advertised freely and sold drugs over the counter. We learn from the local press that for such practices he received a communication from the College of Surgeons of Edinburgh, informing him that the College considered his business catalogue highly objectionable and unprofessional, and unless it were withdrawn it would be necessary to consider whether his name should not be struck off the list. In reply, Mr. Fernandez wrote that he would discontinue the catalogue and cease his connexion with the firm. He then appears to have assigned his lease and his interest in the business to his mother (who transferred it to another son), came to Europe, and obtained the Brussels degree. He then went back, declared the deed of transfer only a bogus one, commenced a suit to recover possession, and succeeded. What will the Edinburgh College do now, to say nothing of the University of Brussels?

THE ACTION OF ANTIPYRIN ON THE BACILLUS OF DIPHTHERIA.

M. VIANNA of Bahia, in Brazil, has been investigating the action of antipyrin upon Löffler's bacillus, and finds that it has marked bactericidal powers upon the pathogenic organism of diphtheria, and also that it destroys the toxic properties possessed by the products of that microbe. His results are published in *Le Bulletin Médical*, March 30th, 1892. In his first series of experiments, M. Vianna found that in the proportion of 2½ per cent. antipyrin prevents the development of the bacillus of diphtheria in the various culture media in which it will usually grow. More than this, the addition of antipyrin to the tubes containing Löffler's bacilli in full growth killed them in less than forty-eight hours. The same result is attained in twenty-four hours, when the proportion of antipyrin is raised to 5 per cent. If the same proportions of the drug as those given above are added to the bouillon filtered from the bacillus, which will contain the toxic substances

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(which have been so fully investigated by Dr. Sidney Martin, and described by him in the Goulstonian Lectures) elaborated by it, it may be proved that the poisonous products of the micro-organisms lose in part these toxic properties. For instance, guinea-pigs were inoculated with the filtered bouillon from cultures of the bacillus of diphtheria, and all died in less than three days; whilst if from 4 to 8 per cent. of antipyrin were added, the animals lived from five to twenty-four days, thus showing that although the drug did not render the inoculation harmless, yet its toxicity was considerably diminished.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Köhler, of the Friederich Wilhelm's Institute, for many years assistant in Professor von Bardleben's clinic, has been granted the title of Professor.

Dorpat.—Professor Heinrich Unverricht has been offered charge of the new hospital at Magdeburg.

Freiburg.—Dr. Gustav Killian, *privat-docent* in Laryngology and Otology, has been appointed Extraordinary Professor. Dr. Wesener, of the Policlinic, has also been appointed Extraordinary Professor of Medicine.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Karl Fromman, Extraordinary Professor of Histology in the University of Jena, whose chief work was on the Structure of the Ear and of the Central Nervous System, at the age of sixty-one. He resided for a time in England some thirty years ago.—Dr. H. Girard, *privat-docent* in Physiology in the University of Geneva.

SIR RICHARD QUAIN was entertained at dinner last week at the Garrick Club by a select company, including Mr. David Plunket, Mr. Irving, Mr. Toole, Sir Charles Russell, Mr. Edward Lawson, Mr. J. Hare, Mr. Beerbohm Tree, Mr. Comyns Carr, Mr. Pinero, Mr. A. Levy, Mr. Clement Scott, Mr. F. H. Maclean, and Mr. C. W. Mathews. Mr. Hare presented him, as a souvenir of their sincere regard, with two antique silver bowls engraved with the names of the donors.

PROFESSOR GEORGE HARE PHILIPSON, M.A., M.D., D.C.L., F.R.C.P., has been elected the representative of the University of Durham on the General Council of Medical Education and Registration of the United Kingdom.

PROFESSOR CLIFFORD ALLBUTT, the Regius Professor of Physic in Cambridge University, proposes to give his inaugural lecture on Tuesday, May 10th, at noon, in the new Anatomical Theatre.

THE inquiry into the question of fresh legislation on the subject of habitual drunkenness is, we understand, to be a departmental one.

THE ROYAL SOCIETY CONVERSAZIONE.

IT is meet that the Society which represents science should hold its first annual conversazione a few days after the opening of the Royal Academy in the adjoining rooms at Burlington House. Just as the one exhibition marks the progress made in art during the past year, so may the annual conversazione of the Royal Society be taken to indicate the advances made in science. Lord Kelvin received a number of Fellows and distinguished visitors at the conversazione held on Wednesday last, and the variety of subjects exhibited must have afforded interest to all grades of scientific workers. Electricity attracted, perhaps—as it has done in previous years—the lion's share of interest. The very remarkable phenomena exhibited by electric currents of high potential and extreme frequency recently investigated and ably demonstrated by M. Tesla formed the subject of Professor Crookes' beautiful demonstration. Professor Crookes, who is well known for his admirable researches on a related subject, explained that in these experiments the discharges from a battery of Leyden jars are sent through the primary wire of an oil induction coil. The wave length of the jar radiation is 300 metres, the frequency of alternation is 1,000,000 a second, and the electro-motive force about 100,000 volts. Stream and brush discharge, luminous conducting wires, phosphorescence of air, oxygen, yttria, sulphide of calcium, diamonds, rubies, &c., were amongst the most noteworthy phenomena of the secondary poles. Odd as it may seem, the physiological action of the high frequency current is feeble, although the shock of the force in its initial condition would probably kill instantly. An electric chronograph, designed for recording the velocity of projectiles and small periods of time in physiological research, was the ingenious invention of the Rev. F. J. Smith. Professor Oliver Lodge strikingly illustrated lightning effects and multiple flashes by the passage of sparks in and to water. A spark to water spreads out on the surface in a crow-foot pattern, showing apparently that the surface layer is a feeble dielectric. A spark under water is short and very violent, treating the water as a dielectric and producing concussion. Vacuum tubes without electrodes was the subject of Dr. Bottomley's exhibit. These tubes show all the beautiful phenomena of stratification, and also the phenomena accompanying the "sensitive state," though they have no electrodes. They show also the phenomena of molecular bombardment. The lecture-room apparatus exhibited by Professor Thorpe, and described recently in THE LANCET, is intended to demonstrate the general phenomena of a dust explosion, and more particularly coal dust, in explanation of the causes of colliery explosions. Touching the same subject, Professor Clowes showed an ordinary miner's safety-lamp, with supplemental hydrogen flame, for detecting and measuring minute proportions of firedamp or inflammable gas or vapour in air. An ordinary oil or benzoline safety-lamp is fed with hydrogen by a tube passing through the oil reservoir, and connected when necessary by a flexible tube with a light steel bottle containing compressed hydrogen. The hydrogen becomes kindled by the lamp flame, which is then extinguished by drawing down the wick. The hydrogen flame is adjusted to a standard height, and the amount of inflammable gas or vapour is estimated by the dimensions and appearance of the "cap" which is seen over the flame. Percentages of firedamp varying from 0·25 to 3 could thus be detected and estimated, and the luminous flame of the lamp alone, when sufficiently reduced, serves to detect percentages above 3. Specimens were shown by Professor Church illustrating the occurrence and properties of turacin, the red pigment (containing 7 per cent. of copper) discovered by the exhibitor in the wing feathers of certain plantain eaters or touracos. Dr. MacMunn exhibited the spectra of this interesting pigment. It is remarkable for its spectrum, which closely resembles that of oxy-hæmoglobin. Its derivatives have recently been found to give spectra closely resembling those of the derivatives of hæmoglobin. The demonstration of Mr. Frederic E. Ives of Philadelphia on composite heliochromy, a process of colour photography, was listened to with intense interest. The effects on the screen were very beautiful and wonderfully realistic, so that it was difficult to imagine that one was looking at a photograph at all. A geranium in bloom, in an ordinary flower-pot, and a little girl in a coloured frock surrounded by trees in full leaf, were particularly striking subjects, all the colours being portrayed with remarkable faithfulness. Professor Boys showed his photographs of flying bullets. The photograph of an aluminium bullet from a magazine rifle and smokeless powder, projected at the enormous velocity of 3000 ft. per second, was the centre of interest. Chemists have long struggled to produce certain gems artificially and with partial success; but it has been left to Mr. W. Saville Kent, a Fellow of the Linnæan Society, to induce and to accelerate the formation of pearl. He exhibited a pearl artificially produced through an operation performed by the exhibitor on the living animal.

Space prevents us giving more than passing mention to many other exhibits of equal interest. Such were, for

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example, Professor Norman Lockyer's photographs of the new star and the Solar Physics Committee's photograph of the great sun-spot of February last, the optical pyrometer of Professor W. C. Roberts Austen, and, lastly, certain new and rare fish, some new to British and Irish waters and one altogether new to science, exhibited by Professor A. C. Haddon and Mr. E. W. L. Holt.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE Committee of the Association of Fellows of the Royal College of Surgeons met at 5 P.M. on April 26th, at 36, Grosvenor-street. In the unavoidable absence of the President, Mr. George Pollock, Mr. T. Holmes, the senior Vice-President, occupied the chair. The honorary secretary, Mr. H. Percy Dunn, read a letter from the secretary of the College, in answer to a letter sent by the committee to the President of the College, conveying the following resolution passed at the last meeting: "That the committee of this Association, having noticed that the Council of the College has appointed a committee to consider the claims of the Fellows, would suggest that a deputation from the Association of Fellows should be asked to meet the committee in order to set forth the views of the Association." The following was the secretary's reply:—

Royal College of Surgeons, Lincoln's inn-fields,
London, W.C., April 25th, 1892.

DEAR SIR,—I am desired by the President to acknowledge the receipt of your letter of the 23rd instant, and to acquaint you that the same will be submitted by him to the Council at their meeting on the 12th proximo. The President is not aware that any committee has been appointed by the Council to consider the claims of the Fellows, "but presumes it to be the intention of those who framed the resolution reported in your letter to refer to a committee appointed by the Council on the 10th of March last to consider and report to the Council whether any, and if so what, further advantages can be extended to the Fellows."

I am, dear Sir, yours faithfully,
H. Percy Dunn, Esq. EDWARD TRIMMER, Secretary.

The difference between the two descriptions of the objects of the committee is more apparent than real. As long ago as the end of October, 1890, the Committee of the Association of Fellows sent a deputation to meet a Committee of the Council of the College, in order to urge upon them certain claims on behalf of the Fellows of the College. These claims were on the whole favourably received by the committee, but the consideration of the most important of them was deferred by the Council, in deference to legal advice, until the decision of the action Steele *v.* Savory. As soon as that action had been settled, a committee was applied for in the Council of the College, for the purpose of redeeming the implied pledge to the Committee of the Association to consider their propositions at the earliest opportunity. Of course, under the terms of the reference to the committee, other points can be considered besides those urged by the Committee of the Association of Fellows, and therefore the expression used in the letter of the honorary secretary of the Association may be regarded as too narrow. We are inclined to believe, however, that the object of the correction in the letter of the secretary of the College was rather to narrow the expression used by the honorary secretary of the Association than to enlarge it. The Council of the College is the fountain of grace and favour, and any advantages which may possibly be extended to the Fellows must rise spontaneously from this source and flow down to the Fellows, who can only be worthy to receive them if they have a becoming sense of the gracious condescension of the Council of the College. Unfortunately the spring often runs dry, and is rarely available except during the rainy season and disturbance of the elements, and it is the business of the Association of Fellows to prevent the too lengthened continuance of the period of drought. In the present instance the committee of the Association wisely decided that the mere verbal amendment of the secretary's letter did not call for any notice.

The main business of the committee was to consider a report of the proceedings of the Association of Fellows since March, 1890, when the first report was issued. The report had been drawn up by Mr. Rivington and Mr. Percy Dunn in the first instance and submitted to and approved by a subcommittee. After the report had been read and briefly discussed, it was resolved: "That the subcommittee be instructed (1) to complete and, where practicable, to abbreviate the report; (2) to have the report printed so as to enable each Fellow of the College to have a copy transmitted to him during the second week in June; (3) to insert a slip in the printed report asking (*a*) those who approve of the objects of the Association to notify the same to the honorary secretary, and to become members; (*b*) to support the candidates adopted by the Association for election into the Council."

The date of the annual meeting of the Association was fixed for Thursday, June 23rd, at 5 P.M., and the honorary secretary was instructed to write to the Council of the Royal Medical and Chirurgical Society requesting permission to hold the meetings in question in the rooms of the Society. It was also decided that the annual dinner of the Association should be held in the evening of the day of the annual meeting.

On April 2nd we announced that the Committee of the Association of Fellows had unanimously resolved to ask Mr. Tweedy to allow his name to be put forward as the candidate of the Association at the next annual election to the Council of the College. Mr. Tweedy now stated, in reply to that request, that he had decided, after due consideration, to accept the invitation of the committee, and if elected he would do his best to advance those constitutional interests of the Fellows for which the Association had been so long contending. He would much have preferred the selection of some other candidate; but as his colleagues on the committee desired it he was willing to stand. The number of seats to be filled at the ensuing election will be four, owing to the decease of Mr. Berkeley Hill and the approaching retirement of Messrs. Smith, Durham, and Lawson. Of these gentlemen, Mr. Lawson has decided not to be again nominated, so that there will be at least two absolute vacancies. In view of this fact, and of the intention of Mr. Lawson Tait, expressed at the last meeting of the committee, to come forward again, it was proposed by Dr. Collins, seconded by Mr. W. Barnes, and carried *nem. con.*: "That Mr. Lawson Tait be asked to stand as a candidate of the Association at the College election in July next." Mr. Tait has now fought the battle of reform under the auspices of the Association for three successive years, and has always polled a large number of votes—more, in fact, than some successful candidates have received in other years, and it is to be hoped that both Mr. Tweedy and Mr. Tait will be successful this year. Their election would so strengthen the growing reform party in the Council as to ensure the realisation of all the changes which have been asked for by the thinking portion of the constituency of Fellows.

THE INTERNATIONAL CONGRESS OF THE RED CROSS.

THE sitting of the 25th ult. was occupied with important business. After the Commission charged to study the question as to how far the Red Cross societies could intervene in distant wars had been nominated, a discussion arose on the demand of M. Oom (representing Russia) that Customs House examinations and dues should be suspended in favour of the *matériel* of the Red Cross, and also that the *personnel* of the societies should be conveyed by the railways free of cost. The Marchese Vitelleschi contended that so far as Italy was concerned her customs houses have relaxed their rules in the case of Red Cross goods, and also that her railways contemplate the conveyance of the *personnel* at reduced fares. M. Ziegler (Switzerland) maintained that the exemption from Customs dues was too large a question for the Red Cross Congress to decide *per se*, and that the Swiss railways, belonging as they did to private companies, could be used gratuitously by the *personnel* only after the consent of the companies had been obtained. The discussion closed with an approval of the demands formulated in the name of Russia by M. Oom.

The next discussion turned on the question as to the intervention of the Red Cross at military manœuvres in time of peace, with a view to disciplining its *personnel* and testing its resources, so as to avoid the *contretemps* it ex-

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perienced in the late wars. The affirmative side was maintained by the Hungarian delegates, the negative by the German, French, Dutch, and (in part) by the Italian. Herr Criegern (Saxony) held that in Germany the Red Cross will never be made to serve in the first line—that is, in the field of battle; it will be called into activity only after the battle is at an end. Herr Kuesebeck (Germany) supported this affirmation, and added that at the German manœuvres, to avoid grave embarrassment to the military authorities, not even the Army Medical Service was allowed to intervene. Eventually the following motion was introduced and carried: "The Fifth International Congress expresses the desire that a commission should endeavour to ascertain in what measure the Red Cross Societies may be put in a position to profit by the autumn manœuvres for the instruction of their *personnel*."

Other resolutions relating to the discipline of the *personnel* came up, the most important of which, as tabulated by Herr Kuesebeck, were approved. These last ran as follows: "1. It is among the principal duties of the Red Cross Societies to prepare a numerous body of attendants on the wounded which shall be as well trained and efficient as possible. 2. This duty resolves itself into two parts: (*a*) instruction of a *personnel* having the qualities, moral and physical, required for hospital service; (*b*) instruction of the said *personnel* having similar qualifications for the transport of the wounded. 3. The hospital instruction shall comprise also the principal functions of transport of the wounded. 4. The examination of the results obtained shall rest with the military authorities. 5 And lastly, it is desirable to enhance the utility of the *personnel* of the organisations created *ad hoc* even in time of peace."

On the 26th the following proposal of M. De Martens (Russia) was, after an animated discussion, approved:—"Considering that the perfecting of lethal arms progresses every day, considering that the number of victims in future wars will certainly increase, the Fifth International Congress of the Red Cross recommends to the earnest consideration of all the associations the absolute necessity of profiting by every means possible, so as to diffuse the propaganda of the Red Cross in all classes of the populations, and to augment the resources required not only to mitigate the horrors of war, but also to alleviate public calamities." In this connexion M. De Martens pointed out the signal service rendered by the Russian associations of the Red Cross in the recent famine, in which they distributed relief to the amount of twenty-five million francs. After this the Congress proceeded to discuss the conditions of the open competition for perfecting the means of transporting, with efficacy and promptitude, the wounded from the battlefield to the first line of relief stations and thence to the temporary hospitals. Signor Tosi (Italy) and M. Leurs (Belgium) proposed that the competitors should present a typical model of the means they suggest, on the scale of one-fourth the real size, with relative descriptive matter; and that both model and description should be on view in Rome from Aug. 15th to Sept. 15th, 1893, having been sent in to the adjudicating committee before June 30th of the same year. This proposal was approved. Further discussions took place on the "Sterilisation of the *matériel* of medication;" on the employment of the fund placed at the disposal of the Red Cross by the Empress Augusta; and on the propriety of introducing electric lighting for the nocturnal service of the Red Cross in removing the wounded from the battlefield; after which came up for reconsideration the intervention of the Red Cross in distant wars. Objections having been heard and dealt with, the conclusions of the majority of the commission were sustained, it being generally admitted that the military authorities of the belligerent powers will be in the best position to remove whatever inconveniences may arise from the operations of the Red Cross service on either side.

On the 27th (the last sitting of the Congress) M. Santos Ferreira (Portuguese delegate) proposed that "all the associations for relieving the wounded in war in relation with the international committee of Geneva should, in their rubric, assume the name of the Red Cross." This evoked some demur on the part of the French delegates; but, after a good deal of discussion, the following amendment, introduced by M. Odier (Switzerland), was carried: "That, in the countries where, under authorisation of the Government, more than one society exists with the name and object of the Red Cross, these societies may arrive at a fusion or federation which may admit of their entering the groups of all the national societies represented at the International Congresses." Reverting to a discussion of the previous day on the task of the Red Cross in view of the increasing efficacy of lethal arms and instruments of destruction—particularly as to explosives—M. Socin (Switzerland) indicated how the duty of the associations would become at once more difficult and more imperative. He concluded an interesting speech by moving the following resolution: "The fifth Congress renders full justice to the ideas inspiring the proposal of MM. Mundy, Socin, Furley, De Thomsen, and De Montagnac, that the associations should take special account in their preparations of the effects of the new arms and projectiles of warfare; but that, not believing itself sufficiently competent at this stage for the special treatment of the question, the Congress remits it to the consideration of all the central committees, and proposes that these should combine at the next general Congress in a report embodying their unanimous conclusions." This was approved, after which, on the motion of M. Leurs (Belginm), it was agreed to confide to the Geneva committee, in accord with the other central committees, the task of fixing the seat of the next (the sixth) International Congress. This also was carried, and the President, Count della Somaglia, wound up the proceedings in a felicitous address. "Let me conclude," he said, "by expressing a wish very near my heart that the banner which I see in the midst of us may ever wave in this atmosphere of friendship and concord, and that our association of the Red Cross shall henceforth be nothing more than a brotherly reunion of unemployed (*disoccupati*)!" Compliments and congratulations between the delegates of the powers represented ensued, after which the Minister of War (Signor Pelloux) declared the Congress closed.

By universal admission this has been from first to last a most effective and harmonious gathering, fraught with important results which will make themselves felt in a long series of its successors. Its accessory features were also of the most gratifying description. Nothing could have been more brilliant than the royal banquet at the Quirinal Palace, unless, perhaps, the joyous excursion to Tivoli, where a highly satisfactory demonstration of a mountain ambulance in working was followed at the Villa d'Este by a great symposium, made memorable not only by the matchless beauty of the surroundings, but by the truly fraternal spirit which inspired the representatives of so many and such diverse nationalities.

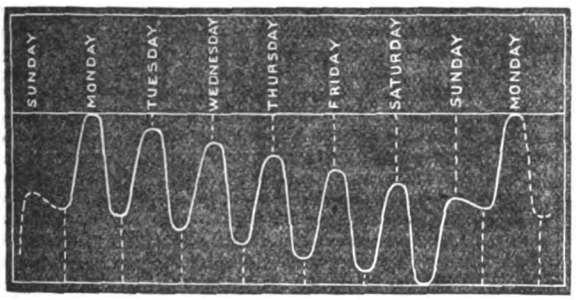
THE PHYSIOLOGY OF LABOUR.

IN view of the recent May Day demonstration in support of "an eight hours day," it may be interesting to recall the experiments by which Pettenkofer and Voit attempted to ascertain what amount of work a healthy labourer could accomplish without injury to his health. They constructed a chamber in glass which was hermetically closed. Inside they placed a wheel to which was attached a chain. By turning the wheel the chain raised a weight of 25 kilogrammes. A healthy vigorous labourer was put inside this glass room; and, deducting the time required for meals, he was made to turn the wheel for nine hours a day. This was considered equivalent to hard physical work. The workman was carefully weighed before and after the experiment, the food supplied to him was likewise weighed and analysed. Very great care was taken to make this glass room absolutely air tight. No air could get in or out excepting through the air inlet and the air outlet. Thus it was possible to analyse the air as it went in and as it came out. Pettenkofer was therefore able to ascertain that during the nine hours' work the labourer had expended in the form of carbonic acid 192 grammes of oxygen more than he had been able to inhale during that time. To cover this deficit, it was calculated that the workman must have expended 20 per cent. of the provision of oxygen stored in his system. Of course this deficit was to some extent compensated by the night's repose; but, nevertheless, the balance was not re-established. During the night he naturally absorbed more oxygen than he utilised. But as the respiratory organs work more slowly at night the process of recuperation was not sufficiently prolonged. Both Pettenkofer and Voit came to the con-

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clusion that a night's rest was not sufficient to re-establish the normal condition after a day of very fatiguing toil. They were of opinion that the deficit might be equal to 10 per cent., and in some cases 20 per cent., of the total stock of energy, and this in spite of the restorative effect of a good night's rest. It was the Sunday rest that alone could enable the body to take up the oxygen lost during the week's toil. Dr. Hoegler of Bâle published on this question a diagram showing the daily loss and gain throughout the week. It will be noticed how the line dips

Dr. Hoegler's diagram, showing the recuperative effect of weekly rest.



The top of the wave represents the vitality acquired after the night's rest, and the bottom of the line the vitality lost after the day's work.

down for the working hours of the day and rises again at night, but it does not reach its starting point, so that by Saturday the line is very low indeed. On Saturday night it reascends to a point a little below the level of Friday night. But on Sunday, as it hardly descends at all, a similar rise on Sunday night brings it up to about the same level as that at which the start was made on the previous Monday. These experiments, though extremely interesting and suggestive, must only be taken as an approximate indication of the effects of hard work. Where the atmosphere is vitiated by gas, poisonous dust, insufficient ventilation, the results must be much worse than those found in the sort of model existence led by the workman who was imprisoned in a glass room by Professor Pettenkofer. On the other hand, perhaps the workman in the glass room did more muscular work than others who toil in unwholesome factories or workshops. What can, however, be said without fear of contradiction, is that there is a distinct limit to the human power of physical endurance, and that this limit can be exceeded in nine hours' work, though performed by a thoroughly healthy worker. Therefore, Pettenkofer's experiments would lead us to conclude that eight hours' hard muscular work is quite as much as may be safely undertaken even by the strong and healthy.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6547 births and 4057 deaths were registered during the week ending April 30th. The annual rate of mortality in these towns, which had been 20·9 and 21·8 per 1000 in the preceding two weeks, declined again last week to 20·8. In London the rate was 19·8 per 1000, while it averaged 21·5 in the thirty-two provincial towns. The lowest rates in these towns were 9·9 in Brighton, 10·8 in Croydon, 11·8 in Portsmouth, and 15·5 in Nottingham; the highest rates were 24·9 in Birmingham, 26·3 in Manchester, 27·3 in Birkenhead, and 27·5 in Liverpool. The 4057 deaths included 527 which were referred to the principal zymotic diseases, against numbers increasing from 428 to 541 in the preceding four weeks; of these, 242 resulted from measles, 154 from whooping-cough, 41 from scarlet fever, 36 from diarrhœa, 33 from diphtheria, 18 from "fever" (principally enteric), and 3 from small-pox. No fatal case of any of these diseases occurred last week in Croydon or in Plymouth; in the other towns they caused the lowest rates in Brighton, Norwich, Wolverhampton, and Gateshead, and the highest rates in Birkenhead, Liverpool, Preston, and Sunderland. The greatest mortality from measles occurred in Manchester, Sheffield, London, Birmingham, Liverpool, Birkenhead, and Leicester; from scarlet fever in Cardiff; from whooping-cough in Derby, Hull, Preston, Salford, and Sunderland; and from diarrhœa in Burnley. The mortality from "fever" showed no marked excess in any of the thirty-three large towns. The 33 deaths from diphtheria included 17 in London, 3 in Portsmouth, and 2 each in West Ham, Birmingham, Liverpool, and Manchester. Two fatal cases of small-pox were registered in London, and one in Liverpool, but not one in any other of the thirty-three towns; 49 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 12 in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1408, against 1296 and 1400 on the preceding two Saturdays; 177 new cases were admitted during the week, against 146 and 219 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 348 and 389 in the preceding two weeks, declined to 306 last week, and were 78 below the corrected average. The causes of 77, or 1·9 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bradford, Sunderland, Newcastle-upon-Tyne, and in six other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Liverpool, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 24·1 to 22·3 per 1000 in the preceding three weeks, further fell to 21·3 during the week ending April 30th, but exceeded by 0·5 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·4 in Leith and 15·5 in Perth to 21·4 in Edinburgh and 23·8 in Glasgow. The 593 deaths in these towns included 26 which were referred to whooping-cough, 18 to measles, 14 to diarrhœa, 4 to scarlet fever, 4 to diphtheria, 4 to "fever," and not one to small-pox. In all, 70 deaths resulted from these principal zymotic diseases, against 73 and 63 in the preceding two weeks. These 70 deaths were equal to an annual rate of 2·5 per 1000, which was slightly below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had declined from 30 to 22 in the preceding three weeks, increased to 26 last week, of which 16 occurred in Glasgow and 4 in Paisley. The deaths referred to measles, which had been 18 and 15 in the previous three weeks, rose again to 18 last week, of which 17 occurred in Glasgow. The 14 fatal cases of diarrhœa were within 3 of the high number in the preceding week, and included 9 in Glasgow. The deaths from diphtheria, which had been 10 and 6 in the previous two weeks, further declined to 4 last week, of which 2 occurred in Glasgow, where 3 of the 4 fatal cases of scarlet fever were also recorded. The deaths referred to diseases of the respiratory organs in these towns, which had been 130 and 163 in the preceding two weeks, declined again last week to 139, and were 7 below the number in the corresponding week of last year. The causes of 47, or nearly 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 30·6 and 35·8 per 1000 in the preceding two weeks, further rose to 43·9 during the week ending April 30th. During the first four weeks of the current quarter the death-rate in the city averaged 35·8 per 1000, the rate for the same period being 20·6 in London and 20·1 in Edinburgh. The 294 deaths in Dublin during the week under notice showed an increase of 54 upon the number in the preceding week, and included 20 which were referred to measles, 11 to whooping-cough, 1 to diphtheria, 1 to "fever," 1 to diarrhœa, and not one either to small-pox or scarlet fever. In all, 34 deaths resulted from these principal zymotic diseases, equal to an annual rate of 5·1 per 1000, the zymotic death-rate during the same period being 3·3 in London and 21·5 in Edinburgh. The fatal cases of measles, which had

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been 14 and 33 in the preceding two weeks, declined again to 20 last week. The deaths referred to whooping-cough, which had increased in the previous three weeks from 3 to 10, further rose to 11 last week. One fatal case of "fever" was recorded during the week under notice, against 6 and 1 in the previous two weeks. The 294 deaths registered in Dublin last week included 26 of infants under one year of age, and 79 of persons aged upwards of sixty years; the deaths of infants showed a decline, while those of elderly persons considerably exceeded the number recorded in any recent week. Six inquest cases and 7 deaths from violence were registered; and as many as 123, or more than 40 per cent., of the deaths occurred in public institutions. The causes of 15, or more than 5 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

THE PROPOSALS OF LORD WANTAGE'S COMMITTEE.

A PARLIAMENTARY paper has been issued from the War Office showing the estimated cost to the United Kingdom and to India of carrying out the recommendations of the Committee on Terms and Conditions of Service in the Army. Without going into the subject of the total estimated cost of all the proposals, which amounts to a large sum, we may say that to free the soldier from compulsory stoppages not due to negligence or misconduct—e.g., hospital stoppages, barrack damages, tailors' and shoemakers' bills, and taking these as amounting on an average to ½d. a day, the extra cost on present establishments would be about—British, £142,000; Indian, £75,000. Giving each soldier throughout the Army 3d. a day as messing allowance, the extra cost on present establishments would be—British, £667,200; Indian, £319,000. There seems to be no doubt that the present condition of the Army, as set forth in the voluminous evidence published in connexion with the Report of Lord Wantage's Committee, will be the subject of a sharp debate later on. There does not appear to be any general disinclination to amend and improve the condition of the rank and file provided it can be done by a saving effected in the expenditure in other directions, such as a reduction in the numbers of the higher ranks. We are glad to notice that Dr. Farquharson has called the attention of the Secretary for War to the condition of St. George's Barracks and the absence of proper provision for the examination of recruits. The inconvenience and discomfort of the place can only have a deterrent effect on recruiting.

It may interest officers of the Army Medical Staff engaged in the medical inspection of recruits to know that a Royal Warrant has been issued providing for civilians acting as recruiting agents, and giving them the same awards as are granted for military recruiters.

Deputy-Inspector-General of Hospitals and Fleets, James Lilburne, R.N., M.D., F.R.C.S. Ed., died on the 23rd ult., at Duncrievie House, Glenfarg, Perthshire.

Surgeon-Colonel Allan, Medical Staff, has been appointed to the Administrative Charge of the Rawalpindi District.

INDIAN MEDICAL SERVICE. — Surgeon-Lieutenant-Colonel Lethbridge's (C.S.I.) services have been placed at the disposal of the Government of India. This officer has been acting upwards of fourteen years as Inspector-General of Gaols, and has introduced great improvements in gaol administration. The Lieutenant-Governor, in an official notification published in the *Calcutta Gazette*, expresses the appreciation in which the merits and services of this officer are held.

The pitiable condition of the native followers of the army in connexion with the late operations in Burma has very properly been the subject of recent comment, *apropos* of some statements in an address given by Deputy-Surgeon-Colonel Sibthorpe, Indian Medical Service. It is alleged that out of nearly 6000 sick followers only 400 recovered sufficiently to return to their duties in the field. As everyone knows, these nations are of essential use in Indian warfare. They are usually very hard worked, badly fed, and insufficiently clad, and occasionally they escape medical inspection altogether, or insufficient care is bestowed in rejecting those unfitted for work in the field. The hardship and suffering these unfortunate people undergo during a campaign entitle them to every consideration. It is to be hoped that the Indian Government will take some steps to guard in future against any similar amount of sickness and loss of life.

ARMY MEDICAL STAFF. — Surgeon-Captain H. R. O. Cross, from the Grenadier Guards, to be Surgeon-Major, in succession to Brigade-Surgeon-Lieutenant-Colonel A. B. R. Myers, retired (dated May 4th, 1892). — Surgeon-Major George Blake Hickson retires from the Service, receiving a gratuity (dated May 4th, 1892).— Surgeon-Captain R. S. F. Henderson has been ordered to Woolwich for duty; Surgeon-Captain G. Wade has been posted to Devonport; Surgeon-Colonel W. Collis has been transferred from Cork to Dublin; Surgeon-Lieutenant-Colonel J. G. Williamson, from Singapore to Gosport; Surgeon-Lieutenant-Colonel R. Drury, from Curragh to Dublin; Surgeon-Majors T. J. Gallwey, Hounslow to Egyptian Army; C. K. Powell, Madras to Cork; R. T. Beamish, Bengal to Dublin; T. M. Corker, Cork to Bombay; S. J. Flood, Belfast to Sierra Leone; J. G. Harwood, Portsmouth to Bengal; Surgeon-Captains T. Archer, Dover to Bermuda; R. C. Johnston, Bengal to Chatham; S. H. Creagh, Aldershot to Bermuda; J. R. Stuart, Warley to Hong-Kong; H. J. Wyatt, Dublin to Bombay; J. R. Mallins, Home District to Bengal; S. Powell, Bengal to Grenadier Guards; R. G. Thompson, Bombay to Sheerness; R. H. Hall, Bombay to Colchester; P. B. Skerrett, Bengal to Castlebar; J. J. C. Watson, Singapore to Aldershot; H. E. H. Smith, Singapore to Portsmouth.—Surgeon-Major J. E. Nicholson, who sailed on the 14th ult. for Hong-Kong in the P. and O. ss. *Oriental*, was entertained by the Principal Medical Officer, Devonport, and his brother officers at a farewell dinner given in his honour at the Royal Hotel, Plymouth.— Surgeon-Captain M. L. Hearn, doing duty in the Secunderabad District, has been posted to the Station Hospital, Bangalore; Surgeon-Colonel F. W. Wade has been placed on the Administrative Medical Staff of the Bengal Army.

MILITIA MEDICAL STAFF.—Surgeon-Lieutenant-Colonel J. E. Thornburn, 3rd Battalion, the Border Regiment, resigns his commission; he is also permitted to retain his rank, and to wear the prescribed uniform on his retirement (dated May 4th, 1892).

YEOMANRY CAVALRY.—Royal 1st Devon: Surgeon-Lieutenant F. Morgan to be Surgeon-Captain (dated May 4th, 1892).

NAVAL MEDICAL SERVICE.—Staff Surgeons: Arthur W. May to the Royal Marine Depôt, Walmer, and William M. Lory to the *Volage* (dated April 29th, 1892); Surgeon Geo. Edmonds to the *Abyssinia* (dated June 1st, 1892).

VOLUNTEER CORPS.—*Rifle:* William George Creswell, Gent., to be Surgeon-Lieutenant (dated May 4th, 1892).— 2nd Volunteer Battalion, the Worcestershire Regiment: Surgeon-Captain T. E. Underhill to be Surgeon-Major (dated May 4th, 1892) —1st Volunteer Battalion, the East Lancashire Regiment: John Michael Harding Martin, M.D., to be Surgeon-Lieutenant (dated May 4th, 1892).— 13th Middlesex (Queen's Westminster): Surgeon-Captain H. A. Des Vœux resigns his commission (dated May 4th, 1892).

INFANTRY VOLUNTEER BRIGADE. — East Yorkshire Brigade: Surgeon-Major J. Blackburne, 2nd Volunteer Battalion, the York and Lancaster Regiment, to be Brigade-Surgeon-Lieutenant-Colonel (dated May 4th, 1892).

FUNERAL REFORM.—As an indication of the increasing attention paid to matters of funeral reform, it is satisfactory to note that at the obsequies of Sir James Allport the mourners, by special request of the deceased, did not uncover their heads beside the grave.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—The next quarterly meeting of this Association will be held at Bethlem Hospital, London, on Thursday, May 19th, at 4.30 P.M. On that occasion Dr. Savage will read a paper on Influenza and the Neuroses. Mr. Beadles will read a paper on Gall-stones in the Insane. Members will dine together after the meeting at the Café Royal, Regent-street, at 6.30 P.M. The dissertations for the bronze medal and prize must be sent to the president not later than May 30th. The examination for the Gaskell Prize will take place in July.

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Correspondence.

"Audi alteram partem."

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—I note that the committee of the Association of Fellows has again done me the honour of asking me to stand as a candidate at the next election in July. On the occasions when I have been a candidate in past years I have had the requirements of the Fellows as the chief part of my programme, but I have always declared that the interests of the Members have largely entered into my reasons for wishing to obtain a seat on the Council. The recent behaviour of the committee of the Association of Members towards its two secretaries, and the solicitor who has so ably conducted their action (Steele *v.* Savory), has made me doubt the earnestness and wisdom of the latter Association so thoroughly that I have no longer any reason sufficient to induce me to make the sacrifice of personal comfort and professional income which a seat on the Council of the College would involve. Therefore I shall not offer myself again in July. I am, Sirs, yours faithfully,

May 4th, 1892. LAWSON TAIT.

"CURE OF STRICTURE OF THE URETHRA BY MEANS OF PHYSIOLOGICAL REST."

To the Editors of THE LANCET.

SIRS,—I regret that, owing to press of work, I should have overlooked in last week's issue Mr. Burghard's most interesting comments upon some cases of mine that were published in THE LANCET a short time ago. That organic stricture of the urethra, even when it is of long standing, can be permanently cured by external urethrotomy must be admitted, in spite of the authority of the late Mr. Berkeley Hill. Mr. Burghard's cases are, it is true, of very short duration—the longest was under two years (two of mine were eighteen and twenty-six years respectively; Bickersteth's was eighteen, and one of Syme's was thirteen); but all such evidence is of value, and this permanent cure must be attributed in very great measure, if not entirely, to prolonged physiological rest. Whether perineal drainage alone can effect the same result depends of course upon the pathological anatomy of the stricture in question; but in those instances in which the mucous membrane can be dissected off and unfolded its full width, and in which, therefore, the narrowing must be caused by the accumulation and condensation of inflammatory lymph in the submucous and peri-urethral tissues, there can be little doubt that it would be equally efficacious. I do not think much is gained by comparing a stricture of the urethra to the perforation left in the soft palate after an unsuccessful operation. I cannot see a single point in common. I do not of course advocate the adoption of perineal drainage instead of internal urethrotomy and the other well-known measures; such a course would be absurd. I merely point out that when it is advisable for other reasons, it has upon some strictures at least a most beneficial effect, causing them almost to disappear of themselves, and that this can only be attributed to the fact that it places them in a condition of complete physiological rest. I regret that Mr. Burghard's case should have relapsed so soon, but I never meant to imply that perineal drainage could be successful in every case; it could never, for example, cause the absorption of a urethral cicatrix. I am, Sirs, yours faithfully,

Wimpole-street, April 28th, 1892. C. MANSELL MOULLIN.

"OPERATION FOR SPASMODIC TORTICOLLIS."

To the Editors of THE LANCET.

SIRS,—Notwithstanding the reclamation of Mr. Noble Smith, which appeared in THE LANCET of April 30th last, I still adhere to the conviction that, as a rule, surgical operations for the relief of neurotic affections should not be performed, save in cases of strict necessity and as a last resource, and unless commended to us by "the true measure of desert, success." The object of my letter was to show that so long as the simple yet effective remedy adopted by Dr. Morton Prince had not been tried, that emergency had not arisen, and who will say that anything approaching the average success that attends ordinary surgical operations has followed the handiwork of the neurosectomists? The lengthened immunity from suffering claimed by Mr. Noble Smith for two of his patients is creditable to him, and I trust that it may long continue; but in the words of Dr. Goodhart, "if the pain return, what will he do in the end thereof?" Mr. Noble Smith's suggestion that the case related by Dr. Morton Prince was a neurosis simulating wry-neck was a mere assumption; the graphic description of the patient's suffering, her anæmia and debility, and the suspicion of the existence of caries of the cervical vertebræ, should satisfy an unprejudiced mind of the gravity of the case. It is evident that Mr. Noble Smith has not perused my papers in THE LANCET of July 12th and Dec. 6th, 1884, from which Dr. Morton Prince drew his inspiration, otherwise he would scarcely have endeavoured to belittle the importance of blistering over that limited but important region covered by the fourth and fifth dorsal vertebræ. *Apropos* of wry-neck, I may be permitted to relate the particulars of a recent case. On Wednesday, April 27th last, I was called to visit a patient. On the previous Saturday she was exposed, while lightly clad, to a cutting east wind. The result was a wry-neck in a most severe form. She suffered from continuous pain shooting down the shoulders and back, aggravated by any attempt to hold her head erect. She had not been able to lie down for the previous three nights, being compelled to sit up in bed supported by pillows. Finding that the fourth and fifth dorsal vertebræ were very painful on pressure, I applied over them the liquor epispasticus. Next day all pain had gone, neck still a little stiff; on the succeeding day full relief was experienced, and I found her attending to her ordinary house duties. It would appear, then, that if torticollis of recent date may be suppressed by a simple remedy, the necessity for a heroic operation at the end of sixteen years need not arise. I am, Sirs, yours faithfully,

ALEXANDER HARKIN, M.D.Aber., F.R.C.S.Eng.

Belfast, May 1st, 1892.

SMALL-POX TRAMPS: WHO IS RESPONSIBLE?

To the Editors of THE LANCET.

SIRS,—The case of this kind which has recently occurred in this town, as your readers know, has given rise to much squabbling which can be but of local interest; but there are features in it which must be of some general interest, if only that they should not form a precedent in public health administration to other sanitary authorities. The mayor, in his letter to you, has only quoted extracts from the infirmary chairman's letter to the medical officer of health. He has omitted to quote, "it is obvious that the man should be at once removed from the infirmary, where infectious cases are not admitted"; and "it is desirable that you should take immediate steps to deal with the case." The man appeared as a casualty in the out-patient waiting-room, brought no subscriber's recommendation, no guarantee for maintenance or removal charges, and no application was made by the sanitary authority to the "superintending body of such hospital," under Sec. 124 of the Public Health Act, for "consent" to his admission into the infirmary. In these days of enlightenment it needs no argument to show that a general infirmary with a large out-patient department is no proper place for the admission of small-pox cases or of any other infectious diseases. The so-called "fever wards" are of fifty years ago, and hardly now proper places for the adequate isolation of any infectious case which might break out in the wards of the infirmary. The word "inmate" upon the ordinary notification certificate was perhaps an unfortunate one: the man's belongings were at the common lodging-house where he had slept the previous night. The sanitary authority, however, appear to show more concern at that word than at the other—small-pox—upon the certificate. One can hardly justify the existence of sanitary authorities if it is not to use their best endeavours to protect their districts, and the inhabitants, from infection of this kind. Such certainly hitherto have generally been considered amongst the chief of their responsibilities; and the fact of a hospital for infectious diseases being available or not in no way affects these responsibilities.

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The absence of an available infectious hospital only increases the difficulties of administration. To a certain extent there is reason in what the Mayor says: "that the duties of a sanitary authority, under circumstances of this kind, are most clearly defined by law"; and afterwards that he should ask you "by what authority or Act of Parliament they should have been guided." As a matter of fact, I believe that the local authority exceeded what is defined by "shall," and did what was optional and permissive—such as under Sec. 121 of the Public Health Act. They "*may* direct the destruction of bedding, clothing, &c.," which the local authority did.

This permissive word "may" which runs through the Public Health Act, and which is applied to the adoption of this Act, such as that of notification, infectious diseases prevention, &c., is the stumbling-block to healthy sanitary organisation and public health administration. It culminated here in the first instance in the local authority repudiating their responsibilities, in their endeavour to palm off their responsibilities on to one of the charitable institutions of the district. The moral to be drawn from this case is that what is now permissive in Public Health Acts and legislation should henceforth be made compulsory; and that a closer supervision should be exercised over local authorities, central in character, from the Local Government Board and through country medical officers of health, to secure adequate and uniform administration.

I am, Sirs, yours truly,
J. LLOYD-ROBERTS, M.B., D.P.H.,
Hon. Medical Officer, Denbighshire General Infirmary.

May 2nd, 1892.

*** We have expressed our views on this matter elsewhere.—ED. L.

THE VOLUNTEER MEDICAL STAFF.

To the Editors of THE LANCET.

SIRS,—I am directed by the Council of the Volunteer Medical Association to forward to you the enclosed copy of a letter sent to the Secretary of State for War, and to ask if you will publish it for the information of volunteer medical officers, and give the Council your valuable assistance in forwarding the views therein expressed.—I am, Sirs, yours faithfully,

J. EDWARD SQUIRE, M.D., Hon. Sec.,
Headquarters, London, May 4th, 1892. Surg.-Capt. V.M.S.

[COPY.]

Headquarters, 101, Great Russell-street, Bedford-square, W.C., April 21st, 1892.

SIR,—I have the honour, by direction of the Council of the Volunteer Medical Association, to inform you that their attention has been drawn to your reply of the 4th inst. in the House of Commons to a question of Col. Henry Eyre, chairman of the Departmental Committee of the War Office, which sat in 1888 to consider the medical organisation of the volunteer force, asking if it was your intention to give effect to the recommendation of that committee as follows:—"Paragraph 42. It came out in evidence that the medical officers of the volunteer force wished to be placed on precisely the same footing as other officers of the volunteers regarding the distribution of honours and rewards. We submit this to your favourable consideration."

You are reported to have stated that volunteer medical officers, if employed on active service, would be placed on the same footing as regards honours and rewards as medical officers of the regular army, but that, with the exception of rewards for active service, the only honours open to volunteer officers were those given to officers in command of regiments.

I am directed to respectfully draw your attention to the following points:—

1. That the report of the above-mentioned Departmental Committee was approved and adopted by you, and that all its recommendations have been carried out, with the exception of that contained in paragraph 42.

2. That the point of comparison drawn in the recommendation of the committee is not between the medical officers of the volunteer force and those of the Army Medical Staff, but between the medical officers of the volunteer force and the combatant officers of the same service.

To the commanding officers of the volunteer force are open such rewards as K.C.B., C.B. (both in the civil department), and A.D.C. to Her Majesty, and thus junior combatant officers have some incentive to remain with their corps in the hope of ultimately obtaining the command, and becoming eligible for such rewards; but medical officers have no such possibilities before them, and are thus obviously placed at a disadvantage.

3. If, however, a comparison be made with medical officers of the Army Medical Staff, the Council would submit that the inference to be drawn from your reply is that rewards are only open to such latter officers as a result of their being employed upon active service.

This, however, the Council would venture to remind you, is by no means the case, honours and rewards being given quite irrespective of such particular service.

The Council of the Volunteer Medical Association therefore respectfully submit the following propositions:—

1. That the medical officers of the volunteer force are at present at a disadvantage as compared with the combatant officers of the force in respect to the bestowal of honours and rewards for distinguished service.

2. That these disadvantages might be obviated by the bestowal of honours and rewards for long and efficient service similar to those given to members of the Army Medical Staff under like circumstances—e.g., Q.H.P., Q.H.S., &c.

The Council earnestly hope that you will be so good as to give the foregoing facts and suggestions your most favourable consideration.

I have the honour to be, Sir, your obedient servant,
J. EDWARD SQUIRE, M.D., Hon. Sec.,
Surgeon-Captain, Volunteer Medical Staff.

To the Right Hon. the Secretary of State for War, War Office.

CERTIFICATES OF REMOVAL TO HOSPITAL.

To the Editors of THE LANCET.

SIRS,—The enclosed is of great importance to medical practitioners, and I should like an authoritative statement from you on the subject. Under the Infectious Disease (Notification) Act the fees allowed are 2*s.* 6*d.* for private and 1*s.* for public patients. Some time since every practitioner in this town received a book of forms as the one enclosed. I wrote to the medical officer of health asking what fee was payable for such certificates, and enclose his reply. The sanitary inspector, before making arrangements for removal of a patient, calls for this second certificate. Now, Sirs, can the sanitary authority compel a medical man to fill in this certificate? Is it to be expected that medical men should fill in this certificate for no remuneration? The fees for notification have been placed as low as possible, but if this second certificate must be signed the intrinsic value of the former will amount to the enormous sum of 1*s.* 3*d.* and 6*d.* I am, Sirs, yours truly,

Plymouth, May 1st, 1892. EDWARD G. DUTTON.

Medical Officer of Health Department,
Municipal Offices, Plymouth, April 9th, 1892.

DEAR SIR,—No fee is payable for signing the certificate of removal. It is for the purpose of protecting the sanitary authority. Having a certificate of a patient's fitness for removal from a medical man removes responsibility in the event of a patient dying on the way to hospital.

Yours faithfully,
Dr. Dutton. F. M. WILLIAMS.

*** There is no power authorising the sanitary authority to require any such certificate. If they want "protecting," and their own paid officers do not protect them, they should remunerate those who do so. How far such certificates may be filled in as a matter of courtesy is another matter.—ED. L.

THE CONGRESS OF INTERNAL MEDICINE AT BERLIN.

(FROM OUR OWN CORRESPONDENT.)

AT the forenoon sitting of the Congress of Internal Medicine, on April 22nd, Professor Rosenstein of Leyden spoke on Chronic Hepatitis. In Germany, he said, the opinion still prevailed that the two morbid conditions of the liver are only different stages of the same disease, and that the stage of enlargement precedes the other. Professor Stadelmann of Dorpat declared inadequate the reasons adduced for the opinion that hypertrophy and atrophy of the liver were different diseases. Among the causes which specially favour the latter condition he mentioned the copious consumption of alcohol, chronic lead-poisoning, syphilis, tuberculosis, and malaria, but maintained that there were many cases of which it was impossible to trace the cause. Nor were the causes of jaundice, one of the most characteristic symptoms in the hypertrophic stage, sufficiently cleared up. Professor von Frey of Leipsic reported the important fact, ascertained by experiments on animals, that the jaundice which follows the closing of the biliary passages leading from the liver did not supervene if the ductus thoracicus was ligatured. Dr. Israel of Berlin reported the results of his investigations on the secondary alterations in the organs of circulation when the action of the kidneys was insufficient. Dr. Krönig of Berlin gave an account of an injecting apparatus which he had constructed. Dr Schmidt of Breslau showed microscopic preparations in which the characteristic formations of pulmonary asthma in the smaller bronchi were beautifully visible. Dr. Martius of Rostock

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reported the results of a series of very careful chemical analyses, undertaken with a view to ascertaining the quantity and the manner of the appearance of the hydrochloric acid in the stomach in digestion. He stated that it is secreted in the stomach, uncombined, immediately on the entry of the food. Professor A. Fränkel of Berlin spoke on cancer of the costal pleura. Dr. Hoppe-Seyler of Kiel reported his investigations of the fermenting processes in the stomach, and of the gases developed by them under various conditions. Professor Unverricht of Dorpat discussed the manner of the occurrence of Cheyne-Stokes breathing under the influence of various poisons and morbid processes, and explained it as a symptom of cerebral collapse. The following three speakers treated of tuberculosis in connexion with the comparatively small number of cases in proportion to the enormous opportunities of infection, and arrived at the conclusion that far more people were infected than was known. In the greater number of cases the tubercle bacilli were rendered either permanently or temporarily harmless by the resistance of the tissues of the body. In the latter case they remained in the body as latent foci, which become active when the resisting power of the body diminished. Dr. Spengler of Davos reported the results of the treatment of pulmonary phthisis with tuberculin and tuberculocidin (tuberculin purified by Klebs) combined. Dr. Cornet of Berlin drew attention to mixed infections in pulmonary tuberculosis, and maintained that the dangerous feverish conditions which set in with rapid decay of the lung tissue in the course of otherwise slow pulmonary tuberculosis were not due to the tubercle bacillus alone, but to other bacteria also—streptococci, staphylococci, &c. The first speaker on the 23rd was Dr. Mannaberg. His discourse was on the subject of malaria, and he maintained that the semilunar micro-organism appearing in malignant cases were neither products of degeneration nor a definite species of disease germs, but cyst-formations produced by the fusion of two or four of the young micro-organisms in the red blood-discs, and generating new ones by sporulation. The Congress was closed by the chairman, Professor Kürschmann. Next year's Congress will meet at Wiesbaden.

Berlin, May 3rd.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

The General Hospital.

THE election of a physician to fill the vacancy caused by the resignation of Dr. W. F. Wade took place on the 4th inst. The election committee consists of the committee of the hospital, *plus* fifty others chosen by ballot from the general body of subscribers. Eighty-two attended the meeting, which resulted in the election of Dr. T. S. Wilson. The numbers were: Dr. Wilson, 54; Dr. Foxwell, 16; and Dr. Short, 12.

Annual Meetings.

The present time of the year is the one usually chosen for the annual meetings of various hospitals in the city.

The annual meeting of the governors of the Skin and Lock Hospital took place on April 29th, under the presidency of Captain Grice Hutchinson. The report showed that the new cases treated during the past year (3692) had been more numerous than in any previous year. The attendances of patients numbered 24 832; the in-patient department had received 56 skin and 21 lock patients, and their average stay had been 42 days. The treasurer's statement showed a surplus of £915, increased from £626 at the end of 1890.

The annual meeting of the Ear and Throat Hospital was held on May 2nd, Lord Leigh in the chair. The forty-seventh report showed that the number of new cases was 1872—eighteen more than in 1890—the total number of cases registered for the year being 4117. The registration fees paid by the patients, upon which the hospital depends chiefly for its support, were 2249 in number, and produced the sum of £393 11*s.* 6*d.* The total number of attendances of out-patients was 13,031, and 109 cases were admitted as in-patients. The management account showed that the total receipts amounted to £816 3*s.* 4*d.*, and that there was a balance in hand of £28 4*s.* 5*d.*

At the Lying in Charity the annual meeting took place on April 27th. The chair was taken by Mr. J. D. Goodman. During the past year there had been two deaths of mothers out of 741 patients. The average number of deaths during the last ten years had been 1 in 400. The assistance of the honorary surgeon was called in twenty-one times. The number of children born alive was 725, and there were twelve deaths of children. The financial condition of the charity was recorded to be satisfactory, there being £18 in hand. The work is all extern, and done by midwives, who call upon the honorary surgeons in cases of difficulty.

The twenty-third annual meeting of the Midland Counties Idiot Asylum was held at Worcester on April 30th, the Mayor of Worcester being in the chair. The total number of patients resident during the year was 52; 3 had died, 2 were removed, and 7 new cases were admitted. The financial position was stated to be satisfactory, as there was no debt. The total income for the year amounted to £1777 15*s.* 1*d.*, and the gross expenditure, including depreciation of buildings and furniture, was £1753 12*s.* 7*d.* Special thanks were given to Lord Leigh, the president, for the constant interest he had taken in the welfare of the institution.

Deaths of Cyclists.

A young man aged nineteen suddenly expired while riding on a bicycle. Immediately before he remarked that he felt better that day than he had ever done. He had previously partaken of some "lemon and a dash." The doctor at the inquest expressed the opinion that death was due to violent exertion, particularly after taking a cold drink when the body was heated. In such a case it would have been of importance if a post-mortem examination had been made, and the cause of death accurately ascertained. So many young men exert themselves violently on the bicycle that the warning thus afforded would probably have acted as a guide to them in the pursuit of this pastime.

Birmingham, May 4th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Proposed Medical Officer for Durham County.

AT the last meeting of the Durham County Council the committee brought up a report recommending the appointment of a medical officer of health at a salary of £500 a year, with reasonable travelling expenses in addition, and that he should also hold a qualification in public health, reside in Durham, and devote his whole time to the duties of his office. The report was adopted, with the addition that the age should be limited to between twenty-five and forty-five years.

Lunacy in the County of Durham.

Dr. Smith, medical superintendent of the Durham County Asylum at Sedgefield, in his thirty-third annual report, states that up to December, 1891, 8116 patients, of whom 4346 were men and 3770 women, were admitted. Of these, 1416 men and 1116 women recovered, being at the rate of 32·5 per cent. men, and 44·3 per cent. women. Dr. Smith observes, as to these very large statistics, that the percentages of recoveries appear too small or less favourable than ought to be exhibited. The deaths give a total of 2827. A large number of patients, owing to want of accommodation, had to be transferred to and from other asylums. Dr. Smith says that the figures show broadly that a larger number of men than women die insane. This, he thinks, is almost entirely owing to the fact that a very large number of men labour under severe organic disease of the nervous system from hard living. He thinks that there is no increase in the spread of lunacy, and in support cites the following figures of the new or recent cases admitted, which were in 1860–61 1 in 3460 of population; 1870–71, 1 in 3480; 1880–81, 1 in 3309; 1890–91, 1 in 3452.

Fatality to a Westmoreland Coroner.

Mr. Thomas Wilson, Mayor of Appleby and coroner for the east and west wards of Westmoreland, was on Friday last killed by being thrown from his horse at Sedburgh, where he was on a visit.

Sunderland.

During the past week the sum of £500 has been given to the Sunderland Infirmary and £100 to the Monkwearmouth and Southwick Hospital under the will of the late Mr. R. T. Wilkinson of Sunderland. During the last few weeks

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the export trade of Sunderland has been rapidly declining, owing to the strike, in the matter of coal from thousands to hundreds of tons; but for the week ending last Thursday matters reached their worst, when not a single ton of coal was exported, an occurrence which is probably unparalleled in the history of the port. The annual report of the Northumberland and Durham Miners' Permanent Relief Fund has been issued, in which it is stated that there have been 167 deaths from accidents, which is nearly 1·5 per 1000 members, being a small increase on that of last year. Eleven of those on the Permanent Relief Fund amongst the deaths had been receiving relief for some years. It states that the present benefits cannot be kept up unless the payments are increased, and that no amount of care of the fund can make a sovereign worth more than twenty shillings. It is, moreover, unsatisfactory to learn from the same report that the present strike in the county of Durham is costing the fund about £2400 per fortnight.

Eston, Middlesbrough.

Reference was made at the last meeting of the Eston local board to the high mortality lately prevalent in the district, which the medical officer, Dr. Malcomson, attributed to the outbreak of measles in the district, to counteract which measures were being taken to close the schools in the affected district. Dr. Barry, it was reported, had approved of the proposed sanatorium, subject to a few alterations which had been suggested by him.

Dr. H. E. Armstrong on Infectious Diseases.

Dr. H. E. Armstrong gave a lecture on Saturday last (in continuation of the course) on "Infectious Diseases." There was a crowded audience. Mr. Alderman Winter, the chairman of the City Health Committee, presided. Dr. Armstrong dwelt very fully on the media by which infectious diseases might be conveyed. Of all foods he thought milk was the most subtle and most at fault in spreading infectious diseases. He also spoke of other modes of infection—viz., air, water, clothing, and direct contact.

Charitable and other Bequests.

Mrs. Mary Robinson, widow, late of Cockermouth, amongst other charitable bequests, left £100 each to the Carlisle Infirmary and the Carlisle Dispensary. — Miss Emily Sarah Wilson, late of Dalham Tower, whose will has been proved at Carlisle, left, amongst other charitable bequests, £100 to the Royal Asylum of St. Ann's Society, Redhill, Surrey.—The late Dr. Carlyle of Carlisle, whose will has been proved at Carlisle, the gross personalty being under £9000, left his collection of specimens of fungi to the Royal Herbarium Museum at Kew, and some works on fungi to the Carlisle Corporation Museum which is to be shortly formed.—It is freely rumoured in this city that the late Dr. Heath left a large sum of money for a specific purpose in connexion with the Newcastle College of Medicine of the University of Durham.

Newcastle-on-Tyne, May 4th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The Sanitary Condition of Peterhead.

AT a meeting of the Peterhead section of the Buchan Field Club recently Dr. Middleton delivered a lecture on Bacteria and Epidemics, in the course of which he referred to the apathy towards sanitation evinced in Peterhead. He thought Peterhead had a share of epidemics rather above the average, for which there were several reasons. Some of the houses were a disgrace to civilisation. There were dens of squalor, dirt, and misery, all retarding the health of the community. Again, in the summer fishing season they had a large increase in the population, some of them not very sanitary either in their persons or habits, and living under most insanitary conditions, overcrowded in dirty, unventilated garrets. Again, when they did have an outbreak of disease in Peterhead, so far as the authorities were concerned, it got leave to revel unrestrictedly. In fact, they lived and moved in Peterhead as if there had been no such thing as a science of public health, as if enactments for the preservation of health had never taken place, as if these things were altogether apart from them and their every-day concerns. They as a community were not so far in the rear of their neighbours in any intellectual pursuit. Why, then, should they so linger in a matter of such vital importance? Why should precious lives be imperilled? Or why should bodily and mental suffering be incurred that might have been prevented?

Insanitary Condition of Boddam.

Dr. Watt, medical officer of health for Aberdeenshire, in a verbal report to the Public Health Committee of the County Council on the sanitary condition of Boddam, strongly condemns the present state of affairs in the village. Hardly a year passed without an outbreak of scarlet fever, and there had been a number of outbreaks of typhoid fever within recent years. There were three causes for this: First, the fact that since 1873, when the drains were laid, not one of them had been flushed, and the manholes were cleaned only once in two years. In the next place, there was a very extraordinary deficiency in trapping; and, in the third place, there were five huge pits of offal which were situated most suitably for distributing their effluvia to the houses. The fishermen would be only too pleased to have the state of matters improved, even at a pecuniary loss. Stonehaven was an example of improved sanitation worth copying. Dr. Watt is hopeful of the result of the meeting of the committee of fishermen and of the County Council.

Aberdeen Royal Infirmary: Resignation of Dr. Ogston.

At a meeting of the directors of this infirmary on April 27th the formal announcement of Dr. Ogston's resignation of his post of surgeon was read; also communications embracing resolutions passed by the medical faculty of the University, by the meeting of medical men held in Dr. Ogilvie Will's house, and by mass meetings of medical students, all expressing their anxiety for Professor Ogston's withdrawal of his resignation. The board then received the deputation from the meeting of medical men—namely, Dr. Ogilvie Will, Dr. Henry Jackson, Mr. Alex. Profeit, and Dr. Alex. MacGregor. Dr. Will read the resolutions passed at the meeting of medical men (which were printed in THE LANCET a fortnight ago), and thought these were not at all overstated. He thought Dr. Ogston's position in the infirmary as a practical surgeon, as a scientific man, and as a clinical teacher could not be overestimated. Dr. Ogston was not a man of mere local celebrity, but a man of world-wide fame, and his attachment to the infirmary gave it a different status from what it would otherwise occupy. Dr. Jackson said that the directors should make every effort to get Dr. Ogston to reconsider his resignation. The loss of a surgeon who has made such a reputation for himself, and who was held in the highest esteem by his brethren throughout the country, would, said Dr. Jackson, seriously affect the popularity of the institution, and that would result in financial loss. If the popularity of the infirmary was to be maintained, they must have the very best men on the staff, and the directors ought to do all they possibly could to make it possible for Dr. Ogston to withdraw his resignation and resume his duties as senior surgeon. Mr. Profeit also strongly urged the directors to do their utmost to retain Dr. Ogston's services. Dr. MacGregor remarked that while it might be a matter of opinion whether ehe public would have the same confidence in the institution without Dr. Ogston, it was not a matter of opinion with the profession. It was a matter of fact that they could not have the same confidence in the hospital if Dr. Ogston resigned. The chairman of directors then said they heartily concurred in all the deputation had said, and the board unanimously adopted the following resolution:—"The directors of Aberdeen Royal Infirmary, fully recognising the eminent skill and high reputation of Professor Alexander Ogston, and the great value of his services to the hospital, have received with deep regret his resignation as senior surgeon. The directors sympathise most heartily in the efforts being made to induce Dr. Ogston to reconsider his decision to retire from infirmary duty, and they will be much gratified to find that these efforts prove successful."

Resident Assistants.

The following gentlemen have been appointed to fill the posts of resident assistants in the Royal Infirmary for the year beginning May 1st:—James Rush, M.A., M.B., C.M.; W. R. Pirie, M.A., M.B, C.M.; Duncan D. Macintosh, M.B., C.M.; and W. M Anderson, M.B., C.M.

May 4th.

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IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Surgeons.

AT a meeting of the Fellows, presided over by Mr. Croly, on Monday, May 2nd, Mr. F. Alcock Nixon was elected a member of council. He was opposed by Dr. Parefoy, the votes given being 90 and 38 respectively. The election for examiners usually takes place the first Monday in May, but may be deferred at the wish of the council, and this year it will be held on Friday, the 20th inst. There will be ten examiners appointed to examine for letters testimonial and Fellowship; three for the diploma in midwifery; four for the diploma in Public Health; six for the diploma in dentistry, and two to examine in general education. A meeting of the Fellows will be held on Saturday, June 4th, to receive the annual report of the council; and on the 6th prox. a meeting will take place, pursuant to the provisions of the charters, to elect a president, vice-president, council, and secretary for the ensuing year. Mr. Croly's term of office having expired, he retires, and will be succeeded in the presidency by Mr. Edward Hamilton, professor of surgery in the College schools, surgeon to his Excellency the Lord Lieutenant, and surgeon to Steevens' Hospital. Mr. Thornley Stoker, surgeon to the Richmond Hospital, it is confidently expected, will be elected vice-president without opposition, in the room of Mr. Carte, J.P.

Poisoning by Nitric Acid.

A fatal case of poisoning by nitric acid occurred last week in Dublin. A grocer named McNally swallowed a quantity of the acid—probably the strong acid—while partially intoxicated, on the morning of the 28th ult., and within a few minutes was removed to the Meath Hospital, where he died about ten hours afterwards. The post-mortem examination showed that the stomach was corroded and destroyed. The coroner's jury brought in a verdict that the deceased died from shock, consequent on drinking strong nitric acid, while under the influence of alcohol.

Coombe Lying-in Hospital.

The governors last week, on the nomination of the master, appointed Dr. George Cole-Baker assistant master to the hospital. He is a bachelor in medicine, surgery, and obstetrics of the University of Dublin.

May 3rd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Results of the Application of Lannelongue's Sclerogenic Treatment in Tuberculous Affections.

AT the French Surgical Congress M. Coudray furnished a highly interesting report on the results of the application of the new method of treating surgical tuberculous diseases devised by Professor Lannelongue. His report is founded upon sixty cases, including thirty-one of affections of the larger joints, nine of the lymphatic glands, six of the foot and fingers, and four of the spine. The results are stated to be excellent, recovery from the local lesion being the rule, and the propagation of the bacillus to distant parts being prevented through the formation of the sclerogenic barrier due to the chloride of zinc. What is the fate of the bacilli in their conflict with the new elements generated around the territory occupied by them? M. Coudray opines that they perish, or that, at any rate, their activity is paralysed. This opinion is based upon three microscopical examinations he has conducted on extirpated masses, and on the negative results of inoculations. M. Lannelongue explains the apparition of certain abscesses some time after the injection of the chloride of zinc solution by supposing that the bacillus colony is encapsuled temporarily. It is also possible that certain lesions may accidentally escape the action of the remedy. In a previous letter I wrote of the treatment of congenital dislocation of the hip-joint by Lannelongue's method. M. Coudray tells us that a little girl of three years, thus treated five months ago, has now began to walk, her lameness having diminished considerably. The femoral head now reaches during adductory and internal rotatory movements only to a point one centimetre above the line of Nélaton-Roser, instead of three centimetres, the point reached before treatment. M. Coudray has also essayed the method in the combating of such hopeless diseases as malignant tumours. Applied in three instances (two generalised malignant lymphadenomata and one cancer of the breast) the size of the growths seemed to be materially diminished and their development arrested. The difficulty is to circumscribe the infected lymphatic glands. MM. Ivesco of Paris, and Dubois of Cambrai cited cases of surgical tuberculosis cured by them by means of the sclerogenic method, the practice of which will, doubtless, in time diffuse itself all over the civilised world.

A New Medical Senator.

M. Labbé, the well-known Paris surgeon, has just been elected Republican senator of the Department of Orne. At the annual banquet of the *internes* of the Paris hospitals, held on the 23rd ult., under the presidency of the veteran dermatologist, Professor Hardy, that staunch defender of nursing (religious) sisters, Dr. Desprès, one of the deputies for the metropolis, deplored the fact that the vast majority of the substantially numerous medical phalanx forming part of the Lower House took no interest whatever in medicine and the welfare of its votaries. M. Labbé, will not assuredly, as a member of the Upper House, deserves to be classed in this category. With his distinguished fellow-Senator, Professor Cornil, he will, I make bold to assert, watch closely the interests of the body of which they are both such distinguished ornaments. It is a curious circumstance that M. Labbé succeeds a *confrère*, the late Dr. Libert, in the senatorial representation of the Orne constituency.

Paris, May 4th.

Obituary.

THOMAS BRAMAH DIPLOCK, M.D., M.R.C.S.

THE late Thomas Bramah Diplock was born at Hastings on May 14th, 1830. His father and mother died when he was a few months old, and his uncle, the late John Joseph Bramah, engineer, adopted him and brought him up. When he first started in life he took up engineering, at the wish of his uncle; but, always having had a great desire to belong to the medical profession, he gave up engineering, and was apprenticed as a medical pupil to the late Dr. Bennett of Shaftesbury. Afterwards he studied at St. George's Hospital, St. Mary's Hospital, and Mr. Lane's School of Anatomy. He obtained his M.R.C.S.Eng. in 1853, and M.D. St. Andrew's in 1856. He was then appointed house surgeon to the Lock Hospital, Harrow-road, and afterwards started the practice of medicine at Brompton, in partnership with the late Robert Sannemann, F.R.C.S., and continued in practice until just before he was elected coroner for Middlesex in 1868. In his election for the coronership he was opposed by the late Dr. Hardwick, but, after a close fight, was returned at the head of the poll. For nearly twenty-five years he carried out his duties as coroner without fear or favour, and gained the love and respect of all he came in contact with. When he was first attacked with cancer of the tongue he kept the knowledge that he was so afflicted to himself for nearly two years, until the disease had made such headway that he was obliged to tell his wife and family. He bore his sufferings with great fortitude and without a murmur, and passed peaceably away on April 29th, 1892, from hæmorrhage at the base of the tongue, leaving a widow, four sons, two daughters, and a large circle of friends to mourn their loss. Never was there a more devoted husband, a kinder father, or a more sincere friend. He was attended in his last illness by several medical friends, and his son, Mr. Leonard B. Diplock.

PROFESSOR WILHELM BRAUNE (LEIPSIC).

WE regret to announce the death of Dr. Wilhelm Braune, Professor of Anatomy in the University of Leipsic, who was perhaps the greatest authority on topographical anatomy of the present age, and whose "Atlas of Human Topo-

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graphy," also published in a reduced form in 1874, and ably translated into English by the late Mr. Edward Bellamy—dealing as it does with frozen sections—is one of the most important works which have been published in that particular branch of the subject. His illness was of short duration. On Friday week he was in his laboratory, where he caught a chill, which prevented his attendance on the Saturday. Pneumonia gradually supervened, and he died on Friday, April 29th, in the sixty-first year of his age. Professor Braune was a man of fine presence and winning manners, and to the students of anatomy who studied at Leipsic his kindness was extreme and his courtesy was unfailing. He paid every consideration to the work of foreign students in his laboratory, and many of our own countrymen owe much to his wise advice and direction. At the time when his illness came upon him he was engaged in superintending the researches of Dr. Hughes, lecturer of anatomy in the Edinburgh Extra-mural School of Medicine, on the movements of the spinal column, a work in which he was specially interested. Even on his deathbed on Tuesday last he threw out several suggestions as to how the work should be completed. He was a scion of an ancient line of medical men; his father and his grandfather before him had devoted themselves to the healing art. He had also strong literary tastes, and was joint editor, with Professor His, of the *Archive of Anatomy*, published in Leipsic. He made many friends in England during his visit in 1881, when he attended the International Medical Congress.

GEORGE HOGARTH MAKINS, M.R.C.S., L.S.A.

MR. MAKINS died on April 12th. He was born in 1815, and his father, an official in the Treasury, died when his son was ten years of age. Mr. Makins' early tastes inclined to the study of chemistry, but the difficulties in the way of taking up this branch of science in those days were so great that his mother thought the nearest approach would be to apprentice him to a country medical man. He was therefore apprenticed to Mr. Norton of Uxbridge, afterwards entered as a student at King's College, London, and St. George's Hospital, and took his L.S.A. in 1839, becoming M.R.C.S. in 1840. Mr. Makins then being free to follow his own tastes, took up the study of chemistry, and held successively the chair of Chemistry at the Aldersgate School of Medicine and the Middlesex Hospital. At this time he became specially interested in the metallurgy of the precious metals, and this eventually led to his starting an assayer's laboratory. As an assayer he enjoyed an unrivalled reputation, acting as referee on many occasions between the Bank of England and the Mint, and while employed in this way he thoroughly remodelled the whole process. During a period of twenty years he gave an annual course of twelve lectures on metallurgy at the Dental Hospital of London. When the Society of Apothecaries altered the relation of the Society to the Old United Stock-holders, Mr. Makins took an active part in the proceedings, and was shortly afterwards elected a member of the Court of Assistants, serving the office of master in 1889. His excellent business capacity and good judgment were of great service to the Society in a somewhat critical period of its history. Although not practising medicine, Mr. Makins took a hearty interest throughout his life in the education of medical students in chemistry, and he was known and beloved for his personal characteristics by a wide circle in the profession.

CHELSEA HOSPITAL FOR WOMEN.—Earl Cadogan, K.G., presided over the 21st annual meeting of this charity. The report showed that the annual subscriptions for the year were £1956 9*s.* 6*d.*, and the donations £782, while £600 had been received in bequests. It was stated that the festival dinner held in May brought in over £1000. The nursing staff had benefited, too, by a series of lectures given by the medical staff.—The convalescent home at St. Leonards, which was opened on June 3rd last, was said to be doing excellent service, and already, out of the nine wards, seven had been named by donors of £105 and upwards.

Medical News.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen, having conformed to the by-laws and regulations and passed the required examinations, were at the meeting of the College on April 28th admitted Licentiates:—

*Abbott, Fred. W., Charing-cross.
Agar, Morley Frederick, London.
Anderson, J. Buckle, St. Barthol.
Ansorge, Wm. John, St. Barthol.
Arathoon, Hilary C., St. Barthol.
Argyle, Stanley S., Melbourne.
Atkinson, Jackson A., St. Mary's.
Bakewell, R. Turle, Univ. Coll.
Barberi, José Ignacio, Liverpool.
*Berridge, William Robt. Morpott, St. Thomas's.
Bird, W. E. Frankish, London.
Birdwood, G. T., Camb. & Guy's.
Bligh, William, Guy's.
Bowring, Walter A., St. Thomas's.
Boyd, Alex. Brooke, St. Barthol.
Bromhall, Ernest, Birmingham.
Brown, Stanley M., Manchester.
Browning, George Dansey, Rennes and Westminster.
Bubb, William, St. Bartholomew's.
*Cade, H. Lowless, St. Thomas's.
Campbell, Arthur Minton, Oxford and St. Thomas's.
Carre Smith, H. L., Charing-cross.
Colclough, William Frank, Guy's.
Croft, J. T. Herbert, St. Barthol.
Crossing, Augustus V., St. Mary's.
Cummings, H. Joseph, Toronto.
Daniel, R. Napier, St. Thomas's.
Davies, Gwilym C., St. Barthol.
Dow, W. Alexander, St. Barthol.
Easton, F. Edward, St. Mary's.
Elliott, Charles Caldwell, Guy's.
Emery, Arthur, Birmingham.
Evans, John Richard, Guy's.
Foster, Michael B., Charing cross.
Frazer, Ernest Edward, Guy's.
Fuller, Chas. Arthur, St. Mary's.
Fullerton, A. Young, Univ. Coll.
Garman, John B., Birmingham.
German, Arthur Wm., Liverpool.
Gideon, G. Vernon M., St. Mary's.
Gilpin, Bernard B., King's Coll.
Gowring, B. W. N., St. Barthol.
Grant, Charles Wm., St. Barthol.
Greaves, Edward Harrison, Guy's.
Gross, Phineas, Leeds.
Hake, James, London.
Hanham, Leonard L., St. Barthol.
Harcourt, C. Harold, Birmingham.
Harper, Walter J., St. Thomas's.
Harris, Jas. Edward, St. Thomas's.
Harvey, Arthur George, Cambridge and Charing-cross.
Harvey, John, Liverpool.
Harvey, John Owen, St. Barthol.
Hatch, Herbert L., St. Mary's.
Heaton, A. Frederick, St. George's.
Hey, H. D., Durham & St. Mary's.
Hill, Ernest, Middlesex.
Hocken, James P., Charing-cross.
Hughes, E. Lucas, Univ. College.
Isaacs, E. Percival, St. Thomas's.
Jackson, R. Houlton, St. Barthol.
Jager, Harold J., King's College.
James, Ernest W., King's College.
*Jones, H. Hepburn Averay, Lond.
Jones, H. J. Rutherford, London.
Kendall Bernard Charles, Bristol.
Kendrick, George, Birmingham.
King, John Charles, Westminster
Landon, Ernest E. Balman, Guy's
Lattey, Arthur Jas., St. George's
Loveday, Wm. Dunmore, Guy's
MacGrath, E. John, S. George's.
Mackenzie, Kenneth M., London.
Makalua, M. Manuia, King's Coll.
March, Edward Gerald, Guy's.
Master, G., Camb. & St. Barthol.
May, Percival Marshall, Guy's.
Mellor, George Mullins, Leeds.
Mercer, W. Bracewell, Cambridge and St. Bartholomew's.
Morgan, Wm. Holmes, Middlesex.
Morice, C. G. Frederick, Guy's.
Morris, F. Temple, Univ. College.
Moseley, C. Kingdon, St. Barthol.
Motteram, H. P., Birmingham.
Noble, Frank Stanley, Univ. Coll.
Nunes, Herbert Fitz-Stephen, St. Mary's.
Oliver, Thomas, King's College.
Orr, Walter Hood, St. Barthol.
Paling, A., Glasg. and Middlesex.
Palmer, Wm. M., Charing-cross.
Paton, R. McIver, Charing-cross.
Peake, George Arthur, Bristol.
Pickthorn, E. Butler, St. George's.
Pollock, John R. Russell, Guy's.
Pond, Francis A., St. Barthol.
Prada, Enrique, King's College.
Rayner, David Charles, Bristol.
Rayson, Herbert Knights, Guy's.
Read, Arthur Wm., St. George's.
Rivers, John H., St. Barthol.
Ryde, Cyril Alexander, London.
St. John, Alex. Story, Bristol.
Saffery, Frank Golder, Guy's.
*Scott, Thomas Graham, Guy's.
Senior, E. Westall, St. Thomas's.
Shearer, D. Francis, St. Thomas's.
Sheen, Alfred William, Guy's.
Sichel, G. T. Sylvester, Guy's.
Sims, David, St. Thomas's.
Smith, Abraham Arthur, Leeds.
Smith, Walter W., St. Barthol.
Stead, Dryden, Birmingham.
Stearn, Frederick Charles, Guy's.
Sworn, Ernest Andrew, Univ. Coll.
Thompson, Patrick O., St. Barthol.
Thyne, Jas. Andrew, Edinburgh.
Tibbetts, T. Major, Birmingham.
Tildesley, J. P., Birmingham.
Tootal, John H., St. Barthol.
Twynam, A. E. E., Univ. College.
Waithard, Robert Rudolf Max, Berlin, Wurzburg, and Berne.
Warneford, S. W. C., Birmingham.
Waters, G. W. B., Univ. College.
Watts, J. Alex. W., Manchester.
Wason, R. Llewhellin, Guy's.
Weir, A. Nesham, St. Barthol.
West, Henry William, London.
*Wetherall, P. Sim B., Univ. Coll.
Wheeler, C. Edwin, St. Barthol.
Wilks, S. Longmore Butterworth, Leeds.
Williamson, John, St. Barthol.
Wilson, A. Marius, St. Thomas's and Durham.
Wright, W. Charles, Manchester.

* Candidates who have not presented themselves under the regulations of the Examining Board.

UNIVERSITY OF DURHAM: FACULTY OF MEDICINE. At the Convocation held on April 30th the following candidates received the degrees indicated:—

Doctor in Medicine for Practitioners of Fifteen Years' Standing.—James Charlesworth, M.R.C.S., L.R.C.P. Lond., L.S.A.; Cautley Dawson, M.R.C.S., L.R.C.P. Lond.; William Donovan, L.R.C.P., L.R.C.S. Edin.; Stanley Augustine Gill, B.A. Dub., M.R.C.P. Lond.; Thomas Horne, L.R.C.P., L.R.C.S. Edin.; Frederick Daniell Miller, M.R.C.S., L.R.C.P. Lond., L.S.A.; Rees G. Price, L.R.C.P. Edin., L.F.P.S. Glasg.; William Henry Putsey, M.R.C.S., L.S.A.

Doctor in Medicine.—Andrew Paige Arnold, M.B., B.S. Durh., Wm. John Burleigh Robinson, M.B. Durh.; Charles Alfred Dalgliesh, M.B., B.S. Durh.; Charles John Evers, M.B. Durh., M.R.C.S., L.S.A.; Harry Fowler, M.B. Durh.; James Hindhaugh, M.B., B.S., L.S.Sc. Durh.; Ernest Beddoe Hulbert, M.B. Durh., M.R.C.S., L.R.C.P. Lond.; John F. Johns, M.B. Durh., M.R.C.S., L.R.C.P., D.P.H. Lond.; W. Lansdale, M.B. Durh., M.R.C.S., L.R.C.P. Lond., L.S.A.; Albert E. Martin, M.B. Durh., M.R.C.S., L.R.C.P. Lond.; John Worden Sandoe, M.B., B.S. Durh., M.R.C.S., L.R.C.P. Lond., L.S.A.

Master in Surgery.—Raymond Henry Shaw, M.B., B.S. Durh., College of Medicine, Newcastle-on-Tyne.

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Bachelor in Medicine.—F. Burchett Rutter (Second Class Honours), London Hospital; James Alexander Wood Watts (Second Class Honours), M.R.C.S., L.R.C.P. Lond., Owens College; Duncan Jas. Caddy, Henry Augustus Collinson, Taylor Dixon, Frank Hawthorn, William Martin, B.A., Arthur Alexander Joseph McNabb, Edgar Mitchell, James Peacock, Colvin Burslem Smith, and R. Sterling, B.A., all of the College of Medicine, Newcastle-on-Tyne; Allan Gordon Russell Cameron, St. Mary's Hospital; Henry Arthur H. Claridge, Queen's College, Birmingham; Percy Coleman, M.R.C.S., L.R.C.P. Lond., St. Thomas's Hospital; Sodeinde Akisiku Leigh-Sodipo, University College, London; Hubert Llewellyn Rutter, M.R.C.S., L.R.C.P. Lond., London Hospital; Louis George Charles Vintras, M.R.C.S., L.R.C.P. Lond., B.Sc. Paris, St. Mary's Hospital.

Bachelor in Surgery.—Allan Gordon Russell Cameron, St. Mary's Hospital; Henry Arthur H. Claridge, Queen's College, Birmingham; Percy Coleman, M.R.C.S., L.R.C.P. Lond., St. Thomas's Hospital; Henry Augustus Collinson, Taylor Dixon, Frank Hawthorn, Wm. Martin, B.A., Arthur Alexander Joseph McNabb, Edgar Mitchell, James Peacock, and Robert Sterling, B.A., all of the College of Medicine, Newcastle-on-Tyne; James Alexander Wood Watts, M.R.C.S., L.R.C.P. Lond., Owens College; Francis Burchett Rutter, London Hospital; Hubert Llewellyn Rutter, M.R.C.S., L.R.C.P., London Hospital.

The Licence in Sanitary Science was received by

Cornelius Scamp Hall, M.R.C.S., L.S.A.

ROYAL UNIVERSITY OF IRELAND.—The following candidates have passed the Second Examination in Medicine of the University:—

Upper Pass Division.—Richard Allan, *Emily Eberle, Thos. D. Luke, *Edward P. McLoughlin, Jeremiah O'Callaghan, *Tim. J. O'Meara. (Those marked with an asterisk may present themselves for the further examination in Honours.)

Pass.—Robert H. Allan, William T. Allan, Joseph D. Boyd, James Cunningham, William J. Forbes, David Henry, Mortimer Hynes, Joseph Lowry, Denis McCarthy, Joseph McGrath, Robert A. McLaughlin, James Munce, Daniel J. O'Connor, David O'Donnell, Jeremiah Reidy, John D. Rice, William D. T. Thompson, Joseph H. Whittaker.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following candidates have passed the Third Professional Examination:—

H. C. Beasley, M. S. Bell, O. W. Elsner, H. C. Falkiner, G. A. Fleming, J. V. Griffin, A. A. Hargrave, R. H. H. Hayden, T. W. P. Hayes, C. A. Hayman, A. X. Lavertine, P. J. Liston, G. F. J. Luther, W. L. Martin, J. H. Maunsell, A. E. McCann, W. F. A. McCann, H. J. McCormack, C. J. Nally, W. O'Donnell, P. Peacocke, F. W. Perry, J. C. Perry, W. G. Posnett, T. Redahan, J. Robinson, N. J. Townsend, A. H. White, W. A. E. Wells, Thos. Wilson, T. F. Wyse.

METROPOLITAN OPEN SPACES.—The London County Council has acquired possession, at a cost altogether of £51,310, of the Homestall Farm, Peckham Rye, comprising nearly forty-nine acres—an addition to the Rye which raises the acreage to 100 acres.

LITERARY INTELLIGENCE.—Messrs. Crosby Lockwood and Son will issue next month the second edition, carefully revised and considerably rewritten, of "Our Temperaments, their Study and Teaching—a Popular Outline," by Alexander Stewart, F.R.C.S. Edin. To the portraits of the first edition those of Pope and Sterne, with quotations showing the association of mental with physical characteristics, have been added, and chromo-lithographs from drawings by Lockhart Bogle of temperaments very often seen appear for the first time. Indices have also been added.—We have received a copy of the first number of *Sala's Journal*, a new "weekly magazine for all." The name and photograph on the title-page afford a sure guarantee that the new journal will appeal to a very large constituency. Mr. Sala is evidently bent on combining instruction with amusement. He cannot do better; for people require to be educated in physiological truths even more than in philosophy. By teaching them how to be *gourmets* and not *gourmands*, in literary pursuits as well as in gastronomics, much nervous energy will be conserved and tranquility of mind induced. Mr. Sala's *Journal* has commenced well, and quotations from THE LANCET have found a place in its columns. He will perhaps pardon us for a suggestion relative to the outside of his journal. In colour it is too suggestive of the "pale primroses that die unmarried." It is certainly distinctive, but without appealing to the æsthetic sense. We have a vivid recollection that some sixty years ago a medical contemporary, playfully called by the editor of THE LANCET the "Yellow Goth," suffered much at the hands of certain evil disposed persons on account of the colour of its covers, and was finally forsaken by the profession. We feel sure that in the hands of so able and well-known a journalist better things will come of *Sala's Journal*.

FOOTBALL CASUALTY.—Last week, during a game, at Letterkenny, Donegal, a young man fractured his leg.

A CENTENARIAN.—Mrs. Eliza Allison has just died at Chapel House, Richmond, at the age of 101. She was born on the 20th of August, 1790, and enjoyed good health until a short time before her death.

GLASGOW SOUTHERN MEDICAL SOCIETY.—At an ordinary meeting of this Society held on April 28th, (Dr. Alexander Miller president), Dr. Peter Fergusson, was unanimously voted the diploma of the Society on the occasion of his leaving Glasgow to commence practice in the Western States of America. This is only the third time that this honour has been conferred on a member of this Society since its foundation nearly sixty years ago.

PROSECUTION UNDER THE PHARMACY ACT.—At Leicester a case of considerable importance to chemists was heard in the County Court, when the Pharmaceutical Society conducted a prosecution under the Pharmacy Act, 1868. It appears that the defendant, an unqualified man, sold a preparation of opium to an officer of the Society, which, however, was dispensed by a qualified man employed by him. His Honour decided that the defendant had incurred the penalty under the Act, and gave judgment for £5 and costs.

PRESENTATION.—Professor J. M'Fadyean, of the Royal (Dick) Veterinary College, Edinburgh, was on Monday presented, on the occasion of his leaving (having been appointed to the post of Dean of the Royal Veterinary College, London), by the teaching staff, past and present pupils of the college, and other personal friends, with an illuminated address, a silver tea and coffee service, and a gold watch. Professor McFadyean, prior to his becoming M.R.C.V.S., took the degrees of M.B., C.M., B.Sc., in the University of Edinburgh.

ASYLUM FOR IDIOTS, EARLSWOOD, REDHILL.—The annual report shows that during the past year steady progress in the work of the institution has been made in all the departments. Cases from all classes in society were applying for admission. Scientific modes of training, both physical and mental, were marked with complete success, and 2810 patients had been under the care of the institution, during the forty-five years of its existence. The anniversary festival took place at the Savoy Hotel on Tuesday, Mr. Alderman Faudell Phillips presiding. In proposing the toast, the "Earlswood Asylum, the Board of Management and the Staff," the chairman earnestly advocated the claims of the asylum for generous public financial support. The subscriptions announced amounted to upwards of £2000.

MEDICAL PROTECTION SOCIETY.—The first annual general meeting of the London and Counties Medical Protection Society, Limited, was held on Monday, April 25th. The objects of the Society are to protect, support, and safeguard the character and interests of legally qualified medical and dental practitioners. The general meeting unanimously expressed its belief in the desirability of establishing such a society. The Society dates the commencement of its operations from May 1st, 1892, and the annual subscription of 10*s.* becomes due in advance on May 1st in each year. The following is a list of the officers and Council of the Society, but the list of vice-presidents is not yet complete. President: Jonathan Hutchinson, LL.D., F.R.C.S., F.R.S. Vice Presidents: F. H. Alderson, M.D.; D. Balding, F.R.C.S., J.P., Royston; Geo. Anderson Critchett, M.D., F.R.C.S. Edin.; H. Radcliffe Crocker, M.D., F.R.C.P.; T. Colcott Fox, M.B., F.R.C.P.; H. S. Goude, M.D., F.R.C.S. Edin.; C. J. Hare, M.D., F.R.C.P.; Chas. Scott Kilner, M.B., Bury St. Edmunds; John Williams, M.D., F.R.C.P., and others. Council: E. C. Beasley, F.R.C.S., Hampstead; Andrew Clark, F.R.C.S.; W. Bruce Clarke, M.B., F.R.C.S.; C. M. Fegen, L.R.C.P. Edin., Brandon, Suffolk; George Henty, M.D.; Jonathan Hutchinson, jun., F.R.C.S.; E. Hooper May, M.D., F.R.C.S.; J. Knowsley Thornton, M.B., C.M.; and C. S. Tomes, M.A., F.R.S. Treasurer: Geo. A. Heron, M.D., F.R.C.P., 57, Harley-street, W. Hon. Secretaries: George B. Mead, Mentmore, Newmarket, and Hugh Woods, M.D., 11, Archway-road, Highgate, N.

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THE COTTAGE HOSPITAL, WARMINSTER.—A new wing to this hospital was formally opened last week.

RESIGNATION OF A MEDICAL OFFICER.—Mr. F. M. Corner has resigned his position of medical officer of health to the Poplar District Board of Works, on the ground that recent legislation, notably the Public Health Act, has so increased his duties that he cannot conscientiously fulfil them.

WELLINGTON COLLEGE.—It is said that the sanitary works at the College, under the supervision of Mr. Rogers Field, C.E., are now, in all substantial points, nearly completed, including extensive surface and subsoil drainage of the estate. Notice has been given, with Mr. Field's sanction, that the school will reassemble at Wellington College on Tuesday, May 10th.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on May 2nd, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	239*	67	1	21	..	328	442
North-Western Hospital	230	33	..	7	1	271	411
Western ,,	84*	23	..	2	5	114	224
South-Western ,,	205	34	..	9	3	251	350
South-Eastern ,,	262*	11	1	11	5	290	424
Northern ,,	387	40	..	5	..	432	480
Totals	1407	208	2	55	14	1686	2331

* Infant and mother.

SMALL-POX.—*Atlas* hospital ship, 51.

MEDICAL NOTES IN PARLIAMENT.

Prison Surgeons.

IN the House of Commons, on April 29th, Dr. Clark asked the Secretary to the Treasury whether it was the case that the surgeons of Northampton Prison, with a daily population of 104 and commitments of 1140, and Shrewsbury Prison, with a daily population of 95 and commitments of 1290, each received a salary of £110 per annum, while the surgeons of Dundee Prison, with a daily population of 109 and commitments of 3760, and of Ayr Prison, with a daily population of 70 and commitments of 1750, received respectively £80 and £70 per annum; why the salary of the Ayr Prison surgeon had been reduced; and under what rules were these salaries determined. Sir J. Gorst: I have no information to enable me to check the accuracy, or otherwise, of the numbers quoted. The salary at Ayr was recently revised, on the death of the former surgeon, so as to correspond more closely to the present scale at other prisons in Scotland. The salaries of prison surgeons in Scotland who do not give their whole time to the public are fixed, so far as possible, with reference to the number of commitments and daily average number of prisoners at the time when the surgeons are appointed, a maximum of £90 being fixed in accordance with the recommendation of a committee which sat in 1879.

Small-pox in the West Riding.

Dr. Tanner asked the President of the Local Government Board whether his attention had been called to the fact that an epidemic of small-pox now prevailed in Dewsbury, Batley, and the neighbourhood known as the heavy woollen district, and had led to heavy local expenditure in providing for the necessities of the case; whether complete isolation of persons capable of spreading infection was attended to, and whether the origin of the epidemic could be traced to inefficient vaccination.—Mr. Ritchie: I am aware that there has been an outbreak of small-pox in the district referred to in the question. The Town Councils of Dewsbury and Batley have provided some hospital accommodation, but I cannot state that the arrangements in the district are such as adequately to provide for the complete isolation of all persons capable of spreading infection, although the necessity for providing such means of isolation has on several occasions been urged on the sanitary authorities by the Local Government Board. The questions of the origin of the epidemic and of its relation to vaccination are being investigated for the Royal Commission on Vaccination by Dr. Sidney Coupland of the Middlesex Hospital, who has already been in the district for some weeks.

Welsh Medical Inspectors.

In the House of Commons, on May 3rd, in answer to Mr. G. O. Morgan, Mr. Long said it was stated by the President of the Local Government Board, in reply to a question a short time since, that in the event of his having to fill up a vacancy in the office of medical inspector, where the duties of the officer would chiefly be in Wales, and he had before him two candidates who, apart from the question of the Welsh language, were in all respects equally well qualified for the position, he would be willing to give the preference to the candidate with a knowledge of the Welsh language. I cannot give any further undertaking on behalf of the President of the Local Government Board.

The Public Health Amendment Act.

On May 4th, in answer to Mr. J. M'Carthy, Mr. Jackson said: The regulations relating to the Public Health Amendment Act, 1890, were duly prepared by the Irish Local Government Board and laid before Parliament in accordance with the Act.

Medical Officers in the Navy.

In answer to Dr. Tanner, Lord G. Hamilton said: A certain number of surgeons of the Royal Navy, after returning from service afloat, are now permitted annually to attend metropolitan hospitals for a time on full pay, and the experiment has been attended by satisfactory results.—Dr. Farquharson asked whether the same privilege would be extended to the medical officers in the Army Medical Department.—Mr. Brodrick: I must ask for notice of that question.

Army Medical Staff.

On Thursday in the House of Commons Dr. Tanner asked the Secretary of State for War whether any steps would be taken to remove the disability under which officers in the Army Medical Department suffer as regards precedence at mess; and whether such disability was always in existence, or when instituted.—Mr. Brodrick, who replied, said that medical officers suffered no disability as regards precedence at mess. At their own mess they took precedence according to rank. At other messes they were honorary members, and like other honorary members had no precedence under the rules of the service.—Dr. Tanner asked the hon. gentleman whether his attention had not been called to the correspondence on this subject which had taken place in the medical journals.—Mr. Brodrick replied that he had not seen the correspondence.—Dr. Tanner recommended him to read it.

The Hampstead Disaster.

In reply to a question by Mr. Brodie Hoare, Sir M. Hicks Beach said that he had not yet received the inspector's report on the Hampstead Heath accident, but he had been in communication with the company, and was informed that, although the plan had not been actually decided upon, such structural alterations would be made and increased means of access to the platforms provided before Whitsuntide as would, it was hoped, together with other means taken by the company, remove all risk of further misfortune.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ADAMS, J. D., M.D. St. And., M.R.C.S., has been reappointed Medical Officer of Health for the Yeovil Rural Sanitary District.

ANDERSON, WM., M.B., C.M. Glasg., has been appointed Resident Assistant Medical Officer of the Aberdeen Infirmary.

ARCHER, H. R., M.D. Lond., L.R.C.P., has been reappointed Medical Officer for the First Sanitary District of the Royston Union.

BAINES, J. C., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Malvern Sanitary District of the Upton-upon-Severn Union, vice Weir.

BALDWIN, THOS. A., M.D. Dub., L.R.C.S. Irel., has been appointed Medical Officer of Health to the Sculcoats Rural Sanitary Authority.

BINDLOSS, A. H., M.B., B.C. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Milbourn Sanitary District of the Royston Union, vice Reynolds.

BLANEY, R., M.B., C.M. Glasg., has been appointed Medical Officer for the No. 7 Sanitary District of the Battle Union.

BOWEN-JONES, L. M., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health to the Carmarthen Rural Sanitary Authority.

BRODRICK, C. C., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer for the Whitchurch and South Lydford Sanitary Districts of the Tavistock Union.

BULLMORE, WM. K., M.D. St. And., M.R.C.S., has been reappointed Medical Officer of Health for the Falmouth and Truro Ports.

CHEESEWRIGHT, JOHN F., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Greasbrough Urban Sanitary District.

COLE-BAKER, GEORGE, B.A., M.B., B.Ch., B.A.O. Dub. Univ., L.M. Rotunda, has been appointed Assistant Master to the Coombe Lying-in Hospital and Guinness Dispensary, Dublin.

CROSS, G. F., M.B., B.S. Durh., has been appointed Medical Officer for the Fineham Sanitary District of the Downham Union.

FORSYTH, ROBT., M.D., C.M. Glasg., has been reappointed Medical Officer of Health for the Birstal, Birkenshaw, and Drighlington Urban Sanitary Districts.

GILCHRIST, JAMES, M.B., C.M. Glasg., has been appointed Parochial Medical Officer for the Inverkip District of the Parish of Inverkip, Renfrewshire.

GRANT, J. W., M.B., C.M. Edin., has been appointed Medical Officer for the Eighth Sanitary District of the Newport Pagnell Union.

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HAMILTON, A. A., M.B., C.M. Dub., has been appointed Honorary Assistant Physician to the Adelaide Hospital, South Australia.

HERROLD, R. E., M.B., C.M. Edin., has been appointed Assistant Honorary Surgeon to the Adelaide Hospital, South Australia.

HARRIS, SPENCER C., L.F.P.S., L.M. Glasg., has been reappointed Medical Officer of Health for the Ely Urban Sanitary District.

HALVEY, J. T., M.B., C.M. Edin., M.R.C.S., M.B. Melb., has been appointed Physician to the Broken Hill Dispensary, New South Wales, vice Wm. Baly, deceased.

HINDE, F. R. B., M.D., C.M. Edin., M.R.C.S., has been appointed Medical Officer for the Seventh Sanitary District of the Ware Union.

JOHNSON, HY. S., M.R.C.P. Irel., L.F.P.S. Glasg., has been reappointed Medical Officer of Health for the Totnes Rural Sanitary District.

JONES, G. F., M.R.C.S., has been appointed Medical Officer of Health for the Southend Urban Sanitary District of the Rochford Union.

JONES, W. M., M.R.C.S., D.P.H. Camb., has been reappointed Medical Officer of Health for the Swinton Urban Sanitary District.

JOSHUA, FRANCIS WM., L.R.C.P., L.R.C.S., L.M., has been appointed Consulting Surgeon to the Great Malvern Provident Dispensary.

LANSDOWN, G. P., M.B., B.S. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Anæsthetist to the Bristol General Hospital.

LUMLEY, BARTHOLOMEW, M.R.C.S., L.M., has been reappointed Medical Officer of Health for the Northallerton Urban and Rural Sanitary Districts.

MACINTOSH, DUNCAN, M.B., C.M. Glasg., has been appointed Resident Assistant Medical Officer of the Aberdeen Infirmary.

MORTON, C. A., L.R.C.P. Lond., M.R.C.S., has been appointed Registrar to the Bristol General Hospital.

MOSSOP, A. G., L.R.C.P., L.M., L.R.C.S. Irel., M.R.C.S., has been reappointed Medical Officer of Health for the Port of Newhaven.

MURDOCH, W. H., M.D., M.Ch. Irel., has been appointed Medical Officer for the Branch Workhouse of the Parish of Liverpool.

NIX, H. W., M.B. Camb., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Workhouse and Infirmary of the Parish of St. Marylebone.

OGDEN, CHAS., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Milnrow Urban Sanitary District.

PRATT, JOHN W., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health to the Wiveliscombe Local Board.

ROBINSON, JAS., M.D. Brux., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer of Health for the Turton Urban Sanitary District of the Bolton Union.

SAWYER, ROBT. H., M.R.C.S., has been reappointed Medical Officer of Health for the Shaftesbury Rural and Urban Sanitary Districts.

SPRENT, W. S., L.K.Q.C.P., L.R.C.S. Irel., has been appointed Medical Officer for the Hovingham Sanitary District of the Malton Union, vice Watt, resigned.

STRATON, CHAS. R., L.R.C.P., F.R.C.S. Edin., has been reappointed Medical Officer of Health for the Wilton Urban Sanitary District.

TEMPLEMAN, CHARLES, M.D., B.Sc., has been appointed Surgeon to the Dundee Royal Infirmary.

TWINING, ALFRED H., M.R.C.S., D.P.H. Camb., has been reappointed Medical Officer of Health for the Kingsbridge Rural Sanitary District.

YEARSLEY, PERCIVAL MACLEOD, M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Western General Dispensary, Marylebone-road.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ADDENBROOKE'S HOSPITAL, Cambridge.—Resident House Surgeon. Salary £65 per annum, with board, lodging, and washing in the hospital.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Resident Medical Officer for one year. Salary £80 per annum, with board and residence.

COUNTIES' ASYLUM, Carlisle.—Junior Medical Assistant.

COUNTY OF DURHAM.—Medical Officer. Salary £500 per annum, with reasonable travelling expenses in addition.

GENERAL HOSPITAL, Nottingham.—Assistant House Physician for six months. Board, lodging, and washing in the hospital provided.

GENERAL HOSPITAL, Nottingham.—Assistant House Surgeon for six months. No salary. Board, lodging, and washing in the hospital provided.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.—Resident Medical Officer. Salary £50 per annum, with board and lodging.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Medical Registrar and Pathologist for one year. Honorarium of 50 guineas at the expiration of that term.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Resident House Physician for one year. Salary £60 per annum, with board and residence in the hospital.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Assistant House Surgeon (non-resident), for one year. Salary £50.

LANCASTER INFIRMARY AND DISPENSARY.—House Surgeon (unmarried). Salary £80, with residence, board, attendance, and washing.

LEWES DISPENSARY AND INFIRMARY, AND VICTORIA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, furnished apartments, coal, gas, and attendance.

NORTHAMPTON FRIENDLY SOCIETIES' MEDICAL INSTITUTE.—Assistant Medical Officer (out-door). Salary £200 per annum, with part Midwifery fees. (Apply to the Secretary, 22, Cromwell-street, Northampton.)

PLYMOUTH BOROUGH ASYLUM, Blackadon, Ivybridge, Devon.—Assistant Medical Officer. Salary £125 per annum, with quarters, board, and washing.

ROTHERHAM HOSPITAL.—Assistant House Surgeon for six months. Rooms, commons (exclusive of alcoholic drinks), and washing will be provided in the hospital in lieu of salary.

ROYAL ALBERT EDWARD INFIRMARY, Wigan.—Junior House Surgeon. Salary £80 per annum, with apartments and rations, exclusive of wines, spirits, and washing.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Five Examiners in Anatomy and Four in Physiology.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Junior House Surgeon. Salary £50 per annum, with board and apartments.

Births, Marriages, and Deaths.

BIRTHS.

BELL.—On April 28th, at Upgate, Louth, Lincolnshire, the wife of Charles W. J. Bell, M.R.C.S., of a son.

BOUCHER.—On May 1st, at Hertford, Herts, the wife of Arthur H. Boucher, M.D., of a daughter.

BULL.—On April 27th, at St. Oswald's House, Stony Stratford, the wife of William H. Bull, F.R.C.S., of a son.

HARKNESS.—On May 1st, at Oak-villas, Stamford-hill, the wife of Alex Harkness, L.R.C.P., L.R.C.S., of a son.

MACKAY.—On April 23rd, at Hornby, Lancaster, the wife of Ian D Mackay, M.B.C., M.B.A., of a daughter.

MILLER.—On April 23rd, at Horwoods, Basingstoke, the wife of Frederic D. Miller, M.D., of a daughter.

RUSSELL.—On April 26th, at The Lawn, Lincoln, the wife of Dr. Russell, of a daughter, who survived her birth only a few hours.

WILSON.—On April 28th, at Coates-crescent, Edinburgh, the wife of Dr. Blair Wilson of Florence, of a daughter.

MARRIAGES.

BROWN—CUMMINGS.—On April 30th, at Holy Trinity Church, Tulse-hill, Osmond Percy Brown, M.R.C.S., son of Henry Osmond Brown, M.R.C.S., of Knighton, Radnorshire, to Alice Clara, elder daughter of William H. Cummings, F.S.A., of West Dulwich.

CRANSTOUN—WISE.—On April 28th, at the Church of St. Simon, Southsea, Charles Bruce Cranstoun, M.B., youngest son of the late John Cranstoun, Ludlow, to Margaret Selina, widow of the late Commander C. J. Wise, R.N.

EARLE—ARNOLD.—On April 30th, at St. Mary Abbott's, Kensington, Hamilton E. L. Earle, Surgeon R.N., only son of Rear-Admiral Hamilton Earle, of Lymington, Hants, to Katharine Lilian, only daughter of Sir Edwin Arnold, K.C.I.E., C.S.I.

HALL—NETTLES.—On March 7th, at Rurki, N.W.P. India, E. A. W. Hall, M.B., C.M., I.M. Staff, to Alice, daughter of Major Nettles, and granddaughter of Col. Harry Nettles.

HOUGHTON—SQUAREY.—On May 3rd, at Bebington Church, by the Rev. Canon Feilden, assisted by the Rev. Frank Ellerton, Philip Arthur Houghton, M.R.C.S., L.R.C.P., of 8, Fitzjohn's Avenue, South Hampstead, to Léonie Mabel, youngest daughter of A. T. Squarey, Esq., of Gorsey Hey, Bebington, Cheshire.

MAY—BALDOCK.—On April 29th, at Hyde Church, Winchester, Arthur William May, Staff Surgeon R.N., son of the Rev. H. May, late Vicar of South Petherwyn, Launceston, to Adelaide Gibson, youngest daughter of the late Wm. Baldock, Esq., of Fernlea, Southampton.

PHILLIPS—HOWARD.—On April 28th, at St. Antholin's Church, Nunhead, Stanley Clyde Phillips, L.R.C.P., M.R.C.S., of Earlsfield, to Alice, the eldest daughter of John Howard, Esq., of Windsor Lodge, Nunhead, S.E.

ROALFE COX—ORD.—On April 27th, at St. George's, Hanover-square, by the Rev. Philip Bainbrigge, Vicar of St. Thomas's, Regent-street, Walter Roalfe-Cox, M.R.C.S., L.R.C.P., of The Laurels, Mortimer, Berks, to Violet, second daughter of William M. Ord, M.D., of 37, Upper Brook-street, Grosvenor-square.

WEDGWOOD—STOCKTON.—On April 27th, at the Parish Church, Banbury, by the Rev. C. F. Porter, Vicar, William Brackenbury Wedgwood, L.R.C.P. Lond., M.R.C.S. Eng., L.S.A., of King's Lynn, Norfolk, to Margaret, eldest daughter of James Stockton, South Bank, Banbury.

DEATHS.

ASHDOWN.—On May 3rd, at Ventnor, Isle of Wight, George Ashdown, M.R.C.S. Eng., in his 69th year.

BRACE.—On May 3rd, at Queen's-gate-terrace, S.W., suddenly, Wm. H. Brace, M.D., aged 68.

CHEYNE.—On May 4th, at 59, Welbeck-street, Mary Frances, daughter of W. Watson Cheyne, F.R.C.S.

DIPLOCK.—On April 29th, at Mornington House, Chiswick, Thomas Bramah Diplock, M.D., M.R.C.S., Coroner for the Western Division of the Counties of Middlesex and London, in his 62nd year.

DRURY.—On April 26th, at Lingmoor, Bournemouth, William Vallancey Drury, M.D., aged 70.

KERR.—On April 28th, at 42, Grove-road, Regent's-park, N.W., Eleanor Georgina, wife of Norman Kerr, M.D., aged 42 years. No cards.

SMITH.—On April 20th, at Wolverhampton, Dr. Charles Smith, aged 41.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, May 9.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. Wm. Lang: Lachrymal Affections.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Lungs, Tubercle and other Lesions.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. A. Wynter Blyth: Sanitary Appliances.

ROYAL INSTITUTION.—5 P.M. General Monthly Meeting.

SOCIETY OF ARTS.—8 P.M. Mr. Percy F. Frankland: Recent Bacteriological and Chemical Research in connexion with the Fermentation Industries.

Tuesday, May 10.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Jonathan Hutchinson: Arsenic and Mercury.—Bethlem Hospital: 2 P.M., Dr. H. Corner: Hypochondriasis.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Dr. W. H. Dickinson: Renal Dropsy, with especial reference to the Circulation, together with some Considerations relating to Pulmonary Apoplexy in Renal Disease (adjourned discussion).—Dr. A. E. Garrod: The Changes in the Blood in the Course of Rheumatic Attacks.

Wednesday, May 11.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Percy Kidd: Laryngeal Tuberculosis.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Quarry Silcock: Myopia.

SOCIETY OF ARTS.—8 P.M. Mr. G. L. Addenbrooke: Uses and Applications of Aluminium.

Thursday, May 12.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Mr. Edmund Owen: Selected Surgical Cases from the Wards.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Beevor: Locomotor Ataxia.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Dr. Edward Law: Examination of Throat and Nose Cases.

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square).—8.30 P.M. Dr. G. Cleghorn: Cases of Ectopic Gestation (with pathological report and observations by Dr. Shaw-Mackenzie). Specimens by Mr. Lawson Tait.

NORTH LONDON MEDICAL AND CHIRURGICAL SOCIETY (Great Northern Central Hospital).—8.30 P.M. Annual General Meeting. 9 P.M. Short Address by the President (Dr. Wm. Cholmeley). Dr. H. Campbell: Children's Diseases.—Dr. Rattray: Three cases of Suppurating Kidney.

Friday, May 13.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Percy Kidd: Angina Pectoris.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: Cultivation Methods (Examination of Cultivations).—Charing-cross Medical School: 8 P.M., Dr. J. Braxton Hicks: Funis Presentation and Prolapsus.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. F. Paul: A case of Enterectomy.—Mr. Howard Marsh: A case of Spontaneous Cure of two Aneurysms of the Femoral Artery, apparently by Inflammatory Action.—Dr. Francis Hawkins: A case of Non-tubercular Hæmoptysis of four months' duration occurring in association with Cirrhosis of the Kidneys.—Mr. Arbuthnot Lane: Two cases of Tubercular Disease of the Breast and Axillary Glands.

Saturday, May 14.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. H. Corner: Melancholia.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 5th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
Apr. 29	29·96	N.E.	42	38	91	51	37	·02	Cloudy
,, 30	30·19	W.	46	42	102	60	35	..	Hazy
May 1	30·19	N.E.	50	45	76	57	41	..	Hazy
,, 2	29·84	N.E.	47	45	62	49	42	..	Overcast
,, 3	29·69	N.E.	45	44	60	48	44	·09	Cloudy
,, 4	29·74	N.E.	46	45	56	50	45	·07	Raining
,, 5	29·96	N.E.	46	42	72	47	40	·02	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

ADVERTISEMENTS OF CHANGE OF RESIDENCE.

A PRACTITIONER advertises in the *Hull Daily News* a temporary change of residence. Such public notices are not called for. It is the custom to be satisfied with an announcement on the old premises of the new address.

Mr. Chas. R. Christie.—We believe the appliances in question to be quack productions, which certainly have never received favourable notice in the columns of THE LANCET.

Mrs. M. Dudley.—There are several such practitioners in the Medical Register, to which we must refer our correspondent.

PAPILLARY PERITONITIS.

To the Editors of THE LANCET.

SIRS,—Would any of your readers be kind enough to give me a few hints in regard to the treatment of papillary peritonitis in a girl aged fourteen? Is an operation of any use? I should feel greatly obliged if anyone having had experience in such cases would reply.

I am, Sirs, yours faithfully,

May, 1892. PENSNETT.

INFLUENZA.

THE following passage from a letter of Lord Chesterfield's, dated July 9th, 1767, is quoted in *Notes and Queries* of April 30th, 1892:—

"You say that Dresden is very sickly. I am sure London is at least as sickly now, for there reigns an epidemical distemper called by the genteel name of *l'influenza*. It is a little fever, which scarcely anybody dies of, and it generally goes off with a little looseness. I have escaped it, I believe, by being here [Blackheath]."

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THE SCOTTISH UNIVERSITIES COMMISSION.

A DEPUTATION of representatives of the various medical schools and other educational bodies in Scotland was received by Mr. Balfour at the House of Commons on Wednesday last. The object of the deputation was to procure, if possible, the reconsideration of the ordinances issued by the Scottish Universities Commission, which become final on the 12th and 18th of this month unless Her Majesty should withhold her consent. Representatives of the General Council of the Universities of Glasgow and Edinburgh, of St. Mungo's and Anderson's Colleges, of the Royal Colleges of Physicians and Surgeons of Edinburgh, and of the Reform Association; representatives in all of twelve educational bodies attended. Mr. Balfour however, refused in the meantime to consider the requisition of the deputation, on the ground that Parliament would be taking too great a responsibility upon itself if, after having entrusted the Commission with considerable administrative powers, it should then take upon itself to reject the ordinances which it had framed. The opposition to the ordinances will, we are informed, be pushed forward in Parliament, and it is understood that a motion will be brought forward in the House of Commons on Monday night, asking Her Majesty to withhold her consent from the ordinances.

Dr. R. H. Bakewell.—The subject of leprosy will soon be brought prominently before the medical profession, when we hope to deal with the point mentioned by our correspondent.

Cyclops.—We should hope that our correspondent's account is imperfect or incorrect. A lawyer should be consulted.

M.D. has not enclosed his card.

BACTERIA IN ACUTE RHEUMATISM.

To the Editors of THE LANCET.

SIRS,—Some time ago I sent you a notice of a bacillus which I had met with in certain cases of acute gout. While making further observations in reference to this matter, I have examined the blood in a number of cases of acute rheumatism, and I have found almost invariably that in acute rheumatism the blood is charged with bacteria in the form of minute cocci to a point which might almost be called saturation. These cocci are easily to be seen after floating the cover-glass upon which the blood is taken, for a period of not less than four hours, in a warm solution of methylene blue. I have examined the Indices of THE LANCET and *British Medical Journal* for the past five years, but can find no record of any similar observation. I should be glad to learn if any bacteriological work has been done in reference to acute rheumatism. Dr. Maclagan, in a recent article, assumed the presence of an organism, but did not state if he had actually demonstrated the same. The cocci are exceedingly small, and require a magnification of 1000 diameters to render them at all visible, which is equal to one-twelfth oil immersion with a No. 8 compensating eyepiece. With this power they are just visible, and exhibit a strong disposition to arrange themselves in chains.

I am, Sirs, yours faithfully,

Putney, May 2nd, 1892. EDWD. F. GRÜN.

*** Dr. Mantle of Halifax read a paper at the British Medical Association, at the meeting held in Dublin, on the Etiology of Rheumatism considered from a bacterial point of view. He also published an article in 1885 on Rheumatism with Infectious Sore-throat.—ED. L.

AN AUSTRALIAN ADVERTISER.

"DR. WM. LANGSTON, *M.R.C.S. Eng.*, 121, Collins-street, Melbourne," advertises both his portrait and his great therapeutical powers in all the ordinary newspaper set of discreditable diseases. Has not the Royal College of Surgeons the power to deal with such a member on the score of his advertisements? Be this as it may, he has been fined £20 for putting M.D. on his plate, he being registered only as "M.R.C.S."

Janus.—There are lunatic asylums in various parts of the world under the English Government. We would advise our correspondent to make application direct to the Under Secretary of State for the Colonies, Downing-street, S.W., for information as to appointments &c.

"TREPHINING FOR EPILEPSY."

To the Editors of THE LANCET.

SIRS,—*Apropos* of an annotation in your issue of to-day's date upon trephining for epilepsy, allow me to mention a case I had in my practice six years ago.

A boy twelve years of age was brought to me suffering from "fits." He had been struck with a stone on the forehead four years previously. I found on examination something hard, but movable, under the cicatrix on the forehead. The mother informed me that previously to his "fits" there was a sharp pain felt in the spot. I had him admitted to our cottage hospital, and then, on cutting down upon the hard substance, found a piece of slate firmly embedded in the tissues. This I removed by excising the surrounding tissues widely. The boy was under observation for twelve months, during which time there were no further attacks.

I am, Sirs, yours faithfully,

Hawick, N.B., April 30th, 1892. JOHN R. HAMILTON, M.D.

NEWSPAPER PUFFS OF MEDICAL MEN.

THE blending of domestic history and professional achievement in the following paragraph from *Truth* is very characteristic of the newspaper puff. We have the best reason for knowing that the subject of it disapproves of it as much as any of our readers can do.

> "Mr. Dormer, who was so seriously injured some three weeks back whilst riding the Duke of Hamilton's mare Miss Chippendale at Sandown Park, has made a most miraculously rapid recovery, and is, happily, now almost himself again. The operation of removing one of Mr. Dormer's eyes was performed by Dr. Higgins, who has come very much to the front in recent years. Dr. Higgins married some years ago Miss Greenwood, a niece of Mrs. John Towneley."

Mr. J. Weller.—Our sources of information were the *Essex Telegraph* and the *Essex Standard*, the names of which were given in the paragraph of which our correspondent complains. We may again point out that we did not impute blame to Mr. Weller, whose disclaimer we gladly inserted, but to injudicious friends, who no doubt imagined that laudatory paragraphs in the lay press are of service to medical men, little recking that but harm can come of such a mistaken procedure.

Mr. A. E. Huxtable, M.R.C.S., is thanked for his communication. We think, however, the newspaper paragraph unworthy of notice.

Argus.—Yes. Messrs. Eyre and Spottiswoode.

PUBLIC VACCINATORS AND BOARDS OF GUARDIANS.

To the Editors of THE LANCET.

SIRS,—Having seen in THE LANCET of April 30th (p. 991) an account of the behaviour of the Watford Board of Guardians towards a public vaccinator, I thought my experience in a similar case might be of interest to your readers, as it differs in the treatment received.

I reported two cases to the Tisbury Board of Guardians last Thursday where the mothers refused to allow me to take any lymph from the children's arms. The guardians without any hesitation said they would take notice of the cases, and instructed the clerk to prosecute, the summons to be heard at the next sitting of magistrates, which is Thursday, May 5th.—I am, Sirs, yours faithfully,

GEO. P. LONGMAN,
Public Vaccinator, Donhead District,
May 2nd, 1892. Tisbury Union.

ANTI-VACCINATIONISTS AT GUILDFORD.

THE defeated anti-vaccinationists of Guildford are losing their temper, as they are evidently losing the game. The reappearance of small-pox in the country, and the forebodings that in public opinion and in the estimation of the Royal Commission the protective power of vaccination holds its unique ground, explain this mood, though they do not excuse it. A writer in the *Surrey Advertiser* calls the Commission a packed Commission, and says guardians ought to—not administer the law of the country, but "carry out the views of those that elect them." Government by boards of guardians is a truly imperial idea. But even so, in Guildford common-sense seems to prevail.

Dolores Fleischmann.—We do not know the work in question.

THE TREATMENT OF DIABETES.

To the Editors of THE LANCET.

SIRS,—A daughter of mine, aged twenty-five, who previously had enjoyed robust health, about six months ago showed signs of diabetes. The usual treatment of codeia with nux vomica and the gluten bread speedily reduced the sugar. But although the usual diet is still strictly enforced, the sugar has reappeared, the specific gravity of the urine having risen from 1019 to 1036. Her weight has, however, not decreased since the disease was first noticed. No member of the family has been known to suffer from the disease previously. Can any of your numerous correspondents suggest any further treatment?

I remain, Sirs, yours truly,

Surrey-square, S.E., May 3rd, 1892. W. RUMBOLL, M.R.C.S., L.S.A.

ALLEGED SCARCITY OF MEDICAL MEN IN NEW ZEALAND.

IT is reassuring to read that there is one place where there is not an excess of medical practitioners. It is said that in spite of a guarantee of £100 by the Government, and of £200 additional by the settlers in the east coast district of the North Island of New Zealand, a qualified man cannot be found. The climate, too, is said to be pleasant. All the same, we should not advise a rush thither without further inquiry.

A DISCLAIMER.

To the Editors of THE LANCET.

SIRS,—I have this morning had my attention called to a paragraph in your issue of the 30th ult. on "Advertising through Hospitals," and at once write to disclaim all responsibility in the matter. The advertisement referred to was ordered to be inserted by the secretary of the hospital without any previous intimation to or consultation with me.

I am, Sirs, yours faithfully,

Birmingham, May 3rd, 1892. F. MARSH.

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RESIGNATION OF THE BEDELL OF THE ROYAL COLLEGE OF PHYSICIANS.

WITH the resignation of Mr. Gurner of his appointment of bedell of the Royal College of Physicians a familiar landmark of the College passes away. Mr. Gurner has served the College during a period of twenty years, and he is therefore well known alike to Fellows, Members, and Licentiates of the College. The office of bedell carries with it certain grave responsibilities, as may be inferred from the fact that he is required to provide heavy securities for his faithful care of all the property and goods and chattels of the College entrusted to him. He has to issue all notices and summonses relating to the various meetings of the College, and to act as secretary under the direction of the registrar. At meetings of the College he has to carry the mace, and he has to be in attendance at all lectures delivered in the College. He also has authority over the entire household, and has to direct, superintend, and be responsible for the proper performance of the several duties of each member of the household. These manifold duties Mr. Gurner has fulfilled with such regularity that his resignation will cause a blank in the meetings of the College. It is to be hoped that the Finance Committee, to whom the question of a pension has been referred, may see their way so to recognise Mr. Gurner's services as to place him beyond anxiety in his advancing years.

Senator.—A select committee of the Cape House of Assembly was appointed on July 25th, 1883, "To inquire into and report upon the spread of leprosy at the Cape." A Leprosy Repression Act was passed by the Cape House of Assembly in 1884.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir James Crichton-Browne; Messrs. Blondeau et Cie., London; Dr. Fletcher Beach; Messrs. Broatch and Hall, Keswick; Messrs. J. Ball and Sons; Mr. Benedict, Chelsea; Dr. Barnard, Alderney; Messrs. Barker and Son; Mr. Birchall, Liverpool; Mr. T. Bell, Lancaster; Messrs. Cox and Co., Brighton; Dr. C. P. Coombs, Somerset; Messrs. Clay and Son; Mr. Cathrae, Newcastle-on-Tyne; Messrs. Crossley, Moir, and Sons, London; Dr. S. L. Clift, Bournemouth; Mr. Chas. B. Christie, Edinburgh; Dr. Campbell, Carlisle; Messrs. Crosby Lockwood and Sons; Dr. Dowse, London; Mr. Duffus, Bournemouth; Dr. J. Walker Downie, Glasgow; Mr. L. B. Diplock, Chiswick; Messrs. Davies and Co., London; Mr. Downer, Birkenhead; Mr. F. J. Davies, Newport, Mon.; Mr. Draper, Huddersfield; Dr. W. Elder, Leith; Mr. Fogarty, London; Mr. E. J. Figg; Mr. J. M. Finzi; Mr. H. R. Foquett, Ilfracombe; Mr. E. F. Grün, Putney; Mr. Griffiths, Bristol; Dr. Grierson Gledhill, London; Dr. M. Granville, London; Messrs. Godfrey and Cooke, London; Mr. W. Gregson, Southend; Messrs. C. Griffin and Co.; Mr. Thos. Gloster, Walsall; Dr. Griffith, Manchester; Mr. A. G. Huxtable, Malmesbury; Dr. Hyde, Buxton; Dr. A. Harkin, Belfast; Dr. Hime, Bradford; Mr. Hornibrook, London; Mr. Jenkins, Bungay; Mr. Keely, Nottingham; Mr. Kneebone, Bedford; Mr. Laban, West Bromwich; Dr. Lawton, Poole; Dr. Little, London; Messrs. Lee and Nightingale, Liverpool; Dr. Reg. H. Lucy, Plymouth; Messrs. Munton and Morris, London; Mr. Mosse, London; Dr. Murray, Swinburne Castle, Northumberland; Dr. J. Macpherson, Larbert; Dr. Maclauchlan, Edgbaston; Dr. Neatby, Chingford; Messrs. Oliver and Boyd; Mr. R. O'Callaghan, Carlow; Mr. Preston, London; Dr. G. H. Philipson, Newcastle; Mr. Pearson, London; Dr. F. A. Purcell; Dr. J. Inglis Parsons; Mr. C. Puzey, Liverpool; Mr. O. Pemberton, Birmingham; Dr. B. W. Richardson; Mr. A. Rajasingham, Aberdeen; Dr. James A. Rigby, Preston; Mr. Rowland, Stockport; Messrs. Rowntree and Co., York; Mr. Reid, Rotherham; Mr. Sell; Messrs. W. H. Smith and Son, Manchester; Messrs. Stern, London; Messrs. Smith, Elder, and Co., London; Mr. Smith, Westgate-on-Sea; Messrs. G. Street and Co., London; Dr. G. A. Sutherland; Mr. A. C. Shoppee; Messrs. Shelley and Co.; Mr. H. A. Schlesinger; Mr. Philip Skene; Messrs. S Smith and Co., Bow; Mr. Taberner, Wigan; Rev. A. Tooth; Mr. Lawson Tait; Dr. A. S. Tindal, Glasgow; Mr. Spencer Todd; Messrs. J. and T. Usher, Bristol; Mr. Vickers, London; Messrs. Wright, Layman, and Umney, Southport; Mr. Wood, Leicester; Mr. J. Weller; Dr. Wynn Westcott; Mr. Williamson, Lincoln; Mr. Walsh, Baralem; Dr. Roger Williams, Preston; Mr. Wand; Mr. Wilson, Dublin; Mr. Walter L. Woolcombe, Plymouth; Alpha, Yorkshire; G. G., Pembrey; Sanitary Wood Wool Co.; Onyx; M.D.; Surgeon, Bristol; Lapis; Manager, *Durham Advertiser;* Presto, London; Cyclops; Pensmett; Reuter's Telegram Co., London; S. C. S., Ealing; Burrow's Drug Stores, London.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. T. Jones, Bridgend; Mr. Wheeler, Manchester; Messrs. Whitworth and Stuart, Manchester; Mr. Piggott, Cambridge; Messrs. Wright and Co., Bristol; Dr. Wittington, Yorks; Messrs. Fletcher, Fletcher, and Co., London; Mr. Ideson, Colne; Mr. Brookes, Salop; Messrs. Hardy and Co., Manchester; Mr. King-Lewis, Devon; Messrs. Hooper and Co., London; Dr. Humphreys, Montgomery; Messrs. Savory and Moore, London; Mrs. Tyte, Minchinhampton; Messrs. Margrave Bros., Llanelly; Mr. Knight, Northampton; Dr. Williams, Tottenham; Mr. Evans, Llanberis; Mr. Elliott, Strabane; Dr. Redwood, Rhymney; Mr. Brew, Kerry; Mr. Fiske, Norfolk; Mr. Eyre, Eastwood; Dr. Owen, Doncaster; Mr. Thin, Edinburgh; Mr. Owen, Llanidloes; Mr. Maxwell, Banbury; Mr. Hannay, Grasmere; Mr. Keay, Eastbourne; Mr. Norman, Ashburton; Mr. Agar, Peterborough; Mr. Millendorp, Groningen; Mr. Utting, Liverpool; Mr. Brocklesby, Grimsby; Mr. Williams, Oxford; Mr. Hardy, Huntley; Mr. Ralph, Walthamstow; Mr. Lloyd, Llanarthney; Messrs. Brown, Gould, and Co., London; Mr. Lucas, Cambs.; Mr. Mainwaring; Dr. Nevin, West Auckland; Dr. Sykes, Barnsley; Mr. Ruch; Mr. Joyce, Rhondda Valley; Mr. McCall, Yorks; Mr. Breach, Newbury; Dr. Nicholls, Bury St. Edmunds; Miss Walker, London; Dr. Bellis, London; Mr. Hall, Edinburgh; Mr. Heywood, Manchester; Mrs. Turner, Finsbury-park; Dr. Thomson, Norwich; Mr. Hounell, Bournemouth; Spes; B. M., London; Cash, London; Medicus, Yorks; Secretary, Salford Royal Hospital; Companion, Cheshire; Medicus, Strand; Victoria Hospital, Folkestone; Ergotine, London; Sextus, London; Military Equipment Stores, London; Hall, Malvern; Secretary, Royal Albert Hospital, Devonport; Graduate, London; Maltine Manufacturing Co., Bloomsbury; P., Leeds; F. L. M., London; Secretary, Victoria Hospital for Children, Chelsea; Vicar, Burton-on-Trent; Medicus, Manchester; N. E. W., London; Appleby, London; B., Barrow-in-Furness; Alpha, Leeds; Veritas, London; Delta, London; F. H. O., London; Proprietress, Winchelsea; H., Worthing; Tutor, Newcastle-on-Tyne; Kappa, London; Dr. O., London; Mrs. F., Edinburgh; Medicus, Bedford; Fellowship, London; Dux; Invalid, London; W. L.; E. F.; D. H., Bath; M.B.; Shaftesbury; L. M.

NEWSPAPERS.—*South Wales Echo, Scottish Leader, Sussex Daily News, Bristol Mercury, The World (New York), Leeds Mercury, Observer (South Australia), Daily News, Star (Auckland, N.Z.), Western Daily Mercury, South Wales Daily News, Leicester Daily Post, Scotsman, Law Journal, Health, Evening Express (Liverpool), Argus (Brighton), Le Temps (Paris), Sanitary Record, Reading Mercury, Windsor and Eton Gazette, Surrey Advertiser, Dundee Advertiser, Radical Review, Local Government Chronicle, City Press, Weekly Free Press and Aberdeen Herald, Liverpool Daily Post, Mining Journal, Hertfordshire Mercury, Guy's Hospital Gazette, Windsor and Eton Express, Toronto Mail, Architect, Eastern Morning News, Bombay Gazette, Builder, Metropolitan, Montreal Gazette, Manchester Guardian, Royal Cornwall Gazette, West Middlesex Advertiser, Oban Times, Insurance Record, South Shields Gazette, Bayswater Chronicle, Essex Weekly News, Midland Evening News, Denbighshire Free Press, Public Health, Carlisle Journal, Citizen, &c.*, have been received.

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The "Tabloids" of Compressed Drugs in accurately divided doses, greatly lessen the risk of error by nurses and patients, and afford an unchangeable and acceptable form for administration.

Pure drugs are always cheapest in the end. Those who deceive by imitating labels and packages are also capable ubstituting impure drugs.

HYPODERMIC "TABLOIDS" (prepared by BURROUGHS, WELLCOME, & CO.).

The Hypodermic "Tabloids" are soluble, of uniform activity, and keep perfectly. In solution, whether prepared with an antiseptic or not, most of the active principles quickly undergo change. All the alkaloids and glucosides are perfectly preserved in the "Tabloids," and may be quickly dissolved as required.



THE LANCET reports that "*they are readily soluble, and not at all irritating.*" They present the advantages that the dose is always accurate, the active principle unchangeable, and that they are compact and perfectly soluble.

New formulæ are being constantly added to the list.

Put up in tubes, each containing 20 "Tabloids," at 12s. per dozen tubes, with the exception of Nos. 1, 7, 20, 21, 31, 32, 33, 40, 41, 42, 43, 48, 53, 54, and 56, which contain 12 "Tabloids."

B., W., & CO. HYPODERMIC "TABLOID" POCKET CASES.

Equipped with a No. 7 B., W., & Co. Hypodermic "Tabloid" Pocket Case (15s.), the Physician has a more complete armamentarium for procedure in emergencies than is elsewhere procurable. This is the most complete and convenient Hypodermic "Tabloid" Pocket Case ever introduced, and has been adopted by the leading physicians throughout the world, and is used on the principal steamships under requirement of the new medical regulations of the Board of Trade.



No 7 (B., W., & Co.) Hypodermic "Tabloid" Pocket Case, arranged to *contain* 12 Tubes of the HYPODERMIC "TABLOIDS," Hypodermic Syringe, with 2 Needles, and Mortar and Pestle for crushing the "Tabloids," 5s. each to the Profession.

The same Case, *fitted complete*, and fitted with 12 Tubes of the Hypodermic "Tabloids," selected from the list, 15s. each to the Profession.

"TABLOIDS" OF COCAINE.

We have long made a very special feature of Cocaine, and enjoy exceptional facilities for supplying a superior product at moderate prices. The insoluble products of the market have, from time to time, caused inconvenience to the profession, and the disappointing results sometimes obtained were partly due to unreliable preparations of the drug and partly to their having undergone a change in solution.

The "Tabloids" of Cocaine dissolve almost instantaneously and remove all possibilities of disappointment, for the Cocaine in them is the purest, the most active, and most reliable manufactured. They constitute the best and most convenient form for hypodermic medication or for the preparation of solutions. Furthermore, they present the advantages that the dose is always accurate and the active principle unchangeable.

"Tabloids" of Cocaine are supplied to the Profession in Bottles of 25 at 2s. 6d. each.

LIST OF "TABLOIDS" PREPARED BY BURROUGHS, WELLCOME, & CO.

Aconite Tinct., 1 min.
Aloin, 1-10 gr.
Ammon. Bromide, 5 and 10 gr.
Ammon. Chloride, 3, 5, and 10 gr.
Ammon. Chloride with Borax.
Antacid (*Soda Bicarb., Potass. Bicarb., Magnes. Carb., aa 2 gr. & Sodii Chlorid., 3 gr.*)
*Anti-Constipation (*Aloin, 1-5 gr.; Belladonna Ext., 1-8 gr.; Strych., 1-60 gr.; Ipecac., 1-16 gr.*)
Antifebrin, 2 gr.
Antimony Tartrate, 1-50 gr.
Antipyrin, 5 gr.
Apomorphine Mur., 1-50 gr.
Arsenious Acid, 1-100 and 1-50 gr.
Atropine Sulph., 1-100 gr.
Belladonna Tinct., 1 min.
Bismuth Subnitrate, 5 and 10 gr.
Blue Pill, 3 gr.
Borax, 5 gr.
Caffeine Citrate, 2 gr.
*Calcium Sulph., 1-10 gr.
Calomel, 1-10, ½, and 1 gr.
Capsicum Tinct., 1 min.
*Cascara Sagrada Ext., 2 gr.
*Cascara Comp. (*Cascara Dry Ext., 1 gr.; Euonymin, ¼ gr.; Nux Vomica Ext., 1-16 gr.; Hyoscyamus Dry Ext., 1-3 gr.*)
*Cathartic Comp., U. S. P. (*Ext. Coloc. Co. Pulv., 1 1-3 gr.; Ext. Jalapæ Pulv., 1 gr.; Hyd. Subchlor., 1 gr.; Cambogiæ Pulv., ½ gr.*)
Charcoal, 5 gr.
Chloralamid., 5 gr.
Chloral Hydrate, 5 and 10 gr.
Cocaine Mur., 1 gr. (Voice).
Cocaine with Potash and Borax
Cretæ Aromat. cum Opio Pulv., 5 gr. (Aromatic Confection with Opium.)
Dialysed Iron, 10 min.
Digitalis Tinct., 1 min.
Digitalin, 1-100 gr.
Diuretin-"Knoll," 5 gr.
Dover Powder, ½ and 5 gr.
Euonymin Resin, 1-8 gr.
Exalgin, 2 gr.
Ferrum Redactum, 2 gr.
Gregory Powder (see Rhubarb Comp. Pulv.).
Hydrarg. cum cretâ, 1-3, ½, and 1 gr.
Hydrarg. Iod. Rub., 1-20 gr.
Hydrarg. Iod. Vir., 1-8 gr.
Hydrarg. Perchlor., 1-100 gr.
Hydrarg. Subchlor. (Calomel), 1-10, ½, and 1 gr.
*Hydrastis Comp. (*Hydrastis Mur., ½ gr.; Ergotin, ½ gr.; Cannabin Tannate, ½ gr.*)
Ichthyol, 2½ gr. (Powder).
Ipecac. and Opium, 5 gr. (Dover
Ipecac. Powder, 1-10 and 5 gr.
Iron and Arsenic Comp. (*Quinine Bisulph., 1 gr.; Iron Hypophosp., 2 gr.; Arsenic, Strychnine Sulph., aa 1-50 gr.*)
Iron and Quinine Cit., 3 gr.
*Laxative Vegetable (*Res. Podoph., Ext. Hyosc., Ext. Taraxac., aa 1-4 gr.; Ext. Coloc. Pulv., 1 gr.; Jalapæ Pulv., Res. Leptand., aa 1-2 gr. Ol. Menth. Pip.*)
Lithia Carbonate, 2 gr.
Lithia Co. (Dr. Lane's formula).
Manganese Dioxide, 2 gr.
Morphia Sulph., 1-100, 1-20, and 1-8 gr.
Naso-pharyngeal (*Sodium Chlorid., Borax, Boric Acid, Benzoic Acid, Menthol, Thymol, Ol. Gaultheriæ, Cocaine Mur.*)
Nitro-glycerine, 1-100 gr. (see also Trinitrine).
Nux Vomica Tinct., 1 min.
Opium Tinct. (Laudanum), 2 min.
Papain, 2 gr. (Dr. Finkler & Co.)
Pepsin (Fairchild).
Pepsin, Saccharated, 5 gr.
Peptonic (*Pepsin, Zymine, Lactophosph. Lime, p. æq.*)
Phenacetin, 5 gr.
Pilocarpin Mur., 1-20 gr.
Podophyllin Resin, ¼ gr.
Potass Bicarb., 5 gr.
Potass Bromide, 5 and 10 gr.
Potass Chlorate, 5 gr.
Potass Chlorate with Borax.
Potass Iodide, 5 gr.
Potass Nit. (Sal Prunella), 5 gr.
Potass Permanganate, 1 and 2 gr
Quinine, 1-10 and ¼ gr.
*Quinine (Soluble), 1, 2, 3, and 5 gr.
Reduced Iron, 2 gr.
Rhubarb, 3 gr.
*Rhubarb Comp. (Pill), 3 gr. (*Rhei. Pulv. 1½; Aloe Soc. Pulv., 1; Saponis Pulv., 5-8; Myrrhæ Pulv., 5-8 parts; Ol. Menth. Pip.*)
Rhubarb Comp. Pulv. (Gregory Powd.), 5 gr.
Rhubarb and Soda, 5 gr. (*Rhei., 3; Sodæ Bicarb., 2; Zingiber, ½ parts.*)
Saccharin, ¼ gr.
Salicin, 5 gr.
Salol, 5 gr.
Santonin, ¼ gr.
Soda Bicarbonate, 5 gr.
Soda-Mint, or Neutralising "Tabloids" (*Soda Bicarb., 4 gr.; Ammon. Carb., ½ gr.; Ol. Menth. Pip., ½ gr.*)
Soda Salicylate, 3 and 5 gr.
Strophanthus (2 minims of Tinct. in each).
Sulphur Comp. (*Sulph. Præcip., 5 gr.; Potass. Bitart., 1 gr.*)
Tannin, 2½ gr.
Test Tabloids (Fehling's).
Thirst (Effervescent).
Tonic Comp. (*Iron Pyrophos., 2 gr. Quinine Bisulph., 1 gr.; Strychnine Sulph., 1-100 gr.*) (and 1-50 gr.
Trinitrine (Nitro-glycerine), 1-100
Trinitrine and Amyl Nitrite.
Trinitrine Comp. (*Trinitrine, 1-100 gr.; Nitrite of Amyl, ½ gr.; Capsicum, 1-50 gr.; Menthol, 1-50 gr.*)
Urethane, 5 gr.
Voice (Potash, Borax, & Cocaine).
Warburg Tincture, 20 min. in each.
Zinc Sulphate, 1 gr.
Zinc Sulpho-carbolate, 2 gr.
Zymine (Pancreatin).
Zymine Comp. "Tabloids" (*Zymine, 2 gr.; Bismuth Subnit., 2 gr.; Powd. Ipecac., 1-10 gr.*)

Those "Tabloids" marked with an asterisk are coated with a perfectly soluble coating of pure white sugar. These coated "Tabloids" WILL ONLY BE DISPENSED BY CHEMISTS WHEN SPECIALLY INDICATED BY THE PHYSICIAN.

BURROUGHS, WELLCOME, & CO., SNOW HILL BUILDINGS, LONDON, E.C.,
Will be happy to send Price Lists and Samples of Soluble "TABLOIDS" to Medical Men post free on request.

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A BOON TO DYSPEPTICS.

Bynin — LIQUID MALT.

This liquid preparation of **Malt Extract,** so favourably known to the medical profession for many years, while possessing all the digestive and nutritive powers of the ordinary thick extract, is so much pleasanter to handle, and easier to take, that by many persons it is infinitely preferred to the older form. The activity of the Diastase upon which the value of Malt Extract chiefly depends is very pronounced—in fact, it is greater than in the thick extract, owing to the fact that it has been subjected to heat for a shorter time. In addition to Diastase, Maltose and Dextrine are largely present, together with Phosphates and a certain amount of Nitrogenous material, all possessing considerable value as articles of diet.

CHIEF USES.—Malt Extract has been most largely prescribed in wasting diseases, and its use has been almost invariably followed by very good results, emaciation being stopped and the patient putting on flesh. It is most probable that this result is due partly to improved digestion, from the assistance given by the malt diastase to the diastase of the Salivary and Pancreatic Juices, and partly to the fact of Nitrogenous tissue-waste being saved by the Carbohydrates.

The presence of diastase clearly points to the use of Bynin in certain forms of dyspepsia due to weak digestion, and in such cases the practical experience of many medical men has abundantly proved the great value of this preparation.

For **Children** Bynin is especially useful, as its pleasant taste renders it very palatable, and digestive disorders being the commonest found amongst children, such a powerful aid to digestion and nutrition cannot fail to be of the utmost service. On this point we have abundant testimony of the most varied description.

For **Women** whilst suckling, Bynin has been given in milk, in place of Stout or Porter, with the best results, forming, as it does, a highly nutritive and easily digested food, which increases the flow and enriches the quality of the milk; and, what is of great importance, renders it more assimilable and easy of digestion by the infant.

METHOD OF ADMINISTRATION.—The *best* way to take Bynin is *during the meal.* It may be sipped slowly either by itself, or mixed with water, wine, milk, lemonade, &c., or may be taken stirred up with gruel or farinaceous puddings. It is better taken in this way than after the meal, when its action is much hampered by the acid secretion of the stomach. Nursing mothers should take one tablespoonful, in half a tumbler of new milk, three times a day *between* meals.

☞ **One FLUID ounce of Bynin represents one ounce by WEIGHT of Allen & Hanburys' ordinary thick MALT EXTRACT, which is sold in wide-mouthed jars, similar to their Bynol jars, at (retail) 1s. 6d. and 2s. 9d. each.**

THE LANCET writes: "We find that one ounce of Bynin will digest perfectly one pound of starch. This is a most favourable result, and, coupled with the fluidity and pleasant flavour, renders this preparation a most valuable one."

In Bottles at (Retail) 1s. 9d. and 3s. each; 16s. and 27s. per dozen to the Profession.

SAMPLES SENT TO MEDICAL MEN POST FREE ON APPLICATION.

ALLEN & HANBURYS, Plough Court, Lombard St., LONDON.

West End House: 7, VERE ST., CAVENDISH SQUARE. *Laboratories and Warehouse:* BETHNAL GREEN, LONDON.
Cod-liver Oil Factories: LONGVA AND KJERSTAD, NORWAY. *Australian Agency:* 484, COLLINS STREET, MELBOURNE.

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Lecture
ON
THE CONCENTRATION OF POPULATION IN CITIES.

Delivered at University College, London, on Feb. 24th, 1892.

BY G. V. POORE, M.D., F.R.C.P.,

GENTLEMEN,—The steadily increasing tendency of population to leave the country and concentrate in towns is a fact which does not admit of a doubt. Of the twenty-nine millions of inhabitants of England and Wales, about 18,500,000 are classified by the Registrar-General as belonging to town districts and about 10,500,000 as belonging to country districts. In 1801 London contained about one-eleventh of the entire population of England and Wales, whereas according to the last census it was found to contain about one-seventh of the entire population. Dr. Gould of Washington, in a paper read before the late International Congress of Hygiene and Demography, stated that a short half century ago the urban population of the United States was 3·5 per cent. of the whole, while to-day the urban population constitutes 29 per cent. of the whole. The American city, says Dr. Gould, "creates itself with appalling suddenness," and it is probable that Chicago, with its 1,200,000 inhabitants, having doubled its population in the last ten years, may be said in this particular matter to have beaten the record. It must not be forgotten, however, that London has more than doubled its population in the last half century; that Cardiff has risen from 80,000 to 130,000 inhabitants in the last ten years; that Barrow-in-Furness, Eastbourne, Bournemouth, West Ham, and Croydon are all instances of towns (and other instances could easily be given) which have sprung into existence within the memory of many of those whom I am addressing. It is important to bear these facts in mind, as showing that the English cities, equally with those in America, create themselves with appalling suddenness; that we do not merely inherit our cities with their various shortcomings, but that we create them for ourselves, and are directly and solely answerable for their good or ill construction. The cause of this concentration of population is the desire for business, the wish to get money easily and quickly, and to spend it advantageously. A man who trades in a centre of express mail services, telegraphs, and telephones, has all the world before him if he knows how to make use of it. There is consequently a rush for such favoured centres, and it has come about that steam and electricity, which annihilate time and space, instead of enabling us to live further apart from each other, have produced a directly opposite effect. The dealer, be he wholesale or retail, likes to be surrounded by a crowd of potential customers, rather than be dependent on a few; and the artisan naturally turns to great industrial centres as offering the readiest market for his labour, and often finds out too late that the higher wages of the town are more than counterbalanced by the extra cost of living. The crowds of independent and idle persons who settle in the towns do so because they find a greater variety of methods of killing time, or, as they prefer to put it, because the state of civilisation is greater in the towns than in the country. But what is civilisation? A recent anonymous writer (the author of "Behind the Bungalow") speaks of this "half hatched civilisation of ours, which merely distracts our energies by multiplying our needs, and leaves us no better off than we were before we discovered them"; and we must all admit that there is a good deal of this kind of civilisation which passes current at the present day, and especially in cities, where a large proportion of the population are the slaves of inane conventionalities. Cities are the abodes of art, and art in all its forms is elevating; but it is a question whether the increasing difficulties which, especially in London, we encounter in the study and appreciation of nature, do not more than counterbalance the artistic advantages of the town. "Pictures, taste, Shakespeare, and the musical glasses" are not the only things worthy the attention of civilised man, and it is noteworthy that many of the leading spirits in all ages have turned from the artificial enjoyments of the town to the greater freedom and more natural pleasures of the country. It is said that our rural fellow subjects, having been forcibly educated to a pitch which enables them to study all the gay doings of the town, are beginning to find the country insufferably dull. The cause of dulness, however, is in ourselves and not in our surroundings. Our country friends must be taught that they have at hand one of the surest cures for dulness. Let them learn to study and appreciate the book of nature—that book which is always with us, ever open and inexhaustible—and dulness will become impossible.

The mind which has occupation to really interest it cannot be dull or weary, and the surest way to find interest in this life is productive labour. In the making of a pudding, the raising of crops, the writing of books, the practice of a profession, and in all the constructive arts, it is necessary to use the judgment; and it is this exercise of judgment which is the true complement of book-learning. The man who reads and who produces nothing is seldom capable of action, he becomes giddy with the opinions of others, and finds it impossible to have a fixed opinion of his own. In action and production the mere see-saw of criticism is of no use, we must make up our minds. We must really think, and the man who has learnt to think runs little risk of being dull. Those who have to cope with the uncertainties of nature are bound to exercise their judgment in a high degree. Unless the farmer be constantly thinking and looking ahead, and unless he bring (often unconsciously) a good deal of science to bear upon his practical work, he will have no chance of success. We are not to sit in judgment on such a one because he does not show the alacrity, sharpness, and power of repartee which are seen in the town dweller. The cockney and the yokel are educated in totally different schools, neither understands the other, and they have for each other a good deal of mutual contempt. It is difficult, however, to believe that he who can perform the varied duties of the farm, and who has been brought up in contact with a wide range of natural phenomena, is not the equal intellectually of the factory hand, who is the slave of a machine which thunders to and fro with brutal accuracy for ten hours at a stretch. Physically the country labourer is vastly superior to the town dweller, and be it remembered that mental power is mainly dependent on physical health.

One of the undoubted consequences of the concentration of population in towns is deterioration in physical health. The disease-rate and the death-rate are both higher in urban than in country districts. The difficulties of rearing children are much greater in towns than in the country, and the risk of faulty development in those which are reared is also greater. The undue concentration of population must tend towards the deterioration of our race, and there can be no doubt that the diminution of the evils of such concentration is a subject which demands very earnest attention. We all of us have to run more or less risk in earning our living. Some enter the army or navy, some go to tropical countries, some become file-grinders, hotel servants, or doctors, and it is not, perhaps, desirable that the bread-winners should look too narrowly at the risks connected with their daily work. Every prudent man, however, will endeavour to secure vigorous health for his wife and children; and, whenever it can be avoided, these should not be called upon to run unnecessary risks.

The Registrar-General's returns show that for every 100 deaths in country districts there are about 120 deaths in towns, and that the death-rate of children under five, per 1000 living at that age was (in the year 1890) 66·5 in Lancashire and 65·2 in London, as against 30·3 in Dorsetshire, 31·1 in Wiltshire, 31·8 in Berkshire, 31·2 in Rutlandshire, 35·8 in Herefordshire, 35·3 in Shropshire, 35·8 in Hampshire, 36·4 in Oxfordshire, 37·5 in Bedfordshire, 36·0 in Sussex, and 39·3 in Somersetshire; and, although the infant mortality was higher in the other counties having a more urban character, in none of them (except Lancashire and London) did it exceed 57·5. It is thus evident that the risk to children under five is twice as great in London and Lancashire as it is in some of the rural districts. How many children are crippled for life by infantile diseases contracted in towns we have no means of knowing. Death-rates are nowadays the subject of perennial paragraphs in the newspapers, and they are systematically used for puffing localities, and are beginning to form a recognised feature in auctioneers' advertisements.

Before accepting the death-rate as evidence of the healthiness of a locality we must take several facts into consideration. 1. The mobility of the population in the present day is greater than it ever has been previously, and this must have a vitiating effect upon the value of the death-rate, for it is evident to all of us that a man who has contracted a fatal disease, let us say, in London may die at Croydon, Brighton, the Riviera, Cairo, or elsewhere. This fact must largely lessen the trustworthiness of local death-rates, although it does not probably appreciably affect the trustworthiness of the death-rate for the country as a whole. 2. Again, the death-rate of a city is of little value unless correction be made for abnormal age distribution. London, especially the central parts of it, contains a great deficiency of persons at the extreme (and most vulnerable) periods of life, and this of course helps to keep the death-rate lower than it would be if it contained its due proportion of tender infants and feeble old persons. The population of central London, it must be remembered, is largely composed of selected adults imported from the country. 3. Lastly, let me say that the death-rate of London is kept down very largely by a process of dilution. If any comparison is to be made between the London of to-day and the London of former times, we must be careful to select identical areas. As it is, the high death-rate of the centre is diluted by the low death-rates of the outskirts, and the healthiness of Hampstead, Lewisham, and other outlying districts is used to conceal the condition of the centre.

For the sake of my argument I have divided the population of London into three portions as nearly equal as the very irregular shape of the registration districts will permit.

1. The outer portion, consisting of the outlying districts of Hammersmith, Fulham, Hampstead, Islington, Hackney, Poplar, Battersea, Wandsworth, Camberwell, Lewisham, and Plumstead, and containing 1,676,475 inhabitants according to the last census.

2. Districts holding a middle position—viz., Kensington, Chelsea, Paddington, St. George's (Hanover-square), Marylebone, St. Pancras, Lambeth, Greenwich, and Woolwich, and containing a population of 1,317,078 inhabitants.

3. The central districts, which might be spoken of as London proper. These include, in addition to the "central districts" of the Registrar-General, Westminster, Shoreditch, Bethnal Green, Whitechapel, St. George's-in-the-East, Stepney, Mile-end, Southwark, Newington, Bermondsey, and Rotherhithe. These districts form a compact city in a ring fence, and contain 1,217,503 inhabitants, a population twice as big as that of any other city in the country. I have taken the deaths of the various districts as published in the corrected quarterly tables of the Registrar-General, and from them I have calculated death-rates for these three divisions of London for every quarter during the last two years.

London Population 4,211,056.	1890. 1st Qtr.	1890. 2nd Qtr.	1890. 3rd Qtr.	1890. 4th Qtr.	1891. 1st Qtr.	1891. 2nd Qtr.	1891. 3rd Qtr.	1891. 4th Qtr.
Outlying Districts Population 1,676,475.	20·9	15·4	16·5	21	20·4	20·2	14·1	17·6
Middle Districts Population 1,317,078.	24·3	17·6	17·6	22	24·3	23·3	16·8	19·7
Central Districts Population 1,217,503.	29·6	21	22·9	28·8	28	27·9	20 7	24·9 *

* The deaths in the first quarter of 1892 give death-rates of 25·7, 27·4, and 32·0 for the outer, middle, and central districts respectively.

If we take the yearly rates instead of the quarterly we have the following results:—

	1890.	1891.
Outlying Districts.....	18·4 per 1000	18·1 per 1000
Middle Districts	20·4 ,,	21·0 ,,
Central Districts	25·6 ,,	25·4 ,,

From the above tables it is evident that when we boast of London as a healthy city we must exclude the central districts, or London proper, with its 1,200,000 inhabitants. Indeed, the death-rate of London proper was extremely high in 1890 and 1891, but, large as the figures are, they do not show the full state of the case, because no correction has been made for age distribution and mobility, which is essential before we can compare them with the rates for the rest of the country. Nothing can show better than these figures the effect of overcrowding on death-rate. Not only are the central districts the most crowded and the poorest, but they are hemmed in on every side by the middle and outlying districts, so that fresh air can never reach them. As a result, we find the death-rates are some 40 per cent. higher than the rates for the outlying districts. In all seasons and under all conditions the uniformity of relation between the rates of the outlying and central districts is maintained. If we take the first quarter of 1890 and the second quarter of 1891, during both of which we had an epidemic of influenza, we find that the death-rate of the outlying districts was 20·9 and 20·4, while for the central districts it was 29·6 and 27·9. Or take the last quarter of 1890 and the first quarter of 1891, which were characterised by weather of great severity, we find that in the outlying districts the death-rate was 21 and 20·4, while in the central districts it was 28·8 and 28, notwithstanding the fact that the temperature of the central districts was certainly considerably higher than that of the outlying districts. If we take the periods when the climatic conditions are at their best, the same relationship in the figures is maintained. Thus for the third quarter of the two years the rates of the outlying districts were 16·5 and 14·1, while for the central districts they were 22·9 and 20 7.

Finally, let us take a period when the climatic conditions were at their worst, as during the fog of last Christmas, which commenced on Dec. 21st, and continued for parts of five days. During this fog the mean temperature of the air was 25° F.; the air was calm, with slight easterly currents, and saturated with moisture; ozone and sunshine absent. Under these circumstances the irritating products of combustion and the soot from thousands of chimneys remained suspended in the fog, as did also the effluvia from over 4 000,000 human beings and the varied impurities of a big city. The air was bitterly cold and irritating, and from the absence of wind could not be renewed, so that the citizens of London were very much in the condition of gold fish in a bowl whose water has not been renewed. The corrected average weekly number of deaths for the fortnight ending Jan. 2nd, 1892, was 3728, while the deaths which actually occurred were 5170, so that we have 1442 deaths actually caused by the fog. The death-rate for the whole of London for this fortnight was 32, the figures for the three areas being 29 for the outlying districts, 31·8 for the middle districts, and 38 for the central districts. This high death-rate for the central districts, which are the warmest, seems to show that it is not merely the coldness of the fog which raises the death-rates, but rather the impurities, mechanical, chemical, and infective, which it contains.

Bad as are the health conditions in the centre of London, they are eclipsed by those of New York. In the city of New York, which had a population of 1,600,000 in 1890, more than 1,200,000 of the inhabitants live in tenement houses. The density of population averages 65 persons to the acre, while in many of the wards it is over 200 to the acre, and in one ward it reached 559 persons to the acre. The average death-rate for the past ten years was over 26, and in the year 1890 the deaths exceeded the births by 980, and while there were 39,250 births in the year the authorities are jubilant because only 10,288 of the children born, or rather more than 26 per cent., died before they were a year old. The deaths in New York invariably exceed the births, so that the population is maintained and increased entirely by immigrants. The birth-rate is exceedingly low. Last year it was only 24, and that was a higher figure than had been reached in any of the thirty previous years. It must be remembered that New York has a magnificent water-supply and a very complete system of sewerage. As in London, there is apparently a very great deficiency of very young and very old inhabitants; and, as in London, it may be presumed that a very large number of those who fall ill retire from the city to die elsewhere. Notwithstanding the great activity of the sanitary officers, it is evident that the state of public health in New York is far from good, and that, owing mainly to the density of population, it is not a very wholesome place.

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The evils of overcrowding on space have been made more plain and comprehensible by the discoveries which have been made in the new science of bacteriology. When the public hears that a new microbe has been discovered in connexion with this or that disease, it says, "Now, surely, we shall have a cure." It may be well to point out that, hitherto, in no case has the discovery of a microbe led to the discovery of a cure; and the evidence that the study of the life-history of pathogenic microbes is likely to lead to the discovery of "cures" is, to say the least, not very strong. "Prevention," however, "is better than cure"; and it is clear that the study of the life-history of pathogenic microbes must precede all adequate measures for preventing the diseases which they cause.

It was the study of the life-history of the microbes which produce putrefaction which led Sir Joseph Lister to adopt the antiseptic treatment of wounds which has produced such grand results. The knowledge that cholera and typhoid poisons can live in water has led to great caution in the selection and protection of water-supplies, and I believe the time is not far distant when we shall regard the wilful mixing of excremental matters with water as, in a sense, an act of public suicide. Again, the knowledge that typhoid fever, diphtheria, and scarlet fever are often connected with the milk-supply has been the means of arresting many an epidemic. In short, the medical profession has no cause to feel ashamed of its recent progress in the direction of prevention of disease, which, as Sir William Jenner used forcibly to teach in this college, should be the great aim of a physician.

While certain diseases reach us *vid* water and food, there are others which come to us in the air we breathe, and it is well to bear in mind that it is in relation to air-borne diseases that overcrowding is especially dangerous. Whooping-cough, measles, scarlet fever, tubercle, typhus fever, small-pox, influenza, pneumonia, and plague, and, to a less extent typhoid fever, are among the diseases which are air borne, and the spread of which is, in a very obvious way, favoured by overcrowding. It is definitely known with regard to some, and may, I think, be safely inferred with regard to all the above-named diseases, that the carriers of the infection are particulate and alive. A sufferer from any one of these diseases is continually giving off infective particles, and the danger of the infection travelling to a second person depends (1) upon the distance of the second from the first; (2) the ease with which the infected air can be diluted with fresh air. Thus the danger caused by proximity to an infected person in the open air is comparatively slight, because the chance that the infective particles will be blown away by the wind is very great. When, however, the infected and the healthy come to live under the same roof, to occupy the same room, and, still more, the same bed, the risks of infection are enormously increased, because the air in the confined space gets very largely charged with infective particles and the healthy can hardly avoid taking in the infection, and that, too, in large quantities. Given the rate of movement of the air, the degree of proximity of the individuals, and the number of infective particles given off by the diseased person, and the risk of infection could be stated as a mathematical formula. There is good reason to believe, however, that the mere fact of overcrowding produces some change (possibly chemical) which greatly increases the risks of infection, apart from the mathematical factors above alluded to. Some of the facts connected with the recent epidemic of influenza bring out very clearly the increased danger of infection which results from overcrowding between walls and under a common roof.

Overcrowding is seen at its maximum in the forecastle of a ship after the men have "turned in," and the danger to all should any case of infective disease be present among them is well-known. The explosive outbursts of influenza which are liable to occur on board ship have been amongst the startling features of every epidemic. In the same way explosive outbursts of the disease have occurred in establishments where many persons have a common employment under a common roof, as witness the sudden occurrence of a thousand cases at the end of 1889 in the Magazins du Louvre at Paris, and a similar outburst at the General Post Office in January, 1890. A careful consideration of the whole of the facts of the epidemic of 1889-90 leads Dr. Parsons, in his report made to the Local Government Board, to conclude:[1] "8. That in public services and establishments persons employed together in large numbers in enclosed spaces have suffered in larger proportion than those employed few together or in the open air. 9. That in institutions in which the inmates are brought much into association the epidemic has more quickly attained its height, has prevailed more extensively and been sooner over than in those in which the inmates are more secluded from one another." The converse is also true, for Dr. Parsons states that those living away from the possibility of infection and in small groups such as light-house keepers and deep-sea fishermen enjoyed a remarkable immunity from the epidemic. It must be remembered that what is true of influenza is also true of other air-borne infections. It is known that whooping-cough and measles are prevalent and fatal very much in proportion to the density of population on a given area, and it has lately been shown that although the mortality in so-called model dwellings is below that of the working-class dwellings as a whole, the occurrence in them of infantile infectious diseases, including diphtheria, is distinctly above the average. This is not to be wondered at, for with a large number of persons under a common roof the risks of infection must be proportionate to the number of inhabitants.

The modern city is distinctly a modern invention; it had no counterpart in ancient times. The ancients crowded behind walls from fear of their enemies. The modern city has no walls and no need of them, and there does not seem to be the same necessity for overcrowding that there was in the ancient city. As a matter of fact, however, the modern city both here and in America exhibits a degree of overcrowding on space such, as I believe, has never existed in the history of the world. The main cause of the difference between the ancient and modern city is the possession *of water under pressure*. In ancient Rome an excellent supply of water flowed from the neighbouring hills along open aqueducts supported on arches, and it is probable that the greatest head of water to be found in ancient Rome was represented by the height of the aqueducts above the level of the ground. Most of the buildings in ancient Rome were what we should consider low. The dwelling-houses were rarely more than one storey, or at most two storeys, high, and it was only in public buildings—temples, baths, basilicas—that an attempt was made to carry the edifice to any great height. In mediæval cities, three-storeyed buildings represented the average maximum, for without water under pressure very high buildings were impracticable owing to the labour of carrying water to the upper storeys and the difficulty of removing refuse. Formerly a house was scarcely habitable unless it had a courtyard of some kind. This was essential for sanitary purposes—for a well and for the bestowal of refuse pending its removal by the scavenger; most of the decent houses in mediæval London had a considerable amount of curtilage, as may be seen by consulting the maps of Aggas, Rythe, Newcourt, and others. The steam engine and the cast iron water pipe have together created a new order of things. The steam engine gives us any head of water we desire, and the modern iron fittings are able to stand any pressure to which we may find it necessary to subject them. There is no longer any difficulty in taking water to the top storey of any house, however lofty; no longer any difficulty in washing the filth out of any dwelling-house, however big; there is no longer any absolute necessity of limiting the height of buildings; no longer need of any curtilage to a house, nor for any outlet other than a pipe. This, indeed, is magical. "My estate," says one, "has risen in value from £100 an acre to £5 a foot." "My water shares," says another, "pay me 12 per cent." "My mansions in the sky," says the builder, "have sold for double what they cost me." All the gas shareholders and those who have invested in electric supply companies join in the chorus of delight. This is, indeed, a civilising and wonderful age. Let us build a temple, and place in it a steam engine, an iron water pipe, and a hydraulic lift. Under these very money-making conditions it is not to be wondered at that the craze of the present time is for tenement houses, which are called model dwellings, flats, or mansions, according to the class for which they are intended. Whatever they may be called they are all of the same type, and they are calculated to trouble the soul of the sanitarian who knows the danger of overcrowding on space and under a common roof.

Let us hear what Edinburgh can teach us on this subject.

[1] See p. 101 of the Report on the Influenza.

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In a very excellent paper on the Hygiene and Demography of Edinburgh, which was communicated to the late Congress, and which is now published in the twelfth volume of the Transactions of the Congress,[2] I find (p. 66) the following passage:—"Edinburgh enjoyed for many years the unenviable notoriety of being subject to periodical outbursts of fever. These assumed in all cases the epidemic form, and entailed a large mortality among the citizens. ..... There can be no doubt that one main cause of these repeated outbreaks was the manner of housing the inhabitants which, copied from the French, consisted in piling tenement above tenement until a large overcrowded population was confined in a limited space, and could only communicate with the outer world by a narrow stair. ..... When infectious disease of any kind broke out in such circumstances, it spread with great rapidity, and quickly assumed the epidemic form." Tenement houses are common in Paris, where the overcrowding on space as a consequence is on an average twice as great as in London, and where the death-rate is considerably higher than in London. (In 1881 I find the death-rate was 28 per 1000 in Paris.) The condition of New York I have already alluded to. It is doubtless gratifying to national vanity to have a capital city composed of huge edifices which may be made to look palatial from the outside, but there is also no doubt that the comparatively low death-rate which London has hitherto enjoyed is to be attributed to the fact that as a rule each family has had a house of its own. It is strange that the craze for high buildings has reached its maximum in America, where cities have sprung into sudden existence on the boundless prairie, where space should be no object. The main causes of this seem to be hurry, avarice, an insane spirit of competition, and the difficulties connected with domestic service in a country where the citizens are more willing to slave for a machine than serve a mistress. Life in hotels and boarding-houses is more common in America than here, and coöperative housekeeping has reached a high stage of development. Water, warmth (by steam coils), gas, electricity, telephones, and hydraulic power are supplied to groups of houses from common centres. This is a convenient arrangement, but one which makes for the overcrowding of houses on space. Domestic architecture is in danger of becoming a lost art in cities where the inhabitants are content to be stored in human warehouses erected by engineers and as full of machinery as a factory. In the most modern city in the world (Chicago), the builders of which have had the opportunity of avoiding all the errors of the past, it is curious to note that the engineer architects have exceeded all previous efforts in the matter of high buildings and disgraceful overcrowding. The "Masonic Temple" in Chicago has twenty storeys and is 265 feet high, and is merely the latest and worst of many similar buildings in the city. In such a city the sewage difficulty is necessarily very great, but we learn that a special canal is to be constructed for its reception, and this is to discharge into the upper waters of the Mississippi! It seems astounding that such an outrage on their noblest river should be tolerated by the American people. The volume of the sewage may be as nothing when compared with the volume of the river into which it is to be discharged, but one would ask, Can this ingenious race, who like to be considered in the van of progress, do nothing better with the sewage of a great city than this? And are we to conclude that their hygiene is founded more on expediency and money getting than on any true scientific, economic, or moral principles? As regards the state of public health in Chicago, I can give a few figures which may help one to form an estimate of it. The following table, compiled from the official mortality returns, shows that for 1890 the death-rate was 18·2, and for 1891 22·2. I have not been able to make any correction for age distribution, but it seems highly probable that Chicago is largely peopled by vigorous adult immigrants who crowd into it in search of employment. The zymotic death-rate was 4·09 in 1890 and 5·61 in 1891, the latter figure being not far from double the zymotic death-rate of London in 1890. The death-rate from typhoid fever was 840 per 1,000,000 in 1890 and 1596 per 1,000,000 in 1891, the latter figure being nearly five times as great as the largest typhoid fever death-rate ever recorded in London. Croup and diphtheria last year killed 1087 per 1,000,000 in Chicago, which is a figure enormously in advance of any that have ever been recorded in London. These figures show with a vengeance that no amount of ingenious engineering can counteract the evils of overcrowding on space.

Death-rate per 1,000,000 living.

—	All causes.	Zymotic.	Diphtheria and croup.	Typhoid fever.	Tubercular affections.	Respiratory affections.	Violence.
Chicago, 1890	18,214	4090	1051	840	1859	3136	1069
Chicago, 1891	22,204	5610	1087	1596	1967	4089	1170
London, 1890	20,978	2896	330	144	2943	4910	719

The following account of Chicago, taken from a paper on the Columbian Exposition read before the Society of Arts in December last by Mr. James Dredge, seems to show that the modern American business city is admirably calculated to rob existence of its pleasures: "No description, in fact, would do justice to this city of 1,200,000 inhabitants, almost every one of whom appears endowed with preternatural activity; which owns a street eighteen miles in length, almost a dead level for the whole distance, and on which are houses twenty storeys high; whose traffic is as noisy as it is ceaseless, both on the smooth-running rope-worked railways and the ill-paved, jolting roads; where the roar of the locomotive and the scream of the lake steamer emphasise the fact that repose and silence are unknown, even in the dead of night; where a pall of smoke, the outpouring of a thousand factories and of ten thousand dwellings, reminds the Englishman of home. Picture all these things, and you can form some idea of Chicago, which has been raised in sixty years by the indomitable energy of Americans, to the rank of the sixth city of the world in point of population ..... Great as Chicago is, the period of her true greatness has yet to come. Its commencement will dawn when her inhabitants give themselves leisure to realise that the object of life is not that of incessant struggle; that the race is not always to the swift, but rather to those who understand the luxury and advantage of repose as well as of sustained effort. Real greatness does not depend on length of streets, nor height of houses, nor even on colossal fortunes; but rather on the wise application and equally wise conservation of energy and intellect. When Chicago ceases to be the city of perpetual haste, and adopts the pace which will be inevitably set for her by time, the names of her great workers will not be erased so early from the book of life, but will be preserved to give their beloved city many more years of really useful work. At present, I think there are no old men in Chicago, because they have no time to grow old; and giving themselves insufficient time for leisure, they have, as a necessary consequence, little opportunity for the higher culture which is born of leisure."

(To be concluded.)

[2] London: Eyre and Spottiswoode.

DISSECTING ANEURYSM OF THE THORACIC AND ABDOMINAL AORTA, THE INNOMINATE AND COMMON ILIAC ARTERIES.

BY THOMAS OLIVER, M.A., M.D., F.R.C.P.,
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IT is so seldom that one meets with such an excellent illustration of dissecting aneurysm as was furnished by the case subjoined that I venture to crave for it a place in the pages of THE LANCET. We all know the meaning of the term "aneurysm." The prefix "dissecting" is intended to convey information as to the relationship which exists between the blood tumour and the three walls of the vessel. When the innermost layer of a large vessel—say, the aorta—ruptures, blood penetrates into the chink and gradually pushes out the remaining coat or coats of the vessel, according as to whether the rupture has involved the inner two coats or only the innermost lining of that vessel. In dissecting aneurysm, however, it is not so much a localised bulging that occurs as a stripping off or separation of two of the three coats in the wall of the vessel from each other—

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either the internal from the middle coat, or the external from the middle, or the laminæ of the middle coat from each other; and to such an extent may this stripping off occur, both as regards the transverse and longitudinal axes of the vessel, that the aorta, for example, will seem on section as if it included another bloodvessel within itself. This is what, practically speaking, occurred in my case. The aorta included a smaller aorta within itself, composed of internal and middle layers of the normal wall of that vessel; and this not for one or two inches only, but throughout nearly its whole extent, from the commencement of the descending part of the arch of the aorta, down through the abdominal aorta to a point just above the division of that vessel into the iliac arteries, in which vessels again the dissecting aneurysm reappeared. The same tendency to dissecting aneurysm was present in other parts of the body, so that nearly all the large bloodvessels may be regarded as having been implicated in a morbid process, which was so general as perhaps to raise in the mind of many readers of these notes the probability of the patient having been the subject of aneurysmal diathesis.

J. F——, aged fifty-five, of negro blood, a ship painter, widower, was admitted into the Royal Infirmary of this city on Sept. 2nd, 1890, complaining of shortness of breath and cough, and of ill-defined pains in the chest and back. Beyond the fact that he had syphilis many years ago, there was nothing in his family or personal history that called for remark. It was noted on admission that the superficial veins of the neck were distended, and that the apex beat was an inch below and slightly external to the nipple. There was dulness over the manubrium sterni, and here a peculiar creaking could be felt by the hand on gentle palpation. The pulse was 84; the right radial pulse was feebler than the left. Soft systolic and diastolic murmurs were heard over the mitral area and over the xiphoid cartilage. The softer blowing diastolic murmur was evidently conveyed from the aortic orifice. Over the upper part of the manubrium sterni, particularly towards the left side, there was heard a systolic murmur, which was extremely loud and rough; but to the right of the manubrium sterni, and underneath the first rib, the systolic was followed by a diastolic murmur. A loud rasping systolic murmur was heard in the arteries of the neck. Beyond the respiratory murmur being somewhat coarser than the normal, there was nothing noted in regard to the lungs. On examining the chest posteriorly, there was slight dulness on percussion between the scapulæ. A rough systolic murmur was heard over the supra-scapular area on each side. Over the right supra-scapular area a faint diastolic murmur was detected. This was not present on the left. The left brachial artery pulsated very freely, and rose visibly. There was no pulsation noticed in the right brachial artery. The difference in the pulsation of the right and left radial artery is shown in the sphygmograms. Beyond the presence of an occasional

FIG. 1.



Right radial artery.

FIG. 2.



Left radial artery.

bloody streak in the expectoration, nothing unusual occurred during his residence in the infirmary. The diagnosis being aneurysm, the patient was treated by rest in bed, iodide of potassium, and calmatives, and under this he improved. In the month of December, 1890, he left the hospital.

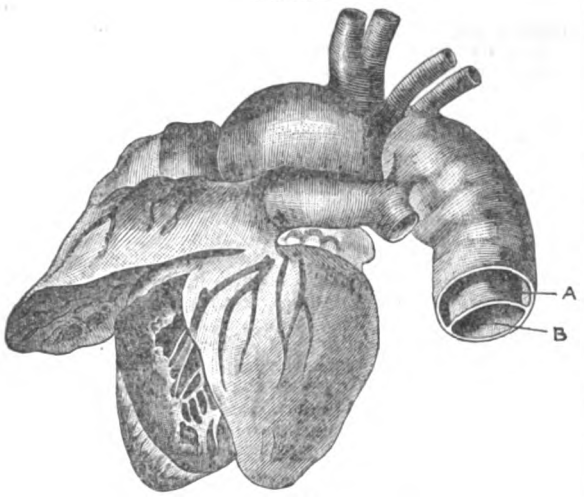
The patient was readmitted on Nov. 17th, 1891, complaining of great difficulty of breathing, cough, slight swelling of feet, of pain in the left arm, and of increasing general weakness. There was nothing special to note regarding patient's condition since he left the infirmary a year ago, except the following:—The right radial pulse could scarcely be felt, the left radial artery was normal in size, and its pulse was water-hammer in character. The right facial artery could not be felt pulsating, whilst the left pulsated normally. The right carotid pulsated very feebly compared to the left. The urine contained a trace of albumen, but this gradually disappeared. There was still to be heard over the aortic area double murmurs, and in the lungs a few rhonchi and small râles, particularly at the base. Within a fortnight he had so far improved that he left the infirmary, but only to return on Dec. 19th, his symptoms having meanwhile increased in severity. The dulness over the manubrium sterni was now more pronounced, and a very distinct thrill was conveyed to the hand placed over it. The urine again showed the presence of albumen, and the expectoration contained small quantities of blood. The cardiac murmurs remained unaltered; there was marked pulsation in the episternal notch. The systolic murmur over the chest posteriorly was heard with greater distinctness to the left of the spine. The pain complained of was referred principally to the left side. The patient gradually got worse. On Jan. 25th, 1892, his pulse was 122; respiration 50; expectoration was occasionally bloody. There was œdema of both forearms, but this was more marked in the left. There was considerable œdema of the lower extremities. Cardiac murmurs remained as before; the diastolic murmur was heard principally to the right of the sternum; no tracheal tugging or whiffing. The whole of the manubrium sterni was very dull on percussion. The patient died on Feb. 2nd. All through the period of observation the patient suffered very little from dyspnœa; there was nothing at all paroxysmal in regard to it. His complaint was one of swelling of the feet and scrotum—long before, however, these became œdematous—and of uneasy flatulent sensations; also of an indescribable sense of feeling ill all over without being able to state where or how. There was never anything like the very severe pain which is present when an aortic aneurysm is pressing upon nerve or bone, but a sensation simply of feeling very ill without the patient being able to localise or describe his symptoms.

Necropsy.—Lower extremities œdematous. Lungs: fluid in left pleural cavity, but not much; right lung, adherent at apex, contained infarcts. Heart enormously hypertrophied, weighed with aorta 2 lb. 6 oz. Aortic arch was dilated. Aortic valves incompetent; left ventricle was hypertrophied and dilated. The innominate artery was dilated and thrombosed; the common iliac arteries were also dilated and thrombosed. On careful examination, the whole of the arch of the aorta was found to be dilated, and as this dilatation affected the ascending and descending portions of the arch, it gave to the transverse part a puckered appearance, the resemblance being not unlike an hour-glass. Slitting up the aorta, it was noticed that the bulging of the ascending portion of the arch was due to a dissecting aneurysm which had taken its origin about half an inch below the commencement of the innominate artery, and had passed down towards, and had almost ruptured into, the right auricle. Its capacity was such that it could contain a bantam's egg. The innominate artery just before it bifurcates was incompletely blocked by a dense, hard, white thrombus. This thrombus extended into and *completely* blocked the right carotid artery, whilst it also extended into the right subclavian artery (the block here was not complete—there was left a small channel by the side of the clot, and along this blood had easily passed). The right carotid artery, whilst it had its channel completely blocked, yet blood had passed into the upper reaches of that vessel by a channel which communicated with, or rather had taken its origin in, the dissecting aneurysm which arose from the ascending part of the arch of the aorta. In this way, and this only—viz., by a dissecting channel—had blood reached the right side of the face, there being a direct opening of this dissecting aneurysm into the normal channel of the carotid artery a little distance above the termination of the thrombus. The transverse part of the arch was puckered and atheromatous. The mouths of the left carotid and subclavian arteries were patent and healthy. At the junction of the transverse and descending portions of the arch of the aorta another dissecting aneurysm was observed. (Fig. 3.) It had an aperture which admitted the tips of four fingers. This aneurysm passed forwards and upwards almost to the origin of the left subclavian artery; here it only lay in front of the upper portion of the descending aorta. From this the aneurysm extended all the way down to within two inches of

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the bifurcation of the abdominal aorta, but as it descended the aneurysm had become considerably wider; it had extended laterally so as to encircle two-thirds of the aorta. This dissecting aneurysm was formed between the middle and external coats of the vessel, so that when a cross-section of the aorta was made it was found to be composed

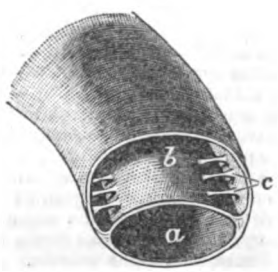
FIG. 3.



A, Dissecting aneurysm. B, Normal aorta.

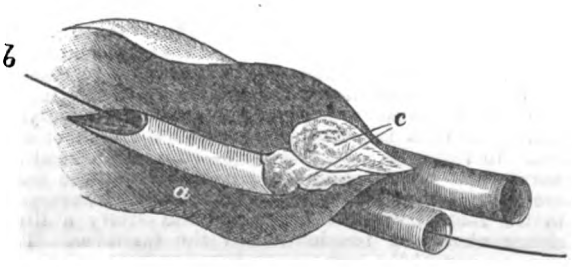
of a double tube (Fig. 4), the anterior (i.e., the larger) of which (*b*) was a dissecting aneurysm, and the posterior or smaller tube (*a*) was composed anteriorly of the middle and internal coats of the aorta; whilst the wall lying behind contained all the normal three coats of the vessel. On looking down through a section of *b*, numerous cord-like structures, evidently intercostal arteries, were seen running across the aneurysm from the antero-lateral wall. Possibly

FIG. 4.



a, Normal channel of aorta. *b*, Dissecting aneurysm. *c*, Small bloodvessels, cord-like in structure.

FIG. 5.



Common iliac artery laid open, showing:—*a*, Dissecting aneurysm *b*, Normal part of tube. *c*, Organised clot.

a few of the more delicate cords were simply enlarged and thickened vasa vasorum. Both iliac arteries were firm, and contained clot; they were equal in thickness to the middle finger. The channel of the right iliac artery was patent, but a dissecting aneurysm which commenced at the origin of the external and internal iliac arteries passed upwards in front of the vessel above the bifurcation of the abdominal aorta, but it was not in any way continuous with the dissecting aneurysm which extended from the arch of the aorta. The left iliac artery was extremely atheromatous, and contained several small calcareous plates. Lying in front of this vessel was also a dissecting aneurysm stretching from the upper part of the external iliac artery to the bifurcation of the abdominal aorta. Each dissecting iliac aneurysm was filled with firm white clot. So far as the heart was concerned there was not much to note. The mitral valve was healthy; the mitral orifice was dilated, it admitted the tips of four fingers; the wall of the left ventricle was half an inch thick; that of the right ventricle was extremely thin; the tricuspid orifice was dilated, and admitted the tips of six fingers. The liver was enlarged and nutmeggy; there was gummatous thickening of the capsule. The spleen was small. The kidneys were small, firm, and puckered on the surface.

This case of dissecting aneurysm was one of the most extensive that I find recorded. Fagge[1] reports a case where nearly the whole of the aorta was involved, the symptoms present being intense cardiac pain accompanied by cyanosis and pallor. Professor Finny[2] exhibited a specimen at a meeting of the Academy of Medicine in Ireland, where an aneurysm commencing in the thoracic aorta, about two inches above the diaphragm, dissected its way between the laminæ of the middle coat, along the anterior two-thirds of the vessel, down the whole length of the aorta, to the termination of the common iliac arteries. The aorta and iliacs were thus divided into double tubes. Although Professor Finny's patient was the subject of a dissecting aneurysm of very great dimensions, in his case, just as in mine, there were no special symptoms present such as would have enabled one to have diagnosed the peculiar nature of the aneurysm.

Newcastle-on-Tyne.

PASTEUR'S ANTI-RABIC INOCULATIONS.

BY T. WHITESIDE HIME, B.A., M.D., &c.

THE certainty and permanence of Pasteur's anti-rabic treatment, as proved by the only reliable test, experiment, are so remarkably illustrated by the following cases that I feel sure they will be interesting to readers of THE LANCET. And perhaps all the more so as I have personal knowledge relating to them, and do not report them merely as good news from those distant countries where the hills are always green. They are further illustrative of the never failing courtesy and kindness shown by Pasteur himself, Roux, and the other chiefs of the Institute, to all who are interested in the work carried on there. It will afford general pleasure when I add that quite recently I found Pasteur,

"Il maestro di color che sanno,"

in excellent health, and supervising the inoculation of the patients at the institute, of whom there were ninety-five, collected from all parts—Arabs of the desert, Belgians, Portuguese, French, and other nationalities.

CASE 1.—While in Paris in October, 1889, I mentioned to Pasteur that I was anxious to make some inoculations with rabic virus, so as to test the efficacy of his preventive method, at the institute. He at once said I could do so, and, further, he was so kind as to direct that I should be provided with everything necessary for the purpose. That I should be anxious to do the experiments there will not surprise those who know the difficulties which surround research of this kind in England. We are practically obliged to accept unchallenged every alleged discovery from abroad as to methods of preventing and curing disease, &c., or else we must go abroad in order to test their truth without being molested. Operative and other methods of treating disease may indeed be tried here experimentally on men; but if anyone influenced by love of his kind prefers to test them first on lower animals, he will find that his path, if not absolutely closed, is a very thorny one indeed. The subject of this experiment was a bitch, which I named "Betty." The rabic virus used for the inoculation was the greatly intensified kind known as "laboratory virus." This virus

[1] Medical Times and Gazette, 1869.
[2] THE LANCET, vol. ii. 1885, p. 99.

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originates with ordinary virus of the mad dog, which is now technically termed "street rabies." This street virus, when inoculated under the dura mater, is found to have a period of incubation which varies usually from sixteen or seventeen to twenty days, and kills within three or four days after the first symptoms have appeared. After passage through a considerable number of rabbits the street virus acquires gradually a shorter and less variable period of incubation, and ultimately it attains a degree of fixedness in this respect such as is hardly known in any other virus. The appearances of the initial symptom may with almost unerring certainty be expected between the fifth and the sixth day after inoculation, and death between the tenth and eleventh. The virus which I employed for the inoculation of "Betty" was this intensely strong virus, and was obtained from a guinea-pig which had died of rabies only a few minutes previously, on Oct. 4th, 1889. Having first chloroformed her, I trepanned and injected beneath the dura mater a few drops of the emulsified medulla of the guinea-pig. Immediately afterwards a rabbit was chloroformed and inoculated in the same way and with the same material, to serve as a witness. Inoculations of rabic virus under the dura mater invariably take, as do intra-ocular injections. "Betty" recovered immediately from the effects of the chloroform and operation, as is invariably the case when it has been properly done. On the day after the inoculation a course of preventive treatment was commenced for "Betty," but not for the rabbit, in order to see what difference there would be in the results. The former was treated according to the same method as the human patients, and like them received a series of injections of emulsified medullæ, the first of which was from a rabbit which had died of rabies fourteen days previously, while the last was only three days old. Each day, after the human patients had been injected at the institute, I obtained some of the liquid remaining over, of the required strength, and injected "Betty" subcutaneously with it. The result of the treatment was a perfect success; for whereas the rabbit which received no preventive treatment was attacked and died of rabies in the usual course, "Betty" had no kind of bad result from the inoculation. She lived a peaceful and evidently happy life, without any indication of disease, until at the end of over two years and a half she had to be sent to the happy hunting grounds in order to make room in the kennels.

CASE 2.—This is even a more remarkable experiment than the preceding. Unlike "Betty," the animals experimented on were first subjected to a course of preventive treatment, and were subsequently inoculated with rabic virus.—March 22nd, 1889: Three dogs, which may be called *A*, *B*, and *C*, received their first preventive injection of attenuated rabic emulsion containing medulla fourteen days old. The course of treatment was continued in the usual way until medulla of the third day had been injected. The subsequent history of these three dogs was as follows:—

June 1st, 1889.—The dog *A*, along with a witness dog and rabbit, were inoculated under the dura mater with fresh rabic virus of the street. The witnesses were both seized with the initial symptoms of rabies on the seventh day afterwards, and both died of rabies on the eleventh day, whilst *A* continued in perfect health. *B* and *C* were inoculated in the eye on the same day and with the same virus. This mode of inoculation, it may be mentioned, is as effective and certain as the subdural inoculation, and when done antiseptically (as every operation should be) causes no local disturbance whatever. No symptoms of rabies or any other untoward result followed this injection in the case of *B* and *C*.

Aug. 16th.—On this day *B* and *C* received for the second time an intra-ocular injection of rabic virus of the street, and a dog witness was inoculated at the same time. The witness exhibited the first symptoms of rabies on Sept. 2nd (the seventeenth day), and died on Sept. 5th (twentieth day) of paralytic rabies, while the dogs *B* and *C* continued in perfect health.

Nov. 27th.—The dogs *B* and *C* were inoculated in the eye for the third time with ordinary street virus (rabic), along with a dog and rabbit as witnesses. The dog and rabbit witnesses were attacked with the first symptoms of rabies on Jan. 2nd, 1890, and both died of rabies, while *B* and *C* suffered no harm whatever.

Dec. 17th, 1891.—The dog *A* was for the second time inoculated in the eye with canine rabic virus of the street, along with a rabbit witness. The latter was attacked with symptoms of rabies on Jan. 2nd, 1892 (sixteenth day), and died, as usual, of rabies, while the dog never showed any abnormal symptoms.

On the day of my last visit to the Pasteur Institute, April 15th, 1892, all three dogs, *A*, *B*, and *C*, were alive and in perfect health.

No commentary is needed on these remarkable cases, illustrating, in a way which leaves no room for doubt, the success of the Pasteur method in protecting against rabies, whether applied before inoculation of rabic virus or after. It is desirable, however, to draw attention to the fact that the animals experimented on were inoculated in a manner which never fails to take (under the dura mater or in the eye). It cannot, therefore, be assumed that they may have escaped infection in the same way as persons and animals sometimes do when bitten in the ordinary manner by rabid animals. These animals were subjected to a test which involves the certainty of infection and death from rabies, and yet the Pasteur method has proved sufficient to protect them. No animal or person is ever subjected to such a test in the ordinary course of life. But there is another point which forcibly illustrates the efficacy of the Pasteur method. The virus which I used for inoculating "Betty" was not the ordinary street virus derived directly from the rabid dog; it was much stronger—the laboratory virus (rabic), one which kills in far less time than is usually observed where infection has followed a bite by a rabid dog. If the Pasteur method can protect against the action of the intensified "laboratory virus" actually deposited on the surface of the pia mater after trepanning, is there not the strongest corroboration afforded to the other existing evidence that it can protect against the action of the ordinary, and much less active, virus of street rabies inoculated by a bite in the usual way?

The permanence of the protection is also shown in the most satisfactory manner. The dog *A* was preventively treated in March, 1889, and was found protected when inoculated for the third time on Dec. 17th, 1891. But there are many other witnesses of the durability of the protection who attest that it lasts very much longer. There are many of the dogs which were used by Pasteur for his earliest experiments nine and ten years ago still living which have been proved at recent dates to be still protected. I assisted myself in 1889 at the fourth inoculation of one of these dogs. The animal was trepanned for the second time, and inoculated under the dura mater without the least ill effect. This dog had also received a subcutaneous inoculation of rabic virus, as well as an intravenous injection, but proved refractory to all the four attempts to infect it. The *rationale* of the method is still involved in some obscurity, and up to the present all attempts to isolate the virus have failed. Neither microscopic examination nor the method of artificial culture has revealed anything distinctive. All the experiments which I have tried of cultivating in bouillon, in blood, and even in aseptic brain substance have failed, the virus invariably becoming inert, and, so far as I know, the results obtained by others have not been more successful. But I think it is not improbable that the *modus operandi* of the method may be strictly analogous to what is known to be the case with vaccinia and variola.[1] Vaccine takes about eight days to infect the system and protect it, while the variolous virus, being slower in its action, takes fourteen days, "the precise time being after thirteen times twenty-four hours have elapsed from the moment of taking the disease" (Marson). Suppose, then, a person to have absorbed the virus of small-pox on a Monday; if he be vaccinated on the ensuing Monday, Tuesday, or Wednesday, the vaccination will have time to take full effect and protect the system before the small-pox virus; if the vaccination is not done until Thursday, it will be partially effective, because the vaccinia will have already reached the commencement of the protective stage, while the variolous infection is still in its incubative stage, and the patient will have "modified small-pox"; if the vaccination, however, be delayed until the Friday, it will be useless—the variolous poison will have had time to infect the whole system before the vaccine virus.

[1] The employment of the term "vaccine" as signifying *any protective virus* in the recent sense—e.g., the "vaccine" of anthrax—is very unfortunate, and undoubtedly is calculated to lead to confusion. Jenner introduced the word vaccine to designate the virus of vaccinia, because the disease is derived from the cow (Lat. *vacca*, cow). It is indefensible to apply the same term to a different virus &c., derived from a different animal, especially when its employment in the special sense has been consecrated by long use, and has come to be universally understood to mean one thing only.

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In the case of the anti-rabic preventive method analogy would seem to sanction a similar explanation. The virus of canine rabies, after several passages through the rabbit, acquires a period of incubation of from five to six days, while that of the ordinary rabid dog "of the street" is more than twice as long when inoculated under the dura mater, and is usually at least eight to nine times as long in taking effect after an ordinary bite. Hence there is time for the short-period rabbit virus to take effect before the long-period canine virus. The early protective inoculations are made with rabbit virus which has been modified (attenuated or diminished in quantity?) by keeping,[2] and is incapable of producing rabies, but the later doses are capable of causing rabies when inoculated on an animal not protected by previous weak doses. This last fact is in itself an indubitable proof of the efficacy of the treatment, and is observed among the human patients as well as animals. The whole procedure is therefore dependent on Pasteur's discoveries of how to abbreviate the period of incubation of the virus by passage through the rabbit, and how to inoculate so as to produce the disease with positive certainty by intra-cranial or intra-ocular inoculation.

Those who are aware of the preceding facts cannot but be lost in amazement at the combined ignorance and audacity of those who assert by word and print that the protective virus is regularly obtained from dogs. The assertion is made to create prejudice against a scientific method of saving human and animal life. The allegation that the noble dogs, man's faithful companions and friends, are sacrificed in a wholesale way to save the life of that brute man, is a safe way to excite the passion of certain people, even though the allegation is devoid of truth!

There are persons who are not afraid to assert that the deaths of the control animals are due to the operation, either through shock or by septic infection. The answer is simple: 1. It is impossible to extract from an animal which has died of "shock" a specific virus which has an invariable period of incubation, kills with certainty within a definite period, and can be inoculated on other animals in series *ad infinitum*, so as infallibly to reproduce the same disease ("shock," it may at the same time be observed, is not in any sense a "disease" of a specific type). 2. The symptoms of rabies and those of shock are absolutely different. 3. The brain of the animal is not injured during the inoculation. If it be intentionally injured, without the introduction of rabic virus, the animal will show none of the symptoms of rabies, even if it should die (which depends on the extent of the injury). 4. The death is not due to septic infection, for (*a*) the symptoms are utterly different, and (*b*) the medulla of a rabbit which has died of septicæmia caused by the subdural injection of septic matter will not give septicæmia when inoculated in the same way into another rabbit. That the operation is *per se* harmless is evident to those who have seen rabbits which have received injections of inert substances (distilled water, bouillon, healthy medulla, &c.) under the dura mater. Within a few minutes after the operation, and immediately after the effects of the chloroform have passed off, these animals will run about, eat, and indulge in their gambols, unconscious of what has happened. Their after-lives, free from pain or ache, or any variation from the behaviour of other rabbits, prove that the operation does not affect them in any way injuriously. Of course a bungler may do damage in performing this operation, just as a barber, instead of shaving his victim, may by a mistake cut his throat! Up to the end of 1891 there had been treated at the Paris Institute a total of 10,992 persons, of whom 62 died, or 0·56 per cent. The rate of mortality has steadily declined from 0·94 in 1886, to the remarkably low figure of 0·19 in 1891. Of the 1563 cases treated in 1891, no fewer than 42 were from this country. The remarkable success of Professor Murri, of Bologna, in curing a patient, already attacked by hydrophobia, is perhaps the most startling outcome of Pasteur's method, being a fresh victory for science over a disease which has hitherto proved invincible. I hope to give full details of this most interesting case in a future number of THE LANCET.

Bradford, Yorks.

[2] The rabic virus can also be attenuated by passage through the monkey. A dog inoculated with rabic virus after passage through five monkeys showed an incubation period of no less than fifty-eight days, although it had been inoculated in the arachnoid space. In his earlier experiments Pasteur employed the virus thus attenuated for protective inoculations, but owing to the difficulty of dealing with such delicate and scarce animals, he abandoned it. The modifications of the rabic virus by passage through different animals, intensification by passage through rabbits, attenuation by passage through monkeys, are strictly analogous to the behaviour of the virus of swine plague (*rouget*), as described first by Pasteur, Dec. 26th, 1885 (Bull. de l'Académie des Sciences). The virus of this disease becomes much intensified by passage through the pigeon, the period of incubation is shortened, and death ensues sooner. The virus is also rendered more fatal to pigs. But if the virus taken from the pig be passed through a series of rabbits it will be found that, though it continues fatal to them, it becomes so attenuated that it may be inoculated on pigs without the least danger. Indeed, this attenuated virus is employed by Pasteur as a protective against the most virulent form of the infective agent. Pigs may be inoculated with the latter after protection with the former, and will be found to have acquired complete immunity. This condition does not last as long as the immunity conferred by Pasteurian inoculations against rabies, as shown above, only holding good for about one year. But it is rare, indeed, for a pig to reach a much more advanced age than twelve or fifteen months, that being the flower of his age, during which he is killed. It can hardly be doubted that vaccine is the virus of variola, modified in an analogous way by passage through bovines, and that herein lies its power in protecting against small-pox.

THE HOLY PLACES OF ARABIA: THEIR WATER-SUPPLY AND GENERAL SANITARY CONDITION.

BY JOHN WORTABET, M.D.

THE Koran enjoins pilgrimage on all believers who are able to perform it, as an absolute duty which cannot be neglected without great offence to God. This condition of "ability" is explained by the most eminent school of Mohammedan theology as including health, safety of the way by land and sea, and the possession of a sufficient amount of money to discharge the intending pilgrim's debts, to provide for his family during his absence, and to enable him to make the journey with comfort on a camel or other beast of burden. The two chief places which are annually visited by Mohammedan pilgrims are Mecca and Medina—the first containing the sacred mosque called "The House of God," and the second having the tomb of the Prophet. They both lie inland, and are accessible to pilgrims either from Damascus through the desert, or by the Red Sea and Tidda, which is the port of Mecca, while Yambu holds the same relation to Medina, though very few pilgrims go into Arabia or come away from it through the latter port. The route most generally followed is the sea voyage to Tidda, a journey to Mecca and Medina, and a return to Mecca and Tidda, the whole pilgrimage taking usually about four months. The Mohammedan month Za'l Hijja ("the month of pilgrimage") is that on which the pilgrims are gathered at Mecca and Medina, and as the Mohammedan year is lunar, with no intercalary month every three years to make up the difference between it and the solar year, the month of pilgrimage recedes by ten days every year, and is thus ever changing its relation to the seasons. The annual number of pilgrims must vary from year to year, but it is computed by the most reliable observers as being from 50,000 to 80,000. No Christian is allowed to visit these holy places, and our sources of information are the accounts given by Arabian writers, Mohammedan visitors, and the Christian travellers Ali Bey (1807), Burckhardt (1814), and Burton (1853), who made the pilgrimage under assumed Mohammedan names. To these must be added the valuable report of Assistant Surgeon Abdur Razzak, who was sent by the Indian Government to accompany the pilgrims in 1878–1879. From these several authorities, and from the annual reports to the Indian Government by its agents, the following abstract is made:—

Tidda is a town of about 20,000 inhabitants, and is built, to the extent of a mile in length, on a slight eminence of land which rises from the sea-shore. It contains a number of large lodging-houses for pilgrims, built in flats, each room taking from ten to twenty people, and they are often highly crowded, while the uncleanly habits of the occupants and the insanitary condition of the latrines combine to produce a fruitful source of disease—such as fever, dysentery, and diarrhœa. The sewerage system is the same as in other Oriental towns; the excreta are conducted by depending passages into sinks, which may or may not communicate with each other, and where, partly by absorption into the soil and partly by exhalation into the atmosphere, the sewage is disposed of. The streets are supposed

to be swept every day; but this is said to be carried out only in the market place, while the by-streets and alleys are unattended to, and are often beds of accumulated refuse and dirt. From 30,000 to 50,000 pilgrims pass through the town every year to Mecca, and again on their return. Fortunately their stay is short, and they come and go in parties. The water-supply of Tidda is provided by large tanks of rain water, which, however, are often insufficient, and it is said that a benevolent Mohammedan from India has lately brought a large and wholesome supply from the springs of Hadda, a midway station between Tidda and Mecca. Mecca is about forty-five miles due east from Tidda, and the journey is generally made on two successive nights—most of the day between them being spent at Hadda. The road is sandy and barren, and soon leads to the hill country, where Mecca is situated at the height of 2000 ft. above the level of the sea. Soon after leaving Hadda two high pillars indicate the boundary of the Holy Land, where the pilgrim puts on his garb of two seamless cloths, one around his loins and the other to cover the upper part of his body, leaving the head bare, and begins his cry of "Allahumma labbarik," which he continues from time to time throughout his stay within the sacred precincts, and which means, "Here I am, O God, in obedience to Thy call!"

Mecca lies in a narrow and sandy valley, which is described in the Koran as being "sterile," and which extends from north to south. The hills which form the two sides of the valley rise to the height of from 200 ft. to 500 ft., black, waterless, and utterly barren, and are, according to Ali Bey, of granite formation. The town occupies the broadest part of the valley, though many of the houses are on the sides of the hills, and is about three miles long. The population is estimated at more than 50,000, and is doubled or trebled during the season of pilgrimage. The main street which runs through the town is broad, and kept clean by daily sweeping, while the other streets are from ten to twelve yards wide, and are described by the latest visitor—Dr. Abdur Razzak, 1879—as being wholly neglected and extremely dirty. The houses are built of stone, and vary from two to five storeys in height, with numerous windows towards the streets; but the rooms are generally small, the ceiling low, and ventilation and the admission of light imperfectly provided for. Most of these houses are let during the annual season to pilgrims who are able to pay for them. A good number of large lodging-houses, built by rich and benevolent Indians, receive freely the poor class of their countrymen. The air is said to be dry, and would be bracing if it were not for the great heat. Abdur Razzak speaks of a high temperature in December, Benton says that clothing was intolerable during the day in September, and Ali Bey, who seems to have been the only one who took any thermometrical records, puts the maximum heat in February at 87°, and the minimum at 67·5° F. The latter saw but one flower during all his stay at Mecca (from January 23rd to March 2nd), and that was on his way to Arafat. He says: "The aridity of the country is such that there is hardly a plant to be seen near the city or upon the neighbouring mountains." All the vegetables and fruits consumed in Mecca are brought from Taif, a well-watered and fertile plain, two days' journey due east.

The sewerage of the houses and the system of drainage are described by Dr. Abdur Razzak as follows. After speaking of the situation of the watercloosets as being always at or near the entrance of the house or a section of it, if it is large, he says: "There is no proper outlet for the water of these privies, or for the excretions (nightsoil), nor is there any system of drainage in the city. Not a sewer or a surface drain exists. Rain being scarce and the soil very dry, there is not much necessity for drains in the opinion of the inhabitants. The only drainage arrangement in all the houses is that a central deep drain is cut out in a convenient part of the house, and with it all the privies in the house are connected by covered drains, in which the slope is very great, so that anything falling or lying on the highest end is very quickly washed down into the central drain. Besides these, a very large and oblong pit is dug out in the middle of the street, opposite the house, which answers the purpose of a cesspool, and with it the central drain of the house is connected." As a natural consequence, he says, the exhalations are highly offensive and noxious.

The original water-supply of Mecca consisted of a few cisterns of rain water and some brackish spring wells, of which the famous well of Zemzem is one. These latter are said by Ali Bey to be of the same depth and temperature, and he believes that they are all supplied by a sheet of water fifty-five feet under the surface, and formed by the percolation of rain water through saline materials, which give it a brackish taste. None of these wells, however, are now used except that of Zemzem, which is reputed to be the spring pointed out to Hagar by an angel, and whose waters are drunk by all pilgrims on religious grounds. The present water-supply is amply furnished by the aqueduct known as that of Zobaida. This lady was the wife of Harun-ar-Raschid (A.H. 170), and having made a pilgrimage with her husband to Mecca, and observed how highly meritorious it would be to provide the holy city with abundant and wholesome water, undertook the great task of having it brought from a considerable distance. Arab historians have given us a detailed account of this stupendous work, which cost more than two millions of pounds of our present currency. The water was conducted in an aqueduct of solid masonry from two copious springs, which take their origin from a chain of mountains to the east of Arafat, and to which six other fountains were added in the plains which lie between this hill and the eastern mountains. The aqueduct, after surrounding Arafat, where all the pilgrims gather on the 9th of Zu'l Hijja, follows their way by Muzdalafe and Muna to Mecca. During the eleven centuries which have passed since its first construction it has often been out of repair, and the water ceased to flow, to the great distress of the pilgrims. Restored in A.H. 634, 726, 811, 821, and 875 by Mohammedan kings or princes, the water became again so scarce in 930 that the historian El Hanafy, who was there in that year, witnessed the great sufferings of the pilgrims, and bought at Arafat a small water skin for a piece of gold. The work of reparation was taken up this time again by a lady—the wife of Solyman the Magnificent,—who, in A.H. 969, appointed able and energetic men to execute her orders. They cleared the original springs of Hunain and Noman to the east of Arafat, repaired the aqueduct as far as Zobaida's Well beyond Muna, and channelled the rock to the distance of 2000 yards into Mecca. This work was executed in ten years, and was as thoroughly done as that of Zobaida; and since that date, with occasional repairs, the water has been abundant.

Abdur Razzak says that the water is very sweet and light, and is supplied by means of five or six reservoirs distributed in different parts of the city. The largest of these is near the market place, where the water is let out through a number of perforated holes into a shallow trough, and where the professional water-carriers fill their water skins directly from the taps. "There is a stopcock at the mouth of the aqueduct, and there are stated hours at which the cock is turned open and the water carriers are allowed to fill; no water can be had after nightfall." Burckhardt (A.D. 1814) says that remains of the aqueduct were seen in the lowest part of the city, "and its water, after supplying the town, was conducted this way into the southern valley, where it served to irrigate some fields." The mosque of El Kaaba, or *Beit-allah*, occupies a central portion of the town. It is believed to be built after the pattern of a similar structure in heaven, which is ever circumambulated by advising angels. In like manner, the pilgrim does the same duty in his prescribed garb, and offers his prayers at the holy spot. While this is the most essential part of pilgrimage, other duties incumbent on the pilgrim are to attend the prayers and sermon at Arafat on the ninth day of "the month of pilgrimage," to return to Mecca on the following day for the great Feast of Sacrifices, and to visit the Prophet's tomb at Medina.

Arafat is a hill (the "Hill of Mercy"), where it is believed Adam first met Eve after their expulsion from Paradise. It rises to the height of about 200 feet from a plain some ten miles long and five wide. All the pilgrims encamp on that day in the plain below, while the Kadi of Mecca preaches the annual sermon of three hours' duration on the hill, the people spending the time in prayer, and calling out the formula *Labbarik!* ("Here I am, O God!") The aqueduct of Zobaida runs round the hill, and supplies the pilgrims with abundant water. The water is let out into basins, of which Ali Bey (A.D. 1807) counted fourteen, "which furnish a great abundance of excellent water, and which serve also for the pilgrims

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to wash themselves." In the times of Abdur Razzak, "there were three of these large tanks, from which people were allowed to take away as much water as they liked, but nobody was allowed to wash anything in it. A Turkish soldier, with fixed bayonet, but in a pilgrim's garb, was standing guard over each. During the day, however, when the ceremonies of the Haj were going on, the attention of these guards being diverted from their duty, the water had become dirty from the people not taking care when they filled their water skins at the edge of the tank." Arafat lies about twenty miles (Burton says only twelve miles) due east of Mecca, and, according to Ali Bey and Burton, is chiefly of granite formation. It is on the plain, where all the pilgrims are encamped for one day, that an approximate guess can be made of their number. Ali Bey (1807) estimates it at 83,000; Burckhardt (1814), 70,000; Burton (1853), 50,000; and Abdur Razzak (1879), 60,000. The Mohammedans believe, on the strength of a well-sustained traditional saying of the Prophet, that if the number is ever less than 600,000 the deficiency is made up by angels in human form. Leaving Arafat at dusk of the same day the pilgrims start for Muzdalafe, where they spend the night, and reach Muna on the following morning. Muna is the place where animals are slaughtered as an offering to God, in commemoration of the sacrifice made by Abraham of a sheep instead of Ishmael, his son, whom he had been commanded to offer. This is the great feast of the Mohammedans, and is called the "Feast of Sacrifices." Muna is described as a long and narrow town, situated in a hollow, where the heat is very great even in December. Here, on the 10th of Zu'l Hajja, all the pilgrims meet again, and the sanitary arrangements are said to be most unsatisfactory. The main street alone is kept clean, the waterclosets are few and badly constructed, and the crowding in both the houses and in the open is very great. The slaughter-houses, where several thousand animals, chiefly sheep, are killed, are few, and the trenches dug for receiving the carcases are insufficient for the purpose. Before the pilgrims leave the place the odour, owing to speedy decomposition, becomes not only highly offensive, but very noxious. The number of sheep killed is uncertain, for while Burton estimates it at 6000, Abdur Razzak raises it to something like 100,000. The latter says that many fall ill with vomiting, diarrhœa, dysentery, and fever, either then and there or soon after their return to Mecca. In Burckhardt's time (1814) it was even worse. He says: "Poor Hadjys, worn out with disease and hunger, are seen dragging their emaciated bodies along the columns of El Kaaba, and when no longer able to stretch forth their hand to ask the passengers for charity, they place a bowl to receive alms near the mat on which they lay themselves. When their last moments approach they cover themselves with their tattered garments, and often a whole day passes before it is discovered that they are dead."

The water-supply seems to be now abundant, and is sold to the pilgrims in small water skins. The distance from Muna to Mecca is about four miles, and the pilgrims return on the third day of the feast to the holy city to perform what is called "the lesser pilgrimage," which means a short journey of a few miles from Mecca, a return to it in the pilgrim's garb, and circumambulating El Kaaba. If the pilgrim has not visited El Medina before coming to Mecca he now does this duty. The distance between these two places is twelve days' journey — slightly up-hill — and the stopping stages are always made where there are wells of water, from which the travellers can be supplied for the night, and where they fill their water skins for the following day. The quality of the water is mostly saline, and drinkable only from necessity. El Medina ("The City," or the City of the Prophet) is a town of about 20,000 inhabitants, lying in a vast plain, bounded by two chains of hills to the east and west, and is supposed by Mr. Doughty to be about 3000 feet above the level of the sea. After the great heat of Mecca, Abdur Razzak found it very cold, the thermometer falling to 56°. Its streets are kept clean and daily inspected by zaptiehs. "The water-supply," he says, "is the best in the Hedjaz, and perhaps it would be creditable to any civilised country of the present day. Underground aqueducts run through the whole city, and in every quarter there is a reservoir below the level of the ground, with stone steps leading to it, where stopcocks, arranged in a row, regulate the expenditure of water, and where water carriers fill their water skins. A stream of the purest water, which commences at Kubba, a place about two miles from the city, flows through it, and after passing through the aqueducts is carried out of the city to water the date plantations, which are plentiful around Medina." The public latrines, he adds, are more plentiful and far superior to those in Mecca, "and as the government of the place takes care not to have more than a certain number of pilgrims during a given time, there is never any crowding." "If the air of Medina had not been so bracing, every pilgrim would have fallen sick after the privations suffered on the journey from Mecca." The chief object of visiting El Medina is to see, and to pray near, the tomb of the Prophet and his immediate friends. The stay there does not generally exceed a week. The pilgrims then separate, some to return by land caravan to Damascus, which occupies about thirty stages, some to Yambu, the seaport of El Medina and about four days' journey from it, and the largest number to Mecca and Tidda.

In comparing the accounts given by trustworthy travellers who visited these places during the present century (1807–1879), we find a marked improvement in their sanitary condition. This is doubtless due to the better government of these days, especially under the rule of his Majesty the present Sultan, who is well known to take a special interest in those hygienic measures the value of which science and experience have put beyond all doubt. From the later reports of the Sanitary Commission of India (1884–1890) we have a gratifying confirmation of this fact, for they all tell of annual efforts, more or less strenuous, made by the local authorities to improve the water-supply, the surface cleanliness, and the prompt and more effectual burial of slaughtered animals at Muna. The tanks of water are cleaned and drained, and guards see that no water at Mecca is used except that taken directly from stopcocks. A generous Indian prince (the Nawab of Rampur) has "constructed a large reservoir in Muna, fed by a branch of the Zobaida aqueduct. The water from this reservoir was drawn (1886) from stopcocks, and measures taken to prevent the pollution of the stored water. The reservoir, however, is not large enough to supply water to all present, and it is reported that at least two others would be necessary for all requirements." Muna, which has always been noted for its filthiness, was remarkably clean in 1886; but there is still much room for improvement. Engineering skill in conveying pure water and keeping it free from the possibility of pollution, stringent measures for insuring perfect cleanliness of all the streets and alleys, improved sewerage, the prevention of overcrowding, a thorough disposal of the sacrificed animals at Muna, greater efficiency of the hospitals of Mecca, Medina, and Tidda, rigid inspection of pilgrim ships coming from infected places, and, in case of an epidemic, the dispersion of pilgrims as soon as they have performed the duties prescribed by their religion, which was wisely ordered by the authorities this year (1891) on the outbreak of cholera among them with very considerable success, are means which the Turkish Government alone can carry out, and which will do much to diminish the violence of epidemics, disease, and mortality. It has always been the glory and ambition of Mohammedan kings to do their utmost for the safety, well-being, and comfort of pilgrims, and it may now be the most glorious act of the reign of his Majesty the present Sultan to see that the most approved principles of modern sanitary science are efficiently carried out in the holy places of Arabia. But on the Indian Government also lies a large share of responsibility. For not only is there the fact that cholera, which has visited Arabia in 1883, 1890, and 1891, during the last few years, is always imported from India; but, according to the *Times of India* (quoted in *The Times* weekly edition, July 10th, 1891), more than a third of the pilgrims leaving Bombay for Mecca never return. "Thus, of 64,638 pilgrims who left in the six years ending 1890, 22 449 were missing." Surely for this appalling list of mortality and unrecorded suffering the Indian Government should devise some preventive means which may be within its legitimate power. The measures indicated by Abdur Razzak may be adopted, in which modification, and if properly carried out, so that no pauper and no diseased person, or one coming from some part of the country where cholera is known to exist, may be allowed to leave India, this great evil to the Indian pilgrims may be very materially diminished, and the chances of the migration of cholera

with them into Arabia and other adjacent countries considerably lessened if not wholly extinguished.

ANALYSIS MADE IN THE LANCET LABORATORY OF WATER TAKEN FROM HAGAR'S WELL AT MECCA.

In connexion with the above article, we have been favoured by Dr. Wortabet with a sample of the water from the Well of Zemzem, or Hagar's Well, obtained on Jan. 13th last from a returned pilgrim. It will perhaps be within the recollection of some of our readers that a similar sample was forwarded to us in November, 1883, by Dr. W. G. Balfour, and the results of the analysis made for THE LANCET by Professor Heaton were published in our issue of Jan. 5th, 1884, page 33. Nearly nine years, therefore, have elapsed since that sample was taken, and it is interesting and instructive to compare the results of analysis obtained with this sample with those of the sample secured in January last, inasmuch as any difference indicating whether the condition of the water has altered for better or for worse over that comparatively long period will at once be apparent. As a glance, however, at the analysis below will show, what was said of this holy liquid nine years ago may be said of it again at the present time. There are indications that the water is still grossly polluted, although apparently not to the extent reported hitherto. The results of analysis of the two samples bear a distinct resemblance to one another—at any rate as regards kind if not in quantity of impurity. Thus the entire absence of the so-called albuminoid ammonia is again a striking feature in the analysis, and is probably attributable to the completion of the putrefactive process. The nitrates and nitrites are in excessive quantity, and the presence of the latter, which result from the reduction of the former, indicates pretty nearly for certain the pre-existence of readily oxidisable matter, such as sewage. The nitrites occur in so large a quantity that a few drops of the water expel the iodine in an acidified solution of potassium iodide, and also turn to a deep yellow colour, a solution of di-amido-benzene—Griess' well-known reagent for the detection of nitrites. Unfortunately, as the quantity of water at our disposal was only 300 cubic centimetres—a separate estimation of nitrites could not be carried out. The addition of sulphate of iron and strong sulphuric acid to the unconcentrated water resulted in the formation of an intense brown colour, due to disengagement of nitric oxide gas from the nitrates and nitrites. The excessive proportion of free ammonia further testifies to the changes that have taken place consequent on the oxidation of organic matter. Chlorine present in chlorides is extremely high—indeed, the water had a slightly brackish taste, and the total solid matter though considerably less than before afforded distinct evidence of the existence of phosphate. The two analyses are given below, and for the sake of comparison an analysis of the water supplied to London by the Thames companies is appended.

	Grains per Gallon.		
	Mecca.		London.
	1883.	1892.	
Total solids	464·4	235 2	18·00
Chlorine	75·5	40·7	1·5
Nitrogen as nitrate	13·75	4 55	·18
Nitrogen as nitrite	·09		None.
Ammonia	·358	·140	·001
Albuminoid ammonia	None.	None.	·004

Stanley Lane Poole wrote in reference to the analysis in 1883 as follows:—"The analysis of this miraculous water will cause a severe shock to all true believers who read THE LANCET, though from what one knows of the sanitary methods of the East there is nothing surprising in the discovery that the Well of Zemzem is as foul as a good many other saintly springs. Zemzem is in the midst of a thickly built city, where drainage is of a peculiarly primitive description, and the well is almost necessarily affected by the drainings from the countless carcases of beasts which are annually sacrificed by the pilgrims in the neighbouring valley of Muna. It is, however, some satisfaction to remember that muddiness as a source of inspiration has never been held a bar to miraculous effects. Zemzem will doubtless work wonders in spite of the 'completion of the putrefactive process.'"

Our recent analysis indicates that the putrefactive process is still going on, and it follows that the ingress of putrefiable substance has again been permitted.

OUR MISTAKES.

BY WILLIAM MURRAY, M.D., F.R.C.P. LOND.

(Concluded from page 1022.)

IT is interesting to observe how often our cases run in pairs or groups. With the last case fresh in my mind I was called to see a gentleman in the north. On going into his room his wife said, "Do not bother him by many questions." On asking him to tell me of his complaint briefly, he, pointing to the inside of his thigh, said, "I can tell you in three words, 'It is pain there.'" I asked for vaseline, examined the rectum, and found a malignant mass in the pelvis—a sad solution of a case which had misled two excellent practitioners to suppose he suffered from disease of the pelvis of the kidney. These cases show how narrowly we sometimes miss a diagnosis, and show how important it is to take note of these slight and faint hints if we are to save ourselves from failure. We must, however, take heed lest a great success in diagnosis and treatment unduly impresses itself on our minds and we begin to seek for the same thing, and do the same thing in every case. It is easy to yield to this temptation, and we need to guard ourselves. I have again and again seen even great men plant their favourite diagnosis on the most unlikely cases. Two or three patients of a really great physician came to me a few years ago, each stating they had irritation of the ureter, until at last I was able to say, "Oh! I see you have consulted Dr. So-and-so." In each of these cases the true ailment proved to be lateral flexion of the uterus. Not that I have escaped this mental infection, as I am free to admit I may probably have treated irritated ureter for lateral flexion. Nothing short of a large view and a well-balanced mind can save us from this kind of thing.

An illustration of another kind of mistake which sometimes occurs as the result of a paucity of experience and a good deal of science may be here introduced. It also illustrates the danger of the so-called *nimia diligentiæ* in treating a case by everything but the right thing. I was called to see a favourite child of wealthy people in Yorkshire said to be suffering from inflammation of the brain. I found a strong plethoric child, with flushed face and suffused and congested eyes. He was suffering from pain in the head, restlessness and great irritability, together with anorexia and a coated tongue. He was in a darkened room, two nurses were in attendance, and an apparatus for circulating iced water over the head was in active operation. The temperature was taken at frequent intervals, and repeated doses of aconite were being administered. The expression of the child's countenance and his evidently clear intellect did not convey the idea of meningitis to my mind, and I asked when his bowels had acted. No one quite knew, and it was clear they had not acted for a day or two. I gave my opinion to the medical attendant that it was a case of disordered secretions, and insisted on giving three grains of calomel, followed by a dose of senna. We met again in a few hours, and found the patient sitting up in bed quite cheerful and comfortable, after a free purgation, and he was soon quite well. I do not mean to cast any reflection on what is called scientific medicine, but I think an old-fashioned doctor would probably have purged at the outset and saved all this bother. Let us never forget the marvels achieved by our old friend calomel.

To omit the abdomen as the most fruitful field of all sorts of mistakes would be to omit the character of Hamlet from the play. The many different organs contained in it ministering to functions so different as digestion, excretion, assimilation, and reproduction give rise to such enormous varieties of physical signs and symptoms that it would be strange indeed if we did not often fail to make an accurate diagnosis and use appropriate treatment here. Added to this is the ever-varying condition of the abdominal walls, due to dis-

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tension and emptiness of the hollow viscera, the engorgement of the solid organs, and the amount of abdominal fat which often comes and goes with remarkable rapidity. These difficulties, from complication of organs and their changeable condition, can hardly be said to exist in the head or chest, but they are somewhat compensated for by the ease with which the abdomen can be manipulated.

To mention a few of our chief difficulties is all that can be accomplished in a short address. First, there are those connected with abdominal aneurysm, on which a book might be written, and an amusing one, for I shall never forget, when preparing an article on this subject, the extraordinary hits and misses in diagnosis which turned up in looking through the scattered literature of the subject. Existing aneurysms had been diagnosed as renal, hepatic, ovarian, and uterine tumours, and conversely nearly every variety of abdominal tumour, and often "no tumour at all," has been diagnosed as aneurysms. My well-known case of aneurysm of the abdominal aorta was at one time treated for lumbago, and was subsequently said to be a fæcal accumulation by a man of great experience. The pelvic department of the abdomen is even more dangerous ground than the abdomen proper. It is here that confusion still reigns, as evidenced by the number of so-called exploratory incisions now made in that region. A good book on the diagnosis of pelvic disease is still wanted, but I doubt if the data for it have yet been obtained. The almost infinite variety of conditions brought about by pregnancy and menstruation almost defy classification, and thus general rules are almost out of the question. For instance, ovarian tumours, simple as their diagnosis generally is, often deceive the most experienced, and we must not rely on general rules even here, or the opened abdomen may possibly stagger our nerves and try our resources. Twice over I have been misled by trusting too much to a resonant note in the flank and a dull abdominal dome, where I discovered our mistake to be due to the fact that the intestines were bound down by adhesions in the lumbar region so closely as to give resonance there in ordinary ascites. Then, again, there are mistakes attaching themselves to pregnancy, about which some experienced accoucheur might give a highly interesting discourse. I recollect a startling case where a patient was about to be admitted to an institution for the removal of an ovarian tumour; but her own doctor thought he would like to do the operation himself, and sent her to me to confirm the diagnosis. Labour pains came on while she was in my waiting-room, and she had just time to reach home in a cab before she was confined. Then, again, there are those trying cases of women who marry late in life, and, being possessed by a longing to have a child, arrive at the menopause and begin to swell visibly. Beware of such women. If you say they are not pregnant they will not believe you, because "they feel a movement which cannot be mistaken." If you for a moment favour their wishes, and incautiously admit it may be so with them, you have staked your reputation on a broken reed, and a day of reckoning lies in store for you some few months hence, "when it does not and will not come off." To be called in under such circumstances is one of the most trying and delicate tasks for a consultant. By a word or a look he may shatter his friend's reputation throughout a wide circle; and yet the truth must be told, either abruptly or—far better—by a gradual undeceiving of the patient's mind.

Far more serious difficulties surround us when we are face to face with ectopic or tubal gestation. A certain diagnosis in many of these cases is impossible without the exploratory incision, and even then the complications may prevent a satisfactory diagnosis—nay, more, I have seen a case of this kind so complicated that a post mortem examination failed to reveal the true state of the case. These are cases of the third order, in which a faulty diagnosis casts no blame on us. Let me give a history of a case illustrating the extreme difficulty or impossibility of arriving at a certain diagnosis. I do so the more readily because I believe the case is unique.

Some years ago the late Mr. John Hope and I saw a patient suffering from intolerable pain in the testes. Both testicles were enlarged, the left as large as a goose's egg, the right slightly smaller. As the enlargement and sufferings increased, especially on the left side, we decided to remove that testicle. On doing so we found a healthy testicle encased in dense concentric layers of suet-like fat about an inch thick. The relief obtained made the patient urgent to have the right testicle removed too, which was done with complete relief. Some months afterwards this man came to me again in a deplorable condition. His body was emaciated, but the abdomen had become enormously enlarged and extremely painful. The abdominal swelling was uniform and dough-like on palpation and absolutely dull on percussion, without any evidence of fluctuation. His chief symptom was a mucous diarrhœa over which remedies had but slight control. He died of exhaustion. On making a post-mortem examination, we found the enlargement was entirely due to the presence of hundreds of fatty tumours scattered throughout the folds of the peritoneum. The mesentery was a mass of them. They varied from the size of a pea to that of an orange, and each was composed of concentric layers of suet-like fat similar to that found around the testicles. The smallest were concentric as distinctly as the largest. The most remarkable developments were in the appendices epiploicæ, each of which extended into the abdomen like a large bunch of grapes studded with fatty nodules. We might, if we had had a similar experience, have divined from the testicular encasements the real cause of the abdominal enlargement; but, lacking this, I think it was impossible to make a sure diagnosis. But I must draw this part of my subject to a close, or I should like to have alluded to the difficulties which surround the medical man who is called to see a patient in the initial stage of any of the acute febrile diseases, especially of infectious diseases. If he speaks of his suspicion too soon he may find he has given needless alarm; if he hesitates too long he may be blamed for not speaking soon enough. A wary outlook, an expectant state of mind, and a knowledge of human nature are all needed to save him from a false position. Lastly, the mistakes which occur in the treatment of disease may be divided into those arising from a false diagnosis and those in which the wrong remedy is used where the diagnosis is correct. I need not say that for the most part a false diagnosis is the cause of most of our mistakes, but this has already been dealt with. With regard to the misapplication of the treatment when the diagnosis is correct, I may say this is often owing to the want of a true appreciation of the temperament and constitution of the patient, whereby we are led to give what is good enough for the disease, but bad for the patient. Let us ever remember, therefore, that we are treating patients as well as diseases, and what may, rigidly speaking, be the right thing for the disease is often the wrong thing for the patient. Take the case of tonics, such as iron and quinine. I know of nothing which has destroyed the confidence of patients, both in medical men and medicines, more frequently than the administration of these remedies to debilitated, anæmic, and phthisical patients when they were quite unable to bear them. How often do we see a patient in the early stage of phthisis suffering from the miseries of dyspepsia added to those of his disease. And yet we find such a patient is being treated by cod liver oil, or iron and quinine phosphates, which only add still further to his misery. Or, again, take the case of anæmia in which the fault lies in a weak and irritable gastric membrane. Nine out of ten of such patients become considerably worse when treated by ferruginous tonics. Or, again, take the case of a patient recovering from an attack of gastric catarrh: to select the exact moment when that membrane will be able to bear a tonic, and decide what tonic to give it, is one of our most difficult problems. In early phthisis, in anæmia, in the exhaustion of gastric catarrh, I rarely venture on any so-called tonic medicine, and prefer to give aids to digestion and sedative correctives until I am well assured the stomach will tolerate such remedies as iron, quinine, or cod-liver oil. I cannot help thinking these misapplications of the right remedy for the disease in unsuitable cases is the secret source of that sceptical attitude which many able men have assumed towards the beneficial action of medicines. In early life they expected too much, and blamed the medicine when really it was its application which was at fault, and so they have lost faith. I, for my part, have an undying, nay, an increasingly vital faith, in the virtue of medicines, and I hope to live to see the day when mankind at large will accord to rational scientific medication the place it undoubtedly deserves to hold in its esteem. Many hints which I could give as the result of thirty years careful study of the action of medicines crowd upon my mind, but I must not trespass further except to say that much depends upon the method of combining our remedies. I believe in combinations; without them we cannot put limitations to the action of our drugs, and we

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annot guide them to the right spot. One medicine, so to speak, conditions another, and some are complemental to each other. Take digitalis as an example. Do we wish to act upon a weak heart in an anæmic subject we combine it with iron. Do we wish it to act upon the heart where all the organs are engorged from regurgitation in a plethoric subject, we give it combined with mercury and purgatives; or, do we wish to relieve pulmonary congestion arising from the same cause, we combine it with ether and ammonia; or, do we wish it to act on a sluggish kidney, we add some suitable diuretic. We thus, as it were, condition and conduct our remedy to do its work in the right direction. To do otherwise would lead to serious mistakes, and might shake our faith in the power of this mighty drug.

Newcastle-on-Tyne.

PRIMARY DENTITION IN ITS RELATION TO RICKETS.

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THERE is a widespread belief among medical men that the temporary teeth are materially affected in children who are rickety, and as the result of this disorder. In support of this contention extracts from some of the text-books dealing with this disease are given. Thus, one writer says: "Dentition is late and irregular. ..... The teeth themselves are imperfectly formed, their enamel is defective; in a year or two they turn black and break off or fall out."[1] Another writes: "Dentition is much delayed in rickets ..... the enamel of rachitic teeth is bad, rocky, or pitted in its disposition, the teeth are notched or have horizontal ridges, and break away down to the gum, where they appear as black jagged stumps. These conditions are not peculiar to rickets."[2] Another remarks: "Dentition is much delayed and the teeth when cut are deficient in dental enamel, so that they decay rapidly."[3] Another says: "The teeth are late in appearing; the teeth, moreover, are specially apt to decay and become loose."[4] Another observes: "The teeth appear very late, ... while they also rapidly decay or fall out, being deficient in enamel."[5] Others again state that modifications of dentition vary according to the period at which the active phase of rickets becomes manifest. If it be early, there are three ways in which the modifications may occur: 1. The teeth are late in their eruption. 2 The teeth are cut cross—that is, they appear in wrong order. 3. They soon become carious, and are often shed early.[6] In our practice the correctness of these views, in their entirety, has for some time been held in doubt, and with the object of bringing them to the test we have made more careful and extended observations on this subject. For this purpose we have examined the mouths of some 500 children with obvious rickets, and find, as we anticipated, the results are not confirmatory of the prevalent ideas on this subject. Briefly tabulated, these results are as follows: *A*. In the vast majority of patients the teeth are perfect in structure. There is no deficiency of enamel. The teeth do not become loose, and rapidly fall out. There is no special proneness to decay. *B* In those rare cases where the teeth have been found defective a history of inherited syphilis has been obtained. *C*. Dentition is undoubtedly delayed.

The result we have obtained under the heading *C* is then quite in accord with the writers we have quoted, as also with the prevalent opinion, whilst widely differing from them in other respects. Bland Sutton has made the suggestion that the delay is caused by "abnormal thickness of the follicles."[7] By the end of the seventeenth week of fœtal life the dentine is in process of calcification, and about the same time a deposit of enamel commences in the enamel organ. From this time forward the process is a continuous one, so that at birth parts of the crown of the teeth are fully formed, and the course is complete, as regards the crowns, between the third or fourth month after birth. It is still then a doubtful point whether the enamel has received its full impregnation of salts. Of late years it has been recognised by various observers that rickets may commence in utero, and in such instances as these some modifications in structure of the upper parts of the crowns of the teeth might be looked for, as is the case in congenital syphilis. Again, the presence of this disorder at birth, soon after, and up to the third or fourth month, should, on an assumption, bring about some defect of the lower portions of the crowns of the teeth (i.e., near the neck). Following Kassowitz, the earliest indications of rickets are either trifling beading of the rib costo-chondral junctions, or cranio-tabes, or a combination of these. He considers that at least 80 per cent. of children in Vienna under three years of age are rickety. On the question of some trifling beading of the ribs amongst the children of the London poor, we should be prepared to go much further than he does, and say that in a very large out-patient experience we have never yet failed to make out some very slight bossing in this situation in the youngest infants; and that, if this is to be taken as sufficient evidence of rickets, then the disease is nearly ever present in the out-patient room to some extent. A very large number of children must, therefore, be slightly rachitic during the period of the formation of the enamel of the lower half of the crowns of the teeth—i.e., the cervical part.

On the question of cranio-tabes, however, we hold somewhat different views, and consider that congenital syphilis is largely responsible for this condition of affairs.[8] Moreover, in comparison with the beads on the ribs, it is of infrequent occurrence. Given, then, that this beading of the ribs, to however slight an extent present, and seeing also how prevalent this condition is in the out-patient, it would have been expected, if rickets is such a potent factor as the text-books state, that some dental alteration in the shape of enamel scarring would have been detected in a considerable proportion of these cases, yet the contrary has been our experience. We have over and over again watched the teeth-cutting in obviously rickety children—children who have been attending as out-patients for weeks,—yet our observations have not been rewarded by the eruption of pitted and defective enamel: on the contrary, it has appeared to be quite perfect.

It must not be inferred that because a history of syphilis has been observed we consider such teeth syphilitic. Whilst not holding with Parrot that rickets is a syphilitic manifestation, yet in our experience, as doubtless in that of many others, the syphilitic cachexia is when present a very powerful agent in the production of rickets. In a large number of rickety children a syphilitic history can be obtained if inquired for,[9] and the observer is not infrequently startled by the appearance in some such cases of a slight syphilitic rash on the buttocks, anal condylomata, a specific ulcer in the mouth, eye trouble, or what not, in a child who, for all the signs that were present at the time of the first examination, would otherwise have passed as rickety merely. These signs showed that the disease was smouldering on, and that the syphilitic cachexia was underlying the rickety trouble. On this account, therefore, we cannot attach that importance to the heading *B* which we might otherwise have done. What we do say, however, is that it is not proven that rickets is responsible for all the dental troubles that have been laid to its charge; that the association of rickets with carious teeth as between cause and effect is merely an assumption; and that caries does not take place in any case in rickety children to anything like the extent the text-books would lead us to infer. What is wanted is some more extended and definite observations on this interesting point, and not statements which go the round of the various medical books in somewhat different dress, quite unchallenged and accepted as truisms.

Buckingham Palace Mansions.

[1] Fagge, third edition, vol. ii., p. 736-7.
[2] Goodhart, fourth edition, p. 646.
[3] Quain's Dictionary of Medicine, article Rickets (Eustace Smith), p. 1373.
[4] Bristowe, seventh edition, p. 930.
[5] Roberts, seventh edition, p. 285.
[6] Keating's Encyclopædia, Diseases of Children, article Rickets; Barlow and Berry; vol. ii., p. 226.
[7] Odontological Society's Transactions, 1889.
[8] Cranio-tabes in Young Children: a Clinical Inquiry into its Origin. Illustrated by 100 Cases. By George Carpenter, M.D. (St. Thomas's Hospital Reports, vol. xix., pp. 234 et seq.)
[9] St. Thomas's Hospital Reports, vol. xix, p. 341.

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Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON THE RESULT OF EXCISION OF THE KNEE JOINT.

BY HENRY SMITH, F.R.C.S.

A FEW days since, whilst visiting an old pupil in the country, a young man in the garb of a postman was presented to my notice, and with some difficulty I recognised him as one on whom I had performed excision of the knee-joint at King's College Hospital in 1882. On examining the limb I found that it was perfectly straight, and thoroughly firm at the seat of incision. There was so little shortening that it was hardly perceptible, and the calf was well-developed. He informed me that he was following the occupation of a country postman, and sometimes would walk twenty miles in the day. He did not use any stick. It appears that he was fourteen years of age when the operation was performed.

This case is interesting and valuable as showing the utility of a limb after excision, and particularly so considering the nature of the man's occupation. It has occurred to me, I am happy to say, to meet with several cases where I have been able to test the utility of a limb years after excision of the knee, and I have been astonished with the results observed; but I have rarely met with a more satisfactory case than the one related, although amongst others I may refer to two instances occasionally seen by me in the neighbourhood of my country residence, and both of which were operated on some years since in King's College Hospital. In the one the patient is a fine tall woman, who is fulfilling the duties of lady's maid and walks without a halt; in the other the patient is a fly driver, who jumps up and down from his box with great facility and walks with scarcely any limping. Those who take an interest in this subject will agree with me that such cases as these, observed years after the operation, are especially valuable, and the more so when we bear in mind the opposition which was experienced by those of us who persisted in giving it a fair trial, although it was denounced as "mountebank surgery," and an eminent lecturer publicly stated that the result of removing the knee-joint would be merely the retention of a limb only "fit for a flail."

Wimpole street, W.

CASE OF PLACENTA PRÆVIA.

BY JAMES GILROY, M.B.

ON Feb. 17th, about 10.30 P.M., I was requested to visit Mrs. P——, residing some miles distant. The facts of the case, as given by the patient, were that about 8 P.M. that evening she had been suddenly seized with hæmorrhage, that she was pregnant, and expected her confinement early next April. The patient is a young married woman with a family of three children, and never had anything out of the way, to her knowledge, in previous confinements. On examination per vaginam I found the flow of blood had ceased, and that no uterine contractions were taking place. The os admitted the point of the finger easily enough, and the membranes appeared to be intact. As the patient said she thought the bleeding might have resulted from a mental shock she sustained that day, and had no pain whatever, and the bleeding apparently ceased, I left her, enjoining rest in bed, a light diet, and instructing her to send at once for assistance if the bleeding returned. She had no nurse to whom I could confide the operation of plugging in case of sudden emergency arising. I saw her again on the 19th, when she informed me there had been no return of the bleeding, and she still kept her bed. I heard no more of the case until Feb. 23rd, when I was hastily summoned. I found the patient bleeding copiously, with an undilated os, from which, the moment I attempted to dilate, blood issued in a perfect torrent. On sweeping the circumference of the arc of the circle denoted by the presenting part, evidently the head of the child, I came upon a boggy projecting part, which gave with sufficient clearness a guide as to the nature of the case. I proceeded to dilate the os with my fingers as speedily as I could, and succeeded in inserting my hand, and although only a matter of a few minutes, the bed was drenched with blood, which dilatation rendered alarming in character and amount. I seized a hand first in attempting version, but, feeling sure as to the thumb, got past that and brought down the foot. The rest was easy, the head following suit readily, and not, as in a previous somewhat similar case of placenta prævia, getting hitched at the promontory of the sacrum. The patient has done well since. The infant survived its birth only seven days. A curious point about the placenta I wish to record is that it was quadrilateral (perhaps lozenge-shaped would convey more correctly what I mean) in shape and the cord joined it at one corner.

Waterbeck, Dumfriesshire.

TWO CASES OF CONCUSSION OF THE SPINAL CORD.

BY F. LE GROS CLARK, F.R.S.,
CONSULTING SURGEON TO ST. THOMAS'S HOSPITAL.
Reported by Herbert A. Lawton, M.D.

AS a further contribution to the literature of concussion of the spinal cord, I think the following cases, which occurred in the practice of Mr. Le Gros Clark (who has kindly given permission for their publication), worth recording. I have copied them from my case-book notes made during the winter session 1871–72, when acting as dresser.

W. C——, aged twenty, labourer, residing in Lambeth, was admitted into Albert Ward on Dec. 13th, 1871, suffering from an injury to the spine. The patient states that while employed in unloading a barge he had to carry a basket weighing 1 cwt. along a plank 28 ft. in length from the barge to the wharf. At the end of the plank was a ladder, up which he had to go. He had got his foot on the first step, and was proceeding to ascend the second, when he slipped and fell across the plank, the edge of which struck against the small of his back. At the same time he let go the basket, which fell on his abdomen, thus jamming him between the plank and the basket. He was prevented from falling into the river. He was unconscious for a short time. On admission, about one hour after the accident, he was found to have sustained a fracture of the spinous process of the fourth lumbar vertebra, with depression. The lower extremities were cold and paralysed. As he could not pass his urine, a catheter was introduced into the bladder.—Dec. 14th: The patient slept but little last night. He complains of shooting pains in the back. There is complete loss of sensation from two and a half to three inches above the umbilicus, extending all down the lower extremities. He has no control over bladder or rectum. Catheter to be passed three times a day. On going round late at night this patient was found to be lying on his left side. His bladder had emptied itself, he being unconscious of it.—15th: This morning he passed his urine consciously. There is some return of sensation about flanks and umbilicus.—19th: He has recovered sensation over the whole abdomen and lower extremities, also control over the bladder. Eats well, sleeps well. He attempted to leave the hospital last night.—27th: Gets about now. Sensation and motion of lower extremities perfect. Discharged cured.

R. P——, aged forty-nine, clerk, admitted into Albert Ward on March 10th, 1872, at 12.15 A.M. About three hours prior to admission, while under the influence of alcohol, he slipped down a flight of stone doorsteps. On admission, the lower extremities were cold and sensation considerably diminished. He was very tender in the lumbar region.—March 11th: Has dozed during the night. Sensation has nearly returned. No retention of urine. Cough troublesome. The following mixture was ordered to be taken three times a day:—One drachm of compound tincture of camphor, two drachms of liquor ammoniæ acetatis, one drachm of mistura acaciæ, to an ounce of water. March 13th: Sensation has now quite returned. Sleeps fairly. Cough better.—21st: Doing well. To get up.—25th: Up and walking about.—28th: Discharged cured.

Poole, Dorset.

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CASE OF BALANITIS IN A CHILD AGED THREE YEARS.

By J. W. MARTIN, M.D., F.R.C.P. EDIN.

ON Feb. 10th, 1891, I was called to a child aged three years and a quarter, suffering from some affection of the genitals. The child has a left inguinal hernia, for which it wears a truss. He had not been vaccinated on that account. His left arm had been fractured on two occasions. The anterior fontanelle is not completely closed. The mother stated he had slept with the truss on for two nights. On Tuesday, March 8th, the child was pained and "swelled." On Wednesday he had difficulty in passing urine. He was restless at night, complained of thirst, and had no appetite. His head and face were swollen. A quantity of thick milk-white matter came away from the penis, and he could make water; after this the symptoms began to lessen. On examining the penis I found the thick whitish discharge oozing out of the point of the penis, the glans was swollen, and the skin over it reddened. The prepuce was seen to be red and inflamed. On inquiry I ascertained that a relative, who suffers from a discharge owing to chronic cystitis, had been in the habit of nursing the child when he came in, and being dressed as children of such years generally are, the child's penis must have come in contact with some of the discharge, and the infection have been set up in this way. There was no other reason to account for it. Any dirty discharge will set up similar inflammation in a young subject, not to mention gonorrhœa. With local and general treatment the balanitis soon got better, the only complication being an attack of vomiting and purging one night.

The case seems to me worthy of being placed on record because of its rarity, and as a warning to those having any chronic discharge not to nurse or fondle infants.

Leith.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

LONDON HOSPITAL.

PERIOSTITIS OCCURRING AS A SEQUELA OF ENTERIC FEVER.

(Under the care of Dr. STEPHEN MACKENZIE.)

DR. MACKENZIE remarks, with regard to this case, that the occurrence of periostitis, as a sequel to enteric fever, is not common in his experience; but the disease is probably less infrequent than is generally believed. It is not alluded to in several standard text-books, but is mentioned by Bristowe, and by Cayley in Fowler's "Dictionary of Practical Medicine." Sir James Paget appears to have been the first to draw attention to the lesion, and cases have been recorded by Messrs. Hayward, Mackay, Jackson, H. W. King, Afflick, Gostling, and others, and M. Routier has written on the subject. Periostitis after enteric fever occurs most frequently in young persons. The most common situation is on the bones of the extremities, especially the tibia, where it sometimes occurs symmetrically; but it may occur on the ribs and sternum. It usually occurs during convalescence, when, as Sir James Paget says, the patient is "well of his fever"; but, as Dr. Afflick has shown, it may take place during the pyrexial period. Contrary to what happened in the present instance, it usually suppurates, and often causes necrosis of the subjacent bone, and in rare instances occurs in a chronic form. With regard to its causation, M. Routier attributes it to injury in all cases, though, as pointed out by some observers, it would probably, if this were the case, be present in other fevers followed by exhaustion and devitalisation of the tissues. The more likely explanation is that suggested by Sir James Paget,[1] that it is due to some morbid material remaining in the blood and affecting only certain tissues. To quote his words, "After all the signs of typhoid fever have passed away, when the convalescence is established, and all the waste and damage of the disease are being repaired—while thus, in respect of general nutrition, the health might be deemed above its average, we may find an acute inflammation of one portion of the periosteum of one bone. It is surely an evidence that that one portion was the only portion of the body in and with which the something in the blood could generate disease. It seems the more evident in the fact that sometimes the periostitis has appeared symmetrically on both the tibiæ. The two portions of periosteum symmetrically placed were identical in composition, as symmetrical pieces of the body often are; therefore both were similarly disturbed—no other part being exactly like them no other was disturbed. In all the body nothing was susceptible of the disease except these two pieces." Syphilis, in which *par excellence* periostitis is usually encountered, has been called by Mr. Hutchinson, "an exanthem long drawn out," and it is interesting that in the most protracted of the specific fevers of this country—enteric fever—periostitis is occasionally met with. Moreover, whilst in syphilis periostitis is usually a tertiary phenomenon, yet it occasionally occurs in the secondary and febrile period. The parallelism is therefore close. For the notes of this case we are indebted to Dr. J. H. Sequeira.

P. L——, aged sixteen, dressmaker, was admitted to the London Hospital on Sept. 10th, 1891. She was then complaining of pains in the back, stomach, and head. The temperature on admission was 102·4°. There was no history of any previous illness. One brother, eleven years old, suffers from chorea. The rest of the family are healthy. The case proved to be a characteristic example of enteric fever. Successive crops of spots appeared, and the stools were yellow and fluid. The evening temperatures reached 104° on several occasions. On Sept. 23rd the temperature began to show large morning remissions, but was not persistently normal until after Oct. 16th. On Oct. 26th a swelling was noticed on the right ulna, near the wrist. The swelling was tender, hot, and red, and was connected with the bone. Evaporating lead lotions were applied, and the tenderness and heat had disappeared by Oct. 31st, but some thickening of the bone persisted for a week longer.

BRISTOL GENERAL HOSPITAL.

MULTIPLE TUBERCULAR CEREBRAL TUMOURS; CONVULSIONS; TREPHINING OVER MOTOR AREA.

(Under the care of Mr. NELSON C. DOBSON.)

THIS case illustrates a condition of some rarity, the presence of a tubercular growth in the motor area of the brain, which was sufficient to cause symptoms of so much importance that it was localised, and an attempt made to remove it. There were several other tubercular deposits within the skull, but they did not give rise to symptoms indicating their presence. Dr. Hale White, in writing of the cases of tubercular character amongst the series of cerebral tumours collected by him, says that not more than three of the forty-five were likely to be benefited by operation, and they were accompanied by tubercular disease of other organs. There are now several recorded cases in which, although the tumour was not found at the operation, or its removal was incomplete, great relief was experienced as the result of the diminished pressure. We have published a case which was under the care of Mr. F. A. Heath, which shows this in a marked degree.[2] There is no doubt the growth found at the edge of the trephine opening was the discharging lesion which caused the unilateral convulsions. Even if the trephine opening had exposed it, and it had been removed, the larger growth in the opposite corpus striatum might have proved fatal. As it was, headache never recurred after the relief of the intracranial pressure by trephining; and had the wound not become septic the patient might by this relief have been materially

[1] THE LANCET, vol. ii. 1887, p. 1001: Neale's "Digest," third edition. By a printer's error it is given as vol. ii. 1889, and Dr. Mackenzie wishes to thank Dr. Neale for the correction.

[2] THE LANCET, vol. i. 1888.

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benefited, and perhaps the tubercular growths might have become quiescent. The fatal meningitis seems to have set in after the escape of the cerebro-spinal fluid on the 5th of April. For the notes of the case we are indebted to Mr. Charles A. Morton, registrar.

A. S——, aged eighteen, was admitted into the hospital on Feb. 1st, 1892, with the following history:—For five years she had been subject to czæna. Ten weeks before admission she began to suffer from pain across the forehead, extending over the back of the head and down the neck. Shortly after the headache began she commenced to vomit frequently and quite irrespective of food. After a few weeks the headache and vomiting became less marked, only occurring every other day. On the alternate days she seemed quite well. Six weeks before admission she began to suffer from weekly attacks of twitching in the left upper limb, beginning in the thumb and first finger. This has always been preceded by a feeling as if the parts were too large, beginning in the thumb only and then spreading up the arm to the shoulder. During the last two attacks it has, however, begun in the fingers also. During the last fortnight, when this aura has come on in connexion with the convulsive movements of the arm, there has been a sensation in the left side of the tongue and inside of the cheek and gums on the same side, as if she had had "too hot tea in her mouth," and yet she said it was not a numb feeling, and she could not describe it other than as a "lumpy feeling." The aura in the tongue always followed the aura in the arm. There was never any convulsive movement of the face noticed. The convulsive movements were limited to the left arm until Feb. 4th. They were never followed by any paresis in the arm.

On Feb. 4th (after admission) Mr. Morton was standing by the bedside, after an ophthalmoscopic examination, when she called his attention to her left arm, which she said felt numb. Clonic spasm was then present in the arm, then the limb became rigid and drawn up, quickly followed by general rigidity, and then clonic spasm lasting about a minute, accompanied by coma and followed by much lividity and pallor and feebleness of pulse. This condition of cardiac and respiratory failure quickly passed off, and consciousness soon returned, so that she knew when spoken to, and said "Yes," but a quarter of an hour after she did not recognise her relatives. Before an hour had elapsed, however, she knew them again. This was the only attack of general convulsions she had during the course of her illness.

Three weeks after her illness began she commenced to see double. This lasted four weeks, and was constant. During this time she is said to have squinted with the left eye. Her sight began to fail six weeks before admission, and at times even perception of light failed. There had been no otorrhœa. There was a distinct history of one rigor whilst she was sitting by the fire at the beginning of her illness. She had been up and about for some time before admission.

On admission it was noted that she looked well, and was free from headache and vomiting. There was, however, intense double optic neuritis. The discs were so swollen that the surface was seen with a +5, and there was great hurrying and bending of the vessels, and numerous striated nerve-fibre hæmorrhages around. In the right eye, upwards and inwards, not far from the disc, was a smooth retinal elevation, the vessels on which were seen with a +6. In the macula were numerous glistening white spots, and below large patches of retinal effusion and hæmorrhage. Vision: right eye, $\frac{5}{12}$ and J. 4; left, $\frac{5}{18}$, J. 10. There was no loss of power in the left hand or left side of face, and no anæsthesia, analgesia, or thermanæsthesia; no deviation of tongue and no ocular paralysis; pulse 112, small but regular; respiration 24–28. She could walk about very well and her memory was very good. There was no tenderness over any part of the skull or frontal sinuses. The nose was examined by Dr. Baron, who reported that both sides were covered with thick scabs which prevented further examination until removal. Her lungs and urine were normal. It was considered almost certain that there was a gross lesion involving the arm and face centre, and the history of ozæna, with a rigor at the beginning of her illness, pointed to cerebral abscess, probably secondary to frontal sinus mischief, and therefore in the frontal lobe, which had after some weeks extended backwards, and had begun to irritate the arm and face centres. The history of czæna and rigor seemed to make this more probably the explanation of the symptoms than cerebral tumour, which, however, was recognised as a very possible cause. Her temperature was normal, but this of course was not more in favour of one than the other. It was decided at a consultation, as the girl seemed so well, not to explore at that time.

On Feb. 9th, at noon, she had a sensation as if the left thumb were too large, and twitching of the thumb, lasting a few minutes. This time the spasm was simply in the thumb, and did not consist in approximation of the thumb and forefinger, and it did not spread up the arm; very shortly after this attack she had the curious feeling in the left side of the tongue and inside of the cheek, lasting ten minutes. Directly after this Mr. Morton saw her, and noticed the mouth slightly drawn to the right, and marked powerlessness of the left angle. She could completely close both eyes. There was no ocular deviation or paresis, no anæsthesia of thumb, hand, or left side of face, and her mental condition seemed unimpaired. During the month from Feb. 9th to March 8th she had three attacks of headache only, but they were severe, and she never vomited. They were on the 15th, 18th, and 29th of February. She seemed much inclined to sleep, but was always quite sensible when awake, until March 2nd, when she became rather noisy and excited, and had to be removed to a private ward. But on the following day she became quiet and rational again, and on March 7th she returned to the general ward. At this time she was rather drowsy, and headache was troublesome. On Feb. 16th the eyes were again examined ophthalmoscopically and very numerous flame-shaped hæmorrhages were seen around the disc, extending far into the periphery in the left eye. These had not been seen on the previous examination, and this hæmorrhagic condition was on this second examination much more marked in the left than in the right eye, where the hæmorrhages were not numerous, and were confined to the neighbourhood of the disc. The glistening spots in the right and the swelling of the discs remained the same. The macula had also become surrounded by a diffuse whiteness. By the 29th of February vision was reduced to rather dull perception of light in both eyes. With the exception of one evening rise to 100°, the temperature up to March 10th was normal. Only once after syringing had there been any purulent discharge from the nose.

In the evening of March 9th headache returned, and between 3 A.M. and 6 A.M. she was very excited, sitting up in bed and singing. At 6 A.M. she became unconscious, and remained so until 8 A.M. After return of consciousness she felt sick but did not vomit, and her memory was impaired. It was now decided to trephine over her arm and face centre and explore the brain for abscess and tumour, and it was thought that even if one was not discovered, the intracranial pressure might be relieved. The head having been shaved and thoroughly carbolised, the fissure of Rolando was marked out according to Reid's lines, and a point in the middle of the fissure marked on the bone with a bradawl. A flap was turned down and the bradawl puncture sought for, but not found. However, Mr. Dobson was sure of its exact position, and the skull was trephined there. On removal of the crown of bone the dura mater bulged much into the wound, and on removal of this the brain bulged into the opening still more, so as to protrude slightly beyond the level of the outer surface of the skull; it appeared normal. The brain was explored in all directions with an exploring syringe with needle three inches long. The operation was thoroughly antiseptic. A drainage-tube was placed under the flap, projecting at the upper angles. She took the chloroform for the half-hour very well.

The patient lived a month after the operation. During this time she had no headache and remained perfectly rational and quiet until a few days before her death. Unfortunately the wound did not remain aseptic, and after much œdematous swelling of the scalp and face a hernia cerebri formed, and after a time septic meningitis followed. Hemiplegia began to develop the day after the trephining on the opposite side, beginning in the hand and the left angle of the mouth, and then involving the whole of the upper and lower limbs, and later on becoming associated with complete analgesia of the left upper and lower limbs and side of body, and complete anæsthesia in lower limbs, and great impairment of sensibility in the upper. The fundus hæmorrhages nearly cleared up, and there was very slight diminution in the neuritis in the right towards the end. On one occasion she discharged a small quantity of thick

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greenish pus from the nose. On April 5th she discharged large quantities of watery fluid from the cranial opening. The hernia cerebri was by this time very large, and had pushed open the flap of skin. From the time of this discharge of cerebro-spinal fluid her mental condition altered, and she became less conscious of things about her. The discharge was only noticed for twelve hours. No doubt the lateral ventricle had been opened by the rapidly increasing cerebral softening and hernia cerebri. After this she quickly became comatose, and a fine tremor set in in the right (the non-paralysed) side, and continued in the arm with the addition of more convulsive movements, but ceased in the leg before death, which took place on the 10th. During the last day she vomited everything. The first serious rise of temperature after the operation was on the third day, to 103°; after this it continued to range between 101° in the morning and 104° at night daily for a fortnight; it then dropped to 100° in the morning, but still rose to 104° at night for another week; then for some days became normal in the morning, but 105° at night; and then on and after the fifth day, when she discharged the cerebro-spinal fluid, the temperature ceased to fall in the morning, and was usually between 105° and 106°; and on the eighth and ninth reached 107°, but quickly fell again lower than it had averaged before during these days. During the last twelve hours it three times reached 106°. On the ninth the pulse was 160, respiration 80; breathing Cheyne-Stokes the night before.

The post-mortem examination of the brain.—The cerebral cortex above the hernia (which was the size of a small orange) was seen to fall in, and the frontal lobe to be much shrunken. On cutting into the brain it was apparent that a great part of the middle third of the hemisphere had disappeared into the hernia, and the rest was represented by a mass of red, soft, almost liquid tissue, and through this the lateral ventricle was opened. This softened brain tissue was adherent to the dura mater all round the trephine opening; and after the brain had been cut up a nodule of firm tubercle the size of a half-crown was discovered immediately under the dura mater in this soft brain matter, where they were adherent, just at the edge of the trephine opening so that the edge of the growth met the edge of the opening), either in front of or behind it, but it was not possible to say which. There were two other small nodules of tubercular growth elsewhere in this hemisphere, away from the motor area. The lateral ventricles were quite empty. In the caudate nucleus of the left side (the opposite side to the cortex growth just described), slightly projecting into the ventricle, and exposed on its inner aspect by a median section through the brain, was a nodulated firm yellow tubercular growth, looking, as it projected into the ventricle, about the size of a walnut, but it only extended a very short distance into the corpus striatum. There was also a small quite superficial nodule the size of a shilling just under the surface in the left superior parietal lobule, one inch from the upper and inner margin of the hemisphere, and just behind the ascending parietal convolution. There was also one the same size in the posterior part of the left occipital lobe. All these growths were typically tubercular. There was purulent meningitis of the right side of the vertex and the base. The patch of raised retina in the right eye proved to be a tubercular growth seven millimetres in diameter. The upper part of both lungs contained numerous miliary tubercles. The bronchial glands were not caseous. All the other organs were healthy, and there were no miliary tubercles seen in them.

METROPOLITAN PUBLIC GARDENS ASSOCIATION.—It was announced at the last monthly meeting of this Association that the old burial grounds, Hackney-road, and De Beauvoir-square, Kingsland-road, would shortly be opened for the public use; that the Association was adapting for recreation purposes the churchyards at Spitalfields and St. Ann's, Soho; and that satisfactory arrangements had been made with Lord Calthorpe with regard to the open space in front of Duncan-terrace, Islington. It was decided to take steps for the acquisition of St. Thomas's-square, Hackney, which the local authorities were willing to maintain, and also to take charge during the summer months of the churchyards of St. Katherine Coleman and St. Dunstan's-in-the-East.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Adjourned Debate on Renal Dropsy.

AN ordinary meeting of this Society took place on May 11th, the President, Sir Andrew Clark, in the chair.

Dr. DOUGLAS POWELL, in reopening the discussion on Dr. Dickinson's paper, said he thought it would clear the ground if speakers declared at once whether or not they accepted the statement put forward by Dr. Pye-Smith, in which, so far as he personally was concerned, he heartily concurred—namely, that the late dropsy of renal disease had no essential connexion with the kidney mischief, but was the direct consequence of heart failure. In interstitial nephritis the diseased kidney underwent gradual destruction, and by and by uræmic phenomena made their appearance. But this variety of kidney disease was marked by a singular absence of dropsy, though should the patient survive the uræmic accidents, and should the case go on to the bitter end, then later on in the disease dropsy came on, but only as an indication of and associated with heart failure. He pointed out that this form of kidney disease was characterised throughout by the so-called high-tension pulse from the very earliest stage. This condition of the pulse persisted until the later stages of the disease, and it was only quite at the end, that passive œdema supervened. Then, still later, œdema of the lungs, anginal complications, and gradually increasing dropsy closed the scene. In tubular nephritis the dropsical phenomena were among the early symptoms, diminishing as the case went on, just as the signs of arterial tension made their appearance, and as the heart underwent hypertrophy. He had indeed noted cases of acute nephritis not associated with dropsy, but there had invariably been either vomiting or diarrhœa, or other flux, compensating for the absence of renal secretion, and thus the dropsy had been warded off. He strongly inclined to the belief that the high-tension pulse of kidney disease had really nothing to do with the production of the dropsy. On the contrary, he had remarked increase of arterial tension was often associated with diminished dropsy. On the whole, he did not consider that the arterial tension met with in kidney disease was greater than that met with in acute diseases of all kinds associated with febrile symptoms—as, for instance, acute gout, peritonitis, &c., though in this case the arterioles were relaxed. He regarded the cardio-vascular changes as compensatory, as an attempt to carry on the renal secretion under difficulties, as called forth by the requirements of the kidney function in the direction of increased pressure. Then, again, the high-tension pulse was by no means necessarily associated with renal disease, being met with in other conditions, as in fevers, when it was not accompanied by dropsy. What, then, was the cause of renal dropsy? The author had mentioned two possible or probable causes: one of transudation through the walls of the vessels under pressure or increased osmosis, the other a kind of secretory power possessed by the capillaries, which he confessed he did not quite understand. Dr. Pye-Smith had suggested a fourth cause, that the dropsy of acute nephritis was of the nature of an inflammatory exudation. He could not admit pressure as a direct cause of dropsy in renal disease, seeing that during the period of highest tension dropsy was not present. In heart cases the patient was often greatly distressed, yet there was no dropsy for some reason. When it did develop great relief followed. He thought that possibly osmosis did to some extent answer the question. Most of them would agree that the dropsy of renal disease was osmotic, and intended to compensate for deficient kidney secretion, increasing in proportion to the renal insufficiency, and decreasing as it was re-established. There was nothing very special about this phenomenon, for it was constantly going on in health. He did not see how Dr. Pye-Smith could substantiate his view as to the inflammatory character of the œdema in acute nephritis. There was no clinical evidence to support it, and the characters of the fluid were quite distinct. He mentioned the case of a young woman of twenty-five who had had scarlet fever in early life, with dropsy then. Two years before admission she was undoubtedly albuminuric, with hæmor-

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rhages, cardiac hypertrophy, &c. Her pulse exhibited the condition of high arterial tension to perfection, and in some tracings even when the radial artery was completely arrested the pulse tracing was still perceptible below the level of obstruction.

Dr. BROADBENT said he was prepared to go a long way with the author in the explanations which he had suggested as to the causation of renal dropsy. The observation of renal and cardiac dropsy showed so many points of resemblance as to suggest that there must be a similarity of causation. If, therefore, they admitted the hydraulic causation of cardiac dropsy, some hydraulic cause must be sought for in dropsy of renal origin. The fact that renal dropsy came chiefly in the lower extremities tended to support the view that it must resemble cardiac dropsy. A patient lying in bed with renal disease did not get dropsy, but it appeared so soon as he got up. The conclusions to be drawn from these phenomena were so obvious as to gainsay the suggestion that renal dropsy was ever or in any degree inflammatory. He believed that the obstruction was situated at first in the capillary system and not primarily in the arterioles. He well remembered this idea as having been suggested by the celebrated Dr. Payne when Dr. Johnson brought forward his hypothesis. It by no means told against his great discovery that the site of the obstruction was shifted, and was made primarily arterial and secondarily capillary. He was ready to admit that the additional obstruction which gave rise to the dropsy in renal disease was resident in the capillaries, and that something in the blood was the cause of the increased resistance, and thus caused the exudation. The pathological phenomena of tubular nephritis were exceedingly interesting. In the heart the phenomena were those of acute dilatation. There was from the first mechanical evidence of arterial tension when the pulse was not exactly of the same kind to give that impression, and with the idea in one's mind of capillary obstruction, the character of the pulse in the first instance was suggestive of obstruction beyond the arterioles and not due to arterial contraction. Then the immediate prognosis of acute renal dropsy could always be determined by the development of the ordinary signs of high arterial tension: the full vessel, the modification of the heart sound, the prolonging of the first sound, the extended second sound. If in the course of a week or two these indications did not develop, the prognosis of acute renal dropsy became serious, and many times one had seen these cases linger on indefinitely, and one had been able to anticipate this course by failure of this high arterial tension. With regard to the dropsy of old-standing chronic Bright's disease, undoubtedly that was a dropsy due to cardiac failure, and not to any increase of blood pressure or to the renal changes. He had frequently witnessed the supervention of dropsy and albuminuria late in the history o fcontracted granular kidney after an acute attack of acute tubular nephritis, when the whole affair had been the giving way of the left ventricle. In Dr. Dickinson's explanation he thought they had the most probable explanation of renal dropsy yet formulated. Without accepting it definitely, he was greatly disposed to regard it as in all probability the correct explanation.

Dr. SANSOM said the question before them was whether the phenomena of cardiac and renal dropsy could be explained by dynamic causes or not. The discussion had gone far to answer the question in the affirmative. From what he had seen and observed he felt compelled to differ from that conclusion, and he thought they must look elsewhere for the chief, the determining factor. The question of arterial tension was much more complicated than one might have been tempted to think from the observations that had been made. What did they mean, after all, by a high arterial tension? In the first place, he thought that these factors might be dissociated, and were commonly dissociated; that is to say, the cardiac and the vascular phenomena. There might be increased cardiac activity without arterial contraction, and *vice versâ*. He would assume the arterioles to be relaxed while the cardiac portion of the circulation was contracted. That occurred in the early stages of fevers, when, with a strongly contracting heart, there were relaxed arterioles and a dicrotous pulse. It would not be correct in such cases to say there was low arterial tension, though, judging solely from the pulse, one might be tempted to say so. It was a pulse of high tension, for the blood pressure at a given moment was greatly above the normal. Conversely they might have very contracted arterioles with feeble cardiac action, giving a small pulse presenting the characters of high tension. He must therefore plead for a reconstruction of the terminology. High arterial tension might exist not only in conditions of health, but even in aortic regurgitation. The difference was that in chronic renal disease the high tension was prolonged. It was sufficient for his purpose to say that the cardiac phenomena and the vascular phenomena might not go hand in hand. That fact, he thought, had a considerable bearing on the question of the dynamic causation of dropsy, whether renal or cardiac. Moreover, the tension, even in chronic renal disease, was by no means a constant quantity. Most of them would agree that there were occasions when the tension underwent great alterations, as, for instance, in the course of an inter-current attack of some febrile disorder, without any consequent alteration in the amount of the dropsy. On the contrary, the dropsy would often increase during the period of low tension, and decrease when the high tension was restored. He did not think, therefore, that it was possible to establish any constant ratio between the cardio-vascular phenomena, so far as the production of dropsy was concerned. He could not agree with the view suggested by Dr. Pye-Smith in this respect. Dr. Pye-Smith had stated that the arterioles could not be concerned in affecting the onward current of the circulation, for they were always repressive and never onward forces in the circulation. That, however, was after all a matter of degree. With contracted arterioles and a weak heart they got a small supply of blood to the capillaries. He had seen evidences of this in curarised frogs going on to extreme contraction of the arterioles and obliteration of the capillaries. The action was repressive or exciting, according to the relationship between the heart and the vessels. Whether the obstruction was in the arterioles or in the capillaries, he could not conceive how the dropsy could be attributed to the escape of the fluid elements from the capillaries or to any hypothetical relation between the capillaries and the surrounding tissues. When they saw such immediate results as followed the inhalation of nitrite of amyl or other agents that relaxed the arterial walls, it showed that the major and by far the greater source of the cause of obstruction must be in the arterioles, and not near their junction with the capillaries. That seemed to him to be incontrovertible. Having said this much in the direction of destructive criticism, he would turn to constructive observations. What might the cause of the dropsy be if not dynamic? He was surprised that nothing had been said in the discussion of the interesting and valuable researches of the late Dr. Wooldridge, who had shown what remarkable effects followed the injection of toxines into the blood. Dr. Wooldridge had demonstrated that dropsy would not occur in dynamic conditions of the blood very carefully brought about, unless some small amount of lymph products were injected into the blood. So soon as that was done the dropsy followed. He urged that it was not difficult in renal disease to assume that reabsorption was likely to take place in view of an impeded excretion, and the effect was transudation, as observed by actual experiment. Again, in cardiac disease it was not a matter of conjecture. He had himself seen plugging of the subclavian vein close to the duct followed by extreme general dropsy and gradual recovery. It was borne out occasionally by clinical experience, and still more so the probability that, not for one moment doubting that dynamic causes had their *rôles*, yet that auto-intoxication certainly was not without importance in the production of both renal and cardiac dropsy.

Dr. HAIG pointed out that in everybody and every day there were physiological causes at work which would have for effect to determine the presence in the blood or tissues of an excess of water which might be unable to pass out. That condition was the contraction of the arterioles, and in a paper which he had recently read before the Society he had shown that the most frequent cause of this contraction was the presence of uric acid. He pointed out that in renal incompetency the surplus water might be got rid of by cutaneous means or by the lungs, but when the arterioles were contracted, the water could not get out in either direction. Dilate the arterioles and it passed freely in every direction. He showed a diagram tabulating the results obtained by the use of drugs which contracted the arterioles, and their effect was the same as that of uric acid. As the blood pressure rose the excretion of urine augmented, but when the blood pressure reached its highest point the secre-

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tion of urine diminished and reached its lowest point. Later on, as the blood pressure fell to or below normal, the excretion of urine rose again. Those were the effects observed under erythrophleum, and they were identical with those in uric acid. This point was very well seen in the uric acid headache. During an attack the excretion of urine fell as low as 30cc. Then if they cleared the uric acid away the secretion rapidly rose to 200 or 300cc. in the same period of time. The author mentioned that dropsy did not follow obstructive suppression of urine, but in that condition the escape of the water was only checked in one direction, consequently no accumulation took place in the blood. Acute nephritis was a totally different condition. There was always contraction of the arterioles and excess of water in the blood, the escape of which from the body was plugged in every direction. The dropsy in this case resulted from this accumulation. In the uric acid headache the eyelids had been noticed to become puffy, amounting to almost a beginning of dropsy. There were times when an excess of uric acid leading to contraction of the arterioles and an accumulation of water in the blood took place in everyone. It had been objected to his theory of an alkaline wave that it resulted from the breakfast; but as a matter of fact it occurred before that meal, and was accompanied by scanty urine, which secretion was restored by a small dose of opium, which restored the circulation.

Dr. LAZARUS BARLOW observed that physiological experiments could hardly be adduced in support of pathological facts, and the question of asphyxia, as propounded by Dr. Johnson, hardly seemed to him to support the theory associated with his name. The increase of blood pressure in asphyxia was not to cut off venous blood from the lungs, but was the expression of the need of increased respiration from the medulla. He thought the more or less rival theories of the author and Dr. Johnson were perhaps not wholly irreconcilable. There was one fact well known in pathology—viz., the series of phenomena in inflammation. Though he wished firmly to disclaim that the dropsy of renal disease had anything to do with inflammation, yet it was only reasonable to suppose that something of the same kind might hold good in the two cases. There were deleterious substances circulating in the blood, and these might have some effect on the capillaries through which they passed. It must, however, be brought about in a reflex manner, and the afferent termination of the reflex apparatus was situated in the tissues to which the blood was supplied. Secondly, the deleterious substances in the blood might set up a constrictive action in the arterioles, so that the opposite views of the hypertrophied arterioles and the action of the capillaries might in this way somewhat coincide. In the first place the deleterious material came into contact with the capillary walls, partly producing dropsy by damage to the walls, and also by a certain amount of vital secreting power, which could not in this minor degree be annulled. Lastly, by the slowing of the flow through the capillaries due to arterial contraction: the flow of lymph increased with the increase of blood pressure; yet it was quite possible that with an increase of positive pressure inside the capillary bloodvessels and a lengthened stay in the capillaries transudation might be increased. The contraction of the arterioles might pass off as in puerperal eclampsia, the tension fell, and the patient recovered. This was shown very clearly in a case at St. George's Hospital, in which the pressure and the pulse returned to normal after a stay in the hospital. After long-continued pressure the cardio-vascular changes came to pass, and the pressure was raised in the renal artery, followed by an increase in the flow of urine; hence a getting-rid of deleterious products, and some possibility of repair of the damaged capillary walls. Lastly, the cardiac failure set in. It was not, however, merely a question of cardiac failure. It was rather a combination of this with the other causes. The fact that erysipelas was common in the later stage of renal dropsy, and rare in cardiac dropsy, showed that there was some essential difference in the nature of the two conditions.

Dr. DICKINSON, in reply, said that Dr. Johnson's remarks were largely based on a misconception of the views contained in his paper. As a matter of fact, there was so much agreement of views that he had hoped to receive his support on this occasion. His attention had been excited by observing the enormous effect of differences of pressure on two sides of an animal membrane largely in excess of any effect that could be produced by osmosis. Many of the remarks attributed to him by Dr. Johnson in respect of the *rôle* of the capillaries had not been uttered by him. Whether the arterial thickening came as Dr. Johnson had described remained to be discussed. Let them assume that he was arguing at a time anterior to the thickening of the arterioles, before these had had time to take place, and before this had shut off the blood from the capillaries. In any case, he made no pretension to finality in this respect, and he remained prepared to modify his views as new facts were discovered. He adhered to his view that the capillaries were the primary seat of the obstruction, whatever might subsequently take place in the arterioles. There was more in the cardio-vascular changes of renal disease than the "stop-cock" theory would account for. He added that the arterioles were thickened, not only by muscular hypertrophy, but by fibroid thickening. He was aware that Dr. Johnson maintained that the appearance of fibroid thickening was a delusive appearance due to the action of the reagents; but to that statement he demurred, for he had made a large number of experiments with various reagents, and he had convinced himself that the fibroid thickening was as real as the muscular. He thought, too, that the continued high tension throughout the arterial system would account for both kinds of thickening. Last December Dr. Johnson had written to THE LANCET in reference to his (Dr. Dickinson's) Harveian lecture, attributing renal dropsy entirely to osmosis, but now he seemed to have modified that view in favour of some active vital secreting power on the part of the capillaries. In spite of what had fallen from Dr. Powell, he inclined to the view that osmosis as a cause of dropsy was dead, irrevocably and thoroughly dead. He showed photographs of the healthy heart and of the heart in these cases, and asked them to look on this picture and then on that. He thought that Dr. Pye-Smith's suggestion as to the inflammatory nature of the œdema of acute nephritis was disproved by the analysis of the fluids in the two cases. Inflammatory fluids usually coagulated spontaneously, which dropsical fluids did not; moreover, they contained 6 per cent. of albumen, whereas the other only contained about 2 per cent. These differences were sufficient to prove that the two processes were not the same. As to the late renal dropsy being cardiac, and not renal, it was said that the tension often continued high after the dropsy had disappeared; but he did not think this was of common occurrence. He thought the rule was for the dropsy to disappear and the patient to get better as the blood pressure fell. What was more remarkable was that the dropsy went on in spite of a further increase of the tension. Of this he suggested three explanations: One was an increase in the excretion of urine; an increase in the suction action of the hypertrophied left ventricle; and, lastly, the contraction of the arterioles keeping the blood out of the tissues. He had only mentioned chlorotic anæmia, so to speak, accidentally. He had usually found high tension in that association. He never intended to convey that transudation under pressure was the only explanation. Dr. Sansom had very properly insisted upon the effects of prolonged high pressure; and of the effect of uric acid in bringing about contraction of the arterioles there could be no doubt, though he was not prepared to attach as much importance to that factor as Dr. Haig did. An excess of uric acid was unquestionably present in many of these cases, and in one instance he had found a lump of uric acid in the brain of a patient. In conclusion, he thanked the Society for the indulgence with which they had listened to his paper, and for the valuable criticisms and observations which they had made.

OPHTHALMOLOGICAL SOCIETY OF LONDON.

AN ordinary meeting of this Society was held on Thursday, May 5th, Henry Power, F.R.C.S., President, in the chair.

Mr. E. C. KINGDON (Nottingham) read a paper on a Rare Fatal Disease of Infancy, with Symmetrical Changes at the Maculæ Luteæ. The patient, aged eight months, was born at the full term, and appeared healthy until three months old; then gradually increasing weakness of the muscles of the trunk and limbs set in, so that when seen he was unable to sit up or turn over in bed. The muscles felt flabby, but the body was well nourished. The child was

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apathetic, rarely cried, and the expression of the face suggested mental enfeeblement. There was no sign of disease in the thorax or abdomen; no history of any previous illness, nor of rickets or syphilis. The father and mother were not related, and were healthy people with good family histories. Their first child had died when two years of age with similar symptoms. At the yellow-spot region in each eye, covering a space nearly twice the size of the optic papilla, there was seen a whitish-grey patch, somewhat oval in shape (the axis being horizontal), with softened edges; a few retinal vessels coursed over its periphery. In the centre of the patch the fovea centralis appeared as a dark cherry-red spot. In addition there was commencing optic atrophy. The changes in the two eyes were identical. The child remained under constant observation for four months, when it died somewhat suddenly. During that time its general condition had not altered. The appearances at the maculæ luteæ persisted unchanged, but the optic atrophy had increased. Microscopic examination of the brain after death revealed marked changes in the pyramidal cells of the cortex; they were altered in shape, being mostly round or oval. The cell protoplasm was vacuolated, and formed an irregular shrunken mass around the nucleus. Sections of the spinal cord revealed "descending degeneration."

Mr. WARREN TAY communicated another case of Symmetrical Changes in the Yellow Spot Region in an Infant, closely resembling those of embolism of the central retinal artery. There were symmetrical changes in the yellow spots, exactly resembling those figured and referred to, and closely simulating those due to embolism of the retinal artery; there was, however, no obvious change in the discs. There were six children in the family, two of whom had been delicate, one of them, aged six, dying of diphtheria. The others appeared well. The parents were first cousins.

Mr. CHARLES HIGGENS made a communication on a case of Spontaneous Cure of Cataract. The patient, aged fifty-seven, consulted the author in February as to the condition of his eye. He had seen the late Mr. G. Critchett ten years before, and was told by him that he had a ripe cataract in that eye, and, as his left eye was unaffected, Mr. Critchett advised him to have nothing done. Examination of the eye detected no sign of wound on the cornea, and showed the pupil to be circular and freely movable, a good deal of opaque membrane and possibly some lens matter occupying its area; the optic disc was visible, and vision was $\frac{6}{18}$ with a + 3½ inch lens, and Jaeger 10 at 6 inches with a + 2¾ inch lens, the whole, or nearly the whole, of the lens having undergone absorption.—Mr. LANG mentioned the case of a man under his care at Moorfields Hospital, in whom a senile cataract had almost disappeared during the course of two years. The nucleus of the lens had sunk to the lower part of the capsule, and had left a central, nearly clear space. With correcting glasses the man had good vision.

Mr. HOLMES SPICER read a paper on Vasculitis in Hereditary Syphilis and the condition of the Retinal Vessels in the Retinitis of Congenital Syphilis. The ophthalmoscopic appearances showed faint white lines on each side of the vessels, beginning at or near the optic disc, and gradually increasing in thickness towards the periphery; arteries and veins were both affected, but in the slighter cases the veins showed it most. In very acute cases the vessels were entirely obliterated and converted into white threads. This change was combined with a diffuse retinitis, and with a superficial disturbance of the choroid. The microscopic appearance of the vessels showed that the intima was very greatly thickened in all the vessels; there was also an increase in the thickness of the outer coat; all the elements of which the vessel wall was made up were in places dissociated from one another.—Mr. LAWFORD inquired if there had been any opportunity of examining the vessels of other parts of the body.

Mr. SYDNEY STEPHENSON exhibited cases and read a description of the Scarring of the Conjunctiva from Ophthalmia Neonatorum. He had met with these conditions in eighty-two out of 15,316 school children examined, the percentage being much higher among pauper school children than among those of higher social grade. This scarring might be the only evidence of ophthalmia neonatorum, or might be accompanied by other results of this disease, such as corneal nebulæ, pyramidal cataract, &c.

Reviews and Notices of Books.

Atlas of Clinical Medicine. By BYROM BRAMWELL, M.D. Vol. I., Parts II. and III. Edinburgh: T. & A. Constable. 1891.

THE second and third parts of Dr. Byrom Bramwell's "Atlas of Clinical Medicine" fully justify the cordial welcome extended to the first instalment and the high hopes it elicited. The first part was so excellent that fears might have been entertained about the difficulty of maintaining such a high standard of work; these fears were, however, largely dispelled by the receipt of advance copies of many plates intended for later use, and the letterpress now supplied finally disposes of any uneasiness. The second part is mainly devoted to Addison's disease and Hodgkin's disease. The former is of course prefaced by an extract from the Sydenham Society's collection of Addison's works, to indicate the amount of credit due to his sagacity in detecting the relation between the well-marked constitutional symptoms of the affection, the peculiar pigmentation of the skin, and the structural changes in the suprarenal capsules. After this act of homage Dr. Bramwell enters at once into the symptomatology and into an analysis of the symptoms, and he enriches his description by numerous references both to cases and to the literature of the subject.

Of the pathology of this interesting disease there is a great deal to be said; but the most important section is that devoted to the observations of Drs. Alezais and Arnaud, who have shown that true sympathetic nervous ganglia are situated in the surface, and sometimes actually in the substance of the fibrous covering of the suprarenal bodies, and who think that the essential cause of the pigmentation and other characteristic symptoms lies in implication of these pericapsular nervous ganglia by a tubercular process extending from the suprarenal bodies. The various theories which have been advanced to explain the pathology of the disease are discussed with great fairness. Dr. Bramwell's opinion is that, in the ordinary typical cases, the capsular lesion is primary, and that the alterations in the nervous structures are secondary. Notes are given of two cases resembling Addison's disease, both marked by deep pigmentation; in the first the symptoms were due to Bright's disease and pregnancy, in the second they were apparently the result of chronic scurvy.

Dr. Bramwell follows with an account of some cases of diffuse melanotic sarcoma, with pigmentation of the skin, noting the rarity of this condition, but indicating the clinical features by which it may be distinguished from Addison's disease. Then comes a full description of Hodgkin's disease, or "lymphadenoma," which is illustrated by photo-gravures and sketches. Hodgkin's descriptive summary, written in 1832, is reproduced, and the independent work of Dr. Wilks in 1885 receives due notice. Throughout this section the author very properly insists upon the difficulty of differentiating cases of Hodgkin's disease from other conditions associated with enlargement of lymphatic glands, more particularly from simple local non-malignant lymphoma, and hence speaks of the prognosis with due reservation.

The third part deals with progressive unilateral atrophy of the face, chronic progressive bulbar paralysis, ophthalmoplegia, molluscum fibrosum, and xeroderma pigmentosum, and no less than twelve plates are furnished illustrating these different conditions. The pathology of facial hemiatrophy is discussed with great lucidity. The author's view is that the atrophy is the result of a nerve lesion involving the trophic nerve fibres or cells of the fifth nerve, and he considers that the balance of evidence is in favour of the central origin of the lesion. The description of chron

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progressive bulbar paralysis is very graphic and very complete. Although much space is devoted to the symptomatology, practitioners will find numerous most valuable hints upon the differential diagnosis, and much that is interesting in quotations from the writings of Duchenne, Trousseau, and others. The difficult subject of ophthalmoplegia is dealt with at some length and with characteristic care and thoroughness, while the remaining subjects are passed over more briefly but very satisfactorily.

It remains to add that the plates supplied with these two parts, more particularly the coloured plates, fully maintain the high standard of excellence reached in the first instalment. They are thoroughly well executed, and indicate the leading characteristics clearly and without exaggeration. Dr. Byrom Bramwell is to be heartily congratulated upon his work, and it is to be hoped that no unforeseen circumstances will interfere with its successful completion.

Diseases of the Throat, Nose, and Ear: a Clinical Manual for Students and Practitioners. By P. MCBRIDE, M.D., F.R.C.P. Edin. Edinburgh and London: Young J. Pentland. 1892.

DR. MCBRIDE'S views on many points connected with the subjects embraced in the title of this book are so well known and valued for the authoritativeness with which they are expressed that all will welcome a text-book from his pen. We expected something above the meagre average of similar productions, and we are not disappointed. While every attempt is made to place before the student current views, Dr. McBride has generally given fully his own opinions wherever desirable. Only too often in text-books the practitioner is perplexed by numerous statements of this, that, or the other authority, and finds little to guide him in his difficulties; while what he is actually needing—viz, the author's own ideas—is only too modestly withheld. In the book under discussion Dr. McBride states his own position with regard to many controversial points, and in such cases, in all probability, his statements will prove of considerable value to the practitioner seeking definite information. In reference to these points we may quote the chapter on the General Semeiology of Nasal Diseases, or the section on the Connexion between Diseases of the Throat and Nose and Middle Ear Affections. Dr. McBride appears to think that active and operative treatment of these regions is far too often undertaken as a matter of routine; while he impresses upon the reader the theory that affections of the anterior nares and pharynx, when coexisting with middle ear disease, need only be treated in so far as they are producing direct symptoms. In the main we are inclined to endorse this view, though, we suspect, it may be carried too far. Anyhow, a book that condemns the ruthless and irresponsible operating that is at present too much the fashion is a most desirable addition to our literature. There is little fault to be found. We could wish that in certain cases the author had been a little more communicative as to practical treatment; we do not think that everything has been said in some cases. Thus in the chapter on Chronic Laryngitis no allusion is made to the association of the affection with nasal obstruction, and its cure by the rectification of the latter condition. We think that although Dr. McBride may not agree with such views he yet should have made some reference to them, as they are endorsed by many trustworthy laryngologists. Indeed, he even advocates the use of a respirator, which can only be occasionally necessary when the nose is unable to do its work. Still more striking than this omission is the disregard of rhinitis sicca in the production of laryngitis sicca. This we should have opined was beyond all question. To be perfectly candid, although we have spoken strongly on the commendable attitude taken by the author in reference to the absurdities circulating with regard to the importance of a theoretical perfection in the condition of the nasal passages, we are yet inclined to think that he has gone too far in the opposite direction, and that the portion of the work devoted to diseases of the nose is somewhat meagre. Laryngeal and pharyngeal affections are fully discussed, but we are of opinion that the best portion is that devoted to the ear. Some will be a little doubtful as to the wisdom of incorporating this with the other sections, though doubtless there are arguments in favour of such an arrangement.

That Dr. McBride has plenty of material wherewith to fill a good volume is at once made evident by the paucity of illustrations. He has thought it inadvisable to crowd the pages with engravings of instruments, and we suspect that many a general practitioner will find this a somewhat serious omission. An illustration will convey a better idea of an instrument, and in smaller space, than could be given in the letterpress. All the illustrations are chromolithographs, incorporated with the text. Those representing diseases of the larynx are all that could be desired; while those, on the other hand, illustrating nasal affections are as conspicuously unsatisfactory. Thus we find an illustration of a mucous polypus as seen *in situ*, the tumour being a bright prussian blue, and its surroundings undistinguishable. The representation of the normal appearances of the nasal structures as seen from behind is incorrect in drawing and colour, and would prove very misleading to a beginner. But the illustrations of pathological conditions in the tympanic membranes are not surpassed in excellence in any of the many admirable atlases extant.

The general appearance of the work reflects great credit upon the care of the printers and the liberality of the publisher. The paper and typography could not be better; and although these are very small matters in discussing the value of a work, yet accuracy and elegance generally prove as attractive to the reader as they doubtless are to the author. We hope to see many editions of this valuable book.

A Manual of the Diseases of the Nervous System. By W. R. GOWERS, M.D., F.R.C.P., F.R.S. Second Edition. Vol. I.: Diseases of the Nerves and Spinal Cord. London: J. & A. Churchill. 1892.

EVERYONE who is interested in the subject of nervous diseases must welcome the new edition of a work which is already a classic in more than one language and certainly on two continents. Dr. Gowers is to be congratulated on the partial completion of his arduous and self-imposed task, and upon the manner in which he has brought the discussion of the various subjects up to date in this new edition. It is in every way a worthy sequel to its predecessor, and in its thoroughness and completeness is almost beyond criticism; and if we call attention to a few points which have struck us in a perusal of the book, it is only because they have seemed to us points requiring special treatment.

A substantial addition of 150 pages has been made to the book. Of these, fifty are devoted to a detailed and very complete account of multiple neuritis. The account, as we have said, is complete, but it has the greater advantage of being extremely suggestive. Yet it seems to us that the classification into varieties has been carried to an extreme, although it may be that such a classification, in the elucidation of a subject to which only recently attention has been directed, is not only useful, but necessary, and may be regarded as the framework, to be replaced in good time by the complete and solid structure. Besides this section there are several other new ones, the most important of which are probably those on the peroneal type of atrophy and on Morvan's disease. In connexion with the latter also may be mentioned the exceedingly clear and succinct account given of Syringomyelia, a clinical entity only re-

cently recognised, and the pathological condition underlying which probably varies in different cases. The chapter also on Muscular Dystrophy strikes us as wanting in that firm cohesion which characterises most of the work. Here, too, there is a tendency to multiply types when we have really reached a stage at which the essential unity of various conditions is becoming more and more evident.

It would be idle to particularise the various parts to which additions have been made. They occur on almost every page, and the alterations are nearly always improvements. We have sufficiently indicated the excellences of the work, and we can give it no higher praise when we say that it is in every way worthy of its predecessor and of the reputation of its author.

Analytical Records.

LAKOLA PREPARATIONS.

(LAKOLA LIMITED, ST. ANDREW'S BRIDGE, GLASGOW.)

THE basis of the preparations we have received from this firm is the kola nut, and accordingly they all contain caffeine. The alkaloid was readily extracted on boiling a portion of the samples with chloroform after making them into a paste with lime. Caffeine so obtained was recognised by its silky crystalline appearance and by the red colour produced on evaporating it to dryness with chlorate of potash and hydrochloric acid; the red colour was changed to purple on addition of ammonia. Lakola essence is a spirituous extract and has a nutty flavour. It is a useful form of restorative, which may be taken in aerated water, in milk, or in tea. Lakola powder is similar to cocoa in appearance and taste, and is intended to be used in the same way. "Lakola" itself is a pasty mass, which is directed to be eaten spread upon bread in the same manner as butter, or to make cocoa, while the enhanced value of lakola chocolate is attributed to the fact that, in addition to ordinary chocolate, it contains the important constituents of the kola nut. Where, therefore, the restorative and sustaining properties of the kola nut are of value these preparations may confidently be tried.

BROWN BREAD.

(J. T. O'CALLAGHAN, WOOD GREEN, N.)

The meal from which this bread is prepared is said to be made by the roller process—that is, it is ground finely enough to pass through an 18 in. mesh wire sieve, so that it is freed from large flakes of bran and objectionable chaff. While it contains also the whole of the wheat grain, the external fibre and the beard are removed by decortication. Branny particles were recognised under the microscope, but they were evidently very small. There is doubtless a higher proportion of nourishing constituents in whole wheat meal, but it should of course be ground finely, as otherwise the branny particles may prove irritating. The bread under notice appears to have been prepared from meal thus scientifically treated.

MELLIN'S FOOD BISCUITS.

(G. MELLIN, MARLBRO' WORKS, PECKHAM.)

These biscuits are stated to contain about 50 per cent. of Mellin's food. This statement is to an extent confirmed by the fact that the mineral matter, amounting to as much as 2·02 per cent., consisted largely of alkaline phosphate. They are doubtless a valuable and convenient form of food, but their flavouring of ginger will not appeal to everybody's taste.

CAFFYN'S JELLY CARNIS.

(THE LIQUOR CARNIS CO., LIMITED, 50, HOLBORN-VIADUCT, E.C.)

It is satisfactory to find that the claims made with regard to this preparation are fully justified according to the results of independent chemical examination. First, the spectroscope showed that it contained the hæmoglobin of meat unaltered, as on dissolving some of the jelly in cold water, and placing the solution in a glass tank in front of the spectroscope, two well-defined absorption bands characteristic of fresh blood were very distinct. Then on boiling the solution a coagulum was obtained, and the filtered liquid no longer exhibited the absorption spectrum. One fluid ounce of the jelly so treated yielded no less than 10·19 grains of solid albuminous principles. Further examination gave the following results:—Moisture, 46·50 per cent.; organic matter, 47·91 per cent.; mineral matter, 5·59 per cent., consisting chiefly of soluble phosphate. The jelly possesses a sweet, pleasant taste, is attractive in appearance, and, on account of the presence of a small quantity of harmless preservative, keeps well. We regard it as a valuable addition to the excellent nutrient preparations already made by this company.

STERILISED MILK.

(COMPAGNIE GÉNÉRALE DES LAITS PURS, PARIS. F. TURIAN, 32, OAKFIELD-ROAD, STROUD-GREEN, N.)

The method adopted to sterilise this product may be pronounced to be a distinct success, inasmuch as our analysis shows that the composition of the milk is not altered by the process, all the valuable food elements being therefore retained. Moreover, the samples, after standing in a warm corner of the laboratory for several weeks, were found at the end of that time to be perfectly sweet. The results of analysis were as follows:—Total solids, 12·70 per cent.; non-fats, 9·38 per cent.; fat, 3·32 per cent.; mineral matter, 0·70. The fat was in a separated condition. The sterilised milk resembled boiled milk in taste. Search was made for preservatives, but without success.

TAKARADZUKA MINERAL WATER, JAPAN.

(H. J. STOCKTON, 16, PHILPOT-LANE, E.C.)

A peculiar acidulous flavour distinguishes this water from the rest of its class. It is agreeably sparkling, contains no organic matter, and yields on evaporation fifty-six grains per gallon of saline substances containing a notable quantity of iron and salicylic acid along with common salt and the carbonates of lime and magnesia. There exist, we understand, two distinct qualities of this interesting water, one intended for medicinal use and the other for the table. We presume that the sample of water containing the amount of mineral constituents above indicated is intended to be used medicinally, as according to the published account of an analysis before us the water examined contained only 35·63 parts of saline matter in 100,000, or 24·94 grains per gallon; that is, rather less than a half of the quantity found by us in the above specimen.

SPANISH WINES.

(A. SORDO LOPEZ, 15, GEORGE-STREET, PORTMAN-SQUARE, W.)

The two samples of wine submitted to us possess characters of their own which are probably distinctive of the wines produced in the district of Valdepenas in the south of Madrid. Red Valdepenas is the name of a full vigorous claret resembling good Burgundy. It is remarkably free from acid, has a delicate bouquet, and contains a distinct quantity of iron. White Valdepenas is more like a light dry sherry with a peculiar and almost smoky flavour. Both are really excellent wines, and they are offered at a very moderate price. Red Valdepenas submitted to analysis gave the following data:—Alcohol, 12·30 per cent. by weight (equal to 15·20 per cent. by volume); extract, 2·6 per cent.; mineral matter, 0·24 per cent. The white wine gave the following results:—Alcohol, 10·95 per cent. by weight (13·55 per cent. by volume); extract, 1·43 per cent.; mineral matter, 0·32 per cent.

UPPA COCOA (VAN HAEFTEN'S).

(VAN HAEFTEN, HOLLAND.)

As should be the case with all genuine cocoas, this specimen yields an infusion of good flavour, is easily soluble, and contains no excess of indigestible fat.

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THE LANCET.

LONDON: SATURDAY, MAY 14, 1892.

THE interim report of the Royal Commission on Vaccination, the text of which we print elsewhere, is a document of considerable importance. And its importance is increased when we remember that in order to give present effect to the principal recommendation embodied in the report, legislation dealing with the question of vaccination will become necessary, and this before the Commission have so much as heard some of the principal witnesses on whose evidence such a recommendation should be based. One of the headings under which the Commission decided to take evidence is—"Any improvements that can be suggested in the present law or its administration for the purpose of removing objections to vaccination or making it more effective." The Commission have been sitting nearly three years, but they have not as yet even reached this heading, and although they have before them volumes of evidence as to "the case in favour of vaccination," and as to "the case against vaccination," they say not a word on these important subjects, but, oddly enough, elect to criticise the "administration" of "the present law," the evidence as to which is not yet before them. This attitude is, to say the least, a curious one; and considering that every "interim" report is supposed to be subject to revision when the full report follows, it seems difficult to understand how legislative effect can be given to their recommendation, and if no such effect is intended to be given, the result of the report can only be to leave matters in even greater confusion than they were before; for vaccination authorities and magistrates will, on the one hand, have a statutory duty to perform, and, on the other hand, they will have been told that the performance of that duty should in one respect "no longer be possible."

We have no intention of entering into the question of the prison treatment of those who break the law as to vaccination and whose fines are not paid. We have much sympathy with these people, whom we believe to be largely guided by persons who lead their followers into an attitude of unbelief which the leaders do not themselves entertain, and who, for reasons which we do not propose here to discuss, contrive to keep dark their true convictions as to the protective power of vaccination against small-pox, by involving the question in a number of side considerations. The real importance of the interim report lies in the statement that "the imposition of repeated penalties in respect of the vaccination of the same child should no longer be possible." It would be idle to say that a recommendation bearing on this subject was not expected to appear when the Commission had ended its labours, but there are not many who were prepared for such an unconditional abandonment of this power of enforcing obedience to the vaccination laws, nor will there be many who are able to appreciate the main reason assigned by the Commission for the change

The Committee of the House of Commons, which was appointed in 1871 to inquire into the operation of the Act of 1867, reported that, "with regard to repeated convictions and penalties," they were of opinion that "whenever in any case two penalties or one full penalty have been imposed upon a parent the magistrate should not impose any further penalty in respect of the same child." A Bill embodying the suggestions of the Committee was passed by the House of Commons, but the clause giving effect to this recommendation was struck out by the House of Lords. The present Commission go much further, and they suggest that, quite irrespectively of the amount or the number of fines, repeated penalties ought not to be possible; and if legislative effect be given to this there will be districts in which the only alternative will lie between the protection of children against small-pox or the payment of a fine of sixpence or a shilling. And what is the main reason assigned for this? Even those, say the Commissioners, who incline to the view that vaccination ought to be compulsory "believe that any advantage which may arise from the tendency of repeated convictions to increase the number of the vaccinated is more than counterbalanced by the resentment and active opposition which they engender." As we have already implied, the recommendations of a Royal Commission should be based on the evidence laid before them, and at the onset of the sittings of the Commission in question it was clearly the intention that this should be so in the present instance, for whilst "objections" were to be heard, "the reply to these objections' was to follow. Doubtless objections to repeated penalties have been heard, but those who administer the vaccination laws—namely, guardians and their representatives and magistrates—have not been heard, and the matter has thus been decided on lines quite foreign to those usually governing judicial decisions in this country. This is the more unfortunate because we are convinced that if the Commission had only waited until they had heard "the reply" they would have received from those guardians who have honestly done their duty to maintain the law abundant evidence to show that the reason assigned is contrary to experience. One single small fine has but little deterrent effect; the trouble of paying it is trivial to a parent who thinks less of protection against small-pox than of a few days and nights passed with an infant rendered irritable by reason of the progress of vaccinia; and whereas many careless people—and it is essentially the poor and ignorant who are careless as to this—are willing to incur the domestic difficulties involved in vaccination rather than pay a substantial fine or be subject to repeated legal proceedings, many will be found who, having no knowledge or even opinion concerning the protective power of vaccination, will elect to pay a fine in districts where the magistrates are lenient, and so go scot-free, until small-pox comes, when they will flood the vaccination stations which they formerly affected to despise. In this way it is that the many who are careless, not the few who are real opponents to vaccination, will swell the number of the unvaccinated. And this it is that the Select Committee of 1871 evidently had in view when, on the evidence laid before them, they decided that either a full penalty or two penalties must in each case be imposed before interference ceased.

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We must now await the result of the issue of this ill-timed document, trusting that evidence will still be forthcoming to show the Commission that they have gone beyond the necessities of the case, even as that case is put forward by themselves; and remembering that the Commission distinctly announce that they have arrived at their conclusion "quite independently of the question whether vaccination should continue to be compulsorily enforced or not." This, and the vital question as to the value of vaccination as a protection against small-pox, are points not touched upon, and they will, apparently, not be in any way dealt with until the final report is issued.

SOME little stir has been caused in the minds of our professional brethren in Ireland by an Order in Council which was lately made by His Excellency the Lord Lieutenant, and which contains the following paragraph: "When any vacancy shall happen in the office of consulting and visiting physician or of apothecary in any district asylum, no person shall henceforth be appointed to fill the same." The Council of the Irish Medical Association have taken umbrage at this ukase, in regard to which they have issued a somewhat lengthy protest, in which they urge, upon a variety of grounds, the retention of the office of visiting physician. They hold that the services of an occasional consultant are available only at about three or four out of the twenty-two asylums, and that they can never be an efficient substitute for those of the regular visiting physician. They further urge that, "from a public point of view, it is undesirable that the responsibility for the control of several hundred persons under coercive discipline and penal restraint should be vested in any one officer, however exemplary or competent." They add: "The public at large is very jealous, and even suspicious, as to the disciplinary arrangements of lunatic asylums; and the Council respectfully submits that, even if there be no reasonable ground for such jealousy or suspicion, it is very undesirable to remove from the lunacy system the only extern officer in daily communication with the inmates, and independent of, and irresponsible for, the official management of the institution."

We are not prepared to accept the expressions "coercive discipline" and "penal restraint" as conveying a truthful idea of what asylum life in Ireland either is or is intended to be, but we are not unwilling to give the views of the Council in their own words, as the fullest expression of all that can be said in favour of retaining the office. We are more than doubtful whether those words will convince the ordinary lay mind as to the need for a visiting physician; still less will they bring conviction on this point to the minds of those who have any practical experience of the working and administration of asylums for the care and treatment of the insane. Putting aside indications in the very statements themselves, the best evidence that the arguments of the Council are theoretical ones only lies in the fact that they imply that the office of visiting physician to an asylum is an unmixed good in which the public should be asked to bury all its jealous fears and its suspicions. A visiting physician has no doubt an awkward, and frequently an unenviable, part to play. If he asserts himself and makes his presence and his prescriptions felt by the inmates, he cannot but be conscious that he is upsetting the discipline of the asylum by interfering with the authority of the superintendent, and that he is doing as he would not like to be done by. If he does not assert himself and make his presence felt, and practically does nothing, he may possibly feel that he is a nonentity, and that he is more or less receiving the reward of duties which he has not duly performed. He is on the horns of a dilemma; he cannot help himself, and his most successful and least troublesome policy is one of masterly inactivity and of complacent negation—for which the public has to pay.

We are far from saying or thinking that the ideal office of visiting physician was originally a useless creation; but experience appears to have shown that the unavoidable interweaving of the duties of the visiting physician with those of the resident medical superintendent has a tendency to weaken rather than to strengthen the administration of an asylum. The history of this question puts us in possession of the fact that in countries where the office of visiting physician existed, it had sooner or later to be abandoned as incompatible with the best and most desirable results, and we are not aware of any insurmountable grounds upon which Ireland can insist upon maintaining a post whose equivalent has been expunged in England, Scotland, France, Germany, and America, countries where the treatment of the insane has admittedly made most material progress in the direction of humane and kindly consideration with most gratifying success. Indeed, so far back as 1858 a strong Royal Commission on Lunacy for Ireland recommended in effect that the office should be discontinued; and at that time the amount of extramural visitation of asylums, and of contact of the inmates with the outer world, was much more restricted than it is in the present day.

Coming to more recent times, the question has been frequently under consideration when the treatment and management of lunatics and lunatic asylums have been discussed. In 1890 a Committee on Lunacy Administration in Ireland was appointed by the Lord-Lieutenant, and it consisted of Sir ARTHUR MITCHELL, one of the Medical Commissioners in Lunacy for Scotland; Mr. HOLMES, Treasury Remembrancer for Ireland; and Mr. MACCABE, Medical Commissioner for the Local Government Board for Ireland. In their report they speak as follows on this subject: "Consulting and visiting physicians are attached to all the district asylums of Ireland. We are of opinion that a new Lunacy Law should contain provisions for bringing this arrangement to an end, either by enacting that vacancies, as they occur, shall not be filled, or in some other way. Visiting physicians relieve superintendents of responsibilities of which they should not be relieved. At the same time they do not afford him the assistance which consultants afford to general practitioners, who in their difficulties take the advice of a surgeon in certain cases, of an oculist in others, of a physician in others, of an obstetrician in others, and so on. A superintendent should be allowed, when he is in difficulty, to obtain the advice which is likely to be useful to his patient, in view of the nature of the malady in connexion with which the difficulty arises. He may be safely trusted to do this judiciously.'

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This is surely not unreasonable, that the insane in asylums should have the same opportunity of being specially treated as the sane outside. On this report, and in taking a general and comparative view of all the circumstances, practical and theoretical, with which the question is invested, we feel satisfied that his Excellency and the Irish executive have been well advised in abolishing the office of visiting physicians as vacancies occur. At all events, there are not wanting ample grounds upon which the experiment may be tried, and even if it should result in failure the office can be reconstituted.

THE important duty of getting rid of uninhabitable houses or insanitary property devolves on the sanitary authority, and requires to be carried out with discrimination. In towns of less than 100,000 the corporations, as a rule, are loth to undertake on their own account any buildings for the population so displaced; and, on the other hand, private enterprise in the way of building houses for such tenants may fall short of actual requirements. The occupants of these insanitary houses are of the lowest and poorest class, of whom house-owners and agents generally fight shy. There will always be a residuum in the population of a town. In large towns and cities where CROSS'S and TORRENS' Acts can be adopted the difficulties are not so great, and the ratepayers not so punctilious as to the spending of their money as is the case in small towns. In small towns every penny spent on sanitary measures is watched with a jealous eye; and as it is difficult to show a money return for any improvement, it is not easy to persuade the inhabitants that the health of the people is a matter of primary importance and one that well repays any outlay. As an example of the slowness of reforms in the destruction of unhealthy dwellings we may instance Wigan in Lancashire, an old town with many dilapidated dwellings, and a population of over 55,000. The Insanitary Houses Committee, in consequence of charges being made against them of proceeding with undue haste in demolishing houses unfit for human habitation, have just issued a report of their doings. They state that on Jan. 18th, 1886, their medical officer (Mr. BARNISH) called attention in his monthly report to that of Dr. BUCHANAN (the late medical officer of the Local Government Board) in 1870. Dr. BUCHANAN stated that amongst the chief sanitary defects of Wigan were the badly constructed and badly ventilated houses, and the courts with back-to-back houses. Mr. RADCLIFFE confirmed this report in 1873.

Mr. BARNISH in this report condemned twenty-two houses under the Artisans and Labourers' Dwellings Act, 1868, the borough surveyor confirming this decision. On April 12th, 1886, the town clerk presented a report on the law, together with information received from various towns, as to the action they had taken with respect to insanitary property. The sanitary committee then decided to take no action till the medical officer had reported on the whole of the insanitary houses in the borough. Dr. PAGE on Nov. 15th, 1886, urged that the authority should act upon the reports of the medical officer of health and the borough engineer. In January, 1887, the medical officer presented the first section of his report dealing with the whole of Scholes Ward, in which he condemned 1120 houses. The borough engineer stated that of these 754 houses could not be rendered sanitary by means of structural alteration. On Aug. 3rd a special committee was appointed to consider the question of dealing with insanitary property and to report to the Council thereon. The committee found that this property in many cases belonged to people depending upon the rents for a bare subsistence, and, as the Council had no power to compensate, the committee, on Oct. 1st, 1887, decided to recommend the Council to apply for power to pay compensation for property demolished, and for this purpose to borrow £10,000. This recommendation was adopted on Oct. 29th, 1887. The Council in 1889 accordingly promoted a Bill in Parliament (The Wigan Corporation Act, 1889), which was passed, and Section 98 gives the Corporation power to pay compensation for buildings unfit for habitation.

On Nov. 22nd, 1889, the Insanitary Houses Committee was appointed, and in May, 1890, they decided to proceed under the Artisans and Labourers' Dwellings Acts. After the passing of the Housing of the Working Classes Act, 1890, which repealed the Artisans and Labourers' Dwellings Acts, the Council adopted its provisions, and subsequently proceedings were taken against various owners of insanitary property, the result being that in the majority of cases the owners agreed to demolition on receiving compensation at the rate of five years' purchase on an average of three years' net rental, whilst others have made structural alterations so as to render the property habitable. The number of houses with regard to which proceedings for closing have been taken since 1890 is 484. The number of those actually demolished, and for which compensation has been paid, is 199; of those not compensated for, but demolished, 72; of those which owners have agreed to demolish, 84; of notices served and action pending, 101; and of premises made sanitary, 28. Fifty-nine out of the 484 houses were unoccupied for twelve months before demolition. The total amount paid in compensation was £3430 8*s.* 10*d.* Since the first block of insanitary property was demolished building plans have been passed for 570 houses of the cottage class, the number erected and occupied being 235. The number of houses in course of erection is 144. We cannot say that there has been undue haste in dealing with the worst class of cottage property; however, the matter has been taken in hand, and it will now be the duty of the Sanitary Committee to prevent overcrowding in the new dwellings.

Wigan may be fairly congratulated on having made some progress since Sir G. BUCHANAN visited the town in 1870. Since then the privy system has been abolished, and the pail system adopted; a complete system of sewerage, with a modern sewage farm, has been made at great cost; a sanatorium for infectious diseases on the most modern and approved plans has been provided; and now what with the destruction of unhealthy dwellings, the erection of new baths, and a good water-supply, the town may claim to be on a par with any other town of a similar size.

IT had been expected by most of the graduates of the University of London that either at the meeting of Convocation on Tuesday last, or at the Presentation on

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Wednesday, some definite course of procedure on the part of the authorities of the University, in view of the recently appointed Royal Commission, would have been decided on; but any such anticipations were disappointed. Both meetings have passed, and all we learn is that the Senate will not take up any attitude of simple obstruction during the proceedings of the Royal Commission, and that the Senate will steadily persist in their endeavour to keep up the present high standard of the degrees, as otherwise their prestige might be diminished. Lord DERBY, who presided on Presentation Day for the first time as Chancellor, was anything but optimistic in his survey of the position of the problem of higher education in London, and expressed a great doubt whether the Royal Commissioners would come to a unanimous conclusion. He also, as has been the usual course throughout the agitation, ignored the subject of medical degrees, and their vital interest to the public, to London medical teachers, and to students. The importance of this question to the student—namely, whether he can obtain a degree by studying in the best clinical schools in the kingdom on similar terms to those on which it is granted by Scotch and provincial universities having inferior facilities for practical teaching—seems to have been passed over by a Senate which has no other idea in medical education than to fix an abnormally high standard for a pass degree and then shut its eyes to the disadvantages which this entails on an average London medical student. According to Sir JOHN LUBBOCK there is no need for a second University in London, but should a Teaching University ever be established, the proper place, he considers, for the existing University is at its head. We would point out to Sir J. LUBBOCK that the present University performs no university functions, has no special relations to higher education in London, or to the colleges and medical schools in which such an education is given, and that all attempts at its remodelling in this direction have proved unsuccessful. Must we believe that such an advocate of scientific education fails to see that an examination board for the British Empire and a local Teaching University for this metropolis are essentially different in design and in functions?

At the meeting of Convocation it was resolved to request the Annual Committee to "represent and guard the interests of Convocation generally in all matters connected with the Royal Commission, and any scheme which may be submitted to it," and the House was very excited on being told that no member whom they could regard as a representative of the London University had been placed on the Royal Commission. Mr. ANSTIE, Q.C., who is a member of Convocation as well as of the Senate, was at once stated to be only the nominee of the latter body. Evidently Convocation does not agree with the Chancellor as to the scrupulous fairness with which all the bodies interested are represented on the Commission. The opinions of a large number of London graduates, and the spirit in which they may be expected to approach a question which is vital to the metropolis, may be best judged from the two propositions laid down in a circular issued to influence the election of members of the Annual Committee, and which states: "(1) That no second University should be established in London; (2) that the University should be extended so as to fulfil any reasonable requirements of the Royal Commission in respect of a Teaching University, but without any lowering of the present standard of degrees, and so that students unattached to any institution associated with the University should not be placed at a disadvantage." Here we have it plainly laid down that Convocation is to do everything in its power to prevent any lowering of a degree—which has been declared to be an Honours degree—to a pass standard, and to oppose the formation of a real Teaching University, which would not be tied by the traditions and prejudices of the existing University. It is clear that, if the Senate is not prepared to adopt a policy of obstruction, a large number of the graduates will do all they can to prevent the London students obtaining the just advantages which are granted to those who have had a similar education elsewhere. If the conclusions of the new Commission—over which Earl COWPER, who is now returning from Spain, will preside— in any way correspond to those of the former Commission and of the Privy Council, it will be the duty of Parliament to prevent such an obstructive attitude being again successful.

Annotations.

"Ne quid nimis."

PRESENTATION TO SIR GEORGE BUCHANAN, M.D., F.R.S.

WE drew attention a short time since to the proposal to present to Sir George Buchanan, F.R.S., some substantial and permanent memento of the esteem and regard in which he is held, and of the illustrious services which he has rendered to medicine as a science, and especially to preventive medicine, during the long term of his official career in the Public Health Department of the State, both under the Privy Council Office and the Local Government Board. We are now able to announce that an important general committee has been formed with a view of giving effect to the proposal, and that quite apart from this committee the scheme is receiving the active support of a number of leading members of the medical profession and of the Public Health Service. It is also noteworthy that the Society of Medical Officers of Health have expressed a desire that, independently of representation on the general committee, their hearty coöperation in the proposal should be prominently set out before the public and the profession. The amount of subscription is limited to a maximum of two guineas, more importance being attached to securing a large number of subscribers than to the total amount of the subscriptions.

THERAPEUTICS IN PARLIAMENT.

WHATEVER may be thought of Parliament, it is not a body from which one expects much light in questions of medical education, especially at 2 o'clock in the morning. This was the hour at which Mr. Balfour, with a humanity which cannot be too much admired, restrained himself when invited by Dr. Clark to speak on the motion for presenting an address to Her Majesty praying her to withhold her consent from certain Ordinances made by the Commissioners under the Universities (Scotland) Act, 1889. We are not disposed to blame either members or the Government for refusing to interfere with the ordinances, especially in an exhausted House, at the end of another discussion on an excited subject. For all that, we heartily approve the protest entered by Dr. Farquharson, in the name of teachers

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of materia medica and therapeutics, against what must be regarded as a thoroughly retrograde step in the recent ordinances which place the examination in these important subjects at the time of the examination in anatomy and physiology. It is just twenty-one years since the following resolution was passed by the General Medical Council on the rightful place of these subjects:—"That it is desirable that the instruction in pharmacy should be separated from that in therapeutics, and that the former should be obtained at an early and the latter at a later period of the professional curriculum." This subject was much discussed at that time. The resolution expressed the view of all the best authorities on medical education of the time, and it was proposed and seconded by the very two members of the Council who carried most weight on such questions—namely, Dr. Parkes and Sir Robert Christison. Ever since then the subject of therapeutics has been placed at an advanced stage of medical education, and the examination in it has been correspondingly late. It is, indeed, obviously absurd that a student should be examined in the action of medicines and their uses in disease before he has been tested in physiology and had the means of learning the nature of disease, the extent to which its course can be affected by drugs, and the wisdom of attempting any such interference. This, in fact, is one of the latest lessons to be learnt by the best students and by the wisest practitioners. We entirely sympathise with Dr. Farquharson and the teachers of materia medica and therapeutics in their opposition to this part of the recent ordinances. They will, of course, not abandon their opposition. They will surely be heard by the Privy Council, and it cannot be doubted that their lordships will, on such a matter, take into account the long-established recommendations of the General Medical Council. The inspectors of the Council and medical examiners are constantly finding grave ignorance of the uses and the doses of medicine even in otherwise accomplished and creditable students, and this is of the very essence of the question of qualification to practise. The Ordinances also reduce seriously the education in practical pharmacy. We cannot now discuss the best ways of improving this. But it is as reasonable to expect a soldier to do well in battle without familiarity with guns and swords as to expect a medical student to do well without a sound familiarity with the chief properties of the principal drugs and their preparations.

PROFESSOR MOSSO ON FEMALE EDUCATION.

ANTHROPOLOGICAL RESEARCH has no more acute and independent votary than the Professor of Physiology at Turin, whose lecture on "Brain Temperatures" before the Royal Society we had occasion recently to summarise and comment upon. His treatise, "Sulla Fatica"—on the physiological antecedents and pathological consequences of exhaustion, physical and mental,—is already a classic, exemplifying as it does that combination of scientific substance with literary form which, as Professor Butcher has just reminded us lately, reached its highest development in Ancient Greece. As much may be said of his scarcely less brilliant book, "Sulla Paura,"—on the phenomena of fear—a medico-psychological study which his compatriots point to with justice as a very favourable specimen of the subtler, while rigidly scientific, work of the sub-alpine school. Nor must we omit from his anthropological "record" his investigations into the craniology and general physical development of the Roman soldier—investigations which led up to the proof that the far-famed Tenth Legion—the veterans of Caius Julius, who "went everywhere and did everything"—were not superior in physique (whatever their discipline may have been) to the British, or even the continental, soldiery of the present day. These conclusions, indeed, gave direction and force to his recent paper on "Reform in Athletics," in which he points out for the benefit of his compatriots how far their gymnasial adjuncts to school work proper are deficient in the method and the *rationale* which made the Greek and Roman *palaestra* at its best an admirable "condition precedent" of the *mens sana in corpore sano*. The views of so accomplished and impartial an investigator and critic are eminently worthy of consideration, especially on a subject so keenly controverted as the medical view of "sex in education." On this theme of present interest Professor Mosso delivered on the 6th inst., in the presence of the Queen of Italy, a brilliant discourse—the last of the series on the education and the work of woman, which have been given under Royal countenance during the winter and spring at the Collegio Romano of Rome. The lecture was in all respects suitable to the occasion and creditable to its author, and we shall take an early opportunity of summarising its leading positions as the contribution of the most eminent of Italian physiologists to the *quæstio vexata* of fitting woman for her place in the household and in society.

NOTICES TO CORONERS FROM MEDICAL PRACTITIONERS.

IN THE LANCET of April 30th allusion was made to some remarks which Mr. Oliver Pemberton, the coroner for Birmingham, felt called upon to make at an inquest as to the duty incumbent upon medical practitioners of duly informing the coroner of any deaths occurring under circumstances which might render notification to the coroner necessary. We have received from Mr. Pemberton a copy of the printed form which he uses and sends to members of the profession. Coroners have complained justly of the various modes in which the information regarding unregistrable deaths reaches them. A person dies suddenly, or a body is found, and it often becomes a case of "What is everybody's business is nobody's business." Sooner or later a medical practitioner is called, and as he is generally the best informed person present, often the only one competent to do so, he should not fail to send notice to the coroner. The information which he is able to give is most valuable, and no time should be lost in sending it, either by post, by messenger, or even by telegram, should distance render this desirable. Coroners' inquests, coroners, and especially medical coroners, are very much in evidence just now, and it behoves all members of the profession to do their utmost to make inquests exhaustive medical inquiries into the cause of death.

INFANTICIDE UNLIMITED.

THE records of infanticide in this country have revealed nothing which will equal in methodical and callous wickedness the disclosures recently made in a Russian court of law. The history of a trial which has just reached its close at Vilna states that eleven persons have been charged and seven convicted of the deliberate murder, or complicity in the murder, of at least sixty-five infants. These children evidently belonged to the "unwanted" class. Many of them appear to have perished merely from wanton exposure and neglect. Others were poisoned, drowned, strangled, or otherwise suffocated. The case, almost, though as we shall see, not quite, unique in its multiplied barbarity, is in several ways deserving of particular note. The motive was obviously that of gain. Murder was adopted merely as a means of livelihood. Its plan followed no regular indications, but was covert or open, violent or subtle, as circumstances might seem to require. It is remarkable, however, that its perpetrators appear to have acted with singular want of caution, as if liable to no great risk of detection. It has been stated that they were persons of Jewish extraction, though whether this assertion

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can be substantiated we are unable to say. It recalls what we have always regarded as a slander of the middle ages, and one which is utterly out of keeping with the ordinary character of the Jews—a people essentially law-abiding and particularly averse to crimes of violence. Their accusation in this case may possibly prove to be only another instance of myth created by racial prejudice. However this may be, the commission of a series of aggravated crimes with so little precaution, taken along with a like precedent reported a couple of years ago (THE LANCET Nov. 22nd, 1890), cannot but suggest a doubt as to the efficiency of executive authorities. Such would be its certain consequence in this country, and probably in Russia also. Notwithstanding the vastness of that empire, decentralisation is not a strong point in its system of government. A question naturally arises whether this principle should not be more freely applied, due regard being had to its orderly administration. By this means, aided by special provisions which would not be superfluous in the law of any country, such monstrous excesses of crime as those above described would become practically impossible.

THE FLESH OF DISEASED CATTLE.

No idea can be formed of the amount of flesh of animals which have died or been killed because of disease, that finds its way into the market as human food. There can scarcely be a doubt that thousands, perhaps tens of thousands, of cattle, sheep, and pigs are bought by the less reputable butcher or the "dropped meat salesman," and prepared by them for consumption, the beasts being at the time of purchase hopelessly ill or already dead. A great traffic must be going on in such flesh, as the carcases are rarely buried, and inquiries at the knackeries tend to prove that they very rarely find their way to these establishments. It is generally the custom for the owners of sick animals to send for the butcher to take them away either dead or alive, and probably after they have received a large quantity of drugs, some of these being, perhaps, of a poisonous description. What becomes of the carcases we can only surmise, but that they are dressed and exposed for sale can scarcely admit of a doubt; indeed, it is a moral certainty to which veterinary surgeons and others could testify. Even in the ordinary slaughter-houses diseased animals can often be seen either before or after death, and the fact of their flesh being refused sale is never heard of. The butchers could tell some startling stories with regard to this matter if they cared to do so; but everything is kept dark respecting it, and it is only at rare intervals that a chance discovery is made of some carcase that should have been buried, being found either in transit to the meat market or actually exposed for sale on the butcher's stall. The slaughter-houses are private places where anything may be done in the way of dressing up diseased carcases without much fear of detection, either there or afterwards; and there is only too much reason to apprehend that great cruelty to animals is inflicted at times in such obscure places. The only remedy appears to be the introduction of public abattoirs wherever possible, and, where these cannot be established, the institution of a system of thorough inspection of the private slaughter-houses. There should also be some means of preventing the carcases of animals that have died from disease, or been killed on the owners' premises because of illness, from finding their way into the meat market, unless certified by some competent person as fit for human consumption. For it must be remembered that in the great majority of instances such flesh must be not only of poor quality, but possibly absolutely dangerous either from its own special poisonous properties, or because of the drugs which may have been administered before death. When the carcases have once been dressed by a cunning butcher—as men who engage themselves in such a business usually are—it is very difficult indeed to detect anything amiss with them by even a moderately skilled person, and they therefore escape notice, as a rule. Veterinary surgeons, especially those in country practice, could do much in restraining this nefarious trade of the "dropped-meat" salesman; but a wide-ranging and systematic inspection of slaughter-houses and meat is the only sure safeguard for the public health. Of the prevalence of disease, parasitic and other, among animals whose flesh is consumed by man, we have ample evidence in the reports published periodically by the continental public abbatoirs, and there is no reason to expect that such disorders are less extensive in this country; while added to these we have the secret disorders—such as puerperal fever, anthrax, tuberculosis, swine-plague, &c.—which are not in evidence in these establishments, with the exception of tuberculosis, animals which are so affected, but are in good or fair condition, being often sent there for slaughter.

CHOLERA PROSPECTS.

CHOLERA is causing a good deal of anxiety to the Russian Government. The disease is stated to have broken out in Afghanistan as well as in Persia, and it is feared that it may make its way into the Transcaspian provinces, the sanitary state of which is deplorable. Owing to the filthy state of the irrigation canals and to the general neglect in Bokhara and Transcaspia it is believed that cholera, once imported, would spread both rapidly and in a virulent form. Hence a Commission of Prevention has been appointed, and it is stated that directly news is received to the effect that either Herat or Candahar is infected, prompt measures of control on the Russian frontier will be initiated. In the meantime, sanitary improvements, especially with regard to water-supply, are being undertaken. But these are hardly likely to be of much avail in the face of any immediate danger, for such works cannot be perfected at a moment's notice.

THE MEDICAL MISSIONARY.

THE truly philanthropic career which has just been cut short by the sudden death of the Rev. John Lowe, F.R.C.S. Edin., demands from us a word of recognition, not only of the man himself, but of the cause in whose service he lived and died. Mr. Lowe was a typical specimen of the medical missionary as that professional product is developed—to its honour be it said—so prolifically north of the Tweed. The son of a Congregational minister, he early saw where his true field of usefulness lay, and in qualifying for the combined work of body-healing and soul-awakening he showed by his zeal in study, both medical and theological, the high estimate he had formed of the vocation he had chosen for his own. The London Missionary Society was quite alive to his claims on its confidence when it sent him out some thirty years ago to work at the station at Travancore. Eight years' service there indicated him in March, 1871, as the proper man to superintend the Training Institution of the Edinburgh Medical Missionary Society—a post which he filled so well that in 1883 the Society made him its own secretary. His twofold work he continued to discharge with exemplary skill and devotion till 1890, when its increasing complexity induced the directors of the Society to give him an assistant superintendent in Dr. Hoernlé. With each successive year the institution scored fresh marks of efficiency; some notion of its progress may be inferred from the fact that, whereas in 1871 it had but seven students in preparation and an annual income of but £1476, it was able on its jubilee last February to announce that its male students alone numbered twenty-

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nine, to say nothing of its lady novitiates; that fully seventy of its former students are at work on foreign stations; and that its yearly income is £6000. Nor is its expansion likely to stop there. It has outgrown its premises in the Cowgate, and is contemplating their enlargement by devoting *ad hoc* a portion of the jubilee memorial fund. To Mr. Lowe belongs great part of the credit of this most gratifying state of things, efficient as he was, not only in the professional qualifications aimed at by the promoters of the institution, but also in the spirit of work which produced an honourable emulation among its *personnel* and in that organising and administrative power which are themselves a rare and uncommunicable gift. No wonder that the sudden collapse at his post of so valuable a functionary should have impressed all friends of the medical missionary movement with something of a sense of personal loss. But his "work doth follow him," his example survives, and his masterly treatise on "Medical Missions, their Place and Power," enshrines the usefulness of the Edinburgh Society in a literary form, which has already carried its name and fame over the civilised world. Another publication of his, "The Life of Dr. Elmslie of Cashmere," is a beautiful tribute to a kindred soul, extinguished in sight of the richer harvest its philanthropic energy had prepared, and will in turn be followed by another biography still more inspiring to future labourers in the same humanitarian field—"The Life of the Rev. John Lowe, F.R.C.S Edin."

THE BRAVERY OF BRITISH WORKMEN.

HISTORY records the unselfish deeds and the bravery of our soldiers in time of danger, and future history will record the bravery of our workmen who earn their daily bread amidst great danger and imminent peril. An inquest was held last week by Mr. Bridghouse, county coroner, at Parr, near St. Helens, on a man named Richard Gill, aged fifty years. About a year and a half ago he was working in the shaft of a coal mine with three other men, blasting rock. The deceased, after the shots were ready, told the other men to get into the hopper. He then lighted the fuse connected with the shots, and then got into the hopper. He fancied he had given the wrong signal, and jumped out of the hopper to cut off the fuses. He managed to cut off one, but the others were too far burned. The other men begged him to give the signal to ascend and get into the hopper, but he said, "No, I will stay where I am. It is better for one man to die than for all." Just then the hopper began to ascend and the other men were drawn to the top, and soon after Gill pulled the signal wire and they went down to him and found him badly injured about the head. He had a compound fracture of the skull, and remained five months in hospital, but never got over his injury.

LONDON MEDICAL OFFICERS OF HEALTH.

WE announced last week that Mr. F. M. Corner had resigned the position of medical officer of health of Poplar for the reason that recent legislation, particularly the Public Health (London) Act, had so increased his duties that he could not conscientiously fulfil them. Mr. Corner's resignation is to be regretted, for his work in Poplar has been excellent, and under existing circumstances it cannot be expected that the district will be as well served as it has been in the past. The circumstances to which we refer are those which will place the public health service of London on a less satisfactory footing than it has hitherto been. While the duties of the medical officer of health have been added to year by year, and while the responsibility attaching to the office has greatly increased, the remuneration has either remained the same or has become still smaller. The result is that capable men with a sense of duty and responsibility will be driven from the public health service. However devoted they may be to that branch of the profession which aims at the prevention of disease, they have duties also to their families, and it will not be found that for merely nominal salaries they will undertake work which must make greater claims upon their time than is compatible with other work necessary for them to make proper provision for those dependent upon them. The public has to learn that in medicine as in other professions there are differences between those who constitute it, and it is certainly not to the advantage of the public service that it should be recruited from the ranks of those who would not be successful in its other branches. Men with skill and energy will find themselves debarred from entering one of the most useful branches of the profession. If medical officers of health are paid adequate salaries they can afford to keep their other work within limits; but at the present time nominal salaries are attached to the office, and it is expected that a large share of the officer's time shall be at the disposal of his authority. It has been urged that by reducing the salaries of higher officials, local authorities will be able to pay more liberal wages to the working men in its service. There is no one more desirous than ourselves that working people should be adequately paid, but we fail to see that this can only be brought about by reducing the scale of remuneration of an office requiring knowledge and ability which in other branches of the profession bring ample return. There is no class of the community more interested in the maintenance of an efficient public health service than the working people of London, and we do not doubt they would be the first to rebel at any failure to protect them from disease which is the result of an unwise parsimony. London can well afford to pay all its servants adequately, and certainly the difference between the amount of salary which is now paid and that which should be paid to the health officer is too trifling to affect the general question of the proper payment of working men.

MENTAL IMPROVEMENT AFTER TREPHINING.

THIS important subject is treated of in an article in a recent number of the *Medical News* by Dr. Hugo Engel of Philadelphia, with special reference to a case in which an operation of this nature was carried out. The patient was a boy fourteen years old, who was said to have been mentally bright and physically healthy until his sixth year, when he became subject to convulsions. These began one day without any apparent cause, and have never since ceased for any length of time. There was no family history of epilepsy or insanity, and there was no accident to account for the onset of convulsions. The fits had been becoming gradually more and more frequent, until at last he was having as many as twenty-one in twenty-four hours. But the interesting point is that the boy's intellect is said to have been, up to the time at which the fits commenced, of a higher order than is usually met with in a boy of his age; but since the fits began a gradual deterioration had been taking place, until he became dull and vicious, and finally seemed simple and almost idiotic and not unfrequently maniacal. There was a peculiar conformation of the skull, the appearance being as if it had been crushed in at the junction of the parietal and frontal bones, and Dr. Engel seems to have regarded this as the result of premature closing of the fontanelles and too early union of the sagittal and coronal sutures, and, from the effect of this on the brain apparently, he was in the state of extreme mal-development which he showed. Except that he was endowed with speech—of a guttural and monotonous character, it is true—he resembled a savage young

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animal rather than a boy, in his behaviour generally. Under a systematic use of the bromides the convulsions became much less frequent and less severe, but no great change was evidenced in the mental condition, and it was decided to operate with the view of relieving the abnormal pressure on the brain, which from the conformation of the skull it was thought must be present. Two operations were carried out by removing portions of bone from the right frontal and parietal bones immediately contiguous to the coronal suture. The second operation was carried out after an interval of three months had elapsed from the first. For five weeks after the first and for two weeks after the second operation he had no attacks, but after that they increased in frequency, but never became so frequent as before, while their character was very much changed, so that instead of severe convulsions with clonic spasms, he now had attacks of loss of consciousness, with slight twitchings. But the chief improvement was in his mental condition, and from an idiotic, sulking savage he developed into a bright, lively, and good-natured boy. His former irritability and moroseness were replaced by good-nature, and now, to all inquiries, he made intelligent replies, whereas formerly he only sulked when asked questions. He also expressed a wish to go to school, and his perception was wonderfully quickened, so that a complete change was the result of surgical interference in this case. Such a result is, of course, extremely significant; but it remains to be seen in what cases operative measures are likely to effect so much as they apparently did in this case. But at least Dr. Engel and his surgical colleague, Mr. Packard, are to be congratulated on the brilliant success which followed interference in a case which could not, even to the sanguine, have appeared very promising.

THE STRUTHERS TESTIMONIAL FUND.

WE understand from Dr. James Anderson, the secretary and treasurer of the Struthers Testimonial Fund, that Sir George Reid, P.R.S.A., has now finished his portrait of Professor Struthers, and is at work on the replica for Marischal College, Aberdeen. It is proposed that the portrait should be presented to Professor Struthers on Wednesday, May 18th, at 4.30 P.M., by Sir Andrew Clark, Bart., at 16, Cavendish-square. A photo-engraving of the portrait will be prepared, under Sir George Reid's supervision, by Messrs. T. and R. Annan and Sons, and will cost, for subscribers, half a guinea; for non-subscribers, a guinea.

THE INTERNATIONAL HORTICULTURAL EXHIBITION.

THE Duke of Connaught, who was accompanied by the Bishop of London and Mrs. Temple, Lord Ashbourne, Lord Rowton, and Sir G. Baden Powell, formally opened the Horticultural Exhibition at Earl's-court on Saturday last, May 7th. The weather, inasmuch as it was all that could be desired—a bright sunny day—it may be hoped will augur well for the future success of the undertaking. The beauty of the subject of the exhibition is one of course which must appeal to everyone. Horticulture is both science and art, and it is illustrated with such consummate skill and excellent taste that the exhibition at Earl's-court is certain to please as well as educate. The growth and development of the horticultural art in this country from Tudor times to the present is fully demonstrated, and gardens of the Continental and Eastern type, both of ancient and existing periods, are exquisitely modelled. In one very effective grouping is shown a well-contrasted display of the horticultural products and characteristics of ancient Rome, of the Tudor days, of modern Italy, of ancient Egypt, of Jacobean times, and of India, Japan, and China; while a very extensive collection of the flowers, plants, trees, and shrubs of the present day gives an admirable representation of the Victorian era. Altogether the exhibition compares very favourably with its predecessors, and, judging from our inspection on Saturday last, the promoters have certainly at their disposal all the means to provide liberally for the healthy amusement and recreation of the visitors.

DEATH UNDER CHLOROFORM.

OPERATIONS about the mouth and naso-pharynx have their peculiar dangers and difficulties, not only on account of the operative measures themselves, but also from the extreme care with which the anæsthetic requires to be given. Unfortunately, these points were illustrated by a death which took place at the Hospital for Diseases of the Throat on Saturday, April 30th. The patient, a boy aged twelve, suffered from a polypus in the ear, as well as a throat affection, and it was decided to give him chloroform, as the operator, Dr. J. W. Bond, stated ether would produce more bleeding, and some general anæsthetic was necessary owing to the painful character of the operation. The removal of the polypus was effected, and the operator noticed that respiration had ceased. Artificial respiration, promptly performed, failed to resuscitate the boy. At the necropsy, the report states, the heart was found to be enlarged, and had a larger quantity of fat upon its surface than is common at so early a period of life. The report before us does not say who was the administrator, nor does it mention the posture of the patient. These and other points are too often omitted in the evidence given before coroners, and when not supplied are not always obtainable subsequently.

A NEW USE OF THE TITLE M.B.

AT an inquest at Hull by Mr. Thorney, the borough coroner, it transpired that the patient had received medicines from a person named Priestley, who used the letters M.B. after his name. Mr. Priestley meant by this "medical botanist." The coroner said Mr. Priestley had no right to attach the initials after his name when he knew they meant something else. We think that a more seriously false and misleading use of medical titles could not well be imagined.

TUBERCULOCIDIN.

SINCE the announcement made by Koch, more than a year ago, that he had discovered a substance which had a selective action on tubercle, many observers have been working on the properties of this substance which he named tuberculin. Foremost among such has been Klebs. In the *Deutsche Medicinische Wochenschrift*, 1891, No. 45, he reported that by precipitation with platinum chloride and the so-called alkaloid reagents he was able to separate from tuberculin an active principle, which he termed alexin or tuberculocidin, which has the same action on tubercle that tuberculin has, but without causing the depression produced by it. Klebs has since published a monograph on the subject—"Die Behandlung der Tuberculose mit Tuberculocidin"—of which a short abstract is given in the *Medical News* (New York) of April 16th, 1892. Klebs believes that the efficacy of this substance depends upon an influence exerted on the tubercle bacilli, resulting in their degeneration. Thus large doses, by causing rapid disintegration of tuberculous tissue, produce some elevation of temperature by a form of auto-inoculation with tuberculin. Tuberculocidin does not cause necrosis of the affected tissues. The process appears to be one of involution associated with exudation. That this body is not merely an attenuated form of tuberculin is demonstrated by the fact that although the former represents by weight one-fortieth of the latter,

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an injection of a decigramme (0·1) of the one is followed by no elevation of temperature, while an injection of two milligrammes and a half (0·0025) of the other is followed by febrile reaction. In man the initial dose of tuberculocidin is about two milligrammes (0·002); if this occasions no unpleasant manifestations, the dose is rapidly increased to a decigramme (0·1), or a decigramme and a half (0·15). Hectic fever is no counter-indication—in fact, energetic treatment may cause its disappearance. The injections should be made daily for a month, and then intermitted for the same length of time, to be resumed or not according to the indications present. When urgent symptoms occur other therapeutic measures may be advantageously employed in conjunction with the injections. Nearly a hundred cases, principally of pulmonary tuberculosis, have been treated with tuberculocidin. Of seventy-five, in which a reasonable time had elapsed, fourteen appeared to have been cured, forty-five were improved, fourteen remain unimproved, and two died. Complications were universally absent. Such results are certainly encouraging; but after recent experiences medical men are naturally sceptical about accepting as an absolutely curative measure the treatment of tuberculosis by injections of substances allied to tuberculin. Many, however, are still of opinion that the reaction against Koch's method of treatment went too far, and much interest will be felt in watching the outcome of the numerous investigations now in progress that have for their object the treatment of such a widespread disease as tuberculosis.

REMUNERATION OF HEALTH OFFICERS.

THE attitude taken by the Local Government Board as to the salary of the East Barnet Valley medical officer of health has in the end resulted in a satisfactory arrangement. That Board held that a salary of some £30 was insufficient, and they refused to certify for repayment of one half of it out of the county funds. Later on the salary was somewhat raised, but now the local board have determined to pay a sum of £75 yearly and to ask for repayment. In doing this they testify that they are influenced by the extremely satisfactory and efficient manner in which Mr. Roughton has performed his duties.

MEDICAL LEGISLATION IN NEW SOUTH WALES.

IN medical legislation it is impossible to please everybody. The discussion now going on in the public papers of the colony shows this, and exhibits a strange variety of views even in those who might be expected to think alike. One man is sensible in nine points, and very unsatisfactory in his tenth. Fortunately, public opinion everywhere is in favour of legislation that enables the public to distinguish the qualified from the unqualified; and there is scarcely less unanimity in favour of giving power to bodies and to the medical councils created by such legislation to preserve a certain tone and standard of professional ethics. There are exceptions, however, even here, and we are astonished to find men who write sensibly and have good qualifications speak lightly of the disciplinary powers of the medical authorities. A practitioner, writing in the *Sydney Morning Herald* on the Medical Bill, objects mainly to the fact that in the Medical Council it creates there is no direct representation of the profession. The Council is to consist of ten members, five appointed by the governor and five by the Senate of the University of Sydney. We entirely agree with him in this objection. There ought to be a substantial representation in the Council of the registered practitioners of the colony, and no Council can be considered final or satisfactory which does not contain such an element. By all means this defect should be remedied. On the other hand, the writer's views are very unsatisfactory in regard to the disciplinary powers of the Council. "No medical man should be punished for acts which are not a violation of the laws of the land." "The Council should not be allowed to wander out into the shady lands of professional etiquette." We do not approve such sentiments. They are opposed to the whole spirit and tradition of the profession, and, we may add, to the whole interest of the public. The profession has its own refined duties and its own refined laws. The next sentence is significant. "The standard of professional etiquette in these colonies is just as low as it well can be." Is not this admission the very proof that other laws are wanted for the regulation of a high profession than the mere laws of the land. We trust that such views will not prevail. The duties of medical men are of the most delicate kind. Fraud and imposture and worse are very possible under cover of its functions. *Corruptio optimi pessima.* And the medical profession owes it alike to itself and the public to have a standard of morals equal to its standard of duty.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE second course of lectures at the Royal College of Surgeons will be given in the theatre of the College at 4 P.M. during the remainder of May and June as follows:—Dr. J. Rose Bradford will deliver three lectures on the Physiology of the Vaso-motor System on Monday, May 23rd, Wednesday, 25th, and Friday, 27th. Professor C. W. M. Moullin will give three lectures on the Operative Treatment of Hypertrophy of the Prostate on Monday, May 30th, Wednesday, June 1st, and Friday, June 3rd. Professor H. B. Robinson will give three lectures on Certain Diseases of the Breast on Tuesday, June 7th, Wednesday, 8th, and Friday, 10th. Professor W. Watson Cheyne will deliver three lectures on the Treatment of Surgical Tubercular Diseases, on Monday, Wednesday, and Friday, June 13th, 15th, and 17th. Professor H. T. Butlin will give three lectures, on Monday, Wednesday, and Friday, June 20th, 22nd, and 24th, on Cancer of the Scrotum in Chimney Sweeps and others.

MEDICAL ESTIMATE OF ALCOHOL IN NEW YORK.

THERE seems to be a decided wish to summarise the opinion of medical men on the momentous subject of the habitual use of alcohol. Several attempts of the sort have been made in England. None of them have been satisfactory. There has been an air of insincerity in many of them, the names of physicians who were known to be non-abstainers themselves being often paraded as censors of the public in its use of alcohol. Besides, it is impossible for physicians in a small space to express themselves on such a subject without danger of being misunderstood—in other words, without the public misapprehending the import of their testimony. Moreover, this is eminently a question where opinion should be weighed as well as counted. Those who are most ready to give an opinion, and most dogmatic and positive in its expression, are often of least authority in the matter. We have before us, in a supplement of *Frank Leslie's Weekly*, the result of an attempt to ascertain the opinion of every medical practitioner in New York. Every physician was asked to reply to the question, "Is the moderate use of wine and beer injurious to the health of grown persons?" By dint of importunity, and putting the question over and over again to the 2900 physicians practising in New York City, 675 replies only have been received. Less than a fourth have yielded to the temptation to see their opinions in print. The answers are described under the following heads—negative 435, semi-negative 88, affirmative 152—that is, that the largest number do not believe that the moderate use of wine and beer is injurious to the health of grown persons.

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There is every variety of opinion and every qualification of opinion expressed. Thus one gentleman thinks that no alcohol should be allowed under any circumstances, except on the advice of at least two physicians. This same gentleman adds: "I would not advise with any physician that I knew was in the habit of drinking wine or beer habitually." On the other hand, a physician, nearly eighty years of age, has taken wine from his childhood, and says: "I was well acquainted in Hungary with a physician 106 years old who was able to visit patients and give a very good lecture on materia medica. He drank wine twice daily, eight ounces each time, and I have heard him say many times that without wine he would not live a minute." There is to discriminating readers interest even in opinions which are extreme. But we are inclined most to praise the 2225 physicians who withheld their opinion, agreeing with a practitioner who replies "that voting on scientific questions is harmful to science and truth; scientific problems cannot be solved by majorities." The reasons for total abstinence must be found in other than medical considerations. But while we doubt the wisdom of medical men giving a rounded opinion on so large a question for popular use, we cannot too strongly emphasise their responsibility in reference to it, and the importance alike of their prescriptions and their example. There are many drugs which are apt to be continued after the need for them has passed away. The same is true of diet. And the physician is apt to find the patient, whom perhaps he has saved from death by the timely use of alcohol, persisting in its use months after the conditions which indicated its employment have ceased.

THE VACANT CORONERSHIPS FOR THE NEWINGTON DISTRICT AND WESTERN DIVISION OF THE COUNTY OF LONDON.

IT has been stated in a leading daily paper that the vacancy for the coronership caused by Mr. Carter's death will not be filled up by a new appointment, but by dividing the Newington district into three portions, giving one to each of the three coroners for neighbouring districts, Mr. Braxton Hicks, Mr. Wyatt, and Mr. Carttar. It is also stated that the division over which the late Dr. Diplock presided as coroner is to be divided into two—the London, or larger portion, and the Middlesex, or smaller one. Whether these statements be correct or not, remains to be seen; but whether there will be one, two, or three vacancies, one thing is clear—viz., that there is no dearth of most eligible medical candidates. Dr. W. Wynn Westcott comes forward with such qualifications for the office as have rarely ever been possessed by any previous candidate for this or any other vacant coronership. He has been deputy coroner to Dr. Danford Thomas for the last nine years, and during that time has held over two thousand inquests. His medical qualifications are those of M.B.Lond., M.R.C.S.Eng., and L.S.A., which were obtained twenty-two years ago, in addition to which he has made special studies of forensic medicine, public health, criminal laws, and the laws of evidence. He has also worked at practical analysis at the College of State medicine, and among other contributions to medical literature he has published "A Coroner's Notes on Sudden Death," "The Bloomsbury Mystery, a Medico legal Essay," and "A Summary of Deaths in London Caused by Excess of Alcohol." Dr. Westcott has unexceptionable testimonials from Dr. Danford Thomas, Sir Andrew Clark, Sir Henry Thompson, Drs. B. W. Richardson and G. V. Poore. Should the members of the London County Council decide to elect him to one of the vacant offices, they will do credit to themselves and be consulting the public interests. Dr. Luxmore Drew has also very high qualifications for the office of coroner, being a barrister in addition to possessing excellent medical qualifications and testimonials. Dr. Grierson Gledhill is a barrister and member of the Northern Circuit, as well as a Bachelor of Medicine, Master of Surgery, &c. Dr. Bernard O'Connor also possesses legal and medical qualifications, being a Doctor of Medicine, Member of the Royal College of Physicians, London, as well as Barrister-at-Law of Gray's Inn, Middlesex, and North London Sessions and Central Criminal Court. Dr. G. E. Yarrow, barrister-at-law, is also an applicant for the vacant coronership. It is to be hoped that the electorate will take notice of this desire on the part of medical candidates to acquire legal qualifications, so as to make themselves doubly eligible, and to satisfy those many persons who think that the coroner should possess a legal training. Barristers and solicitors have not shown themselves equally anxious to satisfy the public in the much more important qualification of a medical training, probably because the study o anatomy, pathology, and the numerous subjects of the medical curriculum, requires much more self-denial and patience than the training for the bar. Mr. Leonard Bramah Diplock, L.S.A., son of the late coroner, and Dr. George A. Bateman, honorary secretary of the Medical Defence Union, are also medical candidates for the vacancies, the latter having been a student for the bar. Probably other medical candidates may come forward, but in any case it will be clear from the foregoing that the London County Council will not have any want of eligible medical candidates whose claims to the office over merely legal candidates do not admit of argument, being irresistible. And now that they have satisfied the public prejudice by acquiring legal qualifications, there remains no justification for their claims being overlooked. Each county councillor should be individually informed of the paramount claims which members of the medical profession have for the office of coroner.

COLOUR PHOTOGRAPHY.

THE beautiful process of colour photography, briefly alluded to in the article on the conversazione of the Royal Society in our last issue, is doubtless an important step, in one direction, towards attaining the reproduction of colour by means of the camera, and as the subject is one of very general interest we give a few more facts concerning Mr. Ives' ingenious method. Mr. Ives prepares, by means of a compound camera front, three photographic negatives of the object by simultaneous and equal exposure, from the same point of view and upon the same sensitive plate. The photographic plate is sensitive to all colours of light; but by interposing certain media or light filters one of the negatives is produced by only such light rays as excite in due proportion the fundamental red sensation; another by light rays as they excite the fundamental green sensation; and another by light rays as they excite the fundamental blue-violet sensation. From this triple negative a corresponding triple lantern slide may be made, which, although it shows no colour in the ordinary way, contains such a graphic record of the natural colours that in order to reproduce them to the eye it is sufficient merely to superpose the three images, one with red light, one with green, and one with blue-violet. This is accomplished either in Mr. Ives' new helio-chromoscope, a device about the size and pattern of a hand stereoscope, and used in much the same way, or by projection with a special form of optical lantern, having three optical systems with red, green, and blue glasses. The three images, being exactly superposed, appear on the screen as one only, in which the natural colours are faithfully reproduced, together with the light and shade. Images of three ordinary photographs, exactly alike, if superposed in the same way, through the same

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coloured glasses would show no colour whatever. Although it would appear that photographic prints cannot easily be obtained by this process, yet the fact that pathological specimens, for instance, may by this means be projected on the screen with the original colours, all faithfully portrayed, will doubtless afford exceptional aid to the demonstrator. The process will also render signal service in other departments of scientific research.

THE SPREAD OF SMALL-POX.

AMONGST the localities newly infected with small-pox we hear of a few cases at Acton, and of an outbreak at Denaby Main near Doncaster, where two cottages have been turned into a hospital. The disease is still maintained in the Dewsbury district, and cases remain under isolation at Yarmouth, at Pembroke Dock, at Liverpool, and other places. In short, the somewhat wide distribution of the infection necessarily causes anxiety both as regards the immediate future and perhaps still more so as regards the prospects of an exacerbation later on, even if the present season is got over without any further diffusion of infection.

TOBACCO-SMOKING AMONG BOYS.

As long as the habit of tobacco-smoking remains a common practice among men, so long may we expect that the boyhood of the time will acknowledge its fascination. It is therefore in a sense as natural as it is morbid that the soothing weed should be numbered among the mischievous absurdities of growing youth. This is much to be regretted for several reasons. Constitutionally, the boy is not even a lesser man. Between his young and vigorous nervous system and that of the male adult there is this essential difference—the one is developing, the other formed. Endowed with greater elasticity, the former is also in proportion less stable, and such effects as the narcosis of tobacco cannot at all assist, but must more or less pervert, its normal activity. The man's more settled nerves are less affected. Then with boys the smoking habit is, in its way, a first love, and as such is almost certain to be indulged to excess. The circulatory and nerve structures are overworked in consequence, digestion suffers, and, whatever may survive of physical energy, we have often to note a decrease in constitutional soundness. Influenced, no doubt, by such reasons as these, and others of more general and social significance, the medical faculty in Manchester, in reply to a circular issued by the Anti-Tobacco League, have set themselves to seek a mitigation of the foolish evil. Their recommendations follow much the same line as that adopted by the Manchester Conference a year ago, in advising the suppression by law of smoking among boys under sixteen years of age. The well-known example of Germany in this matter is worthy of general imitation. It has already been reproduced (*vide* THE LANCET, Aug. 25th, 1890) in the State law of New York, boys under the said age being forbidden to smoke in public.

SENSATIONAL EXHIBITIONS.

THE miserable fate of a man who died recently in the City Hospital, St. Louis, U.S.A., might be noted with profit by the more daring class of professional jugglers. In this case the offence against which nature ultimately rebelled with fatal energy consisted chiefly in a habit of swallowing nails, tacks, and pieces of glass. The "freak of nature" was also a famous heavy-weight lifter, and even went the length of sustaining the weight of a horse weighing 1050 lb., which traversed a plank laid across the chest. After some six years of tack-eating the unfortunate performer was seized with persistent vomiting, probably not the first attack of its kind, with progressive signs of collapse, and died in four days, notwithstanding the removal by operative measures of a quantity of the unnatural diet above mentioned. A post-mortem examination revealed the presence in the œsophagus, stomach, and intestines of several ounces of glass and tacks, the mucous membrane being also extensively ulcerated. We have repeatedly expressed our disapproval of the exhibitions offered to satisfy a morbid public taste for the extraordinary by professional sensation-mongers. It is not often, indeed, that an opportunity occurs for demonstrating so exactly as in the case just recorded the fallacy of such performances and their frequent deadly significance as regards the exhibited wonder. We quote this fresh example of its kind as conveying in its most forcible form a proof that these exhibitions are still far too little subject to the control of police authorities, and that no pretext of public expediency or personal liberty can excuse practices which are frequently nothing less than suicidal.

SEX AND MUSIC.

SIR J. CRICHTON-BROWNE'S oration before the Medical Society has been read with interest far beyond the circle to which it was immediately addressed, having penetrated to quarters usually impervious to physiological enlightenment and hygienic remonstrance. No need, therefore, to apologise for returning to it, charged as it is with an educational value which re-discussion will be found to strengthen, certainly not to impair. Even before the differences between the sexes in cerebral structure and function were so scientifically demonstrable as now, there were practical tests in the sphere of education itself which pointed irresistibly to the conclusion arrived at by the medical orator. Take, for instance, the art of music. There is no room here for the contention that, as compared with the boy, the girl has not had fair play—that opportunities for cultivating the art have in her case been few, in his case many. The reverse is the truth. If there is a branch of education in which girls have been schooled to the neglect of every other, it is precisely that of music. It is among the primary subjects to which she is put, and among the very last she is allowed to leave off. Not one hour a day but many hours out of the twenty-four are consumed by her at the piano, to say nothing of other instruments, while singing lessons are usually given in supplement to these. It might have been thought that if practice gives perfection woman would have excelled her male counterpart not only as an executant but as a composer. But what are the facts? In instrumental performance she cannot for a moment compare with him, while as to composition she is nowhere. The repertory of music from the dawn of the art to the present day owes simply nothing to her. Considering the time she has spent over it, her failure to evolve new harmonies or even new melodies is one of the most extraordinary enigmas in the history of the fine arts. It has been remarked, but never explained, by such accomplished æsthetic writers as Lady Eastlake in her celebrated essay on "Music," and by such keen psychological analysts as Mr. G. H. Lewes in his "Life of Goethe"; it is, indeed, a problem still awaiting solution, unless we can solve it by an appeal to such facts as Sir J. Crichton-Browne adduced in his recent oration—the inferiority of woman to man in the cerebral substratum of ideo-motor energy. Why with such a record of "no results"—so far, at least, as the production of a female Handel or Beethoven or even a female Glück or Bellini is concerned—music should usurp such a preponderant place in girls' education it is difficult to divine. We have seen the practice defended on the same grounds on which in our classical schools the writing of Greek and Latin verse is vindicated: a finer appreciation is thus attained, in the girls' case, of musical

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excellence, in the boys' of the Hellenic and Latin masterpieces. "'Tis better to have tried and failed than never to have tried at all," while failure gives a truer sense of what perfection consists in. Such is the argument—for what it is worth. But even on this analogy the boy sometimes succeeds where the girl invariably fails. In George Buchanan, John Milton, Arthur Johnston, Joseph Addison, Vincent Bourne, Thomas Gray, to say nothing of the late Marquess Wellesley and Benjamin Hall Kennedy, we have classical poets hardly inferior to any but the best of antiquity; but where, in ancient times or in modern, can woman, with all her practice, be found to have created one *chef-d'œuvre* in music? The inference implied by the negative answer to such a question seems simply this: that in the higher efforts of mind—even in those where the admixture of an emotional element, as in music, might be supposed to give her the advantage—woman is inferior to her male counterpart, and cannot by any educational forcing system be made to equal him—deficient as she is in the physiological conditions of ideo-plastic power.

CHOLERA IN INDIA.

THERE does not yet appear to have been time to furnish any statistical summary of the results of the progress of cholera in India in connexion with the late outbreak of that disease at Hurdwar. The fair at that place this year does not seem to have been one of the largest of the kind. The great fair, which occurs once in twelve years, took place last year; and, whether owing to the admirable sanitary arrangements made by the Government or not we cannot say, no epidemic then took place like that which has occurred in the smaller gathering of the present year. According to the latest reports from India there had been up to April 13th last seventeen deaths from cholera out of twenty-seven attacks on the road to Simla, which place is the seat of government during the hot season. The disease appeared at Meean Meer, and it is stated to have caused a considerable exodus from that place. Cholera broke out in the 16th Bengal Cavalry—three cases and one death occurred in one day—and the medical officer rejoined his regiment at Meean Meer from cave. According to a telegram of the 11th inst. from Simla, epidemic cholera is raging at Cabul, and the Ameer is encamped outside the city.

"OUR GIDEON GRAYS."

THE memorial erected on Tuesday last to the late Mr. Joseph Tonks, M.R.C.S., at Willenhall comes to remind a preoccupied world of the heroism that often links itself to the unobtrusive career of "our Gideon Grays" in town as well as country. Here was a general practitioner, able and accomplished in his profession, who was content to live and labour among the poor of a populous neighbourhood, and,

Nel mezzo del cammin di nostra vita,

to go down to a premature grave with no other reward than the silent tears and the scarce audible blessings that well up from hearts rich in nothing but gratitude. Mr. Tonks was peculiarly the "poor man's doctor"—not, as the cynic would put it, that he was "good enough" for a humble *clientèle*, but in the sense that "he knew his art but not his trade," as Swift said of Arbuthnot, or, as a still earlier moralist, embodied it in verse—

Homo sum: humani nihil a me alienum puto.

In one of the least happily inspired effusions of the Poet Laureate he draws a picture of a coarse, unfeeling martinet of a practitioner whom even infantile suffering could not soften, and who carried the spirit of the experimenter or the laboratory student into the "homes where poor men die." Such a medical monstrosity may have existed in Lord Tennyson's experience, for no profession is without its unworthy representatives; but the portrait was manifestly nothing more than a caricature—to be atoned for by a counter-presentation, such as few of our towns or villages could fail to furnish, in which the poet would do not more justice to the profession he has maligned than to his own genius, that had stooped to the exceptional in life and the inartistic in inspiration. "Look on this picture and on that," he might well enable his readers to say, by contrasting with his caricature, the portrait of a hero, so humble and yet so high, as the "poor man's doctor" of Willenhall. Few more touching narratives have come before us than that of the ceremonial of Tuesday last, when every approach to the monument about to be unveiled in remembrance of Mr. Tonks was densely packed by multitudes anxious to pay the tribute of their presence at the unveiling of a memorial which their pennies had defrayed. Not by the gold and silver of the rich, as the spokesman of the occasion said, but by the infinite multiplication of the poor man's copper and the widow's mite had the memorial fund been subscribed, until the monument itself had reached an amplitude that, seconded by artistic design and execution, made it, as Mr. Lawson Tait, who worthily performed the ceremony of unveiling, observed, "a work of art in a community where works of art were not too common." The artistic sense may, indeed, be gratified, and, among the appreciative few be refined and stimulated by a public monument like this; but its true function will be to keep prominent before the people the beauty and nobility of a life that marched to the

Still, sad music of humanity,

until, prematurely it may be, but ripe and rich in performance, it closed amid the blessings of the community on which its best energies were expended and to which its example is bequeathed.

THE SANITARY STATE OF MONMOUTH.

WE are glad to learn that the Town Council of Monmouth have decided to carry out an efficient system of drainage for the borough. We have had to refer to other sanitary defects in Monmouth than those that can be remedied by sewers, but the action decided on indicates a determination to move in the right direction, and it is to be hoped that such matters as slaughter-houses, piggeries, &c., will not be allowed to continue sources of nuisance in a town the sewerage of which is to be placed in a satisfactory condition.

THE DENTAL HOSPITAL OF LONDON.

WE understand that the Dental Hospital of London is contemplating moving to a new site as soon as the money is forthcoming. The sum required will probably be about £40,000. Promises have already been received from the medical staff and friends of the hospital to the amount of about £3000, and as soon as £20,000 is collected to purchase a suitable site a new building will be started. The present hospital, which has for many years so ably fulfilled its duties, has, with the increasing number of patients and students, become too small for present requirements. It was hoped that some portion of premises at the back of the present hospital could be acquired, but this is now impracticable, and it is therefore only possible to provide an adequate building both in relation to area and proper equipment in every department by obtaining a piece of ground with larger area. In the days when Sir Edwin Saunders so generously provided £5000 towards moving the hospital from Soho-square to its present site there was probably an entry of about ten students a year, while at present the entry is over fifty. It is manifest that even with the recent addition of a small house that the accommodation at present is a little cramped, while at the rate gentlemen are re-

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gistering as dental students much greater area will be required to provide a sufficient number of chairs. From the fact that this hospital is for the treatment of the teeth only, it does not, perhaps, receive that support from the public it deserves. To carry on a dental hospital the annual expenditure is necessarily large for the materials used, and, notwithstanding the fact that the teeth are considered of trifling importance, there is no doubt they are serious factors in the general welfare of the public. Much local and constitutional troubles would be saved were the public really careful about the sanitary condition of their mouths.

EXPERIMENTS WITH SNAKE POISON.

WE gather from a late number of the *Pioneer Mail* that an opportunity has arisen—in connexion with the construction of a new and improved snake-house at the Calcutta Zoological Gardens, which will contain specimens of all the principal poisonous snakes in the country—of making experiments in a systematic manner with snake poison for scientific and practical purposes. Considering the loss of life in India attributable to this cause, it is a matter for the Imperial rather than for any provincial Government of that country to take up, and the Lieutenant-Governor of Bengal has, it is understood, addressed the Government of India on the subject. It is proposed to fit up a small laboratory in connexion with the snake-house for the purpose of prosecuting inquiries bearing upon the pathology of snake bite and cognate subjects, and of testing by experiment the various alleged remedies for snake bite which are from time to time brought to notice. The Calcutta Zoological Gardens would offer opportunities for instituting such inquiries which probably could not be had anywhere else in the world; and Surgeon-Major D. D. Cunningham, who is eminently fitted for organising and initiating such a work, and is president of the committee of the Zoological Gardens, will, it is believed, be willing to render effective aid in the matter.

LONDON DUST REMOVAL.

THE vestries and district boards in London are constantly threatened with new dangers. The Public Health (London) Act must have caused some anxiety to those who regulate our local affairs, especially the provision which enables the householder to recover a penalty of £20 from the sanitary authority if the latter neglect to remove his house-dust within forty-eight hours after written notice. A householder in the Strand has, however, adopted a course which has been more disastrous to the sanitary authority than the infliction of any penalty permitted by the Public Health Act. He had been for some time at variance with the authority as to the removal of his house dust. He had visited the offices of the board, and had been promised that the dust collector should pay a weekly visit to his house for this purpose; but this promise had not been kept, and he had constantly either verbally or by letter applied to the board or its solicitors, or clerk, or surveyor, but without satisfactory result. In June of last year he applied to Mr. Vaughan of Bow-street, and was told that a warrant should be issued if the matter was not attended to; and finally, having suffered from a swollen and relaxed throat, and a mild form of inflammation of stomach and intestines, he had been obliged to leave his home and travel, and he now brought an action to recover damages from the Strand Board of Works for "alleged refusal and neglect to collect and remove his house refuse, whereby the malodorous smell caused him serious illness." Two medical men were called, and gave evidence as to the plaintiff's condition before he left London, and they attributed his illness to the smells from decomposed animal and vegetable refuse in the dust-bin. Among the points of interest raised in the hearing of the case were two—one, the statement that the plaintiff was unable to avoid throwing kitchen refuse into the dust-bin, because at times he had only a gas fire in use; the other, the contention of the sanitary authority that, having contracted for the removal of all the refuse in the Strand district, it was relieved of liability in the matter. Upon the latter point Mr. Justice Grantham decided that this objection could not be accepted. Finally, the plaintiff was awarded £75 damages. We trust that this case will be carefully studied by every sanitary authority in London, and that some better effort will be made than heretofore to bring about a more complete system of refuse removal. Householders may regard with satisfaction the refusal of Mr. Justice Grantham to allow a sanitary authority to disclaim liability for omissions on the part of its contractors.

ISOLATION AT CARDIFF.

THE conflict of opinion as to the duty of dealing with infectious disease in the case of persons who are either actually destitute or bordering on destitution when sick has been significantly illustrated in the case of a commercial traveller at Cardiff, who claimed from the guardians a sum of money for the maintenance of two fever patients who were lodgers in his house, and who were actually relieved by the relieving officer. He added that he sought to get the cases removed to the workhouse, whereupon, according to the local press, "the medical officer threatened to institute proceedings against him if they were ejected, there being no proper accommodation for them in the town." The case was decided against the plaintiff. There is, indeed, no obligation upon Poor-law guardians to provide for the infectious sick; they have a duty as to maintaining the destitute, but no duty as to the accommodation of even the infectious sick in such a way as to protect the community against the spread of infection. The Public Health Act, 1875, has imposed the latter duty on the sanitary authority, quite irrespectively of the position of the sick person as to destitution. These cases of conflict always arise in towns and districts where the sanitary authorities have failed to make proper provision for the isolation of infectious cases, and it is by no means creditable that a large and important borough like Cardiff should have been content to remain so long without such elementary means of protecting the public health.

GLASGOW UNIVERSITY CLUB.

THE Glasgow University Club met on Wednesday, May 4th, at the Freemasons' Tavern, under the presidency of Lord Shand. Among those present were Lord Kinnear, Mr. James A. Campbell, LL.D., M.P., Mr. Walter Severn, R.C.A., Professor G. G. Ramsay, Professor J. M. Thomson (honorary treasurer), Mr. J. R. McIlraith (honorary secretary), Dr. Heron, and others. Lord Shand intimated that letters of apology had been received from Lord Watson, Sir George H. B. MacLeod, Lord Kelvin, Principal Caird, Canon Ainger, Professor W. T. Gairdner, Lord Stair, &c. His lordship then proposed the toast of "The Queen" in appropriate terms, and subsequently "The Glasgow University Club, London." Lord Kinnear proposed the toast of "Our Alma Mater," and Professor G. G. Ramsay, replying thereto, remarked that Lord Kinnear, in proposing the toast, was very like an executioner proposing the health of his victim, for he had taken a chief part in the great reforms which would shortly take effect in the University. Mr. George Lillie Craik proposed "The Guests," coupling this toast with the name of Mr. Walter Severn, President of the Dudley Gallery, who replied; and the proceedings were brought to a close by Mr. James A. Campbell,

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M.P., proposing "The Chairman, Lord Shand." For the information of those of our readers who are connected with the Glasgow University we may mention that the secretaries of the club are Professor D. W. Finlay, M.D., F.R.C.P., The College, Aberdeen, and Mr. J. R. McIlraith, M.A., LL.B., Barrister-at-law, 4, Harcourt-buildings, Temple, London.

INFANTILE CEREBRAL PALSY.

IN an article in the *New York Medical Journal*, dealing with the pathology of infantile cerebral palsies, Dr. Sachs describes two necropsies which he has made in cases of this nature. The first case was that of a boy with a condition of old spastic hemiplegia, who died suddenly with symptoms of basal mischief. A large cyst was found accounting for the old condition, while internal to the cyst and at the base small-celled sarcomata were discovered as the cause of the sudden fatal termination. The second case was that of a one-year old child, cyanotic at birth, who suffered much from cramps, and whose mental development was poor. In the intervals of the cramps a spastic condition of the legs was evident. Examination revealed a condition of chronic meningo-encephalitis with secondary degenerations in the spinal cord. The origin of the cerebral condition Dr. Sachs ascribes to a widespread subpial hæmorrhage occurring during a protracted labour. As regards the question of operative procedure, he is of opinion that in cases of acquired and not too widespread cortical disease such interference may be useful, and that if it is to be carried out it should be done as quickly as possible on account of the rapidly occurring secondary degenerations. The difficulty in cases which clinically fall into this category is one of diagnosis, and even approximate certainty (a *sine quâ non* if operation is to be proposed) can only be attained after careful and extensive observations, both clinical and pathological, have been made. To such observations Dr. Sachs' contribution is a valuable addition.

VACCINATION INJURIES.

A TYPICAL CASE of an allegation as to injury and death brought about by vaccination has occurred at Oldbury, where a coroner's inquest was held to inquire into the circumstances. The father held that the child had not been well since its vaccination, but the mother frankly admitted that before its death, the child's vaccinated arm had been well for no less a period than one month, and that for some weeks it had failed to take its nourishment properly, in consequence of which she put it out to nurse with a neighbour. The medical evidence was to the effect that the infant was not properly cared for, that it did not receive proper diet, and that it died in a convulsive fit. The suggestion of Mr. Grant, who represented anti-vaccination principles, was to the effect that vaccination must be regarded as an indirect cause of death. Indeed, it seems to be a creed of that party that if subsequently to vaccination any harm occurs, then *post hoc ergo propter hoc* must apply; but if any good comes whether by way of saving life from small-pox or otherwise, the results are quite accidental, and are not worth recording.

FOREIGN UNIVERSITY INTELLIGENCE.

Boston (Harvard).—Dr. R. H. Fitz has been appointed to the chair of Medicine.

Buda Pesth.—Dr. E. Schwimmer has been promoted to the chair of Dermatology.

Clausenburg.—Dr. Udransky of Buda-Pesth has been appointed to an Extraordinary Professorship of Physiology.

Gratz.—Dr. A. Elschnigg has been recognised as *privat-docent* in Ophthalmology.

Madrid.—Senor D. Dr. A. Redondo y Carranceja, Professor of Clinical Medicine in the Valladolid School, has been appointed to the chair of Medical Pathology.

Marburg.—Dr. F. Müller of Breslau has been appointed to the chair of Medicine.

Philadelphia (Jefferson College).—Dr. E. Montgomery has been appointed Professor of Clinical Gynæcology; Dr. F. X. Dercum, Professor of Nervous Diseases; Dr. E. Graham, Professor of Children's Diseases; Dr. H. W. Stelwagon, Professor of Dermatology; and Dr. W. M. Coplin, Assistant Professor of Hygiene.

Sienna.—Dr. Gius Sanarelli has been recognised as *privat docent* in Hygiene.

St. Petersburg (Military Medical Academy).—The number of candidates for the vacant chair of special pathology and therapeutics is very large, and includes Professor Dobroklonski of Warsaw, Professor Kurloff of Tomsk, Dr. Dokhman of Kazan, and a number of the present lecturers in the Academy.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Carl E. Lenz, consulting member of the Russian Medical Council at the age of seventy-one. He had travelled much and had lived for some time in Alaska. He was Russian delegate to the Cholera Conferences in Constantinople in 1865, and in Vienna in 1874. Amongst his literary works was an important abstract in Russian of Hirsch's Pathological History and Geography.—Dr. Ludwig Marovski, of Odessa, formerly professor in Kharkoff.

THE Select Committee of the House of Lords on the Metropolitan Hospitals resumed their work at Westminster on Thursday. The members present were Lord Sandhurst, Earl Cadogan, the Earl of Kimberley, the Earl of Arran, Earl Cathcart, Lord Thring, Lord Clifford of Chudleigh, and Lord Zouche of Haryngworth. As a matter of form, Lord Sandhurst was reappointed chairman of the committee The special purpose of the meeting was to hear evidence with regard to a uniform system of hospital accounts, but the expected witness did not attend, and their lordships employed the time considering their draft report.

AS Emeritus Professor of Clinical Surgery, Mr. Hutchinson, F.R.S., will deliver a course of six lectures on Thursdays, at 4 o'clock, in the clinical theatre at the London Hospital, commencing on Thursday, May 12th: (1) On Melanosis, May 12th; (2) on Operations for Cancer, May 19th; (3) on Different Forms of Chancre, May 26th; (4) on the Old and the Modern Treatment of Syphilis, June 2nd; (5) on the Nature of Eczema, June 9th; (6) on Arsenic, Mercury, and Opium, June 16th. Members of the profession will be admitted on presentation of their address cards.

A REUTER'S telegram from Cairo states: "Dr. Milton, chief medical officer of the native hospital here, is about to bring an action for libel against the newspaper *Le Bosphore*, on account of a violent article recently published in that journal attacking the English doctors practising here, and containing allegations regarding them which are alleged to be altogether unjust. Dr. Milton claims substantial damages."

DR. HOLMAN, the treasurer of the Royal Medical Benevolent College, will be presented with a testimonial on the occasion of his relinquishing practice at Reigate on Saturday, 14th inst., at 6.30 P.M., in the old Town-hall.

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SIR WILLIAM ROBERTS, M.D., F.R.S., will deliver the Croonian Lectures, on the Chemistry and Therapeutics of Uric-acid Gravel and Gout, at the Royal College of Physicians, Pall Mall East, on June 14th, 16th, 21st, and 23rd, at 5 P.M.

THE next triennial prize of £300 under the will of the late Sir Astley P. Cooper, Bart., will be awarded for the best essay or treatise on the Anatomical Distribution of the Lymphatic Vessels and the Physical Forces concerned in the Movement of the Lymph.

THE annual dinner of old students of King's College, will be held on Monday, May 30th next, at the Freemasons' Tavern, Great Queen-street, Long Acre, when Dr. W. O. Priestley, of King's College Hospital, will preside.

BY the desire of the Prince and Princess of Wales, the addition to the St. Mary's Hospital, Paddington, is to be called the Clarence Memorial Wing.

THE half-yearly dinner of the Aberdeen University Club will take place at the Holborn Restaurant on Wednesday, May 18th.

A COURSE of lectures, free to practitioners and senior students, has been commenced at the National Orthopædic Hospital.

FIFTH REPORT OF THE ROYAL VACCINATION COMMISSION.

THE following is the text of the interim report which has been issued by the Royal Commissioners on Vaccination:—

We, the undersigned Commissioners appointed to inquire into the subject of vaccination, desire humbly to submit to your Majesty a further report of our proceedings.

In the first report which we submitted to your Majesty we stated that, considering it would contribute to clearness if the evidence on the several points submitted to us were kept distinct, we had decided to take evidence upon those questions as far as practicable in the following order:—

1. The historical and statistical case in favour of vaccination.
2. The arrangements made for vaccination under the existing law, and the mode in which the law is administered.
3. The case against vaccination, and especially against its continuing to be made compulsory.
4. The reply to these objections.
5. Any substitutes that can be suggested in place of vaccination for the purpose of preventing the spread of small-pox.
6. Any improvements that can be suggested in the present law or its administration for the purpose of removing objections to vaccination or making it more effective.

We have held ninety meetings and examined one hundred and thirty-five witnesses. The evidence we have taken hitherto has been mainly directed to the first three subdivisions of our inquiry, but we have not yet completed the evidence bearing upon any of them. It is obvious, therefore, that we are not in a position to express any opinion upon the main questions submitted to us for inquiry and report. But it has been suggested that, though unable to pronounce an opinion upon those questions, it might be in our power, without prejudice to the inquiry which is still in progress, to make recommendations with reference to certain subsidiary questions to which our attention has been called.

Having carefully considered this suggestion, we have come to the conclusion that we may properly make recommendations upon certain points to which we will now advert.

"Under the existing law every parent or person having the custody of a child who, without having reasonable excuse, neglects to take it to be vaccinated is rendered liable, on conviction, to a penalty not exceeding 20*s*. In addition to this, where the vaccination officer gives information to a justice of the peace that he has reason to believe that a child under fourteen years of age has not been successfully vaccinated, and that he has given notice to the parent or person having the custody of such child to procure its being vaccinated, and that this notice has been disregarded, the justice may make an order directing the child to be vaccinated within a certain time, and, if the order be not complied with, and no sufficient ground shown for non-compliance, the person on whom such order has been made is rendered liable to a penalty not exceeding 20*s*. And this enactment has been held by the Courts to warrant repeated orders in respect of the non-vaccination of a child, and the imposition of a penalty for the disobedience of each of such orders, notwithstanding that previous penalties have been inflicted.

"We think that the imposition of repeated penalties in respect of the non-vaccination of the same child should no longer be possible. In the year 1875 the Local Government Board wrote a letter to the guardians of Evesham Union, which was afterwards sent to many other boards of guardians and made public, pointing out that by Article 16 of the Board's General Order, 1874, it was provided that in any case in which a magistrate's order had been obtained and summary proceedings taken under Section 31 of the Vaccination Act, 1867, no further proceedings should be taken by the vaccination officer without the express instructions of the guardians. The letter further stated that the intention of this provision was that the guardians should carefully consider with regard to each individual case the effect which the continuance of the proceedings would be likely to have in promoting the vaccination of the individual child and in insuring the observance of the law in the union generally. Although the publication of this letter has, no doubt, had considerable effect in diminishing the number of cases in which repeated penalties have been inflicted, it has by no means put an end to them. We think that they should cease to be inflicted altogether. We have arrived at this conclusion quite independently of the question whether vaccination should continue to be compulsorily enforced. Whatever be the conclusion which we may have to submit to your Majesty upon this part of our inquiry, and even if it should ultimately appear that we are not able all to agree in the same conclusion, we have had no difficulty in agreeing upon the recommendation which we now submit.

"It is unnecessary to state at any length our reasons for the recommendation. Those who favour the view that vaccination ought not to be compulsory are naturally opposed to repeated convictions in respect of the failure to vaccinate a particular child, whilst those who incline to the opposite view believe that any advantage which may arise from the tendency of repeated convictions to increase the number of the vaccinated is more than counterbalanced by the resentment and active opposition to vaccination which they engender.

"Our attention has been directed to the treatment to which persons are subjected who have been committed to prison by reason of the non-payment of penalties imposed under the vaccination laws. It appears that in the case of one person so committed he was shortly after his commitment removed to the debtors' ward. The governor, apparently entertaining a doubt as to the mode in which the prisoner should be treated, applied to the Home Office for instructions. In reply to this application instructions were given 'that he should be treated as a simple imprisoned prisoner—that is to say, as a convicted criminal prisoner not sentenced to hard labour.' He was accordingly removed from the debtors' ward and returned to a cell, and received for the remainder of the term the treatment indicated in the instructions from the Home Office. The 38th section of the Prisons Act, 1877, empowers the Secretary of State to make rules with respect to the classification of prisoners imprisoned for non-compliance with the order of a justice or justices to pay a sum of money, or imprisoned in respect of the default of a distress to supply the sum of money adjudged to be paid by order of a justice or justices, so that such rules are in mitigation and not in increase of the effect of such imprisonment as regulated by the Prisons Act, 1865. We understand from answers given in Parliament that the Secretary of State for the Home Department is of opinion that this section does not enable him to provide that persons imprisoned under the Vaccination Act should not be subjected to the same treatment as criminals. We do not con-

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sider that it is within our province to express any opinion upon this point, but we have no hesitation in saying that we think the power ought both to exist and to be exercised, and that persons imprisoned under the Vaccination Act should no longer be subjected to the same treatment as criminals. Many of those whose imprisonment arises from their contravention of the laws relating to vaccination regard the practice as likely to be injurious to the health of their children, and are well-conducted and in other respects law-abiding citizens. Even those who consider that the course which such persons adopt is a mistaken one may nevertheless still be of opinion that they ought not during their imprisonment to be subjected to the treatment awarded to criminals, such a proceeding not being calculated to secure obedience to the law or to add to the number of vaccinated."

THE UNIVERSITY OF LONDON.

THE usual meeting of Convocation was held on Tuesday at 5 P.M., at the University Building in Burlington-gardens. Mr. E. H. Busk, M.A., LL.B., was the only graduate nominated as chairman in succession to the late Dr. Wood, and was elected. The names of three persons were then voted for, who should be submitted to Her Majesty for the selection therefrom of a Fellow of the University. Mr. E. H. Busk obtained 781 votes, Mr. W. G. Lemon 143, and Mr. Talfourd Ely 136.

Dr. Napier presented the report of the annual committee, and with Dr. Baines moved a vote of sympathy with the family of the late Dr. Wood. Dr. W. J. Collins moved the next resolution as follows: "That the annual committee be requested to represent the views and guard the interests of Convocation generally in all matters connected with the proposed Royal Commission, and any scheme which may be submitted to it, and that for this purpose they be empowered to confer and to take joint action with the Senate, and to act otherwise as may seem expedient."

Sir Albert Rollit preferred a special committee; but, after some discussion, the original proposal was carried. The advisability of instituting degrees in languages was again referred to the annual committee.

Dr. O'Reilly moved for precedence for the following resolution, which was carried, and copies are to be forwarded to the First Lord of the Treasury, the Home Secretary, and the Member of Parliament for the University: "That this House learns with surprise and regret that the new Royal Commission on a Teaching University for London includes no member who can be regarded as representative of the Convocation of the London University, a body consisting of more than 3000 graduates deeply interested in the future of University education in the metropolis."

Mr. Sully and Mrs. Bryant, D.Sc., urged the institution of a high degree in connexion with the scientific study of education, but this was lost by the casting vote of the chairman. The annual committee were balloted for, and the House was shortly afterwards counted out.

The proceedings on the presentation day were of the usual character. Lord Derby made a graceful chairman, and was most complimentary in his felicitations to the graduates and undergraduates who were presented for their medals and certificates.

LONDON COUNTY COUNCIL.

THE Chairman of the Public Health Committee of the London County Council has issued a memorandum in explanation of the amendment required in the law to prevent the future erection of domestic dwellings in London, whether on new foundations or in substitution for old buildings, except in accordance with regulations securing an adequate amount of open space both in front and rear. The object of the memorandum is to indicate (1) the existing law on the subject as affecting domestic buildings in London; (2) the law as affecting those in the provinces and the manner in which effect has been given to it; (3) the amendment of the law required for London. Dealing with the third head the memorandum states that:—

The Royal Commissioners on the Housing of the Working Classes, in their report of 1885, dealt with the subject. The Commissioners, after stating that no attempt had hitherto been made to control the height of buildings in the metropolis in relation to the open space provided, and giving it as their opinion that the existing regulations as to such open space were not sufficient or satisfactory, made the following recommendations, subject to limitations which might be found necessary to prevent undue sacrifice of property in individual cases:—1. That upon the lines of the existing enactments in the Acts of 1862 and 1878, rules of more general application be framed to control the height of buildings in relation to the open space which should be required to be provided in front of the buildings, either in the form of land exclusively belonging to each building and kept free from erections, in the form of an adjoining street. 2. That in the rear of every new dwelling house or other building, and whether in old or in new streets, there be provided a proportionate extent of space exclusively belonging to the dwelling house or building; that this space be free from erections from the ground level upwards; that it extend laterally throughout the entire width of the dwelling house or building; that for the distance across the space from the building to the boundary of adjoining premises a minimum be prescribed; and that this minimum increase with the height of the dwelling house of building. As will be observed, the model by-laws proceed upon the lines of both these recommendations with regard to buildings outside London. The long-wished-for opportunity of amending the law with regard to the Metropolis is now offered by the pending consolidation of the Building Acts.

The late Building Act Committee suggested that the amendment should be effected by the adoption of much the same rule as that adopted by Liverpool, so far as the space in rear of dwellings is concerned, leaving untouched the question of the open space in front, but with the proviso that every owner of an existing house should have reserved to him the full right to rebuild his house on the old foundations, provided the dimensions are not altered. If an amendment of the law goes no further than this, it will hardly effect much; 18 feet streets will still remain 18 feet streets, and it will still be possible for houses fronting on them to be erected up to 90 feet. That to give full effect to both the recommendations of the Royal Commissioners must mean a sacrifice of property, and of very valuable property too, is of course evident; but land in the heart of Manchester and Liverpool is probably as valuable as land in the congested districts of London, and if the sacrifice is called for in those cities, it is surely equally called for in London; moreover, the principle of calling upon owners of house property in certain circumstances to make sacrifices for the general welfare of the community is admitted—e.g., the compulsory setting back on taking down and rebuilding to the general line of buildings when such has been once fixed, which setting back has to be done without compensation, that cases of exceptional hardship would inevitably arise if the Liverpool rules were applied to London goes without saying; for example, where a house is pulled down and the building site is of insufficient extent to allow of any rebuilding in face of the new regulation; but that is not sufficient excuse for longer delaying the only possible remedy against the evils, which, bad as they are now, may become far worse as the sanitary authorities and the Council enforce the Housing and Public Health Acts by insisting on the closing and demolition of insanitary houses, and even if compensation in individual cases should be unavoidable, this would be a cheaper arrangement for the ratepayers than the extravagant clearance schemes which must otherwise be continuously undertaken if London is to be a healthy city. Assuming the principles involved in the model by-laws to be applicable to London, it would doubtless be desirable in calculating the open space in front of new houses that the measure should be taken from the centre of the street, and that the provision so far should apply to all classes of buildings, and not be confined to domestic ones; but what the distance across should be, and whether the provision as to space in the rear is sufficient to put a reasonable limit on the actual height of the house itself, are matters which require to be considered by experts. Meanwhile the most reasonable suggestion which could be put forward at the present juncture would probably be the introduction of a clause in the proposed amendment Bill giving similar power to the Council to make by laws dealing with the matter, subject to confirmation by the Local Government Board, to that possessed by urban authorities outside London.

April 30th, 1892. R. MELVILL BEACHCROFT.

THE BELFAST LUNATIC ASYLUM BILL.

THIS Bill has been before a Select Committee of the House of Commons, consisting of the Right Hon. G. J. Shaw-Lefevre, Mr. A. Elliot, Sir Edward Harland, Mr. Hinckes, Mr. Knox, Mr. Sexton, and Mr. T. W. Russell, on Mondays and Thursdays during the past three weeks. The existing Belfast lunacy district includes Belfast city, with a population of 260,000, and the county of Antrim, which, excluding Belfast, has a population of nearly 200,000. In the whole district there are about 250 idiots and imbeciles, and 1200 other insane persons, who for practical purposes are regarded as pauper lunatics. The only available asylum accommodation hitherto provided for this large and afflicted class has been the Belfast Asylum, which nominally accommodates 550 patients, and which for some time past has been so overcrowded that in at least one division the patients are obliged to sleep in the corridors. In addition to the patients

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actually inhabiting the asylum, 100 lunatics have been transferred thence to Ballymena Workhouse under the provisions of Sec. 9, 38 and 39 Vict., cap. 67, the names of the lunatics continuing on the asylum books, and the governors still receiving the treasury capitation grant of 4s. a week towards their maintenance. The remaining 800 lunatics and idiots are scattered at large throughout the district or are located in the different workhouses, where they are detained without legal sanction, and where their condition and treatment are generally extremely unsatisfactory. It is now proposed that the present Belfast Asylum should be devoted exclusively to city patients, and that a new, and in every respect modern asylum, should be erected for the county patients at Holywell, close to the town of Antrim, where a beautiful site overlooking Lough Neagh has been acquired for the purpose by the board of control. It was found, however, that this scheme could not be carried out without legislation, inasmuch as Belfast, although the city of a county by charter, has no separate taxing and presenting powers, and that therefore the Lord Lieutenant had no power to separate it from the rest of the county of Antrim and constitute it a separate lunacy district. The Bill conferring on the corporation of Belfast the financial powers to maintain a city asylum is opposed by certain of the Roman Catholic inhabitants of Belfast, on the grounds that the change proposed would be injurious to the ratepayers, and that no fresh or further powers should be conferred on the corporation until the city has been divided into a larger number of wards than five, so that the Roman Catholic minority might have some chance of obtaining representation on the city council. The Parliamentary Committee has taken a large amount of evidence, and has examined among others Dr. Alex. Merrick, the resident medical superintendent of Belfast Asylum, and Dr. Plunkett O'Farrell, one of Her Majesty's inspectors of lunatics and a commissioner of control for the erection of lunatic asylums in Ireland. The opponents of the Bill admit the necessity for further lunacy accommodation, but they contend (1) that it would be better and cheaper to have only one board of visitors for the management of the two asylums, and (2) that it would be desirable to be able to classify the patients between the city and county asylums; and the medical evidence has been chiefly directed to these two points. The principle of having a single board of visitors or governors for two distinct institutions is not in the abstract desirable, and in the particular instance of Belfast is certainly objectionable. The single board of visitors would be composed of somewhat irreconcilable elements; the town members would come into occasional conflict with the country members. The two institutions would differ in many ways, each would have its special wants and perhaps its special faults; but the members of the single boards, some of whom would be more interested in one asylum than the other, would not be impartial judges. Moreover, the delicate question of proportionate representation would have to be approached, and the giving of a majority to one or other element would be certainly resented.

In England it has been found absolutely essential to manage each lunatic asylum by its own subcommittee, or board of visitors, and comparatively small towns like Ipswich, Derby, Exeter, Portsmouth, &c., have now their own small "borough" asylums, and have no relations with the large county asylums. As regards the second point, the attempt to classify patients by their chances of recovery has failed everywhere it has been tried. When the third Middlesex asylum was built at Banstead it was intended that it should provide only for chronic and so-called "incurable" cases. It was very soon found impossible to maintain or work this plan, and so it was abandoned, and no attempt has been made to repeat the experiment. On the contrary, the great new asylum at Claybury is being specially erected for the accommodation of both classes, "curable" and "incurable." In Germany a few generations ago it was a favourite idea to divide asylums into "cure institutions" (Heil-Anstalten) and "care institutions" (Pflege-Anstalten). But practically it was found that this system would not work, and the majority of the asylums are now "cure and care institutions" (Heil- und Pflege-Anstalten).

It is no doubt occasionally desirable, on medical grounds, to transfer borough or city patients to the country. This advantage could be gained by a friendly arrangement between the two boards of visitors of the Belfast and the new Antrim Asylum, or by the far better plan, now adopted by nearly all the English lunacy hospitals, of building a small seaside convalescent asylum for the city patients, where no doubt they would have a far better chance of recovering and regaining mental stability than in the best-managed county or district asylum.

THE GENERAL PRACTITIONERS' ALLIANCE.

THE General Practitioners' Alliance having represented to the Privy Council the desirability of appointing representatives of the medical profession not connected with the governing bodies of existing corporations to serve on the Royal Commission appointed to inquire into the subject of the Gresham University, a reply to the following effect has been received. The Lord President, in the communication, states that "it is quite impossible for his lordship to receive deputations upon the composition of the Royal Commission. The names have been submitted to, and approved of by, Her Majesty, and the numbers are already large, medicine being strongly represented. Evidence can, of course, be given upon any special points, and the members of the Commission, other than the medical members, can judge of the value of the evidence and give effect to it. The Lord President regrets that he is unable to accede to the resolution of the General Practitioners' Alliance, as other bodies who have sought for additions to the Royal Commission would claim to be heard in person."

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6718 births and 3841 deaths were registered during the week ending May 7th. The annual rate of mortality in these towns, which had been 21·8 and 20·8 per 1000 in the preceding two weeks, further declined last week to 19·7. In London the rate was 18·9 per 1000, while it averaged 20·2 in the thirty-two provincial towns. The lowest rates in these towns were 14·3 in Halifax, 14·9 in Cardiff, 15·7 in Norwich and in Huddersfield, and 15·0 in Nottingham; the highest rates were 23·9 in Preston, 24·1 in Oldham, 24·2 in Liverpool, and 28·3 in Sunderland. The 3841 deaths included 541 which were referred to the principal zymotic diseases, against 541 and 527 in the preceding two weeks; of these, 237 resulted from measles, 152 from whooping-cough, 43 from diphtheria, 42 from scarlet fever, 41 from diarrhœa, 25 from "fever" (principally enteric), and 1 from small-pox. No fatal case of any of these diseases occurred last week in Norwich; in the other towns they caused the lowest rates in Hull, Nottingham, Derby, and Birkenhead, and the highest rates in Sheffield, Salford, Leicester, and Sunderland. The greatest mortality from measles occurred in Birmingham, Sunderland, Liverpool, London, Leicester, and Sheffield; from whooping-cough in Manchester, Croydon, Bristol, Bolton, and Sunderland; and from diarrhœa in Salford and Preston. The mortality from scarlet fever and from "fever" showed no marked excess in any of the thirty-three large towns. The 43 deaths from diphtheria included 31 in London, 4 in Manchester, and 2 in Salford. One fatal case of small-pox was registered in London, but not one in any of the thirty-two provincial towns; 47 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 12 in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1484, against 1400 and 1408 on the preceding two Saturdays; 200 new cases were admitted during the week, against 219 and 177 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 389 and 306 in the preceding two weeks, further declined to 297 last week, and were 61 below the corrected average. The causes of 72, or 1·9 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Portsmouth, Norwich,

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Bolton, Hull, and in eight other smaller towns; the largest proportions of uncertified deaths were registered in West Ham, Birmingham, Blackburn, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined from 24·1 to 21·3 per 1000 in the preceding four weeks, was 21·4 during the week ending May 7th, and exceeded by 1·7 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 17·1 in Leith and 17·3 in Edinburgh to 23·7 in Glasgow and 28·9 in Greenock. The 596 deaths in these towns included 30 which were referred to whooping-cough, 22 to measles, 5 to scarlet fever, 4 to diarrhœa, 3 to "fever," 1 to diphtheria, and not one to small-pox. In all, 65 deaths resulted from these principal zymotic diseases, against 63 and 70 in the preceding two weeks. These 65 deaths were equal to an annual rate of 2·3 per 1000, which was 0·5 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 22 and 26 in the preceding two weeks, further rose last week to 30, of which 24 occurred in Glasgow and 2 each in Edinburgh, Dundee, and Aberdeen. The deaths referred to measles, which had been 15 and 18 in the previous two weeks, further increased to 22 last week, of which 21 were recorded in Glasgow. The 5 fatal cases of scarlet fever also showed a slight further increase upon recent weekly numbers, and included 3 in Glasgow. The 4 deaths from diarrhœa were considerably below those recorded in any recent week, and the fatality of diphtheria and of "fever" also showed a decline. The deaths referred to diseases of the respiratory organs in these towns, which had been 163 and 139 in the preceding two weeks, further declined last week to 126, and were 31 below the number in the corresponding week of last year. The causes of 58, or nearly 10 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased in the preceding three weeks from 30·6 and 43·9 per 1000, declined again to 33·0 during the week ending May 7th. During the first five weeks of the current quarter the death-rate in the city averaged 35·3 per 1000, the rate for the same period being 20·3 in London and 19·5 in Edinburgh. The 221 deaths in Dublin during the week under notice showed a decline of 73 from the exceptionally high number in the preceding week, and included 40 which were referred to measles, 4 to whooping-cough, 2 to diarrhœa, 1 to diphtheria, and not one either to small-pox, scarlet fever, or "fever." In all, 47 deaths resulted from these principal zymotic diseases, equal to an annual rate of 7·0 per 1000, the zymotic death-rate during the same period being only 3·6 in London and 2·8 in Edinburgh. The fatal cases of measles, which had been 33 and 20 in the preceding two weeks, rose again to 40 last week, and exceeded the number recorded within the city in any week since January, 1882. The deaths referred to whooping-cough, which had increased in the previous three weeks from 5 to 11, declined again to 4 last week. The 221 deaths registered in Dublin last week included 39 of infants under one year of age, and 37 of persons aged upwards of sixty years; the deaths of infants showed an increase, while those of elderly persons were considerably below those recorded in any recent week. Three inquest cases and 5 deaths from violence were registered; and 65, or nearly one-third, of the deaths occurred in public institutions. The causes of 20, or more than 9 per cent., of the deaths in the city last week were not certified.

CALCUTTA VITAL STATISTICS.

We learn from the report of Dr. W. J. Simpson, health officer for Calcutta, on the vital statistics of that city and its amalgamated area of suburbs, that the total number of births registered in Calcutta in January last was 787, in the annual ratio of 20·2 per 1000 of population. Of the 787 births, 405 were males and 382 females. The decennial mean was 683. The total number of deaths, exclusive of still-births, registered in January was 1302, against 1380 in the preceding month, showing an annual ratio of 33·4, against 35·5 per 1000. The proportion of male to female deaths was as 140 to 100. The monthly total exceeds all the corresponding figures of the past decade, excepting 1883, and also exceeds the decennial mean by 137. There were 57 deaths from cholera, against 98 in the preceding month. The number is less than all the corresponding figures for the last ten years, excepting 1884, and is also less than the average of the decade. There was only one death from small-pox registered during the month. The deaths from fevers amounted to 497, against 536 in the previous month. The total exceeds all the corresponding numbers for the past ten years, and also surpasses the decennial mean by 154. Tetanus among infants reached, as usual, a high figure. There were 46 deaths from tetanus, against 47 in the previous month. Of these, 39 were under one year of age. The mortality of infants under one year of age, reckoned on estimated births, was 287·2, against 306·0 in the preceding month per 1000 of population per annum. In the amalgamated area of the suburbs there were 404 births registered in January, giving an annual ratio of 22·5 per 1000. Of these, 223 were male births and 181 female. The total number of deaths registered in January was 828, in the annual ratio of 46·1 per 1000 of population. Of these deaths there were 35 from cholera, 346 from fevers, 148 from bowel complaints, 46 from tetanus, 6 from injuries, and 247 from other causes.

THE SERVICES.

THE REPORT OF LORD WANTAGE'S COMMITTEE.

THE absence of Mr. Stanhope from the House of Commons owing to ill-health will, in all probability, interpose an obstacle to the intended debate on the recommendations of Lord Wantage's Committee on the terms and conditions of service in the Army. This is to be regretted, for the subject is one which needs threshing out in the House of Commons; but neither the Government nor the opposition will, we fancy, be sorry to escape declaring their future action in difficult matters involving an increased expenditure amounting altogether to some two millions a year. Sooner or later the subject must, however, be taken in hand. The soldier regards the present system of compulsory stoppages, not due to negligence or misconduct on his part, as a great grievance. He thinks their imposition opposed to the representations made to him on enlistment, and considers that he should be housed, clothed, and fed at the cost of the State, and able to count on some fixed sum in the way of daily pay to spend as he likes—not a very unreasonable way of looking at it!

DISTINGUISHED TRAVELLERS.

Two officers, one of whom is a medical officer, have recently accomplished a feat in the way of travelling which speaks well for their enterprising spirit and powers of endurance. It is stated by a correspondent that Captain Bower, of the 17th Bengal Cavalry, and Surgeon Thorold, of the Indian Medical Service, had passed through Shanghai. The names of these officers will, we believe, be added to the list of distinguished British travellers. They journeyed through Thibet by the longest route that can be taken through that country. They passed from the Cashmere frontier in the north-west to the Chinese province of Szechuen, which adjoins the south-eastern border of the territories of the Delai Lama. They spent upwards of ten months in Thibet, and a great part of their journey lay through a series of elevated table lands, seldom lower than 15,000 feet above the sea level. No foreign travellers have, it is alleged, previously followed the same route, and we may consequently look forward to an interesting record of their experiences.

THE LATE RISING IN NORTH LUSHAI.

We learn that the medical officer whose exhibition of bravery and coolness, under trying circumstances, in connexion with the late expedition in North Lushai land, was mentioned in the reports of the campaign, is not Surgeon-Captain C. H. Melville, of the Army Medical Staff, but Surgeon-Captain Henry Bruce Melville, of the Indian Medical Service, who is stationed at Fort Aijal, North Lushai, in medical charge of the frontier police, and is Civil Surgeon of the Lushai Hills.

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INDIAN MEDICAL SERVICE.

It was announced that Surgeon-Major Coates, the Junior Civil Surgeon at Simla, had been appointed Civil Surgeon at Lahore, Surgeon Cunningham succeeding him; but according to the latest arrangement it appears that Surgeon-Major Coates will remain at Simla, and not go to Lahore as stated.

Surgeon-Major C. F. Willis, I.M.S., 9th Bombay Infantry, who has been officiating in medical charge of the 21st Bombay Infantry during the absence of Surgeon-Major Burroughs, I.M.S., departed for Mhow on the 13th ult., to rejoin his regiment, on the arrival of the latter officer from leave in England.

Surgeon-Captain A. Street, I.M.S., on general duty, Poona, has been appointed to officiate in medical charge, 26th Regiment Bombay Infantry, vice Surgeon-Captain H. Herbert, I.M.S., transferred to the Civil Department.

The services of Surgeon-Captain H. Herbert, F.R.C.S., I.M.S., have been placed at the disposal of Government for employment in the Civil Department.

Surgeon-Captain Baman Das Basu has been appointed to act as Civil Surgeon, Jacobabad, with effect from the 22nd ult., in addition to his other duties.

Surgeon-Captain J. Crimmin, V.C., I.M.S., has been appointed to act as Port Surgeon, Aden, during the absence of Surgeon-Major C. Monks, I.M.S., or until further orders; Surgeon-Captain A. F. Cleveland, I.M.S., holding charge, pending the arrival of Surgeon-Captain Crimmin.

Surgeon-Captain H. Herbert, F.R.C.S., I.M.S., acts as Second Surgeon, Jamsetjee Jejeebhoy Hospital, during the deputation of Surgeon-Major W. K. Hasch, to act as Senior Medical Officer in charge, Jamsetjee Jejeebhoy Hospital, and Senior Surgeon, Jamsetjee Jejeebhoy Hospital.

Surgeon-Major Robertson and his party of frontier tribesmen have passed through Lahore on their way home. They had been a little depressed by the sudden death from cholera of the Assistant Medical Officer to the party.

Surgeon-Lieutenant-Colonel H. J. Linton, I.M.S. (26th P.N.I.), died at Peshawur on the 4th ult. He joined the Indian Medical Service in 1869, served in the Afghan War of 1878–80, and took part in the second expedition into Bazar Valley and in the advance to the relief of Cabul under Brigade-General C. Gough (mentioned in despatches); accompanied Sir Frederick Roberts in the march to Candahar, and was present at the battle of Candahar (mentioned in despatches, medal with two clasps and bronze decoration).

ARMY MEDICAL STAFF.—Surgeon-Major F. W. Trevor and Surgeon-Captain C. J. W. Tatham have been ordered to Woolwich for duty. — Brigade-Surgeon-Lieutenant-Colonel J. B. Kelly, in medical charge of the Station Hospital at Belgaum, has been appointed to the medical charge of South Station Hospital, Bangalore. — Surgeon-Lieutenant-Colonel A. L. Brown, in charge of South Station Hospital, Bangalore, has been transferred to the charge of the Station Hospital at Belgaum.—Surgeon-Captain W. J. Crofton has been placed on temporary half-pay on account of ill-health.—Surgeon-Colonel Wm. Collis to be Surgeon-Major-General, vice A. M. Tippetts (retired), Brigade-Surgeon-Lieutenant-Colonel Francis Henry Welch, F.R.C.S. Eng., to be Surgeon-Colonel, vice W. Collis, and Surgeon-Lieutenant-Colonel Henry Comerford, M.D., to be Brigade-Surgeon-Lieutenant-Colonel, vice F. H. Welch (all dated April 5th, 1892).

ARMY MEDICAL RESERVE OF OFFICERS. — Surgeon-Lieutenant Colonel William Warman Coleman, having resigned his Volunteer appointment, ceases to be an Officer of the Army Medical Reserve of Officers (dated May 11th, 1892).

MILITIA MEDICAL STAFF.—Surgeon-Lieutenant-Colonel R. J. Magee, 5th Battalion, the Royal Irish Regiment, whose resignation was notified in the *London Gazette* of Feb. 26th, is permitted to retain his rank, and to wear the prescribed uniform on his retirement (dated Feb. 27th, 1892).

YEOMANRY CAVALRY. — Royal Wiltshire (Prince of Wales's Own Royal Regiment): Geo. Thelwall Kindersley Maurice, Gent., to be Surgeon-Lieutenant (extra), under paragraph 33 (*a*) Yeomanry Cavalry Regulations, 1889 (dated May 9th, 1892).

NAVAL MEDICAL SERVICE.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Inspector-General of Hospitals and Fleets Doyle Money Shaw, C.B., has been placed on the Retired List of his rank at his own request (dated April 27th, 1892).—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Inspector-General of Hospitals and Fleets John Fisher has been placed on the Retired List at his own request. Surgeon and Agent: John G. Wilson, M.B., at Porlock and Minehead (dated May 11th, 1892).

VOLUNTEER CORPS.—*Artillery:* 1st Aberdeenshire: Surgeon-Major J. Rodger, M.D., to be Surgeon-Lieutenant-Colonel (dated May 11th, 1892). — *Rifle:* 4th Volunteer Battalion, the Cheshire Regiment: Surgeon-Captain W. Bale to be Surgeon-Major, to resign his commission, to be granted permission to retain his rank, and to continue to wear the uniform of the battalion on his retirement; and Hyde Marriott, M.B., to be Surgeon-Lieutenant (both dated May 11th, 1892).—1st (City of Bristol) Volunteer Battalion, the Gloucestershire Regiment: Surgeon-Lieutenant A. W. Prichard to be Surgeon-Captain (dated May 11th, 1892).—1st Volunteer Battalion, the East Lancashire Regiment: Surgeon-Lieutenant W. Wallers resigns his commission (dated May 11th, 1892)—1st Volunteer Battalion, the Manchester Regiment: William Fitzwilliam O'Grady, Gent., to be Surgeon-Lieutenant (dated May 11th, 1892).

Correspondence.

"Audi alteram partem."

THE OATH OF HIPPOCRATES.

To the Editors of THE LANCET.

SIRS,—The authority of THE LANCET is deservedly so great on all matters pertaining to the history, theory, and practice of medicine, that its opinion may generally be accepted without scrutiny or challenge. Nevertheless, I venture to think that one of the inferences it draws from the Hippocratic Oath is not, historically or logically, well founded.

In an interesting annotation entitled "The Oath of Hippocrates," it is stated: "An expressed objection to the performance of lithotomy affords an early sign of the deepening cleavage between the provinces of the physician and the surgeon" (p. 1039). The Hippocratic phrase, "I will not cut any one suffering from stone" (*οὐ τεμέω δὲ οὐδὲ μὴν λιθιῶντας*), has confessedly puzzled and perplexed most commentators, and many conjectures have been hazarded as to what it does mean, and many hypothetical emendations of the text have been proposed in order to make the meaning clearer or more intelligible. It is no part of my present purpose to discuss these conjectures and emendations or to attempt any elucidation of the text. I merely submit that, whether it was intended to proscribe the operation of cutting for vesical calculus or not, or whether some other operation was referred to (e.g., castration as some suppose) the interdiction does not afford any evidence of a "cleavage between the provinces of the physician and the surgeon." Respecting this particular assumption, Littré emphatically declares "une pareille opinion ne peut soutenir le moindre examen,"[1] and he observes that the Hippocratists performed all kinds of operations, severe as well as slight.

The context, and indeed the whole tenour of the Oath, shows that whatever may have been the grounds for proscribing this operation, they were of an ethical or *moral* nature, and not purely *technical*. There is nothing in the Hippocratic writings, or in the works of the other ancient Greek and Roman medical authors, to indicate why this operation of cutting for stone was specially and *exclusively* prohibited. No other operation in surgery is proscribed; all the other procedures mentioned in the Oath only to be condemned are obviously criminal or offensive and immoral.

I am, Sirs, yours faithfully,

Harley-street, W., May 10th, 1892. JOHN TWEEDY.

[1] Œuvres d'Hippocrate, tom. iv., p. 617.

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PRESENTATION TO SIR GEORGE BUCHANAN, F.R.S.

To the Editors of THE LANCET.

SIRS,—As you are doubtless aware Sir George Buchanan has lately resigned the post of Medical Officer to the Local Government Board. A committee has been formed with a view to forwarding a movement for enabling those interested in public health throughout the country to give expression to the high estimation in which they hold the important work which Sir George Buchanan has done, and for affording some opportunity for the recognition of his conspicuous services in the cause of preventive medicine. Under these circumstances it has been decided to open a subscription list (not to exceed two guineas from each contributor) with a view to presenting to Sir George Buchanan some permanent memento of the esteem in which he and his work are held. The Council of the Society of Medical Officers of Health has expressed a desire to be associated with the committee in inviting subscriptions to the fund.

We are, Sirs, faithfully yours,

J. S. BRISTOWE, Hon. Treasurer.
W. H. HAMER,[1] Ladywell, 69, Dartmouth-park-hill, N.W. } Hon. Secs.
J. C. THRESH,[1] The Limes, Chelmsford, Essex. } Hon. Secs.

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* Representing the Society of Medical Officers of Health.

THE PHYSIOLOGY OF DREAMS.

To the Editors of THE LANCET.

SIRS,—I have read with great interest your annotation on the Physiology of Dreams, but unfortunately did not hear the lecture on this subject by Dr. Richarsdon, on which your comments are founded. I am unacquainted with the exact views of the lecturer on the subject, but it is generally held that a dream is simply the working of the brain during sleep, when all surrounding objects are removed from the consciousness, so that it seems for the time a reality, and all the circumstances connected with it so vivid in the memory that they can be realised when the waking hour arrives. The relating of this dream to another person may occupy some time, so numerous are the incidents, and yet the sleep during which it occurred may be little more than momentary, and herein lies one of the first fallacies with respect to the theory of dreaming. A friend informs me that he has fallen asleep in his carriage, had a dream, and suddenly awoke, when he has found he is not out of the street where his slumber began. For this reason and others which I shall mention it is evident that a dream is nothing more than a mental picture, just as happens when one sits drowsing over the fire in a reverie, and conjures up to the mind's eye some distant spot where one has once been, and with it, perhaps, some well-marked scene, until one is living again in the place as if it were a reality. If true sleep should occur, and so all surroundings cut off, the picture becomes still more real, we become a part of it, see the people move about and hear the music play. I believe the dreamer does nothing more than this; he has a picture before him such as we may see in our National Gallery in "The South Sea Bubble" or "The Derby Day." If he had witnessed these scenes himself only for a minute in a rapid drive through the city or on Epsom Downs it would take a long time to relate all the particulars of the pictures implanted on his mental vision. So I take it in a dream; there is a mental picture of this kind, but the narrator does not describe it as such, but relates a number of incidents occurring over a lengthened period of time, among which are conversations about the names and character of people of whom the dreamer obtains information, there is beautiful music, there is an improvisatore who recites, and various foreign languages are spoken. The narrator of the dream may relate even how he is asked a riddle, and giving it up often obtains the answer from the interrupter; or tell again Boswell's story of Dr. Johnson, how a controversy takes place in which the dreamer has the worst of it. In this case Boswell reminds Johnson that he personified both parties. This, however, afforded no explanation of the fact that in acting the part of two people he was quite unconscious of being the same individual. I take it that it is quite impossible when a person acts the part of two individuals in a dialogue, that he can for a moment forget his personality. I cannot conceive of the possibility of this, nor can I conceive how, during sleep, the mind could pass through such different stages; but this many persons think they do in a dream.

There is one obvious case which shows the fallacy of the ordinary opinion as to the nature of dreams; it is one which sorely perplexed one of my students. He told me that he had been for a short time to a school in Germany, but not long enough to acquire a mastery of the language, whilst of course his master spoke it perfectly. He had often in his dreams returned to his school, when in conversation with his master he spoke only his broken German, whilst his master made use of the best idiom. It greatly puzzled my friend, who, knowing that the dream originated in his own brain, how in his sleep he could be acquainted with the perfect foreign language. I asked him to repeat something which the master had said. This he failed to do, and this is always the case with the relators of dreams; they forget the foreign language spoken, they forget the music they heard, they forget the poem they heard recited, they remember only some triviality or absurd expression which they put into somebody's mouth. Nothing is too extravagant for a dreamer to say has occurred in his dream, and yet he fully believes that his own brain has concocted it. Although he knows not a note of music, he says, in fact, that his brain has produced the most wonderful melodies; although he knows no foreign language, his brain has developed people who spoke them; although he never wrote a verse, his brain during sleep conceived of a lady who recited a charming poem. The absurdity of this common opinion is almost too obvious to be mentioned, and yet there are persons who gravely speak of these things occurring during sleep. The fact of their never remembering a word of these performances when awake does not altogether convince them as it ought, that they never could have had such dreams as they describe. What is usually said is that the mind during sleep conjures up a variety of scenes and performs, as it were, itself the various parts of the different actors. This is what I deny; the student in his sleep did not talk inferior German, and his master the perfect language. All he did was to picture to himself two people with these different characteristics. He never in his dream talked to his master or his master to him. This is simply the way he describes the picture in his waking hours.

In endeavouring to study the physiology of dreams, and the various causes which give rise to them, the first thing to realise is that the whole thing is a delusion; to know that the narrator who says he has been dreaming all night long of certain incidents as if it was a continuous story is deceiving himself; he has merely had a strong mental vision in which the characters have had more reality than in any picture of a scene he can call up in his waking hours. All the living action is a subsequent interpretation. I am not denying the fact of "unconscious cerebration," or that the brain may not solve problems during sleep to be made use of when the subject awakes; nor would I deny that poets or musicians may have shown their respective powers during sleeping hours. A musician may in his fancy have seen the Devil at the foot of his bed performing a tarantella which he wrote down in the morning; or Coleridge might, in a dreamy state at night, compose his "Kubla Khan," but the poem he wrote during his waking hours was the offspring of his "vision in a dream." One difficulty in obtaining a clear idea of the dreaming process appertains to the difficulty which exists, and, perhaps, always will exist, in the explanation of all mental phenomena, and that is, that in operations of the brain and mind we are obliged, from the necessity of our existence, to put the "ego" anterior to all mental processes.

I am, Sirs, yours faithfully,

Grosvenor-street, May 7th, 1892. SAMUEL WILKS.

[1] To whom contributions may be sent.

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PSILOSIS.

To the Editors of THE LANCET.

SIRS,—In your observations in THE LANCET of April 30th on Dr. Thin's paper on Psilosis, read recently at the Royal Medical and Chirurgical Society, you remark that his suggestion that the colouring matter of the fæces in these is destroyed low down in the intestinal canal by bacterial action, and, until some other agency has been discovered or this theory shown to be untenable, we must conclude that the views hitherto held as regards the white stools, although probably correct in the majority of cases, are not complete, and that further investigation is necessary before the matter can be satisfactorily settled. My attention was drawn to this question in Jamaica thirty years ago, when studying the character of yellow fever.[1] In that disease, on the fourth and fifth days, the stools are either nearly colourless, or contain merely a small quantity of fetid mucus with more or less biliary matter, but altogether without the appearance of the natural healthy evacuation, and at the same time there is much oppression, great irritability of stomach, and threatening of black vomit. At this stage a brown feculent evacuation of healthy appearance frequently occurs, when the unfavourable symptoms disappear as if by magic, and the convalescence is generally rapid. Here the brown evacuation is evidently a critical discharge of a most important description, and though it may contain bile that is not the cause of its colour, and the presence of such bile does not seem to explain its wonderful influence in removing the fever at its most threatening period.

The general belief of the medical profession is undoubtedly the old one, that pale stools are the result of either the non-secretion of bile, or its retention in the liver itself by obstructed ducts; but the brown colour of the fæces is not due to any modification of that of bile, but to a secretion that is not met with above the cæcum, and is to be found in it in cells impregnated with it, these cells being generally diffused through its more or less fluid contents, and, in favourable specimens, many of them may be found in tube casts, and evidently secreted by the glands in the lining membrane of the organ itself, as the gastric juice is secreted in those of the stomach. It may be asked, if non-secretion of bile or its retention in the liver be relieved by mercurials, and the proper colour of the feculent discharges return after their use, does not this prove the view here advocated to be erroneous? This is not so, however, for the Commission at Edinburgh, which examined, a good many years ago, how far mercurials increased the biliary secretion, showed that they did not do so; yet the action of calomel in moderate quantities on the cæcum and colon is to deepen the brown colour, and to increase these secretions, thereby augmenting their eliminative action, and so relieving any organ behind them from congestion or other disturbance of function which it is possible for an increase of the natural eliminatory process to afford. I am, Sirs, yours faithfully,

ROBERT LAWSON,
London, May 6th, 1892. Inspector-General of Hospitals (retired).

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—The Association of Members of the College of Surgeons has already suffered enough for having taken Mr. Lawson Tait's advice in reference to the recent action (Steele *v.* Savory) without having further thrust upon it the responsibility of depriving the College of that gentleman's valuable services upon the Council. The Committee of the Association, desiring to ascertain the extent of their liability as soon as possible, passed a resolution to the effect that, the action having now terminated, the services of the solicitor would no longer be required, and requesting him to send in his account. One of the secretaries, who was brother to the solicitor, took offence at this, and resigned; the other then did likewise, on the ground that he had not for a long time undertaken any of the active duties of the office. Such is the sum total of the "behaviour" which, it seems, is to prevent Mr. Lawson Tait's further candidature for the Council. It is probable that the reason given will appear to his supporters among the Fellows a trifle inadequate, and that his action will seem to lack that "earnestness and wisdom" whose absence in others has so seriously affected him.—I am, Sirs, yours faithfully,

May 10th, 1892. W. G. DICKINSON.

To the Editors of THE LANCET.

SIRS,—I wish, with your permission, to make a few observations upon the letter from Mr. Lawson Tait in regard to the Council of the Royal College of Surgeons of England, published in your last issue. I happen to be a member of the Fellows' Association, and I have always understood that the objects of that Association were to advance reforms in the Council of the College solely *in the interest of the Fellows.* Entirely with that impression, therefore, I recorded my vote in Mr. Lawson Tait's favour at the last annual election to the Council, and also because Mr. Lawson Tait was one of the candidates recommended by the committee of the Association. We now, however, learn from Mr. Lawson Tait that "on the occasions when I have been a candidate in past years I have had the requirements of the Fellows as the chief part of my programme, *but I have always declared that the interests of the Members have largely entered into my reasons for wishing to obtain a seat on the Council.*" When and where, I should like to ask, has Mr. Lawson Tait declared to the members of the Association that his main purpose of gaining a seat on the Council was that of advancing the interests of the Members.

I for one certainly knew nothing about this avowal of his political faith when I voted for him last July, and I certainly should not have voted as I did had I known the real reasons which impelled him to become a candidate. There is no other conclusion possible with regard to the Members' question at the present time than this—namely, that it is not ripe for solution. Why, then, waste time over it? Why attempt the impossible? Reforms such as the Council will be disposed to grant will be first in the interests of the Fellows, and therefore, sheltered behind its powerful charters and by-laws, the Council can now well afford to regard—truly, perhaps—with irritating equanimity the futile attempts of those who endeavour to thrust the Members' question before it. But as soon as the position of the Fellows becomes improved in the government of the institution, for which the Association is now doing its best to strive, then the lesser element of the "body corporate" would be able to help the greater, and to lend its aid to the advancement of those general reforms which are urgently called for in the interests of the College. But I have another bone to pick with Mr. Lawson Tait. He refuses to stand as a candidate of the Association at the next election, and lets us into the secret of a little family quarrel which he has had with the committee of the *Members'* Association, to which, I believe, he belongs. The effect of this quarrel may be given in his own words: "*I have no longer any reason sufficient to induce me to make the* sacrifice of personal comfort and professional income which a seat on the Council of the College would involve. Therefore I shall not offer myself again in July." In short, to use a vulgar expression, Mr. Lawson Tait will see the Association of the Fellows "hanged first" before he will pose as its candidate, now that his own objects in furthering the interests of the *Members* cannot be attained. A curious commentary is this decision of Mr. Lawson Tait upon the fact that for three years he has been the adopted candidate of the Fellows' Association for a seat on the Council, pledged to press forward those points of reform which the Association has always consistently adopted as its programme. Now, however, that Mr. Lawson Tait has made such a plain statement of his creed in this matter, how will his connexion with the Association of Fellows stand? That is certainly a matter which calls for the consideration of the committee of the Association, and to that body it may be left. Meanwhile, I may take this opportunity of congratulating the committee in having secured so thoroughly a desirable candidate as Mr. Tweedy to represent the views of the Association at the coming election. No better choice could have been made, and all the members

[1] British and Foreign Medico-Chirurgical Review, vol. xxviii., p. 483, and vol. xxix., p. 481.

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should loyally work to ensure his return. In all cases the italics are mine. I am, Sirs, yours truly,

May 10th, 1892. F.R.C.S.

THE LATE MR. CHARLES HAWKINS.

To the Editors of THE LANCET.

SIRS,—In your obituary published on the 10th of April it is stated that when Mr. Hawkins presented himself to the governors of St. George's Hospital as a candidate for the office of Assistant Surgeon he was unsuccessful, "although he had the powerful support of Sir Benjamin Brodie." I am in a position to state that Mr. Hawkins neither solicited nor received Sir Benjamin Brodie's support on that occasion. Mr. Hawkins then displayed the same independent and chivalrous spirit which was so characteristic during the whole of his professional life. During the election Sir Benjamin Brodie had numerous applications from friends to know which way they should vote, and a word from him would have been conclusive with regard to the result. He however, remained strictly impartial.

I am, Sirs, your obedient servant,

Savile-row, May 9th, 1892. HENRY LEE.

"OPERATION FOR SPASMODIC TORTICOLLIS."

To the Editors of THE LANCET.

SIRS,—If Dr. Harkin had in the first instance only referred to the process of blistering as one which ought to be tried before operation was resorted to for this affection, no objection, I think, could have been raised to his letter; but his attack upon the performance of the operation was most unreasonable and unfair. The evidence of published cases, so far as I am concerned, shows that every means known to myself and to the many other medical men who had treated the cases previously had been put in practice before I resorted to operation. In the future, should opportunity occur, I shall certainly not neglect to try the effect of blistering; but I shall be agreeably surprised if it proves to be an effective cure in *long-standing* cases. That it has failed at least in one such case is a fact which has lately come to my knowledge. Should this and the other simple remedies fail to relieve the patient, I shall still think it justifiable to resort to operation.

To answer all Dr. Harkin's objections would encroach too much on your space, so I limit my remarks to the main points. As to his observations about these operations being "painfully like vivisection, from which even the inferior animals are saved by legal enactment," I would remark that in seven out of eight operations the wounds healed by first intention in less than a week, and that the patients suffered no pain or inconvenience worth mentioning. In one instance the wound was somewhat tedious in healing—owing, I believe, to the patient's weak state of health—but it healed up gradually, leaving very little scar. It is possible that in these long-standing cases some central lesion exists which maintains the spasmodic action. This was so in the case of a fowl, the description of which appears in the Transactions of the Pathological Society, vol. xxvi., p. 252, and, if the same condition exists in the human subject, the *rationale* of operation upon the nerves becomes apparent. I am, Sirs, yours truly,

Queen Anne-street, May 7th, 1892. NOBLE SMITH.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Sad Death of a Roman Catholic Priest.

THE Rev. Father Spencer, a well-known and most deservedly respected Roman Catholic priest, died on the 7th inst. under very sad circumstances. The reverend gentleman had for some years past suffered from angina pectoris. On the evening of the day mentioned he was in his residence, the presbytery of St. Clare's Roman Catholic Church, when he was informed by a lady that a man was in the church rifling the alms box. He ran out and seized the man, who escaped. Father Spencer pursued him for a short distance, and then fell down heavily in the road. He was raised up, placed on a couch, and medical aid sent for, but he expired shortly after his fall. The coroner has decided that an inquest is unnecessary. The deceased has resided in or near Liverpool for many years past, and he will be greatly missed both by rich and poor.

Restriction of the Sale of Intoxicants or of Personal Liberty.

However much one may lament the necessity to check freedom by increased legislation, it is evident that some restriction must be placed either upon the sale of intoxicants or upon the liberty of those who indulge in them too freely. In one day last week the city coroner held inquests on the bodies of four persons who had died from various diseases due to excessive drinking. Since then the deputy coroner has held a fifth inquest, the facts being precisely similar. The money spent in drink would enable the unfortunate men and women afflicted with this terrible curse to live in decent comfort, and there are in this city many of these to whom it would be a charity to remove them from their present surroundings to some place of restraint. The fatalities of intemperance, though a terrible feature of the evil, constitute only a very small part of it, and its worst effects fall most frequently upon soberpeople.

The Lock Hospital.

IN THE LANCET of April 30th there is reported the case of a man who was admitted into the London Lock Hospital, the whole of the penis having been lost by sloughing of an ulcer. A somewhat similar case was admitted into the Liverpool Lock Hospital some weeks ago. The patient, who was a fireman on board a steamer, had suffered from an ulcer of the penis; whether this were chancre or chancroid, or whether what followed was sloughing or phagedæna, could not be ascertained. On admission the whole of the penis was gone, leaving a large and unhealthy-looking surface, which, however, rapidly yielded to the local application of iodoform in fine powder applied by means of a pepper-box. The patient left the hospital before the healing process was quite complete in order not to lose his situation. Mr. Lowndes, whose patient he was, has another male patient in whom a considerable portion of the glans penis had sloughed away before his admission. The same treatment had a very beneficial effect, the sloughing process being arrested at once. Mr. Bernard has a female patient suffering from tertiary syphilis in a very severe form, and several severe forms of secondary syphilitic eruptions. He had recently a male patient who had lost more than half of the soft palate on his admission, and though the admissions into this hospital have not, for various reasons, been so numerous as formerly, they have been quite as severe.

Liverpool, May 10th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Royal Infirmary.

THE vacancy on the staff of the Royal Infirmary caused by the death of Dr. Ross, and the consequent promotion of Dr. Harris to the full physiciancy, was on Monday last filled by the election of Dr. A. T. Wilkinson, who at a previous period had for nine years held the post of assistant medical officer to the same institution. The entries of new students for hospital practice were fewer this year than they were last summer. Registration took place during the last days of April, but much time is lost by students delaying to register until the latter half of May, and thus missing the early lectures of the short summer session. The numbers may therefore still reach those of previous years.

Victoria University.

The newly elected Chancellor of the University, Earl Spencer, is to be installed on May 25th. The ceremony will take place in the Town Hall, and the occasion is to be one of full academical dress. There appears to be much anxiety to obtain tickets, and the room will in all probability be crowded. There are few occasions which bring the existence of a University in Manchester before the general public, and this may be the cause of the great interest shown in the forthcoming ceremony.

Epidemics.

The threatened small-pox epidemic has subsided, and since the middle of April no new cases have been reported.

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At the end of April there were still six cases in hospital, and the number has now fallen to three; none have ended fatally. The danger may therefore be regarded as past. Cases of influenza are still appearing, but the number of new ones was only four in the last week of April, though the deaths certified as due to that malady were higher than in the preceding week, when the new cases were thirteen in number. This apparent discrepancy may depend in part upon the care taken by practitioners in obtaining the history of the ailment in individual cases, as there is among patients here a great tendency to attribute any illness from which they may happen to suffer to a previous attack of influenza.

Manchester, May 11th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Newcastle Royal Infirmary and the Strikes.

AT a late meeting of the governors of the Royal Infirmary, in reference to the decrease in the workmen's subscriptions owing to the strikes, it was stated that, considering the very large number of men out of work, the decrease was not larger than might have been expected, so it was evident that those in work had done their duty to the infirmary. The resolution of sympathy with the family of the late Dr. Bruce, and of tribute to the deceased gentleman's work, which was passed by the court on the 7th ult., was confirmed. With reference to the strikes and the medical charities generally, it may be stated that in the Elswick works the amount subscribed for the quarter ending April last was only about £200, against about £300 in the previous quarter, before the engineers' strike now happily at an end. All the other medical charities have suffered in proportion.

Ambulance Work in the North.

At a public meeting held at West Hartlepool last week, at which the Mayor presided, Mr. Swanwick was the recipient of a testimonial and presentation. He was thanked most heartily for giving lectures and conducting ambulance classes, and Sir William Grey, in making the presentation of library books, spoke in warm appreciation of Mr. Swanwick's work. Dr. W. Turnbull's course of fourteen ambulance lectures to the Newcastle Wholesale Coöperative Society's *employés* was brought to a close last Thursday. Dr. H. S. Baumgartner of this city was the examiner, and at the close complimented the class on their efficiency and Dr. W. Turnbull on the thoroughness of the instruction given. Dr. Mears has announced a course of ambulance instruction to be given at the Sailors' Home, North Shields, to captains, engineers, officers, and sailors. The course is to consist of five lectures.

The New Asylum for Sunderland.

A deputation from the Town Council of Sunderland has gone to London to confer with the Commissioners in Lunacy with reference to the plans for the new asylum at Ryhope, the Commissioners having suggested certain alterations costing not less than £5000, and the deputation has been appointed to urge strong reasons against these proposals.

Measles in the Darlington Rural Sanitary District.

At a late meeting of the Darlington rural sanitary authority, in the course of a discussion on the prevalence of measles and its notification, Dr. Eastwood said that there were more deaths from measles than any other disease during the quarter. It was more fatal than scarlet fever. If they did not keep one on the list, he did not see why they should keep the other. It was also stated that measles cost three times as much as the other diseases.

The Bowes Museum, Barnard Castle.

Any of your readers thinking of taking a holiday in Whitsun week, and likely to get into the lake district, should try to run over the fells into Yorkshire and see the opening of the Bowes Museum in Barnard Castle. This magnificent building is stored with costly treasures of art and natural history. The opening too will be public.

A Durham Centenarian.

Last Thursday, Mr. Walter Brodie of Low Downs, near Hetton, attained his 100th birthday. He was born in Northumberland, but removed to the neighbourhood of Hetton, where he worked as a miner for eighty-two years. He is said to retain all his faculties with the exception of his eyesight, which is rather feeble. He has a son aged seventy-four, who only gave up his employment as a miner about six months ago, on hearing which, it is said, the old man addressed him thus in a stern and peremptory manner: "Thou should think shem o' th' sell at thy age; thou's only a lad, and talking about giving up wark. Think shem o' th' sell."

Charitable and Scientific Bequests.

It is stated that the late Mr. J. H. Fox, brewer, of Norton near Stockton, has directed to be set aside the handsome sum of £20,000 to erect and endow almshouses for the village of Norton. A condition attaches to the bequest, and it is that it can only operate provided some one gives the necessary land within twelve months.

The late Dr. Heath and the Newcastle College of Medicine.

It is now freely stated that the late Dr. Heath has left about £19,000 for different purposes in connexion with the College of Medicine in this city—viz., £6000 for the endowment of a chair of Comparative Pathology; £5000 to erect residences for students attending the college; and about £8000 for specific purposes in connexion with the college, which cannot be particularised as the will has not yet been proved. I hear that Mr. Frederick Page, formerly a colleague of Dr. Heath and at present one of the surgeons to the Royal Infirmary here, is one of the executors.

Newcastle-on-Tyne, May 11th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Edinburgh Medico-Chirurgical Society.

AT the meeting of this Society last week Mr. Caird showed a case in which the olecranon had been successfully wired for simple fracture. An important paper was communicated by Dr. Macpherson of the Larbert Asylum, and Dr. David Wallace, Edinburgh, on the Surgical Treatment of General Paralysis of the Insane, with five illustrative cases. The patients were under Dr. Macpherson's care, and the operations were performed by Dr. Wallace. The paper reviewed the pathology of the disease, and discussed the views held as to the nature of the primary disturbance, the authors giving their adhesion to the inflammatory view. The cases were all well-marked instances of the disease. In most of the cases about a square inch and a half of bone was removed from both sides from over the inferior fronto-parietal region. Surgically the cases, without exception, did admirably, all of them healing by first intention. As regards the effect upon the disease itself there was a degree of improvement in the symptoms a short time after the operations. The improvement, however, was of a temporary character.

Scottish Microscopical Society, Edinburgh.

This Society met last week. The meeting was almost wholly occupied by Dr. Carlier, who gave a microscopical demonstration of various organs taken from the hedgehog during hibernation, and compared them with the same organs during summer. The most interesting point brought out, and dwelt upon both by the reader of the paper and the speakers on it, was the occurrence of a profuse migration of leucocytes into the mucous and submucous coats of the greater part of the alimentary tract and round the ducts opening into it. Dr. Carlier regarded this as a proof of the phagocytic function of these cells, and considered that the migration was the means of preventing the invasion of the tissues by the microbes in the intestine—an invasion which would almost certainly take place when the body temperature was so lowered were it not for this provision.

Death of the Rev. John Lowe, F.R.C.S.Edin.

On Monday morning the profession in Edinburgh was startled by the intimation that Mr. Lowe had died suddenly the previous evening. Mr. Lowe was well-known in Edinburgh as the superintendent and secretary of the Training Institution of the Edinburgh Medical Missionary Society. Early in life he went as a medical missionary to Travancore, but was appointed in 1871 to the post he occupied at the time of his death. As an author he was known as the writer of "Medical Missions, their Place and Power," and

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a "Life of Dr. Elmslie of Cashmere." He was a man of a quiet and unobtrusive nature, kindly and friendly in manner, and much esteemed by those who were brought into close contact with him in medical mission work. It is understood that he died of cardiac syncope when suffering from some trifling ailment, and that his death was as unlooked for by those around him as by others.

Health of Edinburgh.

The mortality last week was 85, making the death-rate 17 per 1000. Chest affections caused 35 deaths, and zymotic diseases 5. The intimations for the week were: typhoid fever, 5; diphtheria, 1; scarlet fever, 24; measles, 39.

May 10th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Presentation to Mr. H. Gray Croly, P.R.C.S.I.

A PRELIMINARY MEETING was held at the College of Surgeons on the 6th inst., for the purpose of forming a committee to carry out the proposed presentation to Mr. Croly, President of the College. It is intended to present him with his portrait as a mark of esteem from his professional brethren and as a memorial of having filled the presidential chair for a period of two years in a dignified manner, and for his great hospitality. The honorary secretaries are Mr. Henry Sherlock, F.R.C.S., and Mr. R. Montgomery, F.R.C.S.; while Mr. J. O'Donovan, F.R.C.S., of Kingstown, will act as honorary treasurer. About one hundred gentlemen have intimated their intention of taking part in the presentation.

Royal College of Surgeons.

Mr. William Colles, senior member of council, has resigned his seat, and a by-election to fill the vacancy will be held on Monday next, the 16th inst. The following are candidates—viz, Mr. Auchinleck, Mr. Arthur H. Benson, Mr. Broomfield, Dr. Cranny, and Mr. George Foy. Mr. Colles resigns also the secretaryship of the college, and for this high and honourable office the two candidates are Sir Charles Cameron and Mr. Austin Meldon, both of whom are ex-presidents of their college. Sir Charles Cameron considers that a candidature for such an office should be based upon services rendered to the college, and undoubtedly in this particular he can show a very high record. By his exertions the taxation of the college was reduced by about £140 a year; and by his influence Mr. Dease presented the statue of the late Surgeon Dease, first professor of surgery, which adorns the college hall, and the late Mr. Butcher gave his valuable collection of casts to the college, while Mr. Dease provided, at his suggestion, a room for the reception of the casts, and also a suite of laboratories for the college curator at a cost of £1200. Further, he spent a large portion of his time for three years in writing the history of the college without any pecuniary recompense. Again, on his motion a new charter was obtained admitting women to the privileges of the college; and it was Sir Charles Cameron who originated the scheme of combining the examinations of the college with those of the Apothecaries' Hall, which last year benefited the college by a sum of nearly £450. Lastly, at his suggestion the college instituted a diploma in Public Health, and he obtained for it the privilege of having that diploma registered. The election for the secretaryship will take place the first Monday in June.

Meath Hospital, Dublin.

The medical and surgical prizes obtained at the termination of the winter session were awarded to the successful students this week. The first medical prize was obtained by Mr. C. E. Stokes, and the second prize by Mr. A. McCutcheon. Sir George Porter, Bart., in distributing the surgical prizes, said that the answering in the senior class was of a very high order, and the competition so close that the board determined to give three prizes instead of two as heretofore. Mr. Wm. Taylor was awarded the first senior surgical prize, Mr. F. Warren the second, and Mr. C. Stokes the third prize.

Dublin Main Drainage.

A special meeting of the Corporation was held last Monday with reference to the drainage of the city. The ordinary borrowing powers of the council are insufficient for the sum required for a Main Drainage Scheme (£278,000), and they have therefore resolved to send a deputation to the Chief Secretary to request that the Government shall this session introduce a Public Act declaring that the expenditure on the Main Drainage Scheme shall not be restricted by any of the regulations contained in section 238 of the Public Health Act (Ireland) 1878, and in calculating the amount which the Corporation may borrow under that Act any sums which they may borrow for the purpose of main drainage shall not be reckoned.

Exclusion of Irish Diplomates from English Hospital Appointments.

The following resolutions have been passed by the Council of the Irish Medical Association:—"That the Council of the Irish Medical Association, having had their attention called to a resolution adopted by the governors of the East Sussex Hospital, by which a rule is perpetuated which limits to the diplomates of one London college the appointment of hon. physician to that hospital, and having observed the published statement made by certain of the governors derogatory to the professional status of Irish diplomates, hereby protests against such statements as being inaccurate in fact and unjust to Irish diplomates practising in England. That the Council have, by inquiry, satisfied themselves that there is no ground for these aspersions upon the professional competency and social status of Irish diplomates, and they do not hesitate to assert that, in the extent and nature of the courses of study and of the examinations essential to obtain their diplomas, the requirements of the Irish colleges are fully equal to if not in excess of those of the colleges in London or elsewhere; and that Irish diplomates are, in all respects, well fitted to occupy a position on the medical staff of a public hospital in England or elsewhere. That the Council of the Irish Medical Association are willing that Irish diplomates shall rest their claims for professional advancement upon their own merits, and therefore desire that the governors of hospitals in England shall be free to select the physician or surgeon whom, all things considered, they approve; and the Council therefore protest against an arbitrary restriction of that freedom of election in favour of any medical licensing body whatsoever."

Death of the Oldest Woman in Ireland.

An old lady named Margaret Harpur died recently in the county Wexford at the great age of 110 years, the deceased being regarded as the oldest woman in Ireland. She was born in the year of the volunteer movement, and was in her seventeenth year in 1798, the year of the rebellion, of many incidents of which she had a lively recollection. Her health has been wonderfully good until within the last two years, when her mental faculties became impaired; but she was not confined to her room until last November.

May 10th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Ovaro-Salpingitis as a Complication of Measles.

As I cannot discover any allusion in the works of classical English authors to the above condition as a complication of measles, M. Galliard's communication to the Société Médicale des Hôpitaux (April 22nd) may be found interesting. The patient was an unmarried woman of twenty-five years, who had never suffered from any affection of the genital organs. About the sixth day after the invasion of measles menorrhagia set in. On the thirteenth day the temperature rose, and the patient complained of pain in the right iliac fossa, while tympanites appeared. On the twenty-second day M. Monod performed abdominal section. The incision gave issue to a quantity of pus, and the inflamed intestines were found to be already covered with false membranes. No purulent collection was discovered in the iliac fossa. The drainage of the peritoneal cavity was provided for after the toilette of the serous lining had been practised. The woman died on the twenty-sixth day; the pus evacuated contained streptococci. Post mortem the heart was found healthy, one ovary was swollen and was the seat of four small abscesses. The Fallopian tube was dilated and surrounded by false membrane; in its lumen was found a certain quantity of pus. In the dis-

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cussion that followed, M. Comby asked if M. Galliard was sure that the lesions discovered were not secondary to vulvitis—a common condition in the course of measles. To this query M. Galliard replied that although the vulva and the vagina were certainly congested, the external genitalia were not the seat of suppuration. M. Rendu could hardly bring himself to believe that the suppurative process in the ovary and the tube was caused directly by the attack of measles. He was inclined to think that any infectious disease might produce a similar lack of resistance in the viscera. This view was supported by M. Chantemesse, who recalled two instances of such a complication (ovaro-salpingitis) occurring in the course of typhoid fever. For my part, I am inclined to think that if a minuter examination of the genitalia had been made, the *porte d'entrée* for the streptococcus would have been found. Should it not be the rule to scrupulously disinfect *all* mucous orifices in cases of zymotic disease? Medicine is becoming more and more alive to the truth of the aphorism, "Cleanliness is next to godliness"; and it is certain that these secondary suppurations would become *rarœ aves* if ordinary antiseptic precautions were taken to bar the entrance into the lymphatic system of the micro-organisms which are ever on the watch to fix on one or several organs as a nidus for their growth.

A New Symptom of Paralysis of the Laryngeal Muscles.

M. Fauvel states (Société Française d'Otologie et de Laryngologie) that whenever a patient whose voice is either extinct or bitonal and harsh has, in addition, a breath which is offensive and alliaceous, paralysis of the muscles of the larynx may be confidently diagnosed. For several years past M. Fauvel has remarked the constancy of this symptom, the presence of which is due to the decomposition of the mucus stagnating on the surface of the membrane. The odour is *sui generis*, and totally unlike any other. To practitioners unaccustomed to the management of the laryngoscope this phenomenon may be useful in leading them to a correct interpretation of concomitant symptoms referred to the larynx.

The Therapeutical Application of Cycling.

In the current number of the *Semaine Médicale* there appears a valuable contribution to our knowledge of cycling as a therapeutical agent from the pen of our compatriot, Dr. Oscar Jennings of Paris. Dr. Jennings is well known as an enthusiastic advocate of this most pleasant form of exercise, and his opuscule, "La Santé par le Tricycle," is widely read in the different languages into which it has been translated. The paper in question is full of information concerning the advantages to be derived from cycling in such divers maladies as gout, rheumatism, metritis, obesity, phthisis in the first and second stages, asthma, diabetes, dyspepsia, hypochondria, neurasthenia, agoraphobia, &c. No one who carefully reads Dr. Jennings' paper can avoid coming to the conclusion that a large proportion of the sufferers who crowd the waiting-rooms of fashionable physicians would soon forget much of their troubles were they wise enough to take a daily spin on an easy-running machine. It is characteristic of the altered views held on the subject of the treatment of cardiac affections to see cycling actually recommended for this class of cases. Sir Walter Foster states that in aortic insufficiency it is important to increase the frequency of the cardiac pulsations, and most people will agree with Dr. Jennings in regarding gentle cycling as a pleasanter form of exercise than the climbing of mountain slopes advocated by Oertel.

The False Alarm of Cholera in Paris.

In my letter of a fortnight ago I felt it my duty to contradict a disquieting rumour of the appearance of cholera in this capital. The outbreak was a purely local one, being limited to such outlying villages and districts as Nanterre, Neuilly, Puteaux, and Levallois-Perret. Professor Proust has just furnished a circumstantial report on the occurrence to the Comité Consultatif d'Hygiène. The disease was simply cholera nostras, but sufficiently serious to determine a fatal result in forty cases out of a total of sixty-two. The epidemic first made its appearance amongst the inmates of the Nanterre hospital, where the sanitary arrangements appear to be in urgent need of reform. The drinking-water is of bad quality, and the feeding insufficient, only 125 grammes of meat being allowed three times a week. The establishment is, moreover, overcrowded, housing as it does double the number for whom accommodation was originally provided. No cases of genuine cholera have been seen in this city for the past seven years. This outbreak of choleraic diarrhœa occurred entirely outside Paris, and ceased altogether on the 20th ult.

Paris, May 11th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

A Practical Triumph of Bacteriology.

NEWS arrived some weeks ago of a plague of mice, which threatened to destroy the whole harvest in the Thessalian plain. Terror seized all Greece, for the Thessalian harvest is the greater part of the total harvest of that country, and all means were tried to put an end to the plague. The ignorance and superstition of the peasants, however, frustrated all attempts, and ruin seemed inevitable. Following Pasteur's advice, it is said, the Greek Government called in the aid of the well-known German bacteriologist, Professor Löffler of Greifswald, who has put an end to the plague by causing a fatal pandemic among the mice.

Stoking in the Tropics.

The maritime courts frequently have to deal with cases of stokers who spring overboard in the tropics, and Dr. Arnold Kurrer, assistant in the Pathological Institute at Kiel, has made a special study of this form of suicide. On a voyage from Hamburg to Java he carefully observed the temperature of the stokers, the simultaneous temperature of the engine-room and the outer air, the motion of the air, and other climatic circumstances. Only Hindus were employed as stokers on board his ship; but he has informed himself of corresponding phenomena in the case of European stokers. He found that stokers of both races are exposed in the tropics to such heat that their health is very often seriously impaired, even not unfrequently to the danger of their lives. The enhancement of the animal heat is considerably influenced by the motion of the air. The Hindus generally suffer less than the Europeans, who often do themselves much injury by wearing unsuitable clothes. The increase of animal heat in the Hindu stokers is remarkably uniform, but differs greatly among the Europeans, owing, as Kurrer thinks, to a special disposition of the latter, produced by alcohol, malaria, and diseases of the skin and the vessels. He advises that European stokers should not be employed in the tropics, and that only such as have perfectly healthy lungs and skins should engage in the work. First-rate ventilation is, of course, of paramount importance. It seems strange that, in this age of ingenious inventions, no method of automatic stoking has yet been introduced. It would be of much greater value to mankind than the phonograph.

Berlin, May 10th.

Obituary.

CHARLES ROBERT SMITH, M.B. CANTAB., M.R.C.S.

THE death of this gentleman took place at his residence in Darlington-street, Wolverhampton, on the 27th ult. He was forty-one years of age, and a bachelor. He received his early education at the Wolverhampton Grammar School, and completed it at Cambridge, where he gained honours as a Wrangler, being eighteenth in the list. He also took the degree of M.B., and obtained several University prizes. He returned to Wolverhampton about 1877 and commenced practice in Darlington-street, and succeeded to his father's practice in the Dudley-road on the death of that gentleman, but last year returned to Darlington-street. In 1886 he was elected a member of the Wolverhampton Town Council, and took an active interest in municipal affairs. He will be long remembered for his zeal in promoting the establishment of the local Eye Infirmary, for his association with the Women's Hospital, and also for his connexion with the founding of the Wolverhampton Literary and Scientific Society.

J. M. BEVERLEY, M.D. LOND., M.R.C.S.

MUCH regret will be felt at the early death of Dr. J. M. Beverley, who passed away at the little village of Ospedaletti, Italy, early on Sunday morning, May 1st.

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He was only thirty-one years of age, and had been for some years in general practice at Littlehampton in Sussex, where he was liked by all with whom he came in contact. His strict sense of duty, careful attention to work, and general kindliness had endeared him to everybody in the neighbourhood. Dr. Beverley had been a brilliant student at the Owens College, Manchester. Last October he was ordered to winter abroad on account of failing health, and since then he has borne with patience and fortitude the rapid advances of an attack of phthisis, to which he succumbed a few days ago. He leaves a wife and two children.

PROFESSOR AUGUST WILHELM HOFMANN.

CHEMISTS have lost an able and eminent investigator in the person of Professor Hofmann. This distinguished *savant* died in Berlin on the 5th inst. His name will ever be linked with the discovery of some of the most beautiful dyes science has produced. Aniline red, indigo, and Hofmann's violet may be taken as examples. His well-known simple and accurate method for the determination of the vapour density of substances is made use of by investigators at the present time. After spending three years at Bonn, Professor Hofmann, in 1848, was, on Liebig's recommendation, appointed superintendent at the Royal College of Chemistry in London. The institution made rapid progress under his direction, and in 1853 was merged in the Royal School of Mines as the Chemical Section. In 1855 Professor Hofmann was appointed by the British Government a warden of the Royal Mint. In 1864 he was appointed to the chair of Chemistry at Bonn, whence he was summoned to Berlin in the following year, and he has there ever since occupied the professorial chair of Chemistry. In 1854 he was awarded a Royal medal, richly deserved for his memorable "Memoirs on the Molecular Constitution of the Organic Bases." Professor Hofmann's researches contributed in no small measure to raising the dyeing industry to the high level it has since attained. This alone will stand as an inscription on his monument not easily effaced.

ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary meeting of the Comitia was held on Thursday evening, May 12th, Sir Andrew Clark, President, in the chair.

The Fellows recently elected were admitted, and a communication from Dr. Clement Dukes, of Rugby, was read. The College then proceeded to elect a Bedell in the place of Mr. Gurner, who will retire at midsummer, and on the recommendation of the President, Treasurer, and Registrar, appointed Mr. William Fleming, who has for some twenty years been in the service of the College, formerly as clerk to the Registrar and assistant to the Librarian, and latterly has acted as chief clerk to the Secretary at the Examination Hall. A report from the Finance Committee recommending a retiring pension to the Bedell, Mr. Gurner, was received and adopted, with a slight modification.

Reports from the committee of management dealing with certain conditions of exemption from the College examinations, and also with the arrangements for the First and Second Examinations under the Five Years' Scheme, were received and adopted.

Brief formal business connected with the enactment, alteration, and repeal of various By-laws and Regulations brought the meeting to a close at an early hour.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT an ordinary meeting of the Council, held on Thursday, the 12th inst., the Minutes of the quarterly Council, held on April 7th, were read and confirmed.

Mr. Jabez Thomas was introduced, and after signing the By-laws and making the required declaration, was admitted a Fellow of the College.

As recommended by the Jacksonian Committee, the subject of the next Collegial Triennial Prize is to be the Spleen, its Anatomy and Physiology, illustrated by Comparative Anatomy.

The report of the Committee of Management, dated March 28th, was approved and adopted. The following report of the Committee of Management, dated May 9th, was approved and adopted, subject to adoption by the Royal College of Surgeons:—

That the examinations in Chemistry (and Physics relating to Chemistry), Elementary Anatomy, Anatomy and Physiology, under the new regulations, dated Jan. 1st, 1892, be conducted in the same manner as heretofore, and that the examinations in Practical Pharmacy and Elementary Biology do consist of an oral examination with specimens, in accordance with the following regulations: viz.:—

FIRST EXAMINATION.

Part 1: Chemistry and Physics.—There shall be a written paper, for which three hours shall be allowed; and an oral and practical part, which shall occupy not less than thirty minutes.

Part 2: Practical Pharmacy.—There shall be an oral examination, which shall occupy not less than ten minutes.

Part 3: Elementary Biology.—There shall be an oral examination, which shall occupy not less than fifteen minutes.

Part 4: Elementary Anatomy.—There shall be an oral examination, which shall occupy not less than ten minutes.

SECOND EXAMINATION.

Anatomy and Physiology.—There shall be a written paper in each subject, for which three hours shall be allowed, and an oral and practical examination in each subject, which shall occupy not less than fifteen minutes.

The annual meeting of Fellows of the College for the election of members of the Council will be held on Thursday, July 7th, at 2 P.M.

A letter of the 9th inst. was read from Dr. Liveing, reporting the appointment of a Committee of the Fellows of the Royal College of Physicians "to consider and report from time to time on any proceedings relating to the formation of a University for London so long as that subject is under consideration." No special committee was appointed, but it was referred to the President and Vice-Presidents to watch the proceedings of the Royal Commission and report thereon to the Council if necessary.

A letter from Dr. B. C. A. Windle was read, reporting the approaching transfer of the medical school hitherto carried on in Queen's College from that college to Mason College, and requesting that the recognition now extended by the College to the medical school of Queen's College might be transferred to the medical school of Mason College. The request was granted.

A letter of the 23rd ult. was read from Mr. H. Percy Dunn, reporting the following resolution adopted by the Committee of the Association of Fellows, viz.:—"That the Committee of the Association of Fellows of the Royal College of Surgeons, having noticed that the Council of the College has appointed a committee to consider the claims of the Fellows, would suggest that a deputation from the Association should be asked to meet the committee in order to set forth the views of the Association." The following reply was directed to be forwarded: "That the Council do not consider it expedient that their committee should receive any deputation, but that the Council will be glad to receive any written communication from any Fellow or Fellows of the College as to any further advantages, not involving changes in the Charters and By-laws, that might be extended to the Fellows."

The Council decided to purchase a replica of a bust by Mr. T. Brock, R.A., of the late Mr. John Marshall, F.R.S.

THE ELECTION OF CORONERS.—We understand that the election of the coroners to fill the vacancies created by the death of the late Mr. Carter and of the late Dr. Diplock respectively rests in the hands of the Public Control Committee of the London County Council. It is unlikely that the appointment will be made for some weeks, as the Privy Council have not yet sanctioned the proposed severance of Middlesex from the London portion of the existing districts, and the extension of the jurisdiction of each of the three coroners, Mr. Braxton Hicks, Mr. Wyatt, and Mr. Carttar.

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Medical News.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH AND FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.—At the April sittings of the Conjoint Board, held in Glasgow, the following candidates passed the respective examinations:—

First Examination.—Thomas A. Beadle, Durham; John F. Neville, co. Cork; Thomas Gallacher, Port Glasgow; Robert P. Graham, Glasgow; Robert G. Whitelaw, Kirkintilloch; Thomas Shanasy, Adelaide; William M. Sheen, Gravesend; James Boyd, Glasgow; David S. Henderson, Coatbridge; Benjamin Wade, Pudsey; Roger Laverty, co. Down; Wm. H. Curtis, Hampshire; Thomas Wm. Robinson, Limerick; John O'L. Driscoll, Bandon; William Thomas, Glasgow; John M. Beattie, Belfast; George S. R. Stritch, Galway; James James, Cardiff.

Second Examination.—Wm. Edward Jones, Liverpool; Janet Russell Wells, Glasgow; Kate Kirk Paton, Glasgow; Catherine Howie, Glasgow; John Macintosh, Glasgow; John O'Connell, co. Kerry; Thomas Parker Powell, Breconshire; John M'Lean, Glasgow; Alfred H. Mountcastle, Manchester; Alexander Whyte Mason, Glasgow; Joseph A. Blayney, Haslingden; James Fenwick, Accrington; Samuel T. Brooks, Farnworth; Wm. R. Abernethy, Londonderry; Anthony Strong Rose, Morpeth; Robt. P. Snodgrass, Montreal; James Devon, Glasgow; Robert Owen, Carnarvonshire; George Hill, Glasgow; James H. Robinson, Southport; J. F. Wm. Ward, India.—*Anatomy and Physiology:* Ebenezer Allan, Joseph Tibbetts.—*Anatomy:* Edward Denison.—*Physiology:* Joseph P. Woodhouse.—*Materia Medica:* Robert Alexander M. Robinson, Allan Forde, Cecil W. Roebuck.

Final Examination.—Jessie MacLaren Macgregor, Edinburgh; S. I. Williams, Edinburgh; David Edward Richards, South Wales; Henry Gould, Glasgow; James W. Hudson, Millom, Cumberland; Sydney E. Rossiter, Lambton, Durham; Archibald Mackellar, Glasgow; Walter Fisher, Edinburgh.—*Medicine and Therapeutics:* Matthew Marriott, L. Burges.—*Surgery:* Samuel E. Jones, Edward R. Pollard, William E. Blakely, Thomas G. G. Symons.—*Midwifery and Medical Jurisprudence:* E. R. Pollard, Wm. Wardman, John Clark, Rees T. Jones, Thomas C. Hunter.

UNIVERSITY OF DUBLIN.—At a recent meeting of the Senate the degree of Doctor in Medicine was conferred on Alfred Russell Darley.

ROYAL UNIVERSITY OF IRELAND.—The following candidates have passed the Medical Degrees Examination:—

Upper Pass Division.—*Robert Campbell, Herbert Cunningham, Richard Heard. (The candidate marked with an asterisk may present himself for the further examination for Honours.)

Pass Division.—Patrick L. Aherne, Kennett B. Barnett, David J. F. Bennett, Henry R. Corbett, Michael Coughlan, Isaac Davidson, William J. Molloy, Michael O'Sullivan, James R. Thomson.

Doctor in Medicine.—Ambrose E. J. Bermingham.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS IN IRELAND: CONJOINT SCHEME.—The following candidates have passed the Final Examination, and if of age are entitled to be admitted Licentiates of the Colleges in Medicine, Surgery, and Midwifery:—

H. W. Cave, M. J. Chevers, J. O'C. Donelan, F. L. Flood, D. H. Foley, P. J. Garland, L. A. Jameson, A. R. Moore, W. W. Scarlett, J. P. Sexton, Temple Smyth, E. H. Tweedy, W. P. Walsh.

The following have passed in the subjects indicated:—

Medicine.—E. A. Guinness, R. B. Hunt, V. E. McDonogh, J. M. O'Callaghan, W. J. Trewhella.

Surgery.—F. C. A. Bushman, W. J. Trewhella.

Midwifery.—A. A. Hargrave, F. O. Stoker, Miss J. Gwynne.

HOSPITAL SUNDAY FUND.—The Lord Mayor has received a cheque for £105 in payment of legacy (duty free) by the executors of the late Dr. H. E. Price of West Brighton.

A WATFORD CENTENARIAN. — The Watford Guardians, at their meeting last week, were informed that Elizabeth Ginger, of Bell-lane, Hendon, had passed her 100th year, and in celebration of her centenary they voted her an allowance of 5*s.* instead of 4*s.* per week, as hitherto.

OPEN SPACES FOR NORTH-WEST LONDON.—The St. Pancras Vestry have resolved to recommend the London County Council to purchase the vacant pieces of land, over two acres in extent, in Highgate-road, by Highgate-road Station. The vestry's recommendation was passed with the concurrence of the Council, who still hold a considerable portion of the £12,000 vested in them for the extension and improvement of open spaces in the parish.

ST. BARNABAS' CONVALESCENT HOME, RAMSGATE.—The annual report for 1891 shows that satisfactory progress had been made by the institution during the year. The year's income was adequate to meet the expenditure and to leave a small surplus in hand; 289 patients were admitted in the course of the twelvemonth. Accommodation is provided for six lady boarders, a branch of the work which had been well tested.

MEDICAL MAGISTRATE.—The name of William Armstrong, M.R.C.S., has been placed on the Commission of the Peace for Manchester.

DR. HEYWOOD SMITH will read to the British Nurses' Association, on Friday, May 20th, at 8 P.M., a paper on the subject of Gynæcological Nursing.

PROPOSED CONVALESCENT HOME AT LEEDS.—A scheme has been started for providing a convalescent home for the West Ward.

FOOTBALL CASUALTY. — A young man aged eighteen, while playing a game on Saturday, on Glasgow Green, fractured his clavicle.

LONDON TEMPERANCE HOSPITAL, HAMPSTEAD-ROAD, N.W.—The Duchess of Westminster, accompanied by the Duke of Westminster, formally opened on Wednesday, in the presence of a large assembly, the "Grosvenor" Children's Ward at this institution—a ward which will supply a long-felt want.

THE SUSSEX COUNTY HOSPITAL.—The largest benefaction ever received by the Sussex County Hospital was announced to the management of that institution on the 9th inst., the late Mr. John Silvani of Brighton having left an immediate bequest of £10,000; while the hospital is also to receive the residue of the estate, which is estimated at £20,000. Several Brighton charities receive £1000 each.

CREMATION IN SCOTLAND.—The report of the directors of the Scottish Burial Reform and Cremation Society, Limited, states that since the company was registered in December, 1890, with a nominal capital of £5000 in £1 shares, over £700 has been subscribed in the past two years towards the £1000 or £1500 considered necessary to enable a start to be made, and the directors are sanguine that in a very short time they will be able to proceed with the erection of a crematorium.

RECOGNITION OF A SURGEON'S BRAVERY. — A meeting has been held in the dining hall at Messrs. Tangye's works for the purpose of presenting to Mr. W. E. Bennett (surgeon to the works) a bronze medal and a certificate awarded by the Royal Humane Society, in recognition of his bravery in saving the life of a man named Samuel Loton on Feb. 29th. Mr. R. Tangye, who presided, explained that Loton was found struggling in the Birmingham Canal, near Rabone-lane bridge. A young lady named Dodd, seeing Loton in the water, ran for help, and, finding Mr. Bennett in the dispensary, told him of the accident. This gentleman hurried to the spot, and plunging into the water succeeded in rescuing Loton, who was unconscious, and Mr. Bennett was also exhausted. After a time Loton was restored to consciousness; and he (the speaker) congratulated Mr. Bennett upon having saved the man's life. Alderman Pollack then made the presentation, which was suitably acknowledged.

CHICAGO EXHIBITION. — The Subcommittee of Nursing and Hygiene for the British Section at the Chicago Exhibition has been formed. It consists of the following members: Lady Jeune, Mrs. Priestley, Miss Shaw Lefevre, Mrs. Bedford Fenwick (who will preside), Mrs. Holmes Spicer (hon. sec.), Miss Isla Stewart, Matron and Superintendent of Nurses, St. Bartholomew's Hospital (adult nursing); Miss Lumsden, Hon. Superintendent, Royal Infirmary, Aberdeen (adult nursing); Miss Henrietta Poole, Lady Superintendent, Adelaide Hospital, Dublin (adult nursing); Miss K. Hendie Close, Lady Superintendent, Hospital for Sick Children, Great Ormond-street (children's nursing); Miss Josephine de Pledge, Matron, Chelsea Infirmary (infirmary nursing); Miss Maud Mansel, Inspector, Queen Victoria's Jubilee Institute for Nurses (district nursing); Miss Edith Kirwan Ward (private nursing); Miss Sophie Cartwright, Sister-in-Charge, Gordon House Home Hospital (home nursing); Miss Annesley Kenealy, Lecturer to the National Health Society (sick dietary). As it is earnestly desired that the representation of British nursing appliances shall be as complete as possible, the subcommittee invite suggestions and exhibits from all parts of the country. Members of the subcommittee will be present at 53, Berners-street, W., every Monday until the end of July, from 5 P.M. to 6.30 P.M., to receive suggestions from all those nurses and others who are interested in this department of woman's work. Communications by letter to be addressed to Mrs. Bedford Fenwick, 20, Upper Wimpole-street, W.

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MEDICAL NOTES IN PARLIAMENT.

The Vaccination Commission.

IN the House of Commons on Thursday, Mr. Summers asked the President of the Local Government Board whether it was his intention to propose legislation to give effect to the recommendations of the Royal Commission on Vaccination.—Mr. Channing asked the right hon. gentleman whether, in view of the fact that one of these recommendations was that vaccination prisoners should no longer be subject to the treatment of ordinary prisoners, he would assent to the second reading of the Prisons Acts Amendment Bill now before the House, and give to these prisoners the treatment of first-class misdemeanants.—Mr. Ritchie intimated that the Home Secretary would reply to the questions.—Mr. Matthews said that the Government had not yet had an opportunity of considering the report, and therefore were unable to make any statement on the subject.

The Coroners in Boroughs Bill.

When the order for the committee stage of this Bill is reached Sir Albert Rollit will move an instruction to the effect that the committee have power to extend the provisions of the Bill to the appointment of deputies of coroners in counties and as to the time of election.

Public Health Acts Amendment Bill.

This Bill was read a second time.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

BARBER, FREDERIC S., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant Surgeon to the Bradford Infirmary, vice Mr. Horrocks.

BOWES, WM. HENRY, M.D., B.S. Lond., F.R.C.S. Eng., has been appointed Assistant Medical Officer to the Plymouth Borough Asylum, Ivybridge, Devon.

BUSHBY, THOS., M.B., C.M. Edin., has been appointed Honorary Assistant Physician to the Hospital for Consumption and Diseases of the Chest, Liverpool.

CHEETHAM, W. H., M.D., L.S Sc., has been appointed Medical Officer of Health to the North Riding County Council (Yorkshire), vice Dr. J. Taylor, deceased.

CLARKE, HUGH A., M.D., M.Ch. Irel., has been appointed Honorary Assistant Physician to the Hospital for Consumption and Diseases of the Chest, Liverpool.

CLARKE, THOS., M.D., M.Ch. Irel., has been appointed Physician to the Hospital for Consumption and Diseases of the Chest, Liverpool, vice Robertson.

FITZGERALD, G. C., B.A., M.D., B.C. Cantab., M.R.C.S., has been appointed Medical Superintendent of the Kent County Asylum, Chartham.

GEORGE, ALFRED W., M.B. Edin., M.R.C.S., L.R.C.P. Lond., has been appointed Honorary Medical Officer to the Kilburn, Maida-vale, and St. John's-wood Dispensary.

GODFREY, CLARENCE G., M.R.C.S., L.R.C.P. & S. Edin., late of Ararat and Yarra Bend Asylums, has been appointed Assistant Medical Officer to the Kew Hospital for the Insane, Melbourne.

HARRIS, Dr., has been appointed Honorary Physician to the Royal Infirmary, Manchester.

HICKS, E. B., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Easingwold Sanitary District of the Easingwold Union.

HOPKINS, F. G., M.B., B.Ch. Dub., has been appointed Assistant Medical Officer of the Workhouse for the Parish of Liverpool.

KEIFFENHEIM-TRUBRIDGE, L. W., M.D., B.S. Durh., M.R.C.S., L.R.C.P., has been appointed Honorary Physician to the Chelsea, Brompton, and Belgrave Dispensary, Sloane-square.

LAWTON, H. A., M.D. Durh., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer of Health for the Poole Urban and Port Sanitary Districts.

MACKIE, J., M.B., C.M. Glasg., has been appointed Medical Officer for the Lowdham Sanitary District of the Southwell Union.

MATTHEWS, A. A., L.D., S.R.C.S., has been appointed Honorary Dental Surgeon to the Bradford Infirmary.

PHILLPOT, G. F., L.R.C.P. Edin., L.M., M.R.C.S., has been appointed Medical Officer for the Second Sanitary District of the Aylesbury Union.

POTTS, W. J., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Crumpsall Workhouse of the Township of Manchester.

ROBERTSON, R. G., M.B., C.M., L.R.C.P., L.R.C.S. Edin., has been appointed Consulting Physician to the Hospital for Consumption and Diseases of the Chest, Liverpool.

THOMPSON, JOHN H., L.K.Q.C.P., L.M. Irel., L.R.C.S. Edin., has been appointed Medical Officer of Health for the Urban Sanitary District of Mytholmroyd, Yorkshire.

VERNON, J. J. D., M.B. Lond., B.S., M.R.C.S., has been appointed Medical Officer for the Audley Sanitary District of the Newcastle-under-Lyme Union.

WATSON, W. R. KEMLO, M.A., M.B., C.M. Glasg., has been appointed Assistant Medical Officer to the Govan Poorhouse and Asylum, vice Dr. J. M'C. Johnston, resigned.

WIGHTMAN, J. P., L.R.C.P. Lond., M.R.C.S., has been appointed Junior House Surgeon to the Bradford Infirmary.

WILKINSON, A. T., M.D. Lond., M.R.C.P., has been appointed Honorary Assistant Physician to the Royal Infirmary, Manchester, vice Dr. Harris.

WILSON, T. S., B.Sc., M.B., C.M. Edin., M.R.C.P. Lond., M.R.C.S., has been appointed Honorary Physician to the General Hospital, Birmingham, vice Wade, resigned.

[ERRATUM.—By a clerical error we announced in our last issue that Dr H. W. Nix had been appointed Assistant Medical Officer for the Workhouse and Infirmary of the Parish of St. Marylebone. The initials should have been "W. H."]

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOOTLE BOROUGH HOSPITAL.—Assistant House Surgeon and Dispenser. Salary £40 per annum, with board, lodging, and washing.

BRADFORD INFIRMARY.—Dispensary Surgeon. Salary £100 per annum, with board and residence.

BRISTOL ROYAL INFIRMARY.—Honorary Assistant Surgeon.

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Resident Medical Officer for one year. Salary £30 per annum, with board and residence.

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY, Wakefield.—Junior House Surgeon. Honorarium £25 per annum, with board, lodging, and washing.

COUNTIES ASYLUM, Carlisle.—Junior Medical Assistant.

COUNTY ASYLUM, Prestwich, Manchester.—Assistant Medical Officer. Salary commences at £100, increasing to £125 at the end of the first, and to £150 at the end of the second year, with furnished apartments, board, and washing.

FRIENDLY SOCIETIES' MEDICAL AID ASSOCIATION.—Medical Officer. Salary to commence at £160, with residence free; also Midwifery fees, &c. (Apply to Mr. Gough, 157, Harrowby-street, Liverpool.)

GENERAL HOSPITAL, Birmingham.—Assistant Physician for three years. Honorarium £100 per annum.

GREAT YARMOUTH HOSPITAL.—House Surgeon. Salary £90 per annum, with board and lodging (but no wines, spirits, beer, &c., are found).

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Vincent-square, S.W.—Chloroformist.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.—Resident Medical Officer. Salary £50 per annum, with board and lodging.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Resident House Physician for one year. Salary £60 per annum, with board and residence in the hospital.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Assistant House Surgeon (non-resident) for one year. Salary £50.

HOSPITAL FOR WOMEN, Soho-square, London, W. House Physician for six months. Salary £30 for that period.

LANCASTER INFIRMARY AND DISPENSARY.—House Surgeon (unmarried). Salary £80, with residence, board, attendance, and washing.

LEYBURN UNION.—Medical Officer and Public Vaccinator for the Middleham Western District of the Union. Salary £15 per annum, exclusive of medical extras and vaccination fees. (Apply to the Clerk to the Guardians, Leyburn, Yorks.)

LONDON COUNTY ASYLUM, Cane-hill, Purley, Surrey.—Fifth Assistant Medical Officer. Salary £120 per annum, rising by £5 a year to £150, with board, furnished apartments, and washing. (Apply to the Clerk, Asylums Committee, Office, 40, Craven-street, Strand, W.C.)

MACCLESFIELD GENERAL INFIRMARY.—Junior House Surgeon. Salary £70 per annum, with board and residence at the Institution.

NORTHAMPTON FRIENDLY SOCIETIES' MEDICAL INSTITUTE.—Assistant Medical Officer (out-door). Salary £200 per annum, with part Midwifery fees. (Apply to the Secretary, 22, Cromwell-street, Northampton.)

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, N.W.—Resident Medical Officer, for four months. Salary at the rate of £60 per annum, with board and residence.

SOUTHPORT INFIRMARY.—House Surgeon. Salary £100 per annum, with board, furnished rooms, and attendance.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea, S.W.—Dental Surgeon.

WESTERN FEVER HOSPITAL, Seagrave-road, Fulham, S.W.—Clinical Assistant for three months. Board, furnished apartments, and washing provided.

WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Junior House Surgeon. Salary £50 per annum, with board and apartments.

WORKSOP DISPENSARY.—Resident Surgeon. Salary £120 per annum, with rooms, coals, gas, furniture, and Housekeeper found.

Births, Marriages, and Deaths.

BIRTHS.

BURNIE.—On May 5th, at Houghton House, Bradford, the wife of W. Gilchrist Burnie, M.R.C.S., of a son.

CHAMPNEYS.—On May 7th, at Upper Brook-street, the wife of Francis Henry Champneys, M.D., F.R.C.P., of a son.

CULHANE.—On May 3rd, at Great Marlow, Bucks, the wife of F. J. F. Culhane, Surgeon, of a son.

GARROD.—On May 5th, the wife of Archibald E. Garrod, M.D., of Chandos-street, Cavendish-square, W., of a daughter.

HULBERT.—On April 24th, the wife of H. H. Hulbert, M.R.C.S., L.R.C.P., of Ely, Cambs, of a son.

WOOLLETT.—On May 11th, at Telford-avenue, the wife of C. J. Woollett, F.R.C.S., of a daughter.

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MARRIAGES.

HAYDON—BEWES.—On May 3rd, at St. Mary's Church, Wolborough, Newton Abbot, Edgar Haydon, M.B., youngest son of the late N. J. Haydon, M.D., F.R.C.S., of Bovey Tracey, Devon, to Edith, eldest daughter of the late Captain Frederick Duffy Bewes, 11th (Devonshire) Regiment, of Beaumont Lodge, Newton Abbot.

MATTHEY—BLYTH.—On April 19th, at St Philip's, Georgetown, British Guiana, Arthur Matthey, M.R.C.S., L.R.C.P., youngest son of the late John James Matthey, of Messina, to Florence Rosalind, youngest daughter of the late Lt.-Colonel S. F. Blyth, 1st Battalion, Royal Sussex Regiment.

OVERTON—WATKINS.—On May 5th, at St. Peter's, Newton-le-Willows, by the Vicar, the Rev. H. Monk, assisted by the Rev. T. W. Johnstone, Arthur Overton, M.R.C.S. &c., of Huddersfield, second son of John Overton, of Horncastle, to Alice Mabel Watkins, youngest daughter of John W. Watkins, M.D. &c., of Newton-le-Willows. No cards.

PILGRIM—MANIFOLD.—On April 12th, at the Civil Registry, and afterwards at St. Peter's Anglican Church, Flores de Buenos Ayres, Eustace Graham Pilgrim, M.B., C.M. Edin., son of the late Henry Pilgrim, Esq., of The Garden, Barbadoes, to Constance Fenton, daughter of Surgeon-General Michael Fenton Manifold, F.R.C.S., A.M.D., Retired, Putney, S.W.

DEATHS.

BEVERLEY.—On Sunday, May 1st, at Ospedaletti, Ligure, Italy, John Metcalfe Beverley, M.D., late of Littlehampton, Sussex, in his 32nd year. No cards.

DEVEREUX.—On May 7th, at North House, Tewkesbury, D. Devereux, M.D., aged 57 years.

DONOVAN.—On May 8th, at the Dispensary, Worksop, Notts, D. W. Donovan, M.R.C.S.

GILDERSLEEVES.—On May 6th, at Camberwell, Thomas Barfoot Gilderaleeves, M.R.C.S., L.S.A., formerly of Liverpool, in his 72nd year.

HARDINGE.—On May 4th, at Kilburn, John Richard Hardinge, M.D., M.R.C.S., late of Cornwall-road, Notting-hill.

KEELAN.—On May 9th, at Craigmore, Holderness-road, Hull, Fleet-Surgeon P. Keelan, R.N., M.D., F.R.C.S.I.

LINTON.—On April 4th, at Peshawar, N. India, Henry James Linton, Surgeon-Lieut.-Colonel, 26th P.N.I., son of Canon Linton, Vicar and Rural Dean of Birkenhead.

LOWE.—On May 8th, at George-square, Edinburgh (very suddenly), the Rev. John Lowe, F.R.C.S.E., Secretary and Superintendent of the Edinburgh Medical Missionary Society.

REED.—On May 9th, at Great Blake-street, York, William Reed, M.R.C.S., aged 82.

STANGER.—On May 6th, at the residence of his son, St. John's Towers, Wakefield, George Eaton Stanger, Surgeon, of Brook-green, London, W., aged 76.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.

A Pocket Case-book for Practitioners and Students. By A. T. Brand, M.D., C.M. 1892.

Dermic Memoranda. By Wm. Gemmell, M.B. 1892. pp. 116.

CARR, GEORGES, Paris.

Manuel d'Ophthalmologie. Par le Docteur E. Fuchs. Traduit sur le Deuxième Édition Allemande par le Dr. C. Lacompte et le Dr. L. Léplat. 1892. pp. 815.

CASSELL & Co., London.

The Students' Handbook of Surgical Operations. By Fred. Treves, F.R.C.S. Illustrated. 1892. pp. 495.

On Gall-stones and their Treatment. By A. W. Mayo Robson, F.R.C.S. Illustrated. 1892. pp. 285.

CHURCHILL, J. & A., New Burlington-street, London.

Notes on Dental Practice. By H. C. Quinby, L.D.S.I. Illustrated. 1892. pp. 216.

Differentiation in Rheumatic Diseases (so called). By Hugh Lane, L.R.C.P., M.R.C.S. Second Edition. 1892. pp. 121.

DOUGLAS, DAVID, Edinburgh.

Dissertations by eminent Members of the Royal Medical Society.

GRIFFIN & Co., Exeter-street, Strand, London.

Official Year-book of the Scientific and Learned Societies of Great Britain and Ireland. Ninth annual issue. 1892. pp. 233.

LEWIS, H. K., Gower-street, London.

A Text-book of Morbid Histology. By R. Boyce, M.B., M.R.C.S. Illustrated. 1892. pp. 477.

Notes on Pathology. A Handbook for the Post-mortem Room. By the late R. E. Carrington, M.D. Lond. Edited and Revised by H. E. Crook, M.D. Lond., and G. Mackeson. 1892. pp. 150.

The Disinfection of Scarlet Fever and other Infectious Diseases by Antiseptic Inunction. By J. Brendon Curgenven, M.R.C.S. 1891. pp. 25.

Guide to the Administration of Anæsthetics. By Henry Davis, M.R.C.S. Second Edition. 1892. pp. 92.

Flushing and Morbid Blushing; their Pathology and Treatment. By Harry Campbell, M.D. Lond. 1890. pp. 270.

The Principles of Bacteriology: a Practical Manual for Students and Physicians. By A. C. Abbott, M.D. Illustrated. 1892. pp. 268.

Illustrated Lectures on Nursing and Hygiene. By R. L. Roberts, M.D. Lond., D.P.H. Camb. Illustrated. Second Edition. 1892. pp. 213.

LONGMANS, GREEN, & Co., London.

Quain's Elements of Anatomy. Edited by E. A. Schäfer, F.R.S., and G. Dancer Thane. Vol. II. Part II.: Arthrology, Myology, Angeiology. By Professor Thane. Illustrated. Tenth Edition. 1892. pp. 593. Price 18s.

Watts' Dictionary of Chemistry. Revised and entirely rewritten. By H. F. Morley, M.A., D.Sc., and M. M. P. Muir, M.A., assisted by eminent Contributors. In Four Volumes. Vol. III.: In—Ph. 1892. pp. 856. Price 50s.

MACMILLAN & Co., London.

An Introduction to Modern Therapeutics: being the Croonian Lectures. By T. Lauder Brunton, M.D. 1892. pp. 195. Price 3s. 6d. net.

MARTEN, B. R., Market-hill, Sudbury.

An Invalid's Twelve Years' Experience in Search of Health. By Wm. Russell. With Appendix. pp. 413. Price 10s. net.

PENTLAND, YOUNG J., Edinburgh and London.

International Clinics: a Quarterly Journal of Clinical Lectures. Edited by J. M. Keating, M.D. Philadelphia, and others. Vols. III. and IV. 1892. pp. 372 and 382.

The Principles and Practice of Medicine. By Wm. Osler, M.D., F.C.P. 1892. pp. 1079.

A System of Practical Therapeutics. Edited by H. A. Hare, M.D., assisted by W. Chrystie, M.D. Vols. I. and II. Illustrated. 1892. pp. 1052 and 1158.

RUEFF, J., ET CIE, Paris.

Des Troubles du Langage chez les Aliénés. Par J. Séglas. 1892. pp. 304.

SAUNDERS, W. B., Walnut-street, Philadelphia.

Diseases of the Eye. By G. E. de Schweinitz, M.D. Illustrated. 1892. pp. 641.

SMITH, ELDER, & Co., Waterloo-place, London.

Dictionary of National Biography. Edited by Sidney Lee. Vol. XXX. Johnes—Kenneth. 1892. pp. 446.

SUPERINTENDENT GOVERNMENT PRESS, Madras.

Elephantiasis and Allied Disorders. By John Maitland, M.D. 1891. pp. 54.

WOOD & Co., New York.

A Text-book of the Practice of Medicine, for the use of Students and Practitioners. By R. C. M. Page, M.D. 1892. pp. 568.

Practical Microscopy. By M. N. Miller, M.D. Second Edition. Illustrated. 1891. pp. 217.

Statistique des Opérations pratiquées au Mans du Janvier, 1891, au Janvier, 1892; par le Dr. Henri Delagénière, 1891 (Revue des Sciences Naturelles de l'Ouest; Paris, 1892).—Wilson's Legal Handy Books: How to Appeal against your Rates; by A. D. Lawrie, Barrister-at-Law; fifth edition; 1892, pp. 92; price 1s. 6d.—Gymnastic Exercise as a Prophylactic and Curative Remedy in Chest Diseases; by E. O. Otis, M.D. Boston, Mass. (W. B. Saunders, Philadelphia).—First Aid to the Injured: Annual Report of the Central Executive Committee, 1890 (C. Cull & Son, London).—Die Therapeutischen Leistungen des Jahres 1891; von Dr. Arnold Pollatschek (J. F. Bergmann, Wiesbaden, 1892).—Recherches sur l'Epilepsie, l'Hysterie, et l'Idiotie; par Dr. Bourneville (Babé et Cie., Paris, 1891).—Klinische Untersuchungen über die Salzsäureabschiedung des Magens bei Geisteskranken; von Dr. G. Leubuscher und Dr. Th. Zieben (Gustav Fischer, Jena, 1892).—Magazines for May: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society).

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on May 10th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	248*	68	...	13	..	329	442
North-Western Hospital	235	37	...	8	2	282	411
Western ,,	85†	28	..	3	6	122	224
South-Western ,,	208	37	..	9	1	255	350
South-Eastern ,,	280†	10	1	10	5	306	424
Northern ,,	418	34	..	..	...	452	480
Totals	1474	214	1	43	14	1746	2331

* Two infants with mothers. † One infant with mother.

SMALL-POX.—*Atlas* hospital ship, 49.

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Medical Diary for the ensuing Week.

Monday, May 16.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. A. S. Morton: Affections of Eyelids.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Liver and Spleen.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. A. Wynter Blyth: Disposal of (*a*) Household (*b*) Excretal Refuse.

SOCIETY OF ARTS.—8 P.M. Mr. Percy F. Frankland: Recent Bacteriological and Chemical Research in connexion with the Fermentation Industries.

Tuesday, May 17.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Jonathan Hutchinson: Urticaria and Urticarious Affections.—Bethlem Hospital: 2 P.M., Dr. Percy Smith: Insanity of Puberty and Adolescence.

ROYAL INSTITUTION.—3 P.M. Mr. F. E. Ives: Photography in the Colours of Nature.

PATHOLOGICAL SOCIETY OF LONDON.—Annual General Meeting. Mr. C. B. Lockwood: A Tumour of the Breast.—Dr. W. M. Ord: Deposit of Indigo in the Urine, with Experiments.—Dr. F. C. Turner: Lesions of Pyramidal Cells in the Cerebral Cortex in Chorea.—Dr. H. D. Rolleston: A Tubercular Larynx healed.—Mr. J. R. Lunn: Growth from a Girl's Thigh.—Mr. A. Q. Silcock: (1) Malignant Growth affecting the Orbit, Base of Skull, Brain, &c.; (2) Hereditary Sarcoma of the Eyeball in Three Generations.—Dr. W. Hale White: A case of Congenital Heart Disease.—Mr. Stephen Paget: Large Congenital Cyst beneath the Tongue.—Mr. J. Bland Sutton: (1) So-called Plexiform Sarcoma (Billroth); (2) Congenital Absence of Tibia; (3) Case of Duct or Villous Cancer (cards).—Dr. D. Drewitt: Case of Pseudo-hypertrophic Paralysis, with Unusual Enlargement of Muscles.

SOCIETY OF ARTS.—8 P.M. Mr. Wm. Simpson: Mud, a Material for Architecture in Persia and the East.

Wednesday, May 18.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. J. Kingston Fowler: Demonstration of Cardiac Cases. Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Optic Nerve Atrophy.

ROYAL METEOROLOGICAL SOCIETY (92, Great George-street, Westminster).—7 P.M. Mr. G. M. Whipple: Results of a Comparison of Richard Anémo-Cinémographe with the Standard Beckley Anemograph at the Kew Observatory.—Mr. E. J. Lowe: Rain-drops.—Mr. W. B. Tripp: Levels of the River Vaal at Kimberley, South Africa, with Remarks on the Rainfall of the Watershed.

EPIDEMIOLOGICAL SOCIETY OF LONDON.—8 P.M. Dr. Louis C. Parkes: Observations on the Seasonal Prevalence of Enteric Fever in London.

ROYAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. R. T. Lewis: On the Organs of Oviposition in certain Cattle Ticks.—Mr. E. M. Nelson: (1) The Penetrating Power of the Microscope; (2) The Rings and Brushes of Crystals.

SOCIETY OF ARTS.—8 P.M. Capt. W. De W. Abney: Colour Blindness.

Thursday, May 19.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

ROYAL INSTITUTION.—3 P.M. Professor Dewar: The Chemistry of Gases.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. Cheadle: Intussusception, its Diagnosis and Treatment.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Buzzard: Cases in the Hospital.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Mr. G. Stoker: Chronic Glandular Diseases of the Nose and Naso-pharynx.

SOCIETY OF ARTS.—8 P.M. Mr. J. A. Baines: The Administration of the Imperial Census of 1891 in India.

HARVEIAN SOCIETY.—8.30 P.M. Cases will be shown by Mr. Edmund Owen, Mr. Walsham, Mr. H. Work Dodd, Mr. Farmer, Dr. Sutherland, and others.

NEUROLOGICAL SOCIETY OF LONDON (20, Hanover-square).—8.30 P.M. Dr. Savill: Sequel to a case of Hysterical Rachialgia and Hypertonicity in a Man aged sixty.—Dr. Wiglesworth: Pachymeningitis Interna Hæmorrhagica.—Dr. Ferrier: (1) Tumour of Frontal Lobe; (2) Spinal Cord in Syringomyelia.—Dr. Taylor: (1) Spinal Cord in Syringomyelia; (2) Tumour of Spinal Cord with Ascending Degeneration.

Friday, May 20.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. J. Kingston Fowler: Demonstration of Pulmonary Cases.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: Anthrax (Gram's Method).—Charing-cross Medical School: 8 P.M., Dr. J. Braxton Hicks: Abdominal Tumours with Ascites.

ROYAL INSTITUTION.—9 P.M. Mr. J. Wilson Swan: Electro-Metallurgy.

Saturday, May 21.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Delusional Insanity.

ROYAL INSTITUTION.—3 P.M. Mr. E. Dannreuther: J. S. Bach's Chamber Music (with many Musical Illustrations).

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

DIRECT REPRESENTATION OF THE PROFESSION.

Dr. Rentoul.—The communication sent us is forcible. But the subject is not likely to be reopened in the Medical Council at present, only six months after the last debate. At some future time we shall be glad to insert such a letter.

Dr. Wm. Hy. Murray.—The solicitor is not responsible if he disclosed his principal.

Dr. Henry H. Rutherfoord.—The communication is receiving attention.

AN APPEAL.

To the Editors of THE LANCET.

SIRS,—An M.D., now advanced in years, has been reduced to want, mainly through ill-health. An opportunity offers of his taking up and establishing himself in a practice abroad, but he lacks means to meet the requirements of his outfit and travelling. May I, through your columns, ask the kindly aid of those who are able and willing to help an unfortunate but deserving brother?

I am, Sirs, yours faithfully,

Gloucester-place, W., May 12th, 1892. JOHN LOWE, M.D.

Subscriptions promised:—Dr. and Mrs. Lowe, £3.

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"MEDICOS UNDER THE MICROSCOPE."

A RECENT victim of the writer in the *Gentlewoman*—who feels herself constrained by an overwhelming sense of duty to guide her sisters in London in the selection of their medical men, and who has come to regard her descriptions as certificates of merit which eminent practitioners have a right to expect—is Stephen Mackenzie, M.D., F.R.C.P. Dr. Mackenzie has our sympathy. Such notices can perhaps neither much help nor harm the gentlemen who are the subjects of them. But they do infinite harm to the profession by creating an impression that its members are responsible for them, and by teaching the public to look to newspapers for their guidance. It is to be hoped the College of Physicians will express itself in terms of unmistakable disapproval on this new and most undesirable form of journalism.

Dr. A. MacDonald (Cupar Fife).—We think that the assistant is only legally entitled to the remuneration for which he made engagement. Under the circumstances of the case, however, it would be kind and right to make him some adequate recompense for the extra work which he undertook.

Mr. B. M. Bond.—The communication will be dealt with in our next issue.

Hermes should consult his medical attendant.

THE TITLE OF DOCTOR.

To the Editors of THE LANCET.

SIRS,—With respect to the prefix "Dr." I myself always use it for all general practitioners and physicians. I do not consider whether the person is M.D., but simply use it to distinguish him as a member of the medical profession. If a man is M.D. he can put it on his plate, if he likes. Again, a man with an M.B. may not strictly call himself "Dr.," although by courtesy he is frequently so styled. The Scotch, Irish, and English (except London University) M.B.'s have only to wait a certain time after obtaining the M.B., then pay a fee, and send up a thesis. A man with three or four years' practice after leaving hospital ought not to find much difficulty in getting his M.D. in this way, and therefore the title of "Dr.," but a London University M.B. has a stiff examination to gain the title of M.D. and "Dr." When in practice it is more difficult to get any length of time to oneself, and therefore if you have not sufficient money to remain at hospital one or two years after the M.B., you may never get the M.D., and therefore the title "Dr." Is the London University M.B. as difficult (or more so) as the M.D. of any other university? On p. 989 of your issue of April 30th you say—"as matters stand, however, we cannot recommend self-respecting medical practitioners to lay claim to the prefix of 'Doctor' unless it is theirs by right of a university degree as well as 'the common consent of humanity.'" In this week's issue you speak of Dr. Wynn Westcott, Dr. Drew, Dr. Grierson Gledhill (a Bachelor of Medicine &c.). In the issue of April 23rd you speak of Dr. Thorne Thorne, and in that of April 16th of Dr. Meymott Tidy. Under the head of "Birmingham (from our own Correspondent)" this week, I see Dr. W. F. Wade and Dr. T. S. Wilson. The College of Physicians of London sent out cards this year for the lectures on Duodenal Digestion with the name of Dr. W. H. Allchin on them. They also give the title to other Fellows who are only M.B. Again, at the London hospitals (with medical schools attached) the names of physicians are always put up as "Dr.," whether they are M.B. or M.D.

I am, Sirs, yours faithfully,

May 9th, 1892. M.B., London, N.E.

*** Although graduates of a university who hold the M.D. degree are alone strictly entitled to the prefix of "Dr.," it is our custom to extend it as a matter of courtesy to possessors of the M.B. degree of all the universities.—ED. L.

Mr. E. Bowen (Monmouth).—A bond is legal. Whether the terms of a particular document are legal is another matter, on which our correspondent should consult his solicitor.

Dr. Mackay (Cambuslang) should communicate with the Honorary Secretaries of the Medical Defence Union at the Medical Institute, Birmingham.

Dr. Finzi.—The matter is under consideration.

"A MUSEUM OF CURIOSITIES."

To the Editors of THE LANCET.

SIRS,—The following case may prove of interest to some of your readers on account of the rarity of its occurrence.

On the 8th inst. Mrs. —— was delivered of a fully developed child that was found on examination to be a hermaphrodite, having labia in which I believe the testes were lodged, but in the interval between them there was no vaginal opening. The penis was not much larger than a clitoris, and the urethra opened on its under surface. The child had also a cleft soft palate, six fingers on each hand, six toes on the right foot, extreme talipes calcaneo-valgus on each side, and a depressed fissure over the sacral spine. The mother had previously been delivered of two children free from abnormalities.

I am, Sirs, yours faithfully,

Goswell-rd., E.C., May 9th, 1892. EVAN JONES, M.R.C.S., L.R.C.P.

THE ORCHARD ALUM SPRING.

Dr. Thresh of Chelmsford has communicated to us some interesting facts concerning the so-called alum spring near Orchard Farm, Buxton, Derbyshire, the water of which resembles in its nature that of the Flitwick Spring in Bedfordshire. The alum water in a wine-glass usually resembles pale sherry, and in Buxton has often been passed off as such upon the unwary victim of the practical joke. In larger bulk, as in the deep and quiet pools in the little mountain stream, it almost resembles blood. It has an acid taste and reaction, but contains no free acid. When heated to about 150° F. it becomes quite opaque from the separation of a basic ferric sulphate, but if allowed to evaporate on the water bath nearly to dryness the basic salt redissolves, and a yellow vitreous residue ultimately remains. The water after the deposition of the basic salt by heat becomes colourless. The amount of ferric sulphate (174·4 gr. per gallon) corresponds almost exactly with that found in the Flitwick chalybeate spring reported upon from THE LANCET laboratory on Oct. 24th last. The sulphate of alumina in the Buxton water, however, is twice and a half as great—no doubt a serious disadvantage from a therapeutical point of view. From Dr. Thresh's inquiries in and around Buxton it appears that half a century ago the alum water was held in considerable repute, and was fetched from the spring and employed for various purposes, chiefly as a tonic. It soon fell into disrepute, however, mainly on account of the constipation it produced. At the present time its virtues are vaunted amongst the labouring population of this portion of the High Peak as a vermifuge. Occasionally it is given to human beings, but more frequently it is administered to cattle. The animal is kept for some time without food or water, and is then allowed to drink as much of the "alum" water as it will.

Dr. T. Wittenberg (Nagy-Kanizsan, Austro-Hungary).—Our correspondent cannot do better than obtain the Parliamentary Blue-books on the subject, as they contain practically all that pertains to the water-supplies of England. The books may be had, we believe, of Messrs. Eyre and Spottiswoode, at the Sale Office, House of Lords. We are not acquainted with a work dealing comprehensively with all the subjects enumerated by our correspondent.

Dr. Sandell.—The most recent statistics will of course be found in the first and second reports of the Royal Commission on Vaccination. Our correspondent should consult Dr. MacVail's book entitled "Vaccination Vindicated," published by Messrs. Cassell and Co.

Mr. R. Dawson (Reigate) will perceive that we have dealt with the subject of his communication in another column.

THE EMPLOYMENT OF UNQUALIFIED ASSISTANTS.

To the Editors of THE LANCET.

SIRS,—Is it legal, and could I be visited by the General Medical Council with any penalty for employing an unqualified assistant to visit and attend midwifery?

I am, Sirs, yours truly,

A MEDICAL OFFICER OF A FRIENDLY ASSOCIATION.

May 7th, 1892.

*** It is difficult to say in any particular case what view the Medical Council would take of the employment of an unqualified assistant. The chief points in the resolutions and announcements of the Council on this subject are that for a practitioner to leave patients in the "sole" charge of an unqualified assistant, or to place such an assistant over a branch practice or in a separate house, or to let him act otherwise than under the direction, supervision, and responsibility of such practitioner, is to incur the risk of censure and punishment by the Council. The following resolution should especially be carefully noted:—"That the Council record on its minutes, for the information of those whom it may concern, that charges of gross misconduct in the employment of unqualified assistants and charges of dishonest collusion with unqualified practitioners in respect of the signing of medical certificates required for the purpose of any law or lawful contract are, if brought before the Council, regarded by the Council as charges of infamous conduct under the Medical Act."—ED. L.

Alpha.—A professional witness is entitled to second class railway fare and reasonable hotel expenses. The fee per diem varies from one to three guineas according to the discretion of the taxing master. The taxed costs are not open to inspection.

Mr. F. Guther Melville (Edinburgh).—Our correspondent is thanked for his information, of which, as he will perceive, we have availed ourselves in the present number.

A Country Surgeon.—We do not recollect the reference which our correspondent alludes to; but he might consult our advertising columns with advantage.

Mr. J. Carter should apply for information to the Agent-General, Colonial Office, Victoria-street, S.W.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 12th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
May 6	30·12	N.E.	45	40	102	53	36	—	Cloudy
,, 7	30·22	S.W.	45	40	103	65	35	—	Hazy
,, 8	30·19	S.W.	53	48	101	68	43	..	Bright
,, 9	30·21	S.E.	54	49	101	70	46	—	Cloudy
,, 10	30·19	S.E.	54	48	108	68	45	..	Bright
,, 11	30·24	N.E.	56	50	118	72	45	—	Bright
,, 12	30·37	N.E.	55	50	115	70	45	..	Bright

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. E. Atkinson; Mr. H. Allcock, Edgbaston; Dr. Jas. Anderson; Mr. T. Renell Atkinson, Dorset; M. Berthier, London; Messrs. Burgoyne and Co., London; Dr. Bagshawe, Aix-les-Bains; Messrs. Baelz and Co., London; Dr. Bethell, Ohio; Mr. T. B. Browne; Mr. Ball, South Hampstead; Mr. E. Bowen, Monmouth; Mr. A. E. Broster, Derby; Mr. W. H. Brown, Leeds; Messrs Blondeau et Cie., London; Mr. J. Benford, Brighton; Mr. Cowley, Northwich; Dr. F. W. Coates, Isle of Wight; Mr. Clarke, Guildford; Mr. J. C. Castor, Derby; Mr. Charles E. Cressy, London; Mr. Chapman, Leyburn, Yorks; Dr. A. Duke, Dublin; Mr. Daw, Garlestown; Mr. R. Dawson, Reigate; Mr. H. Dauber; Mr. Davids, St. James's; Mr. D. Livingstone Davies, Nottingham; Mr. W. G. Dickinson; Dr. Emmerson; Messrs. Forbes and Co.; Mr. C. M. Fegen, Brandon; Messrs. Ferris and Co., Bristol; Dr. S. Guttmann, Berlin; Dr. Hargreaves, London; Mr. Hyatt, Clay Cross; Mr. Hyde, Buxton; Dr. Hughes, Denbigh; Messrs. J. Harper and Sons, Ebley; Dr. H. V. Hickman, London; Messrs. Hall and Sons; Dr. Hassall, Lucerne; Mr. Hornibrook, London; Mr. W. Horrocks, London; Mr. Jessett, London; Mr. Evan Jones, London; Messrs. Keith and Co., Edinburgh; Messrs. Knight and Co., London; Messrs. Livingstone, Edinburgh; Mr. Ley, Manchester; Messrs. Lee and Martin, Birmingham; Mr. Leech, Yarmouth; Mr. Lamb, Soho-square; M. Lorette, Paris; Mr. Little, London; Mr. Robt. Lawson, Notting-hill; Mr. C. H. Leet, Liverpool; Mr. Merck, Darmstadt; Mr. Miller, Edinburgh; Dr. W. H. Murray, Galashiels; Dr. Hugh Mackay, Cambuslang; Dr. C. F. Marshall, London; Messrs. Martin and Sons, Bromley; Mr. Mosse, London; Mr. C. A. Morton, Bristol; Dr. G. Mitchell, Clapton; Mr. Nash. Hackney; Messrs. Orridge and Co., London; Dr. Bernard O'Connor, London; Dr. G. V. Poore, London; Mr. Pollard, Wakefield; Mr. Young J. Pentland; Mr. E. Pringle, Warwickshire; Mr. Rushton Parker, Liverpool; Dr. Lawton Roberts, Ruabon; Dr. R. R. Rentoul, Liverpool; Messrs. Richardson and Co., Leicester; Dr. Renton, Edinburgh; Messrs. Reynolds and Branson, Leeds; Messrs. Richardson Bros., Liverpool; Mr. Munro Scott, London; Mr. Sergeant, London; Mr. H. W. H. Sandell, Leighton Buzzard; Messrs. Smith and Son, Manchester; Messrs. Street and Co., London; Messrs. Stent and Sons, Guildford; Messrs. Smith and Co., Bow; Mr. Paul Swain, Cornwall; Mr. Smith, Westgate-on-Sea; Mr. Scriven, London; Dr. J. C. Thresh, London; Mr. Tracy Turnerelli, Leamington; Mr. Tasker, London; Mr. William Vincent, London; Mr. C. M. Vowell, London; Dr. Samuel Wilks, London; Dr. Roger Williams, Preston; Dr. Weston, Brussels; Messrs. Whitworth and Stewart, Newcastle; Mr. J. Westmoreland, Manchester; Dr. S. Wood White, Birmingham; Mr. White, Wolverhampton; Mr. F. C. Wood, Bristol; Mr. White, London; Mr. Whall, Worksop; Mr. S. Wand, Leicester; Mr. J. S. Walker, Staffs; Dr. F. W. Williams, Brentford; J. H. D., Bristol; R., Bradford; Beta, London; Secretary, Bradford Infirmary; Secretary, Royal Infirmary, Bristol; Secretary, Plymouth Borough Asylum; Adrian, London; Secretary, National Hospital for Paralysed, London; D. K. S., London; Secretary, Victoria Hospital for Children, Chelsea; McMillan, Glasgow; Secretary, General Hospital, Notts; Secretary, Macclesfield.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Van Praagh, London; Dr. Jones, Marske-by-Sea; Messrs. Schweitzer and Co., London; Dr. Rees, Garnant; Mr. Hall, Bury; Messrs. Keene and Ashwell, London; Dr. Taylor, Nottingham; Dr. Duggan, Castle Eden; Mr. Tyrell, Malvern; Mr. Long, Burwell; Miss Sibbon, Lower Tottenham; Mr Hankinson, Bournemouth; Mr. Thomas, Wickham Market; Mrs. Hill, Brinkley; Mr. Worall, Southport; Mr. Noble Smith, London; Dr. Godfrey, Northampton; Messrs. Potter and Sacker, London; Dr. Gosford, Liverpool; Mr. Hardwicke, Dover-court; Mr. Randle, Ivybridge; Mr. Harding, Whittlesea; Mr. Lewis, Devon; Mr. Bilbrough, Bradford; Miss Barff, Salford; Mr. Breach, Newbury; Dr. Whittington, York; Mr. Ward, Cork; Mr. Cormack, Kilnhurst; Mr. Tyte, Minchinhampton; Mr. McClean, Walthamstow; Mr. Evans, Llanberis; Mr. Thin, Edinburgh; Mr. Browning, Weymouth; Mr. Pollard, Walsall; Mr. Palmer, Woking; Mr. Welsh, Nantwich; Miss Dukes, Canonbury; Mr. Smith, Kelso; Mr. Denny, Brighton; Mr. Hoskyns, Abrahall, Biggleswade; Messrs. Oliver and Boyd, Edinburgh; Mr. Tresise, Burton-on-Trent; Messrs. McKenna and Co., London; Mr. Norman, Ashburton; Messrs. Bobbins and Co., London; Mr. Brown, Westgate-on Sea; Mrs. Gann, Hayling Island; Dr. Morton, Sheffield: Mr. Jennings, Cardiff; Messrs. Wood and Co., York; Mr. McBryan, Box; Mrs. Corbre; Messrs. Kilner Bros., King's-cross; Mr. Heywood, Manchester; Messrs. Benson and Co., London; Mr. Ryan, London; Mr. Gough, Liverpool; Mr. Wilson, co. Down; Mr. Johnson, Sheffield; Messes. McNab and Co., Leith; Dr. Humphreys, Cemmaes; Mr. Hussey, Wingham; Anglo-Swiss Milk Co., London; Superintendent, Oldham; Secretary, East London Hospital for Children, Shadwell; Bright, Walham-green; G. R., East Dulwich; R. H., London; Medical, London; Secretary, Birmingham General Hospital; Veritas, London; V., London; Secretary, Bedford General Infirmary; G. G., London; Oder, London; Secretary, Public Hospital, Sheffield; W. W. N., Leicester; Bonus; Medicus, Shepherd's Bush; Semper; F. M. N., London; Physic; Secretary, Lowestoft Hospital; Mentor, London; Duffield, Birmingham; Vicar, Burton-on-Trent; Sextus, London; Invalid, London; Vindex, London; E. B., Folkestone; Simplex, London; Rex, London; M. A., London; Sands, London; Cheltenham, London; Tarsus, London; S. C. S., Ealing; Chirurgen, London; C. F. W., London; X. X. Y., London; W. T. P.

NEWSPAPERS.—*Hertfordshire Mercury, Reading Mercury, Windsor and Eton Express, Weekly Free Press and Aberdeen Herald, Windsor and Eton Gazette, Mining Journal, West Middlesex Standard, City Press, Leeds Mercury, Local Government Chronicle, Surrey Advertiser, Liverpool Daily Post, Bristol Mercury, Scottish Leader, Architect, Yorkshire Post, West Middlesex Advertiser, Margate and Ramsgate Gazette, Law Journal, Pioneer Mail, Insurance Record, Glasgow Herald, Saint John Globe (New Brunswick), Eastern Daily Press, Times of India, Local Government Journal, Liverpool Courier, Rangoon Gazette, Scotsman, Sussex Daily News, Le Temps (Paris), Dundee Advertiser, Brighton Gazette, Citizen, East Anglian Daily Times, Adelaide Observer, Derby Reporter, Hastings News, Thames Times, Oxford Journal, Western Morning News, Hobart Mercury, Bell's Weekly Messenger, Builder, Birmingham Daily Post, Pall Mall Gazette, Sunday Times, Newcastle Daily Chronicle, Manchester Guardian, &c.*, have been received.

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Agent for the Advertisement Department in France—J. ASTIER, 66, Rue Caumartin, Paris.

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Lecture
ON
THE CONCENTRATION OF POPULATION IN CITIES.

Delivered at University College, London, on Feb. 24th, 1892.

BY G. V. POORE, M.D., F.R.C.P.,

(Concluded from p. 1068.)

IT needs to be pointed out that the overcrowding of our cities, which is admittedly the greatest of all sanitary evils, is the direct result of sanitary legislation. When, some forty years since, it was recognised that water-carried sewage inevitably poisoned the wells, no attempt was made to protect the wells from pollution; but the surface wells were compulsorily closed, the inhabitants were sold in bondage to the water companies, and the houses were compelled to pollute our rivers. These measures have given a fatal facility for overcrowding, and wherever a line of sewers is taken the speculative builder follows; for, not being hampered by questions of water-supply or filth disposal (the sanitary authorities relieving him of all responsibilities in this matter), he is able to erect buildings without any curtilage, and of any height almost that he chooses. Be it observed that this state of things is not limited to London or the big towns. The notion that houses are as well without curtilage as with it has infected the country, as anybody may see for himself when travelling by railway. The train runs through miles of country, with scarcely a house to be seen; but when we stop at the developing district, growing up round the country station, we find the houses packed almost as closely as they are in the centres of towns. I have in my mind a village where land can be bought at very little above its agricultural value. This village has been selected by a railway company for the establishment of "works," and the company is erecting rows and rows of artisans' cottages with at most a few square feet of curtilage each. The onus of draining these cottages will ultimately be thrown on the local authority, with the additional onus, in a few years' time, of providing the inhabitants with allotments; and all the expense of this will fall upon the ratepayers as a whole. Clearly, the best place for an allotment is round the dwelling, and some compulsion should have been put upon this wealthy company to provide them. A couple of hundred acres of land (enough for 1000 cottages) might, I suspect, have been purchased in this particular spot for less than £10,000, and would have added £10 to the cost of each cottage. What is this to a rich company, especially if it be the means of increasing the health and contentment of their workpeople? Would it not be money well spent, and spent to the ultimate advantage of the shareholders? We have engendered a stingy habit of mind towards the question of space round houses, which almost amounts to a national insanity.

A country town which I know well, where 200 acres of land with a house and farm buildings, recently sold for £4000, has sanctioned the erection by a building society of 200 dwellings on six acres of land. This building estate will, if successful, have a population of 1000 persons, or nearly 170 to the acre, a degree of overcrowding about three times as great as that of the average of London. The building society will make a good profit, while the sanitary authority which sanctioned this scheme will ultimately have to deal with the infectious diseases of this crowded area, and will not only have to provide, at the expense of the ratepayers as a whole, for the safe bestowal of the filth from this area, but will also, possibly, be compelled to provide the tenants with allotments.

Can anything be worse from the hygienic point of view than the modern tenement house or monster hotel, where each floor ventilates into the floor above and the floor below, while the "lifts" effectually drive the air from one floor to another without renewing it? In such places, where hundreds live under a common roof, fresh air is impossible. Dr. Ogle, in his paper on "The Relation of Occupation to Disease and Mortality," read at the late Congress, pointed out that the mortality of hotel servants was higher than that of any other class, being nearly four times as great as that of the clergy, who enjoy the lowest degree of mortality. This high mortality is not to be wondered at, for the hotel servant never breathes fresh air, and lives day and night in an overcrowded dwelling redolent of humanity, dinners, gas, tobacco, and drains, one or all, most commonly all. Alcoholism may have something to do with this high mortality, but we must all admit that the unwholesome conditions of life are probably the main cause of the alcoholism. Drinking is said to be on the increase in this country, and I strongly suspect that it would be found to bear a very definite ratio to the overcrowding on space. The advantages of hotel life are many, and the charms of living in a pleasant community are very great. These charms have always been recognised, but when we contrast the "college," as seen at Oxford or Cambridge, with its ample area and the opportunities for society or seclusion at will, with the modern hotel, raised tier above tier, in which tranquillity and fresh air are alike unknown, it must be confessed that, æsthetically and hygienically, the mediæval architect was ahead of his successors. I have not in my mind merely those great hostelries in cities, where persons are content to jostle each other during a short paroxysm of business or pleasure; but I am thinking rather of establishments erected in health resorts and by the seaside, which have been designed for the reception of delicate persons and invalids, and which are well calculated, in my humble judgment, to bring chronic maladies to a termination.

Let us look at the question of overcrowding on space from an economic point of view. It is calculated that to raise the body vertically requires twenty times the force necessary for walking on the level, so that whether we mount stairs to the height of 100 feet or walk 2000 feet along the level the labour is the same. But I shall be told there are "lifts," and, that being the case, it becomes quicker and easier to move vertically than horizontally. It costs money to be carried, however, and a "lift" is a most extravagant machine, because it does not accommodate the force expended to the weight to be raised. In a report recently issued by the South London Electric Railway, I find it stated that the cost of working the lifts is 10 per cent. of the gross receipts! We are becoming alive to the fact that the fogs of London are getting more frequent and more virulent, in spite of the steady increase in the use of gas as a fuel. This is due to the overcrowding of houses and the multiplication of chimneys on a given area. In the country, and in most towns, the smoke is diluted to a point which practically gives us no trouble. It need hardly be said that a house of nine storeys will give off three times as much smoke as one of three storeys having the same area. In the centre of London we have been building enormous piles of offices and tenements, adding storeys to old houses, and putting buildings upon every garden and back yard, while at the same time the area of the city has enormously increased. What right have we to grumble at the increased density of the fogs? We have deliberately caused it, and neither Royal Commission, parliamentary committee, nor anthracite coal will put it right. Even though we got rid of the "blacks," we should still have the irritating invisible products of combustion—by far the most harmful of the elements of a fog—to deal with. We have made our bed, and we must lie upon it. The damage done to property by fogs, the extra cost of washing and painting entailed by living in the dirtiest capital city in the world, the serious loss of trade, the cost of using artificial light in the daytime, as well as the injury to health, must be all reckoned as among the penalties we pay for overcrowding. "Cleanliness is next to godliness," says the old adage, and we are bound to admit that the filthiness of the air of London is a not unimportant factor in causing the moral degradation in which not a few of the inhabitants are sunk.

One main object of overcrowding houses is the saving of time in the transaction of business, but there are limits which cannot be overstepped without defeating our object. The check put upon freedom of locomotion by overcrowding, and the time occupied in going from point to point, more than counterbalances the shortness of the distance which we have to travel, to say nothing of the fact, previously alluded to, that vertical movement requires twenty times the force of horizontal movement. In London rapid locomotion is getting daily more and more impossible, and there are so many vehicles and persons in the streets that

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we are all in the way of each other. Our streets are always more or less blocked by building operations, which must be in proportion to the cubic contents of the buildings on a given area. Then, again, we have beneath our streets sewer pipes, water pipes, gas pipes, hydraulic power pipes, and pneumatic tubes, as well as wires for telegraphs, telephones, and electric lights. The necessity for interfering with these various subterranean arrangements in any one street must be largely proportionate to the number of dwellers whose front doors open into the street. These being almost unlimited, it follows that our streets instead of being only occasionally "up," as the phrase goes, are only occasionally "down." Again, the number of vehicles which stop at any given door is proportionate to the number of persons who live behind it. A set of "mansions" with 200 inhabitants may have scarcely more frontage than a modest house accommodating ten persons, but the vehicles stopping at them will be twenty times as many. It is the halting vehicles rather than the moving ones which offer the greatest obstacles to traffic. In civilised London we have very few back doors; our coals are shovelled in and our garbage hauled out under the dining-room windows; and these tedious operations, performed in the main thoroughfare, are in themselves great obstacles to traffic. The wear and tear of the streets is in proportion to the traffic, and in some of the leading thoroughfares the traffic has become so great that it is wonderful that any material can be found hard enough to stand it. These considerations make it clear, I think, that the increasing difficulties of locomotion in London are due to the overcrowding of houses on a given area.

From the æsthetic point of view the effects of overcrowding are disastrous. Proportion is one of the most important elements in architectural beauty, and few will be found to admire the Gargantuan architecture of the engineer-builder.

In spite of a somewhat dull uniformity, Regent-street still remains the finest street in London in virtue of its outline and proportions and the possibility of sunlight getting access to it. Contrast Regent-street with Northumberland-avenue, that drafty gloomy gorge of bricks and masonry in which the only really pretty building is the cabman's shelter at the end. It is mere waste to erect fine buildings in situations where they cannot be seen without effort. Every good building ought to have a proper "setting." How would Westminster Abbey look without its setting of greenery and turf? Can any building look really well without some verdure or floral decoration? Can any building that has them look really ill? In London our buildings are getting too high for their confined situations; they block out the sunlight, their many chimneys foul the air with soot, and, as a consequence, our palaces are grimy, and gardening, the most beautiful and the most health-giving of all arts, has become impossible. Wandering in the streets of London, and looking at the dim outline of our grimy public buildings looming through the mist, one is reminded of the lines from the opening of "Macbeth:"—

> Fair is foul, and foul is fair:
> Hover through the fog and filthy air.

When the air of a city gets so foul as to hinder and arrest vegetation, we are hygienically in a "parlous" state, as Touchstone would have said. Not only do the green leaves of plants absorb carbonic acid from, and give off oxygen to, the air, but their roots are no less useful in draining and purifying the soil upon which we live. We have heard a good deal about the dangers of an impure soil, and the advice with regard to it is invariably to put something which is impermeable, such as concrete or asphalte, to prevent the rising of possible impurities from the earth. This is analogous to putting dead bodies into impermeable coffins, whereby the danger of their decomposition is not prevented, but merely delayed. The only way to purify the soil is by cultivation, aeration, and the growth of plants. I believe that an evergreen creeper, such as ivy, does more to keep the foundations and walls of a house dry and pure than do any of the patent impermeable applications.

As London, in spite of all its "betterments," is getting steadily less habitable year by year, there is a growing tendency to sleep out of town and journey to and fro to business. Not more than 37,000 people sleep in that square mile which we call "the City"; but as more than 300,000 find permanent daily occupation there, it is obvious that there are some 260,000 daily workers who have to be transported to and from the suburbs. If we reckon cost and loss of time in transit, it will not be an extravagant estimate to suppose that this journeying involves a loss of one shilling per head per diem, or, collectively, £13,000 a day, £78,000 a week, and over £4,000,000 per annum. When a man lives out of town he becomes a slave to a railway company, he has to be punctual himself in order not to miss trains which are seldom punctual, and he finds out what it is to bear "the whips and scorns of time." As he wastes his time in being shuttled to and fro he must be queerly constituted if he does not wish for the good old times when it was possible to "live over the shop." Our modern facilities of communication cause us to be always in a hurry, and it is certainly a suggestive fact that having invested nearly £1,000,000,000 in railways, on which we go shrieking to and fro; having so perfected the penny post that it has become a veritable nuisance with its endless delivery of documents, which are mainly worthless waste paper in the form of advertisements; having annihilated time and space by the telegraph and telephone; and having abolished darkness by means of gas and electricity—there should arise an ominous cry for a limitation of the hours of labour and a demand to do by Act of Parliament that which, "in the good old days," the sun did for us.

There is yet another consideration which shows the cost of overcrowding houses. When growth occurs in an organised body, such as a tree or an animal, all parts increase *pari passu*, and there is no necessary loss of health or vigour. But in a city growth is more like an inflammatory swelling, the cells of the part increase, while there is no adequate increase of the channels which bring nutriment. Stasis is apt to occur, and unless relief be given by surgical means the death of the part will follow. The modern city is ever in need of surgical interference; new thoroughfares have to be cut in order to give relief to congested districts, and these operations can only be carried out by means of an expenditure of money which is simply appalling in amount. The attempt to improve the sanitary state of a city by a process of "Haussmannising" must be futile. If we make a fine boulevard through the slums the inhabitants are merely piled in heaps on either side; the width of the street is increased by increasing the overcrowding of inhabitants under a common roof, which is the greatest of all sanitary evils. Not long since I read a scheme (I think by Mr. Shaw Lefevre) for turning the Euston-road into a boulevard by appropriating all the front gardens and back yards, and erecting huge tenement houses on either side. No proposition could be worse from a sanitary point of view. It cannot be too earnestly insisted upon that the air of the grimiest back yard is better than that of any room, even though its (generally closed) windows command a view of a stately boulevard. The breathing of fresh air, so important to all, is doubly important to very young children. Children under four are too young to play in the streets; their mother's home duties are too arduous to allow her to take them to the park, and the little girl who might do so has been driven to school by the law. The result is that the little children have to breathe the fetid air of a small living room from week's end to week's end, instead of being able to play in a little yard, where the mother could watch them through the open door, as formerly was the case. The value of an open space is largely in proportion to its proximity to the dwelling. A little back yard or garden of one's own is worth infinitely more than Hyde Park a mile off, and the old graveyard converted into a garden a hundred yards down the street is far more precious to the poor town dweller than Epping Forest or Burnham Beeches.

This mention of disused graveyards leads me to say a few words on the disposal of the dead. Cremation is just now being strongly advocated, but, as I believe, on insufficient grounds, and for the following reasons:—1. Rational earth burial has never been shown to be productive of any evil, and the facts of bacteriology point to the conclusion that it is not a source of danger to the living. Even the scandalously irrational burial which has been permitted in the past has caused very little definite mischief, not even in those cases where the act of consecration has not been able to keep off the dangerous invasion of the graveyard by the railway contractor. 2. Cremation is wasteful, and involves a needless expenditure of fuel, and would help to still further pollute the air of our cities by products of combustion, always poisonous to breathe, and not always odourless. Dead bodies should be left to nitrify in the earth and provide nourishment for trees which, while affording us timber and firewood, would at the same time effectually cleanse the soil of its impurities and render it fit to be used for burial

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a second time. The advocates of cremation say that this economic argument is false because the products of combustion are indestructible, and must ultimately go to nourish plants somewhere and somehow. This is doubtless true, and by parity of reasoning we might do well to throw our money into the street instead of paying it into the bank, and we might advocate the fertilising of the market gardens round London by setting fire to the manure in the London mews. 3. The necessity for burying the dead which hitherto has existed has had the indirect effect of separating the living and preventing to some extent the overcrowding of houses. If our cemeteries are to be replaced by furnaces with tall chimneys pouring noxious gases into the air, and if the ground which would be occupied by cemeteries is to be covered by houses, it is clear that we shall gain nothing from a sanitary point by the introduction of cremation. 4. Although I am a professor of medical jurisprudence, I think the objection that cremation will enable the poisoner to escape detection is a minor objection, though real.

The overcrowding of houses means loss of liberty, for the closer we crowd together the more likely we are to suffer from the sanitary negligence of others, and the more necessary does it become to regulate our actions by by-laws and Acts of Parliament. I need hardly insist on the fact, so ably enforced by Herbert Spencer, that personal liberty is necessary for social evolution, and that Acts of Parliament are evils only to be tolerated for the avoidance of greater evils. The growth of Acts of Parliament of late years, and the new offences which they constitute, was recently forcibly pointed out by the chief constable of Liverpool in a letter to *The Times*, in which he stated that in 1890 there were as many as 11,279 cases in Liverpool under the Education and Health Acts alone. Overcrowding has necessitated the compulsory notification of disease and the appointment of a crowd of inspectors, and there are those who wish to compel us to take out a licence for our houses, which is only to be given when they are fitted with the particular sanitary apparatus which happen to be in fashion. It is well to bear in mind that the overcrowding of which I am complaining is largely the result of compulsory Acts of Parliament which curtailed our liberty in the matter of water-supply and sewerage, while they gave to the speculative builder opportunities by which he has not failed to profit. When a couple of years since the influenza made its reappearance among us a distinguished engineer wrote to the papers with the kindly object of comforting us by the assurance that the perfection of our sanitation would certainly lessen the ravages of the epidemic. I need hardly say that my opinion was directly opposed to his, for influenza being an air-borne disease, and the overcrowding of houses and the fashion of many families living under a common roof having largely developed since its last appearance, it seemed probable that the epidemic would be more severe than formerly, and more difficult to eradicate.

Can nothing be done to check the overcrowding of houses and persons? Although we have passed many laws for the improvement of the public health, we have not sought as yet to put any very severe restraints on the builder and landowner, and we have not sought, as would seem but reasonable, to limit the number of inhabitants who may be accommodated on a given area of land. It is the object of all traders, whether they be public companies or individuals, to have the largest number of customers on the smallest possible area, and therefore any attempt at restriction cannot be popular. Neither would such restriction be popular with the sanitary authorities, who have to collect rates; for rateable value is unfortunately directly proportionate to the overcrowding of houses on a given area. We have borrowed large sums of money, and the rates have more than kept pace with our sanitary progress (the rates of my own house have risen more than 30 per cent. in the last twenty years), and as houses pay rates the authorities encourage building by every means in their power; they foster overcrowding and perhaps call it "betterment." Sanitary authorities are now being encouraged to embark in business as purveyors of water, gas, electricity, and locomotion; and as their success in business will depend upon the number of customers they can crowd into their respective areas, they are likely to be more biased than ever in favour of overcrowding.

One of the functions of a sanitary authority is to protect the public from the rapacity of public companies; and one would fear that the desire to make money out of the needs of the inhabitants must hamper the judgment and impartiality of the authority. This fashion of sanitary authorities to become purveyors must be regarded as an interesting socialistic experiment, but not one which is likely to conduce to the public health or public convenience. We have many sanitary laws, and the present does not seem the time to advocate a return to the liberty of the past. Unless the sanitary condition of our towns is to get steadily worse, we must have a law to prevent overcrowding. Such a law seems to me to be the necessary complement of all the others. We ought, I believe, to insist that every building shall have a minimum curtilage in proportion to its cubic contents, and it is evident that any such rule, to be of value, must be of universal application throughout the country. Such a rule, I shall be told, is impossible because of the high price of building land in cities. To this objection my answer is that the exorbitant price of building land is the result of the absence of any such rule, for the value of building land is, *cæteris paribus*, proportionate to the number of inhabitants it will accommodate; and if the accommodation of a given area is to be unlimited, the price of land will be almost unlimited also. It is evident that any rule for making the minimum curtilage proportionate to the cubic contents must not be too exacting, and must be very simple and capable of universal application. Suppose we were to say that the curtilage of a building shall in no case be less than an area expressed by a figure representing 1 per cent. of the cubic contents of the building. This is certainly a very modest demand. Let us see how it would work. By such a rule as this a building like the Masonic Hall at Chicago, which is 114 ft. × 117 ft. × 265 ft., and which (to take round numbers for simplicity) contains about 3,500,000 cubic feet, would require 35,000 square feet of curtilage, and since the area of the building itself is 13,000 square feet, the size of the entire plot of ground which it would require would be 48,000 square feet, or about an acre and one-eighth. Assuming that this building can accommodate 1000 persons (probably a low estimate), it is evident that, even with the compulsory curtilage which I suggest, we should still have a condition of overcrowding on space which must be regarded as indefensible.

The average London dwelling house, which has about twenty feet frontage with a height of sixty feet and a depth of fifty feet, contains 60,000 cubic feet, and ought, according to the rule I have suggested, to have a minimum curtilage of 600 feet—i.e., a back yard as wide as the house, and thirty feet long. Such a house would accommodate about ten persons, and would occupy 1600 square feet of ground, or, with its necessary proportion of street, 2200 square feet, or, as near as may be, the twentieth of an acre. Even under these circumstances we should have 200 inhabitants to the acre, which is a number certainly largely in excess of what ought to be allowed. It is evident that unless we know the maximum number of inhabitants which is to be permitted on a given area, it is impossible to make any reliable calculations as to water-supply and sewage disposal. It does not seem to me more unreasonable to set a limit to overcrowding houses on a given area than it is to require a definite cubic space for the inhabitants of common lodging houses. This rule could not, of course, be applied to existing houses, but the cubic contents of such houses or of houses built to replace them ought not to be suffered to be increased unless this rule or something like it be observed. If we allow the cubic contents of buildings to be indefinitely increased regardless of the question of curtilage, as is being done in every part of London, it is certain that the condition of public health must steadily deteriorate. To imagine otherwise would be to give the lie to those elementary facts of physiology and hygiene which are universally admitted. To purchase plots of vacant ground at exorbitant rates, and miscall them "lungs," is no true remedy for overcrowding. The only true remedy is to have the open ground dovetailing with the houses. Let us also remember that overcrowding in the daytime is no less harmful than overcrowding at night. The citizens of London have seldom had an eye to anything except immediate profit. They allowed Moorfields and the Drapers' garden to be sold for enormous sums, without a thought for the health of the thousands of young men and women who daily toil in this overcrowded spot; and they have taken no heed of the Registrar-General's returns, which are telling them that the death-rate at the prime of life (i.e., between the ages

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of thirty-five and sixty-five), which has been steadily rising for the whole kingdom, is nearly 70 per cent. higher in London than it is in the best country districts. No regulation other than the insistance upon a proportion being observed between cubic contents and curtilage would serve to check overcrowding. An arbitrary rule to limit the height of buildings is not sufficient, because if the builder be not allowed to soar he will commence to burrow as he is doing in Chicago, and as he has done for many years past in London. A crying need in London is for back doors and back streets between the houses for delivering goods, and beneath which could be laid the various subterranean pipes and wires, the repairing of which is so frequent a cause of blocking the main thoroughfares. A system of back streets would do more to facilitate the traffic of the thoroughfares than a similar addition made to the width of the main streets.

I am told that the views I have been laying before you are impracticable because overcrowding is necessary for business, and it is asserted by some that the commercial prosperity of this country and America is largely due to the fact that the business men are content to literally crawl over each other in an ecstasy of frenzied competition which is making existence a burden. I feel convinced, however, that this question of overcrowding on space is one which must be dealt with in the future in no niggardly spirit, and that our national and commercial prosperity very largely depend on our willingness and ability to face it. The inadequate housing of the working classes has, I believe, more to do with their chronic discontent than is generally supposed. A real "home," be it remembered, is a very different thing from a room in a barrack. A home that is clean and bright and beautiful, the beauties of which have increased year by year under the owner's fostering care, where the children have space to grow up healthily, and where there is some escape from the dirt and din of the workshop—a home in which it is possible to take a pride, and which is a source of daily pleasure—is something which a man will weigh carefully in the balance before he lightly determines on throwing up his employment. A decent home without sufficient space is impossible, and the sooner that great industrial companies and employers of labour grasp this idea the better. That the labouring classes are beginning to grasp it is shown by the recent agitation in the East-end of London against replacing the two-storeyed houses by industrial barracks. The fashion of piling people in heaps, and offering them libraries and bagatelle tables as a compensation must come to an end, and I look forward hopefully to the working of the Allotment Act, especially when it is recognised that the proper place for the allotment is round the house. Thirty perches (rather less than a fifth of an acre) is the maximum amount of garden which a man can cultivate at his leisure, and it is the little bit of garden which converts a dwelling into a home, which provides a delightful occupation for a man's leisure hours, which freshens the air round the dwelling, which keeps a man from the tavern and the sixpenny betting hell, and which is capable of turning all the refuse of the house into profitable garden produce. Not much improvement is to be looked for until the conscience of the educated and upper classes has been roused. As long as persons in high position are content to leave their broad acres and swelter for the season in highly decorated "bijou residences," where the servants are poked away underground or in miserable attics, not much improvement can be expected. Many of the persons who come to London for the season are philanthropists whose hearts "bleed" for the miseries of the East-end. These people forget that when they come to town they make it necessary for humbler people who minister to their wants to come to London also; and that, if they who are wealthy are content to live on a very insufficient area, their poor dependents must necessarily be packed together in great discomfort and at the cost of their physical and moral wellbeing. Let those who are sorry for the state of overcrowding in cities stop out of them, and spend their incomes in the country. If they can succeed in making those who live round them in the country happy and contented, and thus check the rush for the towns, they will do infinitely more good than by subscribing to city missions or "People's Palaces." Unless we can succeed in checking the overcrowding of cities by some such regulation as that which I have suggested, I believe that all the money we have spent and are spending on so-called sanitary improvements to be money thrown away, and that, in so far as modern hygienic methods have enables people to live closer packed than heretofore, I believe they have worked mischief rather than good. Those who have the control of developing districts will do well to keep them as rural as possible, and encourage private gardens by every means in their power. The house ought to be taxed in proportion to its size, and not the garden round it; for a garden is a great boon in a town, even to those who do not own it, because it serves to keep the dwelling-houses asunder. A person who owns a garden may, if he be so minded, be quite independent of the sanitary authority; and a wise sanitary authority will do well, by a remission of taxation, to encourage him by every means in its power. So long as sanitary authorities are content merely to encourage the jerry builder by clearing up his messes and making good his deficiences, not much improvement is to be expected. Such policy may be "good for trade," but it is not good for the public health.

Finally, one hopes that it may be increasingly possible for a man to own his dwelling and the ground around it, and that the transfer of land may be much facilitated. I am not going to embark on a discussion as to the relative advantages of large and small holdings; but I would merely remark that it is certain that no one is so likely to do justice to the land and to improve it as the absolute owner, whether he own a thousand acres or only one. If a man owns a bit of land, be it farm or garden, he is bound in self-defence to make the best of it, and he can have no object in quarrelling with, cheating, or shooting his landlord. This last is a point which political economists not unfrequently neglect. We are often told that large holdings are more economical than small ones, and it is pointed out that on the farms of our large proprietors the yield per acre is greater than the yield on the land of the peasant proprietors of France or elsewhere. Our big farmers, however, have not of late years grown rich, and I do not think that free trade is the sole cause of this. Is it not possible to farm too high for profit? We may drive a steamship ten knots an hour at a profit, but lose by attempting to get fifteen knots out of her. So I fancy that much of the profit of farming is frittered away in a lavish expenditure on artificial fertilisers, in the desire to get excessive crops. Small holdings and gardens and what I have called the dovetailing of the houses and the land have two advantages which are often lost sight of. The first is that the producer and consumer are largely identical, so that the middleman and free trade are alike powerless to do him harm. The second is that all the refuse of the house is available for the land, and in proportion to its amount is the expense of buying "artificials" and the risk of keeping stock done away with. The key to good agriculture is thrift, and no arrangement more thrifty than that which I have indicated can be conceived. The key to good sanitation is agriculture, and therefore no effort should be spared to maintain a rural element even in our great industrial centres.

A Clinical Lecture

ON

THE TREATMENT OF SPINAL AND OTHER TUBERCULAR ABSCESSES.

Delivered at the London Hospital,

BY FREDERICK TREVES, F.R.C.S.ENG.,

SURGEON TO THE HOSPITAL.

GENTLEMEN,—Among the advances which may be claimed for surgery in recent years must be placed an improved treatment of abscess, and especially of that chronic form of abscess which depends upon tubercular disease. For a considerable period the whole art and science of the treatment of suppurating cavities was embraced by the advice, "*Ubi pus, ibi evacua.*" Into the abscess a very tardy and very small incision was made. The position of the cut was unimportant. If carried out with a dirty lancet it mattered little. Following upon the operation came a squalid and unwholesome period of poultices and foul dressings, and after that, as a rule, hectic and the burrowing of pus. The

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subjects of large abscess who escaped death in those days had not to thank the surgery of the time. The introduction of the principles of drainage and the teaching of antiseptic surgery brought about a revolution in the treatment of the abscess. The incision made was free, and was so placed as to allow of the readiest escape of the matter. Every step was taken to keep the abscess cavity not only empty, but also surgically clean. The treatment involved considerable trouble, but it was attended by excellent results. In dealing with minor abscesses—especially in children—little fault can be found with this method even at the present time. In order to ensure the most complete and ready evacuation of the pus in psoas abscess I urged—in a paper read before the Royal Medical and Chirurgical Society on Jan. 8th, 1884—that such abscesses should be opened from the loin. I described the steps of an operation whereby the psoas muscle could be safely reached through an incision at the outer margin of the erector spinæ. The wound thus made opened the abscess at its most dependent point, and evacuated the pus by the most direct route. It enabled the surgeon also to examine the vertebræ in the lumbar region, and in children and slender adults such an examination is readily carried out. In the first case recorded I removed from the spine a large sequestrum involving the greater part of the body of the first lumbar vertebra. The patient was a woman aged twenty-one, in Mary ward. Since then there have been many cases in my wards in which the simple draining and frequent irrigation of a psoas abscess have been followed by cure, but I would have you note that in these successful cases the patients were young children.

The lumbar incision is not possible when such deformity exists as brings the ribs close to the iliac crest, nor is it easy in the person of a very tall and fleshy adult. The invention of the sharp spoon and the method of removing chronic inflammatory deposits by scraping introduced a new element into the treatment of tubercular abscesses. Mr. Barker and Mr. Bilton Pollard have reported cases of excision of the hip in which the inflammatory tissue was removed by scraping and flushing with hot water, and in which primary healing followed without the intervention of a drainage-tube.[1] These cases are very striking and remarkable, and afford a strange contrast to the results obtained in the past.

It is difficult to trace the origin of the method of treating tubercular abscesses by incision and scraping, followed by closure of the wound without drainage, but the procedure is very conspicuously associated with the name of M. Trélat, who carried out a large number of these operations, for the most part in small abscesses, in 1887.[2] Side by side with this plan of dealing with the chronic abscess comes the method by repeated aspiration, followed by the injection of a solution of iodoform. This procedure would appear to have been originated by Verneuil, and has been very extensively employed. Numerous examples of cure by this method have been reported. Such examples disarm criticism, but on theoretical grounds it is impossible not to urge certain objections against the procedure. In the abscesses we are now dealing with there is a considerable quantity of semi-solid matter which cannot be removed by the aspirator. This and the abscess "sac" are left behind, and would appear to provide the very material necessary for the foundation at a later period of a "residual abscess." In dealing with all tubercular affections a very free removal would appear to be of primary importance.

The operation.—I might now describe the particular method of treatment by scraping I have myself adopted, and will illustrate it by a series of examples. Certain of these cases you have seen for yourselves in the wards during the last few months. An incision is made into the abscess at the most convenient spot, and, whenever possible, at the most dependent point. It should be so placed as to command all parts of the abscess, and to allow of access to its remotest quarters. It must be made through perfectly sound skin. The pus is allowed to escape, and the abscess cavity is then washed out with a hot solution of corrosive sublimate of the strength of 1 in 5000. For this purpose a Leiter's irrigator of the largest size, and suspended at a height of twelve feet, is convenient. Many gallons of the solution are required. When the fluid returns clear the fingers are introduced into the cavity, and the caseous semi-solid matter which exists in such quantity in these abscesses, and which is not wholly removed by flushing, can be dislodged. By means of the fingers also septa in the cavity may be broken down, diverticula may be opened up, and by the aid of the finger nails a considerable quantity of the smooth slimy lining membrane of the abscess may be removed. Repeatedly the cavity is flushed out with the warm solution. The lining wall of the abscess is now carefully and thoroughly scraped with a Volkmann's spoon until the whole surface has been laid bare. Now and again the process is interrupted to allow of the cavity being once more flushed out so as to remove such débris as may have collected. The simple Volkmann's spoon has appeared to me to be a more convenient instrument than the ingenious flushing gouge invented by Mr. Barker and used by him with such pronounced success. The sharp spoon is more readily manipulated and is more completely under control, and in dealing with thin-walled abscesses within the abdomen this matter must be regarded as of vital importance. The rushing of water during the process of scraping with the gouge is a little confusing, and is apt to interfere with the precision of one's movements. In dealing with tubercular joints, Mr. Barker's instrument leaves little to be desired. After the scraping and flushing have been persevered with until all the lining membrane appears to have been removed there comes what I believe to be the most important part of the operation—the rubbing of the abscess wall with sponges, and the thorough drying of the cavity. I use small hard Turkey sponges in holders. The holders are shaped like slender pressure forceps of the largest kind, and are about a foot in length. By means of the sponges the whole of the abscess wall is vigorously rubbed, and it is surprising what a quantity of inflammatory material in the form of the slimy lining membrane, and even cheesy pus, comes away upon these sponges. It is at once made evident that much that it is necessary to detach may escape the sharp spoon, and that the stream of water will only remove such matter as is quite free. The sponging process is tedious, but it leaves the cavity practically dry. The abscess cavity is now a raw space almost comparable to that which would be left after the removal of a large and adherent tumour. If the proceeding have been successful, the great space should be free of all altered pus, and bared of all the lining membrane. In deep abscesses it cannot always be demonstrated that this has been done, but no pains should be spared in endeavouring to effect it. The operation may occupy more than sixty minutes when deeply placed abscesses in adults are being dealt with. The oozing of blood, which is at first considerable, soon ceases, and the last sponge used should be withdrawn practically unsoiled. The incision is now closed entirely with silkworm gut sutures. No antiseptic is introduced into the abscess cavity, and of course no drainage-tube is employed. A dressing of Tillmanns' linen or cotton-wool dusted with iodoform is applied, and, whenever possible, I endeavour to obliterate the abscess cavity to some extent by suitably placed pads and pressure.

The value of the method is illustrated by the cases which are about to be described. In the simplest of these the cure is rapid and complete; the wound heals by first intention; there is no pain and no rise of temperature; the abscess is as completely removed as is a dermoid cyst which has been dissected out. A sufficient time has to elapse to allow of sound healing, and after that the patient may be considered to be well. Examples of such an issue are afforded by Cases 1, 2, and 3. It will be noticed that two of these are instances of large abscesses in patients of seventeen years of age. These are cases which test the value of any measure of treatment. Abscesses in young children often do so well after even the most rudimentary treatment that they can hardly be quoted as demonstrating the superiority of a particular method. Large chronic abscesses in adults are, however, not so amenable to the simpler surgical measures. Had Cases 2 and 3 been treated merely by incision and drainage, there would have been great risk of tedious suppuration, of long confinement in bed, of hectic fever, of a wearisome sinus, and of a greater or lesser degree of exhaustion. As it was, the whole trouble healed up practically under one dressing.

An abscess which has been already opened by a simple incision, and which has become utterly septic, may be treated in the manner described, and may yield an excellent result. This is illustrated by Case 4, in the person of a boy aged fifteen.

In dealing with spinal abscesses certain difficulties arise,

[1] Brit. Med. Journ., Jan. 19th, 1889, and Nov. 1st, 1890; Med.-Chir. Trans., 1889 and 1891.

[2] See Congrès pour l'Étude de la Tubercule, 1re session, 1888, p. 586.

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the chief of which depend upon obstacles in the way of the complete evacuation of the abscess and the complete removal of its lining membrane. The depth of the cavity, its great length, and its position within the abdomen (assuming it to have followed the psoas muscle), place difficulties in the way of the treatment I have detailed. In the cases described two of the patients were children and two were adults. In the former the operation was carried out a little late. In one of these the skin gave way, and an open wound resulted. It must be noted, however, how the scraping and irrigation had affected the issue. The cavity seems to have closed almost from the first. It contained no material capable of developing a rapid decomposition. There was no rise of temperature, and the resulting sinus was not long in closing. Cases 7 and 8 (adults) call for little comment. In such examples of abscess, it must be remembered that another element assists in the healing of the suppurating cavity, and that is the long confinement in bed, rendered necessary by the disease in or about the vertebral column. In the last recorded case the abscess was opened twice. It would have been better if the second incision could have been replaced by aspiration and the injection of a solution of iodoform. As the greater part at least of the curdy contents and the thick lining membrane had been already removed, the condition of the cavity was favourable for such treatment. The abscess, however, was comparatively small, and was so deeply placed near the median line as to render aspiration distinctly dangerous. I had already ascertained that its anterior wall was thin, and was in immediate relation with the peritoneum and non-adherent intestine. I think, however, that this should be the treatment aimed at whenever aspiration may be attempted with safety, and the surgeon is satisfied that the abscess cavity has been thoroughly evacuated at the first operation.

CASE 1. *Femoral abscess.*—A girl aged five was admitted on Sept. 19th, 1891, with a very large and deeply placed abscess at the upper and inner part of the right thigh. The child had been lame in the right hip for several months. There was a history of scrofulous disease in the family. On Sept. 26th the abscess was opened by a two-inch incision, and treated as above described. The abscess cavity reached from Poupart's ligament to the middle of the thigh, and was subfascial; it healed by first intention under one dressing. There was no rise of temperature. She left the hospital in thirty-four days, free from lameness or any other symptom.

CASE 2. *Iliac abscess.*—A young woman aged seventeen, anæmic and unhealthy-looking, was admitted on Sept. 24th, 1891, with a tumour in the left iliac fossa, which had at one time been considered to be a dermoid cyst of the ovary. The patient had had strumous glands in the neck; one sister had such glands in the neck now. Her father's brother died of phthisis. The swelling had been noticed eight months; it reached to the margins of the ribs above and to the median line of the abdomen on the inner side. Below it filled the iliac fossa, and extended down the thigh for eight inches below Poupart's ligament. No pain or tenderness was complained of. Menstruation had been absent for five months; spine apparently sound; temperature between 99° and 100·6°; abscess evacuated on Oct. 5th by a three-inch incision close to the anterior superior iliac spine; forty-three ounces of thick pus evacuated with much curdy matter; cavity treated as above described; healed by first intention under one dressing; temperature remained normal. She left the hospital on the twentieth day sound and well. The whole of the iliac fossa was now resonant on percussion, and no trace of the abscess sac could be discovered.

CASE 3. *Iliac abscess.*—A young man aged seventeen, tall and delicate-looking, of a tubercular family, was admitted on Nov. 16th, 1891. An abscess extended from the left iliac fossa on a level with the summit of the iliac crest down the thigh for a distance of two inches and a half below Poupart's ligament. There was no evidence of disease either in the hip-joint or in the spine. The patient had, however, been confined in bed for a period of five months. The abscess was opened on Nov. 20th, just below Poupart's ligament. More than thirty ounces of pus were evacuated and much semi-solid matter was scraped away. The cavity was treated in the manner above described. The wound healed by first intention under one dressing. There was no rise of temperature. The patient, who was enfeebled by long confinement in bed, got up on the twenty-first day, and left the hospital on the forty-second day. Of the abscess sac no trace could be discovered.

CASE 4. *Septic abscess about the hip.*—A boy aged fifteen was admitted on Nov. 16th, 1891. Symptoms of hip disease began two years ago. These improved with rest, but returned as the patient attempted to move again. He had been confined to bed since July last. In that month an abscess was discovered on the upper and outer part of the thigh. This was opened by a medical man by means of a small incision less than one inch in length, and was not drained. Pus had discharged ever since—i.e., for four months. Just before admission the little wound had closed. The patient presented the symptoms of hectic, and was much emaciated. He was miserably ill, and had a troublesome cough. A large abscess with thin walls was evident on the outer side of the thigh. It was opened on Nov. 21st by a six-inch incision. Two pints of very foul pus were let out. The abscess cavity was treated in the manner above described, and the wound was closed. On the eleventh day the thinned skin gave way at one point, but the escape of matter was small, and it was evident that the great abscess cavity was practically closed. There was no rise of temperature, which ran to between normal and 99° a few days after the operation. A small drainage-tube was inserted into the sinus thus produced, and passed in one inch and a half. The discharge soon ceased, and the tube was removed. The patient was up on Jan. 1st, and a few days later the little sinus was soundly healed. On Jan. 20th he was able to move about on crutches, and on the 22nd he left the hospital greatly improved in health and appearance, and with no local symptoms except a stiff hip-joint.

CASE 5. *Spinal abscess in a child.*—A little girl aged seven years was admitted on Feb. 6th, 1890, with a large psoas abscess on the right side actually pointing below Poupart's ligament. There was caries in the lower dorsal region. The thigh was much flexed. The abscess was opened from the loin on Feb. 14th by the incision already recommended, and the cavity was treated in the manner above described. A pint and a half of curdy pus was evacuated. The incision was then closed. In the course of a few days the thin and reddened skin in the groin, where the abscess was pointing, gave way. Later on I reopened the wound in the loin, to allow of more free washing out of the cavity, which soon assumed the dimensions of a small sinus. This in due course healed soundly, and the child's recovery was complete. She was kept in bed several weeks as a precaution, and was discharged cured on June 22nd.

CASE 6. *Spinal abscess in a boy of thirteen.*—The patient was admitted on Feb. 6th, 1891. Several members of his family had died of phthisis. The patient was very ill; his temperature was 103°, and he complained of great pain in the back. A lumbar abscess, dependent upon disease in the lower dorsal spine, was evident. It was incised, irrigated, and scraped on Feb. 14th. Up to this time the temperature had varied between 100° and 103°. Twenty ounces of pus were let out. The wound was then closed. The temperature fell next day to 99°, and soon became normal. On Feb. 19th a fulness appeared at the site of the wound. The wound was opened, and a little pus escaped. No drain was needed, so slight was the discharge. This little sinus was entirely closed on March 18th. After a few more weeks' rest the patient was allowed to leave the hospital on April 7th, and was then quite sound.

CASE 7. *Spinal abscess in an adult; paraplegia.*—The patient, a gentleman aged twenty-two, came under my notice on June 20th, 1890. Symptoms of spinal caries had appeared without apparent cause nine months previously. Complete paraplegia with loss of power over the bladder and rectum had existed since Feb 20th. There was evidence of disease in the second and third lumbar vertebræ. Some swelling in the right psoas muscle was detected, but it was not sufficiently definite to demand treatment. The patient was kept rigidly in the recumbent position. By January, 1891, the paraplegia was much better, but the condition of the bladder remained unaltered. A psoas abscess on the right side was now evident. It was near to the median line. The patient was a man of exceptional stature, and I came to the conclusion that the abscess could not be reached through the loin. It was opened from the iliac region, and was reached behind the peritoneum with much difficulty. The amount of pus which escaped was estimated at twenty-five ounces. The cavity was dealt with in the

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manner already described. Its great depth rendered its complete erasion difficult. The wound was closed. In three weeks' time some swelling was noticed under the firmly healed cicatrix. This was cut into, and a little pus—an ounce or less—escaped. The resulting sinus healed without difficulty. The patient was still kept in the recumbent position. He was allowed to get up on July 20th, 1891, with a spinal jacket on. He had by this time entirely recovered from the paralysis of the lower limbs and the bladder. He spent the rest of the summer at the seaside, and in the late autumn went abroad. No trace of the abscess sac could be discovered, and his recovery was in every respect complete.

CASE 8. *Spinal abscess in an adult.*—A gentleman aged twenty-eight had complained of spinal symptoms since 1886. In this year deformity and rigidity of the lumbar spine were noticed, the most prominent spinal process being that of the first lumbar vertebra. The pain in the back became more severe and spinal supports were worn. With the aid of these the patient, who was a very active man, was enabled to attend to his profession. I saw him in January, 1890. He then had a large psoas abscess on the right side; no paraplegia or other signs of paralysis. On Feb. 9th, 1890, I opened the abscess through the loin incision. It was reached with difficulty, owing to its having avoided the lumbar region; a pint and a half of very thick pus was evacuated. I was able to examine with the finger the bodies of the lumbar vertebræ, and found them free from any active disease. They had, however, been considerably deformed by old caries. The abscess cavity was treated in the manner already described, and the wound was closed. The patient was kept absolutely rigid upon the back. Six weeks after this operation I discovered once more a fulness in the right psoas, together with distinct fluctuation. The swelling was close to the median line. I was convinced that aspiration would be dangerous. The pus could not be reached from the front without penetrating the peritoneum, and the depth of the collection from the loin rendered a determined puncture in that direction distinctly hazardous. I once more opened the abscess from the loin, cutting through the firmly healed scar. Owing to its depth and comparatively small size I had very considerable difficulty in reaching the collection. Only six ounces were evacuated, which were composed of thin laudable pus, serum, and blood. The first abscess had contained much curdy or semi-caseous matter, but there was none in this. The abscess was treated in the same manner as before, and the wound was once more closed. It healed soundly by first intention. The patient was kept upon his back until June 1st, 1891, when he was allowed to get up with a spinal jacket. For some months after the second operation the site of the abscess sac could be made out on palpation, but no fluctuation was ever discovered. In due course all trace of the sac disappeared, and the patient's recovery has been in every way complete.

ON "POST-EXPIRATION" FRICTION SOUND.

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A PHYSICAL SIGN of pulmonary or cardiac disease which has escaped, or appears to have escaped, the observation of clinical investigators can hardly be one that is either very evident or very common; and there is this unfortunate circumstance connected with any stethoscopic sign, such as the one to which I am about to refer, that it is essentially a matter of personal observation and capable of demonstration to so very limited a degree. I feel therefore, and have felt from the first, at a disadvantage in dealing with a question of this kind; but I can say at the same time that it has made me the more severely critical of my own observation, and slow to proclaim the result. Indeed it is chiefly with the hope of eliciting corroboration that I do this now, and I am far from thinking that there is anything of essential value in the point that I am about to notice, or that I have anything in the way of a discovery to bring before the profession. I only say that I cannot find any reference in any text-book with which I am acquainted to this "post-expiration" friction sound, as I would call it. I have no record of when my attention was first directed to this particular form of friction sound, and for that reason I shall be more precise in narrating how I referred to it when I noted it for the first time in my ward journal.

J. C——, a miner aged forty-seven, was admitted to Ward 12 of the Glasgow Royal Infirmary, under my care, on Sept. 2nd, 1887, suffering, as was said, from "bronchitis." The report of my then resident physician (Dr. Ord) states that the patient had to give up his work a fortnight previous to admission on account of a pain in the left side attended with difficulty of breathing, severe cough, and very little expectoration. On physical examination he found that there was some slight dulness at the base of the left lung posteriorly, and that a little higher up friction sound was heard. There was no evidence of disease of any other organ. On the following morning I detected the friction under the left scapula, and had my attention at once arrested by the peculiar short jerky rub that succeeded each expiration—i.e., it followed the completed expiration movement of the chest wall. The peculiarity was quite distinct, and was easily recognised by my assistant and the senior students. I spoke of its being no novelty to myself, although they would not find it referred to in their text-books, and added that I would be glad to hear from any of them, should they happen to meet with it in their practice. For the next few days the phenomenon was freely discussed by us, and I pointed out that it seemed as if the one roughened pleural surface was caught and held by the other, and only set free with a sudden jerk when expiration was completed; or else that some further movement of the visceral pleural surface occurred after the costal expiratory movement had ceased. The friction sound and the other symptoms and signs of pleurisy gradually passed off; there was nothing else of special interest in the case, and the patient was dismissed well on Oct. 7th. The matter not being of any great practical importance, I determined that I would wait for one more example of the phenomenon before putting it on record, and I do not think I shall be charged with a too lively imagination when I say that I did not hear it again unmistakably until a few weeks ago, although I have had many opportunities of listening to friction sound since then, and of studying it quietly and at leisure in hospital. I shall confine myself almost entirely to the relevant features of the case.

P. D——, twenty-seven, labourer, was admitted on Jan. 19th, 1892, to Ward 7 of the Royal Infirmary, complaining of "bronchitis" of two weeks' duration. He was very ill and weak on admission, and only a partial physical examination of his chest was made. Under Jan. 22nd there is a note of a comparatively rapid examination by myself—rapid because the patient was still weak and very short of breath. I found that there was little respiratory murmur to be heard over the lower half of both lungs posteriorly, and what was heard was accompanied by fine mucous râles, with here and there a faint cooing râle. I concluded that the patient was suffering from a diffused broncho-pneumonia. Again, on January 25th, I made a pretty full note, but will only quote the closing paragraph: "Dr. Anderson particularly notes at various points over the lower right lung posteriorly a râle or sound of some kind that is certainly 'post expiratory'; that is, it occurs after expiration movement of the chest wall has ceased—a shuffling or rubbing-like sound; but the character of the sound itself is not such as to point quite definitely to friction, though suggestive of it. To this extent the sound is corroborated by Dr. Scott Macgregor and Dr. J. A. Wilson. Dr. Anderson hears it again by immediate auscultation." This is the note as it stands. I meant that without being committed to the pathological explanation, but considered simply as a physical phenomenon, my tutorial assistant and my house physician were quite certain that the sound occurred *after* each completed expiratory movement. This friction-like sound was, on this first occasion of its being heard, concealed to some extent by other râles, and I was anxious to exercise every care in the investigation. But on the next day (Jan. 26th) there is the following note:—"To-day Dr. Anderson observed that the râles had cleared up considerably, and that the sound which yesterday he heard through these râles, and thought was pleuritic friction, comes out now quite distinctly, and there is no doubt in his mind as to its being friction occuring after expiration." On the 27th I note that "the post-expiratory phenomenon has quite disappeared," and, beyond the suspicion of its

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being heard once on the left side, there is no further reference to it. The notes that follow deal entirely with the increasing gravity of the case from the advancing implication of the lungs themselves. The patient died on Jan. 31st.

A post-mortem examination was made on Feb. 3rd by Dr. Lindsay Steven, pathologist to the infirmary. His summary of the lung condition is: "Emphysema; right pleurisy; left pleuro-pneumonia; bronchitis;" and he goes on to say—"the right lung is extremely emphysematous, and almost its whole pleural surface covered with a very slight fibrinous exudation. The bronchial mucous membrane is intensely congested, and muco-purulent material issues from the fine branches. At the base of the left lung there is a pretty copious recent fibrinous exudation corresponding in extent to an area of solidified lung tissue. In the lower lobe the solidified lung sinks in water, and presents the characters of red hepatisation. It is obvious that the patient has been developing a pleuro-pneumonia in the left lung; the bronchial mucous membrane is also extremely congested." I was present at the post-mortem examination, and saw no such roughening of the pleura as would be likely to make the one surface actually catch on the other; but then it will be observed that during the last five days of the patient's life there was no post-expiration sound heard.

With regard to the cause of this particular form of friction sound, there can be little doubt that the catching of the one surface on the other, and movement of the lung after the costal contraction of expiration has ceased, may both be factors in its production. The play of the one surface on the other, noiseless and frictionless in health, needs no remark; but it is also recognised that the lungs themselves, even at the end of expiration, are to some degree in a state of distension. "The elastic pulmonary tissue," says Foster, "is always to a certain extent on the stretch; it is always, so to speak, striving to pull asunder the pulmonary from the parietal pleura." Might we not rather say, at least of the lower lateral and posterior regions, "striving to pull down the pulmonary along the parietal pleura?" In the last case I imagine that it is quite likely that the movement of the lung surface after costal movement had ceased was the chief cause of the phenomenon; but my recollection of the other examples, of the sudden sharp sound like that occasioned by an elastic band being set free, conspicuously different from the rhythm of respiratory movement of any kind, completely convinces me that in these earlier cases the one surface was for the instant actually held by the other, and then suddenly let go. But I said I would do little more than record the fact. I would only add that of course in the case of the emphysematous chest the movement of air within the lung, especially if there be bronchitis, may often be conveyed to the ear after costal movement over the affected area has ceased, for obviously there might be almost no movement at all. But while that is also not without interest, the question is not now before us, and there was neither the emphysematous chest wall in any of the cases observed (though Dr. Steven found emphysema of one lung itself), nor did I ever confine my attention to the movement of any one part of the thorax, but observed it as a whole.

Glasgow.

REMARKS ON SOME FORMS OF ACUTE URINE FEVER IN SURGICAL PRACTICE.[1]

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RESEARCH has made considerable progress since Civiale published his important treatise[2] on the subject, and we have now to discuss the pathology of urine fever from a bacteriological as well as a clinical aspect. It is, however, to the latter I shall chiefly address myself. In order that I may be as brief as possible, let me mention in a few words the type of cases I am referring to.

CASE 1.—A patient with a urethral stricture, but otherwise in good health and without any physical evidence of kidney disease, undergoes the comparatively slight operation of internal urethrotomy. Within a short time afterwards he is seized with a rigor, his temperature suddenly rises, and he perspires freely. This process, resembling in some respects a malarial fever, may or may not be repeated one or more times, and the patient makes a good and rapid recovery.

CASE 2.—To take another illustration, such as one amongst those recorded by Mr. Mitchell Banks.[3] A man about thirty years of age had a small bougie passed through a tight and long stricture commencing at two inches from the meatus, having on previous occasions, at short intervals, submitted to a similar proceeding. Half an hour afterwards he vomited, a rigor supervened, and the vomiting continued. Then the rigor was repeated, accompanied with a rapid pulse; a convulsive tremor followed, and death took place six hours and a half after the introduction of the bougie. Post-mortem examination records that beyond the presence of a long stricture and some slight congestion of the kidney all the organs of the body were healthy.

CASE 3.—I have published the particulars of the following case.[4] In 1886 I saw a healthy boy aged eleven years who had partially ruptured his membranous urethra by falling astride on his perineum. With a little trouble I passed a catheter and drew off over a pint of bloody urine. The catheter was retained. Forty-two hours after the injury he was seized with convulsions, which recurred at intervals, with much violence, attended with opisthotonos. He could not swallow though the jaws were not fixed, and he became comatose and died in eight hours after the convulsions set in, that is to say, fifty hours after the accident. An hour before death he had a temperature of 104° F. There was no post-mortem examination.

These cases, I submit, all belong to the same group, and though fatal instances are comparatively rare, most surgeons must have seen illustrations of them. That effects such as here shown are coincident with or consequent on bacteriological changes, primarily in the part injured and secondly by systemic infection, there can, I think, be no doubt. This aspect has been well studied by Dr. Noël Halle,[5] and the results of his investigations in M. Guyon's laboratory at the Necker Hospital are worthy of careful attention. It is to the clinical conditions which seem to favour or hinder the production of such bacteriological changes that I wish briefly to allude.

I was led up to making these observations by noticing the differences relative to the liability to a distinctive fever that existed between various kinds of lesions of the urinary apparatus. For instance, such an effect was rarely observed after cutting operations for the removal of stone from the bladder, or after perineal section for stricture, whilst in some degree it commonly occurred after internal urethrotomy. In a paper on this subject the late Mr. Teevan[6] referred to the frequency of rigors and fever after this operation as amounting to about two-thirds of his cases, a proportion much in excess of what is now observed where antiseptics are employed. Again, in accidental lesions of the deep urethra unattended with any breach of skin surface, as in those caused by falls on the perineum, it was frequently noted that rigors and fever supervened where their treatment was attempted by the retention of a catheter in the bladder by the side of which urine leakage took place, whereas in those instances where continuous urine drainage was provided by a free perineal incision such effects did not usually follow. Further, the occurrence of fever seemed in no way influenced by the degree of the lesion that was inflicted, some of the worst effects being noted after the passage of a bougie or catheter where the wound was extremely small, perhaps not amounting to more than an abrasion of the protective epithelium lining the urethra. Observations such as these appeared to indicate that certain distinctions in the mechanical construction of wounds were more potent contributory causes of what followed than mere textural limitations.

In view of such differences and the extreme frequency with which internal urethrotomy was then followed by varying degrees of fever, in some instances terminating

[1] Read in the discussion on Le Pathogénie des Accidents Infectieux chez les Urinaires at the Congrès Français de Chirurgie, April 20th, 1892.
[2] Nouvelles Recherches sur la Fièvre et quelques Phlegmasies spéciales qu'on observe dans les Maladies des Organes Génito-urinaires. 1860.
[3] Edinburgh Medical Journal, June, 1871.
[4] Surgical Disorders of the Urinary Organs, third edition, Churchill, 1887.
[5] De l'Infection Urinaire: Annales des Maladies des Organes Génito-urinaires. Paris, Feb. 1892.
[6] Brit. Med. Jour., March 16th, 1878.

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fatally with suppression of urine, and also having regard to the more permanent improvement of the stricture by the completeness of the rest afforded, I materially altered my plan of procedure. In a number of cases of advanced urethral stricture in the deep urethra, which did not yield to treatment by dilatation, I first made a section of the contraction from within the canal by Maisonneuve's urethrotome. This at once permitted the passage of a full-sized grooved staff, such as is employed in median lithotomy, along the urethra into the bladder. The patient being next placed in the lithotomy position, the median perineal boutonnière operation was then practised solely for the introduction of a gum-elastic drainage-tube of full calibre into the bladder. This was secured in position by tapes so as to cause the whole of the urine as excreted to escape through it. The drainage-tube was usually retained for about seven days and then withdrawn. As the perineal wound proceeded to heal, as it usually did in the course of a few days, a bougie was passed from time to time along the whole length of the urethra, so as to maintain the normal dimensions of the canal. Fuller particulars of this proceeding, together with a number of illustrative cases, were published some years ago,[7] and I have since continued to practise it in some kinds of advanced urethral stricture in preference to the ordinary form of perineal section, to which it only has a slight resemblance. The point, however, upon which I desire to lay stress in connexion with this proceeding is this—that the combination of internal urethrotomy with means for securing efficient urine drainage, independently of antiseptics, entirely prevented the rigors and fever such as were constantly observed when internal urethrotomy was alone practised—any exceptions to this rule being directly traceable to faulty urine drainage. In twenty-three consecutive cases where the double proceeding was practised, neither rigors nor fever were observed, the elevations of temperature, which were rarely noted, being such as are met with in the simplest forms of surgical practice. These observations corresponded with what was noted in connexion with the treatment of accidental lesions of the male urethra from falls and blows on the perineum, where the conditions were similar. From my experience of the rigors and feverish elevation of temperature occurring in connexion with lesions and operations involving the urinary apparatus, there appears to be only one form which is difficult of explanation by any septic view. This is the shivering which not unfrequently supervenes, when, after lithotomy and operations of a similar kind, urine is passed naturally along the whole length of the urethra for the first time. For some years past I have been practising perineal section of the enlarged prostate, when it caused such a degree of obstruction to micturition as not to be amenable either to catheterism or any other form of treatment. After division of the obstruction has been effected in this way a gum-elastic drainage-tube is introduced into the bladder and retained for some days, according to circumstances, so as to render the prostatic section permanent. Then the drainage-tube is removed and the perineal wound allowed to heal. I have now done a considerable number of these operations, and have frequently noted that when natural urination is for the first time resumed quite a sharp shivering attack almost immediately supervenes. This is usually followed by elevations of temperature which decline in a day or so. Two recent instances will be stated.

CASE 4.—On Feb. 9th, 1892, when performing lithotrity for a patient aged forty-nine, with a urate stone, a large triangular fragment became so firmly impacted in the urethra in front of the prostate that I completed the operation by a median cystotomy, through which I readily extracted all the débris. I put a large drainage-tube into the bladder. His temperature remained normal till the twelfth day, when he micturated naturally. This was immediately followed by a sharp rigor and an elevation of temperature to 100·4° F. No further rigors were noted, and recovery proceeded without interruption.

CASE 5.—On Feb. 27th, 1892, I divided the prostate of a patient aged fifty-three, who had been suffering from difficult urination, due to hypertrophy of the floor of the prostate for five years, having been entirely dependent on the use of the catheter for over one year. The latter became so irksome and painful to him that he determined to have the floor of the gland divided. This was done, and a drainage-tube introduced. No rigors or elevation of temperature followed. On the twentieth day the drainage-tube was removed, and he shortly afterwards micturated naturally for the first time for over a year. This was followed by a sensation of chilliness, headache, an elevation of temperature to 101·4° F., and a dryness of the skin with thirst. These symptoms declined, a free diaphoresis took place, and recovery was complete.

What is the significance of these manifestations? I believe their causation to be quite distinct from those previously referred to. In the first place, the sensation of chilliness commences on the conclusion of the first act of normal micturition; it does not usually recur; there is no incubative period. I am not aware of any evidence to show that these symptoms ever, either immediately or remotely, proved fatal or even serious, nor have any indications of a systemic or an infective nature, such as suppression of urine or suppuration, been observed in connexion with them. A rigor and the reaction following it is to be regarded as an expression on the part of the nervous system. It is by the circumstances attending the various manifestations of such a phenomenon that we are to judge how far the causes producing it are analogous. For the reasons I have stated it would appear that there is no correspondence in the two sets of conditions I have illustrated. Clinical observations relative to the whole subject seem to justify the conclusions (1) that the occurrence of a distinctive variety of acute fever following wounds of the urinary apparatus is largely determined by defective urine drainage; and (2) that the fever following these lesions is toxic and not neurotic.

In drawing the conclusion that urine fever is septic, I have not ventured to express an opinion as to the nature of the poison. Whether the poisonous effects are due to micro-organisms or to an alkaloid such as Bouchard[8] has described, has yet to be worked out. As bearing upon this point, let me quote a passage from an address by the late Dr. Austin Flint:[9] "The supreme objects of study in pathology at the present time are the discovery of micro-organisms and their natural history. But these agents, it is probable, are pathogenetic—not directly, but indirectly, by means of the toxical products of their activity. What are these products, and how do they give rise to the phenomena of disease? We may ask the same question of certain of the poisons introduced from without the body. How is it that fractional quantities of morphia, hyoscyamin, strychnia, aconitia, atropia, and other alkaloids produce their lethal effects? It conveys no adequate information to say that they act upon the nervous system. This is merely the statement of a fact, not an explanation. For the latter we must look to the organic chemistry of the future."

Lower Berkeley-street, W.

[7] Ibid., July 18th, 1885.

[8] Sur les Poisons qui existent normalement dans l'Organisme et en particulière sur la Toxicité urinaire: Gazette Hebdomadaire, April, 1886.

[9] The Medicine of the Future: Brit. Med. Jour., 1886.

VACUOLATION OF NERVE-CELL NUCLEI IN THE CORTEX IN TWO CASES OF CEREBRAL CONCUSSION.

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WHATEVER views may be held as to the function of nerve nuclei by various authorities, there appears to be a consensus of opinion as to the importance of the nucleus of the cell in maintaining the vitality and function of the chain of nerve connexion in which it is a prominent factor. According to Meynert, "the nucleus exercises a nutritive influence over the albuminoid protoplasm of the cell; and the nutrition of axis cylinders and of their prolongations, some of which become nerve cylinders, is effected in a similar manner."[1] According to Bevan Lewis,[2] the nucleus exercises an inhibitory action upon the special function of the protoplasm of its cell. But there are two different opinions entertained as to the nature of the nerve cell itself, and consequently as to the inherent relation of the nucleus to the cell substance. The first opinion is what I shall call the *ganglionic theory*.

[1] Psychiatry, p. 245. [2] Text-book of Mental Diseases.

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It is rather upheld by Max Schultze. This writer says: "Thus the cell constitutes a common point of union of numerous separate fibrils proceeding from widely different regions of the nervous system; and whilst one of these associated bundles becomes the axis cylinder of a fibre, and after becoming invested by a medullary sheath immediately runs peripherally, the others pass in unknown directions."[3] This view receives the support of many physiologists; recently Mercier[4] appears to take it for granted in an argument by which he endeavours to show from a teleological point of view the necessity for adopting this doctrine.

Such a view of nerve cells places them in the position of minute ganglia through which bundles of nerve fibrils pass in all directions, receiving in their passage nutritive and functional stimuli from the nucleus, which latter is said to be composed of embryonic protoplasm.[5] Certainly, the nuclear substance differs from the cell protoplasm in that it is not affected by dilute acids which destroy the cell substance. Further, it stains more intensely with some reagents (for example, hæmatoxylin) than does protoplasm; and, on the other hand, it remains unstained by reagents which colour protoplasm intensely—for example, chloride of gold.[6] The second view—that which regards the nerve cell as an independent unit from which arise the various cell processes—is championed by Meynert,[7] who shows that in young cells the nucleus is pyramidally shaped, like the cell itself, and that the angles and points of the nucleus are frequently produced into the processes of the cells—in short, that the axis cylinders are prolongations of the nucleus. This view is supported by Kühne's[8] researches, which show that both the nerve cells and the axis cylinders give the reaction for albumen, a kind of albumen which is insoluble in a 10 per cent. solution of chloride of sodium. Moreover, Mayer[9] has shown the continuation of the axis cylinder into the nucleolus. The same fact is supported by the observations of Beale.[10]

The whole question unfortunately still remains unsolved, for the lines of Schultze, which are so graphically represented in illustrations of large ganglionic cells running from process to process of the cell, and forming concentric circles round the nucleus, have been placed in an entirely new light. This striation, which Remak and Schultze[11] describe as fibrillar markings upon axis cylinders indicating bundles of nerve fibrils passing through the cell, has been shown by Rumpf to be folds of a keratoid sheath enveloping the cell, its processes, and the nerve fibres. There is, therefore, no direct observation upon the exact relation of the nucleus to the cell contents, and especially to nerve fibrils; but the strong presumption is that the axis cylinders and the cell processes originate in nerve nuclei. The reasons for this assumption are summarised by Meynert[12] as follows:—1. Because from the earliest period the nerve cells are independent units, and, according to Boll, the matrix protoplasm is the fused remnant of broken-up cells. 2. The cell processes originally start in the ganglion cell, and are mere prolongations of its protoplasm. 3. The axis cylinder develops out of special spindle cells in the medullary region, the protoplasm of which is continued into the grey substance of the cortex, and there splits up into very delicate fibrils which connect with the finest ramifications of the ganglionic processes. One fact is assured—viz., that the function of the cell nucleus in the cerebral cortex is of comparatively immense importance, for nowhere else in the body, except in the ovum, does the nucleus occupy so large a proportion of the cell space.[13]

The causes of nuclear vacuolation and the conditions under which it has been found to exist.—1. It has been held to be due to poisoning by phosphorus, antimony, or arsenic. Voit and Bauer produced vacuolation of the ganglionic cells of the spinal cord of dogs by poisoning the animals with phosphorus. Drs. Elkins and Middlemass[14] publish a case of phosphorus poisoning in which vacuolation of the nucleus, chiefly in the cells of the fourth layer, occurred conspicuously; and after a full description of the macroscopic and microscopic changes in the various organs of the body, they conclude "that the nervous system does not escape the action (fatty degeneration) which we know is capable of being produced by that poison in other organs. 2. It occurs in the course of various chronic degenerative changes in the brain, which are most commonly met with among the insane. Chief among those changes are the results of chronic alcoholic poisoning, where vacuolation of the nucleus may be met with throughout large areas of the sensory cortex. According to Bevan Lewis,[15] vacuolation of the nucleus is most commonly met with in the small cells of the second layer, and in that position constitutes the essential lesion of idiopathic epilepsy. He considers that in univacuolated cells the nucleus is the primary seat of the disease, and that the vacuolation is probably due to an intrinsic morbid factor in the cell itself.[16] Dr. James R. Whitwell,[17] in an article on the Nervous Element in Myxœdema, points out this condition to be one of the prominent pathological cerebral characteristics of that disease. In his report he states that the cells of the third and fourth layer were chiefly affected. In the cases which I describe below, and in which the changes were due, I think, entirely to direct cerebral violence, the vacuolation of the nuclei exists chiefly in the third and fourth layers of the motor and frontal cortex, and are in one of the cases only faintly apparent in the layers of the occipital and specially sensory cortex.

The manner in which head injuries act upon the brain cell is undoubtedly by affecting the blood and lymph circulation in the perivascular channels and the pericellular sacs. The reasons for holding this view are:—1. The extreme rapidity of the occurrence of the pathological change in question—after concussion, for instance. In Dr. Miles'[18] experiments the cellular degeneration was produced within fifty hours, and in one of the following cases within forty-eight hours. 2. The larger cells suffer primarily and chiefly. It is quite conceivable, and the theory is supported upon the authority of Ross,[19] and may, I think, be conceded that the larger cells suffer earlier than the smaller ones because of their greater bulk, and that their nuclei are principally affected on account of their distance from the circulating lymph and the consequent nutritive disadvantage of position. Where there is an interference with the free circulation of pericellular lymph, it is quite apparent that its action on the cell should be poisonous and destructive. Normal cerebral lymph is an alkaline fluid. After death,[20] or in pathological conditions,[21] it becomes acid. The chemical nutritive action of an alkaline secretion one would be inclined to suppose on *a priori* grounds to be entirely different from that of an acid one. That a vascular change accompanies chronic cell degeneration in insanity—such as alcoholism, general paralysis, and dementia—is undoubted, but the disputed point has all along been whether the cell degeneration or the vascular change was primary. That question, however, is not suitable for discussion here, but it may on all hands be conceded that a vicious circle of cause and effect is established.

In phosphorus poisoning the constituent elements of the vascular system seem to be simultaneously affected with the epithelial and other cells, including nerve cells,[22] the change which takes place being a nutritive one, and consisting in the rapid disintegration of albumen and its conversion into fat.[23] The cell change in concussion is undoubtedly of primary vascular origin, although, according to Miles,[24] there are actual gross protoplasmic disturbances in the cell, such as displacement of the nucleus and commencing pigmentation of the cell protoplasm. Duret[25] describes the vascular changes that occur after severe concussion. He states that there is first of all extreme vaso-motor contraction, due to over-stimula-

3 Stricker's Manual of Histology, vol. i., p. 185.
4 The Nervous System and the Mind, pp. 34-38.
5 Schultze: Stricker's Manual, vol. i., p. 186.
6 Quain's Anatomy, vol. ii., p. 10.
7 Stricker's Manual, vol. ii., 388.
8 Meynert: Psychiatry, p. 232.
9 Stricker's Manual, vol. ii., p. 548.
10 Transactions of the Royal Society, vol. cliii., p. 543.
11 Stricker's Handbook, vol. i., p. 170.
12 Psychiatry, pp. 63 and 64.
13 Quain's Anatomy, vol. i., p. 11 et seq.
14 Brit. Med. Jour., vol. ii. 1891, p. 1302.
15 Loc. cit., p. 523.
16 Text-book of Mental Diseases, pp. 481-2.
17 Brit. Med. Jour., vol. i. 1892, p. 430.
18 Vide Report from Laboratory of the Royal College of Physicians, Edinburgh, 1892.
19 Diseases of the Nervous System, vol. i.
20 Meynert: Psychiatry, p. 235.
21 Heynius and Preyer, quoted from Batty Tuke, Brit. Med. Jour., vol. i. 1890, p. 10.
22 Elkins and Middlemass, loc. cit. Voit and Bauer, loc. cit.
23 Lauder Brunton: Therapeutics, p. 711.
24 Loc. cit.
25 Traumatismes Cérébraux, pp. 70-73.

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tion of the vaso-constrictor centre in the floor of the fourth ventricle and the restiform bodies, by the excessive and sudden accumulation of cerebro-spinal fluid in that cavity, and that after a longer or shorter interval there is vaso-motor paralysis of the cortical arteries with consequent dilatation of their walls, and a tendency to congestion and stasis.

Again, Meynert[26] holds that the cortex itself is a vaso-motor centre which, when active, inhibits the lower (sub-cortical) centre, thus causing dilatation of its own arterial system. It thus becomes a workable theory that in concussion there is first arterial contraction due to mechanical stimulation of the vaso-motor centre in the medulla, and, secondly, arterial dilatation due to a morbid activity of cortical cells after the shock-producing inhibition of the same vaso-motor centre. The bearing of these observations upon the question of cell nutrition and cell degeneration is not affected by the fact that in the majority of cases the condition of vaso-motor paralysis is a temporary one. It may be sufficiently prolonged to produce death by impairing the nutrition of the thermotaxic cells in the motor cortex,[27] or it may occur some time after the injury, or, again, it may be permanent,[28] producing delirium, insanity, coma, or death.

CASE 1.—Male, aged fifty-six, a monomaniac, with delusions of grandeur, who had been insane for at least six years, fell backwards upon a stone floor. The occipital part of his head came into violent collision with the floor, producing fracture of the base of the skull, as was manifest shortly afterwards from the bleeding at the ears and nose. He became slowly comatose, and in seven or eight hours after the receipt of the injury he could with difficulty be awakened. This condition deepened, and he gradually sank, the vital functions becoming perceptibly weaker; he died forty-seven hours and three-quarters after the injury. On post-mortem examination a basal fracture of the skull was found passing from behind the foramen magnum, and ending in the petrous portion of the temporal bone of the right side. The left lobe of the cerebellum and the tip of the right frontal lobe were lacerated as the result in the latter case of *contre-coup*. The laceration was so pulpy as to bear out Duret's theory of the movements of the cerebro-spinal fluid during concussion and his *cone soulèvement*.[29] The amount of blood effused inside the cranium, considering the extensive nature of the injuries, was extremely small, being not, in my opinion, sufficient to produce the so-called pressure symptoms. Compression as a theory to account for death after head injuries has hitherto been too universally accepted, and it is necessary carefully to discriminate between cases of actual compression due to effused blood and cases where the amount of blood effused is insufficient to account for the symptoms. This patient died in the reaction stage, or the stage of vaso-motor paresis, or what Mr. Hutchinson calls the sleepy stage of concussion.

CASE 2.—A young man aged seventeen was admitted to this asylum in a state of delirious mania. Two or three days previous to admission he had been struck on the back of the head with a stone by another lad. From the symptoms described by his friends he had evidently suffered from concussion at the time. That evening and during the day following the accident he complained of intolerable *frontal* headache, and on the succeeding day thereafter he became maniacal. When admitted his temperature was 99° F., it gradually rose, until on the third day after admission it stood morning and evening at 101·4°. From that day until the day of his death there was a steady fall of the temperature. On the latter day the thermometer registered 96·8° F. His extremities became cold and the radial pulse imperceptible upon the fourth day after admission. These symptoms of failing vitality resisted the most stimulating treatment. Post-mortem examination revealed a fissure fracture a little to the left of the occipital protuberance. There was no depression, no meningitis, and no effusion; nor was there laceration of the brain, or hæmorrhage into any part of the cortex or ganglia of the brain. This, then, is an uncomplicated case of cerebral concussion, which corresponds to Duret's description of fatal concussion, where, as he says, the vascular paralysis passes into inflammatory reaction, when the nervous symptoms persist until death closes the scene.[30] At another part of his work he says: "Sometimes after the loss of consciousness there is recovery, which lasts for one or for many hours; there may even be complete restoration. Then the animal becomes gradually comatose, his faculties become overclouded, and he falls into a deep sleep."[31] We see, then, from the results of Duret's experiments, and from his observations, that vascular paralysis, passing on to a state equivalent to inflammatory congestion, may supervene at a considerable time after concussion.

Microscopic changes in the brain in both cases.—In both cases in the cells of the third and fourth layer of the motor and frontal regions there were universally found distinct, refractile particles in the centre of the nucleus. These were without question vacuoles. In some nuclei I counted as many as three of these bright spots, but in the great majority of cells only one vacuole occupies the centre of a nucleus. In Case 2 the affected cell nuclei are large and swollen, irregular in outline and shape, and stain (Bevan Lewis's method) very darkly with aniline blue-black. The cell processes for some reason do not stain well, giving an appearance as if they were broken off or stunted. In Case 1 the nuclei do not seem to be enlarged, but there is extensive granular and commencing pigmentary degeneration of the cell protoplasm. I do not attach any importance to these latter changes, for although they may possibly bear some relation to the injury, yet they are so commonly met with in the brains of persons labouring under chronic insanity that they must be discounted in the present case. With regard to the localisation of the lesions in both cases, I have already referred to the greater immunity of the smaller cells of the cortex from the effects of rapid nutritive changes. It must, however, be admitted that there are cells in the regions of the brain posterior to the ascending parietal convolution larger than many of the affected cells in front of Rolando's fissure. How, then, can the immunity of such cells in the posterior cortical regions be accounted for? To quote Duret again:[32] "Each variety of shock most frequently produces its special lesions at the place of *contre-coup* ["suivant le lieu de sa repercussion."]..... When the shock is applied to the occiput the effects are seen in the frontal lobes and at the posterior part of the hemispheres. This is undoubtedly the case, and we are justified in attributing the cellular change to the effects of *contre-coup*, as in both cases the force was applied to the occipital region of the head. Meynert[33] points out that functional hyperæmia of the cortex differs from that of any other organ, such as the liver, in that it is capable of being localised to functionating regions; all other regions not associated at the time remain non-hyperæmic. If, then, after dynamic or inherent molecular disturbance, such as must be caused by direct force and the apnœic state caused by vascular spasm, there is a morbid exaltation of cell energy, there will be an accompanying hyperæmia limited to, or chiefly limited to, the region of nervous hyper-excitation, and this condition may persist.

My conclusions, then, are: (1) That a nuclear nerve cell lesion in the cortex is a condition of great importance, and indicates an interference with the vitality and function of the cell; (2) that it is capable of being produced by vascular changes which affect the nutrition of the cell; (3) that when the lesion is situated chiefly in the motor cortex it tends to interfere with the vital functions by the implication of the thermotaxic cells; (4) that important vaso-motor changes occur after concussion which are the result either of exhaustion of the subcortical vaso-motor centres from over-pressure or of their inhibition by hyperaction of the cortical cells implicated.

Larbert, Scotland.

[26] Psychiatry, p. 251.
[27] Vide Mr. Horsley's paper on Linear Craniectomy, Brit. Med. Jour., vol. i 1891, p. 579.
[28] Duret, loc. cit.
[29] Loc. cit.
[30] Loc. cit., p. 153.
[31] Loc. cit., p. 72.
[32] Loc. cit., p. 156.
[33] Psychiatry, p. 214.

ST. MARY ABBOTTS' INFIRMARY.—Professor Klein, F.R.S., on the 14th inst., gave a demonstration, with the aid of the oxy-hydrogen light, "On the part played by Organisms in Disease" to the staff of the infirmary.

A NEW HOSPITAL FOR INFECTIOUS DISEASES.—The Rugby Local Board has agreed (subject to the approval of the Local Government Board) to purchase twenty acres of land, known as "Croop-hill," for the purpose of erecting a hospital for infectious diseases.

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ACUTE INTESTINAL OBSTRUCTION DUE TO A LARGE GALL-STONE; OPERATION.

BY A. A. BROCKATT, M.D. BRUX., L.R.C.P. LOND., &c.

J. B——, aged forty-three, had been a village schoolmaster for the last seventeen years and led a sedentary life. He had lived well for his position, indulged in a moderate amount of stimulants, and eaten freely. Up to Feb. 22nd, 1891, he had had no illness of any importance. On that date Dr. Murphy of West Malvern was called in for an acute attack of pain in the epigastric region, which subsided in twenty-four hours. The pain does not appear to have had the character of biliary colic. There was no jaundice or vomiting, and for some time previously the patient had been taking huge quantities of cod-liver oil, under the impression that his chest was weak. On Dec. 20th, 1891, Dr. Murphy was called in again for a supposed bilious attack. The patient had been vomiting more or less continually for three days, and the first thing that struck Dr. Murphy was the reduction in the size of the patient that had taken place during the six months that had elapsed since he had seen him; previously he had been a man of 14 stone weight, now he was under 12 stone. His face was pale and pinched, with an anxious expression. The vomiting had come on suddenly three days before, and was copious and bile-stained. There was no pain, and for two days the bowels had been confined, notwithstanding he had been taking purgatives. He complained of great thirst, there was entire loss of appetite, and the temperature was normal. There was nothing abnormal to be detected in the abdomen by Dr. Murphy except a distinct feeling of resistance to the right of the umbilicus. He prescribed for him five grains of calomel, to be followed by an enema, and a bismuth mixture. On the 22nd there had been a slight action of the bowels, the vomiting was less frequent, and the patient expressed himself as feeling better. Dr. Murphy administered a copious enema, which was followed by three large stools. The first showed traces of the action of the calomel, and the following were black from the bismuth. There was a great deal of flatus. On the 23rd the patient partook of some chicken, and the vomiting became much more frequent, was very copious, and contained large quantities of bile. He continued in much the same condition until early on Dec. 25th, when the vomit became very offensive and was more or less continuous.

I was called in to see him in the evening, and found the abdomen much distended. He was extremely restless; his pulse was 120 and the tongue dry and brown. He did not complain of pain, which symptom, indeed, he said had been entirely absent during the whole of his illness. It was decided to perform abdominal section early the next morning. On Dec. 26th Dr. Pike administered chloroform to the patient, whose condition was unaltered from the previous night. When under the anæsthetic a hard mass, freely movable, was detected in the right iliac region. I opened the abdomen in the middle line below the umbilicus and found the lump to be a hard mass, which completely blocked the lumen of the small intestine. The intestine above was much distended and around the mass was so tightly stretched that it was completely immovable. The coil of intestine was then brought outside the wound, and, Dr. Murphy holding it firmly above and below the obstruction, I incised it in its long axis opposite the attachment of the mesentery. The obstruction proved to be a large gall-stone, and was easily extracted. The intestine near was then thoroughly washed out and the wound united with Lembert's sutures. Two vessels in the mucous coat, which bled rather freely, were previously tied.

On account of the critical condition of the patient a further examination of the abdomen was out of the question, so the abdominal wound was closed as quickly as possible, and a drainage-tube inserted into the peritoneal cavity. He was ordered nutrient enemata and a grain of opium every six hours. On Dec. 27th the patient had recovered completely from the shock of the operation, and expressed himself as feeling quite well—indeed, he had to be very closely watched to prevent him getting out of bed. His temperature was normal, he had no pain or tenderness, and his pulse was 96. There had been no return of vomiting. The next day he still expressed himself as feeling better. There were no abdominal symptoms, and the wound when dressed was quite healthy. On Dec. 29th, as he felt very weak, a small quantity of milk was ordered to be given every hour in addition to the nutrient enemata. There were still no abdominal symptoms; the drainage-tube was removed. On the following day he was much weaker, so essence of beef and milk were administered in small quantities every quarter of an hour, but he gradually became more exhausted, and died on the afternoon of the 31st, the sixth day after the operation.

Only a partial examination was allowed by the friends. The abdominal wound was healed, except at the part where the drainage-tube had been inserted. There was slight peritonitis of some of the superficial coils of intestine on the right side in the neighbourhood of the intestinal wound. This was firmly united, and was situated high up in the jejunum. On tracing the small intestine upward it was found to be firmly matted together by old adhesions, and the gall-bladder was firmly incorporated with the mass, and could not be separated. The liver was apparently healthy. The gall-stone, an unusually large one, was pear-shaped, and measured 2 in. in length, 1⅞ in its greatest transverse diameter, and 5½ in. in its greatest circumference.

Great Malvern.

THE SCIENTIFIC PRINCIPLES OF INHALATION.

BY ROBERT LEE, M.D. CANTAB., F.R.C.P. LOND.

IN the report of the Medical Officer of the Privy Council, 1875, there is a paper by the late Dr. Baxter on the action of certain disinfectants on vaccine lymph. The chief object of the experiments was to determine whether the vapours of chlorine, sulphur dioxide, and carbolic acid acted on lymph in the same way as their solutions. There was a difficulty at the outset which Dr. Baxter recognised. "It was well-nigh impossible," he said, "to obtain an atmosphere containing a given percentage of the vapour"; and he imagined that if he fixed ivory points charged with vaccine lymph in a bottle containing strong carbolic acid, so that they were about half an inch above the fluid, the vapour would act upon them. Practically it had no effect; for the points answered well when used for vaccinating with. Now, to conclude that the vapour had no effect when he had proved before that the solution had was an error which arose from the fact that carbolic acid does not give off vapour to any active extent at a temperature of from 60° to 65° F. By applying this example to the subject of inhalation it must be evident that it is necessary before we can judge of the value of any vapour we should know something of its strength, just as if it were a solid or a liquid. In the case of carbolic acid we can do this; because if we mix the acid with water in any proportion and then boil the mixture, the steam and the acid are given off together, and in the same proportion as they existed in the water. Thus we can obtain vapour containing any percentage of carbolic acid. But with the turpentines and essential oils which float on the surface of water it does not seem that mixing with water, or rather floating them on water, makes any difference to their volatilisation. If the water be boiled, the bubbles of air rising through the layer of oil have apparently the same effect as a stream of hot air would have, and the amount of oil which volatilises will depend on its temperature of volatilisation.

In the British Pharmacopœia for 1885 six vapours or inhalations were introduced, but no consideration had been given to the important questions which should have been determined before they could be prescribed with any accuracy or practical benefit. In the case of the vapour of hydrocyanic acid, it is simply the question of temperature on which evaporation of the acid depends. With the vapor chlori no vapour ought to be given off when pure chlorinated lime is moistened with cold water, or, as Dr. Baxter remarked; "it is sufficiently obvious that the quantity of chlorine given off into a room from a basin filled with chloride of lime.....would be utterly inadequate to destroy vaccine virus." In the case of the vapor coninæ it may be observed that between six and seven minims of succus conii on a sponge, exposed to the vapour of hot water, must yield a vapour of the feeblest character, for the dose of the juice is from half a drachm to one drachm. At least one would like to

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There were no abdominal symptoms, and the wound was dressed was quite healthy. On Dec. 29th, as he felt very weak a small quantity of milk was ordered to be given every hour in addition to the nutrient enemata. There were still no abdominal symptoms; the drainage-tube was removed. On the following day he was much weaker, as enema of beef tea and milk were administered in small quantities every hour and an hour, but he gradually became more exhausted, and died in the afternoon of the 31st, the sixth day after the operation.

On a partial examination was allowed by the friends. The abdominal wound was healed, except at the part where the drainage tube had been inserted. There was slight peritonitis of some of the superficial coils of intestine at that part, but in the neighbourhood of the intestinal wound it was firmly united, and was situated high up in the abdomen. On tracing the small intestine upwards it was found to be firmly matted together by old adhesions, as was the bladder was firmly incorporated with the anterior abdominal wall, but could not be separated. The liver was apparently healthy. The gall-stone, an unusually large one, was preserved and measured 2 in. in length, 1¼ in its greatest transverse diameter, and 5¼ in. in its greatest circumference.

Univ. Matricul.

THE SCIENTIFIC PRINCIPLES OF INHALATION.

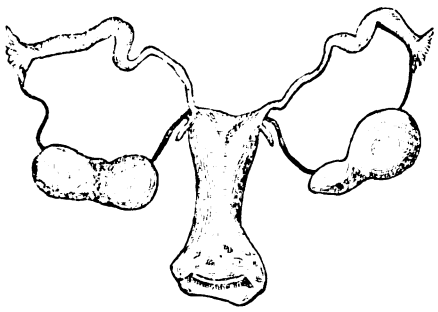
By ROBERT LEE, M.D. CANTAB., F.R.C.P. LOND.

In the report of the Medical Officer of the Privy Council for 1865, there is a paper by the late Dr. Baxter on the action of certain disinfectants on vaccine lymph. The chief object of the experiments was to determine whether the vapour of carbolic acid, sulphur dioxide, and carbolic acid acted on vaccine lymph in the same way as their solutions. There was a difficulty at the outset which Dr. Baxter recognised. "It was," he said, "impossible, be said, "to obtain an atmosphere of vapour of a given percentage of the vapour"; and he endeavoured to meet it by fixing ivory points charged with vaccine lymph in a bottle containing strong carbolic acid, so that they were suspended about half an inch above the fluid, the vapour would act upon them. Practically it had no effect; for the points when used for vaccinating with. Now the answer is well when used for vaccinating with. Now the answer is that the vapour had no effect when he had proved to him that the solution had was an error which arose from the fact that carbolic acid does not give off vapour in accordance with that carbolic acid does not give off vapour in accordance with Raoult's law at a temperature of from 60° to 65° F. But this example to the subject of inhalation it must be remembered that it is necessary before we can judge of the value of a drug or we should know something of its strength—whether it were a solid or a liquid. In the case of carbolic acid we can do this; because if we mix the acid with water in any proportion and then boil the mixture, the whole of the acid are given off together, and in the same proportion as they existed in the water. Thus we obtain vapour containing any percentage of carbolic acid we like. But with the turpentines and essential oils which float on the surface of water it does not seem that anything of the kind occurs, or rather floating them on water, gives off, or, rather floating them on water, gives off, in accordance to their volatilisation. If the water be made to boil and the bubbles of air rising through the layer of oil of turpentine apparently the same effect as a stream of hot air would, and the amount of oil which volatilises will depend on the temperature of volatilisation.

In the British Pharmacopœia for 1885 six vapour inhalations were introduced, but no consideration of the important questions which should have been determined before they could be prescribed with any certainty or practical benefit. In the case of the vapour of carbolic acid, it is simply the question of temperature of evaporation of the acid depends. With the vapour of turpentine ought to be given of when pure oil of turpentine is moistened with cold water, or, as Dr. Baxter remarked, "it is sufficiently obvious that the capacity of the room from a basin filled with the oil of turpentine given off into a room from a basin filled with the oil of turpentine would be utterly inadequate to destroy any disease germs which would be utterly inadequate to destroy any disease germs which might be in the case of the vapour coming it may be diffused in a room of 1000 cubic feet capacity, seven minims of eucalyptus oil would be required to produce a vapour of hot water, must yield a vapour of between and seven minims of eucalyptus oil would be required to produce a vapour of hot water, must yield a vapour of the same strength as that

tion of the pulmonary orifice was also found, together with the ordinary signs of mitral disease.

CASE 2.—The accompanying sketch was taken from a specimen removed from an infant brought in dead to the



hospital, the death being due to bronchitis. The right ovary was represented by two cysts, which were perfectly translucent, and separated from one another by a distinct partition, no trace of normal ovarian tissue being present. The left was healthy for its proximal half, the distal half being occupied by a rounded and translucent cyst.

SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.

TUBERCULAR DISEASE OF RIGHT KIDNEY; NEPHROTOMY; REMOVAL OF RIGHT KIDNEY; ANURIA; URÆMIC CONVULSIONS; DEATH; ATROPHY OF LEFT KIDNEY.

(Under the care of Mr. PAUL SWAIN.)

IT is only right as a guide and warning to others that unsuccessful cases should be published. This was a case in which it was thought possible that a renal calculus might be present, as the renal symptoms were entirely right sided. It was therefore thought advisable to explore the right kidney. This exploration was unfortunately followed by rapid enlargement of the kidney and aggravation of all the symptoms. In addition, there was such rapid emaciation and loss of strength that it was evident, unless something was done, the man would die of septic absorption from his suppurating kidney. The rapid enlargement was attributed to inflammation and formation of pus in the kidney. That the enlargement noticed at the first operation was due to compensatory hypertrophy did not occur to anyone, as there was nothing to cause suspicion that the left kidney was destroyed by disease. In fact, it was not until the anuria had lasted twenty-four hours that it occurred to the operator that the working kidney had been removed. The association of chronic cystitis with dilatation of the ureters, atrophy of the left kidney, and hypertrophy of the right is rather difficult of explanation. The chief difficulty is to decide the sequence of events. Perhaps the following explanation may suffice. First there was cystitis, which caused thickening of the bladder and frequency of micturition, which two elements caused the dilatation of the ureters. Following this came suppuration in the left kidney, leading to atrophy of its substance and compensatory hypertrophy of the right kidney, in which tubercular disease ultimately supervened. In this case, as so often happens where the working kidney is removed, the patient remained conscious to the end. The convulsions which occurred were very slight, the most distressing symptoms being the incessant hiccough and vomiting. For the notes of the case we are indebted to Mr. W. Gifford Nash, late house surgeon.

W. S——, aged thirty-five, a police constable, was admitted on June 9th, 1891, supposed to be suffering from renal calculus. His symptoms were aching pain in the right loin radiating to the groin and testis, worse after walking about, and frequency of passing urine by day and night, followed by pain along the urethra. He stated that for two years and a half he had micturated about every twenty or thirty minutes by day and night. He had had pains in both loins, but chiefly the right. Two years ago he had a severe attack of pain on the right side and passed blood, and since then he has done so four or five times. Large clots have been passed, and much slimy sediment. There was never any definite attack of renal colic. He had gone down in weight from 180 lb. to 150 lb., but was able to follow his work as a constable until a week before admission. He had served four years in India, and passed through the Egyptian War. There was no known family history of tubercular disease.

On admission the patient was a large-framed man, fairly well nourished, but rather anæmic. The kidneys could not be felt, but there was decided tenderness in the position of the right kidney. The testes were normal. The bladder was sounded, and was decidedly tender. The urine contained one-twelfth of albumen due to the presence of pus. The heart and lungs were healthy. The evening temperature was about 101° F. each night.

On June 12th, under chloroform, the right kidney was explored from the loin. It appeared enlarged, and its surface mottled. It was punctured in four or five places, and its pelvis and calyces explored through an incision in the cortex. Nothing was found. A drainage-tube was inserted down to the kidney, and the wound in the loin sutured. After the operation the amount of urine passed was much increased, the daily average being seventy-three ounces, and on June 25th and 26th it was 122 and 101 ounces respectively. The quantity of pus varied from one-twelfth to one-thirtieth. On June 26th there was noticed a great increase in the size of the right kidney, and on the 29th urine began to flow from the lumbar wound, which was not healing well. The temperature was getting higher, and the man rapidly lost flesh and strength, besides suffering more pain in the loin. It was thought that the kidney was becoming disorganised, and had better be removed. There was nothing to lead anyone to think that the left kidney was absent. On July 3rd the right kidney was removed, and with it a large mass of condensed and hard perinephritic fat. The kidney removed weighed thirteen ounces, and the fatty capsule six ounces. The nephrotomy wound entering the pelvis of the kidney was not healed. The cortex of the kidney contained numerous small suppurating foci, and at one spot an abscess cavity the size of a filbert, which had burst into a calyx, the lining of which was ragged and ulcerated. The lining of the pelvis was rough and thickened. The kidney tissue generally was pale and tough, but at several spots were infarctions of recent date.

July 4th.—In twenty-four hours following the operation four ounces and a half of fluid were passed, consisting almost entirely of blood and pus. Temperature subnormal; pulse 70; respiration 22.

5th.—During the last twenty-four hours the patient has been frequently sick, and has passed five ounces of bloody fluid. He has no headache or pain, and is quite wakeful. At 3 P.M., forty-nine hours after the operation, slight general convulsions occurred.

6th.—At 3 and 4 A.M. again was convulsed. He has passed seven ounces and a half of fluid, which is clearer and contains one-third of albumen and one-fifth of pus. Pulse 84. Tongue red and dry. Sickness continues.

7th.—He has passed three ounces and three-quarters of urine. There are constant hiccough and vomiting. He remained conscious until death at 7.30 A.M. In eighty-nine hours and a half after removal of his working kidney he passed twenty ounces and three-quarters of blood-stained urine.

Post-mortem examination.—The bladder, ureters, and left kidney were removed *en masse*. The left kidney was about the size of a testis weighing half an ounce. Its upper half consisted of a cavity filled with white pultaceous material, and the lower half appeared fairly healthy. The left ureter was dilated to the size of an index finger throughout its whole length. The right ureter was rather smaller. The vesical orifices of both ureters were pervious. The bladder was contracted, very much thickened, and rugose. There was no urethral stricture.

HOSPITAL SATURDAY AT BIRMINGHAM.—The total subscriptions this year amount, so far, to £10,812, as against £9862 up to the same date in 1891. Exceptional interest is attached to the collection this year, having regard to the new convalescent establishment at Tyn-y-Coed in connexion with the Hospital Saturday Fund. It was estimated that £12,000 would be needed, but it will be seen by the figures given that a considerable sum will be required in order to reach the desired amount.

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Medical Societies.

CLINICAL SOCIETY OF LONDON.

Enterectomy.—Spontaneous Cure of Aneurysms of Femoral Artery.—Non-tubercular Hæmoptysis in association with Renal Cirrhosis.—Tubercular Disease of Breast and Axillary Glands.

AN ordinary meeting of this Society was held on May 13th, Dr. Charlton Bastian, Vice-President, in the chair.

Mr. F. PAUL gave the particulars of a case of Enterectomy. In this instance he had put into practice an operation devised for uniting intestine, and published by him in THE LANCET for May, 1891. The patient was a woman aged thirty-seven, in whom a strangulated hernia had gone unrelieved for at least six days. The bowel was sloughing, and had to be excised. It was reunited in the following manner:—A bone tube armed with a traction thread was sewn into the upper end. The traction thread was passed through the wall of the lower end about three inches down, and the two cut ends were lightly attached to each other. Then while an assistant held the traction thread, the operator invaginated the bowel over the tube so as to completely cover the cut. It was retained in this position with four Lembert sutures, and the traction thread was drawn tight and cut off short. The patient was fed freely with fluid nourishment from the first. Solid food was commenced in the form of bread and milk on the sixth day, and meat on the fourteenth day. On the eighth day the bowels were well moved by glycerine enema, and subsequently at intervals of a few days. The pulse and temperature remained practically normal, and there were no symptoms worth recording. In three weeks she was allowed up, and at the end of the month left the hospital quite convalescent. At the present time she was quite well, and the bowels in every way natural.—Mr. HOWARD MARSH observed that the procedure was a remarkably simple one, and might be taken up by any intelligent surgeon at once and easily carried out.—Mr. BOWREMAN JESSETT remarked that it was often a very difficult proceeding to effect invagination in dogs. He thought that puncture of the lower segment of the bowel might, at any rate in certain cases, prove a source of danger. In his opinion all invagination operations were difficult and even impossible when there was much distension of the bowel above the stricture. He had himself employed the operation of lateral approximation, and invariably with a good result. Referring to Mr. Robinson's operation, he observed that the use of a rubber tube in the distal portion of the gut was not unlikely to lead to subsequent complications; as compared with the bone tubes suggested by the author, the rubber had the disadvantage of not being capable of absorption. While the author's procedure certainly constituted a step in advance in intestinal surgery, he did not think they could flatter themselves that they had attained perfection. Passing on to consider the question of which was the best suture to employ, he said he had observed that in certain cases Lembert's suture showed a tendency to tear—a contingency which could be effectually provided against by employing a "quilled" suture, which gave a firm grip on the tissues. The stomach should always be washed out as a preliminary proceeding.—Mr. PAUL, in reply, agreed that the experimental operation presented some difficulty in dogs, on account of the greater thickness of the muscular coat of the intestines of that animal; but the muscular resistance could be overcome by sustained pressure. He could not believe that the minute puncture of an ordinary sewing needle with its thread could ever be productive of harm; in any event, he had never seen any harm result from it. In reference to Mr. Jessett's suggestion as to the advantages of lateral approximation, he observed that their experience of this procedure in Liverpool in gastro-enterostomy had been unfavourable in that the aperture showed an insurmountable tendency to subsequent closure. He was not disposed to deny that Robinson's operation might ultimately prove to be the easiest. He himself had made some attempts in the same direction, but had been deterred from further attempts on finding that the manipulation of the intestinal walls led to gangrene.

Mr. HOWARD MARSH related a case of Spontaneous Cure of an Aneurysm of the Femoral Artery, apparently by inflammatory action. The patient was a street paviour, aged forty-three, and was admitted into St. Bartholomew's Hospital, under the care of Sir William Savory, on March 20th, 1891, with a well-marked aneurysm of the femoral artery, of the size of a small orange, in Hunter's canal, attended with œdema of the leg and considerable pain. The skin over the tumour was somewhat suffused and hot, the cutaneous veins were distended, and the surface was tender. The patient's temperature was 100·2°. On the following day, while the patient was lying in bed with the limb slightly raised and at rest, pulsation diminished, and in eight or ten hours entirely ceased, and the tumour, except at its central part, became firm and hard. From this time the swelling gradually diminished in size, and the patient was discharged on June 12th. On Sept. 1st he was readmitted with a second and smaller aneurysm of the femoral, immediately above the former one—i.e., in the upper part of Hunter's canal. He was placed in bed, and next day the aneurysm also was found free from pulsation and apparently solid. The tumour slowly disappeared.

Dr. FRANCIS HAWKINS gave the particulars of a case of Non-tubercular Hæmoptysis of Fourteen Months' Duration occurring in association with Cirrhosis of the Kidneys. The patient was a man aged forty-two, a carriage painter, who complained of "spitting blood" at intervals for twelve months. The patient had been treated for tuberculosis before coming under observation. Hæmoptysis was sudden in its onset; the blood was frothy and light in colour, and about one pint in quantity. The patient had never been ill previously. He was a well-built man, with pale skin and sallow tinge. The heart was much hypertrophied, and there was general arterio-sclerosis. At the post-mortem examination both kidneys were very small, capsule adherent, and the kidney contained small cysts. The left lung at its base presented the appearance of carnified lung; at the apex it was emphysematous and œdematous. The right lung was emphysematous, congested, and œdematous. Attention was drawn to the fact that hæmoptysis might occur as a symptom in renal disease, and that a hypertrophied heart might produce physical signs in the left lung which might be mistaken as evidence of tuberculosis.—Dr. HADDEN inquired whether at the post-mortem examination any traces of previous hæmorrhages had been found in the lungs, and whether any sanguineous extravasations had been found in any other organs of the body. Hæmorrhagic extravasation confined to the lungs was, he thought, rare in chronic renal disease.—Dr. BENHAM did not think it had been clearly shown that the hæmorrhage actually came from the lungs. The author, indeed, had mentioned that the blood came away on several occasions without any effort of cough. He mentioned that in one case of supposed hæmoptysis in his own practice he had found on examining the mouth that on the site of a tooth stump there was a small pulsating vessel which was evidently the source of the hæmorrhage, though this had lasted for several weeks. He asked why the author had not used turpentine instead of ergot; the former he regarded as the more valuable hæmostatic in such cases.—Dr. BASTIAN suggested that the hæmorrhage might possibly have been due to rupture of varicose veins in the respiratory tract—a condition of things which would be very likely to escape observation at the necropsy. This condition was probably the source of unexplained hæmorrhages from the stomach in cases in which the symptoms did not authorise the supposition of ulcer.—Dr. CHAPMAN mentioned a case in which the passage of a small shot into the bronchi had determined paroxysmal hæmoptysis, which only ceased, and the cause of which was only ascertained, on the shot being expectorated.—Dr. LONGHURST asked whether there was any history of syphilis. He thought that the hæmoptysis might have been due to a gumma of the lung. This was suggested by the excellent effects obtained by the administration of iodide of potassium.—Dr. HAWKINS, in reply, said that every possible source of hæmorrhage had been eliminated by a careful search. There was no history or obvious indication of syphilis.

Mr. ARBUTHNOT LANE read a paper on Two Cases of Tubercular Disease of the Breast and Axillary Glands. He alluded to the frequency of chronic mammary abscess in women, giving strong tubercular histories or exhibiting this disease in other organs, and considered that though these were usually unassociated with tubercular disease of the

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axillary glands, they were nevertheless tubercular. The first case was that of an unmarried woman aged thirty-eight, who had had to her knowledge a tumour in the breast for eighteen months, which had recently been associated with a swelling in the axilla. She had no evidence of tubercle elsewhere, nor was there any history of tubercle in her family. She recovered after the breast and a large number of caseous glands had been removed, and she had no recurrence of the growth, locally or elsewhere. The second case was that of a married woman aged thirty-four, who gave a strong tubercular family history. During lactation an abscess developed in her breast, burst, and discharged at intervals. An abscess developed later in the axilla. She was seen by Mr. Lane four years after the development of the abscess, when the breast was found to be riddled with sinuses, and the axilla filled up with caseous and suppurating glands. These were removed with great difficulty. Except for some induration in the apex of the axilla, the patient recovered completely. She had no evidence of tubercle elsewhere.

PATHOLOGICAL SOCIETY OF LONDON.

Mammary Tumour.—Indigo in Urine.—Lesions of Pyramidal Cells in the Cerebral Cortex in Chorea.—Sarcoma of Thigh.—Malignant Orbital Growth.—Hereditary Sarcoma of Eyeball.—Congenital Heart Disease.—Congenital Cyst beneath Tongue.

AN ordinary meeting of this Society was held on May 17th, the President, Sir George Humphry, in the chair.

Mr. C. B. LOCKWOOD showed a tumour of the breast which had the characters of a maligunt duct papilloma, or, as it is more commonly called, duct cancer. It had been removed by Mr. Willett from an unmarried woman aged thirty-nine, and the history was typical of that affection. The disease began, eighteen months before removal, with pain, which became persistent. The left breast then seemed harder than the right, and there was a discharge of blood from the nipple—small at first, then gradually increased until a teaspoonful was lost in the twenty-four hours. Physical examination showed that the left breast was larger than the right, and hard and nodular. Above the outer side of the areola there was a harder mass, and when this was pressed blood exuded from the nipple. There was also a slightly enlarged gland low down in the axilla. The mammary gland and two of the axillary glands were removed by operation, and the patient made a safe and rapid recovery. When examined with the naked eye the diseased structures had not the usual appearance of carcinoma. The masses in the substance of the mamma seemed more like inflammatory indurations. Throughout the gland, however, a number of small apertures could be seen, and were judged to be the mouths of enlarged and patulous ducts. This was borne out by the histological examination, which not only showed that the lumens of the ducts were enlarged, but that epithelial papillæ projected into them. Such appearances as these would not have constituted a cancer; but, in addition, the epithelial lining of the ducts had in numerous places proliferated and invaded the connective tissue of the breast, which was increased in quantity. The lymphatic glands which had been removed from the axilla seemed to contain no trace of cancer. In conclusion, Mr. Lockwood said he ventured to show the specimen, as it illustrated an unusually early stage of an interesting disease.—Mr. RAYMOND JOHNSON doubted if the specimen was of a carcinomatous nature, and considered that it was more probably proliferated epithelium into the cysts of a degenerated mamma. Three pathological processes could produce the conditions seen in the sections: (1) simple intra-cystic papilloma; (2) cystic carcinoma; and (3) duct papilloma. He then referred to a card specimen shown to the meeting by Mr. Bland Sutton. The appearances seen in Mr. Lockwood's sections might possibly indicate a condition of mamma antecedent to rather than actual carcinoma.—Professor HAMILTON of Aberdeen asked if this case was not really an instance of combination of papilloma with cancer. He had recently met with such a case, in which in one part of the breast there was typical scirrhous cancer, and in another part cysts containing papillary growths. Such a combination of growths was most unusual.—Mr. BLAND SUTTON said that his specimen showed a mass of papillomatous growth projecting into a cyst lined with epithelium. These projecting processes were essentially of warty character. There was no interstitial growth in the stroma of the breast.—Mr. LOCKWOOD, in reply, could not entirely agree with Mr. Johnson's explanation of the pathology of this case, for there was presence of epithelium in the interstitial parts of the tumour. He would be glad to refer it for report to the Morbid Growths Committee.

Dr. ORD exhibited a drawing showing indigo deposited naturally in the urine of a patient who had suffered for ten years with symptoms indicating enlargement of the prostate. The urine was alkaline and offensive, and contained a number of flaky masses, which, under the microscope, were found to be altered mucus, containing, embedded in them, a large number of dark-blue bodies, apparently composed of some crystalline material, partly stained by indigo, partly having indigo deposited on them. These Dr. Ord considered to be either urate or phosphate. He knew of no artificial method whereby indican present in alkaline urine might be decomposed so as to form indigo blue without inducing an acid reaction. It appeared to him that the form of the indigo was determined by the form of the substance upon which it had been deposited. He described the ordinary method of obtaining indigo from urine either in the form of a solution in chloroform, or in a film deposited on the surface of the fluid, of which he showed the microscopic appearances. If a solution of uric acid were added to the urine before performing the test, crystals of uric acid, partly stained and partly encrusted by indigo, were found at the bottom of the fluid. Epithelial cells, yeast cells, and rod-shaped bodies resembling bacteria were also found similarly stained, and coloured drawings illustrating these were shown. Occasionally hedgehog crystals of presumably uric acid were found deeply coloured. It appeared to Dr. Ord that the use of nascent indigo might possibly be of use in the staining of bacteria.—Dr. WHEATON asked if these bacteria had not the power to produce indigo. It would be desirable to cultivate them and introduce them into suitable urine to see if indigo were not produced. He had seen indigo deposited upon uric acid crystals as a result of urinary decomposition.—Professor CROOKSHANK asked if any attempt had been made to isolate and cultivate these peculiar micro-organisms.—Dr. ORD, in reply to a remark from Sir Richard Quain, said he had volatilised and deposited the crystals of indigo on glass. He had only observed bacteria in one or two out of many specimens of urine examined.

Dr. F. C. TURNER showed Microscopical Sections of the Brain from five cases of fatal Chorea in females from twelve to nineteen years of age—in one case complicated with puerperal septicæmia, in two others with albuminuria and heart disease. The sections, which were taken from the Rolandic region, all showed conspicuous swelling and opacity of certain of the large pyramidal cells in the deeper layers of the cortex. These were especially conspicuous in the first three sections, and a drawing of two of them was shown. The author, in explaining the grounds of his belief that the occurrence of an attack of acute chorea was dependent on the occurrence of a cerebral lesion of the kind shown, observed: 1. That the symptoms and course of chorea indicated a structural cortical lesion and not a nutritive derangement only, as, for example, in hysterical symptoms induced and removed at pleasure. 2. That such a dropsical swelling of the pyramidal cells of the cortex as a recoverable lesion accorded with the symptoms and course of an ordinary case of chorea and with its recognised etiological factors, while the vascular lesions to which the phenomena had been attributed did not accord with them, either pathologically or in their observed anatomical features. Any nutritive disturbance of the cerebrum must, if sufficiently severe and prolonged, induce capillary thromboses as well as lesions of the nerve cells. But lesions of the former extravascular and highly differentiated structures would occur much more readily than lesions of the latter, endowed with much greater vital resistance, especially in youth and in contact with the blood. In the specimens shown there was no evidence of vascular lesions associated with those of the nerve cells. 3 He had met with similar lesions of the nerve cells in cases of nutritive disturbances of the brain from other causes—e.g., cerebral plumbism, uræmia, &c.,—but never anything approaching the more conspicuous lesions shown. He therefore regarded these more marked lesions as distinctively choreic, magnified by the concurrent effect of other causes of systemic and cerebral nutritive disturbances,

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and the series of specimens as evidence of the existence of a structural lesion of the brain, distinct if slight in degree, as the immediate cause of the phenomena of chorea in accordance with the inference deducible from those phenomena.—Dr. HALE WHITE thought that the grave diseases other than chorea with which these patients were afflicted would quite explain the conditions seen microscopically. In proof of the author's view, he should take a simple case of hemichorea and then compare the condition of the nerve cells on each side of the brain.—Dr. TURNER, in reply, considered the changes in the cerebral cells far too profound to be accounted for by the nutritive disturbances present. He believed that it was in structural aberrations in the cerebral cortex such as he had demonstrated that the true explanation of chorea was to be found.

Mr. J. R. LUNN showed a specimen of Sarcoma of the Thigh, which had been removed from the body of a girl aged sixteen. In November, 1883, the patient had been under the care of Mr. Watson Cheyne in the Paddington Green Children's Hospital. At that time the tumour was stated to have existed for two years, and the following note was taken: "On admission a fine elastic tumour was seen in Scarpa's triangle bounded above by Poupart's ligament. The femoral artery was pushed to the outer side. It was not adherent to the skin, and there were no enlarged glands. On making an exploratory incision, Mr. Watson Cheyne had found that it was a sarcoma of the ilium, and the attempt to remove it was given up." In March, 1888, the patient was admitted into the Marylebone Infirmary, under Mr. Lunn's care, with a fungating mass in Scarpa's triangle, the size of a cocoanut. There was well-marked pulsation on the outer side of the swelling, over which a loud bruit could be heard. A loud bruit could also be heard all over the cardiac area and over the large vessels. Pressure on the common femoral artery did not stop the pulsation in the tumour. Much blood was lost through oozing from the surface. No operation was permitted. In 1890 a portion of the growth was removed by Mr. Potter in the Kensington Parish Infirmary. No post-mortem examination was allowed. The author referred to a case which Dr. Bristowe published in THE LANCET in May, 1885. Dr. Bristowe had also seen the present case, and considered that the murmurs were due to the condition of the vessels of the tumour and of the arteries, not of the veins. There was no cardiac disease in Dr. Bristowe's case.

Mr. SILCOCK showed a specimen of Malignant Growth affecting the Orbit, Base of Skull, and Brain. The patient came to Moorfields Eye Hospital in 1882 with a smooth prominence above the left eyebrow, which had been growing for eighteen months. Six months later it had become much larger, and the patient had had fits of epileptic character. The left nostril was filled with growth, the left eye was proptosed, and there was left optic neuritis. Afterwards the growth increased and protruded from the nostril, the eyeball was destroyed, and the head was enormously enlarged. He died ten years after the commencement of the growth. Up to within a few weeks of death he understood remarks made to him, though he was unable to articulate himself. It was an epithelioma of typical character, probably beginning in one of the sinuses in connexion with the nose, and a considerable portion of the growth had undergone ossification.

Mr. SILCOCK also related an instance of Hereditary Sarcoma of the Eyeball in three generations. He showed a melanotic sarcoma of the eyeball of a woman aged twenty, who was admitted to Moorfields Eye Hospital in October, 1890. The growth sprang from the left half of the choroid coat of the left eye, and filled rather more than half the vitreous. The growth was of mixed spindle and round cells, and started in the outer part of the choroid. Her mother had been afflicted with an ocular tumour, similar in structure and site. She had become blind whilst pregnant with her sixth child, and the globe was excised after the birth of the seventh, which was the case recorded above. The mother's sister died, aged forty, of tumour of the breast, and she lost one eye before death. A twin sister lost an eye after a confinement, and her grandfather lost an eye from an inflammatory affection. This was probably an instance of hereditarily increased vulnerability of the tissues of the eyeball.

Dr HALE WHITE showed a specimen of Congenital Heart Disease taken from a boy aged fifteen, who had never had rheumatic fever, and who had been quite well till four months before admission, when, apparently following on influenza, he had become short of breath and œdematous. On admission he had all the signs of backward pressure. The cardiac dulness was increased; over the whole of the chest there could be heard a very loud, rasping, to-and-fro sound, closely simulating a pericardial rub. This was also audible behind, especially at the left apex. Its point of maximum intensity was in front, over the sternum, opposite the third interspace. At the necropsy, the heart was not particularly hypertrophied; at the upper part of the septum ventriculorum was an aperture between the two ventricles, and behind the right anterior aortic valve was a small aneurysm, which had burst into the right ventricle. Judging by the friction patches on the right ventricle, it appeared that the blood had flowed both from the left ventricle and from the aorta into the right ventricle.

Mr. STEPHEN PAGET showed a large Congenital Cyst from under the tongue of a little girl, a patient of Dr. Mitchell of Brockley. It had almost suffocated her at birth, protruding in a mass far out of the mouth. It had been repeatedly tapped during the first year of her life. It hung down nearly to the sternum, and was covered with a thick, harsh cuticle. The tongue was spread out over its upper and posterior aspect; the mucous membrane of the floor of the mouth was lifted up level with the teeth, and the lower jaw was twisted, flattened, and rotated outwards and downwards. The cyst was easily removed between two curved incisions, separating it from the tongue behind it and the lower jaw beneath it. The child did well, and could now almost close her mouth; the lower jaw was recovering its shape. There was no solid growth round the cyst, and it was not lined with epithelium. It was probably of the same nature as the "hydrocele of the neck" described by Mr. Hutchinson.

The following card specimens were shown:—

Dr. DAWTREY DREWITT: Case of Pseudo-hypertrophic Paralysis, with Unusual Enlargement of Muscles.

Mr. J. BLAND SUTTON: (1) Congenital Absence of Tibia; (2) Case of Duct Papilloma.

Dr. W. LAZARUS BARLOW: Aortic Aneurysm bursting into the Neck.

Mr. A. A. BROCKATT: Large Biliary Calculus.

Dr. W. LEE DICKINSON: Intra-pericardial Aneurysm, which set up Pericarditis.

Dr. NEWTON PITT: Deficiency of Diaphragm.

The annual meeting of the Society was then held. The Council reported a slight increase in the membership, and referred to the interest excited by the debate on phagocytosis. The usual hearty votes of thanks having been accorded to the retiring officers, the following were declared elected for the ensuing session, the only deviation from the Council's selection being the substitution of another name (Mr. Bowlby's) for that of the official candidate as surgical secretary. President: Sir George Murray Humphry, F.R.S. Vice-Presidents: Drs. James Frederic Goodhart, William Tennant Gairdner, Frederick William Pavy, Sidney Coupland, Sir Joseph Lister, Bart., F.R.S., and Messrs. Henry Hugh Clutton, William Watson Cheyne, Henry Trentham Butlin. Treasurer: Dr. William Cayley. Honorary Secretaries: Dr. Francis Charlewood Turner and Mr. A. Bowlby. Council: Drs. Theodore Dyke Ackland, F. G. Dawtrey Drewitt, Richard G. Hebb, David B Lees, Frederick Walker Mott, G. Newton Pitt, H. H. Tooth, Samuel West, German Sims Woodhead, and Messrs. William Henry Bennett, Thomas Colcott Fox, William Arbuthnot Lane, D'Arcy Power, Charles A. Ballance, W. Bruce Clarke, Edgar Crookshank, Walter Edmunds, R J. Godlee, William Hickman, and Samuel G. Shattock. Honorary Member: Professor Metchnikoff.

THE GERMAN HOSPITAL, DALSTON.—His Royal Highness the Duke of Cambridge occupied the chair at the anniversary dinner, held on the 10th inst., at the Hôtel Métropole. He was supported by his Excellency M. Akerman and many other official influential foreigners. His Royal Highness proposed "Prosperity to the German Hospital," and effectively urged the claims of the institution for public support. He remarked that the statistics of the patients treated during the past year showed a good record of work done. The balance sheet was on this occasion a very creditable one. A small surplus remained in hand. The year's income was £9918, and the expenditure £9300, which had enabled the treasurer to pay off a loan of £500. In the course of the evening subscriptions and donations were announced amounting to £2862.

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Reviews and Notices of Books.

Elephantiasis and Allied Disorders. By JOHN MAITLAND, M.D., Surgeon-Major, Madras Medical Service. Madras: Government Press. 1891.

OWING to the prevalence of elephantiasis and other forms of filarial disease in many divisions of the Madras Presidency, the Government of Madras has wisely published this book, so that surgeons in Southern India may have their attention called to the study of these disorders, which are of special importance to those who practise in that part of the world. This small work of forty-eight pages contains an excellent account of elephantiasis and its allied diseases. The etiology, the description of the filaria sanguinis hominis, the pathology, morbid anatomy, geographical distribution, and the symptoms and diagnosis of the diseases dependent on the introduction of the filaria into the blood are most clearly and simply described. The investigations of Wucherer, Salisbury, Lewis, Bancroft, and Manson are laid under contribution in their historical sequence. Two practical points are most strongly insisted on by the author. In discussing the treatment of elephantiasis of the limbs, he absolutely condemns the operation of ligaturing the main artery, which was proposed by Carnochan in 1851, and is even now sometimes performed. He also forcibly points out the impropriety of attempting, in operating upon the scrotum, to preserve any portion of it to form a covering for the testicles, and the cases recorded by him seem to justify his opinions. The book is illustrated with nine excellent plates, and those dealing with the anatomy and the development of the filaria are especially worthy of praise. This systematic treatise brings together the various accounts of the subject that have been published since Dr. Manson's work on the "Filaria Sanguinis Hominis," and presents us with an accurate and definite picture of the disease.

Epidemics, Plagues, and Fevers; their Causes and Prevention. By the Hon. ROLLO RUSSELL. 8vo, pp. 501. London: Edward Stanford. 1892.

PROFESSEDLY written by a layman for laymen, especially those officially concerned in local health administration, and for the purpose of putting into plain language what is usually clothed in technical terminology, it would be useless to expect a perfect scientific arrangement or classification in such a work as the one before us. But surely some better arrangement of headings could be found than an alphabetical one, which leads to "measles" being sandwiched between "malaria" and "Oriental sore," and to "disinfecting" coming between "pig-keeping" and "relation of weather and season to health." Again, beginning with an account of "spreading diseases in plants and animals," in which the parasites and fungi are treated of at somewhat unequal length, the author forthwith plunges into "cholera." We may say at once that the book is nothing more than a compilation of existing knowledge, not always selected with discrimination, and often taken haphazard from opinions more or less authoritative, expressed in medical and so-called sanitary periodicals. At the same time, the industry and diligence of the author in collecting all the different facts and opinions scattered throughout the volume cannot but be commended. Under the heading of Cholera, the memoranda and conclusions of the Vienna, Brussels, and Rome Conferences are conveniently set out, and Indian experience freely quoted. There is a considerable chapter headed Consumption, and much useful information concerning the tubercle bacillus and disinfection of sputa. In this chapter much is said regarding "colds," but the author goes somewhat beyond his *métier* in vaunting the use of ammonia and eucalyptus as antidotes in the first stage of a cold. Under Diarrhœa, account is given of Ballard's researches and of the Leicester and Hull experiences.

The Diphtheria chapter is very full, and contains accounts of Power's and Klein's researches into the connexion of this disease with milk, as well as reference to its association with disease of the lower animals. American experience is quoted at great length; but the close relationship of diphtheria to school attendance does not receive the attention it deserves. With regard to influenza, Mr. Russell appears to have abandoned his theory as to its recent causation by the Chinese floods, and lays greater stress upon the conditions (telluric and human) existing at Bokhara during the feast of Radaman, and before the appearance of the disease in Russia in 1889. He quotes freely from Dr. Parsons' Report, and agrees in his view as to the spread of influenza being personal and not atmospheric. A large body of Indian experience is brought forward concerning Malaria.

The influence of schools in spreading measles is acknowledged, and the author seems to incline in favour of compulsory notification of that disease. Ballard's and Klein's researches into Epidemic Pneumonia receive due prominence. The invaluable service of muzzling in repressing rabies is acknowledged. Mr. Russell gives an account of Power's and Klein's researches into the "Hendon disease," and recognises the need of improved farm-yards and of means of detection of animal disease. We are glad to find him sound upon the subject of Vaccination; but when he says that the average duration of immunity conferred by vaccination is ten years, he evidently intends to refer to primary vaccination only; and, after commending the fulness and preciseness of the Government instructions concerning vaccination, he should not fall into the error of requiring a standard area of one square inch, when the Government is satisfied with half that size. He quotes with commendation Power's researches as to the aerial diffusion of small-pox, and is advanced enough to advise the burning of all infected air from small-pox hospitals. He emphasises the frequent association of enteric fever with milk-supplies, and draws attention again to the necessity of an improved condition of farmsteads. On the other hand, the author's reference to typhus fever is very meagre, and not up to date. Some statistics of its marvellous decline in recent years ought to have been given. The lack of proportion in treating the different subjects, which is perceptible throughout the book, is shown in the short chapter on Whooping-cough, and the inordinately long one on Yellow Fever, though the former is of far greater interest to English readers. Mr. Russell has much to say on the subjects of Susceptibility and "Immunity," not always very clearly expressed. The references to hospitals, disinfecting and quarantine, are all meagre in the extreme, and on the latter subject he affords no information as to international questions, which are of such supreme importance. Sanitary science is somewhat too abruptly summed up in the two principles of cleanliness and isolation; though as to the necessity of unity of administration, and of its corollary, a central health office, with powers similar to those of the infant Board of Agriculture, we cannot but cordially agree with him.

If the author could see fit in a new edition to arrange the subject-matter differently, and to exercise a little more judgment and discrimination with respect to the mass of quotations which form his book, we do not see why it should not become a useful work of lay reference on the subjects with which it professes to deal.

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Pauperism and the Endowment of Old Age. By CHAS. BOOTH.

THE important questions discussed in Mr. Charles Booth's book upon Pauperism and the Endowment of Old Age are now sufficiently before the public to become matters of general and of animated discussion, although it must be confessed that the materials for debate are somewhat meagre and hard to discover. It is one of the conspicuous merits of a book like this that it conveys to the public mind a sense of the nature and shortcomings of the available information, and tends thereby to direct discussion along the lines that may be usefully followed. This is eminently true of the statistical material which is here treated. The great difficulty of assigning the mass of pauperism to its true causes has rarely been publicly demonstrated. The very greatness of the difficulty has a tendency to conceal it from public observation, for it has resulted in the production of official statistics of so vague and indefinite a character that the reader is easily led to suppose that nothing of interest or importance can be extracted from them, saving only the broad results which lie absolutely upon the surface. Yet, in fact, a better system would yield matter not only of the most striking significance so far as the poorest classes are themselves concerned, but also for all ranks of society, for much that is manifestly true of the pauper class is equally true, and only less manifest, of the classes above them in the social scale. For example, the causes of pauperism can be investigated with comparative ease, and it can be shown to what extent old age, disease, and vicious habits are severally responsible for destitution. As regards that class which lives upon the verge of pauperism a very small impoverishment brings them under the notice of the guardians; whereas those who enjoy a reserve of means do not reach this same level—a condition eminently favourable for observation,—unless and until the reserve is exhausted. But although less easy to observe, these mischievous forces are equally at work in the other strata of society. Sickness and drink do not put the less strain upon the resources of society because the strain is met and borne by private reserves. For example, if we take the figures which Mr. Booth has extracted from the Stepney records, we find that vicious habits, such as drink, laziness, and the like, count as principal causes of misfortune in 18 per cent. of the cases examined, sickness in something over 26 per cent., and old age in upwards of 32 per cent. To some extent these figures are, of course, characteristic of the people whose condition they portray, and to that extent they cannot be properly applied to another case. But it is nevertheless true that the parallelism is a matter of much greater importance than the disparity. The influences which cast the pauper into a state of destitution cause impoverishment, though not destitution, to his neighbours who are more well-to-do. But they are not equally mischievous. For example, old age is not a calamity to those who have the means during their prime of providing against its necessities. So, again, with sickness and with vicious habits these are probably besetments of the pauper class in a very unusual degree, but even if all possible allowance be made for such considerations we have here a most striking picture of the extent to which misfortune attends upon more or less preventible causes, and the vast field which invites the labour of the moralist and the physician.

As to the main drift of the book, we are by no means clear that Mr. Booth has made out his case. The provision of old age pensions for all old people is a measure of such vast financial proportions that it should not be seriously discussed until all reasonable alternatives have been considered. This is a view of the matter which goes much beyond the compass of the book, and it has therefore very naturally been left untreated, with the result that Mr. Booth has made nothing clear except the scheme which he favours. That is something, but it leaves even more to be desired.

OUR LIBRARY TABLE.

Religio Medici, and other Essays. By Sir THOMAS BROWNE. Edited, with an Introduction, by D. LLOYD ROBERTS, M.D., F.R.C.P. London: David Stott. 1892.—This exquisitely printed edition of an English classic is well worthy of its place in the dainty series to which it belongs. The enterprise of the publisher has been ably seconded by the skill and zeal of the editor, Dr. Lloyd Roberts, who, in a scholarly and finely sympathetic introduction, tells all that we require to know of the physician and philosopher who wrote the "Religio Medici," and the "Vulgar Errours." The book is one for which space could be found in the most restricted travelling-bag, and should, in fact, be the constant companion of the professional man on his holiday. It is almost as soothing to the troubled spirit as the "De Imitatione," while it stimulates thought and speculation in directions supposed to be but newly broken up by the medical pioneer. Take the beautiful essay on "Hydriotaphia or Urn Burial," for example. There we find an anticipation of the quite recent movement in favour of the reduction of the dead body to ashes, which, as Dr. Lloyd Roberts quaintly remarks, has "become a burning question in more senses than one." The most thorough-going advocate of cremation has nothing to teach Sir Thomas Browne; but, on the contrary, has much to learn from him in the solid erudition and calm ratiocination with which the whole question is considered and argued out. And all this is quite independent of the consummate merits of his style, reminding us, as few British classics can be said to do, that "the writing of English is one of the fine arts." As De Quincey asks: "When shall one hope to find music so Miltonic, an intonation of such solemn chords as are struck in the opening bar of a passage in 'Urn Burial'? What a melodious ascent, as of a prelude to some impassioned requiem breathing from the pomps of earth and from the sanctities of the grave!" But we need not dilate on the charms of one of the recognised "Dii majorum gentium" of English literature. Rather let us refer to the care with which the book has been presented to the reader, and to the general accuracy with which the frequent citations from the classics have been given. Now and again we meet with a misprint: "compana," for instance, instead of "campana"; "securisima" for "securissima." But these are rare; and does not Sir Thomas Browne himself admonish us that while "capital truths are to be narrowly eyed, collateral lapses and circumstantial deliveries are not to be too strictly sifted"? The volume is appropriately dedicated to a life-long admirer of the "Religio Medici," Sir Andrew Clark.

Analysis of Theology, Natural and Revealed. An Essay, contrasting the Pretensions of Religion and Atheism to Scientific Truth. By EDWARD GARLAND FIGG, M.D. London and Edinburgh: Williams and Norgate.—In this book we have a volume of exposition—copious, extensive, ingenious, and not wanting in erudition—of the author's theological views, which are not exactly orthodox in the ordinary sense, and on their relation to the latest findings of scientific observation. Its principal fault is an illogical and unscientific tendency to assumption. Due care is taken to expose, if possible, any gaps which may disfigure the solid highway of modern discovery; but there is no adequate sense of impropriety when the conclusions advocated by the author are reached after something of a scramble over defective premisses. The main argument contained in this work maintains the existence, apart from any material embodiment, of a spirit nature or spirit essence, which commonly operates in association with various forms

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of matter, with physical forces—such as light &c.; and, finally, with what are called vital essences belonging to the animal and vegetable kingdoms, and having their representative head in Deity. The derivation of the spirit essence is unknown, but its manifestations—which afford clear evidences of design—are noticeable in every department of natural action. The chapters on the Adamic fall, regarded here as allegorically expressive of a state of spirit-purity original in nature but invaded by error and attendant evils, on the light shed by nature and instinct on the relations of God and man, and on the resurrection—that is, the resumption of its fittest bodily surroundings by a particular spirit nature,—may be noted as more especially noteworthy. The view brought forward respecting the antiquity of the world is no less ingenious than it is in the highest degree conjectural. It implies the periodic destruction and reconstruction of the earth, with a corresponding change of orbit and all other conditions. On the whole, the work might be described as a species of romance in logic, not devoid of interest, but marred by a disregard for the teaching of material facts, which may be spiritual, but is not, to our mind, convincing. The form of expression chosen, that of a dialogue, becomes tedious after a time. Now and then we meet with serious orthographic errors. Thus for "psychical" we have "psycical," "Dalphos" for "Delphi," "crysalis" for "chrysalis," &c. The discussion is heavy from the mere abundance of language, though relieved somewhat by numerous illustrative references.

A Junior Course of Practical Zoology. By A. MILNES MARSHALL, M.D., and C. HERBERT HURST, Ph.D. Third Edition. London: Smith, Elder, and Co. 1892.—We have had occasion already to recommend this book as an excellent laboratory text-book. The appearance of a third edition in the course of a few years shows the estimation in which it is held. The authors have increased the text by about twenty pages, and have added a few new woodcuts, the chief of which are those showing the arterial and the nervous systems of scyllium canicula, and those illustrating the nervous system of the rabbit. It is one of the best of the many zoological manuals that are now accessible to the student.

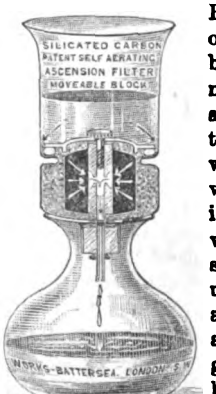
Plumbing Practice. By J. WRIGHT CLARKE, Instructor in Practical Plumbing at the Polytechnic, London. London: *Engineering and Building Record* Office. 1891.—This is a practical and not a theoretical work. It is meant for the education of plumbers, but it will be useful to all whose business it is to see that plumbing is properly done—in other words, to all who are anxious about their drains. The work commences with a simple description of the principal metals used in plumbing, and their alloys, how they are obtained, how manufactured, and how utilised. The book is full of practical hints. For instance, it points out that lead pipes are often bruised by the mere transit from the place of manufacture to the place where they are to be used. Then the half- or three-quarter-inch lead pipe is sometimes bent on the spot. Such bending contracts the water-way. It is essential that the barrel of the pipe should be smooth and even throughout. If there be any difference, the pipe should be larger and not smaller at the bend. Needless to say, the art of bending pipes, forming elbows and syphons, is a fundamental question, and when not properly done causes deposits which ferment and become dangerous to health. After seeing that the pipes are perfectly round and properly bent, the joints should be inspected, and three chapters are devoted to this phase of the subject. Pipes, even when properly made, get out of shape through being suspended on hooks from walls. The subject of lining and laying sinks and cisterns is next considered, and then we approach the more familiar questions of sewers, drains, closets, sinks, ventilation of soil pipes, baths, slop-water, &c. Though these appertain to plumbing, they are subjects dealt with in every book on sanitation. Mr. Clarke gives us new instances of syphonage and many illustrations to show how traps fail to act and how their seal is destroyed by the clumsy manner in which they are adjusted. We find also a good deal of information about hot-water pipes and circulating boilers. An excellent index at the end of the volume enables the reader to refer easily to every point raised in the book. If such works were more generally studied and the lessons they teach remembered at the moment of hiring or purchasing a house, the jerry builder would fall upon hard times.

House Drainage: a Handbook for Architects and Building Inspectors. By G. A. T. MIDDLETON, Associate of the Royal Institute of British Architects, and Member of the Society of Architects, &c. London: R. T. Batsford. 1892.—This is a satisfactory book of its kind. It has the advantage of being a small book; but it sets forth in a clear and concise way the principles of the subject, and illustrates and describes the best modern appliances and methods of carrying out such principles. It is illustrated by nineteen plates and diagrams, and the text is arranged in eight chapters, embracing such subjects as are practical and useful, and about which information is most necessary.

New Inventions.

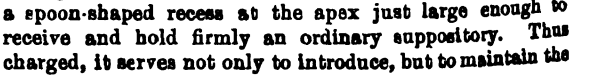
AN IMPROVED TABLE FILTER.

THE Silicated Carbon Filter Company, of Church-road, Battersea, have sent us a sample of their improved silicated carbon table filter, in which the main novelty consists in the adoption of an arrangement by which the air under the aerator cover is forced, by the weight of the water in the upper vessel, through the filtering medium itself. Thus the impregnation of the water with air is to a certain extent secured. As we have frequently urged, aeration is just as important a factor in the purification of water as is efficient filtration, and we are glad to find that makers of filters have of late given their attention to this very important point.



NEW SUPPOSITORY INTRODUCER.

THIS instrument is very simple in construction, being merely a solid vulcanite bar conveniently curved, and having a spoon-shaped recess at the apex just large enough to receive and hold firmly an ordinary suppository. Thus charged, it serves not only to introduce, but to maintain the



suppository in contact with the surface it is desired to affect during solution, and afterwards of absorption or continued application, as may be desired. The instrument has been made for me by Messrs. John Richardson and Co., Leicester, Limited, and answers perfectly.

Mountsorrel, April, 1892. W. PAULSON, L.R.C.P. &c.

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...n of soil pipes, baths, slop-water, &c. These ... appertain to plumbing, they are subjects dealt with ... on sanitation. Mr. Clarke gives us new ... with care and many illustrations to show how ... act and how their seal is destroyed by the ... which they are adjusted. We find also a good ... and remarks about hot-water pipes and circulating ... An excellent index at the end of the volume ... the reader to refer easily to every point ... work. If such works were more generally ... persons they teach remembered at the moment ... purchasing a house, the jerry builder would ... hard times.

How I manage. a Handbook for Architectural Students. By G. A. T. MIDDLETON, Associate ... Royal Institute of British Architects, and Member ... Society of Architects, &c. London: B. T. Batsford. ... This is a satisfactory book of its kind. It has the ... of being a small book; but it sets forth in a clear ... concise way the principles of the subject, and ... and describes the best modern appliances and ... of carrying out such principles. It is illustrated ... seven plates and diagrams, and the text is arranged ... chapters, embracing such subjects as are practical ... and about which information is most necessary.

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W. PAULSON, L.R.C.P.

THE LANCET.

LONDON: SATURDAY, MAY 21, 1892.

THE May meeting of the Medical Council will be inaugurated on Tuesday next, at two o'clock, with the President's address. In the absence of the official programme it is not easy to forecast the exact nature of the discussions; but the general drift of them may be surmised. There will be some noticeable differences in the *personnel* of the Council. One of them will be caused by the retirement of Professor STRUTHERS, and in his place Dr. ANGUS FRASER will represent the University of Aberdeen for the next five years. Dr. STRUTHERS will be much missed. He was not always in debate a master of the art of making his opposition pleasant. But he did much hard and valuable work in the Council, especially as chairman of the Education Committee, and he spoke with the authority of a large experience and a rare enthusiasm as an anatomical teacher. The University of Durham, in consequence of the death of Dr. GEORGE HEATH, will now be represented by Dr. PHILIPSON of Newcastle-on-Tyne. The newly elected Direct Representatives, having previously served in this capacity, should bring to the Council the advantage of some acquaintance with its methods and a large knowledge of the views of the profession. It is customary to regard the May meeting of the Council as set apart more especially for the discussion of questions of medical education. And in the light of the great extension of time that has been given to the medical curriculum and the great additional opportunities which such an extension affords to medical teachers, it is reasonable to think that some discussion will be devoted to securing that this extension shall be put to the best uses. But the Council will not have at its approaching meeting the full materials at its disposal to permit of exhaustive treatment of the subject. The term of five years only now becomes obligatory. It applies to those alone who commenced their medical studies after Jan. 1st, 1892. In the first instance it is the duty of the medical authorities to say how this additional year is to be used. They are understood to be diligently considering this question. They have been requested by the Medical Council to forward to the registrar, at the end of the year 1892, a copy of their regulations, in the form in which they then stand, and under which they confer qualifications in medicine, surgery, and midwifery. The Council, and especially its Education Committee, are responsible for this eventful change in the conditions of medical education, and it is to be hoped that the coming meeting will give evidence that the Council is alive to its responsibility on this subject and is resolved to make its influence felt. It is easy enough for the Council to toss a great resolution like this to the bodies to be worried by them, as dogs worry a bone, all fighting for their own interests, and all alike ready to add to the existing agonies of medical education and examination; but the Council is expected to follow up its resolutions and to see that the spirit and purpose of them are fulfilled. This important addition to the burdens of the student and his parents arose out of proved defects in practical education inseparable from a too theoretical way of teaching. The Council itself has clearly indicated that the additional teaching that is to be imposed shall be clinical and practical in its character. It will doubtless ascertain by its inspection and its inquiries how far this essential object is being secured. There is one thing almost more important in regard to which we may hope, at the approaching meeting, to receive some light. Last year the Secretary for War took the Council into consultation on the defects of preliminary education shown in candidates for the medical service of the army. The Council passed a resolution asking the bodies to take note of instances of candidates in whose examinations evidence of gross defect in general education occurred, and of the bodies by which such candidates had been passed in preliminary subjects, and to report to the registrar of the Council. We shall see if any light is thrown by this means on a subject which deeply affects the character and standing of the medical profession. It is lamentable to see the failures of some students in their after career. It would be true kindness to reveal their unfitness to them at the preliminary stage of their course. Other questions affecting the bodies, or interesting to the profession, but of a more or less general character, are likely to arise. The Council, when discussing this question of preliminary education, expressed regret and disapproval of the medical examining bodies continuing, as in the case of the Society of Apothecaries, to examine in general education. We may hear whether such bodies are prepared to abandon this part of their work. But we shall be better prepared to judge them when we know what bodies pass men whose spelling is so faulty that the War Office makes it a ground for inquiry. It may turn out that general educational bodies are as lax in this matter as others.

Although at the May meeting the Council is supposed to be occupied with high educational matters, it will not be able to exclude more painful duties. We understand that there are several cases in which charges against practitioners of employing unqualified assistants in a way of which the Council has repeatedly and significantly expressed its strong disapproval will have to be investigated.

THE debate upon renal dropsy at the Royal Medical and Chirurgical Society is to be reckoned amongst the chief features of medical interest of the year. The discussion upon "immunity" recently raised at the Pathological Society, from the greater novelty of the subject, naturally attracted a larger audience; but the speakers represented the practical pioneers of pathology and bacteriology, while the debate upon the every-day subject of renal dropsy was necessarily carried along the more uncertain ground of deductions drawn mainly from clinical observations, and many of those who spoke merely gave their own interpretation of facts which were not in dispute. It is interesting, though by no means surprising, to find that this subject

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could furnish material not only for a lengthy paper from Dr. DICKINSON, but also for a discussion which consumed the available limits of two meetings, and gave evidence of great divergence of opinion amongst many physicians whose position and clinical experience entitle their views to respectful consideration.

Such differences of opinion were apparently to a large extent the result of the attitude assumed by Dr. DICKINSON towards the part played by the capillaries in acute and chronic forms of dropsy dependent upon acute or chronic kidney disease. His ideas were in the main foreshadowed in his Harveian Oration. They were then objected to in certain quarters, and in answer to the challenge he promised to present them more fully in his communication to the Royal Medical and Chirurgical Society. In his preliminary remarks he traced the various agencies under which fluids pass through the capillary walls, laying especial stress upon filtration or transudation under pressure. Step by step he elaborated this idea, and at the same time gave his reasons for considering that osmosis was an insufficient and unsatisfactory explanation; indeed, at a later stage he did not hesitate to say that the theory of osmosis "was dead—irrevocably and thoroughly dead." Having thus gone a certain distance on lines of destructive criticism, he threw out the idea that the association of œdema and increase of tension could be attributed to some condition of the capillaries due to abnormality of blood, which both hinders its passage and promotes transudation. Turning to chronic conditions, he maintained that the associated cardio-vascular change is the direct antagonist of dropsy, and he adduced an array of cases, tables, and cardiac diagrams in support of this contention. By ingeniously contrasting the conditions met with in acute nephritis with those of granular kidney, an air of greater probability was afforded; since with the former there is much dropsy with slight hypertrophy, while with the latter there is much hypertrophy with little dropsy until towards the fatal termination, when dilatation of the heart is accompanied by an increase of dropsy. These facts, however, have previously been claimed (and were claimed again in the course of the discussion) in support of the older theory of the conservative hypertrophy of the arterioles. Dr. DICKINSON, while he admits the truth of Dr. GEORGE JOHNSON'S description of the muscular hypertrophy of the arterioles, nevertheless believes that the observations of SIR WILLIAM GULL and Dr. GAWEN SUTTON upon fibroid thickening were equally true; but having gone so far with previous workers he parts company with them, and endeavours to refer all questions of obstruction to the circulation and consequent transudation to changes in the capillaries rather than to changes in the arterioles, even though the nature of the capillary obstruction must be left undeclared. His final conclusions are peculiarly noteworthy, since they comprise his views not only upon renal but also upon cardiac dropsy. "Under heart disease there is diminished absorption without any presumption of increased exudation, or not to any important extent. Under kidney disease there is increased exudation without any necessary or constant diminution of absorption. Both are essentially connected with modifications of blood-pressure—in one from obvious obstruction to the venous return; in the other from some presumably obstructive condition of the capillaries, which is attended with enhanced exudation from them, and associated with increased pressure within the arterial system."

Dr. GEORGE JOHNSON, whose views upon the stopcock action of the arterioles are so well known that they require no restatement here, once more raised his voice in support of his doctrine that the arterioles could impede or arrest the circulation, and maintained that there was no evidence that the capillaries possessed a similar power. He thought there was no evidence of an increase of capillary pressure in renal dropsy, and he inclined to the idea that renal dropsy might be best explained as a vital act of the endothelium excited to eliminate certain noxious solids and fluids from the blood. Dr. PYE-SMITH dwelt upon the importance of distinguishing two forms of dropsy with renal disease—a late "hydraulic" variety, which was purely cardiac in origin, though associated with granular kidney; and an early or renal variety, found with the large red or the large white kidney. So far his views appeared to be completely in harmony with those of Dr. DICKINSON, and indeed of most subsequent speakers; but in his explanation of the renal variety he stood alone in regarding it as possibly an inflammatory effusion, and not true dropsy, the seat of the inflammatory changes lying in the connective tissues. The cardiac origin of the late dropsy of renal disease received the support of Dr. DOUGLAS POWELL, who also thought that the high tension pulse of kidney disease had nothing to do with the production of dropsy. Dr. BROADBENT similarly accepted the explanation of the dropsy of old-standing chronic Bright's disease, and, without definitely accepting Dr. DICKINSON'S explanation, thought that it was in all probability the most correct theory yet formulated. Dr. SANSOM argued in favour of auto-intoxication, and referred to the late Dr. WOOLDRIDGE'S experiments with the injections of toxines into the blood. The influence of uric acid upon the contraction of arterioles was also mentioned, and an attempt was made to show that the more or less rival theories of Dr. DICKINSON and Dr. JOHNSON were perhaps not wholly irreconcilable. An unexpected jubilant tone pervaded Dr. DICKINSON'S reply, and he naturally adhered to his view that the capillaries were the primary seat of the obstruction, whatever might subsequently take place in the arterioles. His belief in his theory was so strong that he thanked Dr. BROADBENT, not for supporting him, but for "supporting the truth."

At the conclusion of the debate the President, Sir ANDREW CLARK, stated that it had originally been his intention to give a short summary of the discussion, but he shrank from the task of being drawn into expressing any general conclusion upon the various views expressed. Admitting the great interest of the debate, we also may perhaps be pardoned for thinking that a final solution has not yet been reached.

IT has been our pleasant duty, as well as our privilege, to record from time to time some very creditable deeds on the part of medical officers of the military services. It is also not long ago that the name of GRANT of Thobal

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fame was uppermost in men's minds, and now the self-reliance and pluck displayed by a very young officer of the Royal Artillery—Lieutenant MACMUNN—have attracted attention. The great training ground of India has afforded them, as it has done to many of our officers, an opportunity for the manifestation of qualities which might otherwise have never been exhibited at all. Some of these various instances have been illustrations of what is commonly called "pluck," some of devotion to a sense of duty, some of enterprise, fortitude, or what not,—for courage takes a variety of forms, and is of different qualities. It has been the frequent theme of poets, philosophers, and essayists. In so far as physical courage is the outcome of physical energy—of constitution and temperament, for example—it is physiological in its nature and origin. It is often the resultant of a young and vigorous vitality, prodigal of life, in which the whole animal machinery is adjusted in harmonious action and toned with the right sort of temperament. The nervous centres are irrigated by blood streams pumped into them by a vigorous heart; the tissues flow with healthful sap, and the will moves straight along the highway to action, without lingering in any by-path, to be "sicklied o'er with the pale cast of thought." Men of this stamp seem to be without any sense of fear whatever. Deeds of daring are to them but a pleasurable excitement; risk and danger simply add a *soupçon* of exhilaration to the work. This is a form of animal courage, of an eager and impetuous sort for the most part, born in certain men and races. It is a terrible force in attack, but liable to panic, and unstable in so far as it is influenced by fluctuations in health. There is another type, the antithesis of this, in which great courage is manifested by those who are popularly styled highly-strung nervous men. Under excitement, or when suddenly called upon to face great danger, and under states of nerve tension, such men become cool, deliberate, and altogether regardless of fear. They are frequently men of marvellous resolution. The pallid face and apparent manifestations of "funk" are really but an outward sign of the inward working of the physiological mechanism. They answer to NAPOLEON'S two o'clock in the morning courage. We once knew a determined dog that went out of his own accord and doggedly laid himself in wait at the corner of a street for his enemy. He was in a nervous quiver from the tip of his nose to the tip of his tail. Nevertheless, the other dog found him resolute enough. But there are many types—too numerous to mention—such as the intellectual and moral kinds of courage, and that intimately associated with the phlegmatic temperament, in which doggedness of purpose and insensibility to emotion and pain are the main elements.

Courage and fortitude are two very different things. A man may exhibit great pluck and "nerve" in facing an unexpected danger who would be crumpled up by the slow fire of affliction, or worn out by the friction of continued difficulties, or stunned by the impact of repeated blows. The ardour and élan of young troops will impel them to attack at any odds, but they are liable to lose their heads in surprises, and to be influenced by the contagion of fear and panic from the other hand, although the older and more [illegible] seem about attacking, it is uncommonly hard to drive him from his purpose when once he begins. The physical courage, which in the main depends upon physical qualities, and is fortified by discipline, is, we imagine, rather likely to be weakened by education and thoughtfulness; and it becomes a nice point, to determine whether the increase of the soldier's efficiency in one direction, by education and the exercise of his intelligence, may not be diminished in another, when troops are called upon to undertake the self-sacrificing duty of a highly hazardous or impossible service for some great, but to them unknown, strategical gain. It requires the absolute obedience of an unreasoning mind to attempt the impossible for an unknown object. Courage under such circumstances is the fruit of the tree of ignorance, and not of knowledge. Fearlessness is often the result of ignorance of danger, as in the case of children and some semi-civilised nations. The bravery of some men is intimately associated with their vanity. Apart from vanity they are cowards. They will do anything so long as it is in the presence of spectators or in the expectation of fame and praise, just as there are some men whose bravery may always be counted on regardless of praise or blame, and who would be heroes in the dark. Although courage is born in a man there are some excellent substitutes for it, such as the force of fanatic zeal and fatalistic belief; and it can be wonderfully developed—it may almost be said to be created—by training and by familiarity with danger, provided it be not a danger that dominates the imagination with a feeling of powerlessness. BUCKLE was right in saying that impressions made by the forces of nature developed fear and superstition, and that men do not grow braver by living in a land of earthquakes. The courage of even the bravest man is not any fixed quantity. It is not always the same by any means. It depends greatly upon varying but unrecognised states of health, for one thing; and for another, perfectly new kinds of experience will sometimes impress the imagination and instil timidity: the boldest cross-country rider may turn pale in a boat. One of the great merits of RUDYARD KIPLING'S graphic sketches consists in this: it has raised our estimation of the British soldier, who undoubtedly possesses, with much that is coarse and brutal, some noble qualities. He is patient, brave, dogged and determined, generous, and the least vindictive of men; and TOMMY ATKINS is not given to hurting a dog or a little child. But after all is said and done, courageous men are, like poets, born, not made. Take the latest instance, Lieut. MACMUNN. Accompanied by fourteen Goorkhas and some Panthay mule-drivers who had charge of a convoy of some commissariat mules, he marched twenty-four miles through a hostile country subjected to the fire of a concealed and stockaded enemy. He was little more than a boy, and alone with troops he had never seen before. He pushed on to Sodan, whither he was going with some rum for the little garrison there. He "rushed" several stockades and crossed a river under fire, having by his self-reliant leadership impressed some of the bravest troops in the world—the Ghoorkhas—with admiration of his pluck. The GRANTS and MACMUNNS of our public schools leave England with the corners of the British flag grasped unconsciously in their hands, and spread it over the four quarters of the globe. It is to them, and men like them, that we owe our national name. A handful of boys is shipped to Africa or

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Egypt, to the Black Mountains or Burmah—no matter where; and, as long as they can stand, we may depend on them to push on. Bad health they merely look upon as bad luck; and, having denounced the heat, they do their utmost to forget it in some form of sport—of which the best is probably, in their opinion, fighting. Anyone who knows Burmah, for example, knows this class of man; he laughs at fever until smitten by it, and laughs again when he recovers. He goes sadly into hospital, but comes out of it quite cheerful when cured, and hopes he has not lost his opportunity. His soul, in times of peace, is given to his gun and polo pony; in times of strife, to getting these to the scene of it; and, having got there, to getting further. So the tentacles of British rule are pushed out, not to be withdrawn. So England has become an empire; and, while force of will and pluck endure, she will extend her boundaries from sea to sea and land to land. It may seem vainglorious to say so, but no other nation works and plays as England does on foreign soil; no other nation kicks a football in the Afghan Hills, or wields a cricket bat in Upper Burmah. No other nation persistently defies climate and disease, and labours under a tropical sun or amidst icebergs with the same indomitable perseverance, scornful in the matter of difficulty and unconscious of defeat. Any Englishman with work to do will do it if he can or drop. Thousands upon thousands of them do drop, but thousands more press on. The giant in the fable who "smelt the blood of an Englishman" was doubtless allegorical and certainly ubiquitous. The motto of the regiment to which MACMUNN belongs, and the nature of the nation of which he is a son, are both of them "ubique."

THE ordinances made by the Commission appointed by the Scottish Universities Act of 1889 have now been issued in their final form, and were brought before the House of Commons on the 10th inst. Notwithstanding the opposition of Mr. HALDANE, Dr. CLARK, and Sir G. TREVELYAN, they passed the House by a large majority of votes, having been supported by the able and thorough advocacy of Professor JEBB and Sir H. ROSCOE. We referred last week to the unsatisfactory position in which the subject of *materia medica* is placed by the ordinances dealing with the study of medicine, but this was a merely incidental question raised by Dr. FARQUHARSON. The main discussion was very important because it practically decided whether "extra-muralism" was to be introduced into the other faculties as well as into the Faculty of Medicine, in which everyone acknowledged it had worked admirably and with marked advantage to the teachers as well as to the students. Professor JEBB pointed out most clearly the differences in aim between the education of the student in arts and of his brother student in medicine. The study of medicine, he said, is a professional study, and the fitness of the medical student for the practice of his profession can be tested by a proper series of examinations; and, provided he has the theoretical and practical knowledge, it is not material where this has been acquired. Such is the usual argument; but, if this be everything, why should certificates of attendance on lectures and hospital practice be required by all examining bodies? Even such a purely examining board as the University of London dares not in medical subjects trust to examination tests only, but demands evidence of a very strict and thorough course of medical training. In fact, both training and examining are essential; indeed, we think too much stress is laid by many bodies on examination tests, which we know to be not always judicious, occasionally capricious, and in nearly every case, for many reasons, necessarily incomplete. Whilst other practical and technical branches of science can also be thoroughly tested, literature and arts come into a different category. In these it is the function of the teacher to educate the mind, and his teaching should be of quite a different type to that of those who would simply give instruction to assist a student through an examination, or who are obliged to lay special stress on those technical details which necessarily must be of primary importance to everyone whose object in life is to gain entrance into, and practise the arts appertaining to, a technical profession. It has been particularly creditable to the Scotch Universities that the teaching of their best professors in literature and arts has never been unduly cramped or fettered habitually by a regard to mere examinations. A very different course has been followed by the University of London, and private study of given works, aided even by "correspondence crammers," has taken the place of the higher University teaching. A candidate for its B.A. degree is no longer judiciously taught step by step the classical and modern languages as a University teacher would educate him, but his attention is assiduously directed to a set textbook or to a given author, and he learns little beyond these, because nothing else pays at the examination. If the Scottish Universities were to recognise teaching in arts otherwise than by the professors or lecturers under their control, they could not restrict extra-mural teachers to the great centres, but would have to include other teachers residing all over the kingdom, for many of these would be equally competent to teach, and the Universities would then become mere examining boards. Their great functions as teaching bodies of the highest rank would soon be gone, and the students would no longer take the trouble to go to the Universities, but would endeavour to pass the necessary examinations by the aid of local tuition. In short, the whole of the Scottish University system, with all its traditions and merits, would be destroyed. We are pleased to see that the Commission has determined on the appointment of additional lecturers and practical assistants in many subjects; a properly fixed payment for these lecturers should be made from the financial chest of the University. Such improvements are urgently needed, and the University Court, not the Senatus, should have the control of the finances. In such matters, and in other details of less importance, we would strongly support the reforming party; but we cannot ignore the many advantages in the new ordinances, or unreservedly support an opposition which, because of some defects not being removed, might have deferred all University reform to a distant and uncertain future. The position of the question of the higher education in London at the present

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moment is surely a sufficient warning to injudicious and extreme partisans, content with nothing less than the adoption of every minute detail in their own schemes of University reform.

Annotations.

"Ne quid nimis."

THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS AND THE FELLOWS OF THE COLLEGE.

WHEN the Council of the Royal College of Surgeons of England appointed a committee, at its meeting in March, to consider whether any, and if so what, further advantages could be extended to the Fellows, it was generally thought that at length the often-expressed wishes of the Fellows for a substantial voice in the affairs of the College were about to be fulfilled. So satisfied were some of the members of the Association of Fellows that they began to talk about dissolving the Association in the near future. All ideas of this kind must be absolutely abandoned, for it is probable that a great deal more pressure will have to be brought to bear upon the Council before any substantial concession is made even to the Fellows, to say nothing of the Members. The Committee of the Association of Fellows, hearing of the action of the Council, suggested that a deputation from the Association should be asked to meet the Committee, in order to set forth the views of the Association. To this request the Council has returned the following reply:—"That the Council do not consider it expedient that their Committee should receive any deputation, but that the Council will be glad to receive any written communication from any Fellow or Fellows of the College as to any further advantages, *not involving changes in the Charters and By-laws*, that might be extended to the Fellows." The words in italics clearly show that the Committee has not been allowed a free hand in regard to the recommendation of privileges to be granted to the Fellows. The election of the President of the College by the Fellows, which so many Fellows desire to see accorded to them, and the simplification of the present method of distributing and receiving voting papers in the elections for the Council, cannot be conceded without changes either in the Charters or By-laws, or both; so that even the consideration of these important measures must be set aside. In the same spirit, no doubt, every obstacle will probably be raised to making the consultation of the Fellows at separate meetings real and efficient. For the last eight years the Association has persevered, and it is now beginning to reap the fruits of its labours. That some concession will be recommended by the Committee of Council we do not doubt; but of this we are equally certain, that it will fall short of what the Fellows desire, and what they ought to have. Let it be remembered that all concessions which are not confirmed by Charter and By-laws must prove illusory. They will be revokable at the pleasure of the Council, and, like Dead Sea fruits, they may tempt the eye, but they will be liable to turn to ashes on the lips. Until the concessions are made real, substantial, and lasting by the sanction of the Home Secretary and of the Crown, let no thought of dissolution enter again into the minds of the Committee of the Association of Fellows, but let them redouble their exertions and fight the battle till the victory is [illegible]

WESTMINSTER SCHOOL.

WE understand that five cases of scarlet fever broke out in one of the boarding houses between the 7th and the 10th of this month (inclusive), all of which were removed to the sanatorium. The cases were thus isolated, and it was hoped that the outbreak would end here, and that the work of the school might still go on. But on the 12th, 13th, and 14th four additional cases occurred in the same boarding-house. There have been also two other cases of scarlet fever among the home boarders. One was a day boarder at the boarding-house above referred to, and formed one of the first batch; the other case has arisen since the dispersal of the school. After consultation, it was thought advisable to close the school, and to take the opportunity of thoroughly cleansing and disinfecting the whole place. It was believed the contagion was still limited to the one house. The cleansing and disinfecting are now in progress, and Dr. Bristowe, the medical officer, has every reason to believe that the school may safely reassemble in the course of two or three weeks. The primary source of infection has not been ascertained; but it is clear that the first group of patients must all have contracted it from the same source. The later cases no doubt caught the disease from the earlier ones. The outbreak has been of a remarkably mild type. Not one of the cases has given cause for any anxiety, and most of them have been so slight that, but for the light thrown upon them by other cases, they might easily have been overlooked. It is but right to add that the school has enjoyed a remarkable immunity from infectious disease, and that this is the only term for over twenty-six years in which it has been necessary to disperse the boys.

THE RECENT ELECTION OF SECRETARY AT THE PATHOLOGICAL SOCIETY.

AT the annual general meetings of our learned Societies it is usual for the Council to put forward a list of names of candidates for the various offices, the individuals nominated being carefully selected after due consideration of their merits. This, of course, does not bind the Society at large to abide by the choice of the Council; and we should be the last to advocate that the power of ultimate selection should be taken from the general body of the members. But so much confidence has been hitherto invariably, and we think rightly, placed in the discretion of the Councils of the Societies that the ballot has come to be regarded by most of the members as a mere matter of form, and only a tithe of them usually go through the formality of recording their votes. Under these circumstances it is quite possible for a small clique to take advantage of the confidence of the Society and use for their own ends the prevailing laxity as to voting. In this connexion we regret to have to allude to what occurred at the last meeting of the Pathological Society. The Council, in the ordinary course, had asked a surgeon to allow himself to be nominated for the post of surgical secretary, and his name appeared in due course on the ballot-sheet. Certain members of the Society connected with a particular hospital thought that one of their own staff should be appointed to the post, and so they came down *silently* and voted in a body. They represented but a small proportion of the meeting—an insignificant minority; for the greater number of members present were contented to believe that the nominees of the Council were safe. We can only conclude our remarks on this unpleasant incident by recording the surprised and indignant feeling of the meeting as expressed afterwards by groups of its members who discussed the subject. The moral to be drawn from the occurrence is obvious. Every member of a learned society who [illegible]

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to preserve the traditions of the profession in these matters and uphold the power of the Council should take care to perform the trivial and simple, yet all-important, duty of recording his vote on these occasions; and it is well worth consideration by the Society whether any additional nominations to those on the circulated list should not be made sufficiently public to enable all to express an opinion on the relative claims of candidates.

SUSPENSION OF A POOR-LAW MEDICAL OFFICER.

WE gather from the *Cheltenham Examiner* that Mr. Walters, one of the district medical officers of that town, has been suspended from his duties for not visiting without an order the child of a person receiving parish relief. We consider that Mr. Walters has been badly treated, as he did nothing legally wrong, and we strongly advise him to appeal to the Local Government Board. If the rule relating to the granting of orders be ignored by parochial medical officers, appointments of that nature will not be worth having, and it will tend still more to increase the erroneous impression that parochial medical officers are at the beck and call of anyone choosing to send for them. We may mention that Mr. Walters's legal advisers, and also the clerk to the guardians, considered he had acted according to the Consolidated Orders.

THE IDEAL CONSULTANT.

WHEN, nearly a generation ago, Sir Henry Acland in a memorable publication introduced the Oxford Museum to the academic world and foreshadowed the benefits it would bring to liberal culture as a whole, and more particularly to that of the physician, he gave a picture of the "ideal consultant" which, if more comprehensive than detailed, may be said to come as near perfection as such compendious characterisations are capable of reaching. In a quotation from Suidas he adduced the answer of the consultant Trophilus, when asked to define the all-accomplished physician:—"It is he," said Trophilus, "who is able to distinguish between what can and what can *not* be done." This definition may be said to cover every requisite in the medical adviser in whatever circumstances the exigences of his calling may place him; but it does not, of course, enter into native aptitudes, or acquired dexterities, or in short into the *ensemble* of qualifications which combine in the physican who is ever ready and never at fault. One definition, or rather indication, of what the successful consultant really is was incidentally given some years ago, by an outsider, in a strictly professional controversy—a definition which embodies the lay belief in the personal power of the physician apart from what special discipline can make him. "A great physician," he said, "is a great artist." This also is true, and will be found on closer analysis to explain the extraordinary success of practitioners whose book-learning or laboratory training is notoriously far inferior to their power in diagnosis and their success in treatment. The Athenian intellect at its best and in its most characteristic mood—essentially artistic as it was—seemed to fulfil the requisites which from time to time attain medical embodiment in a Sydenham, or, to come within our own day, in a Bamberger, whom, *consensu omnium*, each morning's encounter with cases of every kind in the Vienna wards found seldom or never at a disadvantage. That intellect, in its combination of nimbleness with strength, of centripetal insight with sense of proportion and judicial balance, has been described for all time by Thucydides in his wonderful picture of Themistocles. He dwells on the native understanding of "that Athenian of Athenians"; on his power, without previous information or after-thought, with, indeed, the briefest consideration of the problem in hand, to form a picture in his mind of what it really implied and of what its solution would yield—diagnosis, in short, and prognosis, almost improvised as to readiness; and again, when the problem admitted of only an approximate or provisional solution he could—"this way and that dividing the swift mind"—alight on the better and avoid the worse interpretation, even in the absence of previous prompting or of the data indispensable for less artistic minds. The whole passage (*Thuc*, i., 138) is well worth pondering in this connexion, and will serve to explain how the idea of an "artist" dominates the popular conception of the consummate physician—as is, indeed, involved in the German word "Arzt," which Becker rightly derives from the Low Latin "artista." Noteworthy, too, is the fact that the intellect here typified is always genial, always repays the confidence it invites by possessing the patient with the belief that his malady is indeed of personal interest to his adviser, who considers, and pronounces, and prescribes as if he were in the other's place. That is what Celsus means when he talks of the "hilaris vultus" of the ideal consultant—what Horace implies by the "deformis ægrimoniæ dulcibus alloquiis." The character thus equipped by nature becomes more and more developed by experience, till, as statesmen and men of letters, and indeed the moral and intellectual grandees of every age, combine in attesting, humanity appears in no more admirable or lovable form than in that of the "ideal consultant."

THE JOURNAL OF PATHOLOGY.

THE publication of the first number of the new *Journal of Pathology*, of which Dr. Sims Woodhead is editor, is an event which requires a few words of special notice; for, notwithstanding the large number of active workers in this field, they have hitherto been content to record their observations in the Transactions of societies and the columns of the general medical press. But we gladly welcome a special medium for their publication, which has long been needed in this country. The journal is apparently planned upon much the same lines as the now well-established *Journal of Physiology*, and we have no doubt it will attract many excellent contributions. We have before us the advance sheets of the first issue, and can testify to the variety and value of the papers it contains. The first place is rightly given to an article by the foremost pathologist of our generation, Professor Virchow, who writes upon Transformation and Descent with the lucidity that characterises all his work. He expounds once more the nexus between physiological and pathological processes by reference to the cell doctrine, explains how metaplasia is brought about, and restates the argument in support of tissue proliferation in relation to new formations. Dr. Metchnikoff of Paris contributes a paper on the Aqueous Humour in Relation to Micro-organisms and Immunity, and proves from his observations that the aqueous humour is not only "a good cultivating medium for micro-organisms in general, but also for the special microbe to which the animal from which the aqueous tumour is taken is immune." Although occasionally the aqueous humour has bactericidal properties, these stand in no relation to the immunity of the animal concerned. Dr. Sidney Martin follows with an interesting account of a Chemical Examination of a case of Anthrax in Man. An important Study of Cerebro-spinal Pressure is afforded by Mr. H. Percy Dean, based on clinical and experimental observations; and Dr. James Mackenzie of Burnley deals with the question of Venous Pulsations, and describes a ready method for their record. His paper is enhanced by detailed accounts of cases, and the conditions under which the phenomena occur are fully stated. The waves described and graphically figured are shown to be

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a hand, to form a picture in his mind of what ... yet and of what its solution would yield—... and precocious, almost improvised as to ... case, where the problem admitted of only a ... a true provisional solution be could—"this way ... for the sworn mind"—slight on the better ... the worse interpretations, even in the absence of ... grappling on of the data indispensable for the ... The whole passage (Titus, i, 158) is well ... concerning in this connexion, and will serve to explain ... views of an "artist" dominates the popular ... the consummate physician—as is, indeed, implied ... as were "Arzt," which Becker rightly derives ... Low Latin "artista." Noteworthy, too, is the ... which here typified is always genial, always ... before it invites by possessing the patient's ... that his remedy is indeed of personal interest ... ever, who considers, and pronounces, and prescribes ... he were in the other's place. That is what lies ... we can be sure of the "hilaris vultus" of the ... art—what Horace implies by the "defensus ... ... amicus." The character thus acquired ... nature becomes more and more developed by experience ... as statesmen and men of letters, and indeed ... and intellectual gracilees of every age, combine in ... ... ally appears in no more admirable or lovable ... than in that of the "ideal consultant."

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both of auricular and ventricular origin—in relative predominance according to the extent of the cardiac defect present. Professor Halliburton records his later observations on Mucin in Myxœdema; in only one case (furnished by Dr. Oliver) did the amount of that substance in the heart tendons much exceed the average normal percentage. An abstract of Dr. Grawitz's article on Hæmorrhagic Infarcts of the Lung, contributed to the Virchow "Festschrift" follows, the conclusion being that "there is no connexion between infarction and embolism, but rather that infarction is the result of chronic bronchitis combined with cardiac weakness." Dr. Alex. Miles writes on the Microscopic Pathology of Cerebral Traumatism, and Dr. Herbert Spencer on Hæmatoma of the Sterno-mastoid Muscle in New-born Children; Mr. Andrew Pringle has a note on Paraffin Infiltration by Exhaustion, and Dr. A. E. Wright on the Relations between Plasma and Serum and upon a Modification in the Method of Obtaining Serum.

THE VITALINE CRAZE.

To call it consternation is not too strong a term; for although we do not accredit the statement that ten thousand people in Russia have received injections of the stuff "vitaline," there is without doubt a panic on the subject of this injection—this most absurd so-styled "rejuvenator" of old idiots and antidotal preserver of young ones. The story of the "discovery" of this "new remedy" is an old story revived. A wanderer from his native land, this time one Gatchkowsky, an engineer, was sent on his own business into the Trans-Caspian territory, and there, amongst a primitive people, he heard of a new specific. "A Chinese *savant*" revealed to him the particulars of a miraculous compound medicine which, being instilled into the blood of man, would cure everything: it was more than a mere panacea; it was a "rejuvenator," a curer of such fatal diseases as consumption of the lungs without fail. All previous wonders were to be surpassed by it, and the scientific world was once more to be set in commotion by a discovery that should show how natural law in disease could be overthrown in wholesale fashion. For a time—happily short, yet long enough—the new practice made its way, and we are told the regular practitioners of medicine in St. Petersburg were dumbfoundered by the presence of the "tide of fashion and of favour" that set in. To some invalids, real or supposed, the "vitaline" was administered by injection subcutaneously; to others it was administered internally. Prices for the remedy and its application varied; the rich paid largest fees, but the poor also paid, and some of them also largely. The Czar himself was counselled—by whom is not known, but we should suppose not by any authorised medical adviser—to let his son, the Grand Duke George, undergo the treatment. At last a somewhat less important man, but still one of great importance, was subjected to the remedy, and he, General Gresser, the Prefect of St. Petersburg, and one of the firmest and shrewdest of the guardians of the imperial power, was led to submit himself to the operation, and by the submission sacrificed his life. How, precisely, the sacrifice was brought about we have as yet no satisfactory details. The discoverer of "vitaline" turned round in his defence from the sublime to the ridiculous. The omnipotent remedy at once diminished from its potency into a mere mixture of borax and glycerine—a harmless mixture for good or for evil. If death resulted from the use of it, a dirty syringe used for the injection must have been the true cause; but M. Gatchkowsky, having made a clean breast of his discovery, will practise the art of cure no more; and if he be not, in the panic, charged with political offence and of systematically poisoning the Prefect, he is fortunate. The history of this latest blast of quackery recalls some of olden times which it has been the duty of THE LANCET to expose and trample out. The case of the notorious St. John Long comes at once to mind. In this case the results which followed the practice of the astute quack were practically the same as those we have just witnessed. What is more, the secret, which Long sold, as was reported for £3000 to a lady of fashion, turned out, in the end, to be no secret at all. The element of treatment was counter-irritation, and the vaunted composition employed as a liniment was nothing more and nothing less than spirit of turpentine and strong acetic acid. One day the famous nostrum went wrong in its action; it caused, or was accused of causing, a diffuse cellulitis in an unfortunate victim, and then not only was its fate sealed, but in defence the secret was exploded in proof of its harmlessness and its perfect simplicity. Against this specimen of quackery the founder of THE LANCET fought tooth and nail. He neither hesitated nor paused until the mischievous practice was expelled for good. In this fight, moreover, he had not the whole voice of the profession with him. On the contrary, one man in the profession stood by the delusion to the last, and vainly maintained his advocacy of it after the bubble had burst and its inventor with it. It is our business still to expose, and protest against, these frauds on humanity, exploited as they are at the risk of human suffering and death.

PRESENTATION TO DR. HOLMAN.

WE have been favoured by the *Surrey Leader* with an account of an event, interesting from its nature to the profession of medicine, and suggestive of the high point which it is possible for a general practitioner to attain in the esteem, respect, and affection of those who are at once his patients and his neighbours:—Dr. Constantine Holman, J.P., of Reigate, was, on Saturday, the 14th inst., presented at the Reigate Town Hall with a massive silver bowl, four silver baskets (engraved with the crest of the recipient), and a cheque for £130 (the balance of the Testimonial Fund). Dr. Holman has been in practice at Reigate for forty years, and during the greater part of that time he has been the chief partner in the firm known until recently as Holman, Hallowes, Walters, and Berridge. Besides enjoying a large practice Dr. Holman has taken a prominent part in public affairs—as a justice of the peace and one of the pioneers in the establishment of the Reigate and Redhill Cottage Hospital. He is also, and has been for some years past, hon. treasurer of the Royal Medical Benevolent College, Epsom, an institution in which he has always taken the deepest interest, and for some years was the hon. treasurer of the British Medical Association. Dr. Holman succeeded two eminent country doctors—DRS. Thomas and Peter Martin—who in their day were regarded with no small degree of respect among their wide circle of patients—a respect which has been bestowed on their successor, towards whom all classes united in expressing their esteem on his relinquishing practice at Reigate. There was a large and distinguished company at the presentation. The Vicar of Reigate made the presentation in a very effective speech. Those, he said, who had known Dr. Holman in time of suffering would not readily forget his cheerful, reassuring voice by the sick bed, and his deep sympathy when skill and resource seemed to be of no avail. He would carry with him in his retirement a consciousness of duty done and of firm friendships formed. Dr. Holman, in acknowledging the gifts, said it had been his aim not only to be the doctor of the patient, but to be his friend. He had never believed in the simple application of drugs for the cure of disease, unless the medical man who was applying

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those drugs was as deeply interested in the case as the patient who was suffering from the disease. He was thankful to say that during his professional career in Reigate he had enjoyed the affectionate confidence of his patients. In honouring him that day they were encouraging many members of an honourable profession.

THE BETHNAL GREEN AREA.

IT is satisfactory to know that the wretched quarter, lying immediately behind Shoreditch Church, called "the Bethnal-green area" is condemned, and will shortly be pulled down. Many of the cottages are already abandoned, but the majority of the inhabitants are still there, and the population is numerous. This being the case, we see no reason why the sanitary condition of this locality should be allowed to go from bad to worse. It is so bad that a scheme for the demolition of the quarter has been sanctioned. This, we should have thought, is a strong reason for keeping a very close watch over the district. The contrary appears to be the practice. On the pretext that the property is to be pulled down no repairs whatever are effected. We recently visited a small cottage where we found the pan of the closet broken. A wall which protected the row of small back yards had been demolished, and small boys amused themselves by flinging stones. One of these missiles had struck and broken the pan of the closet. On the other hand, the water waste preventer was deranged in such a manner that the water flowed incessantly, and, entering the broken pan, would soon flood the yard. To prevent the water reaching the closet the inhabitants opened the yard tap which was near a gully and drain. Thus in this cottage the water is running day and night; and, in spite of this great waste of water, the closet is in a filthy and most insanitary condition. A few shillings would probably suffice to effect the necessary repairs. The sanitary inspector has seen the place, the landlord has been communicated with, and yet nothing has been done. Nor is this the only case of such neglect in the locality, and this incident opens out an important question. Not merely a few weeks, but often several years, elapse between the time when a district is condemned or is about to be condemned and the time when it is actually demolished. During the whole of this interval no care is taken of the property, and even the most urgent defects or breakages are not repaired. Thus the danger to public health due to the existence of such quarters is increased for the time being by more than normal negligence.

THE LONDON WATER-SUPPLY INQUIRY.

THE inquiry into London's water-supply is progressing rapidly, and already much important and interesting evidence has been given. The engineers of the New River Company and the East London Company have been heard, and their joint evidence would appear to indicate that there is no reason to fear that the supply of water to London will become inadequate for some time yet. In 1891 the average daily supply of the New River Company was 33,028,000 gallons. Of these, 22,500,000 gallons came from the Lea, and the remainder from Chadwell springs and wells. The largest number of gallons supplied on a single day was 42,000,000, in January, 1891. The question of storing the water coming down the Lea in winter months was possible, and had been considered, although there was no scheme in hand for it. The engine superintendent of the New River Company, who has charge of the filtration of the water, said there was no possibility of communication between the filtered water and the drains below. The filter beds were periodically cleaned, and every care was taken to properly filter the water. The engineer of the East London Company felt certain that the water supplied by his company was improving. In the company's supply of 40,000,000 gallons a day they would take 20,000,000 gallons from the Lea, 10,000,000 from the Thames, and 6,000,000 from the wells, and they would get the remainder from storage. They could store 910,000,000 gallons. The water from the gravel springs at Hanworth, from which they could get 2,000,000 gallons, had turned out satisfactorily on analysis. Between the two companies it was proposed to draw something like 44,000,000 gallons a day from the chalk wells more than at present. There was a huge volume of water passing into the Thames from that locality, and it was stated that the fact of their drawing this amount per day would not be much felt—if felt at all—by those living in the locality. Their water would come from below the clay, so that the surface water above the level of the clay would not be touched. Further evidence, of course, will be heard on the question of the quality of the supplies, and it is to be hoped that the grave complaints that have been recently made about the condition of the water supplied by certain companies will come on for consideration. Some explanation may be looked for also of the fact that, during periods of drought a few years ago, one of the companies was compelled to limit the supply by cutting off the water at various times through the day. The increase that has taken place during the last twenty years in the number of houses in the districts supplied by the companies is not the least formidable fact which confronts the Commission, and only that future scheme can be accepted which shall provide for the abundant supply of pure water in times normal and abnormal.

OBSTETRICS AND GYNÆCOLOGY IN MOSCOW.

THE report of the lying-in-department of the Golitsinski Hospital in Moscow for 1891, by Dr. Inoieffs, has just been published, and in addition to its statistics contains several interesting papers. The total number of labours conducted in the department during the year was 713. Very nearly equal numbers of these were concluded during each of the four quarters of the day, the slight difference existing being in favour of the evening quarter—namely, from 6 P.M. to midnight. Detailed tabular observations are given of the 17 cases of twins and of the 24 cases of contracted pelvis, that is to say, where the external conjugate diameter was below 18 centimetres. There were 4 fatal cases—1 from croupous pneumonia, 2 from anæmia, and 1 from septic endometritis and parametritis. The antiseptic employed was corrosive sublimate. The use of the forceps was required in 15 cases, laceration of the perineum occurred in 14 cases, and rupture in 17. There were 7 cases of craniotomy, and one of evisceration. With regard to the puerperal period, there was no fever—i.e., temperature above 38° C.—or other complication in 599, or 84·1 per cent., of the cases. There were only 8 cases of true puerperal diseases—i.e., 2 of colpitis with endometritis, 4 of endometritis, one (fatal) of septic parametritis with endometritis, and one of mania. In the 8285 cases attended in the department since 1868 there have been 309 cases of true puerperal diseases and 64 deaths, 20 of which are attributed to non-puerperal affections. In all this number the employment of the forceps was required only in 189 cases, craniotomy was performed 33 times, and evisceration once only. There is no mention of the Cæsarean operation. Amongst the reports of the gynæcological sections there is one dealing with electrical treatment by Dr. Dyski, a tabular view of twenty-eight cases being given. The best result was obtained in parametritis, a lesser degree of success being secured in oöphoritis, and still less in salpingitis. With regard to fibromata, some degree of subjective improvement was

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always obtained, but the tumour did not in any case appear to become reduced in size. This agrees with the experience of most other Russian writers on the subject—Massen, Himmelfarb, and Kholmogoroff, — though Neêloff, who reported twenty cases to the Kieff Obstetrical Society in 1890, had succeeded in reducing the tumour in seven instances to some small extent. Dr. Dyski calls attention to two cases of gonorrhœal endometritis which had been treated unsuccessfully by various ordinary methods, and which only yielded to repeated electrical applications, the anode being introduced into the cavity of the uterus. In one case the discharge so nearly ceased that the patient considered herself cured, and did not return after eighteen sittings; the other, which was complicated with salpingitis and perisalpingitis, was quite cured after twelve applications of the induced and six of the constant current. Dr. Dyski remarks that the antiseptic properties of the anode of a galvanic current render it a peculiarly suitable agent in obstinate gonorrhœa of the internal genital organs in the female. It is of course advisable in all gynæcological cases where electricity is employed not to depend upon it entirely, but to make use of other local and general treatment simultaneously with it. In several of the cases described in the table the induced current was used for the earlier sittings and the constant current in the later ones.

THE NOISE OF BANDS OF MUSIC.

MR. MOSSE, treasurer of St. George's Hospital, writes to a contemporary to ask those societies which assemble in the parks, and are accompanied by bands of music, to be good enough to direct the bands to cease playing while passing near the hospital. The request is reasonable, and will doubtless be regarded. The amount of suffering occasioned in London by the noise of the streets will never be known. All who have any influence will do great good by reducing it in every way. It must be allowed that the methods of many good associations are clamorous. Take, for example, the noise and disturbance of the streets on a Sunday caused by a "lodge" undertaking to make a collection for a blind asylum or a hospital. Surely the highly organised lodges can do their benevolent work without the sound of trumpet and the beat of drum.

DIRT AND DISCOMFORT AT CORONERS' INQUESTS.

THE report of an inquest held at Battersea a few days ago reminds us of the delays and inconveniences connected with such occasions which, not always with due reason, absorb the time and patience of medical men. In the case referred to the body of the deceased had not been cleansed prior to post-mortem examination either by relatives or by any official, the mortuary being without an attendant. Consequently the discharge of this preliminary duty fell to the share of the medical witness employed upon the case. The matter was mentioned in court, and the jury very rightly maintained that bodies in future should be cleansed and prepared prior to examination. They also recommended that a mortuary keeper should be provided by the local vestry. This decision will commend itself as an expression of moderation and good sense. It is obvious that no mortuary room can be efficiently managed without a regularly appointed attendant, and the cleansing of the dead, if allowed to be neglected by friends or neighbours, should certainly be carried out by such an official rather than by the practitioner. There are certain other defects in the management of these official investigations which invite attention. Take, for example, one which almost ensures uncleanliness in the operator—the want of a supply of hot water. At the present day an examination will be completed in all its impurity, and the practitioner finds himself confronted by the further impossible task of trying to clean his hands and instruments with cold water, and perhaps a little crude carbolic acid. Another similar omission, if not of quite such absolute and primary importance, has much to do with the reasonable demands of civilised usage. This consists in the frequent absence or disuse in mortuaries of warming apparatus. For want of this we have become familiar with the painful spectacle of medical men shivering in the cold of a hard winter whilst performing duties certainly appertaining to their profession, but none the less of a decidedly unpleasant nature. Why should they be condemned to this penance? The cost of an occasional fire would suffice to do away with it; and this much at least should, we consider, be provided by the authorities. The above suggestions are not made merely in the interests of the medical profession. In the defects which they are intended to amend, and their inconvenient, or possibly even injurious, consequences, the public is also concerned. Let it therefore, like the Battersea jury, bring light to bear on some evident official errors, and seek to secure the correction of these by every lawful means.

THE HEALTH OF SOUTHEND.

WE referred incidentally on a recent occasion to a report on the system of sewers in Southend which was in course of preparation. When publicity was first given to the sanitary state of that town, Dr. Thresh advised that an expert in engineering should be called in, which advice was adopted. Mr. Mansergh advises that the sewers should be divided into high and low level systems, the latter to include all sewers which are tide-locked at high water—an arrangement, too, that will involve pumping of sewage; he further recommends enlargement of a sewer, improvement of gradient where the sewers are not self-cleansing, some prospective works in providing new overflow sewers, increased sewer ventilation and flushing, the stoppage of leakage, and the provision of increased outfall arrangements. The recommendations seem to cover a wide scope; but it still remains to be seen what is proposed as to the outfalls, as to which Mr. Mansergh reserves his report. We trust the sanitary authority will face the whole of the difficulties which are dealt with in the report which they have already received, and also the perhaps larger difficulty that may be involved in the matter of outfalls, which Mr. Mansergh promises to deal with "at a subsequent date."

DIPTERA AS PARASITES.

IN the *Journal of the American Medical Association* for April 9th, 1892, is an account of a human parasite, which, so far as we are aware, is unknown in this country. The particular case to which the article relates is recorded in a paper known as *Insect Life*. It records the case of a lady of St. Louis who suffered from the hominivorous habits of the "screw-worm." The attack commenced with nasal irritation, causing sneezing paroxysms of great violence. A diagnosis and treatment for influenza met with failure. The patient grew worse on the second and third days, having intense pain between the eyes, with considerable swelling of the face, nares, eyes, and pharynx. On the fourth day two or three white worms were expelled from the nose by sneezing, which led to a local examination, and hence a new diagnosis. Many white larvæ were seen attached to the nasal mucous membrane as far as its swollen condition permitted it to be seen. By instrumental means about thirty larvæ were extracted. Chloroform spraying and solutions of carbolic acid were not effectual in making the parasites loosen their hold. Indeed, every attempt to dislodge them caused them to retract and bury themselves more deeply in

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the tumified and bleeding tissues. During the next three days instrumental means were continued by the medical men in attendance, and over two hundred larvæ were removed and put in alcohol. Some of them were taken from the posterior surface of the tonsils and nares by the use of indirect illumination and curved forceps. On the eighth day no more larvæ could be found, and relief began to be experienced; the inflammatory condition subsided and the structures infested by the larvæ gradually recovered tone and normal function without any permanent injury to any part. But meanwhile, during the acute period of her suffering, the patient developed a suicidal mania. She implored her attendants to allow her to end her life, and even argued with her physician upon the advantage to herself and family if her life could be ended. This suicidal tendency has been observed before in patients suffering from an attack of the "screw-worm," and all such patients require to be constantly watched during the acute period. The larvæ which were removed were nearly all fully grown, and would probably have come away spontaneously in another day. The method and time of lodgment of the ova could not be ascertained, beyond an indistinct recollection on the part of the patient of some moderate nasal disturbance after sleeping near an open window; there was no history of catarrh or ozæna. Cases of this kind of parasitic trouble, the article goes on to say, have been not uncommon at the St. Louis City Hospital. In the summer of 1888 there were five or six cases, four in 1889, three in 1890, and one or more in 1891. The assistant superintendent of the hospital is quoted as saying that "one of the cases in 1890 died from the exhaustion of the attack, and one died from an intercurrent disease while affected with a worm." Others recovered, but with greater or less mutilation. Not a few of these cases were in persons who were known to have slept in the open air, probably receiving the infecting ova while thus exposed. The cases generally occur in the more southerly localities, but it is by no means certain that all these parasitic invasions have the same genus of blowfly as their originator.

BOARDS OF GUARDIANS AND THE LATE INFLUENZA EPIDEMIC.

WE have observed with satisfaction the tendency exhibited by boards of guardians to adequately remunerate their medical officers in the discharge of their arduous duties at a time of great pressure, we may almost say panic, entailed by the influenza epidemic. Unfortunately the Risbridge Board (Suffolk) cannot be included amongst these liberal authorities. The medical officer for the second district of the union (Mr. Edward A. Piggott), having applied under Article 72 of the General Consolidated Orders for "a reasonable compensation on account of extraordinary services," received the following laconic reply to his application—viz., "The guardians, having considered your application, resolved that it be not further entertained." It is generally conceded by most right-thinking persons that "the labourer is worthy of his hire." The guardians of the Risbridge Union evidently think otherwise.

LEAD POISONING FROM WATER.

A REPORT reaches us of a fatal case of acute "plumbism" of two days' duration, caused by drinking the water supplied by the Bradford Corporation to the neighbouring district of North Brierly. According to the evidence at the coroner's inquest, Mr. Dearden stated he was called to see the deceased, and found the skin cold and damp, with retraction of the abdominal muscles; the patient suffered from vomiting and collapse, and a most pronounced blue line was found on the gums. Mr. Dearden also stated that during the last twelve months he had attended about thirty cases of plumbism, none of which, however, had proved fatal. During the last three years he had seen on an average one fresh case of lead poisoning a week. For some time the deceased, during last summer, had a strong objection to the water supplied by the local board, and this induced him to carry water from a spring in his garden for use in his workshop. A severe and isolated case of plumbism like this, especially when there was a history of an independent water-supply, might be passed over as due to some special contamination; but the evidence of Mr. Dearden as to the existence of plumbism, so widely distributed amongst the population, raises strong suspicion that the contamination arises from the water supplied by the Local Board. Our readers will remember that in the case of the extensive outbreak of lead poisoning at Sheffield, which was the subject of a most searching inquiry, the earliest cases which came under observation were scattered among the poorer inhabitants, and that many medical men in the town were sceptical as to the real condition of affairs, till the poisoning assumed quite an epidemic character. As we have frequently pointed out, the action of certain waters on lead pipes is very insidious, and the first to be affected are those who are peculiarly susceptible to its action. Many circumstances, such as using the water first drawn in the morning, or extra pressure from the waterworks washing off the deposited carbonate of lead from the house pipes, may intensify the action of the poison by concentrating it. Whatever the cause may be in the case of the water supplied in this instance, the Bradford Corporation should at once undertake a searching investigation to ascertain whether the defect is local or general. They should carefully study the history of the Sheffield outbreak; for if with this warning they await events till "plumbism" becomes epidemic, they will incur grave responsibility.

THE PRESIDENT OF THE LOCAL GOVERNMENT BOARD.

WE much regret to hear that Mr. Ritchie is again indisposed. He is unfortunately suffering from a recurrence of the ischiatic abscess with which he was troubled a year ago. This has been relieved by operation, but it will of course involve his absence from public duties for a brief period.

AN "ERROR OF JUDGMENT" BY A GERMAN PHYSICIAN.

WE may without presumption congratulate the profession that its members are not often guilty of such a deplorable "error of judgment" as that which resulted in the recent imprisonment of a German physician. In this case the director of an establishment for the treatment of nervous disease was convicted of having assaulted, beaten, and whipped a hysterical lady patient under his care. The sentence of three months' imprisonment was, in our opinion, a remarkably lenient one. We must admit that in all probability the patience of the medical superintendent was often tried. No class of patients can be more aggravating when they choose than those who, while possessing their ordinary intellectual faculties, are either so weak or so perverse in will as to be practically the mere automata of disordered impulses. It is to be remembered, nevertheless, that the violence of blind force provides no remedy. Chastisement even in the case of children of itself is valueless unless it be guided by rule, unless it be used, we might say, medicinally. It has, like any drug, its appropriate aim and purpose, its proper action, its dose limited by known effects, and its hurtful excess. But in the case of adults physical correction is, of course, inadmissible where disease is concerned. It should be

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remembered also that even with apparently pure hysteria there may coexist the germ of true lunacy, and this must be allowed for whenever restrictive means are thought of. The German physician who has in the case recorded, so inexcusably erred in his treatment will, we are assured, not find imitators in our own country.

THE GOOD SAMARITAN.

SPEAKING in a light and happy vein at the King's College Hospital Festival Dinner, before an audience composed largely of lawyers, although many eminent divines and doctors were present, the Attorney-General (Sir Richard Webster) playfully claimed to have found by a process of exclusion that the Good Samaritan must have been a lawyer. He gave his reasons for not assigning the distinction to various learned professions, and finally reached the conclusion that he must have been either a lawyer or a doctor, and then thought he had proved his point, because "no doctor would have poured oil and wine into an open wound." It would be treating Sir Richard Webster too harshly to consider this in the light of anything but an after-dinner joke, otherwise a very cursory reference to the history of the past would show that modern antiseptic treatment has only been reached by slow and painful stages, and that in the early days of surgery almost anything, solid or liquid, might have been employed in the treatment of wounds. We need go no further back than the *Arcana Fairfaxiana* of the seventeenth century to realise this somewhat humiliating fact; so that, in spite of Sir Richard Webster, those of a speculative turn of mind may still feel free to maintain that in the original parable the Good Samaritan was, as in the present day he so often is, a medical man.

HOUSING OF THE POOR IN AUSTRIA.

THE Austro-Hungarian Legislature has recently made an effort to deal with the unwholesome dwellings that abound in the poorer districts of the great towns. A new law has been enacted, and it bears the date of Feb. 9th, 1892. It is too soon, therefore, to say whether this measure will effect much good; but the prospect, it must be admitted, is not very hopeful. The law takes no action in the sense of demolishing unwholesome dwellings or of constructing better houses, it only encourages private initiative. This encouragement is given by exempting from taxation during twenty-four years workmen's dwellings built under certain conditions. First, it is stipulated that if the State withholds its right to tax, the local authority must act in a similar manner; thus the houses in question will be exempt at once from Imperial taxation and from local rates. The houses that are to enjoy such immunity must be built by the Communes or local authorities or by societies recognised as of public utility, or by establishments instituted in favour of the working-classes, by coöperative workmen societies, or by employers for their workmen. The law then goes on to enact that the houses built, to be exempt from taxation, must not have any dwelling-room below the level of the soil. Also tenements consisting of one single room must possess at least fifteen square metres of habitable surface, and not more than thirty square metres. If the tenement consists of several rooms these must not measure less than forty square metres, and not more than seventy-five square metres. Thus the law deals only with small tenements, but measures are taken to prevent these tenements being too small. Again, the law is to be applied only to cheap tenements, and a maximum rent is established. The rent is estimated per square metre of habitable surface, and is fixed at 1·75 florins per annum at Vienna. In all other towns which have more than 10,000 inhabitants the rent that may be charged shall not exceed 1·15 florins per annum per habitable square metre, and in all other places eighty kreutzers, or 0·80 of a florin per square metre. The silver or paper florin is worth 1*s.* 8*d.*, but the florin in gold is worth 2*s.* Presumably the law will apply to the usual currency—namely, the paper and silver florin. Should a higher rent be charged than that laid down by the law, a fine equal to ten times the amount of the overcharge will be imposed. The produce of such fines will be paid into the local poor box. Finally, and as if to hasten the work of rehousing the poor, a clause states that the benefits of this law shall only be accorded to such houses as are built within the next ten years. In other words, the Austrian Government offers twenty-four years' immunity from taxation to those who will within the next ten years build better and cheaper houses for the poor. This is satisfactory so far as it goes, but our experience in England teaches us that more than this will be necessary. The new law may do some good, yet it certainly will not solve the problem.

SLANDER AGAINST MEDICAL MEN.

THE case of Ward *v.* Hatfield is an instance of the facility with which the obvious and common words of a medical man may be misconstrued and turned into a ground of legal action against him. This was a case tried before Mr. Justice Hawkins, in which a nurse attending an obstetric case followed by purulent discharge, and proposing to attend another obstetric patient of the same practitioner, was advised by him to wash her hands carefully, as the discharge might be catching. The husband regarded this as equivalent to saying that his wife was suffering from venereal disease. An explanation was given and seemed to be accepted. But afterwards an action for slander was tried. It completely broke down. The witnesses for the defence were not even called. The judge stopped the case and directed a verdict for the defendant, with costs. The case is an instance of another fact—the advantage of being a member of the Defence Union. The plaintiff, in a letter to us, mentions how great was the comfort to him of having this effective organisation at his back to give him help and consideration.

THEMIS AND HYGIEIA.

HOW is it that the Goddess of Justice is so seldom "at home" to the Goddess of Health? If there is an abode in the community where hygienic science is systematically ignored, it is wellnigh invariably a court of law. The fact comes periodically before us in the shape of indignant protests on the part of judge and counsel condemned to pass their professional lives in an atmosphere which, compared with that wherein the social pariah they have mostly to deal with lives and moves, is as the "Inferno" to the "Paradiso" of Dante. The latest "bitter cry" from forensic quarters now reaches us from Edinburgh, where the Lord Justice Clerk (Lord Kingsburgh) recommends the court over which he so worthily presides as the fittest of all places for object lessons in bad ventilation. Dr. C. Hunter Stewart, in the course of some most interesting researches into the air of public buildings, had been combating the view that carbonic acid is the baneful element in the atmosphere of these resorts, and had shown that it was the organic matter exhaled from the skins and the clothes of their inmates that constituted the real source of mischief. Not the products of respiration, but "animal steam" was the cause of the pathological results arising from occupancy of those buildings, and he quoted in point the German army doctor who had all the soldiers of a particular barrack compulsorily bathed, with the effect of inducing a very marked improvement on the ventilation of the tenement. Upon this Lord Kingsburgh invited Dr. Stewart to carry his researches into the Edinburgh law

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courts, where "he would find a much richer field in the way of organic matter and of everything else that was bad than any place he had yet tested." His lordship added—what is not more true of Edinburgh than of Dublin or the metropolis itself—that the "great unwashed" frequented the law courts more than any other class of the community. "It was the only theatre they had for which they had to pay nothing, and it was at the time when judges and counsel were under the severest mental strain that the courts were crowded with human beings, most of whom would be the better of having the German doctor's discipline enforced." Lord McLaren, impressed with the truth of this remark, "concurred with his learned brother," and added "that, since the courts must be open to the public, and only a limited number could be admitted, they should insist on no one coming in without being decently attired." Whether this is "the true solution of the matter," which Lord McLaren took it to be, we are doubtful; but it would be well if Themis took occasionally a leaf out of the book of Hygieia, and treated her in more sisterly fashion than she has sometimes been known to do.

THE PREVALENCE OF SMALL-POX.

SMALL-POX still continues to spread. In the metropolis the number of new cases per diem exceeds any statistics recorded for some years. At Halifax fresh cases are arising, and the disease has appeared in several neighbouring places, such as Brighouse, Brookfoot, Rastrick, &c. The result is some considerable activity as regards proposals to erect hospitals either for districts singly or by twenty or more districts jointly. It is to be hoped that, with advancing summer, such arrangements, if made at once, will be really of a temporary nature; for few things have done so much to hinder the provision of adequate means of isolation for infectious diseases generally as the erection of semi-permanent hospitals which, at the moment, were styled "temporary." At Yarmouth considerable measures of precaution have been adopted. Twenty-seven inspectors were appointed to make a house-to-house visitation of the town, and to secure the vaccination of the unvaccinated and the revaccination of those running risk of infection. The infection hospital has been used for isolation purposes, and Dr. Bately reports that of the forty-nine cases that have occurred the greater number had been removed to the hospital on the Denes, and were now convalescing or convalescent.

NERVOUS SYMPTOMS AND SEQUELÆ OF INFLUENZA.

DR. C. K. MILLS of Philadelphia has published an exhaustive paper on this prolific subject, reprinted from the Transactions of the Philadelphia County Medical Society. The difficult question of discussing the nervous and mental phenomena of influenza he treats by dividing such phenomena into three classes:—(1) Symptoms and conditions which, although manifested in non-nervous organs, are directly traceable to a nervous origin; (2) affections which all would recognise as properly referable to the nervous system; and (3) affections occurring in nervous tissues and organs, although not constituting strictly nervous diseases. As regards the first class, he thinks that many of the most prominent pulmonary, cardiac, and vascular affections of influenza can best be explained on theories of nervous origin, and that, for example, the pneumonia of influenza is often due to vaso-motor paralysis. But to the neurologist the most interesting and important diseases developed either during or subsequently to an attack of influenza are those in which there are organic changes in different parts of the nervous system. Among such diseases are various forms of neuritis, including multiple neuritis, isolated neuritis, neuritis of cranial nerves, &c. The conditions in one class of cases—viz., articular and other pains with swelling—closely resemble those found in beri-beri. Cases of myelitis are also described as occurring, and anterior poliomyelitis and its analogue, bulbar paralysis, have also been described. Then there is quite an array of cerebral affections, including meningitis, hæmorrhage, and local effusions. A great many affections are ascribed to influenza, probably in numerous instances rightly so. But there is no doubt that a great tendency has to be guarded against—namely, that which ascribes all kinds of peculiar symptoms to influenza, or which makes any common condition occurring at a time when influenza is prevalent, dependent upon this disease. It is too often lost sight of that the initial malaise in such a condition, for example, as anterior poliomyelitis is put down as an attack of influenza, when under ordinary circumstances, and if influenza were not prevalent, no such explanation would be sought for. That we had amongst us recently an epidemic condition of a most serious kind no one who takes the trouble even to glance at statistics will deny; but we have little doubt that influenza has been invoked as an explanation on numerous occasions when it could more reasonably have been left with its already too great burden. Dr. Mills, in his discussion of the subject, more particularly from the neurologist's point of view, has not, we venture to think, erred on the side of excluding any of the possible manifestations of nervous disorder following or accompanying influenza.

NOTIFICATION AND THE MEDICAL PRACTITIONER.

WE receive from time to time inquiries as to the relations which should exist between medical officers of health and other medical practitioners in the matter of certificates under the Act for the Notification of Infectious Diseases; and we would therefore draw attention to a thoughtful paper on the subject in this month's issue of the *Practitioner* by Dr. Edward T. Wilson of Cheltenham. The paper embodies advice which is in most respects much the same as that which we have given to correspondents from time to time, and it has the advantage of quoting in detail a number of letters which the Local Government Board have addressed to sanitary authorities, health officers, or medical practitioners who have made inquiry on certain definite points. The paper will be useful to many practitioners who are vexed with doubts as to the altered relations which have been brought about by the Act between themselves and medical officers of health.

EFFECTS OF MEDICATED INHALATIONS.

DR. A. IRSAI of Buda-Pesth has made some instructive laboratory observations on the effects of the inhalation of various substances on the lungs and air passages. Almost immediately after a few inhalations of air impregnated with oleum terebinthinæ the lungs became pale, but regained their ordinary appearance on the readmission of pure air; a second administration of turpentine vapour was followed by the same appearances as the first. The cause of the pallor was doubtless a spasmodic contraction of the pulmonary vessels—probably due mainly to peripheral action. When oleum juniperi or oleum pini sylvestris was employed, results of a similar kind, but less in degree, were obtained. Oleum pini sylvestris, however, is a more powerful vaso-motor constrictor than oleum terebinthinæ. With eucalyptus, oleum anisi, oleum menthæ, and menthol scarcely any change was produced in the colour of the lungs. With oleum thymi and thymol three or four inspirations were followed by a distinct reddening, which increased as they were continued. Creasote and, in a still

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greater degree, guaiacol produced redness, there being rapid relaxation of the vessels and great hyperæmia of the lungs. From these observations Dr. Irsai concludes that in acute catarrhal affections with swelling, hyperæmia, and profuse secretion, substances should be selected for inhalation which produce anæmia, and that in chronic torpid conditions, or in phthisis where the supply of blood and the nutrition of portions of the lung are defective, substances which induce hyperæmia should be used. Of course it is needful to exercise due vigilance in employing creasote or guaiacol in cases where there is any tendency to hæmorrhage.

NOTIFICATION OF ENTERIC FEVER.

OWING to the system of notification of infectious diseases prompt action has been taken by Mr. Williams, the medical officer of health of Plymouth, to stay the progress of an outbreak of enteric fever which, unknown to the dairyman himself, was being distributed through the agency of his milk. When the matter was investigated strong suspicion was found to attach to the water-supply of the dairy farm whence the milk was derived, although at the time of the inquiry the water was found to be pure in so far as chemical tests were concerned. It was also ascertained later on that just before the occurrence in question a child had died at the farm of enteric fever, and at the date of the inquiry a second person was found to be suffering from the same disease. The precautions taken, including a cessation in the sale of this milk, were followed by an absence of further attacks.

PREVENTIVE DENTISTRY.

THERE are two prophecies current concerning the future of dentistry, writes Mr. Wm. Rushton in the current number of the *British Journal of Dental Science*. One—the optimistic—predicts that in time preventive dentistry (as contrasted with conservative dentistry of to-day) will successfully oppose the many adversaries which now attack the teeth; the other prophecy—the pessimistic—maintains that man will become a recruit to the ranks of the order Edentata, and that future generations will not only be toothless, but hairless and spectacled. In other words, it is held that the dentistry of the future will be the adaptation of mechanical appliances to edentulous mouths. Mr. Rushton, however, thinks that the mean between these two extremes, comes nearest the truth, that the preventive treatment of the future will do much to arrest further deterioration of tooth tissue, but that teeth will never, in highly civilised communities, be brought back to the normal state as found in the skulls of our early forefathers. Much good, he is assured, may be done by more attention being given to the general health, by the teaching of cooking especially amongst the poorer classes, and by the aid of the dental surgeon, whose services are now not alone the privilege of the wealthy, but are fast becoming available for all.

PROPOSED AMENDMENTS OF THE FOOD AND DRUGS ACT.

SOME important changes in the Sale of Food and Drugs Act are embodied in a Bill recently prepared and brought in by Dr. Cameron, Mr. Channing, Mr. Provand, Dr. Farquharson, and Mr. Thomas Dickson. It enacts that the provisions of the Act of 1875 shall apply to and include every wholesale trader or manufacturer of any article of food or drug who shall sell to the prejudice of the purchaser any article which is not of the nature, substance, and quality of the article demanded by such purchaser. The twenty-fifth section shall be amended by the deletion of the word "written" before the words "warranty to that effect"; and every wholesale trader or other person who shall sell to any person any article of food or drug with intent that the same may be resold by retail in the state in which it is purchased from him shall, unless he has in writing informed the purchaser to the contrary, be deemed to have given a warranty to the person purchasing from him that such article is of the nature, substance, and quality demanded by such purchaser. A new section as to margarine provides that it shall be a good defence to prove that the sale was made in conformity with the regulations of the Margarine Act, 1887. With regard to the provisions as to the mixtures of chicory and coffee, the Bill states, it shall be a good defence to prove that, first, where the admixture of chicory does not exceed 50 per cent., that the seller delivered with or on such a mixture a notice by a label, distinctly and legibly written or printed, bearing the words, "This is sold as a mixture of coffee and chicory"; secondly, where the admixture of chicory does not exceed 75 per cent., the words, "This is sold as a mixture of chicory and coffee"; and, thirdly, where the admixture of chicory exceeds 75 per cent., that the seller delivered with or on such a mixture a notice by a label stating the proportion of chicory contained in such mixture.

THE METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

WHATEVER the merits of provident medical associations, there seems no justification for the indiscriminate offer of their cheap terms to all and sundry persons, without distinction of class and without conditions as to means, income, &c. The instance before us is that of a bill delivered at every house in a road of good houses, including those medical men. There are eight plain reasons given why "you" should join the Hackney Provident Dispensary, one of which is "because whole families may join and insure against the risk of heavy bills which it is often difficult to pay." The wholesale distribution of such literature among the patients of other medical men is an offence to the profession and a demoralising influence to those to whom it is sent. Such a thing as a wage-limit is not suggested, and all and sundry are taught that the very cream of advice and medicine is to be had for sixpence a month.

THE PUNISHMENT OF HABITUAL DRUNKARDS.

The Times gives the following as the departmental committee appointed by the Home Secretary to inquire into the best mode of dealing with habitual drunkards:—Mr. J. L. Wharton, M.P., chairman; Sir Guyer Hunter, M.P.; Mr. E. Leigh Pemberton, Assistant Under-Secretary of the Home Department; Mr. C. S. Murdoch, head of the Criminal Department, Home Office; and Dr. Nicolson, Superintendent of Broadmoor Criminal Lunatic Asylum. In his reference to the committee Mr. Matthews says: "Great difference of opinion has arisen as to what kind and degree of punishment for offences committed by habitual drunkards would be the most effectual, both as a deterrent and with a view to the reformation of such offenders. It appears to me that advantage would result from an inquiry being made into the subject." It will be seen that this inquiry refers only to punishment of habitual drunkards who commit offences. The first meeting of this Committee takes place to-day (Friday), 20th inst., at twelve o'clock.

FOREIGN UNIVERSITY INTELLIGENCE.

Gratz.—Dr. Elschnigg has been officially recognised as *privat docent* in Ophthalmology.

Innsbrück.—Dr. Jarisch has been promoted to the professorship in ordinary of Dermatology and Syphilis.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—

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Dr. Christian Wilhelm Ludwig Abel, recently retired from the post of medical officer in command of the Second Prussian Army Corps. He was sixty-six years of age. He served with distinction in the Danish, Austrian, and French wars. He had written a great deal on professional and military medical subjects, and was for a time one of the editors of the *Preussische Militärärztliche Zeitung*.—Dr. E. Mühsam, a well known and much respected Berlin practitioner.

HER ROYAL HIGHNESS PRINCESS CHRISTIAN will write a paper on the work and organisation of the Royal British Nurses' Association, which is to be read in the Women's Section of the Exhibition at Chicago in 1893.

THE Islington vestry have recommended, with regard to the permanent appointment of a medical officer of health for that district, that the salary should commence at £600 a year, and be raised by yearly instalments of £25 to £800.

THE LANCET
Special Analytical Commission
ON
MINERAL WATERS, TEMPERANCE BEVERAGES, &c.

II.—KOP'S ALE.

IN THE LANCET of August 8th, 1891, we published the report of our Special Analytical Commission on an interesting natural mineral water—Johannis. In continuation of the series we now select for investigation a temperance beverage.

Temperance advocates have not been considered in the matter of beverages as they deserve. While they deny to themselves, from various causes, the beverages which appeal to most palates, and which are objectionable to them on the score of containing alcohol, few are available that can be regarded as really good substitutes for beer or other alcoholic liquors. Yet the temperance cause is growing apace, and its ranks are steadily increasing year by year, and to abstainers the urgent question arises, "What shall we drink?" It must be disappointing to the advocates of the cause that the question does not appear to find a satisfactory answer. As a glance down the records of our analytical work during the past few years will show, we have not omitted to give attention to the matter of beverages, and especially to those which claim to be palatable though non-alcoholic, or at least non-intoxicating; but in few instances have we met with a truly satisfactory article, or, at any rate, one which would remain for a time without generating alcohol or deteriorating in some other way. It is really a very difficult thing to prepare a beverage perfectly free from alcohol. Some drinks regarded as non-alcoholic, and for that reason consumed by teetotallers, contain alcohol sometimes equal in amount to ordinary brewers' ale. Thus ginger-beer may easily contain from 1 to 3 per cent., since it is mainly prepared with sugar and yeast. Artificially aerated drinks, of course, such as soda-water, lemonade, and ginger-ale, contain no alcohol; but there is lacking about these an ill-defined "something" which nevertheless contributes largely to fermented liquors that distinctive character and taste for which they are held in esteem. The complicated process of fermentation, quite apart from the alcohol produced or the saccharine substances present, does unquestionably influence in a higher degree than can at present be explained by science, the flavour and character of the final product. If the composition of beer, for example, be imitated by making simply a decoction of hops and adding malt wort or extract to the decoction, and afterwards impregnating with carbonic acid gas, the taste, when compared with the fermented liquor containing precisely the same ingredients, will be found wanting in tone, brightness, and vigour. That fermentation materially softens and tones the character of beverages is a fact which the promoter of the present subject of our inquiry has not lost sight of. The "ale," known as "Kop's" is now so largely consumed by a considerable section of the public, both teetotal and temperate, that we decided a short time since to submit the article to exhaustive examination, and we have now to place on record the results of the numerous analyses subsequently made. Our examination brought many facts to light, and as a consequence we were curious to know how so promising an article was prepared. Our commissioner visited Kop's brewery at Fulham, where everything was laid open to his inspection, and where not a single operation in the whole brewery was allowed to escape his notice, albeit there were many steps in the process of a secret nature. The brewery is a large imposing building covering some three acres of ground, another three acres being devoted to various outbuildings constructed for packing, case making, stabling, &c. The building contains almost exactly the same machinery and plant which are or should be incidental to an ordinary well-appointed brewery. There are the coppers in which the liquor is boiled, coolers, fermenting vats, storage vats, clarifiers, and so on. We may touch very briefly on the more important points in the manufacture before we consider the quality or nature of the final product, as is indicated by the analyses below. Water from two deep artesian wells outside is first pumped up to the top floor of the building into cisterns lined with enamel. The water is run off as required into huge jacketed boilers, where it is boiled with best cane sugar, hops, horehound, and a little ginger. The solution is then passed over a rapid condenser into the fermentation vats, where it is "yeasted" with ordinary brewers' yeast. Fermentation is soon set up and allowed to go on to a certain point, the process at the same time being kept under absolute control by carefully selecting the yeast and by regulating the temperature to a nicety. After being skimmed, the liquor is then run into closed vats, contained in the clarifying department on the same floor. Here, by means of air-pumps, it is put under pressure of a few atmospheres, which suffices to force it through a cylinder packed tightly with a specially prepared kind of cotton fibre. This effects a partial clarification of the liquor and removes all excess of yeast. The liquor then passes on to an ingenious filtering arrangement in which there are some two hundred sheets of ordinary filter paper, and between each sheet is a small metal plate provided with several grooves on the surface; so that the "beer" entering the top end of the filter runs down the first groove between the metal and paper, up the second, down the third, and so on until it reaches the next compartment. Although the beer has to pass, it is stated, through something like a mile and a half of filtering material, the cylinder is not more than three feet long. It is then stored in vats and slightly syruped. The now almost finished liquor next gravitates down to the aerating floor, where, with the best possible description of machinery and by various ingenious devices, the beer is aerated, bottled, and the bottles stoppered. Some sixty hands find constant employment in this department. The beer has but little chance of becoming contaminated with objectionable metals, as nothing but the cleanest copper and block-tin are used. Such is a brief account of the principal operations concerned in the production of Kop's ale. Turning now to the analysis and examination of the products, we may at the outset state that we secured not only samples of the liquor at every stage in the process, but also samples of all the materials used in its preparation. To begin with, our attention was given to the water used in the brewing process. It is obtained from an artesian well a few yards from the main building at a depth of 400 feet. The water is quite bright, has a cool, fresh taste, but possesses no smell. Submitted to analysis, the following results were obtained:—

Free or saline ammonia	0·025	grains per gallon.
Albuminoid ammonia	none	
Chlorine	2·23	"
Nitrogen in nitrates or nitrites	none	
Total solid matter	21·00	"
Temporary hardness ($CaCO_3$)	2·55	"
Permanent hardness ($CaSO_4$)	3·60	"
Total hardness	6·15	"

The water is remarkable for its purity and soft character. Of the total solid matter, which is less by eight grains than the Thames supplies, only 2·55 grains consist

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of temporary hardness ($CaCO_3$) and 3·60 grains of permanent ($CaSO_4$) hardness, giving a total hardness equal to only 6·15 grains of lime or magnesium salts per gallon. No sign of organic matter was indicated by the albuminoid ammonia process or by the behaviour of the solids on ignition, or by microscopical examination; the chlorine is also normal—that is, not more than is commonly found in Thames supplies. The water is therefore not only of excellent quality for drinking purposes, but well adapted also for brewing operations. One other noteworthy feature, is the entire absence of nitrates, although the saline ammonia is rather high. We next submitted to analysis a sample of the liquor after fermentation, and the following are the results:—

Absolute alcohol	0·32	per cent. by weight
Equal to absolute alcohol	0·40	„ „ „ volume
Equal to proof spirit	0·70	„ „
Total solid matter	0·134	„ „
Mineral matter	0·029	„ „

The liquor was pleasantly bitter to the taste, turbid, and contained an abundance of healthy yeast cells, traces of sugar, the essential principles of hop, besides certain ill-defined but important products of fermentation. Soluble and insoluble phosphates were found in the mineral matter.

The next sample analysed was taken after the filtering operation. Here, as will be seen, the alcohol, owing probably to a slight loss from evaporation, is further reduced. The total solid matter is of course less, as all excess of yeast has been removed by the admirable filtering apparatus.

Absolute alcohol	0·21	per cent. by weight
Equal to absolute alcohol	0·26	„ „ „ volume
Equal to proof spirit	0·460	„ „
Total solid matter	0·120	„ „
Mineral matter	0·027	„ „

Samples of the liquor before it passes to the ground floor, where it is simply aerated, were next submitted to analysis, and the following results were obtained. The total solid matter is seen to rise to more than 1 per cent. As evidenced by the Fehling test, it consists of inverted sugar, added, however, in the form of pure cane sugar during the finishing process. The alcohol is exactly the same as in the last sample.

Absolute alcohol	0·21	per cent. by weight.
Equal to absolute alcohol	0·26	„ „ „ volume.
Equal to proof spirit	0·46	„ „
Sugar	1·25	„ „
Hop and other extractives	0·12	„ „
Total solid matter	1·37	„ „
Mineral matter	0·027	„ „

Finally, the bottled product, just as it leaves the brewery, was examined, and the following are the results:—

Absolute alcohol	0·32	per cent. by weight.
Equal to absolute alcohol	0·40	„ „ „ volume.
Equal to proof spirit	0·70	„ „
Sugar	1·42	„ „
Hop and other extractives	0·12	„ „
Total solid matter	1·54	„ „
Mineral matter	0·027	„ „

The process of fermentation has been so regulated, it is evident, as to reduce the alcohol to a minimum amount. Strictly speaking, Kop's ale cannot be called absolutely non-alcoholic, although practically it is so; but in view of the exceedingly small quantity it contains, it would be perfectly true to describe it as non-intoxicating. Regarding ordinary ale, to contain, say, 3½ per cent. of absolute alcohol, one would require to drink about ten times more Kop in order to ingest the same amount of alcohol. An average person does not ordinarily drink more than a pint of alcoholic beer on a single occasion, and the amount of alcohol contained therein would represent a gallon and a quarter of Kop's ale according to the above analysis, so that the beverage may fairly lay claim to be absolutely non-intoxicating as regards alcohol.

The beer contained a slight excess of carbonic acid gas, to the extent of from 50 to 70 cc. at 15° C. and normal pressure in each pint bottle, while there remained in every volume of the liquid immediately after opening from 1·1 to 1·2 volumes of gas (CO_2). The gas was perfectly pure, as it was wholly absorbed by potash. It is interesting to add an analysis also of Kop's stout, in that the results, while showing the same amount of alcohol, also give evidence of the presence of malt, which is used in the form of burnt malt for colouring the liquor, just as with ordinary stout. Thus, as the total solid matter is higher, so the mineral constituents are correspondingly increased; they consisted largely of phosphate of potassium.

Absolute alcohol	0·42	per cent. by weight
Equal to absolute alcohol	0·53	„ „ „ volume
Equal to proof spirit	0·93	„ „
Total solid matter	1·67	„ „
Mineral matter	0·04	„ „

It is quite obvious that Kop's ale is not merely, as we at first imagined, a haphazard compound, but rather a carefully brewed product, the preparation of which is based on sound scientific principles. It has a right to the title of a non-intoxicating beverage, and forms an excellent substitute for ordinary ale, which it resembles in taste, colour, appearance, and composition. We must candidly confess that when we first tasted Kop's ale the impression we received was rather unfavourable; but, as with many other articles of diet, its character improves remarkably on acquaintance, and it comes to be really liked. It contains all the valuable volatile as well as the fixed constituents of the hop; and the hops used, as is the case with the other ingredients, are selected, as proved by our examination, from the best kinds. As already suggested, the character of the bitter is soft and delicate, having been toned down doubtless by the process of fermentation. Going through the latter process, too, it is not surprising that the bouquet or, as it is expressively if not elegantly put, "the nose," possessed by the liquid is equal to many kinds of excellent alcoholic beer. Kop's ale affords an excellent and satisfying drink in hot weather; and while it contains all the tonic and refreshing qualities of beer, it can never be accused of stealing a march upon the mental faculties. It keeps well, and, as our examination of samples some months old shows, no appreciable after-fermentation sets up. The public, and especially the teetotal public, may evidently drink Kop's ale with confidence; it contains nothing that is injurious, but is, on the contrary, a salutary and palatable beverage, possessing distinct tonic and stimulating properties by virtue of the choice ingredients which form the bases of its preparation.

MR. BALFOUR ON THE PRESS.

THE anniversary dinner of the Newspaper Press Fund has had many distinguished men as chairmen, who have acquitted themselves on the occasion with more or less felicity. But we doubt if any of them have ever signalised it by a more happily conceived or, in the best of all senses, a more liberal speech than the First Lord of the Treasury at the twenty-ninth recurrence of the symposium on Saturday last. He could not describe himself, as Mr. Disraeli did, when in 1874 he rose to be Prime Minister of England, as "a gentleman of the press," but he humorously admitted that "he had in his time supplied more 'copy' than he thought was either agreeable to the public or agreeable to himself." In the process, however, of supplying this "copy" he had brought himself so intimately into touch with every section and subsection of the body politic—had, in fact, come so closely to identify himself with that body in all its life, inner and outer—as to speak with special authority when he said that "the debt the public owed to the newspaper press of this country was one which it was hardly possible to exaggerate." This tribute he at once explained and justified by the fact that while, alone in Europe, British journalism is anonymous—that while, in other words, its champions in the daily and weekly arena enter the lists with visor down and merge their personality in their cause—it has also the highest standard of responsibility; that it discusses the problems coming up from day to day or from week to week with the most keenly present conviction that the public interest is paramount, and that whatever may be the temporary claims of party, so far as its individual advocacy is concerned, its rallying cry has ever been, "Let all men's good be each man's rule." It is, in fact, the reflex of those representative institutions it has so powerfully contributed to create, insomuch that, conducted in this sense and in this spirit, it has developed, as Mr. Balfour showed, into "at once the freest, the ablest, and the most patriotic press among all the nations of the world."

When Mr. Cobden, in an often-quoted and much-perverted phrase, said that he preferred a single copy of

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the leading journal "to all the works"—he meant, of course, the one work—of Thucydides, he was not depreciating the mental power and the unapproachable language of the greatest of historians by comparison with the intelligence and the literary form of a particular number of *The Times* newspaper. He was simply taking that specimen of the journal as an "instantia prærogativa," as Bacon termed it, of nineteenth-century civilisation in its *ensemble*—as the handiest embodiment of the whole intellectual and moral outcome of that which "is wiser than Socrates and wittier than Voltaire—the People"; as, in a word, the fullest expression up to date of "the heir of all the ages, in the foremost files of time"—the English-speaking democracy. Tested by such a criterion, the humblest metropolitan or provincial daily is immeasurably ahead of the finest literary *chef d'œuvre*, ancient or mediæval, that can be adduced; but he would be a poor friend of contemporary civilisation who would read in the fact any other lesson than that of humility, acknowledging as he must that what he so proudly calls his own is his by inheritance infinitely more than by individual effort. As Bacon himself, in the *Novum Organum*, quotes approvingly from Phocion, "when the populace applaud you, ask yourself what fault you have committed," so must we recognise in the press not only a *censor morum*, correcting, refining, and sweetening "our lives from year to year," but a *ductor dubitantium* bringing popular reasoning to the touchstone of daily recurring fact—in the intellectual sphere dispelling illusions or beating down prejudices; in the moral sphere, redressing grievances or reforming abuses—till "from the illumination of many minds on many points truth begins to emerge," and "the thoughts of men are widened by the process of the suns."

Compare the England of the first quarter of the nineteenth century with England as it is in the fast waning days of that century, and let us ask ourselves to what force or forces we are mainly indebted for the mighty advance in all essentials of civilisation so visible around us. The answer can surely be but this—public opinion educating itself by daily recurring contact with fresh actuality; correcting itself by discussion and rediscussion, and, from such vantage ground gradually gained, commanding ever-wider horizons and acquiring juster views under a truer sense of proportion and fitness. And to what instrument does that ever-improving public opinion owe its opportunities and facilities for the advances it continues to make? Chiefly, as Mr Balfour showed, to the press—that all-receptive Dionysius ear which not a sound escapes; that most sensitive of mirrors on which the faintest breath or ripple of thought or emotion is registered for prompt and universal recognition. Not that the ear or mirror is always true, or that consequently the conclusions drawn from their reports are always just. On the contrary, the reverse is far too often the case, and error is apt to be diffused and prejudice fostered by the very means which should be their proper antidote. Imperfection is incident to all things human, and the more complex the instrument or the more complicated the task it is put to, the greater the risk of its getting out of gear and turning out a defective product. But rightly used, the press contains within itself resources for its own correction and improvement, its authority becoming more recognised and more decisive in proportion as its facts are more carefully sifted and its conclusions more impartially drawn—in a word, in proportion as it becomes more scientific.

It is to the educating power of expert, particularly of scientific journalism, that we must look for the perfecting of this great instrument of civilisation. Manifestly the data on which such a specially trained press forms its conclusions are more rigidly guarded, and, *pro tanto*, the conclusions themselves are logically sounder than is possible in the vaguer, more loosely organised sphere of general politico-social discussion. Take any controverted matter in which the medical journalist, for example, has to join issue with his political compeer, and compare the precision of the criteria the former appeals to with the fluctuating standards set before the latter. We could, in point, adduce instance upon instance of the disadvantage under which the general journalist labours from his unfamiliarity with scientific processes or his ignorance of the value to be given to conflicting groups of data. He reasons rightly enough, for, as Cardinal Newman has lucidly shown, there are more false facts in the world than false deductions from them; but he has had to accept, with inadequate sifting, the materials of his induction and the inept and unconvincing result is all too apparent. Indeed, the action of the non-scientific press is responsible for the propagation of much that is unsound, and, when it affects legislation, positively mischievous. Within the last year or two we have seen tentative and but partially divulged proposals in therapeutics eagerly caught up by the non-professional press, a popular *furore* set on foot, the hand of the discoverer forced, and a premature application of his method put in practice, with the inevitable results of failure, disappointment, and the scepticism of reaction. Well might Koch contrast the conditions under which Jenner worked out his salutary innovation with those meted out to him when on the threshold of his own. The eighteenth-century pathologist worked in an atmosphere of non-publicity; he had ample leisure to test his plan, to subject it to every possible experiment, and to have it thoroughly matured and guaranteed against failure before submitting it to the world. His nineteenth-century counterpart had barely indicated the first lines of his proposals when they were seized upon by a sensation-mongering press, and so manipulated before the public that in self-defence, as a humanitarian, as well as a scientist, as he had to give them forth when ill-prepared for clinical application, till the gratitude prematurely showered upon him changed rapidly into a tempest of disparagement, if not obloquy, under which he retired to the seclusion of his laboratory, determined to let nothing escape him till it was ripe for professional appreciation and use. Such and similar experiences will inevitably leave their impression on the public, till it gradually gets educated up to the standard set before it by scientific or expert journalism, and the intrusion of the non-professional newspaper into fields altogether alien to it becomes a thing of the past. The reforms in which THE LANCET, when it did not actually initiate them, had so prominent a share were those in which it could speak with the authority inseparable from scientific vantage ground and professional prestige. Its memorable crusade against food adulteration—to instance one out of many—could never have been carried out to its issue in salutary legislation but for its appeal to the findings of the chemical analyst and its readiness to submit its charges to the test of the laboratory. The standard of journalistic integrity it thus set up is what, when more widely diffused and more practically complied with, must correct the besetting sin so delicately glanced at in Mr. Balfour's address to his audience of publicists. The non-acceptance of statements till thoroughly sifted and verified, the suspension of judgment till the facts on which it must form itself are fully and impartially before it, the apportionment of praise or blame in accordance with the precept of the Apostle—ἀληθεύειν ἐν ἀγαπῇ—such are among the conditions by which the press will make its power more and more beneficially felt and minimise the evils whereby that power has not seldom been impaired.

THE ELECTRIC LIGHT IN MEDICINE.

THE death was recently announced from Vienna of Josef Leiter, the well-known instrument maker of that city. The event recalls a stormy controversy, by which some years ago the attention of physicians and surgeons was directed to the gradual evolution of expedients for illuminating the less accessible of the body cavities. The movement had its commencement with the century, and attained its full development with the production of Leiter's cystoscope in 1887. The possibility of throwing light into the bladder was first conceived by Bozzini, who in 1805 exhibited his "light conductor." The contrivance failed to hold its ground, but the idea survived. In 1845 Mr. Avery, of Charing-cross Hospital, constructed a bladder speculum, in which the light was derived first from candles and afterwards from a benzene lamp. In 1853 Désormaux laid the first recognised endoscope before the Paris Academy of Medicine, and within a few years the project was taken up and many notable improvements effected by Cruise of Dublin and by many others, both in this country and abroad. The introduction of the electric light, as was

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natural, gave a fresh impulse to invention, and marks an entirely new departure. It became possible, in theory, to dispense with the reflector and to substitute for the external lamp a source of direct illumination. At a very early period Schramm of Dresden devised his diaphanoscope. This was a lamp carrying a platinum loop at white heat. It was introduced into the uterus, and its object was to make the condition of the ovaries visible through the abdominal walls. Julius Bruck, a dentist of Breslau, enjoys the credit of having first employed the platinum loop in medicine. He had been an assistant to Schramm, and may possibly have borrowed the idea. In 1867 Bruck exhibited a stomatoscope which obtained some notoriety, and later a diaphanoscope for examining the rectum and bladder. These were quickly followed by Trouvé's polyscope, and Hedinger's ear speculum. The principle of all these instruments was the same. A loop of glowing platinum was enclosed in a small glass bulb, and the great heat generated was controlled by a surrounding cylinder of flowing water. The apparatus was necessarily cumbersome, and unceasing efforts were made to simplify it. In 1876 Dr. Nitze projected an instrument for illuminating the bladder, urethra, and larynx. He entrusted its execution to Deicke of Dresden, the lenses and prisms being executed by Bé öcke of Berlin. From their joint labours resulted the Nitze-Deicke endoscope. This proving unsatisfactory, Nitze next had recourse to Leiter. The constructive skill of the latter triumphed over the difficulties and the Nitze-Leiter cystoscope acquired a world-wide renown. Differences ensued between Nitze and Leiter, and their rival claims have not quite been settled. Leiter, now working alone, continued to effect further improvements in the cystoscope, and the perfection by Swan and Edison of the incandescent lamp found him ready to adopt the enormous advantage which it offered him. There was no longer need of the circulating stream of water. The instrument was simplified in many ways, and Leiter's cystoscope, when it appeared in 1887, was pronounced by competent authority to be the realisation of a century's dream. Shortly before the death of the instrument-maker Dr. Lewandowski published an admirable work upon "The Electric Light in Medicine," and he accorded a graceful tribute to Leiter's zeal and ingenuity. Leiter's name has become a household word of medicine in connexion with the tubes which are used in every hospital for the control of surface temperatures. It is another instance of the fact so often illustrated that to supply the commonest wants confers the widest and most lasting distinction. Beyond this, however, the Austrian instrument maker has a claim to the gratitude of science founded upon the distinguished part he played in promoting some of the most notable advances of a progressive age.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 7015 births and 3987 deaths were registered during the week ending May 14th. The annual rate of mortality in these towns, which had declined in the preceding three weeks from 21·8 to 19·7 per 1000, rose again last week to 20·4 In London the rate was 19·5 per 1000, while it averaged 21·0 in the thirty-two provincial towns. The lowest rates in these towns were 12·8 in Croydon, 13·0 in West Ham, 13·7 in Portsmouth, and 15·0 in Nottingham; the highest rates were 25·0 in Sheffield, 26·4 in Blackburn, 26·8 in Preston, and 28·1 in Wolverhampton. The 3987 deaths included 538 which were referred to the principal zymotic diseases, against 527 and 541 in the preceding two weeks; of these, 222 resulted from measles, 160 from whooping-cough, 58 from scarlet fever, 38 from diphtheria, 36 from diarrhœa, 20 from "fever" (principally enteric), and 4 from small-pox. No fatal cases of any of these diseases occurred last week in Gateshead; in the other towns they caused the lowest rates in Brighton, Norwich, Leeds, and Newcastle-upon-Tyne, and the highest rates in Manchester, Sunderland, Birkenhead, and Preston. The greatest mortality from measles occurred in Birkenhead, Manchester, London, Leicester, Liverpool, and Birmingham; from scarlet fever in Huddersfield, Cardiff, and Preston; from whooping-cough in Hull, Blackburn, Preston, Derby, Salford, Sunderland, and Birkenhead; from "fever" in Plymouth; and from diarrhœa in Preston. The 38 deaths from diphtheria included 24 in London, 2 in Cardiff, 2 in Birmingham, and 2 in Nottingham. Three fatal cases of small-pox were registered in London, and one in Liverpool, but not one in any other of the thirty-three large towns; 73 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 13 in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1592, against 1408 and 1484 on the preceding two Saturdays; 232 new cases were admitted during the week, against 177 and 200 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 389 to 297 in the preceding three weeks, rose again to 304 last week, but were 40 below the corrected average. The causes of 67, or 1·7 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Bristol, Cardiff, Oldham, Newcastle-upon-Tyne, and in twelve other smaller towns; the largest proportions of uncertified deaths were recorded in West Ham, Birmingham, Nottingham, and Preston.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·3 and 21·4 per 1000 in the preceding two weeks, further rose to 22·8 during the week ending May 14th, and exceeded by 2·4 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·4 in Leith and 14·9 in Greenock to 22·3 in Perth and 27·6 in Glasgow. The 635 deaths in these towns included 32 which were referred to measles, 24 to whooping-cough, 8 to "fever," 8 to diarrhœa, 6 to diphtheria, 2 to scarlet fever, and not one to small-pox. In all, 80 deaths resulted from these principal zymotic diseases, against 70 and 65 in the preceding two weeks. These 80 deaths were equal to an annual rate of 2·9 per 1000, which almost corresponded with the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had increased in the preceding three weeks from 15 to 22, further rose last week to 32, of which 31 occurred in Glasgow. The deaths referred to whooping-cough, which had risen from 22 to 30 in the previous three weeks, declined to 24 last week, and included 14 in Glasgow, 4 in Aberdeen, and 3 in Edinburgh. The 8 fatal cases of "fever" exceeded those recorded in any recent week, and included 5 in Dundee. The deaths from diphtheria, which had declined from 10 to 1 in the preceding four weeks, rose again to 6 last week, of which 2 occurred in Glasgow and 2 in Greenock. The 2 fatal cases of scarlet fever were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had declined in the preceding three weeks from 163 to 126, rose again last week to 140, and were within one of the number in the corresponding week of last year. The causes of 67, or nearly 11 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 43·9 and 33·0 per 1000 in the preceding two weeks, further declined to 31·0 during the week ending May 14th. During the first six weeks of the current quarter the death-rate in the city averaged 34·6 per 1000, against 20·1 in London and 19·8 in Edinburgh. The 208 deaths in Dublin during the week under notice showed a decline of 13 from the number in the preceding week, and included 24 which were referred to measles, 3 to whooping-cough, 1 to "fever," 1 to diarrhœa, and not one either to small-pox, scarlet fever, or diphtheria. In all, 29 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·3 per 1000, the zymotic death-rate during the same period being 3·3 in London and 1·2 in Edinburgh. The fatal cases of measles, which had been 20 and 40 in the preceding two weeks, declined again to 24 last week. The deaths referred to whooping-cough, which had been 11 and 4 in the previous two weeks, further declined to 3 last week. The 208 deaths registered in Dublin last week included 36 of infants under one year of age, and 37 of persons aged upwards of sixty years; the deaths of infants showed a slight decline, while those of elderly persons corresponded

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with the number in the preceding week. Eight inquest cases and 6 deaths from violence were registered; and 61, or nearly one-third, of the deaths occurred in public institutions. The causes of 23, or more than 11 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

HOW GENERAL GORDON WAS REALLY LOST.

Surgeon-Captain T. H. Parke has a paper in the *Nineteenth Century* for the present month on this subject. He gives a brief but interesting, sketch of the stirring military events which occurred in Egypt from October, 1884, to the end of January, 1885. Khartoum fell on Jan. 26th. All that was required was, as the ill-fated hero had himself again and again pointed out, to let the enemy see by the presence of a few British soldiers that the long-promised relief was not all a delusion. The failure of the relief expedition is attributed by our author to delays at Metemmah, which was reached in sufficient time for the object of the expedition to have been effected. If a steamer had left Metemmah for Khartoum on the afternoon of the 21st she could have relieved Gordon on the 25th, and the fall of Khartoum would not have gone down to posterity as one of the blots of British history. The paper, apart from the light which it throws on the history and causes of that deplorable event, is interesting from the information it gives of the medical and surgical occurrences of the expedition.

DUBLIN BARRACKS BILL.

Mr. Brodrick has been elected Chairman of the Select Committee of the House of Commons to consider the Dublin Barracks Bill The members, in addition to the Under Secretary for War, are: Sir Edward Hamley, Mr. Barton, Mr. T. M. Healy, and Dr. Farquharson. The Bill is "to enable the Secretary of State for the War Department to purchase certain lands in or near Dublin for the improvement of the Wellington and Beggar's Bush Barracks at Dublin."

Fleet Surgeon Patrick Keelan, R.N., M.D., F.R.C.S.I., who died on the 9th inst., at Craigmore, Holderness-road, Hull, became Surgeon in the Navy in March, 1859, Staff Surgeon in December, 1870, Fleet Surgeon in October, 1880, and retired in January, 1882.

ARMY MEDICAL STAFF.—Surgeon-Captain H. E. Dowse, Madras Command, has been transferred to the Rawul Pindi District; Surgeon-Captain B. J. Inniss has been posted for duty at the Station Hospital, Bangalore; Surgeon-Major J. T. Goggin has been appointed to the charge of the Station Hospital, Nusseerabad, Bombay Command.—The undermentioned Officers, on arrival from England, have been posted for duty as follows, in the Bombay Command:—Surgeon-Captain C. A. P. Mitchell, to Poona; Surgeon-Captain C. Birt, to Bombay, for Aden; Surgeon-Captain J. D. Day, to Bombay.—The following Officers have arrived in India for duty: Surgeon-Captains M. F. Macnamara, T. O. H. Hamilton, H. J. Barrett, and E. M. Williams.—Surgeon-Lieutenants J. D. Alexander and C. B. Lawson have been posted to the Station Hospital, Western Heights, Dover; Surgeon-Captain J. J. C. Watson to the Second Station Hospital, Aldershot, for duty.—The undermentioned Surgeon-Lieutenant-Colonels retire on retired pay (dated May 18th, 1892):—Charles Edward Dwyer and William Cameron Grant, M.B.

ARMY MEDICAL RESERVE OF OFFICERS. — Surgeon-Captain G. W. Murphy, M.B., to be Surgeon-Major (dated May 18th, 1892).

NAVAL MEDICAL SERVICE.—Deputy Inspector-General of Hospitals and Fleets Adam Brunton Messer, M.D., has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet (dated April 27th, 1892).—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Surgeon Geo. Lowbridge Baker has been placed on the Retired List of his rank (dated May 12th, 1892).—The following qualified candidates for the Naval Medical Service have been appointed Surgeons in Her Majesty's Fleet:—Samuel Ingleby Oddie, M.B., Henry Baker Hall, M.B., Henry William Gordon Green, Thomas Edward Honey, M.D. Edward Butler Pickthorn, George Thompson Bishop, Edgar Fairbank Mortimer, Beauchamp Fredk. Parish, Frederick Albert Capps, and Charles Frank Warren (all dated May 11th, 1892).—The following appointments have been made at the Admiralty:—Fleet Surgeons: Robert Grant, M.A., M.B., to the Portsmouth Division Royal Marines (dated May 15th, 1892); George Maclean, M.A., B.A., to the *Royal Sovereign* (dated May 31st, 1892). Staff Surgeons: W. G. Jack to the *Bellona*, Charles E. Geoghegan to the *Audacious*, and Samuel Keys to the *Porpoise* (all dated May 18th, 1892); Standish F. O'Grady to the *Ganges* (dated May 19th, 1892). Surgeons: B. R. Clarke to the *Triton*, W. Eames to the *Wildfire*, F. W. Collingwood to the *Vivid* (additional), and William W. Jacobs to the *Royal Sovereign* (all dated May 31st, 1892).

VOLUNTEER CORPS.—*Artillery:* 3rd Durham (Western Division, Royal Artillery): John Macdonald, M.B., to be Surgeon-Lieutenant (dated May 14th, 1892).—*Rifles:* 6th Middlesex (St. George's): Surgeon-Lieutenant F. E. Fenton to be Surgeon-Captain (dated May 14th, 1892).

Correspondence.

"Audi alteram partem."

IDENTIFICATION OF TUBERCLE BACILLI IN SPUTUM BY A NEW AND SIMPLIFIED PROCESS.

To the Editors of THE LANCET.

SIRS,—Since the discovery of the tubercle bacillus every year has furnished forth one or more methods of demonstrating it, and about twenty methods are before the public at the present day. My only reason for adding further to this number is the simplicity of my procedure. In order to distinguish the bacillus of tubercle from others existing in sputum, or in tissues, it is usual to employ acids as decolourising agents. I have found, however, that whereas most bacteria lose the stain very rapidly in boiling water, the tubercle bacillus retains it for a much longer period, sometimes over five minutes.

The following is my process:—The sputum is dried and fixed on a cover glass, and stained with hot carbol fuchsin in the usual manner. The cover glass is then moved to and fro in water at a temperature between 208° and 212°F. during one and a half to three minutes, one minute often sufficing. The specimen may now be mounted either in water and examined microscopically, or may be subjected to any double staining process which may seem necessary. In order to obtain good results the film must be as thin as possible, and evenly distributed, as otherwise any little lumps which may exist will retain the colouring matter even longer than the tubercle bacilli. Sometimes the decoloration of the bacilli, from causes unknown to me, takes place more rapidly than usual, and therefore it is best to continue the process only until the cover glass presents a faint rosy gleam. This method is probably not applicable to the examination of tissues on account of the coagulation and imbibition that it produces. On the other hand, the method may be most successfully employed for the identification of the lepra bacillus. I hope later to be able to give further information on this subject. The results obtained are not quite so perfect as those produced by some other methods, and I bring forward the hot-water process, not as a laboratory method, but one for use at the bedside, and the object of my communication will have been fully realised if I have brought before the general practitioner a method by which he may easily and rapidly determine the presence or absence of the tubercle bacillus.—I am, Sirs, yours truly,

Cairo, May, 1892. P. KAUFMANN.

*** The great advantage of this method, if it answers as well or nearly as well as the methods now in use, is its simplicity, as boiling water may often be obtained when acids are not to hand. There is, however, another possible advantage. The water will not continue to act when it is cooled, and in all probability the staining will remain more permanent than where acid is used, as this, unless very carefully removed or neutralised, continues to decolorise even after the specimen is mounted.—ED. L.

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INCREASE OF SMALL-POX.

To the Editors of THE LANCET.

SIRS,—As you will probably call attention to the increased number of cases of small-pox notified in this district during the past week, I would take this opportunity of stating briefly some facts in connexion therewith. At the end of February and beginning of March a number of cases occurred, and were all traced to a girl whom it was found had suffered from small-pox some few weeks previously, and who had not been under medical treatment except on one occasion in the early stage of the disease, before its distinctive characters were sufficiently clear to enable the medical man to make a correct diagnosis. From this girl, as a source of infection, I have been able to trace upwards of forty other cases. On the immediate isolation of all cases discovered the outbreak seemed to subside, but ten days ago another batch of cases occurred, and have been traced to a case similar in many respects to the first, except that in the second girl's case no medical man had been consulted at all, and the girl was found to have been suffering for three or four weeks in a tenement house containing forty adults and seventy children, twenty of whom were unvaccinated. Several interesting questions have been raised in connexion with both outbreaks, but I would at present draw attention to two. First is the difficulty existing in a neighbourhood containing very poor persons who do not call in the help of any medical man, not even the parish medical officer, in time of sickness, unless it interferes with the ability to work, or is likely to be dangerous to the individual. In both outbreaks it was necessary, in order to detect fresh cases, to visit daily the families living in houses adjoining those in which small-pox had appeared; by this means were the original cases discovered. That it is possible for cases of small-pox to exist for weeks hidden in a district is a condition of things dangerous not to the district only, but to the whole of London, and does not appear to have been taken into account in the Public Health Act; the only way to deal with it seems to be in a regular house-to-house visitation, by the medical officer of health examining every person; but before his suspicions are aroused a case may have existed sufficiently long to infect a widespread area.

A second matter which has been forcibly brought under my notice is the difficulty of obtaining speedy isolation of suspicious cases. The Metropolitan Asylums Board have no power to make provision for cases of this description, and several persons have had to remain in tenement houses until the disease was sufficiently distinct to enable the medical attendant to come to a decision as to the nature of the disease. Some of these suspicious cases in houses in which small-pox had occurred turned out not to be small-pox; but this was not so in regard to the majority, who in the meantime were acting as sources of infection. There should be some provision made for placing in quarantine cases of this description, as the absence of such interferes to a great extent with the endeavours of the local authority to prevent the spread of the disease; there is need, moreover, for some consolidation of authorities in regard to small-pox prevention, for at present there are more or less concerned therein no less than five bodies—viz., the Local Government Board, the County Council, the vestry or local board, the Metropolitan Asylums Board, and the guardians.—I am, Sirs, yours faithfully,

FRANCIS J. ALLAN,
Medical Officer of Health, St. Leonard, Shoreditch.

May 17th, 1892.

THE HURDWAR FAIR AND CHOLERA.

To the Editors of THE LANCET.

SIRS,—The telegraphic news from India in *The Times* of the 16th inst. regarding the correspondence in the native press of the north-west provinces relating to the dispersion of the pilgrims at the Hurdwar fair owing to cholera is of far greater importance to the public health of India—and, indeed, the world—than we are apt to suppose; and on this account I trust you will kindly insert this letter. I have had opportunities—unequalled, I believe, by any other medical officer in India—of judging of the effects of this vast concourse of human beings, collected at the worst time of the year, in the place least suited for it, and themselves in a condition most unfitted to resist the fatal influences inseparable from these gatherings, and I can unhesitatingly state that the condition of Hurdwar and the roads leading from it in 1867 and 1879 was a disgrace to any Government, and infinitely more so to one which had an apparently fully equipped sanitary department. For weeks before the Hurdwar Fair the district arrangements of Saharanpur (that in which Hurdwar is situated) were completely upset, and to end in both years, as I know, in the unutterable failure witnessed at Hurdwar on April 13th in 1867 and 1879 would, one would have supposed, have been ample proof that something was necessary to prevent the recurrence of what seemed so impossible to prevent by local sanitation. But, no; the horrors of 1867 were repeated and intensified in 1879. I am, therefore, truly thankful to see that the Government have felt compelled to take the action they have done on the score of public health. Without doubt our annual treatment of the vast crowds which meet at Hurdwar on April 12th each year is enough to make the continental sanitarians put us out of court altogether in the matter of the spread of cholera, and the scenes enacted and repeated each year at Hurdwar for twenty years, as I know from 1864, were such as would never have been tolerated for one year in this country. In the absence of details of the present correspondence I will add no more, except to remark that it is little wonder to me that the sanitary authorities of the continent of Europe view with alarm much that we do with reference to the treatment of cholera outbreaks, after vast gatherings like those at Hurdwar, and hesitate to give us too free a hand on account of our vastly greater commercial intercourse.

I am, Sirs, yours truly,
ROBERT PRINGLE, M.D., Brigade-Surgeon.

Blackheath, S.E., May 17th, 1892.

INTESTINAL OBSTRUCTION.

To the Editors of THE LANCET.

SIRS,—In the report of a case of intestinal obstruction under Dr. Cousins, it is noted that the coil of intestine was blue, showing where it had been constricted. In examining the abdomen after fatal results of herniotomy, I have frequently noticed this condition, with an entire absence of other signs of general peritonitis, even when the period between the time of relief and death was sufficiently long to allow signs of peritonitis to develop. I have further seen in such cases that the discoloured coil lies at a distance from the part of the abdomen where it was constricted, and that the patient passed flatus before death. The explanation suggested is that the septic material penetrates the damaged wall of the intestine, intestinal movements spreading the material over a wide area. The natural inference to be drawn is that in cases of herniotomy where the condition of the gut is doubtful, opium ought to be administered early in full doses.—I am, Sirs, yours truly,

WILLIAM HORROCKS, F.R.C.S.Eng.

Bradford, Yorks, May 16th, 1892.

THE PHYSIOLOGY OF DREAMS.

To the Editors of THE LANCET.

SIRS,—Will you allow me also to express how interested I was not only in your annotation on Dr. Richardson's lecture at the Royal Institution, but also in Dr. Wilks's letter in your issue of to-day? I also was not present at the lecture, but hope to see it in the forthcoming number of the *Asclepiad*. The *Daily Telegraph*, in a leading article on what Dr. Richardson said, quotes him as stating that "all musical instruments dream after they have ceased playing, and a microphone will detect their dreams." This, to my mind, is a beautiful and pithy way of expressing the science and secret of dreams. The dreams of musical instruments can be proved by the tuning fork, the piano, the organ, or the violin, both by the detection of vibration set up by and lasting after actual playing, and from unobserved causes. These unobserved causes may be jolts and jars, wind, varying degrees of tension from temperature or atmospheric pressure, electrical currents, rusting or chemical action, friction from dust and insects, or even animals like mice. If instruments were possessed of minds they would dream these sounds and sighing vibrations in the periods of

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rest between the real times. An impartial *résumé* of the many theories of dreams is given by Dr. Sully in the article on "Dreams" in the *Encyclopædia Britannica*, and also in the work on "Illusions" (International Science Series) by the same author. I may here say that the physiological theory there given completely accounts for all the phenomena of dreams except their visual aspect, or what Wundt calls "the light chaos." In your second volume for 1889 I suggested that the visual aspect was due to actual light being more or less perceived by the intellect during the sleeping state. That there is actual light developed in the body at all times is certain from the physical transformations of energy taking place, and from the presence of phosphorised fats, whether in the blood-corpuscles, nerve tissue, or brain substance. The chemistry of these phosphorised fats, which is very complex, can be studied in Dr. Thudichum's "Physiological Chemistry of the Brain," and also in a most interesting address on the cerebro-spinal system in the last number of the *Asclepiad*. Dr. Sully describes a dream he once experienced after trying to fall asleep by counting. The numbers took on visual form, and he saw them coming in endless procession, knocking and jostling against each other in most grotesque and comical fashion. Were these blood-corpuscles actually seen and mistaken for the numbers with which the mind had been engaged a moment previously?

I am, Sirs, yours faithfully,

Plumstead, May 14th, 1892. FRANCIS EDWARD CANE.

THE ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—Mr. W. G. Dickinson, in his letter published in your issue of the 14th inst., employs an expression "took offence" which, as applied to myself, scarcely meets the case. Will you therefore permit me to say that in my letter of resignation, dated April 15th, I stated that "I declined to forward to *any* professional man so insulting a communication" as that passed, in the unavoidable absence of both Dr. Steele and myself, on April 12th, and received by me for transmission to the solicitor on April 14th? This was one of my two immediate reasons, and I should again decline to forward, for any body of men, to any professional man a resolution that he be "forthwith informed that his services are no longer required." How would Mr. Dickinson regard such a proposal if the gentleman whose "services were no longer required" were himself and the dismisser a patient? Moreover, as to the plea of the committee's "desiring to ascertain the extent of their liability as soon as possible," they had already, at a meeting at which the solicitor was present, on April 6th—i.e., only six days previously—requested him to forward his bill of costs to one of themselves as soon as feasible, and did not then breathe a word as to this prospective curt dismissal. Declining, therefore, to forward the resolution of April 12th, my resignation followed as a matter of course; for I did not wish the committee to be placed in the painful position of having to deal with a rebellious secretary. My other decisive reason, which I also stated in my letter of resignation, was that I strongly objected to the manner in which the Association's Minute-book had been obtained and subsequently withheld from its lawful custodian, myself, the acting secretary.

With regard to the resignation of my colleague, Dr. Steele, I hear from him that the grounds stated by Mr. Dickinson formed but a portion of the reasons which influenced Dr. Steele in forming his decision, although anxious to assist the committee in any possible way, and that he likewise declined to forward to the solicitor the resolution above referred to. Mr. Tait was naturally informed by me of the above chapter of events, and this is probably one, but by no means the "sum total," of the matters to which he alludes; though neither the solicitor, nor my co-secretary, nor myself was aware of his intention to write you, until, in common with all your readers, we saw his letter in your columns of the 7th inst. It is no doubt a compliment to Mr. Lawson Tait that his "advice" should be considered by Mr. Dickinson to have outweighed the better judgment of the rest of the Committee, but it now appears to be met by them with a recognition as marked as that shown to their other advisers.

Mr. Dickinson now having publicly occupied himself with the question of the recent changes in the officering of the Association, perhaps he will go a little further and induce the Central Committee to assemble and officially receive the month-old resignation of two honorary secretaries who have served that body for over seven years.

I am, Sirs, your obedient servant,

W. A. ELLIS,
Late Honorary Secretary of the Association of Members of the Royal College of Surgeons of England.

May 18th, 1892.

THE NEW CURRICULUM AND THE SCALE OF FEES.

To the Editors of THE LANCET.

SIRS,—Rumour has many tongues, and not all of them are truthful. It would be interesting to know what truth there is in the rumour that when the new prospectuses of the eleven London schools for the coming session are issued it will be found that there is the same wretched underbidding of each other in the matter of fees for medical education as in the years gone by. We all know that in view of the five years' curriculum there have been meetings of the deans to consider the question of fees, and that there has been a widespread feeling that the opportunity should not be lost of raising the London fees to something like an adequate sum, and at the same time also of putting the fees of all the schools on an equal footing. Is it true, however—is it possible—that this excellent scheme has been frustrated by the action of one of the smaller schools, by one which surely ought to have known better, by independently and, it is said, irrevocably fixing its new scale of fees at a contemptibly small increase upon that of last year; that others of the smaller schools feel it in the circumstances impossible to raise their fees to the sum which they had wished, and which had been advocated and will be adopted by the large schools; and that yet others of the schools are even descending still lower, and are proposing an addition to their fees, already too low, which is simply ridiculous? I name no names and no amounts, but if rumour be true we shall have three various and unmeaning scales of fees in force at our eleven London schools, instead of one and the same at all of them, for which many had wished, and for the consummation of which a unique opportunity had at length arisen. Is it too late even now for the deans to arrange and finally settle that we, the constituents of the one great school of medicine in London, shall act together and in unison, that we shall raise the fees for medical education to a scale somewhat commensurate with those of other professions, and that an era shall be begun when the various schools will show that they individually seek to attract students by the quality of their teaching, rather than by the deplorable system of underbidding which to many of us is disgusting in the last degree?

I am, Sirs, yours faithfully,

May 11th, 1892. OLIM DECANUS.

DEATH UNDER CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—A case of death under the influence of chloroform having unfortunately occurred here, I think it right to report it. A boy aged eleven years was recommended to have adenoid growths removed from his naso-pharynx. He was a pale, anæmic child, with no disease of lungs or heart. He had been told to have nothing to eat after his breakfast at 7.30 A.M. on the 14th ult. (being an out-patient); and at 1.15 P.M. I was asked to give chloroform. He took it slowly, not breathing well, but with no difficulty or struggling. His pupils being slightly contracted, and the cornea insensitive, the operation for removal of the growths, by Loëanberg's forceps, was commenced. There was not much hæmorrhage or coughing, and the operation was just finished. While sponging out the pharynx, however, the respiration was noticed to stop for a second, but commenced again, there being slight cyanosis about the eyes, though the lips remained of good colour. The gag was at once removed. The pulse was imperceptible. On auscultating the chest no heart sounds were audible, though the breath sounds could be well heard and air was entering

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Mr. [illegible] now having publicly occupied himself [illegible] the question of the recent contests in the University [illegible] perhaps he will go a little further and [illegible] Council or Committee to assemble and officially [illegible] the representatives of two honorary secretaries who [illegible] served their body for over seven years.

I am, Sir, your obedient servant,

W. A. [illegible]

[illegible]

May [illegible] 1892.

THE NEW CURRICULUM AND THE SCALE OF FEES.

To the Editors of THE LANCET.

[illegible] Examiner has many forgives, and not all [illegible] are thankful. It would be interesting to know what [illegible] is in the rumour that when the new prospectuses [illegible] are issued by the London schools for the coming session it will be found that there is the same wretched [illegible] of each other in the matter of fees for [illegible] as in the years gone by. We all know [illegible] one of the five years curriculum there have been [illegible] efforts to consider the question of fees, and [illegible] has been a widespread feeling that the opportunity [illegible] be used of raising the London fees to some [illegible] same scale, and at the same time also of [illegible] the schools on an equal footing. It [illegible] [illegible] if possible—that this excellent scheme [illegible] frustrated by the action of one of the smaller [illegible] which surely ought to have known better, [illegible] it was said, irrevocably bound to [illegible] a contemptibly small increase upon that [illegible] at present charged by the smaller schools. [illegible] that there of the smaller schools feel it [illegible] impossible to raise their fees to the [illegible] which was resolved, and which had been advocated [illegible] by the large schools; and that yet there [illegible] are even descending still lower, and are [illegible] to their fees, already too low, which [illegible] I name no names and no amounts, [illegible] be true we shall have three various and [illegible] fees in force at our eleven London [illegible] and the same at all of them, for which [illegible] and for the consummation of which [illegible] had at length arisen. Is it too late [illegible] to arrange and finally settle that we, [illegible] of the one great school of medicine in [illegible] act together and in unison, that we shall [illegible] for medical education to a scale somewhat [illegible] with those of other professions, and [illegible] from which the various schools will [illegible] seek to attract students by the quality [illegible] rather than by the deplorable system [illegible] which seems to many of us is disgracing [illegible]

I am, Sir, yours faithfully,

OLIM DISCIPULUS.

[illegible]

DEATH UNDER CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—A case of death under the influence of chloroform occurred here, I think it right to state, unfortunately, yesterday week. A boy aged eleven years was [illegible] for the removal from his nose [illegible] a polypus. The child, with no disease of [illegible] was, as a rule, a healthy child, with no [illegible] seemed to me to have nothing to contraindicate [illegible] I saw on the 14th inst. (being an out patient) [illegible] M. I was asked to give an opinion. He [illegible] not breathing well, but with no [illegible] His pupils being slightly contracted [illegible] The operation for removal of the [illegible] forceps, was commenced. The [illegible] by Lockhart's forceps, was [illegible] much hæmorrhage or crushing [illegible] was just finished. While operating on the [illegible] the respiration was noticed to stop [illegible] ever, the respiration was noticed again, there being slight [illegible] recovered again, there being slight [illegible] The pupils remained of good colour. [illegible] that the eye remained perceptive. [illegible] recovered. The pulse was imperceptible, [illegible] the chest no heart sounds were audible, [illegible] sounds could be well heard and air was [illegible]

freely. Steps were at once taken to stimulate the heart—amyl nitrite inhalation, injection of ether hypodermically—and hot towels were applied to epigastrium and head. Partial inversion of the child was tried, and artificial respiration was continued for three-quarters of an hour. The breathing having ceased some minutes after stoppage of the pulse, the child gave only one or two short gasps and showed no more signs of life. The chloroform used was that manufactured by Macfarlan and Co., and the quantity given was only two drachms, the administration having lasted but from five to ten minutes. The portion remaining in the bottle has been sent to Professor Ramsay, of University College, for analysis. My colleague, Mr. H. G. G. Cook, the house surgeon, performed the operation. An inquest was held, and the jury returned a verdict of "Accidental death from syncope during the administration of chloroform." Unfortunately a post mortem examination was not obtained, the coroner not having ordered it to be performed.

I am, Sirs, yours truly,

R. C. M. COLVIN SMITH, M.B., B.C. Cantab.

Victoria Hospital, Chelsea, May 18th, 1892.

THE INTERIM REPORT OF THE VACCINATION COMMISSION.

To the Editors of THE LANCET.

SIRS,—The fifth report of the Vaccination Commission must have come as a thunderclap to those public vaccinators who have not been watching the course of events. One of your daily contemporaries to-day in a short leader says:—"The conduct of the Local Government Board in reference to this matter has not been wise, in advising boards of guardians after a fashion very similar to the recommendation now made by the Royal Commission." In regard to vaccination, the Local Government Board and the public represent the devil and the deep sea. I have been a public vaccinator for a number of years, and formerly earned a respectable sum in fees and grants. I was then vaccinating by three insertions, and in every way satisfied the requirements as to the area of foveation. A few years ago I was directed to make four insertions. After representing the inevitable result, I complied. The attendance at most of the stations has fallen off, and my principal one is nearly deserted for the surgery of the private practitioner who will vaccinate in two places, or even in one. If the object of the Local Government Board was to obtain more efficient vaccination, it has utterly defeated itself, as many parents, in addition to those who paid for scanty insertions, decided against the operation altogether, and no prosecutions followed.

The Local Government Board ought to have obtained an Act of Parliament requiring every certificate to state that four insertions of lymph had been made, and then they might have begun with the public vaccinators. In the present political situation they were too wise, no doubt, to attempt such a task.

I am, Sirs, yours faithfully,

May 12th, 1892. PUBLIC VACCINATOR.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

To the Editors of THE LANCET.

SIRS,—One of the greatest legal hardships affecting medical men is, that any pauper can issue a writ on the most trifling of pretexts, and so put not only one of us, but any one, to great expense. Even a man with some means can harass a medical man with proceedings, bringing a case to the verge of trial, and then, by paying some £30 or £40, withdrawing it, probably costing the unfortunate doctor one to two hundred pounds for unrecoverable costs. Combination has several advantages: First, a protection society places, through its organisation, at the command of any medical man, for a payment of 10*s.* a year, a staff of skilled experts, used to dealing with all kinds of cases of difficulty, whether legal, surgical, or medical, likely to arise in the practice of his profession. Such a society reduces to a minimum the enormous expense and inconvenience caused to a man who has to leave his business and work up his defence properly. Secondly, by the society at once offering to receive on his behalf the threatened process and entering an appearance, and preliminarily investigating the matter, the doctor concerned is saved great expense and anxiety. Thirdly, the mere receipt of an official letter in reply to the threat of proceedings in blackmailing cases (which are more frequently of occurrence than would be imagined) generally prevents further action being taken. The blackmailer seeks to isolate and terrify his intended victim; and the facts that he has taken counsel with others, and that the would-be blackmailer finds that he has to deal, not with one person, but with a powerful association, like the Medical Protection Society, having its head-quarters in London, and associated with some of the most eminent London and provincial practitioners, are almost certain to make the attacker stop proceedings.

I have seen great evils arise from cases being tried in country towns. I hope our council will decide, whenever it is possible, to have country cases in which our society is interested dealt with in the London Courts, where the attendance of experts would be easy to obtain, and, what is most important, all local influence and feeling would be excluded. Starving the defence is a very bad policy; that error, I am sure, our council will not fall into. In one case within my cognisance a respected practitioner, owing to these two causes—local prejudice and the absence of experts,—was mulcted in costs &c. amounting to nearly £600. I am sure that had the case been tried in London the action would either have been abandoned or decided very differently.

I am, Sirs, yours very faithfully,

May 16th, 1892. GEO. B. MEAD, Hon. Sec.

THE TREATMENT OF THE NASO-PHARYNX.

To the Editors of THE LANCET.

SIRS,—In the very kind notice of my recently published work which appeared in your columns reference is made to two points of considerable practical importance. As those who read the review without perusal of the book may arrive at an erroneous idea concerning my views, you will, perhaps, kindly allow me to make an explanation. Your reviewer is perfectly accurate when he writes: "..... while he impresses upon the reader the theory that affections of the anterior nares and pharynx, when coexisting with middle ear disease, need only be treated in so far as they are producing direct symptoms." It has, however, appeared to me desirable to explain that the naso-pharynx is very specially excepted from this statement (p. 567). With regard to the connexion between atrophic nasal catarrh and laryngitis sicca, my own experience points to the existence of two varieties of the latter. One of them, the more common, occurs, so far as I have seen, independently of any nasal affection; while the other, less frequently met with, is practically identical with Baginsky's "ozæna laryngis," described on p. 119.—I am, Sirs, yours faithfully,

Edinburgh, May 14th, 1892. P. MCBRIDE.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Hospital Saturday in Liverpool.

SATURDAY, the 14th inst., was observed this year as Hospital Saturday. As might have been expected in so business-like a community as this is, the committee have profited by past experience, and have resolved to rely more upon the amounts raised by weekly or monthly contributions all the year round, in workshops and other large centres of working men, than in that raised by boxes deposited on a certain day, to be called for a few days later. The results of this latter mode of collection have been found insufficient to justify the expenditure. A concert is also to be given in St. George's Hall on the 23rd inst., under distinguished patronage, for the benefit of the medical charities, and there is every reason to expect a "bumping house" and a substantial addition to the Hospital Sunday Fund.

Crimes of Violence.

Lancashire has for years past had an unenviable reputation for crimes of violence. Some years ago it took the form of what was locally termed "purring"—i.e., kicking

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the unhappy victim with heavily shod boots or clogs till insensibility or even death supervened. More recently the mode of attack has been by knives, in the hands of gangs of youths calling themselves the High Rip Gang, in this city, and "scuttlers" in Manchester. As the practice of "purring" became obsolete after some exemplary sentences involving a long term of penal servitude, it is hoped that similar drastic measures may end this reckless use of the knife.

The Liverpool Royal Infirmary and Elections to Honorary Medical Offices.

An election will shortly take place of one assistant physician and two assistant surgeons to the Royal Infirmary, under greatly improved conditions over those which governed former elections. The electorate in these latter having been the trustees, each candidate was put to considerable expense for advertising, printing, &c. Worse than the expense was the necessity of having to canvass a large number of persons of both sexes scattered over a very wide area, involving very considerable labour, in addition to the humiliation involved in such a mode of election. Now all is happily changed, the elections in future being in the hands of an election committee sufficiently comprehensive to be beyond the power of a clique, and yet not large enough to be unwieldy. Any canvassing or advertising on the part of any candidate will disqualify him for election; but candidates may send copies of their testimonials, not exceeding a specified number, to each member of the election committee. For the three vacancies there are already a number of eligible candidates, and the result of this first election carried out on the new mode will be watched with much interest.

Coffee Drinking.

Some years ago it was suggested that prizes should be given for the best-made cup of tea or coffee as much as for the best show of fruit or flowers. It is to be regretted that the suggestion was not more capable of being put in practice, since the tasting of many specimens and the awarding of the prize would involve insuperable difficulties. It is satisfactory, however, to notice both an increased demand for and an equally increased supply of *cafés* where excellently made coffee can be had at very moderate charges. To many of the daily increasing number of total abstainers a cup of really good coffee is perhaps more wholesome, as well as more palatable, than a too free use of aerated waters; while many who are moderate drinkers would prefer coffee in the middle of the day, or at other times when on duty.

May 17th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Growth of Newcastle-on-Tyne.

THE report of our city engineer is an instructive document as showing the rapid growth of the place, which, in 1882, contained 20,600 houses occupied by 147,000 persons, while in 1892 the number of houses had risen to 26,800, and the population to 192,000, an increase of just 30 per cent. The increase in houses and population has taken place chiefly in the east and west-ends of the city, resulting in the formation of practically two new towns. The question of the housing of the poor has been endeavoured to be met by a scheme for the erection of lodging-houses for single men and women, and the city engineer hopes that the well-meant but short-sighted opposition to this proposal may not be pushed too far, or, he says: "You may find too late that what you can do voluntarily for from £15,000 to £20,000 may cost you under pressure from £80,000 to £100,000." He is no advocate of the pail system, but opposes it on economical and sanitary grounds, and quotes the example set by Manchester, where it is being at some expense abolished.

Newcastle Eye Infirmary.

The annual meeting of the Newcastle Eye Infirmary has been held; the Mayor presided, and referred to the good work done by the institution, which had been a recognised charity for seventy years, and had done in its time a large amount of useful work. Dr. Jeaffreson in his report said that nearly 3000 new patients had been treated, of whom 307 were in-patients, and that about 20,000 consultations had been held. Complaint was made of the inadequate support the institution received, and the financial report showed that the ordinary expenditure had exceeded the ordinary income by over £300. An instance was given in which an important manufacturing firm had sent in thirty-six patients for treatment and had given no subscriptions; some of these cases were very serious. Some of the workmen's committees who distribute their own collections are more liberal, but still there was room for improvement in this, as for fifteen guineas subscribed they been called upon to treat 188 workmen.

Middlesbrough and District.

A curious case of milk adulteration came up before the Middlesborough magistrates lately, in which the defendant was charged with adulterating milk with water to the amount of 7 per cent. It was urged that a cow by poor feeding might have its milk reduced to this extent, and that some day the magistrates might have to decide how far a cowkeeper was justified in watering the milk by adulterating the cow! Ultimately the excuse did not avail, and the defendant was heavily fined, with costs.—The annual meeting of the North Ormesby Cottage Hospital has been held and the report presented, which shows that the total number of in-patients is 517. The financial state of the hospital was satisfactory. — The medical officer of the Normanby Local Board, in reference to the high death-rate prevalent in the previous month—viz., 35·6 per 1000—states that this is abnormally high, and is chiefly due to an epidemic of measles. Scarlet fever had been reported, but was not fatal.

Carlisle and District.

Sunday, the 8th inst., was Hospital Sunday in Cumberland and Westmoreland, and collections were made in the churches and chapels on behalf of the medical charities. The following will participate in the fund: The Cumberland Infirmary, Carlisle Dispensary, Carlisle Fever Hospital, Silloth Convalescent Institution, and Workington Infirmary. The weather was fine, and the congregations considered up to the average of previous years.—There has been rather an alarming outbreak of typhus fever in the Finkle-street district of Carlisle; in all about eleven cases have been reported and removed to the Fever Hospital. The inspector reported that from one of the fever dens were taken six cartloads of dirt, rags, and bedding, old cushions, baskets, and cow's horns. Typhus fever is also reported as having broken out at Workington and Whitehaven. At the former town there has been a serious outbreak of measles, and the infant schools have been closed in consequence.

Langholm and its proposed Hospital.

A meeting was lately held at Langholm in support of a hospital to be erected for the treatment of infectious diseases in the district. Nothing, however, was decided. It was pointed out that the late Mr. Hope of New York, who had left £80,000 for the erection of a hospital in Langholm for those above the pauper class, had wished the hospital to be made available for infectious diseases as well; but as the bequest was the subject of litigation in New York it was considered it would be well in the meantime to watch and wait.

Sunderland.

Mr. A. E. Harris, medical officer of health, reports as to the excessive number of deaths during the last fortnight, 134, or an annual mortality of 26·35 per 1000; of these deaths, 33 were from respiratory diseases. The excessive mortality was attributed to the severity of the weather on the east coast. The only other town, he said, similarly situated to Sunderland was South Shields, which had also a high death-rate—viz., 26 per 1000. Dr. Squance, in his report as medical officer for the Sunderland rural authority, in his reference to influenza, says that, so far as could be estimated, about 3000 persons were attacked, but only one case proved fatal. The annual report of the Sunderland Nursing Institute has been held, which shows that the district nurses attended, besides private cases, 120 patients, and that their earnings had amounted to nearly £500. The demand for their services had been well sustained, and, with subscriptions and earnings, the institute was able to pay its way. It is proposed, with the amount remaining in hand from that subscribed to the Victoria Hall disaster (over £4000), to purchase a house and grounds at Harrogate which is now available, and to furnish and equip it as a convalescent home for children in connexion with the Sunderland Infirmary; but the matter is to be arranged, it is hoped, at an early meeting of the disaster fund.

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Charitable Bequests.

It is stated that the late Mayor, Mr. Joseph Barker, J.P., of Holmefield Thornes, near Wakefield, manufacturer, left personal estate valued at £308,000, of which £15,000 is bequeathed to charitable institutions.—The late Mr. Josiah Finney of Newcastle-on-Tyne left £300 to the Royal Infirmary and £100 each to the Eye Infirmary and to the Throat and Ear Hospital of this city.

Newcastle-on-Tyne, May 18th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Aberdeen Royal Infirmary: Professor Ogston's Resignation.

THE following paragraph appeared in the *Aberdeen Evening Express* of the 12th inst.:—"Dr. Ogston, it is said, has acknowledged receipt of Mr. Littlejohn's letter on behalf of the directors of the infirmary, but the professor, while thanking the Board for their kind offer of six months' holiday, points out, I believe, though not in so many words, that he happily does not feel the need of such rest. In effect, his reply is that he cannot withdraw his resignation until the management consent to give him such facilities for his work as, in his judgment, are absolutely requisite. The profession at large, and his friends among the general public, intend, if necessary, it is said, to bring further pressure to bear on the managers to accede to the professor's requests."

Aberdeen Hospital for Sick Children.

At the monthly meeting of directors, held on May 12th, Mr. John Marnoch, M.A., M.B., C.M., Royal Infirmary, was unanimously elected house surgeon and physician for six months ensuing. The monthly report showed that there were fifty-nine patients in the wards on May 12th, that ninety-five in-patients had been treated during the month, of whom thirty-five were dismissed cured or relieved, and one died.

Aberdeen University Extension and Rearrangement of Classes.

In a circular issued to the members of the University Court and Senatus, Dr. Stephenson recommends the following arrangements to suit the alterations rendered necessary by the extension scheme:—1. That full provision be made at Marischal College for all the departments included in the medical curriculum. 2. That during the winter session the arts classes at present instituted, with the exception of natural philosophy, be held at King's College in the morning; and that natural philosophy be transferred to Marischal College, where, together with those of chemistry and geology, the classes can be conducted in the afternoon. 3. That zoology and botany be taught in the summer session at Marischal College. 4. That extra lecture-rooms be provided at Marischal College; and that the space vacated by natural philosophy in King's College be utilised for a hall, a students' common room, or an examination room.

Health of Aberdeen.

The death-rate for April was 19·43 per 1000, as compared with 23·71 in March. Dr. Matthew Hay notes that the epidemic of whooping-cough is on the wane, 191 cases having been reported, as compared with 229 in March. The slight increase in the number of cases of scarlet fever he believes to be merely temporary, and that the epidemic is dying out. There are fewer cases of typhoid fever than in any month since June last—only six reported, with no deaths. Diphtheria cases are still more numerous than usual, ten, with three deaths, having been reported. Influenza has entirely disappeared, but typhus fever has not been thoroughly eradicated, despite the vigilant efforts of the sanitary staff.

May 18th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Surgeons.

AN election for a member of Council took place yesterday, when, of five candidates, Mr. Arthur Benson was elected in the place of Mr. Colles, resigned. Mr. Benson is ophthalmic surgeon to St. Mark's Hospital, and was until recently an examiner in ophthalmology in the college.

Epidemic of Measles in Dublin.

Measles is still prevalent, and the deaths for the week ending May 7th were forty, the highest number recorded during the present epidemic. During the past seven weeks 176 deaths have been caused by the malady.

Child Insurance: a Bad Case.

At the City Quarter Sessions last week, Mary Delany was indicted for having ill-treated an infant aged three months. The infant was given by its mother to the prisoner to nurse, but had died, and the bill for manslaughter which the Crown had sent up was thrown out by the grand jury. The Recorder said it appeared to him that this was a case of murder, and was a terrible instance of the horrible system of insuring, not the lives of children, but insuring them for the purpose of death. It appeared from the depositions that when the prisoner was brought to the police station she stated she had the child insured for the previous three weeks, and if she was "in benefit" for six months she would get 30s., and if the child died she would get £3 if she had twelve months' benefit. He was sure, if the grand jury had these facts before them, they would not have thrown out the bill for manslaughter. He considered it a public duty to let a bad case of this kind be known, and he felt that the indictment was not at all of as grave a character as it should be. The Recorder imposed the highest sentence he could inflict—viz, two years' imprisonment, with hard labour.

Health of Dublin for March Quarter.

The births in the Dublin Registration District for the quarter ending April 2nd numbered 2483, and the deaths 3347, or 38·3, being 5·7 above the average for the March quarter. Zymotic diseases caused 477, or 318 over that of the corresponding quarter of 1891. Influenza and its complications caused 186 deaths; measles, 85; whooping-cough, 73; and diarrhœa, 28. There were 30 deaths from typhoid fever, only 1 from typhus fever, and but 3 from ill-defined fever.

The Lord Chancellor has appointed John Eustace, M.D., of Elmhurst, Glasnevin, to the Commission of the Peace.

May 17th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Functions of the Supra-renal Capsules.

THE determination of the part played in the economy by the above mysterious organs is a matter of importance, especially in connexion with Addison's disease. MM. Abelous and Langlois have lately been studying the results of their partial and complete ablation in the guinea-pig. They report (Soc. de Biologie, May 7th) that the total destruction of one capsule by crushing, ligature, or cauterisation dose not bring about a fatal result. Most of the subjects maintain their normal weight, or, if they become emaciated during the few days following the operation, regain flesh quickly. In two animals out of a total of forty there was noted, however, rapid loss of flesh, followed by death. Total destruction of the two supra-renal bodies determines a fatal result after a short delay. That this effect is not caused by the mere shock of the operation is proved by the fact that the *dénouement* is the same when an interval of ten or fourteen days is allowed to elapse between the two operations. Partial destruction of the two organs, if it involve only a small portion of them, produces but an insignificant modification of nutrition. A more extensive ablation kills after a prolonged period of progressive emaciation. Mindful of the alleged virtues of the Brown-Séquard method, the experimenters essayed to replace the excised organs by the injection of their juice. The fatal result was thereby delayed to double the usual period of survival, and it was remarked that the convulsive twitchings observed in certain instances were conspicuous by their absence. The researches conducted quite recently by M. Albanese in Mosso's laboratory are confirmative of the above conclusions, which go to prove that, in some way as

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yet undetermined, the supra-renal capsules are structures indispensable to the guinea-pig economy.

L'Hôpital où l'on Tue.

On the 7th inst. Paris was startled by the appearance of an article in *Le Jour* headed as above, and signed by a well-known municipal councillor. The establishment which, in the opinion of the literary ædile, merits this sinister appellation is St. Louis, and the writer proceeded to justify this contention by roundly accusing M. Péan and his *internes*, through gross neglect and non-observance of modern rules of antisepsis, of responsibility for the death of Hamonod, one of the victims of the Anarchist explosion in the Boulevard Magenta. He further formulated a grave charge against M. Camescasse, M. Péan's chief *interne*, of having unwarrantably usurped the functions of M. Ricard, the *Chirurgien de Garde*, who should have been summoned to amputate the leg of the other victim, Véry, one of whose eyes was, in addition, enucleated in the hospital. It is incontestable that, in performing a major operation, M Camescasse exceeded the strict limits of his duties. But the *interne* has ample precedents to go upon, and urgent operations are performed daily by men who, although still *in statu pupillari*, are in most cases perfectly competent to cope with such emergencies. No objection has as yet been raised against the performance by an *interne* of such a difficult operation as tracheotomy. A graver charge is that of dirtiness in the dressings in M. Péan's wards. I think I am warranted in stating that this accusation is unfounded, and that the fatal issue in the case of the two men (Véry has since succumbed to his injuries) was certainly not due to neglect. It can hardly be expected that such an acrimonious controversy as this should occur without at least one duel being fought over it. M. Camescasse, in effect, has exchanged the scalpel—a weapon which there is every reason to believe he wields very capably—for the sword, and has by this means endeavoured to convince one of his accusers—himself a medical man—of the error of his ways. The valiant *interne* succeeded in "pinking" his adversary, but it is doubtful if any other result will be forthcoming from this observance of a custom which has happily disappeared from *la vie Britannique*.

A New Academician.

At their last meeting the members of the Académie des Sciences proceeded to fill up the vacancy in the section of medicine and surgery caused by the demise of Professor Richet. There were three candidates—all surgeons—viz., Professor Guyon; Professor Lannelongue, well known as the inventor of the new sclerogenic treatment of tubercular and other affections; and Professor Duplay. Professor Guyon was elected by a small majority over M. Lannelongue.

Paris, May 18th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Ernst Brücke's Last Works.

THE celebrated physiologist, Ernst Brücke, who died not long ago, had to resign his professorship in Vienna in 1890, in accordance with the statutes of Austrian universities, which require the retirement of professors who have completed their seventy-first year. The time thus placed at his disposal was spent by him in writing two books, one entitled "Schönheit und Fehler der Menschlichen Gestalt" ("Beauty and Defects of the Human Form"), which appeared in 1891; the other, "Wie Behütet man Leben und Gesundheit seiner Kinder?" ("How can one Guard the Lives and Health of one's Children?"), which appeared after his death.

The Alvarenza Prize.

The Berlin Society of Medical Men, which bears the name of the famous physician in ordinary of Frederick William III. of Prussia, Christoph Wilhelm von Hufeland, received a large and unexpected bequest not many years ago. The Portuguese physician, Da Costa d'Alvarenza, who had enjoyed its hospitality in his youth, bequeathed it a part of his fortune, with instructions that the interest should be spent in prizes for medical work. The Alvarenza prize was offered for the first time in 1891, and the theme proposed was Influenza. The successful candidate is Dr. Ruhemann of Berlin, and his treatise has been published by Thieme of Leipsic. In obedience to the wish expressed by the Hufeland Society, he restricted himself in the main to the collecting, sifting, and arranging of the literature of the subject, treating the epidemic of 1890-91 in special detail. He refers to all the chief writings on influenza since the fourteenth century.

The Eclampsia Bacillus.

An alleged important bacteriological discovery is reported from the Pathological Institute of the University of Halle. Professor Ackermann's first assistant, Dr. Gerdes, is said to have demonstrated the presence of a bacillus in the liver, lungs, and kidneys in a severe case of eclampsia. The bacillus acts as a poison on mice and rats. It was stated to have been found in very large numbers in the above-mentioned organs.

Flagellation in Hysteria: a Judicial Inquiry.

A sensational trial took place last Monday at Kassel. The accused was Dr. Georg Moritz Wiederhold, the owner and head of the well-known establishment for the treatment of nervous diseases at Wilhelmshöhe, near that city. One of his patients was a lady of fifty-one, the wife of a retired Consul-General. In consequence of an operation she had undergone she suffered from weakness of the nerves, which had degenerated into acute hysteria. Dr. Wiederhold admitted that he had chastised her because she had become more and more uncontrollable, had acted like an obstinate child, and had indulged in crying and screaming without cause to such an extent that the other patients in the house had been excited thereby. All attempts to silence her by kindness had proved vain, and he had resorted at last to corporal chastisement. The woman had been entrusted to him as suffering from a nervous disorder, but was otherwise healthy, and her doctor had told him to treat her with rigour. When her husband visited her once he had heard him (Dr. Wiederhold) threaten her with blows. The husband had expressed his regret at that, but he (the doctor) had assumed that he approved of the treatment, if only his wife got well. He had chastised the lady three times. The first time he had given her two boxes on the ear, which she had parried. The second time, that she gave way to screaming he had gone into her room with a thin little stick, and had given her, as she lay in bed, several blows with it on the nates, which were covered by her robe. On being told that traces of the blows had been visible two months after their infliction, he said that must have been due to defective assimilation. The third time, when he chastised her in the same manner, he had used a horsewhip. He declared that he had not acted so from brutality, but only to cure the lady by physical excitation of her morbid desire to attract attention. He emphatically denied having called her "nichtswürdiges Luder" (vile bitch) and "alte Vettel" (old slut), of which he was accused. The expression "Vettel" he had indeed used, but only in admonishing her as an educated lady to give up screaming, which was not worthy of her, and the like. The examination of the husband of the ill-treated lady caused a deep sensation among the numerous audience. He was in a state of extreme excitement. He declared that he had brought the action against Dr. Wiederhold not in thirst for revenge, but in order to protect suffering mankind from the further cruelties of such a man. His wife had been so intimidated that, when he arrived to take her away, she had told him for God's sake not to speak loud, else the doctor would come and beat her. He had found her in a frightful condition; she would not be able to give evidence for a long time to come. The old servant of the family had been present only on the occasion of the boxes on the ear; on the other occasions she had been sent out by Dr. Wiederhold. The traces the blows had left were broad red desquamating stripes. He would never have consented to such treatment; on the contrary, when he had shown excitement on hearing the threat of blows, Dr. Wiederhold had said, "Do you believe I would do that? It is only a threat." His wife had told him that Dr. Wiederhold had pulled her out of bed by the hair. Dr. Wiederhold received 115 marks (shillings) a week for the patient's board and lodging, and 300 more for medical treatment (for what term is not stated). The lady's attendant gave evidence that the boxes on the ear were so administered that the lady's cheeks be-

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came extremely red, and also somewhat swollen. On the other occasions she had always been sent out, but the lady had always told her afterwards. In being thrown into bed her mistress had also had her knee hurt. The doctor's general manner of treatment had been harsh. Dr. Wiederhold is a man of forty-two and of uncommon strength. Three Dresden doctors stated that they had seen the traces of considerable chastisements. Professor Tuszeck of Marburg, who gave evidence as an expert, declared that it is scientifically inadmissible to use corporal chastisement in the medical treatment of nervous patients. Of Dr. Wiederhold's establishment he had heard nothing but good. People always said: "Dr. Wiederhold is rough, but his establishment is good." The other expert, Professor Pellmann, head of the lunatic asylum at Bonn, stated that he was personally against the therapeutic application of corporal chastisement; in State establishments it was absolutely excluded. There were, however, some adherents of that method. The Public Prosecutor maintained that Dr. Wiederhold's conduct was due not to medical considerations, but to sudden anger, and denied the existence of extenuating circumstances. The counsel for the accused pleaded for acquittal, or at least extenuating circumstances, but Dr. Wiederhold was sentenced on Friday to three months' imprisonment. Extenuating circumstances were not admitted.

Miscellaneous News.

The last of Professor von Hofmann's writings—a short memoir of Peter Griess—appeared just a few days before his death. He had also finished an investigation of polymeric oils of mustard, and intended to report on it at one of the next sittings of the German Chemical Society. The place left vacant by him in the University and in the Chemical Institute will be filled during the present half by Professor Ferdinand Tiemann, who has assisted him in the Institute for years past.—Professor Krause of Halle has been appointed Head Surgeon in the City Hospital in Altona.

Berlin, May 17th.

CANADA.

(FROM OUR OWN CORRESPONDENT.)

The Climate of Canada.

To many of the readers of THE LANCET whose ideas of the climate of Canada are obtained from illustrations of our winter sports and pastimes a few items from the report of the Superintendent of Toronto Observatory may be of use as well as interest. The mean temperature during 1891 was 45·87° F., being lowest in January, 24·15°, and highest in August, 65·56°. Dividing the year into seasons, we find the mean temperature in winter 26·99, spring 53·03°, summer 63·91°, autumn 39·53°. The extremes of heat and cold were June 16th, mean temperature 77·62°, and Jan. 16th, 5·13°. Barometric pressure showed a mean height of 29·6385 inches. Of rain there fell 26·735 inches and of snow 47·8 inches, the former falling on 125 days and the latter on seventy days. Of the 4463·3 hours that the sun was above the horizon there was bright sunshine for 2065·4 hours.

Hospitals in Ontario.

From the report recently brought down to the Provincial House it appears that twenty-seven hospitals throughout Ontario received aid during 1891, being an increase of six over the previous year. The number of patients has increased from 6032 ten years ago to 10,523, the daily cost per patient during 1891 was 75·14 cents, and the proportion of State grant to the total maintenance expenditure was 32 per cent. A gratifying feature of the report is the increase in subscriptions and donations from private sources, the amount being about double that of 1890. The amount of aid to hospitals and charities was 134,992 dollars.

Registrar-General's Report for Ontario, 1890.

The report of the Registrar-General for Ontario for 1890 has just been issued. The returns show of births 47,773, a ratio of 22 per 1000 of population; the male births were 24,538, and the females 23,235, a proportion of 105·6 males to 100 females. March, January, August, and April returned the highest number; while November and February returned the lowest. In 284 cases twins were reported, and 4 of triplets. Of the total number of births, 626 were illegitimate, as against 958 in the previous year The number of marriages registered was 14,463, being a ratio of 6·9 per 1000 of population. The death-rate was at the ratio of 11·1 per 1000, the total number being 24,013; the ratio in the eleven cities was 18; 110·6 males died to every 100 females. January, August, February, and March were the most fatal months; June and November apparently the most healthy. Of infants under five years of age 69·7 deaths were returned, being 33·2 per cent. of the whole. Twenty-three deaths were returned of persons supposed to have reached 100 years and over, but the report adds that in every case satisfactory proofs were wanting as to their correctness. Phthisis, usually the principal cause of death in Ontario, gave place to pneumonia—accounted for, no doubt, by the epidemic of influenza that year—the percentage being 14·7 of the whole. Phthisis is classed second with 10·5 per cent. From the same table it appears that deaths from contagious diseases have been gradually decreasing. The last table of the report gives death by occupations, given in six classes. The average age of cultivators of the soil was 60·5 years; of mechanics, 52·1; of business men, 48·83; of professional men, 51·1; of miscellaneous occupations, 60·3; of females at work, 37·3. With a view to prevent the use of tobacco by minors a Bill was passed at the recent session of the Local House prohibiting the sale of "the weed" in any form to persons actually or apparently less than eighteen years of age Penalties are attached for the better enforcing of the Act.

During the latter part of this month a post-graduate course of two weeks' duration will be given by the Faculty of the University of Toronto. The course will be both didactic and clinical on subjects of general interest.

Toronto, May 10th.

Obituary.

PHILIP VANDERBYL, M.D.ED., M.R.C.P.L., M.R.C.S.

WE regret to have to record the death of Mr. Vanderbyl, which occurred suddenly at his London residence, 51, Porchester-terrace, Hyde Park, on the morning of Saturday, the 14th inst. Mr. Vanderbyl was fourth son of the late Hon. P. V. Vanderbyl of the Cape of Good Hope, and was born at the Cape on April 28th, 1827. He came to England in 1845, and shortly after his arrival he entered the Edinburgh University, where he secured a prize in Natural Philosophy in his first year. On taking his degree of M.D. in 1849 he obtained the highest honours and received a gold medal. Mr. Vanderbyl then visited the continental schools of medicine, and studied for two years in Paris, Vienna, and Utrecht with a view of becoming a professor in one of the medical colleges. He became President of the Royal Medical Society of Edinburgh, and within three months after his arrival in London he was appointed lecturer on anatomy and histology at the Middlesex Hospital. Becoming a Member of the Royal College of Physicians in 1855, he contributed many articles to the Transactions of the Pathological Society and to the *British and Foreign Medico-Chirurgical Review*. Mr. Vanderbyl was not, however, destined to follow out a medical career, for in 1853 he married the only child and heiress of the late Mr. James Alexander, at that time and for many years subsequently the senior partner in the well-known house of Redfern, Alexander, and Co. In the year 1885 he entered Parliament as the member for Portsmouth, but was defeated by Sir Samuel Wilson in the following year. He unsuccessfully contested Great Yarmouth in 1865, and in 1868 he was returned for Bridgewater, but was unseated on petition. He also unsuccessfully contested Winchester in 1888. By his marriage there is issue three sons and two daughters. Of the latter, the elder married Captain Clowes of the 60th Rifles, and the younger married Mr. Montrose Cloche, of 11, Queen's-gardens, Hyde Park.

JOSEPH SCHOFIELD, M.R.C.S., L.S.A.

MR. SCHOFIELD passed away at his residence, Church-street, Dunkinfield, on the 29th ult., at the age of eighty-one. After his preliminary education he selected the medical pro-

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fession for his future career, and was apprenticed to the late Dr. Kay, who had a large practice at Ashton. Subsequently Mr. Schofield pursued his medical studies at Guy's and St. Thomas's Hospitals. He took the M.R.C.S. and L.S.A. qualifications, and commenced private practice in Dunkinfield, soon becoming known as a skilful accoucheur. He was a strong believer in vaccination both in theory and practice, and had, it is stated, received several Government grants for successful vaccination. About fourteen years ago he was appointed medical officer of health for Dunkinfield. As surgeon to the Ashton-under-Lyne and District Union he rendered many valuable services. The deceased leaves a widow and four children.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen have passed the First Professional Examination in Anatomy and Physiology for the diploma of Fellow:—

Cornelius A. Griffiths, M.R.C.S., of Bristol Medical School; John M. Hall, M.R.C.S., of Belfast and London Hospital; Thomas W. F. Gann, M.R.C.S., of Middlesex Hospital; Hugh Ainsworth, of Owens College; Charles M. Bryant, of Durham University; Joseph S. K. Smith, M.R.C.S., of University College, Liverpool; Edward L'Estrange Ledwich, of Peter-street Medical School, Dublin; Courtenay H. Drake, of St. Bartholomew's Hospital; George H. Hopkins, M.R.C.S., of University Colleges, London and Liverpool; Cyril H. Walker, M.R.C.S., of Cambridge University and London Hospital; Cecil M. Hewer, of St. Bartholomew's Hospital; Alan McDougall, of Owens College; St. John Stanwell, Extra-Mural School and Edinburgh University; Ernest Knight, of Owens College; Archibald W. Cuff, of St. Thomas's Hospital; Walter Roughton, M.R.C.S., of St. Bartholomew's Hospital; William S. Melsome and William S. Griffith, M.R.C.S., of Cambridge University and St. Thomas's Hospital; Frederick N. Cookson, of Middlesex Hospital; Joseph Griffiths, M.R.C.S., of Edinburgh and Cambridge Universities; Andrew H. Smith Hallidie, M.R.C.S., of London Hospital; William G. Stone, of St. Thomas's Hospital; Leonard A. Parry, of Guy's Hospital; Leonard J. Miskin and Sidney W. F. Richardson, of St. Thomas's Hospital; George H. Cowen, of London Hospital; Charles P. White, of Cambridge University and St. Bartholomew's Hospital; Francis E. Greenwood and William E. Lee, of St. Bartholomew's Hospital; Joseph H. Wilkes, M.R.C.S., of St. Bartholomew's Hospital and Cambridge University; Ernst Michels, M.R.C.S., of Würzburg, Berlin, and Kiel Universities; Robert Corfe, of St. Mary's Hospital; Frederick C. Sprawson, John S. Boden, and Arthur Bousfield, of King's College; Reginald J. Gladstone, of Aberdeen University and Middlesex Hospital; Wilfred G. Mumford, Leopold E. V. Every-Clayton, and Guy E. Manning, of Guy's Hospital; Gerald R. Baldwin, of St. George's Hospital; Alfred Banks, M.R.C.S., of St. Thomas's Hospital; Geo. L. Eastes, of Guy's Hospital; John H. Fisher, M.R.C.S., and Cuthbert S. Wallace, M.R.C.S., of St. Thomas's Hospital; Edmund B. Jones, of Charing-cross Hospital; Wilfred J. Harris, of Cambridge University and St. Mary's Hospital; Forbes Fraser, of St. Bartholomew's Hospital.

Sixty candidates were referred back to their professional studies for six months.

ROYAL UNIVERSITY OF IRELAND.—The following degrees were conferred by the Vice-Chancellor last week:—

Doctor of Medicine.—Ambrose Birmingham.

Bachelor of Medicine, Surgery, and Obstetrics.—Robert Campbell, Michael Boyle, Herbert W. Cunningham, Richard Heard, Patrick L. Aherne, Kennet B. Barnett, D. Bennett, J. F. Bennett, Henry R. Corbett, Michael Coughlan, Isaac A. Davidson, John Dodd, Wm. J. Molloy, Michael D. Sullivan, James R. Thomson.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following have obtained the Licence in Dental Surgery:—

John H. Edward. | James Wm. Smith.

NAVAL MEDICAL SERVICE.—The undermentioned gentlemen who competed at the examination held on May 2nd and following days at the Examination Hall, Victoria Embankment, for appointment as Surgeons in the Royal Navy, have been successful:—

	Marks.		Marks.
S. J. Oddie, M.B. ..	2701	G. T. Bishop	2333
H. B. Hall, M.B. ..	2668	E. F. Mortimer ..	2165
H. W. G. Green ..	2489	B. F. Parish	2161
T. E. Honey, M.D. ..	2487	F. A. Capps	2160
E. B. Pickthorn ..	2338	C. F. Warren	2157

ST. JOHN AMBULANCE ASSOCIATION.—A course of six lectures to men, on "First Aid," under the auspices of the above Association, has been given by Mr. N. Hay Forbes, L.R.C.P., M.R.C.S., of Tunbridge Wells, the average attendance being forty. At the examination forty-two candidates presented themselves, thirty-seven of whom passed.

A CENTENARIAN.—Mrs. Blanche Turner of Fornham St. Martin, near Bury St. Edmunds, has just attained her hundred and third birthday.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC.—The President, the Duke of Westminster, K.G., will take the chair at the annual meeting of this institution (Albany Memorial), Queen-square, Bloomsbury, at 4 o'clock on Thursday, the 26th inst., supported by Dr. J. Russell Reynolds, Sir J. Crichton Browne, Vice-presidents, and others.

KASHMIR MISSION HOSPITAL.—The report of the Kashmir Mission Hospital for 1891, by Mr. A. and Dr. E. Neve of the Church Missionary Society, shows that the work which has been carried on for many years has been vigorously prosecuted and even extended of late, the hospital, which was opened in 1875, having been almost entirely rebuilt, with considerable additions. A new feature of the work is the charge of the Maharajah's Leper Asylum, which has been entrusted to the medical missionaries by his Highness. The surgical work in the hospital continues to show most satisfactory results, for out of about 2000 major and minor operations there were only four deaths; two of these were cases of vesical calculus—a comparatively rare affection in Kashmir.

KING'S COLLEGE HOSPITAL.—The annual festival dinner was held on Saturday at the Freemasons Tavern, Great Queen-street. The Duke of Fife presided. There was a large and distinguised assembly. The chairman, in proposing the toast "Success to King's College Hospital," remarked that in such a civilisation as ours, with its great industrial populations and its more and more complex life, the hospital was an absolute necessity. In addition to their great work of relieving human suffering, they were indispensable to medical education. This institution stood in need of financial support. Its assured income was not £1000 a year. From £17,000 to £18,000 had to be raised annually, and he made an earnest appeal for liberal aid. Contributions were announced to the amount of nearly £3200.

METROPOLITAN ASYLUMS BOARD.—Sir E. S. Galsworthy presided at the usual fortnightly meeting of this board last week. He pointed out that in view of the returns showing a rapid increase of fever and also an augmentation of small-pox cases (in one day alone last week fifteen cases were admitted), it was quite clear that efforts would have to be made for the future accommodation of small-pox, and also for extra provision for fever cases. Under these circumstances a resolution was adopted that, having regard to the difficulty heretofore experienced in obtaining a site for a fever hospital, it be referred to the General Purposes Committee to consider, and, if deemed advisable, to take steps to procure the power to acquire land compulsorily, similar to the power vested in County Councils and other public bodies.

BEQUESTS AND DONATIONS TO HOSPITALS.—The Court of Common Council of London has granted 200 guineas to the Metropolitan Convalescent Institution, and 50 guineas to the "Morley House" Seaside Convalescent Home for Working Men, St. Margaret's Bay, near Dover.—The Clothworkers' Livery Company has voted £100 to the University College Hospital, London.—The Duke of Westminster has forwarded £400 to the treasurer of the London Temperance Hospital, for the benefit of the recently opened "Grosvenor Children's Ward."—The late Mrs. Oliver Haywood of Claremont, Pendleton, Manchester, bequeathed £1000 each to the Ardwick and Ancoats Hospital and St. Mary's Hospital, and £500 to the Northern Counties Hospital for Incurables.—The following legacies to the Infirmary, Worcester, were announced at the last meeting of the committee: the late Mr. Allies bequeathed £450, the late Rev. T. L. Wheeler £300, and the late Mrs. M. Wood £50.—In remembrance of the kind treatment and benefit the late Mr. Charles H. Welling received while a patient in the Bootle Hospital, and to carry out an intention which he did not live to gratify, his widow, Mrs. Welling, has announced to the secretary of the hospital that she desires to contribute £200 to the funds of the institution as a token of gratitude.

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FOOTBALL CASUALTIES.—In a match played on Monday at Cochrane Park, Irvine, between the Kilwinning Engineers and the Irvine Bakers, a young man fractured his left leg. Two members of the Irish Gaelic Athletic Association, Dublin, during a game on the 8th inst., violently collided, both players sustaining injuries to their heads.

SEWERAGE WORKS, HORNSEY.—An inspector of the Local Government Board has held an inquiry into the application of the Hornsey Local Board for sanction to borrow upwards of £9000 for sewerage works, and has expressed his approval of the proposed scheme, and will report to the central authority accordingly.

THE TEACHING UNIVERSITY. — The preliminary meeting of the Royal Commission recently appointed to consider the question of a Teaching University for London will take place to-day (Saturday) Earl Cowper has returned to town, and Mr. Leybourne, who held similar office under the previous Royal Commission, has been appointed Secretary.

PROPOSED CONVALESCENT HOME, HARROGATE.—The Sunderland Calamity Fund, subscribed to nine years ago on the occasion of the Victoria Hall disaster, when 183 children lost their lives, has not hitherto been utilised for any particular purpose. A proposal at the time to erect a convalescent home for children was not carried into effect. But now the committee of the Sunderland Infirmary have taken steps by which the fund will probably be handed over to the committee, for acquiring an eligible locality for a suitable home, and Heatherdene House, Lancaster Park, has been fixed upon. The fund amounts to upwards of £4000. The amount required for the purchase money and the necessary alterations and furnishing is estimated at £3700.

THE MISSION TO DEEP-SEA FISHERMEN.—The Princess Louise, accompanied by the Marquis of Lorne, attended the annual meeting of this mission, held on Monday, at Exeter Hall. During the meeting a telegram was received from the Queen, expressing her gratification that the mission was prospering. The Princess delivered to the skippers and mates of the medical mission smacks certificates of the St. John Ambulance Association for first aid. The report (which was read) stated that the patients numbered 8130, and the missionary visits 14,278. The financial statement showed a deficit of £167. Ten mission vessels are engaged in work the maintenance of which involved an outlay of £11,000, and other items had brought up the expenditure during the year to £21,845 The chairman spoke in eulogistic terms of the efficiency and utility of the institution, and appealed to the seamen at home for more liberal support of the special hospitals the mission had established for the sick and wounded.

PHARMACEUTICAL SOCIETY OF GREAT BRITAIN.—The annual dinner of the members of the Pharmaceutical Society of Great Britain and their friends was held on Tuesday last at the Freemasons' Tavern. Mr. Michael Carteighe (president) was in the chair, and he was supported by Professor Armstrong, Professor Attfield, Sir G. Buchanan, Dr. J. Watt Black, Dr. J. Bell, Mr. H. J. Chaney, Dr. Cottle, Dr. Down, Professor W. D. Dunstan, Professor M. Foster, Professor Green, Dr. Farquharson, Professor Stewart, Professor Thorpe, and Sir H. Truman Wood. Dr. Farquharson replied to the toast of the Houses of Parliament, and he expressed the hope that the chairman, putting his pharmaceutical knowledge to practical advantage, might be able to tell them when a dissolution would take place. The House of Lords was so far crystallised, he thought, as to be beyond the influence of a solvent. Dr. Black replied for the medical profession, and Professor Michael Foster for the learned societies. After a few remarks from the chairman, suitably acknowledging the toast of the evening, that of the Society, the health of "Our guests" was given. About 200 members and friends sat down to dinner.

MEDICAL NOTES IN PARLIAMENT.

Galway Infirmary.

A BILL has been prepared by the Chief Secretary and the Attorney-General for Ireland for the reconstitution of the Galway Infirmary. It provides that, in lieu of the present infirmary, there shall be established a public general hospital, to be called the Galway Hospital, available for the reception of patients residing in the town and county of Galway, and managed by a board representative of the local boards of guardians. The Bill further provides that the medical staff shall consist of such surgeons and physicians of the Queen's College, Galway, or other duly qualified surgeons and physicians as may be appointed by the local Government Board, and that the hospital shall be available as a clinical school for medical students attending the Queen's College. It is specifically laid down that the hospital shall be available for any persons residing in the town or county who shall, so long as they remain in the hospital, defray the expenses of their maintenance and clothing; and for poor persons residing in the town or county who require special or surgical treatment, and the cost of whose treatment, maintenance, and clothing in the hospital is borne by the electoral divisions respectively liable.

Coroners in Boroughs Bill.

In the House of Commons, on Tuesday, the 17th inst., on the motion to go into committee on this Bill, Sir A. Rollit moved that it be an instruction to the committee that they have power to extend the provisions of the Bill to the appointment of deputies of coroners in counties, and as to the time of election. The motion was agreed to. The House then went into committee on the Bill. Sir A. Rollit moved the insertion of new clauses dealing with the appointment and powers of a deputy coroner of both a county and a borough. The clauses were agreed to, and the Bill passed through committee as amended.

Petroleum in the Suez Canal.

In reply to Mr. Aird, Mr. J. W. Lowther said the original concessions for the formation of the company and for the construction of the Suez Canal were granted to M. de Lesseps by the Viceroy of Egypt, and confirmed by the Sultan's firman. So long as the company complied with the stipulation in the concession of Jan. 5th, 1856, to treat the flags of all nations equally, Her Majesty's Government have no *locus standi* to interfere with the decisions of the company.

The Vaccination Commission.

Several questions with regard to the report of this Commission were placed on the notice paper of the House of Commons for Thursday, but owing to the absence, through illness, of Mr. Ritchie they were postponed.

The Colour Vision Committee.

In the House of Commons, on Thursday, Sir Michael Hicks-Beach, in reply to Sir Henry Roscoe, said he had received the report of the Colour Vision Committee of the Royal Society, and hoped to be able to lay it on the table in the course of a few days.

The Indian Medical Service.

Sir Guyer Hunter asked the Under-Secretary of State for India whether the advantages conferred on the Medical Staff by Royal Warrant, dated Aug. 7th, 1891, as regards rank and title, pay and allowances, had been extended to India. Would he explain why, in that country, the pay and allowances of Surgeon-Captains for the first five or six years of their service were only those of subalterns, and why the rank of Brigade-Surgeon, created in 1879, had hitherto been financially ignored so far as India was concerned; and what principle had been adopted in fixing the rate of pay of medical officers in India with reference to the rates adopted at home.—Mr. Curzon replied that the advantages of the Royal Warrant had been extended to India; it made no change in the pay and allowances of the Medical Staff. When the relative rank of the medical services was altered, and the grade of Brigade-Surgeon introduced by the Royal Warrants of 1879-80, the Secretary of State for India explicitly declined to sanction any increased charge on the revenues of India by reason of those warrants, and the present Secretary of State had no intention of departing from that decision. The rates of pay were based partly on rank and partly on length of service, but had no direct relation to the rates in force at home, nor did they vary with any variations of those rates.

THE METROPOLITAN HOSPITALS INQUIRY.

THE Select Committee of the House of Lords on the Metropolitan Hospitals met again on Monday at Westminster. Lord Sandhurst presided, and the other members present were the Earl of Kimberley, Earl Spencer, Earl Cadogan, Earl Cathcart, Lord Clifford of Chudleigh, Lord Monkswell, and Lord Zouche of Haryngworth.

Mr. Thomas Ryan, examined by the chairman, said he was chairman of a committee of secretaries of the principal hospitals appointed with a view to devising some uniform system of hospital accounts. The secretaries met and agreed to appoint a small committee of their number to determine the precise form of the accounts. This committee sat during some eight or nine months, and sent to the Hospital Sunday Fund authorities the scheme they had devised. The Hospital Sunday Fund authorities approved the scheme. A large general meeting was then held, and it too approved of what the committee had done. As a result, their system of accounts had been adopted by a considerable number of the hospitals. He should say that the principal ones had adopted it. Witness handed to their lordships three documents explaining the new system, one displaying a statement of income and expenditure, another an index of classification to guide people using the new form, and the third a synopsis of the index of classification. Witness admitted that the form was not quite that used in his own hospital—namely, St. Mary's. He imagined there were at present no accounts of London hospitals which were precisely similar. In the old form they had a heading called "Incidental expenses." This had been done away with as being a senseless sort of heading, which conveyed no meaning. Repairs had been thrown in as a subheading under "Establishment charges." They had put legacies aside and called them extraordinary income. They were included in the income and expenditure account, and in this respect the new form differed from that used in many hospitals. With the new form of accounts it would not be possible for a hospital which had received, say, £100,000 in legacies to show to the public a deficit at the end of the year. At present it was possible to have this sort of thing in some hospitals. Legacies must, under the new form, be shown as income. As a matter of fact, they would simply conform to the rule as regards any other income.

By the Chairman: Do you think this would be a more accurate guide to the public than the old form?—Witness: Speaking for the best of the hospitals, who adopted a very good form before, I do not think so, but I do think that the general public seem to want a uniform

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system of accounts, which hospital experts can also see advantage in. I think it would have been a great mistake on the part of the hospitals not to regard this want of the public. But of course, if the general public expect to bring about a general likeness between unlike things, they will soon find out their mistake.

In reply to Earl Cathcart, witness said that the essential difference between the new system and the old was the introduction of this index of classification. The committee had not dealt with the out-patient departments. As a matter of fact, they had not cleared up the whole question of the accounts, because it was much more difficult to get some hospitals to join a movement of this kind than others. The Committee had only dealt with the statement of income and expenditure. They had not insisted on what the accounts should be. The question of the out-patient departments must be gone into afterwards, for it was very important.—Earl Cathcart: I wish to compliment you very much upon what you have done, because I think the form you have prepared is a very good one.

Questioned by the Chairman, witness stated that he had no knowledge of a sheet showing the daily record of meat, fish, butter, eggs, &c., consumed having been issued by the committee.

Replying to Earl Spencer, witness said they distinguished between ordinary and extraordinary repairs. A hospital might in one year have to take up the whole of the drainage system at a cost of several thousand pounds. This expenditure the committee thought should be considered as extraordinary repairs. It would not be fair to divide this expenditure into the cost per bed for the year, and therefore the committee had thrown it out in this way. He admitted that it might be more an improvement than a repair. Still the committee had to find a general title, and none better had occurred to them than what they had used.

By the Earl of Kimberley: Are repairs of a roof, for instance, ordinary repairs?—Witness: They may be so, but they cannot fairly be charged to the average per bed.—The Earl of Kimberley: Is not that in the nature of manipulating an account?—Witness: It may be so, but the manipulation is quite justifiable.—The Earl of Kimberley: It may be misleading to the public?—Witness: I do not think so. If you wish to get an accurate notion of the annual expenditure, you must do it or divide the amount over a certain number of years.—The Earl of Kimberley: I admit the difficulty is to get the average, but is it worth while arbitrarily to make this division?—Witness: I think it really has a good effect in the end.—In further examination by Lord Kimberley, witness said that the rule the committee had recommended with regard to estates was that a separate account should be kept, and the profit only brought into the hospital accounts.

In reply to the Chairman, witness said that with this system of accounts comparisons would be clear and obvious. Differences would not necessarily mean extravagance, for hospitals were differently managed. For instance, some hospitals did not supply tea and sugar.

In answer to Lord Clifford of Chudleigh, witness said that the Committee had not recommended, in the matter of repairs, that so much should be paid out of the year's income. They were anxious not to strain themselves into the position of mentors of the hospitals in other questions than accounts.

Questioned by Lord Monkswell, witness stated that it was conceivable, but not probable, that this system might lead to the stopping of repairs. At present he found hospital repairs were done in a very erratic sort of way. Everything depended on the condition of the funds.

Interrogated by the Chairman, witness said that the pay of the house carpenter, who did repairs, would appear under "Salaries and wages." Something might be said for putting it under "Repairs," but if their lordships were to go into the matter he thought they would come to the same conclusion as the committee.

The Earl of Kimberley expressed the view that the pay should be distributed so as to disclose the actual work done. It seemed to him that an account to be accurate must be accurate.—Witness: But you may carry accuracy into too great detail and become a little ridiculous.—The Earl of Kimberley: Not the least in the world. What is ridiculous is the way in which many of these accounts are kept. They are kept so loosely that nobody knows what is going on, and the looseness of the accounts is the bane of all these things.

After one or two more questions had been put and answered, Mr. Ryan was thanked for his attendance, and the Committee proceeded with the consideration of their report.

MIDWIVES' REGISTRATION COMMITTEE.

Dr. Rentoul of Liverpool was examined on Thursday before Mr. Fell Pease's Committee on Midwives' Registration. He said that by registering midwives they would practically repeal the Medical Act of 1886. By the Act of 1858 any person who was registered as a physician, surgeon, or apothecary could be placed upon a medical register. This was recognised to be an evil, because it supplied the country with partially educated practitioners. The Royal Commissioners appointed in 1882 to report upon the Medical Acts said it was a bad system, and recommended the triple qualification of medicine, surgery, and midwifery. The Medical Act of 1886 brought that into force. The Midwives Bill proposed to place the midwives upon a register giving them power to practise midwifery, and therefore it did away with the good effect of the Act of 1886 by reintroducing a partially qualified practitioner. The Bill provided only for attendance at natural labours. It did not define what a natural labour was, nor did it appoint any penalties for cases where midwives might overstep their duties. The Bill qualified the midwives to attend all cases of labour. In his opinion there ought to be training in the practice of medicine. In the Registrar-General's return for 1890 he found that 4255 women died during the year from the accidents of childbed. Of this number, 1956 died from puerperal fever. The remainder did not die from the confinement *per se*, but very likely from some accompanying disease, say, of the heart, lungs, or kidneys. If, therefore, the midwife was not educated to recognise these diseased conditions, it would be so much the worse for the lying-in woman. During 1890 he found that 15,208 infants died because they were prematurely born. The causes at work in producing premature labour in the mother were difficult to diagnose, and if the midwife had not received a medical training she could not diagnose them, far less treat the cases. The Bill also gave midwives power to treat infants during the puerperal state. Not only, therefore, must they have an education in medicine, but also in the diseases of children. It had been stated before a Select Committee that 30 per cent. of the total blindness of the country was due to infantile ophthalmia. This disease itself was frequently due to maternal gonorrhœa. Abroad the duties of the midwife were not tied down to cases of natural labour. For instance, in Belgium she was allowed to vaccinate, in Austria she was allowed to perform manual operations, in Norway and Sweden to apply forceps, and in Russia to treat diseases of infants and children. Witness called the attention of the Committee to the Medical Act lately passed in the Cape of Good Hope, where the duties of the midwives were not defined. For a considerable number of years there had been a tendency in the medical profession to dissociate the practice of midwifery from that of medicine. The nickname of "man-midwife" was applied to those who had the courage at one time to conduct confinements, and thereby raise midwifery to the level of medicine and surgery. At present even the Royal College of Surgeons refused to admit any practitioner to their Council who practised midwifery, and some years ago the Fellowship of the College of Physicians of London was refused to those men who practised midwifery. The next point Dr. Rentoul laid down was that there was not a sufficient number of maternity cases by which to train both medical students and pupil midwives. The only cases now available for the purposes of instruction were those in connexion with lying-in hospitals. The workhouses were closed against students. The same lying-in woman was sometimes visited by fourteen or fifteen different students, all anxious to record an attendance. In this way the lives of poor women were made miserable. In Liverpool a very unpleasant state of things existed. There the medical students received their instruction in midwifery, not from a medical man, but from a midwife. In his opinion, the present training of medical students in midwifery was dangerously defective. Witness was about to support this opinion with evidence, when

Mr. Rathbone, M.P., intervened, and said that the Committee could not be expected to discuss the question of medical instruction. They must confine themselves to the midwives.

Dr. Rentoul said he wished to show that they had no right to turn out the medical students in order to make room for midwives. Proceeding to another point, witness submitted that in this country it would be very difficult to have midwives properly supervised, and that the introduction of a low class of practitioners would increase criminal practices.

The Chairman: But registration will surely elevate the class of practitioners?—Dr. Rentoul: I do not think so. You suggest that 10,000 old women should be placed on the register.—The Chairman: That is only to begin with.

Dr. Rentoul, continuing, expressed the view that before passing a Bill for the registration of midwives the Legislature should pass a Bill to register stillbirths. He explained to the Committee certain malpractices of midwives. Passing from this part of his case, witness laid it down that the poor and the working classes were well provided for in existing circumstances. He referred to the work of the Poor-law authorities, charitable institutions, friendly societies, and medical men. There were 29,000 medical men in this country ready for the work. In Liverpool, he regretted to say, there were many medical men prepared to deal with midwifery cases for 7*s.* 6*d.* or 10*s.* 6*d.*, and to take their fees in instalments. In many parts of Lancashire the medical men kept a staff of collectors, who went round the districts each week gathering up the fees. Another point he wished to put to the Committee was whether, if a class of officially registered midwives were created, medical men would be able to employ such women as their legally qualified assistants in midwifery. He had put this point before the General Medical Council, and they had declined to give him an answer.

The Chairman said it was not a question for the Committee.

Dr. Rentoul assured the Committee that it deeply affected the operation of the Medical Act of 1886.

Mr. Rathbone said it would be for the General Medical Council to see to the observance of that Act.

Dr. Rentoul, examined by Dr. Farquharson, M.P., expressed the view that poor people derived more assistance from their neighbours than from midwives. He found patients ready to pay him 30*s.* and two guineas in order to escape from midwives. If people desired women practitioners they were well supplied at present by women doctors.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on May 17th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	266*	62	..	15	..	343	440
North-Western Hospital	242	37	..	9	2	290	413
Western ,,	107†	31	..	4	5	147	230
South-Western ,,	219	35	..	9	1	264	350
South-Eastern ,,	293	10	1	12	3	319	430
Northern ,,	436	35	..	..	...	417	480
Totals	1563	211	1	49	11	1835	2343

* Two infants with mothers. † One infant with mother.

SMALL-POX.—*Atlas* hospital ship, 7

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Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ANDREW, HENRY, M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Devon and Exeter Hospital, vice R. Martyn.

ARCHER, A. M., M.D., L.M. Dub., has been appointed Medical Officer of the Workhouse, Chester Union.

ATKINS, J. F., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Workhouse Infirmary, Birmingham.

BARNETT, LAWRENCE, M.D. Lond., M.R.C.S., has been appointed Honorary Physician to the Kilburn, Maida-vale, and St. John's Wood General Dispensary.

BEAN, CHAS. E., L.R.C.P. Lond., M.R.C.S., has been appointed Analyst for the Plymouth County Borough, vice Oxland, resigned.

BERRY, A. E., M.B. Lond., L.R.C.P., M.R.C.S., has been appointed Assistant Medical Officer of the Crumpsall Workhouse, Township of Manchester.

BLAKE, S. R., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the West Ham Hospital.

BURTON, W. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Frodsham Sanitary District of the Runcorn Union.

CONWAY, AUBERT, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Kingswinford (No. 2) Sanitary District of the Stourbridge Union.

FISHER, T. E., L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the West Norfolk and Lynn Hospital, Lynn.

FLETCHER, F. J., L.S.A., has been appointed Medical Officer for the Fourth Sanitary District of the Bourn Union.

GODSON, J. E., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer to the Workhouse Infirmary, Birmingham.

HELPS, G. C., L.R.C.P. Edin., M.R.C.S., has been appointed Medical Officer for the Wells Sanitary District of the Frome Union.

HILLIER, R. J., M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Surgeon to the West Ham Hospital.

LEES, C. F., M.B., C.M. Edin., has been appointed Medical Officer for the Infirmary of the Salford Union.

MARNOCH, JOHN, M.B., C.M. Aberd., has been appointed House Physician and Surgeon to the Sick Children's Hospital, Aberdeen.

PATTERSON, WM., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Seventh Sanitary District of the Oldham Union.

SMITH, HENRY, M.B., C.M. Dur., has been appointed Medical Officer for the Workhouse of the Durham Union.

SMITH, H. H., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Lye and Wollescote Sanitary District of the Stourbridge Union.

THOMPSON, E. T., L.K.Q.C.P., L.R.C.S. Irel., has been appointed Medical Officer for the Dunstable Sanitary District of the Luton Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ADDENBROOKE'S HOSPITAL, Cambridge.—Resident House Surgeon. Salary £65 per annum, with board, lodging, and washing in the hospital.

BOROUGH OF CHELTENHAM.—Medical Officer of Health for three years. Salary £500 per annum. (Apply to the Town Clerk, Cheltenham.)

BRADFORD INFIRMARY.—Dispensary Surgeon. Salary £100 per annum, with board and residence.

BURTON MEDICAL ASSOCIATION.—Junior qualified Assistant. Salary £150 (out-door). (Apply to Mr. Blant, Ebenezer, Shobnall-road, Burton-on-Trent.)

CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Clinical Assistants.

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY, Wakefield.—Junior House Surgeon. Honorarium £25 per annum, with board, lodging, and washing.

DENTAL HOSPITAL OF LONDON, Leicester-square.—Dental Surgeon.

DEVON AND EXETER HOSPITAL, Exeter.—Assistant House Surgeon. Salary £40 per annum, with board and lodging, not including alcoholic liquors and aerated waters.

GENERAL HOSPITAL, Birmingham.—Assistant Physician for three years. Honorarium £100 per annum.

GROSVENOR HOSPITAL FOR WOMEN AND CHILDREN, Vincent-square, S.W.—Chloroformist.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Resident House Physician for one year. Salary £60 per annum, with board and residence in the hospital.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, W.C.—Assistant House Surgeon (non-resident) for one year. Salary £50.

HOSPITAL FOR WOMEN (LONDON SCHOOL OF GYNÆCOLOGY), Soho-square, W.—Clinical Assistants.

LEEDS UNION.—Assistant Medical Officer and Dispenser for the Workhouse, Schools, and Infirmary in Beckett-street, Leeds. Salary £100 per annum, with board, washing, apartments, and attendance. (Apply to the Clerk, Union Offices, East Parade, Leeds.)

LIVERPOOL ROYAL INFIRMARY.—Assistant Honorary Physician and Two Assistant Honorary Surgeons.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL.—Assistant Ophthalmic Surgeon. (Apply to the Secretary, Hartshill, Stoke-on-Trent.)

QUEEN CHARLOTTE'S LYING-IN HOSPITAL, Marylebone-road, N.W.—Resident Medical Officer for four months. Salary at the rate of £60 per annum, with board and residence.

ST. BARTHOLOMEW'S HOSPITAL.—Surgeon.

SALOP INFIRMARY, Shrewsbury.—House Surgeon. Salary £100 per annum, with board and residence.

VICTORIA HOSPITAL FOR CHILDREN, Queen's-road, Chelsea, S.W.—Dental Surgeon.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant for six months. Board, lodging, and washing provided.

WORCESTER GENERAL INFIRMARY.—Assistant to the House Surgeon and as Dispenser (unmarried), for one year. Salary £70 per annum, with board, residence, and washing.

Births, Marriages, and Deaths.

BIRTHS.

ELIOT.—On May 10th, at East Park-terrace, Southampton, the wife of Dr. E. F. Eliot, of a daughter.

FOX.—On May 15th, at Strathpeffer Spa, N.B., Katharine, the wife of Dr. Fortescue Fox, of a son.

GROSVENOR.—On May 9th, the wife of A. Augustus Grosvenor, B.A., M.R.C.S., of a daughter.

HANDFIELD-JONES.—On May 12th, at East-hill, Wandsworth, S.W., the wife of C. R. Handfield-Jones, M.R.C.S., L.R.C.P., of a son.

KIRKHAM.—On May 7th, the wife of F. W. Kirkham, M.D., L.R.C.P., of a son.

MOORE.—On May 11th, at Redcroft, Maidenhead, the wife of G. E. Moore, M.B., of a son.

MARRIAGES.

OAKLEY—CRIPPS.—On April 26th, at the Parish Church, Cirencester, by the Ven. Archdeacon Hayward, assisted by the Rev. Alan Cornwall, Vicar of Coleford, Adam R. H. Oakley, L.R.C.P. Edin., of Horuchurch, Essex, second surviving son of Sir Henry Oakley, of Chester-terrace, Regent's-park, N.W., to Ellen Judith, second daughter of the late Edward Cripps, M.R.C.S., of Cirencester.

ROBERTS—SCOTT.—On May 17th, at All Saints', Eastbourne, Charles Gordon Roberts, M.A., M.B. Cantab., youngest son of Bransby Roberts, of Eastbourne, M.D., to Janet Bogle (Nettie), eldest daughter of the late James G. T. Scott, C.E., of Truro House, Burlington-place, Eastbourne.

SKRIMSHIRE—GROOMES.—On May 10th, at the Parish Church, Shalford, Essex, the Rev. Arthur J. Skrimshire, M.D., Rector of Hadleigh, Essex, eldest surviving son of the late Fenwick Skrimshire, M.D., of Paston Hall, Peterborough, to Agnes Maria, only daughter of the late Rev. John Groomes, M.A., Vicar of Shalford.

DEATHS.

EADY.—On May 13th, at Chertsey, Surrey, Geo. John Eady, Surgeon, in his 76th year.

HENDRY.—On May 13th, at Cullen, Banffshire, Alexander Hendry, M.B., C.M. Edin.

NICHOLSON.—On May 16th, suddenly, at Woodlands, Harefield, Middlesex, John Frederick Nicholson, F.R.C.S., aged 75.

NUNN.—On May 10th, at his residence, The Mount, Higher Broughton, Manchester, Dr. Nunn, late of Lyndhurst, Hants, aged 47.

PATERSON.—On May 15th, at Grosvenor-terrace, Glasgow, Joshua Paterson, M.D., aged 78.

QUICKE.—On May 12th, at Albert House, Bradford-street, Manchester, Frances Cole ("Fanny"), wife of W. J. Quicke, M.R.C.S. &c.

RANDALL.—On May 14th, suddenly, at 204, Adelaide-road, South Hampstead, John Randall, M.D. Lond., F.R.C.S., &c., aged 74.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, May 23.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. Wm. Lang: Conjunctival Affections.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Gastro intestinal Tract.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. A. Wynter Blyth: Construction and Ventilation of Dwelling Houses.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Dr. J. Rose Bradford: The Physiology of the Vaso-motor System.

NATIONAL ORTHOPÆDIC HOSPITAL (Great Portland-street, W.).—5 P.M. Mr. E. Muirhead Little: Deformities of the Head and Trunk, including Diseases of the Spine and Wry Neck.

Tuesday, May 24.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor R. C. Jebb: Some Aspects of Greek Poetry.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Mr. Jonathan Hutchinson: Eczematous Dermatitis.—Bethlem Hospital: 2 P.M., Dr. H. Corner: Stupor and Dementia.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Dr. A. E. Garrod: The Changes in the Blood in the course of Rheumatic Attacks.—Mr. Hugh Lane: Further Observations in reference to the Distinctions to be drawn between Rheumatoid Arthritis and Rheumatic Arthritis.

Wednesday, May 25.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Mr. R. J. Godlee: Surgical Treatment of Empyema.—Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Toxic Amblyopia.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Dr. J. Rose Bradford: The Physiology of the Vaso-motor System.

Thursday, May 26.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. G. Moulton: Faust.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. Hadden: Selected Cases from the Out-patient Department.—National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Ormerod: Hemiplegia.—London Throat Hospital, Gt. Portland-st.: 3 P.M., Mr. W. R. H. Stewart: Causation in Ear Disease.

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-square).—8.30 P.M. Dr. Fancourt Barnes: Ovariotomy during Pregnancy. Specimens:—Dr. Wm. Travers: Dermoid Cyst.—Dr. J. Inglis Parsons: Stone from the Urethra.

Friday, May 27.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Mr. R. J. Godlee: Surgical Treatment of Pulmonary Cavities.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: Tuberculosis (Examination of Sputum). Charing-cross Medical School: 8 P.M., Dr. Potter: Pessaries, their Object and Use.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Dr. J. Rose Bradford: The Physiology of a Vaso-motor System.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Nunn: A case of Cubitus Valgus and Cubitus Varus arising from Fracture at the Elbow-joint.—Mr. Frederick Treves: A case of Sarcoma of the Buttock treated by Ligature of the Internal Iliac Artery.—Mr. Clutton: A case of Gastrostomy for Stricture of the Œsophagus at the age of four; eventual restoration of the normal passage.—Dr. Douglas Drew (introduced by Dr. Ringer): A case of Leucocythæmia treated with Arsenic. 9 30 P.M. Annual Meeting.

ROYAL INSTITUTION.—9 P.M. Sir J. Crichton-Browne: Emotional Expression.

Saturday, May 28.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. H. Corner: Climacteric and Senile Insanity.

ROYAL INSTITUTION.—3 P.M. Professor H. Marshall Ward: Some Modern Discoveries in Agriculture and Forest Botany.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the Journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

"A NEW USE OF THE TITLE M.B."

THE following is another instance of the audacious use of the title M.B. to which we referred in our last issue. The correspondent who sends it to us wonders that those representing the profession do not take steps to prevent this. Our reply is that the M.B. is not attached to any particular institution which can feel itself aggrieved. Meanwhile the public falls between two stools:—

> "D. Wilkinson, M.B., Chapel-street, Ripley, Derby, removes Tumours, Cancers, and Abscesses, without cutting; also removes the Germs of Consumption, even when they are given up."

An Anxious Inquirer.—The authority would have to be more than presumably trustworthy to induce us to believe that the converse o Goldsmith's lines would hold good—

> "The man got better of the bite,
> The dog it was that died."

All patients bitten by mad dogs do not, of course, suffer from hydrophobia; but, so far as we know, there are, at present, no well-authenticated instances recorded of true hydrophobia resulting from the bite of a dog that was not affected with rabies. Of course, there are cases of death after the bite of a dog, from shock and fright, the effects of nervous excitement; but these cannot be reckoned as cases of hydrophobia in the recognised sense of the term.

Country Surgeon will perhaps be able to obtain the information he desires from the Secretary of the Brussels Graduates' Association, Florence House, Ealing.

POST NON PROPTER!

To the Editors of THE LANCET.

SIRS,—As a specimen of anti-vaccinationist "argument" the following may, I think, be found amusing. A young woman brought her baby to be vaccinated this evening. "It's a shame," said she, "that we should have to do it." "But surely," I replied, "you would rather have the child vaccinated than let him get small pox." "Oh, doctor," was the answer, "small-pox is out of date now."

I am, Sirs, yours truly,

May, 1892. GELASMA.

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SHAFTS AT THE PROFESSION.

MANY are the witty tales which have been told of, and by, medical men. Sir John Hill, for instance, a medical man of great renown in the last century, formed, by reason of his eccentric habits, a fertile source of inspiration for many of the wits of the period. He rarely failed, however, to turn the tables on his assailants. He was a voluminous writer, his chief work being a "System of Botany" in twenty volumes. Mr. J. Lovett de Wolfe reminds us of the "Juntos" (supposed to be friends of Garrick), who wrote witty passages to the public prints against the old doctor. Alluding to his botanical researches, and to certain lines which he had written, they wrote:—

"Thou essence of dock, valerian, and sage,
At once the disgrace and pest of the age;
The worst that we wish thee for all thy sad crimes
Is to take thy own physic and read thy own rhymes."
The Junto.

The next appeared in answer to "The Junto," as follows:—

"Their wish in form must be reverst,
To suit the doctor's crimes;
For he who takes his physic first
Will never read his rhymes."—*Another Junto.*

But the shrewd doctor was equal to the occasion. He replied by sending to one of the papers the following lines:—

"Ye desperate Junto, ye great, or ye small,
Who con bat dukes, doctors, the devil and all,
Whether gentlemen scribblers, or poets in jail,
Your impertinent curses will never prevail;
I'll take neither sage, dock, valerian, nor honey,
Do *you* take the physic, and *I'll* take the money."

Kentigern.—We have not seen any announcement of a second volume of Hillairet et Gaucher's "Traité des Maladies de la Peau." Part IV. of Leloir and Vidal will doubtless be published in the course of this year, as hitherto one part a year has been published.

Dr. J. Cartwright Reed (Herschel, Cape Colony) is thanked for his communications, which would scarcely be of sufficient interest for publication at the present time, as they refer to occurrences that took place so long ago.

FLOATING SPLEEN.

To the Editors of THE LANCET.

SIRS,—During an unusually long professional life I have had the opportunity of seeing many instances of that anatomical peculiarity, the "floating kidney." Discussing the matter lately with a medical friend, I came to the impression that a case he related to me as being, he supposed, one of this anomaly, was perhaps a case of "floating spleen." In all the cases of floating kidney which I have met with I have always detected the form and size of the adult kidney, and besides, not seldom, have found that the mass has disappeared on the patient assuming the recumbent position, until I had made an upward pressure at the loin; but in the case related by my friend the tumour was always to be felt, though not always in the same spot, and, moreover, always in the left pelvic region. He stated that its form was not that of the kidney—that is, was of a somewhat larger size, and more like the shape of the spleen. That the matter is of some moment I need scarcely say, and therefore I am induced to ask your many correspondents whether their attention has been drawn to the subject. I have myself only succeeded in finding one reference to it—i.e., by a Dr. Gustav Klein, who found, at a necropsy, a "floating spleen" in the pelvis. (*Vide* p. E. 16, the "Annual of the Medical Sciences," vol. ii., 1890.)—Yours truly,

Birkenhead, May 16th, 1892. CHAS. H. HIGGINS, M.D.

A PRACTICAL SUGGESTION FOR THE IMPROVEMENT OF THE PRESENT HOSPITAL SYSTEM.

WE have received from a correspondent a communication which is interesting, but not practical. It is entirely unpractical, and contrary to the laws under which the Medical Council acts, according to the spirit of which all persons on the Register are equally "qualified," and in the letter of which there is nothing to sanction the Council undertaking such extraordinary functions. The hospitals of England at least must either be conducted as voluntary institutions, or undergo an entire revolution in their constitution and in the basis of their support.

H P.—We would suggest to our correspondent to make an official application to the Colonial Office, setting forth his requirements and professional qualifications, and asking for information as to any vacancies.

A CORRECTION.

To the Editors of THE LANCET.

SIRS,—Please allow me to contradict the statement which appeared in THE LANCET that Brigade-Surgeon Maunsell died of yellow fever at Up Park Camp, Jamaica. As one of the medical men who attended the late Brigade-Surgeon Maunsell from Nov. 17th to the day of his death, which occurred on Dec. 5th, 1891, I am in a position to state that his disease was not yellow fever. I am, Sirs, yours obediently,

JASPER CARGILL, M.D.

Monaltrie, St. Andrew, Jamaica, May 2nd, 1892.

OBSTETRIC AMENITIES.

Mr. B. M. Bond.—There is nothing which tries the good temper of medical men more than the call to attend an obstetric case from a brother practitioner, perhaps in the night or at great personal inconvenience. Such demands should not often arise, but they will occasionally occur. And every right-hearted practitioner will do as our correspondent did. The gentleman for whom he acted should at the very first opportunity show his appreciation of the act of kindness. Our correspondent assumes that his neighbour neglected to do this because he did not do so on first visiting the patient. This seems to us somewhat hasty judgment. At any rate, we should require to know all the facts and all the engagements of Mr. —— before we could decide. Be this as it may, it would have been better for Mr. Bond to have given a little more time to Mr. —— before writing him a "polite note" and claiming a fee. A little time solves many questions of this sort. With this qualification, we entirely approve Mr. Bond's conduct in the matter, and regret that on the other side the correspondence was not quite couched in terms which did justice to him and to his prompt action in the case. There should be no difficulty in putting this matter right between neighbours.

Dubitans.—The question is one which could be best answered by the medical attendant, who knows the time of onset of the inflammation with reference to the use of the injection or of the unusual exertion. The complication is very common where no injection is used.

"A MUSEUM OF CURIOSITIES."

To the Editors of THE LANCET.

SIRS,—In answer to your correspondent of the 14th inst., it is hardly necessary to point out that the case recorded should not be classed as one of true hermaphroditism. The mere fact that the testicles were present, coupled with hypospadias and the absence of vaginal orifice, is sufficient evidence that the case was only one of arrested development in the male embryo. On the other hand, the presence of a depressed fissure of the sacral spines, which is of great interest, seems hardly to have engaged the attention of your correspondent. There is good reason for assuming that this condition represents an obliterated state of the neurenteric canal of the embryo; and, indeed, a few similar cases have already been recorded. It also would have added interest to the case if auscultation over the præcordium had been attempted, with a view to determining the presence or absence of cardiac deformity.

I am, Sirs, yours faithfully,

May 17th, 1892. EMBRYOLOGIST.

"THE TITLE OF DOCTOR."

To the Editors of THE LANCET.

SIRS,—Will you allow me to correct the statement of your correspondent "M.B. Lond." in his letter dated May 9th, 1892, in which he says that the Scotch, Irish, and English universities (except London University) grant a M.D. degree to their M.B. graduates on payment of a fee and the production of a thesis? In the Royal University of Ireland the M.D. degree is only granted to its M.B. graduates after passing an examination which extends over three days, and consists of two written papers, two clinical, oral, and practical pathological examinations; and this examination was until recently accepted for promotion in the army in place of the Fellowship of a College. The graduates of the Royal University, Ireland, consider themselves—and justly—on equal standing with the graduates of London University.

I am, Sirs, yours faithfully,

May 15th, 1892. M.B., R.U.I.

"STRICTURE OF THE URETHRA."

To the Editors of THE LANCET.

SIRS,—There is a mistake in my paper on Stricture in THE LANCET of April 9th, 1892, which destroys its sense. I did not say that "under no circumstances whatever is *external* urethrotomy a justifiable operation," but that under no circumstances whatever is *internal* urethrotomy a justifiable operation. If a surgeon can pass instruments, he can dilate all organic strictures. If he cannot, then he can perform external urethrotomy; and external urethrotomy is also very often the only operation advisable in traumatic strictures.

I am, Sirs, your obedient servant,

EDWARD LAWRIE,
Surgeon-Lieutenant-Colonel.

The Residency, Hyderabad, April 28th, 1892.

THE REPORT ON COLOUR VISION.

To the Editors of THE LANCET.

SIRS,—Will you kindly state in THE LANCET that a mistake has occurred in the Report of the Colour Vision Committee of the Royal Society? It is there stated that two colour-blind persons were passed by me. Both these men were rejected by me, and no colour-blind person escaped detection by either of my tests. Capt. Abney says that the unfortunate error was due to my using a nomenclature different from that generally adopted, and that he will correct it.

I am, Sirs, faithfully yours,

F. W. EDRIDGE-GREEN, M.D.

Willesden-green, N.W., May 18th, 1892.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 19th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
May 13	30·26	S.E.	57	51	116	74	49	.	Hazy
,, 14	30·02	S.W.	58	54	87	63	54	·04	Overcast
,, 15	30·02	W.	58	53	91	61	46	·08	Cloudy
,, 16	29·85	S.W.	55	53	109	63	47	..	Cloudy
,, 17	29·86	W.	55	51	110	66	51	..	Cloudy
,, 18	30·11	S.W.	56	51	107	65	49	·01	Cloudy
,, 19	30·01	N.W.	58	52	96	62	48	..	Cloudy

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from — Dr. J. Appleyard, Bradford, Yorks; Mr. Atkinson, Newcastle; Messrs. Arnold and Son; Professor H. T. Butlin, London; Miss Bascombe, Margate; M. Berthier, Paris; Mr. Brydges, Cheltenham; Mr. Ed. Cornish, Walthamstow; Dr. F. Ed. Cave, Plumstead; Mr. Chapman, Paris; Dr. A. Duke, Dublin; Mr. Davison, Newburn-on-Tyne; Dr. Walker Downie, Glasgow; Mr. A. J. Dodd, West Brighton; Dr. Davies, Ebbw Vale; Mr. Dale, Bishop's Teignton; Messrs. Easun and Son, Dublin; Dr. W. E. Finny, Kingston Hill, Surrey; Mr. N. H. Forbes, Tunbridge Wells; Mr. J. Fawcett, Eccles; Mr. Frost, London; Mr. Grant, Edinburgh; Mr. Green, London; Dr. Glaser, Vienna; Dr. John Gordon, Aberdeen; Mr. G. A. Hawkins-Ambler, Liverpool; Mr. J. Lawrence Hamilton, Brighton; Dr. Hime, Bradford; Dr. P. T. Harvey, Fort Keogh, Mont.; Mr. Hordley, Stoke-upon-Trent; Messrs. Harris and Sons, London; Mr. A. Harkin, Belfast; Mr. Hornibrook, London; Dr. C. Higgins, Birkenhead; Messrs. Keen, Robinson, and Co., London; Mr. Kynaston, Liverpool; Dr. Lord, Bournemouth; Mr. E. Leon, Leeds; Surgeon-Major Lawrie, Hyderabad; Mr. H. W. Lewis, London; Sir W. Mackinnon, Director-General; Messrs. Mertens and Co., London; Mr. Mudhelkar, Berar, India; Messrs. McCorquodale and Co., Glasgow; Dr. P. McBride, Edinburgh; Dr. R. Martin, Manchester; Dr. Meade, Newmarket; Mr. Martin, Paris; Dr. E. J. Moure, Bordeaux; Mr. Marshall, Manchester; Dr. H. C. Martin, London; Mr. Martindale, London; Mr. Monkhouse, Brixton; Messrs. Oppenheimer Bros. and Co., London; Messrs. Orridge and Co., London; Mr. Pentland, Edinburgh; Mr. W. P. Potter, Kensington; Mr. Poore, London; Mr. Bilton Pollard, London; Mr. J. Young Pentland, London; Dr. Rendall, London; Dr. E. Rouse Rouse, New Southgate; Dr. R. R. Rentoul, Liverpool; Messrs. J. Richardson and Co., Leicester; Messrs. Reynolds and Branson, Leeds; Mr. T. Smith, London; Mr. Scott, Bromsgrove; Messrs. G. Street and Co., London; Mr. Simpson, Preston; Dr. H. W. A. Sandell, Leighton Buzzard; Dr. A. Stella, Naples; Mr. Stellard, Worcester; Dr. W. Irvine Sellars, Preston; Mr. Taylor, Bury; Mr. Tett, Kilburn; Dr. John Thompson, Edinburgh; Mr. J. J. Thorney, Hull; Messrs. Thorp and Co., Glossop; Dr. J. K. Tomory, Dumfries; Messrs. Whitworth and Stuart, Manchester; Dr. H. Weber, London; L.R.C.P.; *Northampton Herald*; M.D., London; M.R.C.S., London; W. J. C., London; Clerk to the Guardians, Manchester; R. K., London; U. V.; Clerk, Leeds Union; G. B., London; C. S. H., Bristol; Maltine Manufacturing Co., Bloomsbury; P. H., London; R.S.O., London; Burrow's Drug Stores, London; Veritas, London; F. Y., London; Secretary, Devon and Exeter Hospital; Secretary, Royal Infirmary, Liverpool; Sanitary Wood Wool Co., London; Reuter's Telegram Co., London.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Rideal, Abergele; Mr. Kerr, Oldham; Dr. Craigie, Chard; Messrs. Lawson and Son, Forfar; Mr. Middleton, Peterhead; Messrs. Negretti and Zambra, London; Dr. Bowman, Durham; Messrs. Elliott, Son, and Boyton, London; Mr. Bosworth, Paddington; Messrs. Curtis and Co., London; Miss Hicks, Falmouth; Messrs. West, Newman, and Co., London; Mr. Tyte, Minchinhampton; Messrs. Johnstone, Edinburgh; Mr. Worall, Southport; Miss Jillee, Putney; Mrs. Theobald, Leicester; Dr. Brooks, Manchester; Mr. Rivers, Maidstone; Mr. R. Davis, London; Mr. Coward, Manchester; Mr. Ballachey, Chilford; Mr. Taafe, Londonderry; Mr. Beckton, London; Dr. Griffith, Carnforth; Mr. Bryce, Sidmouth; Dr. Waters, Liverpool; Mr. McCormack, Yorks; Mr. Hall, Keswick; Mr. Norman, Devon; Mr. Daw, Warrington; Dr. Kneass, Italy; Mr. Beaumont, Edinburgh; Mr. McDougall, Runcorn; Mr. Bastard, Blandford; Dr. Bower, Bedford; Mr. Smith, Berwick; Mr. Todd, Carlisle; Mr. Ross, Bristol; Mr. Niven, West Auckland; Messrs. Gale, Bouverie-street; Dr. Needham, Barnwood House, Gloucester; Mr. Kegworth, Hastings; Messrs. Wright and Mackenzie, Romford; Mr. McConville, Glasgow; Mr. James, Port Talbot; Mrs. Bagster, London; Dr. Pinder, London; Mr. Wallis, New Southgate; Mr. Quicke; Mr. Chapman, Leyburn; Messrs. Lee and Nightingale, Liverpool; Mr. Lowe, Edinburgh; Messrs. Tayler and Co., London; Mr. Ross, Ashton-under-Lyne; Dr. Griffith, Milford Haven; Mr. Thin, Edinburgh; Mr. Evans, Llanberis; Mr. Garnett, Windermere; Mr. Heywood, Manchester; Mr. Tresise, Burton-on-Trent; Mr. Oakley, Hornchurch; C. F. W., London; Vaccine Lymph Association, London; Mater, London; Pater, London; J. E. H., Clay Cross; P. D., Bayswater; Garton, London; Secretary, Hospital for Women, Soho-square; Physician, Essex-street; M. L., London; Aston Union; Doctor, London; Cyrus, London; Secretary, Norfolk County Asylum; A. P., Hatcham; Assistant, co. Durham; Secretary, York County Hospital; C. F. W., London; D. K. S., London; Exeter City Asylum; Manchester, London; Querens, London; Secretary, Rock Life Assurance Co.; Secretary, Royal Hospital for Diseases of the Chest, City-road; Phenol, London; Mother, London; Manager, *Daily Post* Office, Birmingham; Aconite, London; Hon. Secretary, Worksop Dispensary; S. B. Y., London; Forceps, London; Secretary, Staffs General Infirmary; S., Southampton; C. E. D., London; Haydock Lodge, Newton-le-Willows; Andrew, London; Central Medical Association, Manchester; Drugs, London; C. C., Birkenhead; Medicus, London; G., Bournemouth; Nemo, Birmingham; D. H., Bath; Ad. Boojum, London; Fidelis, London; S. C. S., Ealing; Alpha, Manchester; Medicus, Yorks; Mentor, London; Snowdon, London; Surgeon, London.

NEWSPAPERS.—*Manchester Guardian, Freeman's Journal, Guardian, Times of India, South Australian Register, Sydney Daily Telegraph, Western Daily Mercury, Bristol Times, Dundee Advertiser, South Wales Daily News, Scottish Leader, Kentish Mail, Irish Times, Newcastle Daily News, Scotsman, Glasgow Herald, Reading Mercury, Citizen, West Middlesex Standard, Windsor and Eton Gazette, Hertfordshire Mercury, City Press, Radical Review, Weekly Free Press and Aberdeen Herald, Surrey Advertiser, Leeds Mercury, Windsor and Eton Express, Law Journal, Builder, Electrical Review, West Middlesex Advertiser, Pioneer Mail, Local Government Chronicle, Mining Journal, Architect, Insurance Record, Guy's Hospital Gazette, Sanitary Record, Liverpool Daily Post, Haverfordwest Telegraph, Woodford Times, North China Herald, Le Temps (Paris), The Buteman (Rothesay), Reigate and Redhill Journal, Local Government Journal, Evening Express (Liverpool), Yorkshire Post, Kensington News, Sunday Times, &c.*, have been received.

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Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

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MODERN PHARMACY.

KEPLER SOLUTION OF COD LIVER OIL.

THIS is, according to the BRITISH MEDICAL JOURNAL, "an ideal form for the administration of fat." It is a well-known fact that when fatty material is ingested *en masse* it to a very large extent escapes emulsification during its passage through the alimentary canal. If, on the other hand, it is mixed intimately with other foods, the disintegration process has already been accomplished and the fat is readily acted upon by the secretion of the pancreas, succus entericus, and the bile. Cod Liver Oil is no exception to this rule, and, according to recent investigations, a very large proportion of the oil taken by a selected number of patients was voided unchanged in the fæces; whereas oil given in a condition similar to the Kepler Solution of Cod Liver Oil was perfectly absorbed, and merely a trace of fat only was discovered unchanged. The Kepler Solution contains a very large percentage of Cod Liver Oil, the remaining part of it consisting of a rich and nutritious Extract of Malt. Everything considered, this preparation is one of the most perfect foods and resuscitating agents it is possible to prepare. THE LANCET reports: "It has hardly any of the taste of the oil. Many can take it who could not take the oil." The BRITISH MEDICAL JOURNAL reports: "The taste of the oil is agreeably disguised, its nutritive qualities are greatly increased, and it is rendered easy of digestion." Again, THE LANCET reports: "It is the best known and most largely used." The MEDICAL PRESS AND CIRCULAR: "The most palatable and easily digested."

The Kepler Solution of Cod Liver Oil is supplied to the Medical Profession in ¾-lb. and 1½-lb. bottles, at 1/8 and 3/- each; retail, 2/6 and 4/-.

KEPLER EXTRACT OF MALT.

This preparation contains all the essential principles of Barley Malt in an agreeable and concentrated form. It is especially rich in diastase—the digestive principle which converts starch into dextrines and maltose. Opinions vary as to whether the immense utility of Extract of Malt depends more upon the diastase than the nutritive principles contained in it. In many debilitated conditions, however, it is generally conceded that the nutritive principles of dextrines, maltose, and natural phosphates are absolutely necessary. A tablespoonful of the Malt Extract under such circumstances is equivalent to a large percentage of farinaceous foods. Undoubtedly diastase, however, is very valuable in converting starchy material into soluble conditions suitable for ready assimilation.

Kepler Extract of Malt is an excellent sweetening agent for gruels, rice puddings, &c. It is an invaluable adjunct to peptonised milk and to foods for infants. The Malt Extract prevents the milk curdling in large clots, and therefore assists materially in the digestion of the food.

VERDICT.

THE LANCET reports: "The Kepler Extract of Malt is the best."

The MEDICAL TIMES AND GAZETTE: "By far the best."

The MEDICAL PRESS: "Delicious to the taste."

The Kepler Extract of Malt is supplied in ¾ lb. and 1½-lb. bottles, at 1/8 and 3/- each; retail, 2/6 and 4/-.

KEPLER ESSENCE OF MALT.

We have recently introduced a new food agent and aid to the digestion of farinaceous substances under the above name. This preparation is manufactured by a modification of the KEPLER process for making the well-known **Kepler Extract of Malt.**

The Kepler Essence of Malt contains a large amount of **Diastase** and natural mineral phosphates and a considerable amount of tissue-forming substances. *The immense superiority of this preparation over ale and stout* is at once apparent when the process of manufacture is considered in detail. In making ale and stout the carbohydrates (so valuable as nutrient material) and the diastase (a most important principle of Malt, being of special service in errors of nutrition accompanied by digestive derangement) are sacrificed for the production of alcohol; whereas *in the Kepler Essence of Malt these are carefully preserved intact.* This Essence is therefore an ideal aid to digestion and nutrient agent. **A wineglassful of the Kepler Essence of Malt contains more elements of nutrition than a pint of the finest alimental stout.**

The flavour of the Essence of Malt is delicious. It is admirable as a table beverage when diluted with aerated water, and as an addition to milk for infant and invalid dieting; for it sweetens it and facilitates its prompt and perfect digestion. The Essence may be taken in coffee, gruel, aerated or plain water, wine, or mixed with any farinaceous pudding. As an addition to the food for young children its value cannot be over-estimated. It increases the value of all farinaceous food and prevents the starch in such food, and large clots of curd in milk diet, overtaxing the power of the digestive functions.

For Lactating Women the Essence of Malt (Kepler) contains many desirable properties; it quickly increases the flow and enriches the quality of the milk. It is serviceable as a laxative for young children, especially when constipation depends upon the defective digestion of starch. As a food beverage, it cannot fail to be productive of the highest benefit, either in **acute disease** or during **convalescence**; in fact, wherever there is defective nutrition, the Kepler Essence of Malt is useful as a nutritive food.

As a Linctus, the Essence of Malt food, swallowed slowly, in the troublesome, dry, laryngeal cough, and the hacking cough of puberty or consumption, is pleasantly grateful and soothing, aids digestion, and builds up the tissues.

The Kepler Essence of Malt is supplied to the profession in champagne pints at 1/2 each. Retail, 1/6 each.

MALTO RICINE (Kepler).

Castor Oil has long been considered a valuable laxative, especially for parturient women and children, and although much dreaded on account of its nauseating character, was nevertheless most effective in producing a comfortable relaxation of the bowels. Taking as our guide the Kepler Solution of Cod Liver Oil, wherein the oil is rendered palatable through being dissolved in Extract of Malt, we performed similar experiments with Castor Oil, and in the Malto Ricine the repugnant odour and flavour of the oil are thoroughly hidden; moreover, the aperient action is enhanced by the laxative effect of the Extract of Malt. It is palatable, and therefore readily taken by children or fastidious patients. The demulcent, mild, aperient, and soothing properties of the Malt Extract render it especially adapted for mixing with and masking the disagreeable properties of Castor Oil, thus rendering it agreeable to those unable to take the clear oil.

Malto Ricine is more reliable in effect, since the whole of the oil passes into the intestinal canal and readily excites peristalsis. It never excites nausea or vomiting.

Malto Ricine is supplied to the Medical Profession in ¾ lb. bottles at 1/8 each. Retail, 2/6.

BURROUGHS, WELLCOME, & CO., SNOW HILL BUILDINGS, LONDON, E.C.

Samples of these Preparations supplied to Medical Men free on request.

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DESIDERATA Maltine REALISED.

THAT Malt Extract is a food of great value, and that the action of diastase is of peculiar service in many lines of treatment, are facts well known by the Profession. What is naturally not so patent to the physician are the chemical problems involved in its manufacture, and the varying success with which these are solved in the different articles that compete for his favour.

It will be conceded that the first essential of malt extract is diastasic activity, and it is just here that they nearly all fail ignominiously.

Nor is this surprising. The retention of the ferment diastase during the process of manufacture is a most difficult and delicate operation, demanding the greatest care and elaborate appliances. The bulk of the extracts that flood the market appear to be recommended solely for their cheapness, and are practically innocent of any digestive ferment. Comprehensive analyses have demonstrated the fact that only two malt extracts had any decided action on starch, and "Maltine" contained about four times as much diastase as any other. These facts are explained by the ordinary method of preparation, in which the extracts are heated to the boiling point, with consequent coagulation and deposition of the diastase and albuminoids. Whether it is worth while prescribing malt extracts that are devoid of the principle for which malt extract is chiefly valued, is a *question* that does not require much discussion. For most medical men it is settled by taking advantage of the *proved* diastasic superiority of "Maltine," which is now usually specified in prescriptions. By means of the vacuum process, original with this Company, the extract is evaporated at a very low temperature, and thus the diastase of the malted grains is conserved and the maximum digestive activity attained.



Besides being a most powerful aid to the digestion of farinaceous foods, "Maltine" affords a store of digestible nutriment in a concentrated form. The process of manufacture provides for the retention of the albuminoids of the grains, which in the other extracts are destroyed by the excessive heat employed. Maltine further contains a considerable amount of the digested carbo-hydrates (dextrine and maltose), and is especially rich in the natural phosphates of the grains, vitalised, as they have been, by the process of germination.

We need but briefly outline the uses of this standard preparation. In infant dietetics it has achieved great success; the diastase takes the place of the *ptyalin* absent in young infants, and so effects the digestion of the food. Dr. Milner Fothergill expressed an opinion, to which many doctors will subscribe, in the remark that "if a certain portion of baked flour were added to plain milk, and some Maltine mixed with it before it is placed on the nursery table, we should hear much less of infantile indigestion and mal-nutrition."

The use of Maltine has been found very beneficial in the case of *Nursing* Mothers; it increases the supply and improves the quality of the milk; its laxative tendency is a feature of value, while its properties as a *Food* render it far superior in this connexion to ale and stout. In Rickets and Phthisis Maltine has been proved to be of great service, and generally it may be said that in convalescence and whenever the functions of nutrition are at a low ebb, the happiest results are noticed from the use of this digestive nutrient.

Maltine should be added to the various forms of farinaceous food, or if given after the meal should be taken immediately afterwards. Mixed with soda or lemonade it makes a palatable strengthening beverage.

Maltine is of a light amber colour, convenient consistence, and possesses a delicious flavour, and thus differs materially from the dense unpalatable extracts, to which so much repugnance is evinced by patients.

The word "MALTINE" is our registered Trade Mark. In prescribing Malt Extract, kindly specify—"THE MALTINE MANUFACTURING CO."

WE SHALL BE PLEASED TO SEND SPECIMENS FREE OF CHARGE TO MEDICAL MEN. SPECIAL TERMS TO THE PROFESSION AND HOSPITALS.

THE MALTINE MANUFACTURING COMPANY, Limited,
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ABSTRACT OF A

Lecture

ON

AURAL POLYPI.

Delivered at Charing Cross Hospital on Feb. 17th,

BY A. MARMADUKE SHEILD, M.B., F.R.C.S.

THE word "polypus" is of great antiquity in medicine; for this reason we still retain it. The name is by no means a good one, because the growths to which it is applied have usually a single stalk, are pedunculated, and quite devoid of "many feet" or protruding processes, like a fresh-water polyp. It may be generally stated that any growth of a canal, or cavity of the body, which becomes pedunculated, and attached to the surface from which it springs by a stalk, is called a polypus. Thus we have polypi of the nose, of the rectum, of the bladder, and of the uterus. This word, also, does not give us any idea of the exact structure of the growth, which, indeed, may be diverse in nature. These tumours, growing as they do without infiltration of the tissue from which they arise, are not malignant; but this rule is not devoid of serious exceptions, as we find if we study the literature of polypoid growths, in various situations. Much mystery has been attached to the consideration of polypi of the ear, as though they were of a quite exceptional nature. The pathology of them is a matter of no extraordinary difficulty, but the treatment is always complicated, and often not unattended with risk to life. I believe that the majority of aural polypi grow from within the tympanic cavity, and have their origin in the constant irritation of a focus of necrosis. The carious bone may be on the superficial aspect of the tympanic walls or it may be in the mastoid or other part of the temporal bone; the polypus then springing about the orifice of the sinus by which the disease communicates with the tympanic cavity. It must early be recognised that these growths have their origin in perforative otorrhœa, neglected and of long standing. They protrude through the aperture in the drum, and are moulded as they grow by the walls of the canal into into polypoid form. Aural polypus would not be so common a disease if the treatment of otorrhœa was commenced early and persistently and carefully carried out. Polypi also originate from the walls of the auditory canal; here they may be caused by a "spot" of caries. They may originate round the orifice of a sinus, or they may have their starting point in the constant irritation produced by the flow of foul and irritating pus. I have examined with the microscope a large number of aural polypi. They are composed of simple granulation tissue covered with epithelium, and there is no essential difference between the structure of a soft, florid, aural polypus and the fungous granulations that are seen about a sinus leading down to a diseased femur or a necrosed jaw. Its form is merely determined by the confined conditions in which it grows. The more rapidly the polypus increases, the more it is encouraged by the injudicious warmth and moisture of poultices and fomentations, the softer it will become. Its structure will then be almost myxomatous. Aural polypi which have grown slowly and lasted long will be fibrous in consistence, and covered on the surface by well defined flattened epithelium. Different names are given to varieties of aural polypi derived from their consistence and colour. Such are the "raspberry polypus," soft and friable, the "œdematous polypus," the "gelatinous polypus," and others. For purposes of practice, however, it is far better to look upon these growths as representing embryonic tissue in different stages of development.

In rare cases polypi are extremely vascular, large quantities of blood flowing from the ear when they are in any way interfered with; to this variety the name of "angiomatous polypus" is applied. True sarcomatous polypus is exceedingly rare. It is difficult, if not impossible, for the most experienced histologist and pathologist to certainly distinguish by the microscope between embryonic granulation tissue and rapidly growing sarcoma. The structure of both may be identical. Accordingly, when these growths were removed, and recurrence took place, it was frequently assumed that this recurrence was due to some inherent malignant qualities in the growth itself; the fact that recurrence of the growth was dependent upon the persistence of the local conditions that originated it was lost sight of. In a recent issue of the "Archives of Otology" I have related a case of this nature which is of very great importance. The polypus in this case was microscopically pronounced to be sarcoma by one of the best pathologists in this country; but the results of operation make me tolerably certain that it is not so, but that the growth was luxuriant granulation tissue dependent upon a fistulous sinus, from the mastoid to the bony canal, near the drum.[1]

In the treatment of aural polypus these growths must be looked upon as symptoms of a local disease, which needs much care and attention after removal of them. If a polypus be removed, and nothing further be done, the patient will undoubtedly obtain great temporary relief, but he will as undoubtedly again present himself for treatment suffering from another growth. Thus it is not infrequent for patients to tell us that they have had a polypus removed two, three, or even more times. Before, therefore, undertaking the treatment of one of these cases, it is well to impress upon the patient the great importance of a long continuance of after-treatment. Five or six weeks of attention after the operation are frequently needful, and intermittent inspection and treatment for several months after this; while the patient must, as long as he lives, studiously carry out those local and hygienic measures so important in perforative otorrhœa. True malignant disease attacking the temporal bone in the form of epithelioma or sarcoma is characterised by progressive and inveterate increase, severe lancinating pains shooting along the course of the branches of the fifth nerve, watery and bloody discharge, and rapid emaciation and cachexia from pain and exhaustion. We can hardly compare such a case with aural polypus. The diagnosis of polypus is always easy when the growth is large; a small deeply seated polypus may be readily overlooked. Such a growth will perpetuate otorrhœa indefinitely. Hence it is very important to carefully cleanse the ear by syringe and wool before inspecting it. Polypi have also been mistaken for exostoses. The latter class of growths are slow in progress and pale in colour, besides being definitely dense and osseous to the probe. In secondary syphilis condylomata have been known to occur in the auditory canal. This is rare, and we should be guided by the other signs of early syphilis, which would be probably strongly marked in such a case.

Before discussing the active treatment of aural polypi, it is necessary to say that these cases are not devoid of risk. The parts implicated have been long bathed in virulent septic fluids, and general pyæmic infection may follow the opening up of small venous trunks. Again, the operation may precipitate such serious cerebral lesions as meningitis or thrombosis of the lateral sinus. This is especially apt to occur when the case is neglected after operation, exposed to the bitter cold of an east wind, or allowed to become offensive and suppurate owing to want of cleanliness. For this reason one never undertakes these cases in out-patient practice without the apprehension of some mishap. Yet another caution. Persons suffering from polypus of the ear often delay operation until they or their relatives are alarmed by severe and dangerous symptoms. Thus a patient may apply for relief when he is already suffering from lateral sinus thrombosis, incipient meningitis, or even cerebral abscess. Here the polypus is but a small matter compared with the grave conditions alluded to. If we remove a growth from the ear without recognising such other serious conditions, we shall be unprepared for the probable fatal issue, for which the friends will blame us and the operation. Symptoms of urgency in cases of aural polypus are attacks of pain, vertigo, and sickness, and there is nothing more difficult to determine in practice whether such symptoms are due to mechanical pressure of the polypus and retention of discharge or are significant of some more serious condition.

It is always advisable, if possible, to well purify the ear before operating. This I usually carry out by syringing with warm carbolised or boracic lotions, and soaking the growth in warm alcoholic solutions of boracic acid. In addition to lessening the risk of septic infection these measures cause some shrinkage of the growth and diminu-

[1] Sarcoma is not frequently associated with necrosis and suppuration, but usually grows from a "healthy" bone. The excessive fungous granulation tissue originating in necrosis has often been mistaken for malignant disease. This is especially the case in the upper jaw.

tion of hæmorrhage. The best position for operating is the recumbent one, with the head high. The parts should be well illuminated by the electric light or the forehead mirror, with a strong lamp or good daylight.

As regards operative treatment, aural polypi may be advantageously considered under the following headings:—(1) The pedunculated polypus; (2) the flat, sessile polypus, and polypoid granulations. The pedunculated polypus may project beyond the meatus, or may be very small, not larger than a No. 1 shot. The larger the growth, the more easily it is detached. There is nothing more difficult than the removal of a small, deeply seated aural polypus. I prefer the snare for all pedunculated polypi of any size. Special features of this particular instrument are the fine wire and exceedingly slender barrel. (See Fig. 1.) By means of the special rack-and-pinion arrangement in the handle, the growth is securely held as the wire is tightened. This instrument is invaluable, I think, for small, deeply seated pedunculated growths. It is essential that the wire loop be well pushed down towards the stalk of the polypus, and then the latter readily comes away on traction. Smart hæmorrhage, checked by warm syringing, ensues. There are various patterns of forceps, including the time-honoured "lever-ring" forceps of Toynbee. I especially invite attention to this fine and slender modified ring forceps, which has the serrated teeth of an artery forceps in the ring, and a clamp catch in the handle. Any

FIG. 1.

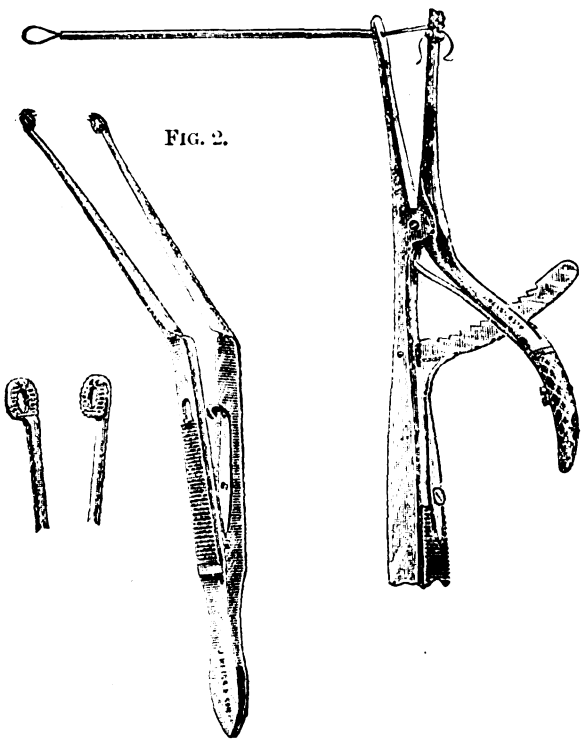


FIG. 2.

small polypus can be deliberately picked away with this instrument. The clamp catch prevents the possibility of slipping, and this forceps is one of the most useful I have ever employed for deeply seated growths. (See Fig. 2.) Some surgeons prefer to twist off pedundulated polypi with the forceps; others use the method of rotation, the growth being several times twisted on its own axis; the nutrient vessels of it are thus strangulated, and sloughing and extrusion ensue. This method is only applicable to polypi with defined and slender stalks. The treatment of sessile growths and polypoid granulations is more unsatisfactory. They are difficult to grasp. No snare will encircle them. They may be attacked after the following methods. First, they may be lacerated and broken up, portions of them torn away, and then some powerful caustic, preferably pure chromic acid, applied to them. They may be destroyed [illegible] cautiously employed, or extir- [illegible]ing knife. [illegible] is what [illegible]mirable results with a minimum of risk. The application of such materials as chromic acid, potassa fusa, or perchloride of iron may give rise to very acute pain, and in the young or nervous this proceeding is best done under anæsthetics. When growths originate from the walls of the canal external to the drum their site may be attacked with confidence and vigour. Many of them will be found to originate round the orifice of a sinus, leading backwards towards the mastoid. Some will be dependent on superficial caries or necrosis easily reached. I know of no better or more radical means of dealing with these growths than by the sharp curved curette, combined with the application of the galvano-cautery or chromic acid. The operation is tedious owing to the free oozing. Frequent hot syringing and cotton-wool pressure are requisite at intervals, and the operation should never be proceeded with when the parts are obscured by bleeding. It here becomes requisite for me to speak of the operation of curetting out the tympanum in the cases of intra-tympanic granulations or polypoid growths. This operation is growing in favour, but it should be undertaken, in my judgment, with exceeding care and discrimination. The surgeon has to remember that he is dealing with a cavity whose near surrounding anatomical relations are vital. And how can anyone be certain of the exact pathological condition he is about to attempt to relieve? Is the carious bone in the roof of the tympanic cavity or on its inner wall? Supposing that by the delicate use of a probe we ascertain its site, should we briskly use sharp instruments to remove it in the immediate vicinity of the meninges, the jugular vein, or the trunk of the facial nerve?[2] Do we not know that the bony partitions which separate them from the tympanum are often incomplete? How frequently do the mastoid cells participate in these cases, and should not surgical treatment be rather drawn to them than the tympanic cavity? These are some of the objections that come before my mind at this moment to these operations. Increased knowledge may bring increased confidence, but at present I would confine myself, so far as intra-tympanic operations for necrosis are concerned, to the removal of sequestra that are loose and easily to be extracted. Thus, we may cautiously remove the ossicles if loose and carious, and any loose fragment of bone which may show itself in the tympanum. In this way considerable portions of the petrous bone have separated and have been removed without mishap.

After removal of a polypus from the ear the patient must be clearly warned of the great liability to recurrence, and he should present himself at intervals for many months for careful inspection. For some weeks after the operation the site of the growth should be persistently treated with caustics so long as any evidence of living tissue remains in the stump. How and when this is to be done is a matter to decide for each individual case, but it is better to proceed cautiously, rather doing too little than too much, and to apply powerful remedies only to the stump or site of the growth under a good light. When aural polypi are treated in this way the results leave nothing to be desired, and the cases are among the most satisfactory in surgery. Want of care, and especially of patience, in the after treatment will certainly lead to disappointing results. The question of opening the mastoid cells will often arise in these cases, with a view to effect free drainage. If there are fistulous openings about the mastoid, it is well to enlarge these cautiously with a rose-headed drill, and with blunt scoops evacuate any "cheesy" débris. If there are definite signs of mastoid suppuration, especially intense pain and localised tenderness, this operation should not be delayed as a general rule.

I trust that sufficient has been said to show the lines of treatment to be adopted in these cases. I may, however, in conclusion, summarise my remarks by saying that aural polypi are usually the consequences of neglected otorrhœa, and should seldom occur were such cases properly treated. They are sources of great misery and discomfort, and sometimes of danger. They should usually be removed as soon as detected. The cases are never devoid of some risk. No one should undertake them unless he is confidently able not only to remove the growth, but also to carry out the after treatment so essential in these diseases, and to meet any untoward complications which may unhappily occur [illegible] the case.

[2] Mr. [illegible] tions of [illegible] partitions [illegible] so far as the bo[illegible]

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CLINICAL OBSERVATIONS ON EXALGINE.

By JOHN GORDON, M.D.,

ASSISTANT TO PROFESSOR OF MATERIA MEDICA, UNIVERSITY OF ABERDEEN; PHYSICIAN TO THE ABERDEEN GENERAL DISPENSARY; JUNIOR SURGEON TO THE SICK CHILDREN'S HOSPITAL, ABERDEEN.

EXALGINE, which was first obtained from benzene by Brigonnet, and formed the subject of a communication to the French Academy of Sciences by Drs. Dujardin-Beaumetz and Bardet in 1889, is methyl acetanilide. Its formula is $C_9H_{11}NO$. It is one of a series of methyl derivatives from acetanilide (antifebrin). It is prepared by warming together monomethyl aniline and acetyl chloride. The reaction once set in motion takes place with rapidity. The methyl acetanilide is obtained from the mass by dissolving it in boiling water and crystallising out. Exalgine exists in acicular crystals, only soluble with difficulty in water, but readily soluble in dilute or concentrated alcohol. Its taste is slightly bitter, leaving a sensation of numbness on the tongue. The following is a useful formula to prescribe it:—Exalgine, forty-eight grains; compound tincture of cardamoms, one ounce and a half; syrup of orange, one ounce; water to six ounces. A tablespoonful for a dose. For exalgine it was claimed that it was akin in its pain-relieving properties to antipyrin and antifebrin, but that its analgesic action was secured by a much smaller dose and without the marked antipyretic and diaphoretic effects of these drugs.

The diaphoretic action of these substances, especially that of antifebrin, was complained of by some patients. It was also maintained that, although the local pain was abolished in a short time after the exhibition of exalgine, tactile sensation was not interfered with; that, in fact, no visible change took place in the outward condition of the patient. It had thus a distinct advantage over many other anodynes, in so far that the patient need not be hindered from his ordinary duties while under the influence of the drug. Its action, since it does not diminish general sensibility, is supposed to take place in those parts of the sensory nervous system which have for their function the perception and conduction of painful impressions. In some cases it has been recorded that disagreeable symptoms were noticed following doses of three grains, or after doses of six grains and upwards. In these cases there appeared evidence of cerebral disturbance, such as a feeling of intoxication, dizziness, buzzing in the ears, also of nausea, vomiting, and headache. In the numerous cases on which this contribution is based nausea, with an inclination to vomit a short time after the dose had been taken, was met with only twice. One of these patients was taking thirty-six grains in twenty-four hours; the other had twenty-four grains in a like period. None of the other unpleasant symptoms which have been noticed were complained of by those who took the drug. The class of patients to whom, for the most part, exalgine was given were those suffering from pain of the neuralgic type. The results obtained from this class of cases were distinctly satisfactory. All the patients to whom the drug was given were not cured; nor was the relief from the painful impression always permanent. But a large number showed a marked alleviation of pain in from half an hour to an hour or two hours after the exhibition of the drug, and frequently a permanent relief was obtained. In cases of nervous headache, especially in females, the action of exalgine in removing the pain was as distinct as it was speedy. The analgesic action was more quickly obtained if the patient assisted the drug by rest in bed. But this condition was by no means imperative. Sick headaches were also controlled by its use. In cases of toothache, sciatica, lumbago, intercostal neuralgia, locomotor ataxy, and otitis media, its exhibition was followed by good results. It was employed in doses that varied from one grain to ten grains, as many as thirty-six grains having been given in twenty-four hours. The results from a number of the cases showed that the smaller doses—such as half, one, or two grains—have not markedly analgesic effects, but that when the doses were increased to four grains a distinctly more potent influence was manifested. Other cases, in which the pain yielded slowly to doses of four grains, were speedily cured by eight grains. The dose which has been most frequently given was four grains, repeated every four hours till the analgesic action was evident. It is stated that the toxic dose of exalgine is three grains for every two pounds of body weight.

Professor Fraser of Edinburgh, in his valuable and interesting clinical lecture,[1] shows that he obtained marked analgesic action by doses of half a grain or a grain. But the larger doses of from four to six grains, as recommended by French observers, have given more satisfactory results to this writer; and it is interesting to notice in the recorded cases the relation between the dose and the time in which the pain was relieved. Types of the various cases, with the observations recorded, are herewith detailed. Examples from those suffering from facial neuralgia may first be given.

Facial neuralgia.—M. C——, aged fifty-eight, suffered from neuralgia of the upper division of the fifth nerve for a few days, severe in character.—Oct. 2nd, 1891: At 6 P.M. four grains of exalgine were administered. At 8 P.M. the patient stated that the pain was very much better, but still bad.—3rd, 10 A.M.: Pain very severe. Eight grains of exalgine given. 11 A.M: Pain gone.—Nov. 8th: Neuralgia of a like nature again complained of. 6 P.M: Eight grains of exalgine ordered. 8 P.M: Pain wholly removed. Had no return of neuralgia till Jan. 4th, 1892. 6 P.M: Eight grains of exalgine given. 8 P.M.: Quite free from pain; the pain, she states, began to subside about half an hour after the dose was taken.

N. A——, aged fifty; neuralgia of first and second division of fifth nerve. Tenderness on pressure on nasal branch; had continued for six days.—Jan. 15th, 1892, 6 P.M.: Four grains of exalgine given; patient felt too ill to leave her bed that day. Half an hour after taking the drug she began to perspire gently. Slept lightly. 10 P.M.: Pain and tenderness considerably relieved. Four grains again given. Perspired freely about half an hour after taking the powder; slept most of the night.—16th: Slight headache in the morning; tenderness gone. 10 A.M.: Another four grains of exalgine were administered. 1 P.M.: Pain quite removed; able to begin duty at 3 P.M.

Toothache.—The following case of toothache, which was accompanied by tenderness in the inferior dental nerve, is interesting as showing the influence of exalgine in controlling cases of pain where there is inflammatory action:—J. A. F——, aged thirty. Toothache and frontal headache.—Jan. 3rd, 1892: At 8 P.M. he took four grains of exalgine. 9 P.M.: Pain gone.—4th: Pain returned in the afternoon. 6 P.M.: Four grains of exalgine given. 7 P.M.: Pain relieved.—5th: Pain recurred, similar in character. 6 P.M.: Four grains of exalgine given. 8 P.M.: Pain had gradually abated till that time, when it quite ceased.—6th: Pain had again returned. 7 P.M.: Four grains of exalgine given. 8 P.M.: Pain ceased.—7th: Pain again present. 6 P.M.: Four grains of exalgine given. 7 P.M.: Pain once again removed. In this case the evidence of the analgesic action of the drug was constant and marked. As a rule, this patient was free from the pain till the afternoon of the day following the administration of the exalgine.

Headaches.—J. M——, aged thirty four, complained of frontal headache. Tendency to vomit. Temperature 98·6°. Bowels regular. Headaches have for years been frequent.—Oct. 18th, 1891, 1 P.M.: Ordered four grains of exalgine. 2 P.M.: Headache considerably relieved; nausea gone. 3 P.M.: Four grains of exalgine given. 3 30 P.M.: Pain and nausea quite better.—26th: Headache of a similar character to that noted on Oct. 18th. 10 A.M.: Eight grains of exalgine ordered. 10.30 A.M.: Pain very much better. 10.30 A.M.: Four grains of exalgine ordered. 11 A.M.: Pain quite relieved; nausea also.—Nov. 5th: Headache, supposed to have been induced by excitement. 8 P.M.: Eight grains of exalgine taken. 8.30 P.M.: Headache quite better.—Nov. 7th: Headache. 7 P.M: Eight grains of exalgine given. 7.30 P.M.: Pain quite relieved. This patient stated that the larger doses (eight grains) were far more satisfactory in easing the pain, as the action began within ten minutes after the dose; that no disturbance of any kind took place while the drug was taken; and that since November the headaches have been far less frequent than they were for some time past.

R. N——, aged thirty-five, recently suffered from biliary calculi. Slightly jaundiced. Severe frontal headache of four days' duration.—Jan. 8th, 10 A.M.: Two grains of exalgine were prescribed. 2 P.M.: Headache

[1] Brit. Med. Jour., Feb. 15th, 1890.

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slightly better. 6 P.M.: Another two grains of the drug were taken. 7 P.M: Headache relieved.—10th: Complains of headache. 2 P.M.: Two grains of exalgine ordered. 6 P.M: Pain considerably relieved. Two grains of exalgine given. 8 P.M. Headache quite better.—14th: Headache. 9 A.M.: Two grains of the drug given. 3 P.M.: Headache relieved.—16th: Headache. 6 P.M.: Four grains of exalgine ordered. 7 P.M.: Headache quite gone.—18th: Complains of severe pain in the region of the liver, stomach, and in the umbilical region, with slight tenderness on pressure; nausea; no vomiting. Temperature 98·6°. 10.30 A.M.: Four grains of exalgine taken. 12 A.M.: No relief from abdominal pain. 12 A.M.: Four grains of exalgine given. No ease to the pain followed the second dose. Two grains of opium, along with mustard leaves and poultices, were ordered, and the condition improved, till at 8 o'clock P.M. the pain was quite gone.—20th: Severe frontal headache, with orbital pain. 5 P.M: Four grains of exalgine given. 6 P.M.: Pain considerably relieved; four grains of exalgine taken. 7 P.M.: Pain entirely gone.—25th: Headache. 4 P.M: Four grains of exalgine administered. 5.30 P.M.: Headache quite relieved.

Lumbago.—J. T——, aged forty-nine, had suffered from lumbago for a week. Pain also from knee to ankle.—Feb. 25th: Ordered exalgine in three-grain doses, to be taken every three hours.—27th: States that he is a little better. Ordered exalgine in six-grain doses every four hours. 2 P.M.: Took first dose. About 3.30 had considerable relief from the pain in the back and leg. 6 P.M.: Six grains of exalgine prescribed. Still more relief followed this dose. 10 P.M.: Six grains of the drug ordered.—28th: In the morning of this date the pain in the back was quite abolished.—March 2nd: Has not recurred. This patient stated that after the second dose of six grains he felt slightly giddy, and had an inclination to vomit. These feelings passed away in about half an hour, and did not recur when the third six-grain dose was taken.

Intercostal neuralgia.—A. R——, aged eighty, had acute pain for a week in the right shoulder and along the right side of the chest, greatly aggravated by coughing. Has slight bronchial catarrh.—Feb. 24th, 6.30 P.M.: Ordered four grains of exalgine; half an hour after he felt a "genial glow of warmth" all over the body. 8 P.M: Pain easier. 10 P.M.: Four grains of exalgine given.—25th, 1 A.M.: He stated that he was greatly relieved, and felt quite comfortable. 10 A.M.: Four grains of the drug given; slept most of the forenoon. 1 P.M.: He stated that he was almost quite free from pain, even when he coughed. 6.30 P.M.: Four grains of exalgine given.—26th: Free from pain and able to move his right arm freely, which he could not do for a week previously.

J. J——, aged seventy, complained of pulmonary catarrh and severe pain on the right side of the thorax. Was first treated by three grains of sulphate of quinine and ten grains of antipyrin every six hours. This treatment was continued for three days. The patient stated that he experienced no relief.—Feb. 26th: Ordered exalgine in four-grain doses every four hours. After the first three doses the pain subsided and did not return. On the 28th he was able to return to his duties.

Otitis media.—J. M——, aged twenty-five, complained of pain in the left temporal region. He had otorrhœa, with ear-ache and buzzing. The pain had lasted for six days, being intermittent for half an hour or so during the day and constant at night, hindering sleep. Temperature normal; bowels regular; pulse 80 per minute.—Nov. 6th: Twelve grains of antipyrin were ordered every four hours. The buzzing in the ear ceased. No effect on the pain was produced.—9th: Ordered four grains of the drug every five hours. At 9 P.M. the first dose was taken. If any effect took place, it appeared to be an increase of the pain.—10th, 2 A.M.: Four grains of exalgine given. Two hours afterwards the pain was considerably lessened. The patient slept from 5 A.M. to 7 A.M., when he was awakened by the pain. From 7.30 A.M. to 9 A.M. the pain was as severe as ever. 9 A.M.: Four grains of exalgine were given. No great relief was experienced. 1 P.M: Another four grains of exalgine were ordered. About 2 P.M. the pain was very much less, especially if the patient kept quiet in bed. Movement renewed it, but it was not so severe. 6 P.M.: Four grains of exalgine were administered. Shortly after this fifth four-grain dose there was distinct relief to the whole pained part. 12 P.M.: Four grains of exalgine given. When this dose was taken there was very slight pain. He fell asleep shortly after taking the drug, and slept till 6 A.M. He awoke without pain, and stated that it was the only sleep he had obtained for a week.—11th, 7 A.M.: Four grains of exalgine taken; no recurrence of the pain. 12 A.M.: Four grains of exalgine taken; still free from pain. When seen a few days later the pain had not recurred.

Sciatica.—The drug was tried in three cases. In one case the result was satisfactory; the pain was relieved after two days' treatment, four grains being given every four hours. The second case yielded unreliable results; the patient's statements could hardly be credited. The third patient did not experience any relief from the drug.

Tubercular disease of the prostate.—This patient suffered very severe pain. Exalgine failed to be of any service.

Locomotor ataxy.—This patient complained greatly of lightning pains, as well as of what he defined as "gnawing pains" in his thighs and legs. He was treated with four-grain doses of exalgine. He thus wrote regarding its action:—"I have invariably allowed several hours to pass before having recourse to the exalgine, by which time I was, in every instance, in a high state of fever, skin hot and dry, while suffering at the same time from an oppressive sense of suffocation and from heart palpitation. On the first occasion of my taking the exalgine powders I used six of them before I had full relief from the pain. In each of the subsequent attacks I never used more than three, one every three hours. Results shortly after taking the first powder: My temperature was lowered to normal, a gentle refreshing perspiration took place, the sensation of suffocation entirely left me, and in from five to eight hours I was entirely relieved of pain." This patient has frequently used exalgine as above, and like results have always followed.

Rheumatoid arthritis.—A. T——, aged thirty-four. In addition to the pain of the joints, this patient had suffered lumbar pain. The pain had continued for ten days. He was unable to get out of bed or dress himself without assistance, and when he tried to go upstairs had to be helped. He obstinately refused to stay in bed.—March 3rd, 1892: Six-grain doses of exalgine were ordered. 6.30 P.M.: Six grains of exalgine given. 8.30 P.M.: Considerable diminution of the pain. 10 P.M.: Six grains of exalgine ordered. Pain still more diminished.—4th, 2 A.M.: Six grains of exalgine taken. Pain still less. 6 A.M.: Pain less. 8.30 A.M: "I had little pain, dressed without help, and felt ever so much better—indeed almost well." He added: "I noticed that, although the joints were nearly as much swollen as before, the pains had entirely gone." The exalgine was continued for two days longer, and on March 12th he had had no recurrence of acute pain. Another case of long-standing character gave only indefinite results. The patient stated that she was "somewhat better, but no very marked improvement."

Following the admirable plan of Professor Frazer, a table is drawn out in which the results of the various observations are summarised:—

Disease.	No. of observations.	Successful cases.	Unsuccessful or doubtful cases.
Toothache	7	3	—
Headaches	35	28	—
Neuralgia (facial)	20	12	3
Sciatica	3	1	2
Lumbago	7	5	2
Intercostal neuralgia	3	3	—
Locomotor ataxy	8	1	—
Biliary calculi	2	—	2
Rheumatoid arthritis	2	1	1
Otitis media	1	1	—
Tubercular disease of prostate	4	—	1
Totals	92	55	11

In all, records of ninety-two observations were kept, and sixty-six patients were treated with the drug. In fifty-five cases the action of exalgine was successful in relieving the pain, while eleven cases yielded results that were unsuccessful or doubtful. The benefit of exalgine was most marked in cases of nervous headache, facial neuralgia, intercostal neuralgia, and lumbago. Although the pain-subduing action of the drug may be feeble, it has given in certain cases excellent results. Further observations will

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at last fix its full value as an analgesic, and possibly justify the hope that it may take a valuable, if restricted, place in the group of those bodies which relieve suffering.

Aberdeen.

THE USE OF EXALGINE IN GRAVES' DISEASE, AND THE POISONOUS DOSE OF EXALGINE.

By T. CHURTON, M.D.,
PHYSICIAN TO THE LEEDS GENERAL INFIRMARY.

THE poisonous dose of exalgine seems to vary greatly for different persons. A woman aged twenty-eight, of fair complexion, having typical Graves' disease, had, after some months, extreme exophthalmos and congestion of both conjunctivæ, with ulceration of the left cornea. Leeches, lotions, &c., gave very little relief. At length, the pain becoming severe, exalgine was tried, half a grain dissolved in five minims of spirit of wine, and a tablespoonful of water, every half hour for three times when pain was present. Next day not only was the patient free from pain, but the congestion had entirely disappeared; the eyes had changed from flaming red to perfectly white. During the next month, to satisfy myself and several critical observers as to the influence of exalgine, experiments were made; all the other drugs and appliances were tested in turn. The result was always the same: when exalgine was given, the eyes were white; when it was omitted, they became red and painful within a day, no matter what other drugs were given or lotions applied. As upon trial being made it seemed that the good effect was less marked when the whole dose of a grain and a half was given at one moment than when it was given in divided doses—half a grain every quarter of an hour for three times,—it was ordered to be taken regularly in this manner every four hours from a bottle kept for the occasional use of other persons as well as of herself. By a mistake of the transcriber of an old and damaged label, "gr. i. in ℥i." became "gr. i. in ℥i." This prescription being dispensed, the mixture contained eighty grains in ten ounces—of this there is no doubt; inquiries and testing by comparative evaporations established the fact. On a Thursday at 4.30 P.M. the patient had her ordinary dose of half a grain; a second dose at 4.45; at 5 the new mixture was begun. She merely remarked that this dose felt hot, but complained no further. This 4-grain dose was repeated at the following times: Thursday, 10 P.M., 10.15 P.M., and 10.30 P.M., or twelve grains in all within half an hour. Friday at 3 A.M. and 3.15 A.M. (she begged to be excused the third dose on account of pain and burning in the stomach); 7 A.M., 7.15 A.M., and the third dose after breakfast at 8.15 A.M.; at 1 P.M. one dose only; she declined the others on account of gastric pain; no other bad effect from forty grains of the drug given in twenty hours was observed. At 10 A.M. on Friday the complaint of pain led to the pulse being again counted, and it was found to be 144; it had never previously exceeded 136; its usual rate was between 100 and 120. Respiration rate 32 (above average). Temperature unaltered—98° to 99°. I saw the patient at 5 P.M. on this day (Friday), and suspected nothing until she complained of the pungent taste of the medicine and of the pain which it gave her. On the following day she felt much better in every way; the eyes were much less prominent, and the corneæ could now be covered by the eyelids. Pulse 120; respiration 26; morning temperature 98·4°; evening 99°.

Another woman having toothache, but otherwise healthy, had taken on Thursday, at 5.15 P.M., an ounce of the mixture—that is, eight grains of exalgine; at 5.30 a second ounce, and at 5.45 a third, or twenty-four grains in half an hour. This woman is about twenty-eight years of age, 5 ft. 5 in. in height, 9 st. in weight, has very fair hair and complexion, is very intelligent, of quiet, pleasant disposition, has a large head with relatively rather small face, and grey eyes. She states that after the second dose she felt dazed, but even after the third she was able to go out to call upon a friend half a mile away, though walking unsteadily and with difficulty, and fearing to speak lest she should say foolish things. On her return in an hour she felt giddy and stupid, but could do her work. On going to bed at 10 o'clock she instantly fell asleep; awoke at 7 A.M. on Friday with dry mouth and frontal headache; no toothache; was better after breakfast, but the mouth still felt dry on Saturday evening.

Of the quality of the exalgine used there is no doubt. It has been found effective in cases of neuralgia, headache of (probably) cerebellar glioma, "lightning" pains of tabes (two cases), gouty arthritis, &c. The patient with Graves' disease resumed the use of the drug after a week's interval, and for three days she had three grains every four hours; then, for a week, four grains and a half every four hours. After an interval of four days she took three grains in one dose every four hours for ten days; afterwards, as she could not be kept longer under daily observation, the quantity was reduced to three grains three times a day. The corneal ulcer healed, and the pain and congestion were held in check by these doses, which were given in the hope of hastening the improvement of the original disease; they effected little if anything apparently in this way, but no discomfort of any kind was caused by them. Exalgine does not seem to be in any sense a "cumulative" drug. I have, however, heard of a case in which very alarming symptoms were produced by a single dose of five grains.

Leeds.

HERNIA INTO THE FORAMEN OF WINSLOW; LAPAROTOMY; RECOVERY.

By ARTHUR NEVE, F.R.C.S. EDIN.,
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THERE are few rarer surgical maladies than hernia into the foramen of Winslow, and the few recorded cases have been verified by post-mortem examinations. This case, therefore, in its fortunate result is unique. The patient came under our observation on the seventh day of the obstruction, was watched closely for twenty days, during which intussusception was considered the most probable cause. On account of continued symptoms and progressive emaciation an operation was performed on Jan. 1st, at which a hernia into the foramen of Winslow was discovered, though reduction could not be effected. Forty-eight hours later a large enema was given for recurrent spasmodic pain, and from that time onwards all symptoms were relieved, and the tumour was found to have disappeared. Rapid and complete convalescence then set in. Such is the *résumé* of an interesting cases which is worth relating in further detail.

R——, aged seventeen years, a Mohammedan Kashmiri, came to the Mission Hospital on Dec. 10th, complaining of acute pain and absolute constipation of seven days' standing. It had begun with an attack of vomiting. Before that he was quite well, and had not suffered from constipation. The cause of the attack was unknown. From that day (Friday) he had taken no solid food. A native doctor had administered purgative medicines, but only blood had passed. He had vomited once or twice, and brought up water only. The pain came on in fearful spasms. His appearance bore out the history. His face was pinched and sallow; eyes anxious-looking; he walked stooping, with abdominal muscles contracted; temperature normal; the pulse was small and thready. On examining the abdomen, it was seen to be flaccid and somewhat retracted, except in the lower part of the epigastric region, especially to the right of the middle line, where there was a distinct prominence. This was found to be of an irregular oval shape, about five inches long; part felt solid, and part was tympanitic. Dulness extended into the right hypochondriac region. A large enema (four pints) was given, and the patient was suspended by the heels and well shaken. By careful percussion it then appeared that there was no obstruction below the transverse colon. About an ounce of shreddy fæces came away with the fluid. From the general shape and position of the tumour and the symptoms, the tentative diagnosis of intussusception was adopted, and operation was postponed. The swelling became less tense after the enema had been returned. It could not be moved downwards or laterally, but could be pushed a little upwards.

Daily large enemata were given, and morphia to relieve the pain. The patient's usual attitude was sitting crouched

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forwards, but on any sudden access of pain he would suddenly yell and fling himself down as if in a fit. He was kept on small quantities of soup and milk. Once or twice he vomited. On two or three occasions enemata brought away fæcal lumps, which showed that obstruction was not absolute, blood was also passed in small quantities. The region to the right of the umbilicus was occasionally very tympanitic; by pressure with the hand a loud gurgling could be produced in the tumour, and this also caused spasmodic pain. On Dec. 15th the tumour appeared to be higher up than formerly, and to occupy the whole epigastric region. An elongated irregular sausage-shaped portion could sometimes be distinctly defined. Emaciation was rapidly setting in. Pain was somewhat less frequent. Matters continued thus for nearly three weeks. Operation seemed to offer little prospect of permanent relief. We could not willingly condemn the patient to an artificial anus. But as the friends of the patient wished to remove him unless active treatment was undertaken, we resolved to operate.

On Jan. 1st, assisted by Dr. E. F. Neve, a three-inch incision was made in the right semilunar line above the umbilicus but below the tumour, and a small portion of omentum drawn on one side. The distended ascending colon bulged into the wound on the right. On the left from below upwards were coils of small intestine, an empty portion of transverse colon, and then the stomach, empty, pushed forwards by the tumour, and somewhat twisted on itself. Following up the distended colon, it was found to pass through a ring lying to the right of the middle line behind the stomach. This ring admitted two fingers; its front boundary was formed of a rounded, smooth, but hard cord, passing from behind the stomach up towards the liver. The flaccid portion of transverse colon coming from the left side could be traced to the same opening. In separating the coils about this some slight adhesions were separated and flakes of lymph seen, and the surface of the bowel was much injected. Inside the ring the finger could detect more coils of bowel. Traction on either portion of bowel (the flaccid or the distended) gave a cord-like feeling, as if there were adhesions beyond the ring and none could be withdrawn. It seemed impossible to do more. Taxis could not be satisfactorily applied, for the stomach was much bulged forwards and the epigastric space narrow; and as Treves drily remarks, "even modern abdominal surgery has not proved that the hepatic artery, the portal vein, and the bile duct can be divided simultaneously with impunity." The constricting ring could not be incised. Traction had failed. We could only hope that the handling would not lead to acute obstruction, and proceed to close the wound.

On the second night after the operation the patient had a prolonged spasmodic pain, for which a large enema was given, and relief obtained. Twenty-four hours later, for the first time he passed a motion spontaneously. It was somewhat thinner. Next day he was sitting up in bed. On the seventh day after the operation the wound was dressed and stitches removed; there was some suppuration in connexion with them. On the tenth another enema was given on account of some uneasiness. The wound having healed, the abdomen was carefully examined. No trace of a tumour could be found. The epigastric region was soft and free from tenderness. Daily motions, somewhat thin, were passed. On the thirteenth the patient began to take his ordinary rice and meat diet, and was rapidly fattening. He remained quite free from any abnormal symptoms, walked about, ate well, and was discharged cured on the twenty-sixth day after the operation.

Remarks.—It would have been much better to have operated as soon as the patient had been two or three days under observation. The alleviation of the symptoms was but deceptive. Considering the extreme rarity of the condition actually present, and the comparative frequency of intussusception, the doubt about diagnosis is not to be wondered at. The chief diagnostic points appear to be (1) the position of the tumour in the epigastric region, higher than the normal position of the colon; (2) changes in its size, consistence, &c., depending on the amount of flatus and passage of fæcal matter, &c.; (3) the colicky pains, due to the same causes. If the hernia were small, no tumour might be perceptible. Diagnosis would then be impossible. If, on the other hand, the hernia were strangulated, probably symptoms of general peritonitis would mask the local condition. It is in cases of chronic obstruction—such as that recorded by Majoli (quoted by Treves[1]), or the present case—that an accurate diagnosis might possibly be effected. The chief lesson is the great value of exploratory operations in cases of obstruction of the bowels. Although the *modus operandi* of the cure in this patient is not very clear, yet he undoubtedly owes his life to the operation performed.

Srinagar, Kashmir.

NOTE ON AFRICAN FEVER.

BY T. HEAZLE PARKE, HON. D.C.L., HON. F.R.C.S.I.

MY earlier experiences with the Emin Pasha Relief Expedition impressed me very strongly with the value of the prophylactic use of quinine in warding off the infection of African malaria. The advice of Mr. Stanley, based upon his unique experiences of the hygienic conditions of the "Dark Continent," was most useful to me, as indeed it was at all stages of our journey. For a period of about ten days before entering the mouth of the Congo, each of the white officers of the expedition took about four grains of quinine twice a day; and the results were as satisfactory as could well have been anticipated, for although this precautionary measure was relaxed on commencing the ascent of the great river, we had but a couple of cases of slight intermittent fever till we reached Stanley Pool. This was a distance of 350 miles through one of the most unhealthy regions of Africa, and occupied our time from March 18th till April 22nd, 1887. No other body of white men had previously traversed the same space with the same degree of immunity. The Belgian officers who were stationed at Stanley Pool expressed the greatest surprise at our hygienic good fortune. They had lost several of their original party from the deadly attacks of the native fever before they had succeeded in reaching their station. They congratulated us warmly on escape, and agreed with me that our success must have been due to the efficiency of the prophylactic precaution which had been taken. Perhaps the sharpest febrile attack experienced during this part of the journey was my own, which commenced on April 18th and lasted for a week. It followed a "ducking" which I received in crossing a tributary of the Congo. I had tried to escape a wetting by riding my donkey through the water, but the animal slipped accidentally and completely submerged me. This was but the first of a long series of experiences, in which I found that every wetting in equatorial Africa—whether that of an accidental bath, like the one just referred to, or received in quietly wading a stream or swamp, or exposure to a drenching tropical shower—meant a subsequent attack of intermittent fever. Another lesson soon learnt, and for which I was still less prepared, was the fact that our donkeys after each corresponding drenching developed febrile symptoms exactly corresponding to those of their human fellow-travellers. After wading or swimming a stream of considerable size each of our poor quadrupeds became sick and dispirited, with drooping ears and "staring" coat, rapid arterial pulsation, and high internal temperature. These phenomena recurred with monotonous regularity. The white officers of the expedition fared similarly. Each immersion was followed by fever; so was each exposure to a chilling breeze, during or soon after active perspiration. So was direct and prolonged exposure to a very hot sun if the head and spine were not sufficiently protected. All such pronounced oscillations of the external temperature were followed by the phenomena of suspension of the functions of the heat-regulating mechanism. A well-defined series of premonitory symptoms ushered in each attack, so that each of us soon learned by observation the indication of the "intermittent" which was commencing to affect his neighbour. These were not at all unlike the well-known phenomena of alcoholic intoxication. The individual became flushed and talkative, and impatient of contradiction; the eyes were prominent, staring, and glistening; the movement of the limbs was less restrained, so that the dress soon presented signs of more or less disarrangement, and the hair became dishevelled, and presented a "staring" appearance more or less comparable to that of sickening animals. The temperature was rapidly running up all this time, its ascent usually preceding, indeed, any observable symptoms of illness. With the eleva-

[1] THE LANCET, vol. ii. 1888, p. 701.

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tion of temperature the malaise increased, being usually, but not always, proportional to the degree of fever heat. The muscular pains, especially in the lumbar region, were often very severe. In the legs (calves) they often assumed an intolerable cramping character. The lumbar pains in bad cases came on with startling rapidity, the patient feeling pretty much as if he had been suddenly struck across the "small of the back" with a heavy stick. This phenomenon has often been observed in connexion with the onset of very malignant fevers—e.g., yellow fever and dengue. Pain in the temporal regions was also an early and often a very distressing symptom. It was also one of the most persistent, as it sometimes continued for even one or two days after the temperature had descended to the normal.

I should mention that at the very commencement of an attack, before the rise of internal temperature had come to affect appreciably the cutaneous surface, the face always presented a sallow appearance; this was soon replaced by the flushing already referred to. Very often there was no initial shivering (*cold stage*). Respiration quickened with the increased cardiac action; the latter was strong and thumping; often very violent. Gastro-intestinal derangement appeared simultaneously with the thermal and circulatory symptoms, and progressed with them. Constipation was always marked; flatulent distension of the abdomen always appeared, accompanied by borborygmi and eructations; vomiting appeared early, and the retching was often very persistent. When the latter movement succeeded in bringing up a large quantity of biliary matter (as it often did) in the early stage, great relief was always experienced. A whitish fur coated the tongue during the whole time of the febrile attack; when the pyrexia disappeared, this disappeared—very gradually, as a rule—from the tip and edges towards the base and septum. The defervescence was usually accompanied by profuse diaphoresis (*sweating stage*), but this, like the initial stage of shivering, was often absent. When absent it was, however, an almost infallible indication of a recurrence of the fever after a very variable period of apyrexia. When all these classic stages of ague were present, the first was always the shortest, and the second the longest. With the initial stage of the fever there was always a great determination of the blood to the abdominal viscera, even when no definite rigor was noticeable. Coincident with this was, of course, the enlargement of the spleen, which varied greatly in individual cases. There was also congestive enlargement of the liver, sometimes accompanied by great tenderness. The increased flow of blood to the kidneys, with consequent increase of tension, was evidenced by a greatly increased flow of urine, of diminished specific gravity. In the very severe cases the renal secretion towards the end of a paroxysm became deeply tinged with bile. The mental faculties were always decidedly stimulated in the early period of an attack. Ideas flowed freely and rapidly through the mind, and the affected person always became talkative and argumentative, some even aggressively so. Any perceptible deterioration of temper among the members of Mr. Stanley's staff made his companions at once suspect a commencing attack of African fever. This made the sympathetic or philosophical ones more lenient and forbearing than perhaps they otherwise would have been.

Another feature of our African fever for which my previous experience had not quite prepared me was that, excepting in the cases where the cramps were very severe, muscular activity was fairly well preserved, at least till recurring attacks had weakened the patient's whole system. There was not one of the officers of the Relief Expedition who did not over and over again go through a hard day's work, including laborious marching over very difficult ground and constant attention to a number of worrying duties, while his temperature was all the time above 105° or 106° F. And such exertion did not appear to have any subsequent effect on the convalescence—indeed, all our worst cases of fever occurred while we occupied standing camps and were not constantly on the move. As a rule, the prostrating effects of fever were very manifest in those cases only in which the subsidences of temperature did not reach the normal standard—where, in other words, the fever assumed the remittent type. In the worst instances even the remissions became comparatively indistinct: the temperature chart presented features approximating to that of continued fever. In such cases all the powers of the system became rapidly exhausted, the patient's frame would be found at the end of two or three days to have shrivelled, even to what looked like almost half its original bulk. All physical and mental energy was found to have disappeared. The spleen would be found enormously enlarged, the mechanical inconvenience of this condition manifesting itself in a very distressing feeling of tightness about the chest, which sometimes amounted to a positive sense of suffocation. There were often severe shooting pains felt along the course of the large nerves, especially of the lower extremity (the anterior crural and the great sciatic), and when the fever had subsided great soreness of the muscles was complained of. This gradually passed away, but muscular weakness was often very marked for a considerable number of days after a bad attack, the patient feeling incapable of any very active physical exertion and very shaky on his legs when he attempted to walk, or even stand. In many of the febrile attacks brought on by chills, wettings, &c., the pyrexia exhausted itself in a single paroxysm. The temperature was normal on the following morning, and remained so. I have already referred to the fact that the patient in very many instances *worked hard during the paroxysm;* and I had ample opportunities of observing what was at first an unexpected fact—that such exertion did not in the least prolong the paroxysm, or in the least degree retard the progress of the subsequent convalescence.

When we had escaped from the depths of the primeval forest of Central Africa and emerged on the open plains towards the Albert Nyanza Lake, I had fondly hoped that the free and fresh air which we were allowed to breathe under a clear and open sky would carry with it comparative immunity from the previously persistent fever. But in this expectation I was bitterly disappointed. Malarial symptoms were even more prevalent and more continuous on the shores of the great Albert Lake than they had been in the untrodden pathways of the forest. Even Emin Pasha himself, who had but a few times suffered from intermittent fever during his thirteen years' residence in equatorial Africa, and who had come to regard his own physique as "fever-proof," was over and over again attacked by the fever (and severely, too) during our prolonged sojourn on the lake shore.

At Nsabé (2400 feet above the sea) we then ascended to the summit of the surrounding range of hills and occupied a camp at "Kavallis" on the plateau about 2500 feet above the level of the lake, and the heavy work done by our carriers in conveying the baggage of the lazy Egyptians from the lake shore (where they were deposited by the steamers) up to our camp, toasted by the sweltering heat of the sun as they laboured in the ascent, and chilled by the lake breezes on their return, furnished me with a larger number of fever cases than I had previously had to deal with at any stage of our journey. As we descended from the Central African plateau, after passing the skirts of the Ruwenzori range, the number of fever cases rapidly increased. As we passed through Ankori, which abounds in precipitous hills and swampy ravines, not a single member of our caravan was there who did not suffer from the fever, most of them several times, a considerable proportion scores of times. Even the lazy members of our Egyptian contingent, whose chronically enlarged spleens were looked on by Emin Pasha as an index of immunity, suffered as regularly and as acutely as the original members of the expedition while we gradually descended from the Central African plateau on our way from the Albert Nyanza to the eastern coast. The Pasha, who has been long accustomed to look upon himself as "fever proof," was completely disillusionised during the journey. A considerable portion of this latter part of our African transit was through a very chilly country, whose valleys were richly furnished with swampy ravines, and as our stock of quinine was entirely inadequate to carry out the careful prophylactic measures which would have been desirable under the circumstances, the amount of fever which I was called upon to treat became most distressingly great. I must, however, add that all my experience goes to show that when African residents are in a position in which due hygienic precautions can be properly maintained, and the already well-known preventive measures fully carried out, the attacks of the otherwise formidable enemy can be well kept within control, and this fact was evident to each of the white officers of the expedition.

It is hardly necessary to refer to the fact that although a great deal of the most skilful research has been expended in the investigation of the morbid anatomy of intermittent

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fevers, and very much light has been thrown on the changes presented by the tissues and fluids of the organism during the various stages of their development and progress, we are still far from having arrived at any degree of certainty regarding the connexion between the micro-organisms which have been discovered in the circulation and the pathogenesis of disease whose phenomena appear to be accompanied by their presence. Why it is that a couple of hours' unshaded exposure to a vertical sun, a single hour's chill, the swimming of a river, the wading of a swamp, and the quiet inhalation of the vapours arising from a quantity of the rank and moist decomposing vegetable products of the soil, were all rapidly followed by similar trains of symptoms in ourselves and our quadrupeds, is a question which has not, I think, been definitely solved by the results of bacteriological investigation up to the present date.

ANÆSTHETICS A NECESSARY PART OF THE CURRICULUM.

A PLEA FOR MORE SYSTEMATIC TEACHING.[1]

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As a general rule the discussions which follow the reading of papers on Anæsthetics resolve themselves into personal expressions of opinion on the part of the individual speakers as to which drug is universally applicable in all cases and under all conditions, or, as it is usually put, "which is the best anæsthetic"; and it almost seems to be lost sight of that there are many other problems connected with the subject which are well worthy of attention. As I am not by any means convinced of the advantage of constantly discussing a subject from the same point of view, it occurred to me that it might possibly be of interest if I entered upon an aspect of the question in which I have myself always been greatly interested, and which has been occupying my mind more particularly during the last few months in connexion with certain alterations now pending at Guy's Hospital. I allude to what I would term the "Systematic Teaching of Anæsthetics." I propose, then, to discuss very briefly—(*A*) the nature and character of the instruction in anæsthetics at present offered to the student; (*B*) some reasons for thinking that this instruction should be improved upon; (*C*) a brief indication of the direction in which it is both possible and desirable to make this improvement.

A. THE NATURE AND CHARACTER OF THE INSTRUCTION IN ANÆSTHETICS AT PRESENT OFFERED TO THE STUDENT.

It may, I think, be assumed at the outset that at every medical school in the United Kingdom where lectures on surgery are delivered some allusion is made in the course of those lectures to the subject of anæsthetics. I think, too, that it may be assumed that at every hospital attended by students the respective surgeons occasionally direct attention clinically to their administration. But this can hardly be called "systematic teaching." With these general exceptions it does not appear, if one may judge from the prospectuses issued by the respective medical schools, that any special instruction in anæsthetics is afforded in Scotland, Ireland, or the provinces. In some instances, it is true, anæsthetists are attached to the several hospitals, but it would seem that their duties are, if I may use the term, functional rather than academic—limited, that is, to the mere administration, and not concerned with the teaching. In the metropolitan schools things are a little better; in London there are, including the Women's School, twelve medical schools, and these twelve schools are responsible for the education of between 40 and 50 per cent. of all the students registered at the Medical Council. To eleven out of these twelve schools special anæsthetists are attached; at the twelfth an "administrator of anæsthetics" is included among the appointments open to the student immediately after he has become qualified; and at one school, in addition to the anæsthetist to the hospital, there are two junior appointments open to students, the holders of which are qualified and resident in the hospital. In nine out of these eleven schools it is definitely stated in the prospectuses that instruction in anæsthetics is given; but the actual amount of instruction afforded varies considerably, and, of course, it is almost as impossible as it would be invidious to estimate the exact value of the instruction given in the several instances. In some few schools, for example, lectures and demonstrations are given; in some the teaching appears to be limited to instruction simply, and this, of course, may mean almost anything. At some schools, too, the teaching is not included in the general course of study, but an extra fee is charged, and at some a certificate of instruction is required before the student can hold any or certain of the resident appointments. However, assuming that the instruction given at these nine hospitals is the best and most systematic possible, and that all the students attached to the respective hospitals sought for and obtained it, that would, after all, represent but 76 per cent. of the London students alone. As a matter of fact, however, at six of the largest of these nine hospitals an average of about 51 per cent. attend the classes and lectures. Assuming, then, that a similar percentage of students attend at the remaining three schools, which I very much doubt, this means that of all the London students only 35 per cent. are instructed in any special manner. This percentage, too, be it remembered, applies merely to the London schools, and it would be reduced to under 18 per cent. if we took into account the students of Scotland, Ireland, and the provinces; and a still greater reduction would be required if we were to attempt to estimate the quality as well as the quantity of the instruction given; but the figures as they stand are quite sufficient for my present purpose. It results almost as a necessary corollary from this that many students must obtain almost their first experience in administering anæsthetics after they have qualified, and after they have gone beyond the reach of supervision and instruction.

B. REASONS FOR THINKING THAT THIS INSTRUCTION SHOULD BE IMPROVED UPON.

I now propose to give some of the reasons which have led me to think that this amount of instruction is inadequate, and might advantageously be improved upon.

1. *Improvements in surgery.*—Generally speaking, the art of surgery may be said to have improved precisely in proportion to the certainty with which we can foretell results; the possibility, however remote, of the death or subsequent illness of a patient as the direct result of the anæsthetic introduces an element of doubt which I think we ought to attempt to remove, and I think that if we taught anæsthetics more systematically, not only would the standard of average skill in administering them be raised, but we should soon get to know more about the subject. Again, of the many causes to which the improvements in surgery may be assigned two at least stand out with particular prominence. First, the actual introduction of artificial anæsthesia in the modern acceptation of the term. Secondly, the elaborate attention paid to details. Nowadays a surgical operation is a much more complicated and deliberate proceeding than formerly, and even if it be denied that the induction of anæsthesia is absolutely essential for all operations, it may, on the other hand, assuredly be asserted that without it many of the tedious and prolonged operations of modern surgery would be impossible. Further, no details are now considered too minute or too trivial to receive the most anxious consideration and thought from the operating surgeon, who usually takes care too that those who assist him shall be well trained in his methods. Now I would claim for the administration of anæsthetics that it is in itself one of the essential details of every surgical operation, and as such should be taught with as much care as is nearly every other detail.

2 *Increase in the number of administrations.*—It is of course impossible to give more than the vaguest guesses at the actual number of administrations, but they must obviously be enormous. Let each of us, for instance, try to recall the number of administrations he has himself conducted in private; let us, further, bear in mind the enormous amount of work done in this direction at the various hospitals throughout the country (including, of course, that increasingly important

[1] A paper read before the Thames Valley Branch of the British Medical Association on Wednesday, March 16th, 1892.

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item, the dental hospitals); and let us also remember that anæsthetisation is not only possible, but is freely practised on both sexes and at all ages. Bearing all these facts in mind, we can appreciate the difficulty, or even the utter impossibility, of forming anything like an accurate estimate, and can understand that the numbers, if they could be arrived at, would very likely prove to be very large indeed. Without going so far as to contrast these numbers with the actual number of childbirths, yet I think that a very fair fractional comparison might be made; we might say, for instance, that the number of anæsthetisations is a tenth, or a twentieth, or even a hundredth of the number of childbirths. Parturition, too, is a natural process, and in the majority of cases quite normal; on the other hand, anæsthetisation is essentially an unnatural process, and cannot therefore in the same sense ever be termed normal. A precisely similar comparison might be made in respect to other branches of our art. I merely choose that of obstetrics as the one with which we are all probably most familiar. But with whichever branch the comparison is made, I venture to say that the relative amount of instruction afforded will bear no comparison either as to quantity or quality.

3. *Importance of the subject.*—All the reasons which I am now giving for improvement in teaching bear, of course, upon the importance of the subject; but under this particular head I wish to insist upon the desirability of directing the student's attention very emphatically to the responsibility he assumes when he undertakes to induce anæsthesia. The time has happily passed when the dispenser, the half-trained nurse, or even the coachman, would be considered competent to administer anæsthetics; but I think that even now the duties are sometimes undertaken in too light-hearted and casual a manner. Without any desire to over-estimate its importance, I think that it cannot be insisted on too frequently or too strongly that in every case the administration of the anæsthetic requires the sole and undivided attention of one individual, to which axiom I should myself be inclined to add that it is of advantage if that individual has nothing whatever to do with the general treatment, past or future, of the case.

4. *Improvements in the methods of administration and in our knowledge of the subject.*—As has happened in all other branches of medical science, increased knowledge has led to the introduction of great improvements in the methods employed, which of necessity tend to become more and more complicated and delicate. A piece of rag and a bottle no longer constitute the sole armamentaria of the anæsthetist, but cones, face-pieces, inhalers, &c., of varying degrees of complexity, have been introduced, all of which require a certain amount of skill in their manipulation, and with which it is highly desirable that the student should become familiar. Our knowledge, too, of the alterations in the physiological state induced by the anæsthetic has undoubtedly increased, and would increase still further under the stimulus of systematic teaching.

5. *The complicated nature of the process.*—Apart from mere manipulation, there are several points connected with the administration of anæsthetics which call for careful study and anxious attention, and it is to the consideration of these points, I believe, rather than in futile efforts to select (whether by physiological, clinical, or statistical observations) a universal anæsthetic, that the greatest good is likely to result. For instance, the preparation that the patient should undergo prior to the operation; the best time for operating; the after treatment of the effects of the anæsthetic, such as the sickness &c., are all points upon which the anæsthetist will occasionally be asked to express an opinion. More frequently, however, he will be called upon to exercise his judgment in the choice of the particular anæsthetic to be used, having due regard to the idiosyncrasy of the patient, his sex and age, his previous history and present physical condition, and the nature and probable duration of the operation; the anæsthetist will also be called upon to select the particular method or methods to be employed, and to change, if need be, during the course of the anæsthetisation the particular drug with which narcosis was originally induced; to watch for and promptly treat any emergencies that may arise, and to warn the operating surgeon if the condition of the patient becomes such as to render further proceedings unadvisable. Upon all such points as these there is something to be said, something to be taught, and further information would rapidly accrue if the teaching, and with it of necessity the study of the subject, were undertaken in a more systematic manner.

6. *The attendant difficulties and dangers.*—I now come to the consideration of what is perhaps the most important of all the reasons which I am now advancing—viz., the difficulties and dangers connected with the process of anæsthetisation. We cannot but admit that the process is essentially an unnatural one, and as such patients who submit themselves to it cannot but run a certain amount of risk; and we know, further, that a good many deaths can be ascribed directly to the administration of one or other anæsthetic. Our duty, both to our patients and to ourselves, urges us to look these facts fully in the face, and, by adopting every possible precaution, attempt to minimise, even if we cannot entirely overcome, these dangers. I trust that others have been as fortunate as myself in never having gone through the agony of being present at an actual death from an anæsthetic; on the other hand, but few anæsthetists, I expect, but can recall more than one case in which "their hearts have been in their mouths," and the patient's life has hung by a mere thread. Those of us who have read the records of the fatal cases cannot but have been struck by the varied and, in some instances, almost absurd means of resuscitation adopted—generally, too, without success. Systematic teaching would at least afford us help at this, one of the most critical periods of our professional career; it would teach us, at any rate, what to do under such circumstances, and, what to my mind is much more important, it would teach us what to avoid doing, for I believe that, like "meddlesome midwifery," fussy anæsthetisation is essentially bad.

With regard to the actual death-rate, I fancy that I have observed in some quarters a tendency to treat this matter a little too lightly—to try, for instance, to explain the matter away by saying that, after all, considering the number of administrations, the deaths are really remarkably few, and, in fact, that on the whole it is safer to take an anæsthetic than to make a railway journey, or, as I believe one newspaper put it, safer than drinking a glass of whisky. All this may be perfectly true, and yet I venture to think that this is not the way in which a profession whose object is to *save* life should approach this subject. I do not in any way wish to over-estimate the dangers; but at the same time I think that, if we hope to overcome or mitigate them, we ought to have as accurate a knowledge as possible of the actual extent of those dangers. The following table,

Death-rate from Anæsthetics in England alone (from the Reports of the Registrar-General, 1881 to 1890).

—	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.	1890.
Chloroform ..	21	30	—	28	20	23	36	32	32	36
Nitrous oxide	—	—	1	—	—	—	—	—	—	1
Ether	—	1	—	4	3	2	2	—	1	4
Methylene ..	—	—	1	—	—	—	—	—	—	—
Ether &c. ..	7	—	—	—	—	—	—	—	—	—
Chloroform & ether	—	—	29	—	—	—	—	—	—	—
Anæsthetic not specified	—	—	—	2	2	3	1	1	3	1
Totals ..	28	31	31	34	25	28	39	33	36	42

Note.—This table refers *to England alone;* the figures relating to Scotland and Ireland do not appear to be published under a separate head. Prior to 1884 there seems to have been much irregularity in the method of classification.

which I have taken from the reports of the Registrar-General for the ten years 1881–1890, shows that the dangers are very real dangers, and do not exist simply in the imaginations of anæsthetists. Gloss it over as we will, explain it as we like, argue about it logically or illogically as we choose, we cannot at any rate get over the fact that the number of deaths that occur during the administration of anæsthetics is not only numerous, but increasing. The returns for 1891 have not yet been published, but in going through the papers with a view to forming an estimate as to what the number was likely to be, I obtained some results which are at least interesting, and which, to my mind, have a very particular bearing upon the question of the teaching of anæsthetics. Judging from the table, I think that we may anticipate that the death-rate

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in England alone for 1891 will be a little under or a little over fifty: of these I have been able to find, either in THE LANCET or the *British Medical Journal*, records of forty cases; of these forty cases, sufficient details are given in thirty-seven to enable me to say that twenty-seven occurred in hospitals or public institutions of some sort, and the remaining ten in private practice. Again, I have been able to ascertain the names and professional standing of the administrators in twenty-six instances, and I find that in by far the majority of cases the administrators have been comparatively young men—in fact, the average standing in the whole twenty-six cases was only four years and a half, and in sixteen it was less than two years and a half; this comparatively low average is of course largely due to the number of cases that are reported from hospitals, but as a matter of fact the same remarks apply equally to the much smaller number reported from private practice. Then, again, in these twenty-six cases I have been able to ascertain the particular medical school at which the administrators received their professional training, and arranging these schools into three groups, according to whether, in my opinion at least, the anæsthetic teaching was *nil*, very slight, or fair, I find that in these twenty-six instances the administrators had received no systematic instruction in seventeen cases, very little, if any, in five, and fair instruction in only four. In the same way in the previous year, 1890, ten cases are sufficiently fully reported; and, adopting precisely the same classification of the schools, six cases would come under the head of *nil*, two as very slight, and two as fair. With regard to other years, I may perhaps say that I have gone very carefully through the papers up to 1881, and find that precisely the same principle holds good throughout; but the actual figures are too small to make it worth while to tabulate them, as I at first intended. The question as to the professional standing of the administrators is of course a personal one, and obviously I cannot give you chapter and verse for my statements, and for a similar reason too I cannot well disclose the system of classification of the schools that I have adopted; and on these points, therefore, I must be contented if my deductions are accepted as matters of opinion; but I may perhaps claim for them that they should rank as the opinions of one who has gone very carefully into the subject. But however that may be, of this there can be no doubt whatever, that the greatest number of deaths occur in the practice of young administrators; that is, at just that period of their professional career when teaching is most likely to be of service and to stand in the place of that experience which they gain subsequently. Practical instruction during his student days, under the direct supervision and guidance of someone qualified to teach the subject, would furnish a man with a fund of information of far greater real value than would be obtained from the experience gained from many hundreds of cases without such teaching. Under the present arrangements, as I have endeavoured to show, such instruction falls to the lot of but a very small percentage; and my contention is that, if not compulsory, such instruction should at least be possible for all.

These are the chief reasons I would advance for the improvements I suggest; other arguments might readily be adduced—such, for instance, as that the habits of close attention and accurate observation entailed in the proper administration of anæsthetics render the study of the subject a not unworthy adjunct to any system of medical education. I think, however, that I have said sufficient to justify my conclusions.

C. A BRIEF INDICATION OF THE DIRECTION IN WHICH IT IS POSSIBLE TO MAKE THIS IMPROVEMENT.

An outline of the plan I would suggest is this: In the first place, candidates for the various degrees and diplomas should be required to produce evidence of proper instruction in the subject; this might well take the form of a certificate of having attended a definite course of lectures and demonstrations, and of having personally administered in a certain number of cases. This is, I think, the least that can be done by the examining bodies. In the second place, I think that at the hospitals the system of teaching anæsthetics should be the same as that adopted in respect to medicine, surgery, and other branches—that is, that after attending the classes the student should be appointed "clerk to the anæsthetist," when, under the direct supervision and guidance of his teacher, he should administer to the necessary number of cases, and should keep whatever notes and records it may be thought advisable. Finally, in the large hospitals especially, it would be of advantage to appoint resident anæsthetists to take charge of the administrations in the absence of the honorary officer. Some such plan as this would, I think, do much to place the teaching of anæsthetics upon a proper basis and that, too, without dislocating existing arrangements, and, if generally adopted, I feel sure that good results would follow.

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NOTES ON SOME HYSTERICAL CASES.[1]

BY JAMES KERR, M.A., M.D. CANTAB.

THE following three cases illustrate certain diagnostic points, and also call attention to a method of treatment seldom practised.

M. G——, aged thirty, came to the out-patient room of the infirmary complaining of fits, to which she had been subject some time. She was aware of their oncoming. A fit began by movements of the right hand and arm, then involved the muscles which draw the head over and towards the right; she then either lost consciousness or the fit passed off. She voluntarily added that sometimes after a fit she could see treble (triplopia) with the right eye for a considerable time. There was no period of aphasia or stupor after these attacks. She was made an in-patient and watched. There was no surface anæsthesia, but pharyngeal insensitiveness was noted; no further eye symptoms. She had fits as described; and although such attacks as hysterical manifestations are rare, yet, having regard to the pharyngeal insensitiveness, the transient monocular triplopia, and her general behaviour, hysteria was diagnosed, and she was discharged after a time unrelieved.

The next case, A. P——, aged thirty, came here seven weeks after her confinement complaining of gradual loss of power in the left hand during the three weeks preceding. Although she had no lead line, yet she was very sallow and anæmic; so iodide of potassium was given. A week later she was worse, and was ordered to be an in-patient. Some days later she was admitted, and on examination in the ward, surface and deep anæsthesia were found from two inches above the left elbow-joint to the finger-tips. There was also a rigid, semi-flexed position of the hand and arm. She had pharyngeal insensitiveness, but never noticed polyopia. Further examination of the eyes was deferred, and never accomplished. The diagnosis of hysterical contracture having been made, she was told that the doctor would return in a short time, and would cure her. This was accomplished after the usual ward visit by asking her to touch the top of her head with the left hand. This, of course, she could not do; so the wrist, being firmly held, was suddenly and forcibly raised and bent over the left shoulder. The patient screamed with pain, she said. So it was asserted, that if she had pain the sensation would return which she could feel in the finger-tips. The attention being drawn by stroking the hand and arm and pinching the fingers, in a very short time she began to feel in the fingers. The passive movements being repeated, and assertions made that she was regaining motor power, she was soon able to voluntarily extend the joints when passively flexed, and by a repetition of the manœuvres she had in the course of less than half an hour considerable motor power, and sensation enough to localise touch correctly. In the evening, after some little ebullition of temper, the condition recurred; but, by repeating the treatment, to which was added the assertion that the disease had no real existence, and could not recur, she was relieved, and the following day discharged. The contracture never recurred.

The next is the most interesting case, as it occurred in a powerful and intelligent man, J. T——, aged twenty-nine, a sign painter, of good history except that in 1889 he had a slight shock, being thrown on the floor by a sudden movement whilst working in a railway van, and later in that year he slipped in the street and sprained his thumb, which remained stiff for six weeks. On July 6th, 1891,

[1] A paper read at the Bradford Medico-Chirurgical Society on Jan. 12th, 1892.

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whilst at work on a ladder, the rung broke, and he fell four and a half feet, bumping his head, and the back of his right shoulder; he was stunned, and, being picked up and taken to the infirmary, recovered consciousness on the way. He was after a few hours' detention made an out-patient, and attended as such during most of the month, complaining much of his head and of pain in the right biceps. He got such attacks of dizziness that he took to his bed and came under my care. He seemed on the verge of madness. The following note was taken on Aug. 1st: "The patient sits, preserving the same attitude, almost expressionless, but irrational and excited when drawn into conversation, complete loss of voluntary power in right hand and arm, thumb turned in, rigid, semi-flexed in position of contracture, which persists during sleep, right hand feels colder, but is really the same temperature (97·6° F.) as the left. There is superficial and deep anæsthesia of hand and arm, save a hyperæsthetic patch over the biceps, no glossy skin, no nutritional changes, lively reaction of all muscles to faradism. Over the rest of the surface to the right of the median line the perversion of sensation described as 'allochiria,' that is, that a touch on the right side is accurately referred to the corresponding point on the left side. There appears to be a negative sensory image of the right side projected on the left. This holds good only with respect to common sensation. The temperature sense is abolished on the right, and the muscular sense is also absent on the right side. There are no reflexes save the light pupil reflex elicited on the right side; the right eye cannot discern the fingers at the distance of a foot, the right ear only hears a watch on contact. On the left side there is a marked diminution quantitatively but no change qualitatively in the various functions. The left plantar reflex was decidedly lively compared with the other reflexes. The patient stands steadily, with eyes shut, the optic fundus is normal in both eyes, and the pharynx anæsthetic." The diagnosis of traumato-hysterical contracture having been made, and as for a month past medical treatment had been unavailing, it was resolved to try simple suggestion, which was ineffective. So the patient was hypnotised by the Nancy method. At the first sitting involuntary closure of the eyes was obtained; next, catalepsy and forced movements; and by the fourth time such phenomena as post-hypnotic negative hallucinations could be induced. He was sensible of the improvement in motor power; by suggestion partial transfer of symptoms was effected. By the eleventh sitting sensation in the hand was definitely re-established and motor power considerably regained, but fine tremor asserted itself on his attempting to write; this tremor could be nearly abolished by hypnotic suggestion, but reappeared post-hypnotically. Careful examination of the right eye showed considerable amblyopia—only central vision, in fact; at six inches distance he only saw the middle third of a match, and saw three images; when brought nearer the eye the match seemed immense (macropsy), "like a telegraph timber," he said; when some distance off it appeared "about a quarter the size it ought to" (micropsy). The field of vision of the left eye was also somewhat contracted; attention was paid to the sight in suggestions, and the increase in the field of vision was very apparent during the next three sittings. By the fifteenth sitting he was nearly well, and the last time I saw him there was but slight weakness in the right-hand grasp, the ocular symptoms persisted, but he was otherwise well, and forty days after beginning suggestive treatment he was at work as an "artist," which he has continued since. Charcot says that in these cases "without doubt the paralysis, already perhaps of long standing, may persist for months or years; nevertheless the cure ought to take place sooner or later, and our efforts ought to hasten the occurrence." The diagnosis of hysteria is probably made more often than the disease occurs; it is most important to make, not a negative, but a positive diagnosis, not merely to exclude other causes, but to find some definite evidence of lowered cortical activity, for that is the basis of hysterical symptoms. The emotional exaltation is merely a symptom of want of self-control, of lowered cortical activity; but, next to globus, probably one of the most frequent symptoms is pharyngeal insensitiveness, and then diminution of the visual fields is a fairly common one, the accommodation disturbance, monocular polyopia, and so forth being not so common. The polyopia is due to the action of the separate sectors of which the lens is built, the division being sometimes seen by a three-rayed star, with the lowest leg vertical, to be seen in eyes otherwise apparently healthy. This varying action of the sectors is compensated normally by accommodation, which in two of these hysterical cases was thrown out of order. The macropsy occurs in myosis, and micropsy in mydriasis; but why they should occur simultaneously in the same eye is not very evident. False impressions are formed from the difficulty in altering the accommodation either by contraction or dilatation of the iris.

Of allochiria, the rarest symptom of all described, which is known chiefly in connexion with cases of locomotor ataxia, no explanation has as yet been given. It seems to point to a dual action of the two hemispheres in every nervous act. In connexion with hypnotism it seems better not to look for hystero-genetic zones. One case reported by Charcot had the first fit produced thus, and passed into a convulsive habit. Another useful rule for the patients' benefit is always to insist on suggesting that no one else can hypnotise them.

Bradford.

NOTE ON A CASE OF APOPLEXY TREATED SUCCESSFULLY BY VENESECTION.

BY W. H. RUSSELL FORSBROOK, M.D. LOND.

I THINK it well to record the following case as showing the value of venesection in an apparently hopeless condition.

The patient is aged forty-seven, a stout, plethoric, and muscular individual, with a specific history. He was said to have had an attack of left-sided hemiplegia about twenty years ago, with loss of speech, from which he recovered, except for a slight dragging of the left leg. In spite of this he indulged in hunting, shooting, and in every way lived a hard and active life. Between this time and 1881 he more than once lost his speech and memory for a few hours, and on one occasion was found in his garden unconscious. In October, 1881, he had two attacks of epilepsy within a few minutes of each other, without any warning except that he complained of feeling sick an hour before the first fit. Two days later he was about again as usual, although his medical advisers considered him in a precarious state of health, and from this time he has always been more or less an invalid. In the following December, when out driving, he again lost his speech, but recovered it in a few hours. In March, 1892, his wife, having left him in bed in his usual state, found on her return in half an hour that he had again lost his speech, that he could not swallow, that he was unable to protrude his tongue, and that his mouth was drawn to one side. It was afterwards found that his left arm and leg were again paralysed. For ten days his life was despaired of, and for many weeks he was very ill. He has, however, gradually regained the use of his arm and leg, and has become able to swallow fairly well, but his speech, though better, has remained difficult and unintelligible since this attack. During this illness he expressed his thoughts and wishes in writing, but his handwriting was changed, and has never been so good since. Latterly he has not walked so well; in fact, he has only taken carriage exercise, but has eaten and slept well. The above history is taken from notes made by the patient's wife.

On Feb. 8th of this year, at about 6 P.M., the patient was sitting in his chair asleep, when suddenly his eyelids were noticed to twitch, and he turned his head and eyes to the right side and threw up his arms. His face was slightly convulsed. When seen, about ten minutes later, he was lying outstretched and motionless on the floor of the room in which he had been sitting. He had bitten his tongue; his face was turgid and livid; his pupils were equal and rather contracted; his lips, ears, and finger-tips very purple. There was deep stertor, and all power of motion and sensation was lost; he was almost pulseless, and the cardiac sounds were feeble. As a fatal issue seemed to be directly imminent, I suggested to the patient's wife that her husband should be bled, as offering the best chance of relieving the immediate symptoms. She consented, and Mr. Pearce Gould was called in. He arrived at 7.15, when the case was explained to him, and after examining the patient he agreed that it would be judicious to bleed, although the case seemed hopeless. Mr. Pearce Gould then bled the patient to a pint from the left arm. Before

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the blood had ceased to flow the effect was very marked in the patient's face and hands, which regained their normal colour, and the pupils, which had become widely dilated during the bleeding, alternately contracted and dilated. At the same time the radial pulse became better, and the stertor not so deep; there was some slight movement of the left leg, and as he was apparently doing well we left him at 8 P.M. When I saw the patient again, at 9.30 P.M., he was still lying on his back in the same place, but was quite conscious and could move all his limbs, and did not appear to know anything of what had happened. From this time to the present moment he has been in much the same state as before the attack, except that he has seemed a little more feeble. He expresses himself as feeling quite well, and had it not been that he was accidentally burnt with carbolic acid he would have been taking his usual daily drive.

State of patient on Feb. 16th, 1892.—Patient is well nourished, emotional, and there is no apparent muscular atrophy. His gait is unsteady, but not ataxic, and he drags his left leg slightly. His pupils are equal and react well, and his discs are clear and fairly defined; but there is dissociation of movement of the upper lids, the left sometimes moving later than the right. The lower lip hangs down a little more on the left than on the right side, but he can readily raise it, so as to bring it in contact with the upper one. There is little or no dribbling of saliva at the present time, although this was the case for a long time after the attack in March, 1882. His tongue is broad, thin, and flabby; he can protrude it beyond the lips, but the right half is pushed out slightly further than the left. There is little or no relaxation of the palate, which acts fairly well. The power of swallowing is not bad, but he is obliged to have all solid food minced. There is some slight delay in the approximation of the vocal cords. His articulation is thick and slurred, although there are a few short words, besides "yes" and "no," which he can pronounce distinctly, such as "right," "all," &c. To a stranger his speech generally is quite unintelligible, but his wife, by getting him to repeat his words singly, can understand him. He has a rather troublesome cough, but does not seem able to expectorate. There are a few moist sounds to be heard at bases. There is no marked increase in the heart's area; its impulse is not to be felt, but its sounds are clear though not of good quality. Pulse 70, small, regular, and compressible. There is frequent desire to micturate, although there is often great delay in the act; but there is no stricture, and the urine contains neither albumen nor sugar. The knee-jerks are apparently exaggerated, but there is no ankle-clonus.

Remarks.—There can be little doubt that the attack above detailed as occurring on Feb. 8th, 1892, was an example of so-called congestive apoplexy arising in an individual probably suffering either from post-hemiplegic epilepsy, or from one of those rare cases of pseudo-bulbar paralysis in which, although there were two distinct attacks of hemiplegia, the same side of the body was affected on each occasion.

Buckingham Palace-road, S.W.

INFLUENZA AND THE MIDDLE EAR.

BY J. WALKER DOWNIE, M.B.,

FELLOW AND EXAMINER IN AURAL SURGERY FOR THE FELLOWSHIP OF THE FACULTY OF PHYSICIANS AND SURGEONS; SURGEON OF THE THROAT AND NOSE DEPARTMENT, WESTERN INFIRMARY, ETC.

IN THE LANCET of March 5th is printed a short communication by me in which I took exception to a statement made by Sir William Dalby, "that those with healthy ears have little to dread from influenza" as far as the lining membrane of the middle ear is concerned. The opinion expressed was based on my experience of cases occurring in this locality, a locality which has in a great measure escaped influenza in its very general, severe, and rapidly debilitating form. There has been a large number of cases of influenza in our large community; but, compared with many other districts, the proportion of cases to the population has been, I take it, small, and of very severe cases very small. This notwithstanding, there have been many cases of aural mischief accompanying and following influenza, and in patients who have never previously suffered from aural affections, as well as in those who have suffered from middle-ear disease at some more or less remote period. The communication made by me has called forth remarks confirmatory of my views by Mr. W. R. H. Stewart and Dr. Hugh Jones, both of whom I know as careful observers. The former in London and the latter in Dolgelly (Wales) have been in the midst of influenza in its more virulent form, and have come to the same conclusion as myself—viz., that middle-ear mischief—and of a very severe type—is met with closely associated with influenza in those who formerly had healthy ears. Several aurists have elsewhere reported cases of otitis media following influenza, and notably Dr. Loewenburg, whose paper, "L'Otite Grippale, observée à Paris en 1891," is well known to the majority of specialists. Here I should wish to give notes of two cases which have quite recently come under my observation, as examples of this "influenzal otitis," as they illustrate the two conditions under discussion. Both patients were adults. In one case, after years of quiescence, the middle ear became acutely inflamed; and in the other it appeared suddenly in a patient who at no time previously had had any aural complaint of any description.

CASE 1.—J. F——, aged sixty-four, a mill-worker from Paisley, applied to the dispensary on account of acute pain in the right ear and over the right side of his head. His temperature was 100·4°; pulse 116. On examining the tongue, which was very foul, he complained of inability to open the mouth to any extent on account of pain and stiffness of the right jaw. He stated that between twelve and fourteen years ago he had discharge from the right ear. It appeared then to result from a cold, was very painful until discharge appeared, and under simple medication was healed within a week; apparently an acute catarrhal otitis media. Neither ear has given him any trouble whatever since that time, and he has always considered his hearing to be very good. Five months ago he had a severe attack of influenza. At the end of three weeks, and while still confined to bed, the right ear suddenly became very painful. His medical adviser syringed the meatus with warm water, by which means the pain was relieved, and it continued free from pain till three weeks ago. There was no discharge then, nor has there been any since. Three weeks ago the right ear again became painful; the use of the syringe with warm water gave temporary relief only, and the parts around the ear became painful. As time passed the mastoid region became swollen, and here the pain was most acute, and from this it radiated all over the right side of the head. On examination the right meatus was completely closed about half an inch from its outer extremity by swelling of its walls, and it was perfectly dry. The auricle was unduly prominent, and directed forwards from the swelling over the mastoid. The skin over the mastoid was bright-red and œdematous, and on palpation there appeared to be deep fluctuation, though not very marked. One-half of the head was shaved, and under chloroform an incision was made over the mastoid, and when the periosteum was incised a small quantity of pus escaped. The tissues over the mastoid were fully half an inch in thickness, and the periosteum was separated up from the bone over a considerable area. It was a periostitis in a man debilitated by a severe attack of a peculiarly depressing ailment beginning in a middle ear, which had previously been inflamed, spreading along the periosteum of the bony meatus to the surface of the mastoid. The incision and evacuation of the pent-up pus gave immediate relief.

CASE 2.—Mrs. M——, aged forty, complained of discharge from her left ear of some three weeks' duration. Two months ago she had been suddenly seized with influenza. She was under medical supervision from the first. By the end of the first week the more acute symptoms had passed away, but she was greatly depressed and very weak, and was consequently kept in bed. At the end of the fifth week, and while apparently progressing favourably, her left ear became suddenly painful. Hot applications were made, soothing instillations applied, but all to little purpose. What sleep she obtained was by the help of nepenthe, but she had little relief from the pain till the third day, when the membrane ruptured, or, as she put it, when it "broke." Blood-stained discharge appeared, and the pain abated. When I saw her the discharge had continued for three weeks. It was purulent and foul-smelling. A watch was only heard on contact. On clearing out the meatus there was a large

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circular perforation behind and below the handle of the malleus brought into view. Previous to the attack of influenza she had considered her hearing to be perfect, and she had never, as far as she was aware, at any time had any affection of the ears. The right membrane was normal. Under treatment the inflammation of the middle ear was reduced, and the discharge ceased within three weeks. Hearing improved to nearly half the normal distance, but the circular perforation remained.

Here we had an acute catarrhal otitis media going on to suppuration and perforation of the membrane, unassociated with a catarrhal state elsewhere. It occurred in a patient whose ears had previously been perfectly healthy, but whose general health had become markedly depressed as a consequence of influenza. These two cases are types of a series of cases of acute middle-ear trouble occurring in adults which have come under my care within the past two years, and as such I think they may be of interest.

Glasgow.

SNAKE-BITES.

By R. P. BANERJIE, B.A., G.B.M.S.L.,
MEDICAL OFFICER, PACHBADRA SALT LINES, RAJPOOTANA, INDIA.

DURING the year 1891-92 seven cases of snake-bite were treated at the North India Salt Revenue Hospital at Pachbadra, and the cases recovered. The following is a short description of each case, with the mode of treatment adopted.

CASE 1.—B——, a Hindoo male aged thirty years, a sepoy of Erinpura Irregular Force, bitten by a snake (echis carinata) on the dorsum of the left foot over the site of the middle cuneiform bone. The two punctures were distinct, edges ecchymosed, and the wound bleeding. Soon after the bite was inflicted the bitten leg became heavy and a sort of low stupor crept on, and the sepoy became drowsy and felt difficulty of breathing. The part above the next joint was tightly ligatured, and the puncture cauterised with burning charcoal. All this was done before the man was brought into the hospital. The punctures were now scarified, and some blood was extracted by cupping, and internally stimulants were exhibited every fifteen minutes, and a hypodermic injection was given of a 2 per cent. solution of permanganate of potassium every ten minutes. Notwithstanding this treatment the case took a bad turn; the stupor began to deepen, so the hypodermic injection of sulphate of strychnine was preferred to the permanganate of potassium; ten minims of which were injected every ten minutes until the entire quantity amounting to one grain and a half had been used, when twitching of the muscles of the face came on, but the stupor now began to fade away fast. The man complained of intense thirst, as if his mouth and tongue were parched, though apparently this was a delusion. Stupor soon passed off, and was replaced by hæmorrhage from the mucous surfaces; even old scars of wounds began to ooze out blood. All these gradually abated, leaving the patient exhausted and weak, but he completely recovered within four days, and was able to do his work, and was sent to his headquarters.

CASE 2.—S. H——, a Mussulman boy aged twelve years, while searching after some books in the hut, was bitten by echis carinata on the right ankle, just below the inner malleolus. This boy was brought in at 8 A.M. on Aug. 5th, 1891. A tight ligature was applied to the leg above the injury, punctures, which were distinct, laid open, some blood drawn out, punctures cauterised, and solution of strychnine injected into both arms at intervals of ten minutes. In this case a quarter of a grain produced the required symptoms. Bleeding from the mucous membrane was slight; no stupor was present. The boy recovered on the third day, when he was discharged all right.

CASE 3.—N. K——, a Mussulman Custom pera aged thirty-five years, was bitten by an echis carinata on the left ankle just above the outer malleolus. He was brought into the hospital on Aug. 9th, 1891. A ligature was applied in the leg affected, the wound scarified, blood let out, and the wound cauterised. The man was in a state of semi-stupor. Ammonia mixture was given by the mouth every twenty minutes, but this apparently did not do much good. Strychnine solution was injected subcutaneously in the arms, aggregating one grain and three-quarters of strychnine, when the characteristic symptoms of the drug were produced, and the man recovered and was discharged cured on Aug. 12th, 1892.

CASE 4.—J——, a Hindoo female aged forty, strong built, was bitten by a bungarus cœruleus in the left thigh. The part round the puncture was cyanotic and the punctures were distinct. The patient was half unconscious, but could answer questions if loudly put to him. Solution of strychnine was injected into the arms every ten minutes until twitching of the muscles of the face was observed. In all she took three grains in four days. The patient was admitted on Sept. 3rd, 1891, and was discharged cured on the 7th.

CASE 5.—A. B——, a Hindoo lady aged sixty-seven, was bitten by a bungarus cœruleus on the night of Sept. 10th, 1891, with apparently the symptoms of Case 4. The puncture was inflicted on the dorsum of the left foot and above the big toe. A hypodermic injection of solution of sulphate of strychnine was made. The patient took half a grain to produce the symptoms. On the third day she recovered, and was discharged.

CASE 6.—M——, a sweeper aged thirty-five, male, was bitten by an echis carinata on the left leg, just below the knee-joint. In this case a ligature was applied at once, consequently the system was not much affected by the poison. However, subsequently there was much bleeding from the mucous surfaces. Strychnine injection was tried as before, the bleeding stopped, and the man recovered and was discharged after four days. The man was brought in on Sept. 14th, 1891.

CASE 7.—R——, a Hindoo male aged fifty-five, stout built, a Custom jemador, was bitten on the dorsum of the right foot just over the base of the inner cuneiform bone. The punctures were distinct, the site around was ecchymosed, and the man was in a stupor-like state. He complained of severe headache and tightness of the chest. He was brought to the hospital on March 28th, 1892, at 9 A.M., one hour after the infliction of the puncture. A tight ligature was used, and blood let out from the punctures; but in this case a remedy tried by the late Dr. Dymock of Bombay, used by him in echis bites, was suggested by the district magistrate, and this officer supplied some herbs (Pagostemon parvifolius), and this herb was ordered to be chewed in from two to four drachm doses. Apparently it produced no good results, and probably because the herb was dry and had lost much of its potency. So the strychnine had again to be resorted to, and the man recovered well. The leg bitten was inflamed, but soon improved under the influence of warm fomentations only. This man took four grains of sulphate of strychnine to effect a cure.

Observations.—In connexion with all these cases the following facts were noticed:—1. The punctures were usually well directed and deep. 2. The edges, almost without any exception, were ecchymosed. 3. Bleeding from the puncture in every case was invariably present. 4. Bleeding from the mouth, nose, and sometimes from the ears, chemosis of the conjunctivæ and urethra, and bloody urine were invariably present in many cases. 5. The blood was thin and did not coagulate: colour, however, was bright, like an arterial blood. 6. Stupor and unconsciousness were not constant symptoms; some showed more tendency to them, while others had no such symptoms at all. 7. After cure having been effected, for some time the patients showed signs of irritability of temper, and were more sensitive to extremes of temperature, and occasionally epistaxis was present.

Remarks.—During the year over 760 snakes have been killed. Of these, vipers are the most common; and of these echis is the most common of all, and most venomous. Other varieties are rarely seen. Three varieties of echis have been seen. In one the undulated lateral marks are interrupted and not continuous. In the second variety there exist alternate black and white square dots over the dorsal ridge. The third variety hardly differ from the second one, but this has a pale-yellow colour, while others have a greyish or earthy colour. These snakes are most virulent in the early summer months. In my hands certainly in viperine poisoning strychnine has proved useful, and I hope those who have better opportunities of performing experiments will extend their investigations still further.

Pachbadra Rajpootana.

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ON A METHOD OF LIGATURING THE PEDICLE IN OVARIOTOMY.

BY ROBERT SANDERSON, M.B. OXON.,
SURGEON TO THE WEST-STREET HOSPITAL FOR WOMEN, BRIGHTON.

MR. SKENE KEITH'S article in THE LANCET of April 30th prompts me to give a brief account of a method of ligaturing the pedicle in ovariotomy which appears to me to avoid the disadvantages which have been pointed out by him in treating broad pedicles by pre-existing methods. Supposing that

FIG. 1.

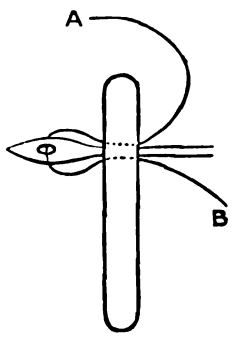
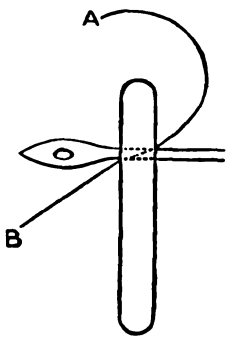


FIG. 2.



the pedicle is broad enough to necessitate ligature in three divisions, the operator, having armed his needle with a silk twist two feet and a half long by its middle, transfixes the pedicle on the side furthest from him, as in Fig. 1, the end A being held by an assistant until wanted. Before withdrawing the needle he disarms it entirely of the silk by drawing the end B right through the puncture in the pedicle (Fig. 2), and threads the needle afresh with the end A (Fig. 3), after carrying it round the margin of the pedicle. He now withdraws the needle, carrying A with it, as in

FIG. 3.

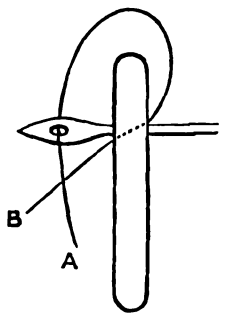


FIG. 4.

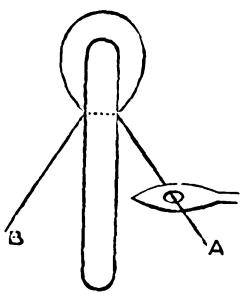


FIG. 5.

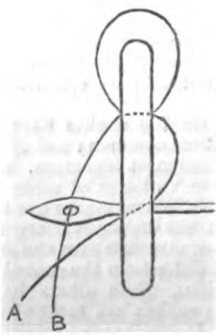


FIG. 6.

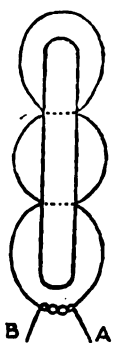


Fig. 4. He again transfixes the pedicle, still armed with A, frees the needle of A, after pulling A through; and then again threads the needle with B (Fig. 5) before withdrawing it, the procedure being identical with that of the first puncture, except that A is read for B and *vice versâ*.

The two ends are then firmly tied in the usual manner round the margin of the pedicle nearest the operator, care being taken to carry one end of the silk twice over its fellow in tying the first half of the knot (Fig. 6). It at first sight may be argued that the loop furthest from the knot would not be pulled tight enough to be safe. I can only say that in practice this is not so, but that, owing to the freedom with which the silk plays through the fresh juicy tissues, the pedicle is drawn neatly and tightly up to the final knot, making a very satisfactory and effectual ligature; so much so that I doubt whether a second ligature sunk into the groove of the first is really necessary, although I have used it in practice. In the other method of ligaturing a broad pedicle in three separate segments, and interlocking the threads of each segment with its fellow—forming a chain or series of three links,—Mr. Skene Keith points out that each link drags upon the next one, and there is some risk of loosening the knot; whereas, if the links are not interlocked before tying (as Mr. Skene Keith recommends), there will possibly be some vertical splitting of the tissues of the pedicle, as has been pointed out by Mr. Alban Doran and others. In the method described above both these disadvantages are avoided, and although the method may appear confusing on paper, it is not really so when once mastered, and has the advantage of being equally applicable to a narrow pedicle, where only one transfixion is required. It might be called the figure-of-8 ligature.

Brighton.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

DIPHTHERIA FROM FAULTY DRAINAGE.

BY PHILIP FRANCIS HARVEY, M.D.,
MAJOR, MEDICAL DEPARTMENT, U.S. ARMY.

MR. MALLINS' note in THE LANCET of March 12th, 1892, reporting an unequivocal case of diphtheria originating from defective drainage induces me to add to the record another case of like nature occurring in my own practice some years ago, and which originated *de novo* at an isolated military post in a new brick building. The location of the post was high and dry on a plateau between the confluence of the Mississippi and Minnesota rivers. The headquarters of the military department were located there.

The case was that of an officer, who had been very much in his quarters for some weeks preparing for an inspecting tour, and had not been exposed to any then known source of contagion. He requested me to attend him for what he thought was an attack of tonsillitis, a disease to which he was subject. I early recognised a difference between the disease from which he was suffering and that which he supposed it to be, and although the case was peculiar in not presenting a false membrane on any of the visible parts of the throat, I suspected diphtheria, and at once sent his little daughter to a neighbour's house, and cautioned his wife to avoid using any of the spoons, cups, &c., used by her husband. Treatment for diphtheria was commenced early, but owing to the unusual features presented by the case I took counsel of two excellent physicians older than myself. They could not see their way clear to any other view than that of a non-septic inflammatory trouble. My own opinion was unhappily confirmed the following day by a long strip of pseudo-membrane, tubular in places and conforming to the size of the trachea, which was coughed up by the patient. A careful examination of this fully convinced me of the specific character of the disease. About this time evidences of local paralysis became apparent, and signs of cardiac failure aroused my solicitude.

The case proved to be very malignant, and terminated fatally by heart paralysis after about eight days' progress. One week later the patient's wife was attacked with diphtheria, which presented characteristic symptoms. She had been kept under strict surveillance, and her throat examined every day. On the appearance of the first suspicious spot

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of passive hyperæmia the tonsil was freely swabbed with pure tincture of the chloride of iron, and afterwards with nitrate of silver solution, according to Klebs' recommendation, to destroy the local contagion. Nevertheless the disease progressed unfavourably, and terminated fatally one week later. The exact nature of the disease no longer admitting of a doubt, it became a question of considerable interest to determine its etiology. The house occupied by the patients was perfectly new, built of brick, and provided with modern improvements. A thorough sanitary inspection was made, and a faulty drain was found in the basement, with some leakage of sewage into the earth at that point. Here, then, was the explanation of the origin of the disease, and a demonstration of how rapidly the diphtheritic poison may be formed under circumstances favouring its evolution, as the cases occurred in January and the premises were first occupied the preceding November.

Fort Keogh, Montana.

PHTHISICAL CAVITY CAUSING ABSCESS IN THE BREAST.

By E. R. ROUSE, M.R.C.S., L.R.C.P. LOND,
ASSISTANT MEDICAL OFFICER, COLNEY HATCH ASYLUM.

F. R——, aged forty-one, a male patient admitted into this asylum in 1886, suffering from mania with delusions, the latter being very persistent. He was a man of poor physique and with physical signs of advanced tuberculosis of both lungs, as indicated by cavities at both apices. In April last year our attention was called to a large abscess in the left breast, which was supposed then to have been caused by the patient himself, who was continually striking his chest, owing to a delusion The abscess was opened, and a thick curdy pus was let out. Patients, I may add, with delusions of a fixed kind, very often have organic disease, which no doubt accounts to a certain extent for the delusions from which they suffer. This pus continued to discharge until his death, and the sinus which remained never properly closed in spite of numerous attempts to make it do so; he recently died from exhaustion. On post-mortem examination, the sinus in the breast was found to communicate directly through the second intercostal space with a large cavity in the apex of the left lung, so that the pus evacuated from the abscess in the breast came directly from the lung; the latter was firmly adherent to the chest wall in the entire upper lobe, and, in fact, could not be separated from it; the rest of the lung was filled with deposits of tubercle, as was also the right lung, and the intestines were studded with numerous ulcers also tuberculous in nature.

In this case I might have been induced to explore further, as the symptoms pointed to necrosis of the ribs, which were, however, quite natural. My colleague, Mr. Cecil Beadles, tells me he saw an abscess of the breast in a woman, which was opened in the usual way, but continued to discharge for some time, as in the above case; and the sinus also in that case never closed. On post-mortem examination the lung was found to be actinomycotic, and the sinus in that case communicated directly through the chest wall with a cavity in the lung. I think the rarity of the case worthy of record, as I have never heard of a similar one; nor does such a case, as far as I am able to gather, appear in any of the works on Medicine or Surgery.

EUCALYPTUS GLOBULUS IN INFLUENZA.

By HARRY BENJAFIELD, M.B.

Some few months ago I wrote a short article in THE LANCET on our experience of eucalyptus globulus in general [illegible]. Since then we have experienced a severe epidemic of influenza, with many cases of lung complications, and to these I have used eucalyptus globulus largely, and with the best results. Especially marked are its effects in [illegible] which threaten bronchitis and pneumonia. [illegible] typical cases of this attack [illegible] after [illegible] I found [illegible] nostrils [illegible] respiration [illegible]; rales with harsh breathing in the lungs. I ordered, several times a day, inhalations of eucalyptus globulus by getting steam from a steam kettle, in which I put a teaspoonful of the extract, and, throwing a sheet over the cot, put the child in an atmosphere of the steam. In older cases I put an umbrella over them with a sheet thrown over it; but in every case it is necessary to get heat enough under the kettle to vapourise the oil, which is not done at all effectually by the boiling water in an ordinary inhaler. In nearly every case the relief was most marked, and many cases recovered which I am satisfied would have died without it. When the temperature ran high I gave a warm pack every night, sprinkling the sheet with eucalyptus globulus, or a warm bath, to induce perspiration, putting eucalyptus in the water. Inhalations of it night and morning, either with steam spray or vapouriser, have proved most beneficial in chronic bronchitis, and especially in bronchitis with tubercular diathesis; but in these cases I am very careful to use only eucalyptus globulus, which is very superior in its effects to amygdalina, or any of the other eucalypti, and the Tasmanian eucalyptus globulus, or blue gum, is very different from the blue gums of Australia

Hobart, Australia.

A CASE OF DOUBLE UTERUS.

By F. N. WILLIAMS, L.S.A., F.L.S.,
DISTRICT MEDICAL OFFICER FOR BRENTFORD.

THE following record of an unusual case may be interesting and perhaps instructive. On the 25th ult. I was called to Mrs. E——, a primipara aged twenty-two. I found that labour had scarcely begun, so I called at intervals of two hours through the day. Towards evening, as the membranes were ruptured and the pains were slight, I decided to apply the forceps to the presenting head. The insertion of each blade was attended with considerable difficulty—in fact, each had to be withdrawn once on account of an apparent obstruction in the way of their progress. When traction was attempted, some evident obstruction barred the downward progress of the shoulders, and, suspecting the cause might be the presence of a second fœtus, I considered further force at present contra-indicated. I therefore withdrew the forceps again and tried combined internal and external manipulation. By this means I somewhat altered the relative position, and essayed the application of the forceps again, this time without difficulty, and delivered without any trouble. On examination, a second head presented itself, but enclosed in membranes. My left hand was firmly pressed upon the lower part of the abdomen, and in a few minutes I found, on further examination, the placenta slipping down between the presenting head and the vaginal wall, and forthwith emerged from the vulva, without my so much as touching the cord. After applying a temporary binder and waiting an hour, during which interval there were only the faintest indications of pains and at no time a distended condition of the membranes, I gave a dose of ergot with the hope of encouraging the progress of the second fœtus; I applied the forceps again, and delivered in the usual way without difficulty. After digital examination I withdrew my fingers downwards, and they passed, as it were, over the saddle of a partition, and followed the cord into another and similar cavity. I therefore concluded that it was a case of double uterus. The evident difference in maturity and size of the two fœtuses (both male) was also a point of interest. The first weighed 7 lb. 3 oz.; and the second, in which there was some difficulty in rupturing the membranes on account of the relatively small quantity of amniotic fluid, weighed 6 lb. 6 oz., and was certainly not fully developed.

Brentford.

PUBLIC BATHS, ISLINGTON.—On Saturday the Lord Mayor, accompanied by Mr. Alderman Sheriff Tyler, inaugurated the first of the public baths in Islington, which the local vestry has decided to erect. The building is in the Caledonian-road, and provides for the poorest and most densely populated divisions of the parish. The cost of the site, buildings, and fittings has been between £17,000 and £18,000. There are two large swimming baths, forty-two private baths for men, and sixteen for women. In addition there is a laundry establishment and the necessary steam machinery.

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A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

METROPOLITAN HOSPITAL.

CASE OF COMPOUND DEPRESSED FRACTURE OF THE SKULL, WITH REPLANTATION OF BONE; RECOVERY; REMARKS.

(Under the care of Mr. WALSHAM.)

THIS case of compound depressed fracture of the skull offers a very great contrast as regards treatment to the method of procedure which is usually practised for these injuries, and it is obvious from the description that the number of patients in whom it can be carried out with safety is a limited one. A surgeon would not feel justified in carrying out the procedures given below in full detail without he felt perfectly satisfied as to his power to make the wound and adjacent parts thoroughly aseptic and keep them so afterwards. There are two points to which attention is drawn in the remarks—the replantation of bone and the suturing of the dura mater. There is another which should be noticed, in our opinion, and that is the entire closure of the wound on the completion of the operation. With regard to the first point, the replantation of the bone after elevation in compound comminuted fracture of the skull, there are not many cases recorded in which it has been practised. Mr. J. H. Morgan[1] showed a child aged three years to the Fellows of the Medical Society on Jan. 25th last, on whom he had operated for this injury, complicated with wound of the brain. Separated pieces of bone were replaced, and only one minute crumb of bone afterwards came away. Mr. W. H. Battle[2] also showed a girl aged five before the same Society on March 21st, on whom he had been called to operate. Elevation to their normal level of depressed fragments of the skull had been performed from an opening made with a quarter-inch trephine, and the crown of bone thus removed was afterwards replaced. The result had been a perfect success. We have, therefore, these three cases, the extent of replacement being different in each—fragments separated by the injury, fragments of a separated piece which had been cut smaller, replacement of trephine crown without removal of depressed fragments from the wound, all, however, presenting one thing in common—the youth of the patient and the healthy vascular character of the bone. The cases in which, after operation for exploration of the brain, the crown of bone has been replaced, either in bulk or in fragments, have been complicated by wound of the membranes and, possibly, of the brain substance; but as there has been a perfect control of the wound from the first, the risk of extension of septic inflammation to them from the wound is very much less than in the cases where there has been a possible infection of deep wounds; therefore a wound of the dura mater is more serious, and it is a question whether it should not be the rule to use a drainage-tube in the large majority of such cases. Complete closure of the wound after the replacement of the damaged bone, the pericranium having been readjusted and sutured over the fragments, will, in a successful case, yield the ideal result both at the time and subsequently, for there will be no weak point in the cranial vault. In two of the cases (including this one) the edges of the wound were excised, and this, whilst adding nothing to the risk, diminishes the danger of infection, for they are so often bruised, and the dirt is inseparable by any other method. For the notes of the case we are indebted to Mr. C. F. Marshall, house surgeon.

E. R——, aged eight years, was admitted into the above hospital on March 31st, suffering from a compound depressed fracture of the skull. On admission the child was concussed, but there were no signs of cerebral compression. The pupils were equal and reacted to light. Temperature 99·6°. Situated about an inch behind the external angular process of the left side of the frontal bone was a wound about two inches long, leading to a depressed fracture of the frontal bone. The depressed bone was driven into the dura mater, but there was no laceration of brain substance. There was not much hæmorrhage, as the meningeal arteries had escaped uninjured. About two hours after admission Mr. Walsham operated. The scalp, having been shaved, was rendered thoroughly aseptic by washing with soap and water, turpentine, and perchloride of mercury lotion. The wound was washed out with a 1 in 3000 solution of perchloride of mercury. The depressed portion of bone, about the size of a penny piece, was raised by an elevator, the trephine not being found necessary. The portion of skull raised consisted of two pieces—one of which was attached to the periosteum, the other quite unattached. The piece attached to the periosteum was replaced and fixed by a silk suture; the loose piece of bone was cut into several pieces and placed in warm carbolic lotion (1 in 40) while the operation was proceeding. A small wound was found in the dura mater, and this was closed by a fine silk suture, which did not, however, completely prevent the escape of cerebro-spinal fluid. The dura mater and brain were otherwise uninjured, and there was no accumulation of blood. Several pieces of the detached bone were now replaced, with their edges slightly overlapping. The edges of the wound were refreshed and sutured with silk, but no drainage-tube was used. The wound was dressed with sal alembroth, gauze, and wool. The stitches were removed on the twelfth day and the wound was found to have healed by primary union, except at one spot where a small sinus was left; this, however, was firmly healed on the twenty-eighth day. The child made a perfect recovery, without a bad symptom of any kind.

Remarks by Mr. MARSHALL.—The two points of interest attaching to this case are the suture of the dura mater and the replantation of bone. The suture of the dura mater gave rise to no irritation of any kind, and doubtless tended to prevent the escape of cerebro-spinal fluid into the wound. The replanted portions of bone all lived and became attached, and when the patient left the hospital the skull beneath the scar was quite firm. The healing of the wound by first intention was no doubt aided by paring away the edges of the wound, although these were not apparently bruised. The thorough irrigation after the sutures were inserted and the subsequent firm compression rendered drainage unnecessary.

LIVERPOOL NORTHERN HOSPITAL.

TWO CASES OF STAB-WOUND, WITH PECULIAR FEATURES.

(Under the care of Mr. PUZEY.)

THESE cases are of somewhat unusual character in this country, and contribute to the clinical records of this department of surgery. It will be seen from the account of the cases that the patients were placed in a favourable condition, surgically speaking, from the first by the careful attention of the ambulance surgeon before they were sent to the hospital, and therefore many of the dangers of septic infection in transit were avoided. They did not present the difficulties with regard to the question of operation which are frequently presented by stab-wound of the abdomen, as to whether operative interference shall be undertaken or not, for protrusion of abdominal contents existed, and that required to be remedied. It is fortunate there was no wound of the intestinal tract. The wound of the chest and abdomen of Case 2 resembles much that is occasionally seen when operation for empyema has been performed low down on the left side, where the diaphragm is adherent and incision has been carried through, the muscular diaphragm having greatly resembled thickened pleura until complete penetration and the appearance of omentum made it evident that the surgeon was below the purulent collection.

CASE 1. *Stab in left loin, with protrusion of colon.*—J. T. K——, labourer, aged twenty-two, was admitted into the Northern Hospital late on the night of March 2nd, 1891, having been stabbed in a street row. When first seen by the ambulance surgeon he was lying back in a chair, only partly sensible, with a small wound in the left loin, through which a piece of intestine was protruding; there was no hæmorrhage. Temporary wet antiseptic dressing was ap-

[1] THE LANCET, vol. i. 1892, p. 255. [2] Ibid., p. 624.

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plied, and the man was brought in the ambulance carriage to the hospital. On admission he was found to be somewhat under the influence of drink; the pulse was fairly good, and there was little collapse. A piece of large bowel, about the size of a cricket-ball, was bulging through a small wound just below the eleventh rib, on the left side. The patient was put under chloroform and the wound enlarged backwards (towards the spine), and the bowel, which was found to be unwounded, was then replaced. No communication with the peritoneal cavity was found, so that apparently the stab might be considered to have practically resulted in a lumbar colotomy (or rather the first stage of it) performed at a blow. The divided muscular structures were brought together by buried catgut sutures, and the skin wound by silver ones, the wound having first been thoroughly dusted over with iodoform and boracic acid. Dry antiseptic dressings were applied. Next day there was considerable local abdominal tenderness, and the temperature ran up to 101·4°. Ten minims of tincture of opium, every four hours, and ice were prescribed. The patient to have no food of any description. On March 4th the temperature was falling, and the abdominal tenderness had nearly disappeared. On the following day the temperature was normal, and the man seemed quite well. There was very slight discharge from the wound, which required an occasional change of dressings until March 21st, when it was soundly healed. There was no after trouble about the bowels, and the man left the hospital perfectly well on April 3rd.

CASE 2. *Stab in the left side penetrating the pleural cavity and diaphragm, with protrusion of omentum through chest wall.*—L. S——, a girl aged eighteen, was admitted at the same time as the preceeding case, having, as it was alleged, been wounded by the same assailant, with the same knife. The ambulance surgeon had applied antiseptic dressings before bringing her to the hospital. On admission she was found to have a wound about an inch long, in the eighth intercostal space of the left side of her chest. Though this was hanging down a piece of omentum about six inches long, and about the thickness of two fingers; it completely plugged the wound. The patient having been anæsthetised, the wound was freely enlarged in a backward direction; air of course passed freely and noisily in and out of the pleural cavity, which contained some blood; the lung was somewhat collapsed, but was apparently unwounded. The opening in the diaphragm, through which the omentum had escaped, was found, and with some difficulty was brought up nearly to the level of the chest wound. Here it was held by hooks whilst the omentum (after being thoroughly cleansed, and then dusted over with iodoform and boracic acid) was pushed back into the abdominal cavity. The wound in the diaphragm was then closed with two chromicised catgut sutures, and the muscle allowed to drop back. The pleural cavity was then washed out with boracic lotion to cleanse it from the blood-clot; a drainage-tube was laid in it and the wound stitched up after it had been thoroughly dusted with iodoform and boracic acid. Gauze soaked in carbolic glycerine was applied over the drainage-tube, otherwise the antiseptic dressings were dry. As in the preceding case, the next day there was a rise of temperature, with quick pulse and other pyrexial symptoms, with considerable pain and tenderness about the left side of the abdomen, so that appearances generally were unfavourable. Nothing but opium and ice was allowed, and the following day all unpleasant symptoms had disappeared. The wound healed without suppuration, and the drainage-tube was removed on the third day after the injury. The temperature at this time was normal, but about the eighth day after admission it began to rise at night, and this rise increased slightly each day until the 12th (temperature 100·8°), when it was evident that there was a collection of fluid in the chest. Aspiration was performed by Dr. Mothersole, senior house surgeon, and thirty ounces of serum, slightly turbid and deeply blood-stained, were drawn off. After this the temperature at once dropped to the normal, and the girl left the hospital on April 7th quite well, with perfect respiration throughout the chest.

Remarks by Mr. PUZEY.—In the first of these cases there is very little calling for remark; the narrow escape from a perforating wound of the colon, or from what might have been a fatal wound of the intestine in the peritoneal cavity, being obvious. With regard to the second case, however, there seems to me to be several interesting points. That a knife should (*a*) pass through the pleural cavity without wounding the lung, (*b*) should penetrate the diaphragm without wounding the spleen, stomach, or colon, and (*c*) should bring back with it a long piece of great omentum, appears about as unlikely a freak as could be imagined. As regards the treatment of the protruding omentum, it would have been easier to tie it as far up as possible, cut it off, and push back the stump through the diaphragm, and if it had been ragged or dirty I should have done so; but feeling certain that it was quite (surgically) clean, I thought it better to return it whole for several reasons, amongst which one was that the freshly cut stump of omentum may form an awkward adhesion to some peritoneal surface. To return it whole, it was found necessary to hook up, and to put on the stretch the hole in the diaphragm; and in doing this and in the subsequent stitching of the slit in that muscle I received valuable help from my colleague, Mr. George Hamilton. With regard to the after course of this case there is not much to say, except that the collection of fluid in the chest probably occurred through too early removal of the drainage-tube. It is rather remarkable that these two patients should have passed through such a similar experience. Not only were they wounded by the same person and with the same knife, but almost in the same region of the body, and each had a narrow escape of fatal injury. Both of them on the following day looked as if they were "in for" peritonitis, but both of them on the day after that seemed quite well, the alarming symptoms in each case having been probably due to excessive reaction from the double shock of injury and the anæsthetics, combined with digestive disturbances due to alcohol. Absolute starvation, with ice only and opium, was the only internal treatment for three or four days.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Changes in the Blood in the course of Rheumatic Attacks.—The Distinctions to be drawn between Rheumatoid Arthritis and Rheumatic Arthritis.

AN ordinary meeting of this Society was held on May 24th, the President, Sir Andrew Clark, in the chair.

Dr. ARCHIBALD GARROD read a second communication on the Changes in the Blood in the course of Rheumatic Attacks, dealing especially with the variations in the number of the white corpuscles and the character of the fibrin network in simple slide preparations of the blood. M. Hayem stated that the white corpuscles were always increased in number during acute rheumatic attacks, but Drs. Maragliano and Castellino arrived at a different result, and maintained that the leucocytosis was only apparent, the number of red corpuscles being much diminished. The author's observations on this point agreed entirely with those of M. Hayem. In every case of acute rheumatism examined there was a distinct increase of white corpuscles, although there was never any extreme degree of leucocytosis. The highest number observed was nearly 20,000 white corpuscles per cubic millimetre. According to recent observers, the average number in healthy blood was between 6000 and 7000 per cubic millimetre. In order to exclude the effects of food the successive countings were performed as nearly as possible at the same hour in each case. It was found that the increase of white corpuscles was closely related to the amount of febrile disturbance. In subacute cases, and when there were conspicuous local manifestations without any considerable rise of temperature, the increase was only trifling. The increase of white corpuscles took place with great rapidity, and in a very early stage of the attack. When a relapse or recrudescence occurred a fresh increase of leucocytes was observed. The fall during convalescence might be equally rapid; but, on the other hand, it might be very gradual, the number of white corpuscles remaining high for some time after the temperature had fallen. The counting of the white corpuscles was done with a Thoma-Zeiss hæmocytometer, with a special pipette diluting only ten or twenty times. A 0·30 per cent. solution of acetic acid was employed for the dilution. In each observation fifty microscopic fields of known area were counted, the total area corresponding to 490·8 squares of Gowers' hæmocytometer. The number of blood platelets was usually increased during the period of convalescence.

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No noteworthy changes in the form or size of the red corpuscles were observed. The coarseness of the fibrin network in simple slide preparations of the blood of rheumatic patients was regarded by M. Hayem as affording an important diagnostic sign. The value of this test was discussed, and the opinion was expressed that it could only be of service in a very limited number of cases.—The PRESIDENT considered that the paper was one of exceptional value from its suggestiveness.—Dr. WILLIAM HUNTER referred to the importance of calculating the percentage of leucocytes to blood platelets, as well as of giving the absolute number of the former per cubic millimetre, the reason being that perspiration would, of course, alter the proportion between the corpuscles and serum, and therefore in every observation it should be recorded whether the patient was sweating at the time. The increase of leucocytes in acute rheumatism was interesting in its bearing on the question whether the disease were infectious or constitutional. If it were the former, then increase of leucocytes was to be expected, for such increase was usually directly proportional to the intensity of the infective process. This was especially to be observed in pneumonia, and he believed that there was a direct causal relation between the two, and this was important in view of Metchnikoff's recent researches.—Dr. HABERSHON said he had been working at a similar subject, and in that connexion had occasion to investigate the condition of the blood in rheumatic fever; he had observed a distinct leucocytosis in that disease. He had found that in animals in which the blood was concentrated the leucocytes were apparently in excess, but on calculating the proportionate number to the red discs, it was found that the ratio was a normal one. In many other conditions, such as suppuration and the malignant forms of diabetes, there was a large excess of leucocytes. Injection of toxins and many other substances would also produce leucocytosis, and it was a question whether their migration into the blood in rheumatic fever was with the view to combat a microbic enemy.—Dr. GARROD agreed that it was important to keep count of the red corpuscles, and he had always estimated them as well as the white ones. The diminution which he had observed did not represent the whole diminution if diaphoresis had been at work. The occurrence of leucocytosis in such a purely non-suppurative disease was of great interest.

Mr. HUGH LANE then gave an account of some further observations in reference to the Distinctions to be drawn between Rheumatoid Arthritis and Rheumatic Arthritis. In referring to the disease rheumatoid arthritis, which he had previously shown to consist of two separate and distinct diseases, rheumatic and rheumatoid arthritis, he first briefly recapitulated the distinctions he had already drawn between these conditions—namely, that chronic rheumatic arthritis was an arthritis of rheumatic origin, while chronic rheumatoid arthritis was a constitutional disease of debility, invariably having a history of phthisis or gout, or both. Rheumatic arthritis was characterised by the occurrence of subacute attacks, thereby revealing the existence of rheumatism and declaring its connexion with the arthritis, and to these subacute attacks the subsequent distinctive deformities were due. It exhibited no marked neuroses, had no relation to osteo-arthritis, was more confined to the joints, and more a local than a constitutional disease; the heart was often affected; the reflexes were increased, especially late in the disease; muscular atrophy, if present, was a later symptom, resulting from sheer want of use of joint; the joints exhibited typical deformity, with no effusion, but presenting the appearance of a solid enlargement of joint area. On the other hand, rheumatoid arthritis was a constitutional disease with many neuroses; a peculiar anæmia and muscular atrophy were early and constant symptoms; reflexes were normal or subnormal; the pulse was rapid, hard, and characteristic; and the joint areas presented typical fusiform swellings, which developed later into the mushroom-shaped condition of osteo-arthritis. The speaker then described his subsequent researches, which all tended to strengthen his opinion of the correctness of the distinction already drawn, and, moreover, treatment accentuated its importance. He found that the manner of onset in both diseases differed considerably; and further observations showed conclusively the value in diagnosis of the wasting of the muscles in the ball of the thumb, which he considered might safely be extended to the whole of the interossei. Climate appeared to exert more influence in rheumatic than in rheumatoid arthritis. The anæmia was more pronounced in the latter; and, furthermore, while young and old, rich and poor, might all suffer from rheumatoid arthritis, in rheumatic the young seldom did, and the rich claimed more exemption. He related further observations concerning the neural elements, the standard, so to speak, of rheumatoid arthritis. Migraine and various other symptoms peculiar to the disease—perverted taste, deafness, &c.—all in conjunction with the symptoms previously noted, went a long way, in his opinion, in establishing chronic rheumatoid arthritis as a disease separate from chronic rheumatic arthritis.—Sir ALFRED GARROD said that it was now thirty-two years since he had shown that there was a large class of cases which owed their origin to neither gout nor true rheumatism, and to which he gave the term "rheumatoid arthritis"; there was no uric acid in the blood, but the joints were injured from the very earliest stage by ulceration of the cartilages leading to absorption. Among causes, any debilitating affection, such as mental depression, appeared to be active. Mr. Lane wished to separate the rheumatic cases from the rheumatoid group, but he still believed that an attack of typical rheumatoid arthritis could be started by acute rheumatism. He asked the author if he had demonstrated pathological changes to substantiate his conclusions.—Dr. ORD said that his experience differed from that of the author, but this was perhaps because they approached the subject from different points of view. They were all engaged in investigating the affection called chronic multi-articular arthritis. The term "chronic rheumatic arthritis" could be well applied to a limited number of cases in which chronic arthritis followed on acute rheumatism; it occurred in people rather under than over forty. There might be bony outgrowth around the joint without much change in the synovial membrane, and it tended towards fibrous ankylosis. They were not, as a rule, the subjects of rheumatic relapses. The wasting of the muscles was usually out of proportion to the disease of the joints, and was the work of trophic nerves, as was also the disease of the joints. In many instances wasting of muscles had been the first sign. In several cases he had found evidence of central nervous changes, the symptoms pointing to lesion of the anterior cornua of the cord. In many cases of steadily progressive osteo-arthritis there were inflammatory exacerbations. He had noticed as causes prolonged exertion, exposure to cold, and emotional disturbances, often in relation to the menstrual periods; the onset was often towards the climacteric. Clinically, he had noticed symmetrical enlargements of the distal articulations of a chronic inflammatory nature which developed during the menstrual period, lasted through it, and ceased shortly afterwards—ceasing at the menopause, but recurring in the presence of great mental distress. It was easy to conceive that the uterine hyperæmia disturbed the circulation in the cord with consequent reflex irritation of the joints. It was often associated with a general condition of poor nourishment. In using descriptive terms it was important to assume as little as possible, and he considered that "chronic osteo-arthritis" was a better term than "rheumatic arthritis."—The PRESIDENT asked the author if in those cases in which struma had been present he had ever found tubercle bacilli in the joint lesions.—Mr. LANE, in reply, maintained that there was no direct connexion between true rheumatoid arthritis and rheumatism, nor was there any actual connexion with gout, but there was frequently a strong hereditary history of the latter, as there often was with struma and consumption. The joint cases which he had seen presented two great divisions—a large majority of them seemed to be the results of rheumatism attacking the joints, and they presented no enlargement of the articulation; there was usually no fluid present, and they tended towards a firm ankylosis. In rheumatoid arthritis the joint felt spongy, as if containing fluid, and the ankylosis was not so firm, suggesting rather an inter-locking of exostoses. In the hand deformity there was an "ulnar tendency" in rheumatoid disease, but a "twisting up" in rheumatic arthritis. The rheumatoid cases were not subject to relapses or subacute attacks. He quoted the case of a sempstress whose joints always became swollen and painful towards the end of the week, but after the Sunday's rest the trouble subsided. The advantage of the distinction was in the treatment, the rheumatoid variety improving with tonics, cod-liver oil, and fresh air, while they became worse under anti-rheumatic treatment. The first effect of the waters was invigorating and good for both classes of cases, but it was the medicinal treatment which was especially beneficial]

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OBSTETRICAL SOCIETY OF LONDON.

The Relative Position of Craniotomy and Cæsarean Section.

A MEETING was held on Wednesday, May 4th, Dr. J. Watt Black, President, in the chair.

A paper was read by Dr. Lewers on Six Cases of Craniotomy, with remarks on the relative position of Craniotomy and Cæsarean Section. Four of the cases, as will be seen by reference to the annexed table, might be described as neglected cases, the patients having been many hours in labour before the operation was undertaken, and in two cases delivery was only effected with great difficulty. All the cases recovered. Reference was made to Dr. Donald's paper, "Methods of Craniotomy," in which eighteen cases of craniotomy, all of which also recovered, were recorded. Taking these cases in conjunction with his own, the author argued that the mortality of craniotomy was extremely small, and therefore concluded that while Cæsarean section, in spite of all modern improvements, still remained a very dangerous operation, it should not be undertaken as a matter of election, but restricted entirely, or almost entirely, to cases where no other method of delivery was possible.

Dr. HORROCKS agreed with the author that general statistics comparing the two operations were valueless. In the Guy's Lying-in Charity the number of cases of craniotomy collated by Dr. Galabin from 1865 to 1875 was 1 in 1310, or 0·07 per cent.; from 1875 to 1885, collected by himself, the number was 1 in 1074, or 0·07 per cent. During the last-mentioned decennial period twenty-four cases required perforation. Of these, four mothers died: two from rupture of the uterus, one from rupture of vagina into rectum owing to atresia, and one suppurative peritonitis, after prolonged efforts at delivery had been otherwise made. He thought therefore that, excluding such cases as these, where death would probably ensue whether craniotomy or Cæsarean section was performed, it must be admitted that craniotomy as at present performed had a much lower maternal mortality than had Cæsarean section performed under similar conditions, even in the most successful hands. But he did not think this fact should prevent us from offering to a patient the alternatives. As a matter of fact, the mortality after Cæsarean section was a diminishing one, and no doubt, like all other operations, would improve more and more with increasing experience. He must confess to an increasing aversion to perforation of a living child's head. The certain death of the child, on the one hand, and the almost certain safety of it on the other, must be taken into consideration; and if the mother, father, and friends were willing to take the extra risk involved, he considered Cæsarean section quite justifiable. He mentioned a case of great pelvic contraction where the alternatives were placed before the parents. They would not consent to any extra risk, and, moreover, were glad not to have a living child; hence craniotomy was performed, and the mother made a good recovery.

Dr. LEITH NAPIER thought the question raised by the author deserved notice. Dr. Lewers erred in suggesting that the mortality of craniotomy was *nil*, and that of Cæsarean section "very much higher than reported." Taking large numbers of cases, the maternal mortality after craniotomy was 6·6 per cent. in the hands of the best operators; it was about 8·8 per cent. in Cæsarean section, and the infantile mortality practically *nil*. It might be averred that this splendid result was not likely to be reached by the majority of operators. But if we referred to an article in the *New York Medical Journal* for Aug. 29th, 1885, we find that Dafeilhay, as cited by Lusk, gave statistics showing 81 per cent. of women saved. In another series of sixty-one operations in rural districts there were

DR LEWERS' SIX CASES OF CRANIOTOMY.

No.	Name and age.	Previous pregnancies.	Date of operation.	Measurements of pelvis.	Method of operation.	Number of hours in labour before admission.	Convalescence.
1	A. T., 22		Jan. 27th, 1886.	Sp. il. ..... = 10½ in. Cr. il. ..... = 10½ in. Conj. ext. .... = 5¾ in. Conj. vera.... = 2⅜ in.	Turning done before I saw the case. Perforation of after-coming head and cephalotripsy. Delivery very difficult.	48	Rapid recovery. Temperature normal after 10th day.
2	A. L. C., 21	1. Labour on that occasion said to have been rapid; child lived six months.	Jan 9th, 1886.	Sp. il. ..... = 8½ in. Cr. il. ..... = 9½ in. Conj. ext. .... = 6½ in. Conj. vera .. = 2½–2⅜ in.	Cephalotripsy; easy.	At least 41	Slow recovery. More or less fever for 29 days after delivery, but prognosis never really unfavourable.
3	S. J., 25	No note.	May 13th, 1886.	Sp. il. ..... = 8¾ in. Cr. il. ..... = 10½ in. Conj. ext. .... = 7 in. Conj. vera.... = 3⅜ in.	Cephalotripsy; fairly easy.	28	Slow recovery. Persistent subinvolution, accompanied by more or less fever, till uterus curetted June 24th; then involution rapid.
4	E. H., 27	0	Jan. 8th, 1888.	Sp. il. ..... = 11 in. Cr. il. ..... = 11 in. Conj. ext. .... = 5½ in. Conj. vera.... = 2⅜ in.	Amputation of prolapsed arm; cephalotripsy; some portions of cranium removed with craniotomy forceps. Delivery very difficult.	18	*Patient* very ill for 3 weeks. Had an attack of pneumonia. Ultimate recovery complete.
5	A. C., 24	0	Nov. 16th, 1888.	Sp. il. ..... = 10½ in. Cr. il. ..... = 10⅝ in. Conj. ext. .... = 5⅞ in. Conj. vera.... = 2½ in.	Cephalotripsy; easy.	About 12 hours.	Rapid recovery. More or less feverish for 6 days after delivery. Highest temp. = 102°.
6	A. C. Same patient as in No. 5.	1	March 3rd, 1890.	As in No. 5.	Cephalotripsy. The cranioclast and craniotomy forceps also used.	No note, but had not been very long in labour.	Rapid recovery. Highest temp. = 100·4°.

Dr. JOHN PHILLIPS said he had written a paper on the same subject,[1] but although on similar lines, his conclusions were different. His own cases of craniotomy (sixteen) all recovered. Twelve were for contracted pelvis, of which four could be included under the same category as those related by the author. His experience was that cephalotripsy was a very difficult operation, especially after repeated attempts had been made by others to deliver with forceps. The author had not alluded to statistics of large numbers of craniotomies; for example, Determann of Berlin performed the operation 239 times in 22,051 cases, with a mortality of 12·8 per cent. up to 1882, and 9·4 per cent. from 1882 to 1887. Other statistics from Leipsic give the mortality as 8 per cent. He thought these figures were of great value, and he would like to ask the author how he proposed to deal with the cases he had related in the event of a second pregnancy. For his own part he considered that, having once performed craniotomy on any patient, and warned her of the risk she incurred by again becoming pregnant, he would only repeat the operation under protest, or decline altogether.

[1] Brit. Med. Jour., June 1st, 1889.

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more than 78 per cent. of recoveries. There could be no doubt that craniotomy must, except under special circumstances—such as ante-operation, infantile death, &c.—be regarded as a most undesirable procedure, and little less doubt that Cæsarean section would be generally preferred in the near future. He would not now enter on his personal experience of craniotomy, which, however, had been sufficient to enable him to speak with some confidence in stating that he had performed this ghastly operation much oftener in the past than he hoped to do in the future, with his more recent knowledge of Cæsarean section.

Dr. CHAMPNEYS said that in a subject so large as that before the meeting only a few points could be discussed; there was, for instance, no time to speak of the very important relation of the induction of premature labour to Cæsarean section. In a pelvis susceptible of the former treatment in a subsequent labour it was plainly our duty to perforate even a living child on the first occasion. It must, however, be borne in mind that the statistics of Prof. Belluzzi showed that few children grew up who were delivered through a pelvis of less than three inches. A point in favour of Cæsarean section which had not yet been referred to was the opportunity it afforded of sterilising the patient. The mortality of simple craniotomy was probably *nil*; the plunging of a perforator into the head of a child should not be a risk to the mother. The dangers of craniotomy were principally two. The first consisted not in the operation, but in the futile efforts at delivery by forceps which often preceded it. This explained the paradox that the maternal mortality was greater in slight than in great contractions of the pelvis, for in the latter no such attempts were made. The second consisted not in perforation, but in extraction. At the time of perforation the os was often pretty large, but as soon as the head collapsed a little it shrank up again. It was then too small to apply the cephalotribe, especially high up in the pelvis, and delivery had to be effected by removing the vault of the skull piecemeal, followed by cephalotripsy as a rule, the cervix being almost always severely lacerated in the process.

Dr. DUNCAN thought that, notwithstanding the great advances made in surgery recently, we are not in a position to dogmatise on the comparative merits and risks of Cæsarean section and craniotomy. Until recently Cæsarean section had *not* had a fair chance in this country, being only performed a few times, and as a *dernier ressort*; but the statistics of Leopold (which could not be disputed) showed that the mortality of the operation was only 8 or 9 per cent. It was very doubtful whether craniotomy had a less mortality; the cases quoted by the author were too few on which to base an opinion. It was exceedingly important to bear in mind two facts not mentioned in the paper—the first was that, whereas in one operation all the children were saved, in the other they were necessarily destroyed, and although the life of the mother should be our first consideration, still that of the child must not be forgotten. At any rate, the mother should have the position fully explained, so that she may choose whether she would run a little more risk in order to have her child saved. The second fact to which he wished to allude was that many women after craniotomy were left more or less crippled from lacerations and pelvic inflammations; whereas nothing of the kind was seen after Cæsarean section. An important advantage of the latter operation was, as had been already mentioned, the opportunity it gave of placing the woman in a condition that she could not again conceive. He feared that, in spite of the lessened mortality after Cæsarean section, the general practitioner would still have to resort to craniotomy in preference to the other; but he thought the time had arrived when we ought to completely revise the teaching and practice of delivering a woman by craniotomy in all, except the most severe, degrees of contracted pelves.

Dr. HERBERT SPENCER thought that such small pelves (four of which had a conjugate of two inches and a half or less) as those given in the paper were very rare. At University College Hospital there had not been one pelvis with a conjugate of two inches and a half in over 10,000 labours. In such a case he would prefer Cæsarean section as equally or less dangerous to the mother than craniotomy. He asked whether Dr. Lewers had included in his paper all the cases of craniotomy which had occurred at the London Hospital in more than five years, or only those performed by himself. Judging from the experience at this hospital, Dr. Spencer thought it could not be that craniotomy had only twice been necessary in pelves measuring over two inches and a half in the conjugate. At University College Hospital craniotomy had been performed for contracted pelvis eleven times in 10,000 labours, always with success to the mother; the pelves had mostly varied between three inches and a quarter and two inches and three-quarters in the conjugate, and in such cases he considered craniotomy had a very slight if any maternal mortality, and was in this respect greatly superior to Cæsarean section. Much had been said of Leopold's results in Cæsarean section, but that operator's results in craniotomy were much better (seventy-one cases without a death). Admitting the principle that the child might be sacrificed in the interest of the mother, he would, in any individual case of labour with a mature living child, adopt that method of delivery which gave the best chance to the mother, and would prefer craniotomy in all the ordinary cases of contracted pelves, and Cæsarean section in those extreme cases which were very rare.

Dr. HANDFIELD JONES thought that if Cæsarean section were to be employed more frequently, and practitioners were to be taught that they ought to do that operation in cases in which they had hitherto performed craniotomy, then it would be necessary to consider whether the Porro operation would not be safer in the hands of men unaccustomed to abdominal surgery rather than the Sanger-Cæsarean section. Certainly the risks of hæmorrhage, the complication of uterine atony, and the difficulties of suture of the uterus were avoided in the Porro operation. He asked whether the case of delayed involution quoted in the paper was not one of metritis dessicans, and asked if the author had examined the sloughs microscopically for muscular tissue.

Dr. CULLINGWORTH considered the series of cases reported by Dr. Lewers an unsuitable basis upon which to raise a discussion on the relative merits of craniotomy and Cæsarean section. With the exception perhaps of Case 6, which was not Dr. Lewers' at all, all the cases had been subjected, before Dr. Lewers saw them, to long and repeated efforts at delivery; in all of them presumably (though the point was not alluded to in the paper) the child was dead. In such cases as these no one would for a moment entertain even the thought of Cæsarean section. Obviously craniotomy was not only the right thing to do, but the only thing to do. It was when one was consulted by a patient before labour set in, the child being alive and the pelvic deformity considerable, that the real difficulty occurred of deciding what advice to give. The question was entirely one of degree. Probably—and if a vote were taken all obstetricians would agree that the patient should be advised to undergo Cæsarean section if the conjugate were two and a quarter inches or under—the majority would most likely give that advice where the conjugate did not exceed two and a half inches; whilst a large minority would, he thought, be disposed to recommend it if the contraction were even as considerable as two inches and three-quarters. He himself would be found in the last-named category. With regard to the hesitation shown by British practitioners in advising their patients to submit to Cæsarean section, it was a state of things that would exist until a larger number of successful cases had been reported. The late Dr. Matthews Duncan, in a discussion in that Society in 1887 on a paper of his (Dr. Cullingworth's), had put this very forcibly. He said: "It was to Germany that we must look for the guidance of experience; to such wonderful successes as those of Sanger, Leopold, Crede, and Gusserow. It was such successes alone that should, and would, lead us in this great practical question. ..... No amount of eloquence about the abolition of craniotomy—and there had been much of such talk—would help forward that much-to-be-desired result. Nothing but success in some alternative operation, such as Cæsarean section—success like that of Sanger and Leopold—would be convincing eloquence or do the least good." He (Dr. Cullingworth) could not help thinking it a matter for regret that any words should be used in reference to this subject, which would have a tendency to discourage in this country Cæsarean section in suitable cases.

Dr. RUTHERFOORD thought the author of the paper was hardly justified by the cases he brought forward in coming to the conclusion that Cæsarean section should be an operation undertaken as a necessity and not as one of election. In five out of the six cases the circumstances and surroundings were most unfavourable before craniotomy was per-

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formed. There had been a want of antiseptics, prolonged interference with the uterus had been carried out, and in all there had been repeated attempts to deliver with forceps. In spite of these, successful results had been obtained, and he believed similarly successful results might be obtained were Cæsarean section made an operation of election, with the advantage that a living child would be brought into the world.

Dr. LEWERS, in reply, said it was important to keep in view the fact, however we explain it, that the mortality of Cæsarean section in London performed by operators of acknowledged competence was still very high—from 20 to 50 per cent., and even in some cases higher. This was a matter of common knowledge, and it appeared clearly also in the course of the discussion on Cæsarean section at the last meeting of the Society. This being so, it would obviously be wrong to advise patients to undergo the operation on the ground that some operators in Germany, and Cameron in Glasgow, have a mortality of 9 or 10 per cent. It was said that, in order to get such results, the operation must be done more frequently. Granting this, for the sake of argument, contracted pelves were not sufficiently common in London to give all the London obstetricians many cases each. The cases of craniotomy, in his paper and others to which he had referred, showed the mortality to be very low, and Leopold's statistics brought out the same thing, as he had had seventy-one craniotomies, with two deaths, both cases of eclampsia, against a mortality of about 9 per cent. for Cæsarean section. He entirely agreed with Dr. Champneys that in each case the risk of Cæsarean section and craniotomy respectively should be put plainly before the patient and her friends, and that if they decided for craniotomy it was our duty to perform it, even time after time. We had no right to compel a patient, or even to urge her, to take a very dangerous path of retreat from a painful position, when an almost certainly safe one lay open to her.

The following specimens were shown:—

Mr. ALBAN DORAN: Papilloma of Ovary.

Dr. CULLINGWORTH: Tubal Gestation with Apoplexy of the Ovum.

Dr. LEITH NAPIER: (1) Four Months' Fœtus with Unruptured Amnial Sac; (2) Multiple Myo-fibromata removed by Hysterectomy.

EPIDEMIOLOGICAL SOCIETY.

ON April 20th Inspector-General Lawson read a paper on Cholera in Ships at Sea, and their Connexion with Manifestations of the same Disease on Land. It was first pointed out that the increase of cholera nostras, and the sporadic cases of malignant cholera, which precede and accompany the more concentrated portion of the manifestation, are, epidemiologically speaking, the effect of the general influences determining the occurrence of the disease, and require to be considered when these are being investigated. From 1871 to 1880 222 ships left Calcutta with coolies for Mauritius, Natal, and the West Indies, carrying 129,527 of them. Cholera appeared in thirty-two of these vessels, with 14,572 on board, being 14·3 per cent. of the ships, and of these passengers 181, or 12·3 per 1000, died of that disease. In vol. iv. (new series) of the Transactions, p. 114, is a table giving the names of these vessels, the numbers embarked in each, with the date, and the deaths from cholera among the emigrants each day after embarkation up to the 20th, and after the 20th in one season. From this it will be seen that the first death in any ship did not occur on the fifth or sixth days, nor on the seventeenth, eighteenth, nineteenth, or twentieth days, while in eight instances the first death was after the twentieth day. The deaths up to the sixth day (eighteen in number) being within the incubation period, may be referred to the land; that from the seventh to the twentieth—amounting to 106, and still more those after the twentieth to fifty-seventh—are due to influences the ships were exposed to. Furthermore, sailing ships from Calcutta for Mauritius, or westward, follow the same course—viz., along the 90° meridian E. as far as 5° or 16° S., where they meet the S.E. trade, while smaller than go westward; their latitude on this line on the seventh day is about 15° N.; on the twenty-first day about the Equator and onwards; but as the longitudes are not given their positions south of the Equator, though now deviating materially from the general track, are not defined. Other records, however, show that vessels have reached Mauritius, or had cases in its immediate vicinity. In the ten years the mortality fell mostly on 1872–73–74, during which there were forty-five, forty-nine, and fifty deaths respectively, while in the remaining seven years there were forty-two only. During this period the deaths from cholera in the central provinces in Hindustan, Berar, and the Bombay and Madras Presidencies, which had been at the moderate rate of 32,039 in 1872, fell to 1467 in 1873, and to 366 only in 1874, but in 1875, when the ships almost ceased to suffer, the deaths from cholera in the same districts rose to 179,410. It is to be remarked, too, that the occurrence of the disease among the ships was accompanied by an unusual frequency and severity of it in Burmah, along the Malay Peninsula, and in the islands of the Eastern Archipelago. The cholera epidemics in Mauritius have generally been preceded by a high death-rate from that disease in the Malay Peninsula and the Eastern Archipelago. This was the case in 1819 and 1856, and in subsequent extension, in connexion with them, there have been outbreaks of choleraic diarrhœa and sporadic malignant cases, occasionally proving fatal, at both Natal and the Cape Colony. Coming now to the Atlantic, the cases of the vessels *Scranton* and *New York*, carrying emigrants from Havre to New Orleans and New York respectively, are most important. On Nov. 25th, 1848, when the *Scranton* had been twenty-six days at sea, and the *New York* sixteen, they both had a warm wind from the south-east, and cholera appeared in the *New York*, and the following day in the *Scranton*. It continued in each vessel until she reached her destination. The question here arose, How were these ships affected with cholera after being so long at sea? The *New York* had had a very cold wind from the northward on the 23rd and 24th, and there was a general unpacking of baggage to obtain warmer clothing, and, it was said, some that had been soiled by choleraic discharges in Germany had been taken out and worn by several individuals, and that these were the first attacked in the *New York*. The same explanation was given for the *Scranton*, though at the time she was far south of the *New York*, and had had no cold weather nor unpacking of warm clothing. The hot wind experienced by the *Scranton* came from the desert in North Africa along the Mediterranean coasts, where cholera had been prevalent from Egypt westward, and the choleraic influence, carried by it from that locality, had reached both ships the same day, though 1000 miles apart in the Western Atlantic. The *New York* reached her destination on Dec. 1st, having lost seven passengers from cholera, and with many sick. The *Scranton* arrived at New Orleans on Dec. 11th, having lost thirteen from cholera, but with very few remaining sick of it. Though embracing New York and New Orleans, the influence of this wave was experienced much more to the south, for in June, 1849, sporadic cases occurred at Barranquilla, at the mouth of the river Magdalena, in New Granada, and in July cholera became epidemic over the coast from Santa Monta to Carthagena, and ascended the Magdalena to Bozeta, nearly 500 miles from the sea and 8000 feet above it. In Jamaica, also, in August and September, there was an unusual number of sporadic cases among the troops and civilians in Kingston and its vicinity, followed by an epidemic in October, 1850. The cholera epidemic of Brazil in 1855 was accompanied by an outbreak at Jago, the southernmost of the Cape de Verde Islands, and that year an emigrant ship, the *Franzisca*, from Hamburg for Rio Janeiro, in October contracted the disease at sea when in the latitude of Madeira, and carried it to her destination. In 1866, again, before cholera had appeared at Liverpool, four steamers with emigrants for America left that port—viz., the *England*, on March 28th, the *Virginia*, on May 4th, the *Union*, on May 12th, and the *Peruvian*, about the same date. There was no sickness in any of these ships on sailing; but, on reaching a point close to 49° N. 29° W., cholera commenced in each, and many deaths ensued. There were about this time several other ships carrying troops to the Cape and India which were affected during their passage southwards, for which reference must be made to the detailed paper in the Society's Transactions.

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WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

Calcification of Spleen —Obstructed Gall-duct.—Cervical Dysmenorrhœa.

A MEETING of this Society was held on Friday, May 6th, Dr. Chas. Wells, President, in the chair.

Dr. A. CLEMOW showed a specimen of Calcification of Spleen of an Indian native, aged forty-one, who had suffered from repeated attacks. The capsule was thickly crusted with hard calcareous deposit.

Mr. W. P. MALLAM exhibited a Liver with a large stone in the common gall-duct, and read notes of the clinical history of the case in a woman aged fifty-three.—Mr. HOWSE gave details of the operation, and reviewed the progress of hepatic surgery.—Drs. C. W. CHAPMAN and C. H. BENNETT made remarks.

Dr. HANDFIELD-JONES read a paper on a Clinical Study of the Causation and Treatment of Cervical Dysmenorrhœa. In bringing before the Society the results of a careful study of several hundred cases of dysmenorrhœa, the author pointed out that, while many cases came under the head of "neuralgic" and others of "inflammatory" dysmenorrhœa, there yet remained a large group to which the term "cervical" was most applicable. Numerous cases were quoted to show that uterine retraction did occur in the onset of each menstrual epoch, and that dilatation of the internal os was always present. Though this opening up of the os internum was normally performed without pain—as in the analogous case of labour—yet it was clear that conditions frequently existed which rendered this dilatation painful, and thus gave rise to menstrual suffering. Cases were brought forward to show how uterine displacement, fibroid change, spasm, and hyperæsthesia of nerve endings would all play a part in this process.—A discussion followed, in which the President, Drs Leith Napier, Travers, Rutherford, Schacht, and Mr. R. W. Lloyd joined.

MANCHESTER PATHOLOGICAL SOCIETY.

WEDNESDAY, MAY 11TH.

T. C. RAILTON, M.D., M.R.C.P., President, in the chair.

Equine Tuberculosis.—Mr. J. B WOLSTENHOLME showed and described specimens, and Dr. KELYNACK exhibited microscopical preparations, from a case of Equine Tuberculosis. The horse was eighteen years old, and up to a year ago was in robust health. Acute symptoms appeared only during the last fortnight, but the animal had wasted considerably during the last six months. At the necropsy the spleen was found much enlarged, and presented several large tumour masses of firm consistency. The mesenteric glands were also greatly enlarged, and in parts caseous. The lungs were in a condition of miliary tuberculosis. Microscopically, characteristic tubercular structure was well seen, and abundant tubercle bacilli found in lung, spleen, and glands.

Bovine Suppurative Pericarditis.—Mr. WOLSTENHOLME also exhibited the Heart and Pericardium of a Cow with Acute Suppurative Pericarditis, resulting from the penetration of a piece of wire, which, having been swallowed, had passed from the stomach, through the diaphragm, into the pericardium. Another fragment of wire was found projecting partially through the diaphragm.

Abnormality of Bladder.—Mr. WOLSTENHOLME further showed the Urinary Bladder of a Horse with two large lateral diverticulæ.

Brain Tumours.—Mr. G. H. COOKE exhibited two specimens of Multiple Tumours of the Brain: 1. The first, from a boy of five years and three-quarters, presented numerous caseous nodules in Broca's convolution. There was also tubercular meningitis. With the exception of slight retraction of the head, irregular respiration, and occasional shrill cry, all symptoms of tubercular meningitis were absent. There was no sign of motor irritation except a peculiar masticatory movement, which persisted till death; neither was there any aphasia. 2 In the second case there were caseous nodules in the left lenticular nucleus, which pressed on and pushed upwards the internal capsule, and extended into the caudate nucleus. A small nodule, limited to the posterior part of the right optic thalamus, and slightly pressing on the posterior part of the posterior limb of the internal capsule, was also present. The patient, a boy of two, had presented a distinct spastic condition of the right leg and both arms, tremor of a disseminated sclerosis type in the arms, palsy of the left side of the face; and, shortly before death, intermittent movement of the head and eyes towards the right side.

Eye Specimens.—Dr. THOMAS HARRIS showed for Mr. Edward Roberts Macroscopic and Microscopic Sections of Glioma of the Retina and Sarcoma of the Choroid prepared by the celloidin method.

Specimens.—Dr. NATHAN RAW exhibited preparations (1) from a case of Acute Necrosis of the Humerus, which was unaccompanied by suppuration; and (2) a specimen of Aneurysm of the Aorta.

Card Specimens.—Dr. KELYNACK: (1) Chronic Duodenal Ulcer, causing Pyloric Stenosis; (2) Tubercular Ulceration of Intestines, with Perforation of Jejunum; (3) Carcinoma of Ascending Colon. Dr. COLLEY MARCH: Osteo-Chondroma of Rib. Mr. WOLSTENHOLME: Bovine Tuberculosis.

NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY.

WEDNESDAY, MAY 18TH.

Mr. ANDERSON, President, in the chair.

The Operative Treatment of Fæcal Fistula —The President introduced this subject and showed the case of a boy on whom he had recently operated for the relief of this condition. The patient, who was eight years old, was admitted into the Nottingham General Hospital in October, 1890, under the care of Dr. Handford, with the following history:—For six months he had been suffering from pain in the bottom of the abdomen, which came on worse at intervals, but was always present to some extent. For some time before admission his mother noticed that his abdomen was swollen and that he was losing flesh rapidly. His bowels were opened regularly. There was no diarrhœa and no history of tuberculosis. On examination of the abdomen a swelling was found occupying the lower part of the right umbilical, hypogastric, and inguinal regions. It had a solid feel and was painful on pressure. There was dulness on percussion over it, but the extent of the dulness could not easily be made out, as percussion gave considerable pain. The heart and lungs were normal; the urine acid and free from albumen. On November 1st the umbilicus had begun to bulge and the pain in the abdomen had increased. On the 9th the protrusion at the umbilicus, which had increased in size, burst, discharging feculent pus. On February 1st, 1891, his condition was as follows:—Several sinuses had formed, and the skin sloughed over an area of about one inch to one inch and a half. The discharge of pus soon ceased, and only fæces came away. This feculent discharge continued without intermission up to the time of operation. About this time the actual cautery was applied to the part in the hope of causing some contraction, but without much result. On August 15th he left the hospital. Early in April of this year he was again admitted. There was at the umbilicus a well-marked fæcal fistula through which a considerable portion of the intestinal contents were discharged. The skin around the opening was reddened, and scattered round it were warty and fleshy growths, the larger ones close to the opening being the size of a cherry stone. They surrounded the fistula for a distance of one inch and a half, the skin here being in a most unhealthy condition, which was not to be wondered at, as it was bathed all day in a poultice of fæces. Of late his health had been falling off and he was losing flesh. An irregular swelling, caused by the matting together of intestines, could be felt in the vicinity of the opening. The operation was performed on April 8th. The skin having been thoroughly cleansed and the opening stuffed with wool, an incision was made commencing about one inch and a half above the fistula, and extending to the same distance below it. It was elliptical in form and enclosed the area of unhealthy skin. The abdominal parietes having been divided, the peritoneum was carefully opened at the upper part of the wound, and the central portion of skin and abdominal wall, which was enclosed in the incision, were separated all round, care being required on account of the coils of intestine which were adherent to the parietal

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peritoneum in the immediate neighbourhood of the wound. The central piece was drawn well out of the wound, whilst the other portions of bowel were exposed and separated from each other. Numerous old and firm adhesions were found binding neighbouring coils together, as well as to the parietal peritoneum. After the adhesions were freed and the loops of bowel replaced it was seen that the opening, which was the size of a threepenny piece, was in the cæcum. The appendix was normal. The external opening, the skin, the portion of the abdominal wall included in the incision, and the track were then cut off and the hole in the cæcum closed by Lembert's sutures. The parts were washed and replaced and the wound closed in the usual way. Two days later the wound was dressed. It was quite dry and healing satisfactorily. Temperature normal. Since the operation he had been fed by means of nutrient enemata. The next day food was given by the mouth. On April 15th, a week after the operation, the wound was healed and all the sutures were removed. There had been no symptoms of any kind. He was put on solid diet. On May 7th he got up. Since the operation he has gained flesh considerably and is now in good health.—Dr. HANDFORD gave the medical history of the case, and commented on the boy's state of malnutrition owing to escape of fæces from the fistula. He thought the origin of the condition might have been a suppurating mesenteric gland. He had seen three similar cases, all of which recovered without operation.

Gouty Deposit in Conjunctiva.—Mr. T. D. PRYCE showed a case of this affecting the right eye. The patient, a man aged seventy, was a publican and had previously been a post-boy. He also showed numerous tophi in the auricles and small joints of the hands.

Reviews and Notices of Books.

Microscopical Observations on the Hæmatozoon of Malaria. By Surgeon P. HEHIR, M.D., F.R.C.S. Edin.

THE author of this monograph is lecturer on pathology and clinical medicine in the Nizam's Medical School at Hyderabad, and has had experience of malarial fevers and their resulting cachexia not only there but in Burmah, where his attention was first specially attracted to the condition of the blood by the presence of certain peculiar moving bodies he discovered in that fluid obtained from sepoys returning from Wonthoo to Mandalay. At that time, early in 1887, he was studying Laveran's investigations into the micro-organisms found in the blood of people suffering from malarial poisoning, but he could not advance much in these inquiries for lack of opportunity. On becoming settled at Hyderabad he resumed his task, chiefly with the view of verifying or refuting the observations made by Laveran, Marchiafava, Celli, Councilman, Sternberg, Osler, Vandyke Carter, and Camillo Golgi, with whose labours he appears to have been well acquainted. After describing the method of investigation adopted, the precautions necessary in the examination of the blood, the instruments employed, and the nature and method of registration of cases, he proceeds to deal with the enumeration, description, and peculiarities of the various parasitic forms met with. These were eight in number, including phagocytes, and appear to have been noticed in the blood of the whole of the fifty cases he laboriously and sedulously examined and recorded. The micro-organisms were merely varieties, it would seem, of one polymorphic hæmatozoon, and the most frequent and constant of them was a simple spheroidal organism, this being present in all stages of the disease, and in every slide examined, the number varying from two or three to thirty or forty in the field of a D D objective lens; they were often met with in large numbers, even during the intermission of fever. They were developed within, and distinct from, the red blood-corpuscles. There were also present small amœboid organisms, provided with flagella for rapidly vibratile processes. These might be absent from the blood for days together, and then be found by the hundred, as occurred in 18 per cent. of the cases; they might be entirely absent in one field and be seen in crowds in the adjacent one, though they were always more abundant in the pyrexial period of malarial poisoning than in the apyrexial. Even when fever was present, a whole drop might not contain visible amœboid bodies, whereas a second drop from another part of the patient would have them in multitudes, so partial was their distribution. They appeared to be identical with Laveran's "mobile filamentary bodies," and it was noted that quinine has a powerful influence in preventing spore formation and the development of the organism itself. In developing, it was ascertained that segmentation of the spores takes place a short time before the onset of the pyrexial attack, and continues during the earlier stage of the ague. Laveran's "corpuscles" are the same as the simple spheroidal organism of Dr. Hehir, who also distinguished that authority's "crescentic bodies" in the blood he examined. But the most peculiar of the forms he noticed was the hæmatomonas malariæ stellata, a spherical body with from three to six well-marked cilia-like processes. The whole of the polymorphous varieties of the hæmatozoon are carefully and clearly described by the author, and the descriptions should be of much service to other observers. The mode of destruction of the parasite by phagocytes is very interesting; and, as Dr. Hehir remarks, "In malarial blood, phagocytes are often very industrious scavengers, clearing the blood of all stray particles and other foreign agents met with. ..... The rapidity with which they eat up the organisms sometimes prevents the process being properly studied." The notes of one observation are as follows: "The phagocyte at first advanced towards its victim, and then for about ten seconds appeared inactive, barely touching its prey, and almost suggesting that it had come to make friends with the unwary parasite, reminding one of the spider and the fly. That portion of the parasite in contact with the leucocyte was apparently stationary, whilst the free part was making efforts to set itself free, but gradually its movements became imperceptible. The phagocyte continued to entangle its prey until, within the space of a minute, it completely incorporated the amœboid parasite within its protoplasmic web, whence there was no exit."

The development of the hæmatomonas malariæ is lucidly treated, and is presumed to convey an explanation of many of the phenomena presented in malarial diseases, and particularly in regard to the various types of pyrexia resulting from malarial poisoning, accounting, in fact, for the rapidity with which symptoms of malarial poisoning in one form or other rapidly develop in persons inhabiting localities in which the poison is in abundance or in a concentrated form—that is, where malaria spores abound,—and the slower, less severe, and less general manifestation of symptoms in cases infected by air or water containing spores in fewer numbers. Dr. Hehir remarks that it is no unusual circumstance to find that patients sometimes suffer from malarial fever weeks after their visit to malarial localities. The interval between the time of infection and first appearance of symptoms may be assumed to be the period of incubation, during which several generations of the organism have carried out their life history, each generation producing a multiplied progeny. When a number of the organisms sufficient to affect the system have sprung into existence, the earliest manifestation of the malarial disease arises. In ague the attack occurs at the birth of each succeeding generation of the organism, the intervals during which the development of the mature forms of the parasite is taking place being apyrexial, thus accounting for the periodicity of malarial fevers.

The author rightly insists on the diagnostic importance of the hæmatozoon of malaria, and especially its presence

chronic malarial poisoning; and in a section he deals with the clinical value and relations of the discovery of Laveran, while in the last portion of his important work he inquires into the use of quinine in malarial disease, and states that he has repeatedly proved by irrigation experiments that the drug effects the disappearance or disintegration of both the free amœboid bodies and their spores, which are present as pigment granules.

Dr. Hehir has rendered good service to medicine in publishing an account of the results of his investigations into the pathology of malarial poisoning, which, he asserts, holds the unenviable position of killing more human beings than any other malady enumerated in the nomenclature of diseases. It is earnestly to be hoped that his efforts to give us a full knowledge of the cause of such a grave disorder will be well seconded by those who have the opportunity of studying it; certainly he has advanced our acquaintance with it very considerably, and has in doing so earned our special thanks. It would be curious—and perhaps important—to ascertain whether the "plasmodium malariæ," as the Italians have designated the micro-organism, is found in mammals in the malarial parts of India or Burmah. Pigeons, of all the domesticated animals, alone have been observed to harbour this hæmatozoon.

Studio Etiologico e Clinico delle Malattie Febbrili più Comuni a Massaua. Per ALESSANDRO PASQUALE Roma. 1891.

OF malaria, as of the poor, Italy may say "it is always with us," and certainly the superabundance of her literature on the subject testifies that she has not neglected her opportunities of studying it. Of late years Tommasi-Crudeli, Golgi, Marchiafava, and Celli have distinguished themselves in special monographs on its etiology, nature, and cure, and other investigators have followed up these with a diligence and inductive power which give a very favourable impression of the young Italian school. The occupation of the Red Sea littoral—whatever may be thought of its wisdom from the colonial or strategic point of view—has been fruitful in occasions for the further prosecution of researches into fevers (malarial and other), and Dr. Pasquale's monograph affords gratifying earnest of what Italy may yet contribute to our knowledge of one of the chief drawbacks to European settlement on the "Dark Continent." At first Massowah acquired an evil repute among Italians for endemic fever, which, in the absence of clinical experience, got the name of malaria, and no doubt the geographical description of the place seemed to countenance the assumption that the name was rightly applied. Quinine was administered on a heroic scale, but the clinical response to it was negative, or worse, and with the abandonment of the drug came more penetrating scrutiny into the etiology and nature of the fever, till the notion gained ground that the malady in question was due to an "*infectio sui generis*," the result of a pathogenic agent peculiar to Massowah. At this point Dr. Pasquale was officially commissioned to intervene, and, after prolonged and elaborate investigation, he compiled a report on the novel infection. Eighty-five was the number of the cases under his care, and the most minute attention was bestowed on these, not only as to their temperature, but as to the respiratory apparatus, the alimentary tract, and in a special manner as to the spleen. The fæces, the urine, and the blood were also chemically examined, and, where indicated, bacteriology was invoked to add precision to the diagnosis. The results are, after careful exposition, summed up in the monograph before us, and may be tabulated as follows:—1. Massowah is not a seat of palustral infection, though malaria may be evoked in its climate when already existing as a cachexia due to previous attacks. 2. There is no fever infection *sui generis*, such as the "climatic remittent," which some classifiers have called it. 3. There are febrile maladies which might be confounded with common continued fevers (such as those arising from typhoid infection), principally of the so-called "abortive" and minor types. We cannot summarise the data on which Dr. Pasquale grounds his exclusion of malaria from the fevers encountered at Massowah, any more than the findings which make him reject the assumption of "climatic remittents, while rather disposed to admit them under the category of "abortive" typhoidal febriculæ. Our purpose will have been amply served if we have drawn the attention of our readers to this very interesting and instructive monograph—the work of a pathologist and clinician of acute and independent mind, from whom the profession may look for yet further light on the imperfectly explored subject of African fevers.

Methods and Formulæ used in the Preparation of Animal and Vegetable Tissues for Microscopical Examination. By PETER WYATT SQUIRE. London: J. & A. Churchill.

THIS little volume consists of ninety pages, and embraces all the manipulation required for the preparation of microscopic sections, from the fixing and hardening of the tissue to the final mounting in balsam or glycerine. The volume does not include, however, the cutting of sections, the author evidently being of opinion that the mode of doing this cannot be learnt from a book. For purposes of reference the work will be found most valuable. All the best methods of microscopical technique which are scattered amongst the many larger text-books now published are here given a place. All the descriptions are brief and concise, so that no time is lost in finding what one seeks. Much new matter is, in addition, to be found which is not given in other works: for instance, Victoria blue is a stain but little known, yet it is one of the best for demonstrating elastic tissue, and in the book now under consideration full directions are given for the preparation of the solution and the method of using it. Very useful hints are also given in the preparation of hæmatoxylin and carmine specimens, which are founded on the personal experience of the author. In the later chapters of the book the methods of staining bacteria are fully described; not only are the general methods considered, but also the special. The action of the aniline dyes takes the first place; then follow Gram's, Löffler's and Kühne's processes; and next come the various methods of staining the bacilli of tubercle, leprosy, anthrax, glanders, syphilis, &c. As will be seen from the above remarks, this little book is a valuable addition to the literature on laboratory work. Although animal tissues occupy the larger portion of the book, vegetable tissues are also referred to, so that whatever branch the observer may be studying he will always find the formulæ and methods required. It will be especially useful to those who have already obtained a fair knowledge of the use of the microscope, but require a handy volume to which to turn for any particular stain or other reagent. The formulæ have been worked out very carefully, and we cordially recommend the *brochure* to the notice of all those engaged in laboratory work, whether for the purposes of study or of research.

OUR LIBRARY TABLE.

A Manual of the Dental Laboratory. By CHARLES HUNTER. London: Baillière, Tindall, and Cox. 1892.—This little book deals with the mechanical part of dentistry in so far as it is performed in the workroom. Commencing with the construction, ventilation, lighting, and heating of the laboratory, Mr. Hunter takes a common-sense view of its requirements, and the same with regard to the tools and appliances needed. If the

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young practitioner buys all the things recommended in some dental manuals, he will doubtless find himself much in the same position as the amateur photographer who purchases a so-called "complete set of apparatus," half of which he finds out too late to be useless. Mr. Hunter gives a good many hints for surmounting difficulties which often occur in practice, and many of which the student during his apprenticeship may not have encountered; his remarks, without being novel, are thoroughly practical. With regard to the more recent developments of prosthetic dentistry—such as bridge work, gold crowns, &c.,—Mr. Hunter appears only to write from the experience of others, and therefore this part is of comparatively less value.

Cocoa: all about it. By HISTORICUS. London: Sampson Low, Marston, and Co. 1892.—We took this book up under the impression that the title was simply "All about it"; but, on closer inspection of the yellow shilling-novel style of cover, the phrase is seen to be preceded by the word "cocoa," which is almost obscured in a maze of design intended to represent the plant itself. The work, however, deals with an interesting, and to an extent a scientific, subject. Thus, the history and cultivation of the cocoa plant, the uses of cocoa, the composition of cocoa, its manufacture, its value as a food, and its adulteration are discussed by one evidently having practical acquaintance with the subject. Some very interesting statistics are given of the manufacture of cocoa as carried on at the model works of Messrs. Cadbury and Co. at Bourneville. We are pleased to note here that amongst other things attention to the health and well-being of the persons employed in the factories receives due and careful consideration. Although the adulteration of cocoa is alluded to, especially in connexion with the work done at the instance of THE LANCET Commission, no simple scheme for the analysis of cocoa or for the chemical detection of adulterants is given. The estimation of fat and the detection of alkali are subjects which, we think, might well have been added. An appendix is devoted to an account of the cultivation of vanilla.

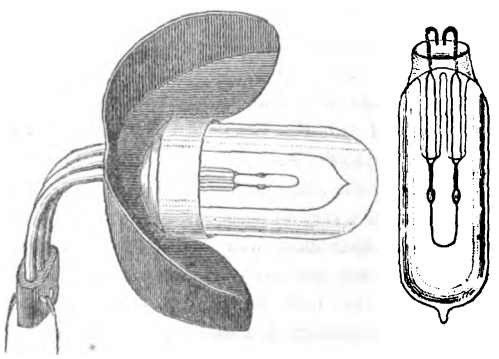
How to Use the Aneroid Barometer. By EDWARD WHYMPER. London: John Murray. 1891.—Mr. Edward Whymper is both an able author and an experienced traveller, and any subject which has received investigation at his hands will be certain to claim attention. In the *brochure* before us he gives the comparisons made with the aneroid and the mercurial barometer in the field and in the workshop, while the use of the aneroid in the determination of altitudes is fully described. He has, in fact, endeavoured to explain "some points in the behaviour of aneroids which have been puzzling and have seemed contradictory and anomalous." His object has therefore been "to render it possible for the ever-increasing number of those who employ these instruments in the field to use them with more confidence and certainty." All those concerned in this subject, therefore, and especially research travellers, will mark the important observations he has made with especial interest. The investigations have extended over eleven years, and the comparisons of the aneroid with the mercurial barometer were made at great elevations in the equatorial regions of South America.

Coca and Cocaine. By WILLIAM MARTINDALE, F.C.S. Second Edition. London: H. K. Lewis. 1892.—An interesting and well-nigh exhaustive account of the alkaloid cocaine and the plant from which it is derived is contained in the pages of this small volume. The early history of the coca plant is of particular interest. It appears that so far back as 1532 the natives of the West Indies were known to delight in chewing the leaves of the coca plant along with a compound they kept in little calabashes—a sort of earth resembling, as probably it was, lime. On being asked why they did this, the reply was that it made them insensible to hunger, and it added also to their strength and vigour. It is curious to observe how instinct has led the natives to chew the leaves with lime or, what is the same thing, calcined oyster shells, by which process, of course, the alkaloid is liberated from its natural combination. The botanical history of the plant, the use of coca as a restorative, the pharmaceutical preparations, medical uses, and references, the alkaloid and its salts, and the uses of cocaine are the subjects subsequently and fully described. The final chapter gives notes and references on cocaine that have appeared from time to time in THE LANCET and in other medical journals.

New Invention.

APPARATUS FOR EXAMINING THE CAVITIES OF THE FACE BY ELECTRIC LIGHT.

THE diagram illustrates a specially devised and constructed arrangement for examining the cavities of the face by electric light. The lamp is a new pattern, made by Edison and Swan, equal to five-candle power; it is mounted on the same plan as the smaller covered lamps I have used for three years or so for the purpose, but is ten times as strong as they are. The glass covering protects the mouth from undue heat or risk from accident to the lamp. Mounted in a vulcanite tray, it has free communication with the external air by the tubes, which go through the vulcanite, and carry the wiry socket; in this way it is kept



The drawing of the mounted apparatus is slightly reduced; that of the lamp is full size.

sufficiently cool for all practical purposes. The chief object of the vulcanite tray is to prevent as much as possible the light escaping from the mouth through the teeth and lips into the soft tissues of the face, and interfering with the direct light through the antra, which passes with a red glow from the nostrils and from immediately under the orbits. The effect, in cases of suspected disease, is so decisive that it seems impossible to make a mistake in diagnosis, for if any obstruction exists, the darkness on that side of the face is so strong a contrast to the light on the other side that the patient observes the red glow in the one eye and not in the other. Of course, if there is no obstruction, the light is equally visible on both sides. It is necessary to conduct the experiment in a perfectly dark room, otherwise no effect will be observed. The teeth should be well closed over the lantern on the vulcanite tray, and the lips tightly drawn over the front flange, thus leaving, outside the mouth, only the metal tubes to supply the air and carry the electric wires. The current is taken from that supplying the house, but is reduced by a resistance coil from 100 volts to the necessary power.

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THE LANCET.

LONDON: SATURDAY, MAY 28, 1892.

FOUR seats on the Council of the Royal College of Surgeons of England will have to be filled at the election which will take place on July 7th. The vacancies will be created by the decease of Mr. BERKELEY HILL and the fulfilment of their terms of office by Mr. DURHAM, Mr. LAWSON, and Mr. THOMAS SMITH. The three members of Council thus retiring in rotation were elected together in 1884, and have enjoyed their full term of eight years on the the Council, but Mr. THOMAS SMITH was first elected in 1880 as a substitute member for four years. Mr. BERKELEY HILL was elected in company with Mr. ALLINGHAM in 1884 as a substitute member, and both went out again in 1886. Mr. ALLINGHAM retired, not finding the position of a reformer on a Conservative Council agreeable; but Mr. BERKELEY HILL stood again, and was re-elected for the full term of eight years, of which six have expired, leaving two only for his fortunate or unfortunate successor. Of the three retiring members of Council Messrs. SMITH and DURHAM are expected to stand again, but Mr. LAWSON, so far as the College is concerned, is desirous of enjoying the *otium cum dignitate*, and has expressed his intention not to offer himself for re-election. He, if not an ardent reformer, is by no means opposed to advancing with the times, and his retirement will not be of any advantage to the advocates of the claims of the Fellows. Mr. THOMAS SMITH has done good service to the Fellows, and ought to be supported by all sections of the constituency. With Mr. DURHAM'S opinions we are not very well acquainted.

It will be seen that there will be two absolute vacancies on the Council, and possibly a third; but as the third is quite uncertain it had better be disregarded. For these vacancies we understand that the new candidates will be at least three in number. It is currently reported that Mr. WARRINGTON HAWARD and Mr. JEREMIAH MCCARTHY have been selected by those who are satisfied with the existing *régime*, whilst Mr. JOHN TWEEDY has accepted the invitation of the committee of the Fellows' Association to stand upon the platform for which the Association has been so long and so consistently contending, and which is strongly supported by several members of the present Council of the College. Mr. TWEEDY would have had Mr. LAWSON TAIT for a colleague in the battle if that gentleman had adhered to his expressed intention to come forward again. No sooner, however, had the Committee of the Fellows' Association paid him the compliment of asking him to stand as one of their candidates, than most unexpectedly he declares that he will not offer himself again in July. The announcement has occasioned considerable surprise amongst those who have loyally supported him year by year on the invitation of the Association of Fellows, and the more surprise because the reason assigned for his sudden retirement is curiously illogical. In previous years Mr. LAWSON TAIT has said that he would not come forward unless backed by the Association. The Association has backed him, and has nearly succeeded in carrying him into the Council. He was supported because he adopted their platform in the most frank and apparently satisfactory manner. It was believed that he would be a strong man on the Council, and would materially help to secure for the Fellows of the College that position in the Corporation which would be alike honourable to them and advantageous to the College. But whilst coquetting with the Fellows Association Mr. LAWSON TAIT seems to have bestowed all his real affection upon the Members of the College, and to have been endeavouring to advance their cause through the agency of the Association of Fellows. He has been a leading spirit in the unfortunate policy which the Committee of the Association of Members has pursued in the prosecution of the action STEELE *v.* SAVORY. He now, however, declares that, owing to circumstances which we need not recapitulate, the Members' Association is not worth fighting for, and, as he cannot fight for the Members, he will not fight for the Fellows. His position of course is unsound, and would appear to be wanting in loyalty to the Association of Fellows and to the Fellows generally. All who take an intelligent view of the present state of College politics recognise, however greatly they may regret the circumstances, as we do ourselves, that for the time being it is impossible to obtain for the Members any increase in their privileges, that the Council is favourably inclined to the Fellows, and that the best policy, even in the interests of the Members, is first to settle the proper position of the Fellows in relation to the Council and the Corporation. This being so, the great desideratum for the moment is to elect into the Council candidates who are prepared to support those points of reform which are feasible and lie almost within the grasp of the Fellows of the College. The Association of Fellows cannot have a better candidate than Mr. TWEEDY, who possesses a stability and a tact the want of which is apt to counteract the most brilliant qualities.

THOUGH it would be difficult to exaggerate the extreme hardship to the practitioner involved in such a case as that of COGHILL *v.* BONAPARTE, it is not without some lessons alike to the public and the profession. Dr. JOHNSON moralised on the unhappy lot of the physician—as a melancholy attendance on misery, a mean submission to peevishness, and a total interruption to pleasure. But even his observant eye did not seem to perceive that the physician had worse duties to face than attendance on the peevish or the miserable. It is equally a medical man's business to attend the vicious tainted with foul diseases (that have been often communicated with fatal effect to the unfortunate doctor through an unnoticed abrasion of the skin), and to advise the unprincipled person who will take away his reputation rather than pay a bill. The medical man cannot evade such duties. We must not libel human nature by saying that their performance constitutes a large proportion of medical work. But we must insist that they are by no means infrequent. And it requires a very good Samaritan indeed to undertake the treatment of such people, with all the risks it involves, with all the unspeak-

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able loathing of their code of morals, and with the chance of a lawsuit to enforce the payment of hard-earned remuneration. The law courts give frequent illustrations of these grievances of medical practice, compared with which those in Dr. JOHNSON'S Hat are trivial; but there has seldom been a worse case in point than that which occupied Mr. Justice HAWKINS and a jury for two days in the Queen's Bench Division. Thanks are due to the press in this instance for using a very large discretion in the publication of particulars, for only those who were in court can form any estimate of the base though groundless charges that had been made against the ill-used plaintiff. But enough has been published to excite the sympathy of the profession and the public with any self-respecting medical man who, by the mere accident of his profession, has fallen among such characters, and has had to attend them for months with such civility as he could command. The action took the simple shape of a medical man, Dr. COGHILL, suing the defendant—M. CLOVIS BONAPARTE—for attendance on himself for alcoholism, and on a lady who passed for his wife for what Mr. R. T. REID, Q.C., very euphemistically described as "grave specific disorder of a highly contagious nature." The bill had been sent in, but not paid. The defendant was impecunious, and conceived the idea not only of not paying the doctor's bill, but of making the doctor pay large damages by threatening an action for divorce against the woman who he maintained was not his wife, in which the plaintiff was to be made co-respondent. This worthy defendant was yet more ingenious and cruel. He drew such a picture to his so-called wife of an imaginary action that was to be commenced by Dr. COGHILL, and that was only to be averted by money, that he got her to make what purported to be a confession of disgusting actions involving the plaintiff, and to part with all her jewels, whereupon he went through a marriage service with another lady. Such were the persons in whose hands Dr. COGHILL'S reputation seemed to rest a week ago. Fortunately, Dr. JOHNSON'S description of the attitude of the medical man towards evils again fails—there was no "mean submission" to infamy at such hands, but a sturdy, manly determination to expose a conspiracy of slander which for filthiness and malignity has perhaps never been equalled in the history of the profession. And the exposure was completely accomplished, thanks to the honest and honourable reputation of Dr. COGHILL, and to the ability with which his counsel exposed the successive steps of the audacious scheme by which his patients thought to enrich themselves at the cost of Dr. COGHILL'S ruin. His triumph was as complete as the disclosure of their infamy. At an early stage of the case an attempt seemed to be made to keep Mrs. CLOVIS BONAPARTE out of the court. And we regret to say that the medical certificate in support of this attempt called forth very uncomplimentary remarks from the judge. Medical certificates that are to affect the action of courts of the course of law should be written with extreme care, and we are bound to admit that the medical gentleman who gave the certificate in this case did not [illegible] strength of assertion which should have [illegible] matter of such importance. He [illegible] Mr. Justice HAWKINS said he would never again receive a medical certificate unless it were accompanied by affidavits. No doubt the gentleman thought Mrs. CLOVIS BONAPARTE was more fit to be in bed than in a court. But, in giving such a certificate, a medical man is bound to take all facts into consideration. He could not say the presence of the witness would be dangerous to life. In these circumstances he was scarcely entitled to give medical sanction to her absence, which might have been fatal to one of the most important actions that ever was tried. We will not lay too much stress on the disparagement of medical certificates. But such certificates should not be forthcoming in circumstances of such extreme gravity, unless they can be strongly justified, and unless the presence of the patient decidedly involves danger to life. Fortunately, the witness came and disclosed her nature, her power of lying, of imagining, of swearing falsely, and all the edifice of slander that have been built upon it. The counsel for the defendant seemed as shocked as everybody else at the disclosure, and by the instruction of his client withdrew all imputation on Dr. COGHILL. The jury hastened to express their sympathy, and so did the judge. A verdict followed for the plaintiff for the amount claimed, £81 15*s*. Dr. COGHILL deserves the thanks as well as the sympathy of the profession. Every medical man is liable every day to accidents similar to this, though as a rule not quite so grave. But they are not the less awful to encounter, and those who meet them bravely and effectually do much to support the honour and dignity of a profession which must tend the bad as well as the good and those who can asperse the characters as well as those who can reward the services of its members.

A PHYSICIAN and a medical teacher in a leading metropolitan school does admirable service when he leaves for a moment the bedside and study of individual cases, and summons his class to consider the health bearings of the civilisation in the midst of which we are living. This is what Dr. VIVIAN POORE has been doing in the admirable lecture on the Concentration of Population in Cities, published in the last two numbers of THE LANCET. When a hospital physician of clinical reputation and industry bids us consider for an hour the bearings of the steadily increasing tendency of population to leave the country and to concentrate in towns our attention is naturally arrested; and as he marshals his facts before us, we are bound to admit that he is stating a problem demanding the serious attention not only of medical men, but of statesmen. We cannot too warmly recommend all public men, all those who have the power by word, or pen, or law, or example to influence public opinion and the movement of population, to read this extremely interesting lecture. For, after all, it is to statesmen that we must largely look for help in diffusing population. It is to be hoped that the development of local government will have some effect in this direction. Anything which supplies men with fresh [illegible] local interest, and local importance tends [illegible] to fix them in their locality. The centripetal [illegible] of the population is appalling. Should [illegible] and more overgrown and the country [illegible]

deserted. It is the same in the United States. Life is lived in a crowd, and in a hurry, and, in London at all events, too often in a fog. In 1801 Dr. POORE tells us that London contained one-eleventh of the entire population of England and Wales, whereas at the last census it was found to contain about one-seventh of the entire population. It is the same, and perhaps worse, in the United States. Half a century since the urban population of the United States was only 8·5 per cent. of the whole, while to-day it constitutes 29 per cent. of the whole. The rate at which American cities grow is "appalling." Chicago, with 1,200,000 inhabitants, having doubled itself in ten years, has beaten the record. One great feature of Dr. POORE'S address is his unsparing criticism of new forms of overcrowding in cities, among classes of men who would be the last to think that they were breaking sanitary laws. We have been apt to associate this folly with the unfortunate occupants of cellars in Liverpool or of what are known in sanitary literature as the "ticketed houses" of Glasgow. Dr. RUSSELL, in an address a few years ago to the Glasgow Philosophical Society, showed that 75,000 people in Glasgow live in "ticketed houses"—that is, houses which had once been of a higher class, but which are now let out in tenements with an average of air space for each inmate of 334 cubic feet. The Glasgow Police Act confers a discretionary power on the authorities to affix tin plates to such houses stating their cubic capacity and the number of inmates allowed. A system of night inspection is maintained over such houses. As regards the sublet houses of Liverpool, the details of overcrowding even within the last year or two would make good reading, and much valuable information on this subject has been obtained by various LANCET Sanitary Commissions. The sanitary and moral scandals of such overcrowding are scarcely likely to be repeated in "houses with every modern improvement." But a very superficial study of Dr. POORE'S lecture will show us what a tendency there is in fashionable circles to revert to bad types of houses, and how especially the high-storeyed houses of Edinburgh, with their successive flats, are being imitated in London flats and in the huge hotels, which outvie one another in size, and in which the unfortunate inmate is lost in a crowd, and is known rather by the number of his room than by personal recognition. Chicago here again "beats the record" with a building, "The Masonic Temple," of twenty storeys, and a street of eighteen miles in length. The old English prejudices were in favour of a self-contained house, and such houses were the envy of Scotch sanitarians, who knew the tendency of the flat system to circulate disease and bad air—a tendency powerfully helped, Dr. POORE points out, by the costly lift system, which drives the air up and down among the various floors. It is perhaps too soon yet to estimate the value of this flat system on sanitary grounds, but it cannot be dissociated from the similar system of Scotch and continental towns, and must be regarded as retrograde. No mechanical appliances or inventions in sanitary science are likely to make up to human beings for the loss of cubic space and free ventilation or to counteract the disadvantages of being "cabined, cribbed, confined" in a joint building with twenty or thirty other families. Dr. POORE gives, as other writers have lately done, an unsatisfactory account of the sanitary condition of the chief towns in the United States. In Chicago the zymotic death-rate for 1890 was not much less than double that of London, the typhoid fever death-rate was nearly five times that ever recorded in London, and so was the death-rate from diphtheria. In New York, in spite of a splendid water-supply and a complete system of sewerage, the density of population averages 65 persons to an acre, and in 1890 the deaths exceeded the births by 980. Dr. POORE'S reflections on the facilities given to speculative builders and rich companies to plant small towns in the line of main sewers, and very largely at the expense of the whole body of ratepayers, deserve much attention. It is amazing that such builders should have so much in their power, and the bodies which represent the ratepayers *so little*; but the tendency of legislation is to correct this evil.

Some may think that Dr. POORE has not fully admitted the achievements of modern sanitary work and is a little conservative in his view of the respective merits of town and country; but his general contention is undeniable that, if the condition of human beings is to be improved, it is not to be done by packing them as thickly as they can be packed for ratepaying and trading purposes, but by giving them room to breathe and to preserve a certain self-respect. Dr. POORE utters a strong note of warning against concentration of population in cities. Even grand open spaces, which are a redeeming feature of the age, and which ought to be *more* and more jealously preserved, ought not to be regarded as superseding the necessity for "curtilage," or that space about even a poor man's house which is essential to life, health, and morals.

ON the 23rd inst., at Melbourne, FREDERICK DEEMING suffered the extreme penalty of the law for his crimes, after having with unparalleled effrontery exhausted every scheme, dodge, and trick to interrupt the course of justice in his case. He sought, after the sentence of death was pronounced upon him, to briefly prolong his miserable existence by an appeal to the Judicial Committee of the Privy Council in the mother country. The Lord Chancellor stated that their lordships had not the smallest doubt that this was not a case in which they ought to grant leave to appeal, and pointed out how very serious and grave a misfortune it would be if such an application should be successful. For in that case it would be easy for any person in any of the distant colonies to stay execution, and to interpose a very long delay between the delivery of a verdict and the execution of a sentence, by simply sending over such materials as would form the subject of argument. The medical testimony given at the trial was of two kinds, the definite and the indefinite. The definite evidence was to the effect that the prisoner was sane, and that the tokens of insanity submitted to them by him were not genuine, and that he was in fact feigning insanity with the view of escaping the punishment due to his crimes. The indefinite evidence consisted of historical memoranda which, if true, pointed to hereditary and congenital predisposition to insanity, and to "fits" and certain morbid eccentricities which characterised some portions of the prisoner's early career; and it involved references to head injuries and syphilis in the prisoner, who, it was alleged, suffered from

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"instinctive criminality"; and therefore his case demanded protracted investigation and the application of further tests. The phrase "instinctive criminality" is not one that commends itself to us as likely to carry weight in a court of law; and if it has any meaning at all in relation to the question of responsibility for criminal acts, we think that it ought not to be made use of as a vague substitute where the word "insanity" cannot be got at without straining. A medical inquiry into the mental condition of an alleged criminal consists substantially of an inquiry as to the sanity or insanity of the individual—first, at the time the examination is made; and, secondly, at the time the alleged criminal act was committed. After these two subjects have been investigated, it is then permissible and desirable to deal with the historical evidence of predisposition to insanity and of actual attacks of insanity in the individual. Leaving out of consideration cases of shamming, it is always a matter of misfortune for the prisoner if his insanity is based only upon historical evidence, metaphysical phrase, and lengthy descriptions of conduct, if precise statements of fact are omitted, and if an opinion as to his actual mental condition at the time he committed the act, or at the time the examination is being conducted, is not given. Besides, it does not follow that because a man's mother or father was insane or because a man was once an inmate of an asylum that every criminal act which he commits later in life should be referable only to a condition of mind implying insanity, and therefore irresponsibility. Pre-existing insanity in the individual or in his parents is satisfactory only in support of an opinion already formed that the individual is now insane or was insane at the time he committed the act in question. It is much to be regretted that the indefinite evidence given by medical men on behalf of DEEMING, and given we doubt not in all good faith, became necessarily detached from precise statements of fact as to the prisoner's sanity, insanity, or imposture, and consequently assumed too much of the character of special pleading. A medical man under such circumstances should have the courage of his opinions, and after his actual examinations of the man, for which every facility is always given, he should testify either that so far as he has been able to form an opinion the man is sane or insane, adding in the case of imposture that certain signs which might be taken to indicate insanity are assumed and not real.

SIR RICHARD QUAIN, President of the General Medical Council, is to be congratulated upon the address with which he introduced the business of the May session on Tuesday last. His graceful reference to the result of the late election of direct representatives was marked by considerable tact, while his genial welcome of Dr. ANGUS FRASER and Dr. GEORGE HARE PHILIPSON in no way detracted from the regret associated with the resignation of Dr. STRUTHERS and the death of Dr. HEATH, whom they respectively replace. The deaths of two former members of the Council, Sir JAMES RANKEN REMNANT and Sir GEORGE PAGET, were also alluded to in feeling terms, and it was distinctly a happy thought [illegible] that a copy of the latter, placed at the right [illegible] desk, formed "an enduring record of the esteem and affection" with which he was regarded by the Council.

Leaving the past and turning to matters more immediately concerning the recent and future actions of the General Medical Council, Sir RICHARD QUAIN spoke of the Bill intended to regulate medical practice in France, more particularly as it affected the practice of foreign medical men in that country, and he explained the various bearings of its provisions. Coming next to the legal question at issue between the General Medical Council and the Royal College of Physicians of London, he naturally, while giving bare record of facts, spoke with commendable restraint. The neatness with which the Executive Committee eluded the threat of an injunction restraining the publication of the Medical Register by omitting a "table of qualifications," is distinctly noteworthy, even though for the present, on the President's showing, the Register appears in an anomalous form, having no indication of the grounds for admission or rejection. Hitherto "penal cases" have mostly been held over until November, but, in the absence of pressing educational questions, which are ordinarily supposed to consume the May session, the President referred to the injustice and hardship attendant on delay, and six cases are therefore in process of investigation.

Almost the first business after the address was an example of the kind of difficulty into which the Council so frequently places itself. After academic discussions, definite courses of action are at length decided upon, and then it is suddenly suggested that inquiry should be made as to the legality of the step it is proposed to take. The Education Committee had proposed to withdraw the recognition of the Council from the Arts Examination of the Society of Apothecaries of London. Upon data supplied by the Council a legal opinion had been given; upon data supplied by the Apothecaries' Society another opinion had been furnished, and the representative of the Apothecaries' Society thereupon felt justified in calling into question the extreme impolicy and unwisdom of the proposal of the Education Committee. The argument wandered from England to Scotland, and thence to Ireland, and then back again, and was finally postponed for later consideration. Equally desultory was the conversation upon the certificates to be required from candidates presenting themselves for examination in chemistry and materia medica. Although it was intended that this should be discussed as an "abstract question," the somewhat ancient story was revived of the pupil whose certificates on these subjects had been signed by the coachman; but, even on inquiry, no further details were afforded, and the speaker "threw himself on the mercy of the court he was addressing." The court scarcely knew what to do with him, and ultimately referred the matter to the Examination Committee, in the hope of extracting accurate information upon which action might possibly be taken. Matters connected with the visitation and inspection of examinations were discussed, and it was decided that interim reports should be printed for the "confidential" information of members of the Council and of the bodies to which the reports had reference. A formal inquiry came from the Royal University of Ireland as to the meaning of the words

"twelve months must elapse" between one examination and another, and it was explained that to some candidates this might mean an actual period of eighteen months or so; after six members of the Council had spoken, it was decided gravely that when they said twelve months a period of twelve calendar months was intended. A storm, on a small scale, was raised about an honorary degree in hygiene conferred by the University of Durham. A formal motion was passed in the end declaring that the Council had no power to interfere with the right of any university to confer honorary degrees. This final discussion of the first day was interesting for the lucidity of Dr. PHILIPSON'S first speech in defence of the University of Durham, and also for the strange way in which political questions were dragged in by a subsequent speaker. It is certainly entertaining to find members of the General Medical Council taking the floor against a "mere shuffling, Parliamentary, House of Commons negative," and upbraiding a member of the other House for "shirking the question, as parliamentary men did." It is really a pity that another motion was not drafted, declaring that "the Council has no power to interfere with the right" of any of its members to enter Parliament or to possess political views.

Annotations.

"Ne quid nimis"

THE QUEEN'S BIRTHDAY HONOURS FOR MEDICAL MEN.

IT cannot be said that honours to the medical profession have been bestowed with a lavish hand in the birthday *Gazette* of this year as far as the members of the naval and military medical services are concerned. To those whose meritorious work have received recognition in this respect we offer our best congratulations. The list includes Dr. Frederick Bateman of Norwich, who has received the honour of knighthood. He graduated at Aberdeen in 1850, and became a Fellow of the Royal College of Physicians, London, in 1876. He is Justice of the Peace for the county of Norfolk, and he is one of the few in this country who possess the Fellowship of the French Academy. Dr. George Johnson, F.R.S., has also been granted a knighthood. He is one of the Physicians Extraordinary to Her Majesty. He graduated in the London University in 1844, became a Fellow of the Royal Society, and is one of the best-known and most respected members of our profession. In a special memoir he triumphantly vindicated the claim of Harvey against the attacks of the Italians, who endeavoured to give the credit of Harvey's discovery to Cesalpino. We congratulate such a scholarly and accomplished physician on this recognition of his merits. No medical officer of the public services has had the honour of being made a Knight Commander of the Order of the Bath or of other orders in this birthday *Gazette*. Fleet-Surgeon Edward Elphinstone Mahon, R.N., is created a C.B. Surgeon-Major-General William Roche Rice, M.D., Surgeon-General and Sanitary Commissioner with the Government of India; and Surgeon-Major Scott Robertson, Bengal Establishment, Agency Surgeon, Gilgit, are appointed Companions of the Star of India.

THE GRESHAM CHARTER.

THE members of the new Royal Commission appointed to consider the formation of a Teaching University for London met on Saturday last to consider their mode of procedure. Earl Cowper was in the chair. We understand that it was decided to take the evidence of those witnesses in the first place who objected to the Charter, and that such evidence would be heard with closed doors. Professors Thorpe and Rücker, on the part of the Royal College of Science at South Kensington, will be the first witnesses, and will give evidence to-day (Saturday). On Friday, the 20th inst., the annual committee of Convocation of the University of London passed a strong resolution deprecating the omission of a direct representative of Convocation from the Commission, and urging that Convocation should be represented by the appointment of its chairman. As the Commission has already begun its sittings and is about to hear evidence, it seems impossible to place new members on it at this stage. It should be noticed that Mr. Anstie, Q.C., and Sir William Savory are members of Convocation, but are evidently considered not sufficiently representative of the views of that body. Mr. J. Leybourne Goddard (not Leybourne, as erroneously printed last week) is the secretary of this, as of the former Royal Commission.

CHOLERA IN INDIA.

THERE appears to be a good deal of cholera in India at the present time. Cases of the disease have manifested themselves at many places widely separated from one another. It is reported to be of a virulent type at Ferozepore. Several deaths from cholera have occurred among Europeans at Delhi.

FALSE CERTIFICATES OF STILLBIRTH.

ANOTHER instance of the loose system which prevails in this country with regard to the burial of newly born infants, whether stillborn or deceased, was shown at an inquest held on the 14th inst. at Ashton-in-Makerfield (midway between St. Helens and Wigan) by Mr. Brighouse, the county coroner. The circumstances reported to that gentleman respecting the birth, death, and burial of this infant—a male—were such that he had ordered the body to be exhumed and a post-mortem examination of it to be made. From the evidence given at the inquest, it appeared that the mother of the infant gave birth to it in a gipsy van on the market ground of Ashton, on the night of the 9th inst. Mr. Hannah saw her soon after and found her crying and very much depressed. He told them that under the circumstances he could not give a certificate, but advised them to go to Mrs. Speakman (a midwife who had been in attendance, but had left to go to another case), and afterwards to the registrar. It is clear from this that he expected them to register both the birth and death. Unfortunately, the midwife—an elderly woman, who gave her evidence after being cautioned by the coroner—induced her daughter to make out a certificate of stillbirth, though she admitted that the child was born alive, but she also knew it would not live. Upon this false certificate being handed to the sexton of St. John's church by Mrs. Speakman herself, who brought the body, it was buried. On making a post-mortem examination Mr. Hannah found distinct signs that the child had lived, though only a short time—perhaps a quarter of an hour. He was of opinion that hæmorrhage had caused collapse, though it is not clear from the report whether the hæmorrhage was maternal or fœtal, or what was the exact reason why Mr. Hannah did not feel justified in giving a certificate of death. Probably this can be ex-

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THE GRESHAM CHARTER.

THE members of the new Royal Commission upon the Constitution of the Corporation of London met on Saturday last to consider their scheme. Lord Cowper was in the chair. We understand that it was decided to take the evidence of those witnesses only who objected to the Charter, and that the evidence would be heard in open court. Professor Thorold Rogers will be the first witness, and will give evidence on Saturday. On Friday, the 3rd inst., the members of the Corporation of the City of London passed a resolution appointing the committee of the Corporation from the Commission, and the Corporation should be represented by the mover and the chairman. As the Commission has already adjourned, it is about to hear evidence, it seems rather late to appoint new members on it at this stage. It is believed that Mr. Arnold, Q.C., and Sir William Harcourt, members of Convocation, but are certainly not sufficiently representative of the new City party. Mr. J. Lepoerme Goddard, not Leyton Buzzard, as recently printed last week in the secretary of the former Royal Commission.

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in matters of sport, and where endurance is required. Still, these are well-proportioned men with a due correlation of height, weight, and chest measurements. As it is at present, a certain number of undesirable military candidates, whose studious habits have rather tended to develop and exaggerate their physical defects than otherwise, start with a great advantage over their more desirable competitors. Competitive examinations are, after all, rather a test of mental aptitude than of mental power. Enterprise and energy are ordinarily the concomitants of vigorous health and strength; and for the army the possessor of superior physical qualifications should reap some advantage from them. Candidates might be roughly classified and arranged in groups, and a certain number of marks accorded to the different physical standards of the classes in which they were placed at the preliminary physical examination.

TERRITORIAL MONOPOLIES OF QUALIFICATION.

THIS question still rages in some quarters. The present field of battle is at Hastings. At a meeting of the governors of the Hastings and Sussex Hospitals on May 30th they will consider whether they ought to repeal the present rule restricting appointments on the physicians' staff to diplomates of the London College. The unpleasant part of this controversy is that it is essentially a professional one. The lay governors are necessarily unacquainted with the facts of the case, and take the views of their honorary medical officers as authoritative. In the discussions statements were made to the disparagement of diplomas and degrees of great medical authorities in Scotland and Ireland. We have never failed to point out that there is no legal authority charged with the duty of impartially deciding the comparative merits of, say, the membership of the London, Edinburgh, and Irish Colleges of Physicians respectively, or of the English, Scotch, and Irish degrees. This is to be regretted, and doubtless the authorities in the different divisions of the kingdom could, if they pleased, in any one year procure legislation to enable the Medical Council or some other body to do this. But, meantime, these monopolies are unworthy of a liberal profession, and contrary to the spirit of the age and of the Medical Acts. We at least would like to see it assumed, till the contrary is shown with accuracy, that the diploma of a College or the degree of a University in one part of the kingdom is equal to the corresponding diploma or degree in another. On the other hand, we should like to see our Irish and Scotch friends begin by liberalising the rules of their own hospitals before displaying such an eager missionary anxiety about the laws of our English charities.

HIGHLAND SCHOOLS.

THE Highlander, occupied principally in fishing and agricultural pursuits, leads a simple, healthy life. In Ross and Cromarty, a district measuring sixty-seven by fifty-eight miles, and possessing a population of 78,638 inhabitants, the death-rate is estimated at 16·5 per 1000. This does not prove, however, that the sanitary condition of the population is good. On the contrary, there is great want of personal cleanliness, bad housing, carelessness as to purity of water-supply and ignorance as to proper clothing, removal of nuisances, nursing, ventilation, disinfection, and the isolation of the sick. Dr. William Bruce, medical officer of health, reports to the Ross and Cromarty County Council very unfavourably as to the condition of these two counties, and is especially severe with regard to the schools. The cubic space allowed for pupils is generally, he thinks, insufficient, and no care is taken to compensate for this want of space by efficient ventilation, constant scrubbing, and general cleanliness. Many of the schools have not even a proper supply of drinking-water, and one school is mentioned where there are 200 pupils and there is no water within a quarter of a mile. Very few schools are provided with lavatories, and where these exist they are generally out of order. In the rare instances, water-closets are provided; but these likewise are allowed to get out of order, nor is there such a thing as a proper urinal with flush and drain. The privies are badly planned and ill kept, a nuisance is created, and abominable odours result. In choosing school sites no care has been taken to select a spot in the neighbourhood of a good well. As there are no proper methods for draining away slop water, and as the privies are badly built and leak, it is not surprising to learn that a great deal of the water consumed in the county is actually impure, and that the remainder may be contaminated at any moment. Most of the wells are merely receptacles for surface water. They should, in any case, be surrounded by solid masonry, so that no water could enter except that which has filtered down to a considerable depth. Dr. Bruce remarks that where lessons or lectures on elementary hygiene have been given, they have been well attended and appreciated. Also where lavatories, towels, and other such conveniences are provided at schools the pupils have readily availed themselves of these opportunities to keep themselves clean. All that is required is a good example from the teachers and the intervention of the authorities to see that proper sanitary conveniences are provided. Doubtless this will be done when sufficient public attention has been drawn to the question. The Ross and Cromarty County Council, enlightened by the report of their medical officer of health, have now an excellent opportunity of rendering great service by effecting very urgent and yet easy sanitary reforms.

PROFESSOR MOSSO ON THE EDUCATION OF WOMEN.

IT is the physical education of women rather than the mental to which the Turinese physiologist gave prominence in the lecture he lately delivered before the Queen of Italy in the Collegio Romano. The former must precede the latter to some considerable extent before the higher culture to which the girl has, in her proper sphere an indefeasible claim, can be safely begun and efficiently prosecuted. The physical substratum of the female organism must be strengthened even earlier in life than in the less precocious case of the boy, if the "*mens sana in corpore sano*"—the grand aim of all education—is to be secured for her. At this stage of his exposition Professor Mosso gave some wholesome warnings—hardly less required in England than in Italy—against the mode or kind of physical exercises still in favour. All such demands on muscular activity should be practised in the fresh air—in wet weather under spacious sheds open from side to side and from end to end—if they are not to be made worse than useless. Games—he hinted not obscurely at golf—are preferable to the quasi-military exercises hitherto enforced in girls' schools, particularly abroad; and he counselled a return to the orchestral movements of female youth in ancient Greece, by which such noble types of womanhood were attained as are still seen in the Venus of Milo, the Medicean Venus, and the fine Amazon developments on view at the Naples Museum. The craniological test will show that in these cases muscular development and grace were not purchased at the expense of cerebral form—their healthier, more symmetrical bodies involving no disproportionate diminution or premature arrest of brain. Subject to a physical education which in no case omits the possibility of her having ere long to undergo the maternal ordeal—the condition precedent of healthy progeny and normal race-reproduction—woman, in

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...chmens. Many of the schools have not even ... supply of drinking water, and one school in ... where there are 300 pupils and there is no water ... nearer than a mile. Very few schools are provided ... with rooms, and where these exist they are generally ... ...ver. In the rare instances, where closets are ... that these likewise are allowed to get out of repair ... there such a thing as a proper annual visitation ... The privies are badly planned and ill-kept, ... ventilated, and as a rule offensive odours result. In some ... cases no care has been taken to select a spot ... ...ently removed of a good well. As there are ... methods for draining away slop water, and ... privies are badly built and leak, it is not ... to learn that a great deal of the water supply ... ...ounty is actually impure, and that the remainder ... contaminated at any moment. Most of the ... there are receptacles for surface water. They should, ... case, be surrounded by solid masonry, so as to ... could enter except that which has filtered ... considerable depth. Dr. Bruce remarks that ... ...ssions or lectures on elementary hygiene have ... ...ey have been well attended and appreciated ... where lavatories, towels, and other such requisites ... provided at schools the pupils have really small ... ...ns of these opportunities to keep themselves ... that is required is a good example from the ... the intervention of the authorities to see that ... sanitary conveniences are provided. Doubtless ... ...ce when sufficient public attention has been ... ...ected to it. The Rural and Cromarty County ... ...ntioned by the report of their medical officer ... have now an excellent opportunity of remedying ... by effecting very urgent and yet easy sanitary ...

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Professor Mosso's opinion, has her sphere of mental activity not less marked, not less imperative, than man, though in her case it is the moral rather than the purely intellectual side that must come most largely into play. Given a girlhood so developed and invigorated by bodily exercise normally pursued—a girlhood in which anæmic, neurotic, or musculo-degenerative perversions, fatal to sound maternity, are guarded against, there is no limit to be placed on the mental education or professional acquisition that must fit her for her beneficent part in the social organism. Where eccentric aspiration may induce her to attempt the work of the male sex, experience rather than antecedent prohibition will put the more effective veto, her success in such a line, when attained at all, being of so exceptional a kind as to yield no incentive to imitation. The truth is, education, as opened up to woman, is in its initial and tentative stage, when all manner of vagaries are to be expected—vagaries, when not artificially encouraged, best left to cure themselves. Within the next generation experience will have taught its salutary, irrefragable lessons, and we shall find woman concentrating her energies and her newly acquired culture on paths she is best fitted to tread, leaving man to those in which nature and Providence have prescribed him his proper work.

SEASON AND SICKNESS IN INDIA.

WE have repeatedly adverted to the lamentable drain which our possession of India entails on the young manhood of this country. The amount of sickness and loss of life among young officers and soldiers soon after their arrival in India from typhoid fever alone is really very serious. Notwithstanding our acquaintance with the etiology and causes of that disease, the progressive development of sanitary work in India, and the discovery by Eberth, Gaffky, and others of the bacillus with which it is associated and alleged to be attributable, we do not see any improvement as regards the prevalence and fatality of typhoid fever in India; the reverse would appear to be the fact, if we may depend upon statistical evidence. Young men leave this country in apparently perfect health and with every prospect of an average length of life before them, and yet within a few months after their arrival in India we often read the record of their death in the obituary columns of a newspaper, or intelligence is received by their distressed and anxious relatives of their serious illness. There is no need to enter now into any minute discussion about the causes of typhoid fever in India. One thing seems pretty clear. The constitution of a young and growing man is exposed to a remarkable change by being suddenly translated to a perfectly new environment—from a temperate to a tropical climate; and it is surely a matter of experience and common sense that we may intensify or diminish the prejudicial effect of such a change by taking care that new arrivals in India shall disembark there, as far as practicable, at the beginning of the cold season, and not at the commencement of the hot one. The constitution has a far better chance of accommodating itself to the change of climate and environment if the fresh arrival does not begin his Indian career with the beginning of the hot season. We can understand, of course, that in the case of war or circumstances of urgency or necessity officers and men must go when and where they are required; but in times of peace it seems a needless—we might say cruel—experiment to land young men in India for the first time at the beginning of the hot weather. As regards the chances of preserving the health, it makes all the difference whether a young man arrives in India with the winter before him or not. As far as considerations of health are concerned, the last troopship of the season generally leaves England too late; and officers should certainly not proceed to India at a later date than is considered safe for the men. We wish that we could believe this was never the case. The hygienic and medical requirements of men coming from India are the exact reverse of those going out to that country. In the former case the winter risks of this climate have to be avoided, and advantage has to be taken of the beneficial effects of the cold weather in India; consequently the nearer the time of arrival of troops and invalids in England is to the summer the better; whereas the nearer their arrival is in India to that season the worse and more trying it is to the health.

HORSE-RACING AND MEDICAL CHARITIES.

WE are close upon the Derby Day, the great carnival of horse-racing, when fortunes will be lost and won by the devotees of "the national pastime." It is not our present intention to moralise over an institution which we fear is a necessary evil, and one that is bound up in human nature in general, and in that of Englishmen in particular; but we would seek to realise the saying, "out of evil good shall come." We are going to make an appeal to the fortunate few in the interest of the many who are "down in their luck." It is not meet that thousands and tens of thousands of pounds of "unearned increment" should carry no responsibility as a set-off to a great privilege. It is true that here and there we meet with a Duke of Portland and a Baron Hirsch, who out of their winnings are ready to extend a helping hand to the submerged tenth so largely represented by the pauper patients of our general hospitals; but instances of this kind are so few and far between that they shine as bright particular stars in the blank general darkness around. Some fifteen years ago the late Mr. Bond, in his time a well-known bookmaker, gave £1500, or 2½ per cent. of his year's winnings, to Mr. Wakley, Surgeon to the Royal Free Hospital, to distribute as he pleased among the hospitals of London. Will not some of his fraternity copy his example of munificence? Mr. Bond, who was an ardent admirer of the founder of THE LANCET, suggested a tax on betting similar to that which now obtains in France, and from which the Paris hospitals have received £32,000. We fear there is no chance of such a compulsory system being acceptable, or even enforced, in this country, and for that reason we urge the more strongly the claims to voluntary offerings. We plead the cause of the suffering poor in the hope and expectation that our appeal will not be made in vain. The publisher of THE LANCET will be pleased to receive any such donations in aid of the general hospitals of London.

THE NEUROLOGICAL SOCIETY.

THE meeting of the Neurological Society on Thursday, the 18th inst., was devoted to the exhibition of pathological specimens. Among the exhibits were two specimens of syringomyelia: one by Dr. Ferrier and another by Dr. James Taylor. In the first there was extensive tumour growth along the line of the central canal, invading the grey matter along a large portion of the cord. In Dr. Taylor's case there was but a slight amount of new growth, but the central canal, from the third ventricle down to the lumbar enlargement, was very greatly distended, disorganising the surrounding grey matter. Both cases showed the symptoms usually associated with these pathological conditions—viz., comparatively little motor paralysis, and little, if any, blunting of tactile sensibility, but almost entire loss of painful and thermal sensibility—to such an extent that five years before death, when no other symptoms had appeared, Dr. Taylor's patient was severely burnt on the arm without suffering any pain at the time or during the healing process. Another specimen of great interest was one exhibited by

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Dr. Savill of a brain containing a tumour of the posterior part of the gyrus fornicatus. One of the most prominent symptoms during the life of the patient was anæsthesia of the opposite arm. It will be remembered that Professors Horsley and Schäfer, from their experiments on monkeys, localised the function of common sensation in this gyrus; but this is one of the few occasions on which the view has been supported by pathological observations on man.

DRAINAGE AT SURBITON.

THE Surbiton local journals contain numerous letters on the subject of house drainage in that district. An inhabitant of Surbiton has written to the Local Government Board stating that in the case of his own house the by-laws of the authority were not carried out; the drain pipes were not cemented or jointed in any way, whereas one of the by-laws requires that every drain shall be laid in a bed of good concrete (which was entirely omitted); and that in more than one case other house drains had not been connected with the sewer. The publication of this letter has called forth a voluminous correspondence, and the local authority, after hearing the statement of its surveyor, has passed a resolution of confidence in him. Whatever may be the facts as to Surbiton, there is no doubt that there is a vast amount of carelessness in the construction of house drainage in many districts, and no sufficient precautions are taken to ensure that drains are properly laid, efficiently jointed, or that they are tested with water before being passed by the local authority. The result is that these defects are only discovered after some case of illness have occurred. It is often the practice of builders to erect houses with indifferent material and with carelessly laid drains, and to sell them immediately they are completed, and thus the purchasers, who have taken no pains to learn their condition before acquiring them, are obliged to incur considerable expenditure in making good these defects. It is to be hoped that the residents of Surbiton will without delay, and before illness occurs, have their drains carefully tested by competent persons.

SYPHILIS AND GENERAL PARALYSIS.

IN the last number of the *Journal of Mental Science* Dr. Jacobson of Copenhagen considers the vexed and debated question of the connexion between syphilis and general paralysis of the insane. As is well known, there are some who maintain that there is, besides the classical general paralysis, a general paralysis of syphilitic origin differing in several minor details, whilst there are others who maintain that there is no general paralysis without antecedent syphilis. The most widely accepted theory is possibly one which occupies a position midway between these by assigning to syphilis a prominent position as a factor in the production of general paralysis, while not regarding it as altogether a *sine quâ non*. Statistical information on such a point is open to many fallacies, chief among them probably being the personal equation of the observer. Rieger has tried, by taking the statistics of ten different observers, to eliminate as much as possible this source of error, and he finds that among 1000 non-paralytics thirty-nine had been syphilitic, while among 1000 general paralytics 399 had been syphilitic and 601 non-syphilitic—or, in other words, that people who have had syphilis have a chance of acquiring general paralysis sixteen or seventeen times greater than that of people who have never suffered from syphilis. Such figures would seem to establish an undoubted connexion between the two diseases, and the probability of this is rendered still greater by the consideration of what obtains in a disease having many affinities to general paralysis—viz., locomotor ataxy, 80 or 90 per cent. of the victims of which, according to Erb and Fournier, have had syphilis. An interesting point in this connexion also is the comparative rarity of general paralysis among the Russian Jews and a corresponding rarity of syphilis among the same class. Dr. Jacobson's own statistics are from the large Danish asylum at St. Hans, and he has included in them all the cases of general paralysis occurring in women in that asylum in the last twenty-seven years. He has investigated the records of 116 cases of general paralysis in women, and amongst those he finds that syphilis was acknowledged in thirty-seven cases, or 32 per cent., and was most likely present in thirteen others, or 11 per cent.—a total of 43 per cent.; while in a certain additional number there was a less strong presumption of syphilis. According to this classification, therefore, Dr. Jacobson found that, in about half the cases of general paralysis occurring in women, syphilis had been present, while in a certain additional number there was a possibility of this from the fact that the patients had led a more or less impure life morally. As to other antecedents, an alcoholic history was found in twenty-seven, but in only thirteen of those did it exist apart from syphilis; whilst as to heredity as a factor, it was found in twelve cases out of forty-three—a somewhat large proportion, it seems to us. After such figures and the consideration of other statistics, there appears to be little room to doubt that a very close connexion exists between syphilis and general paralysis, and we venture to predict that in the future this connexion will be found to become closer than many now think it is. Dr. Jacobson's paper is a valuable contribution towards the elucidation of a difficult and most interesting point.

THE LONDON BUILDING ACTS.

THE London County Council has prepared a report showing the amendments of the Building Acts which it deems to be necessary, and has been impressed with the importance of insuring adequate provision of open space about houses. It has urged, as the result of the recommendation of its Building Act Committee, that no dwelling should be erected in future to a greater height than would rise above an angle of forty-five degrees measured from the boundary of the open space in its rear. The Council does not propose that this requirement should apply to houses erected on old foundations, but preserves for these the right to build to the same height as they have attained at the present time; and again, it does not require that when buildings front on narrow streets they shall be set back so as to make the street wider. To this extent the proposals of the Council fall short of the requirements of the by-laws which urban authorities, such as Manchester, Liverpool, and Birmingham, and many other towns, have adopted, and as a result the chairman of the Public Health Committee, Mr. R. Melvill Beachcroft, has called attention to their deficiency in a carefully prepared memorandum. The subject is one of immense moment to London, and the London community is indebted to Mr. Beachcroft for claiming that the Building Acts of the metropolis should be placed at least on the same level as those of smaller towns. Whatever the requirements of the latter may be as to open space, those of London are still greater, and it would be unfortunate if the expected Building Act should not make most ample provision for the open space required about houses. Mr. Beachcroft recognises in his memorandum that cases of exceptional hardship would inevitably arise through the application of these principles; but the urgent necessity for thus restricting the height of buildings, and the fact that this method of providing open space is now in actual operation throughout the country, afford reason for not dealing less stringently with the subject in London, where the need for open space is much greater. Another argument is put

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forward in this memorandum which will appeal strongly to the ratepayers. London has spent two millions of money in clearing unhealthy areas, and yet lacks the provisions which in other towns must eventually bring about those improvements without cost to the ratepayers. There is, therefore, every reason for the Council and for Parliament to accept the recommendations of the chairman of the Public Health Committee, and we feel some satisfaction that it is not too late to incorporate them in the Bill which, it is expected, the Government will shortly introduce. It is believed by Mr. Beachcroft that the desired object can be best attained by the Council being endowed with a power of making by-laws as to open space about houses similar to that exercised by urban authorities throughout England and Wales Upon this point we have no opinion to offer except that the recognition of the need for open space is distinctly growing, and by-laws can be more readily modified than Acts of Parliament, and, further, we do not believe that any community will ever make the mistake of demanding less open space in the future than it has required in the past. If we are to criticise the model by-laws of the Local Government Board, which are cited as those which are deserving of imitation, we may say that they fail to regulate the height of buildings above thirty-five feet, or, in other words, to provide open space proportionate to any increase of height above this limit; and again, the setting back of houses to increase the width of streets is evidently dictated more by the exigencies of traffic than the requirements of health; but they embody important principles which London might do well to accept, and we would gladly see the metropolis not backward in appreciating their importance.

SCHOOL LIFE AFLOAT.

LORD TWEEDDALE, as the Lord High Commissioner at the General Assembly of the Church of Scotland, includes in his vice-regal duties an active interest in many local concerns besides the ecclesiastical. He has countenanced by his presence not a few of the educational and hygienic undertakings of the Scottish capital, and has found them in each case improving upon their past, and giving the most gratifying earnest for the future. His visit to the training-ship *Caledonia*, lying off Queensferry, was perhaps the most impressive of the series, and will, we hope, have the effect of drawing public attention to an institution which might, both from the hygienic and educational point of view, be extended with much utility to every estuary of the British shores. The *Caledonia* is a very favourable specimen of what may be provided for the development, bodily and mental, of our youth at the most critical period of their lives. Taken as its young inmates are from our great cities—from an atmosphere as injurious to physical as to moral growth—they are subjected to health conditions under which their bodily frames develop normally and vigorously, laying the first lines of a muscular and neural energy which cannot fail to stand them in good stead throughout the trials of adolescence and manhood. Inured at so early and impressionable an age to a life of open-air exercise and salutary, semi-military discipline, they form habits of endurance, of self-denial, of enterprise and pluck, which fit them for the hardiest and most useful forms of service under the British flag—for careers not necessarily naval or combatant, but, on the contrary, industrial and commercial, such as our ever-extending colonies, with their vast and steadily developing civilisation, tend more and more to open up. The evidence brought before Lord Tweeddale and his party of educational experts on board the *Caledonia* pointed unmistakably to a direction in which the enervating, emasculating influences of life "in populous city pent" might, in great measure, be neutralised or replaced by others of a really invigorating and renovating kind. Seaside homes are multiplying abroad for the youth of the great populous centres, and are already found to be wholesome and truly economical substitutes for the reformatories and other semi-monastic institutions for the reclamation of juvenile offenders. Why not begin a stage earlier, ask the continental Howards, and, by timely discipline and instruction under the healthiest and happiest of conditions, train up a young population for manly and breadwinning lives, before mind and body have contracted the insanitary poison, material and moral, with which the street Arab is so prematurely brought into contact? With such opportunities as our vast seaboard presents, the establishment of training ships at the chief estuaries would, according to these reformers, become the speediest of *faits accomplis*—to the relief of the overstocked penitentiary and the lightening of the work of the city missionary and the social reformer. Not that ships like the *Caledonia* are intended for or frequented by a quasi-criminal class. On the contrary, they are educational institutions in the strictest and most salutary sense, and parents who, with or without assistance, can place their boys under such influences are really giving them a better chance of success in life than if they sent them to some crowded school. Lord Tweeddale's experience, shared as it was by so many whose opinion in educational and hygienic matters is authoritative, ought to react for good in favour of the training-ship movement, and add to our rapidly increasing and perennially called for counter-actives to the evil effects of city temptations and conditions that latest and not least efficacious one embodied in "school-life afloat."

PROGNOSIS IN ALCOHOLISM.

THIS was the subject of an address by Dr. Thomas Barlow at the closing meeting of the Islington Medical Society. Dr. Barlow took a more favourable view of the prognosis of such cases than is commonly taken, and, indeed, expressed strong disapproval of the mood of pessimism in which such cases are generally regarded. He based his argument largely on cases of alcoholic neuritis as seen more frequently in women than men. After describing the grave lesions in the nerve structure in such cases, and emphasising the fact that the healthy structure often returns, and with it the lost function, he proceeded to argue that the lesions of cirrhosis even should not be regarded as incurable. Striking cases of recovery were given by Dr. Barlow, Dr. Stokes, Mr. Teale, and others. The great points in the treatment of such cases were three: first, the entire abandonment of the irritant causing the disease—i.e., alcohol; secondly, good feeding and fresh air; and, thirdly, the action of time.

SAVING FROM DROWNING

THE Life-Saving Society was established but a year ago, and yet it has already been instrumental in spreading considerable knowledge in the art of saving life from drowning. Dr. Wm. Collingridge, medical officer of health for the port of London, is the prime instigator of this useful movement. At the St. George's Swimming Baths, Buckingham Palace road, he gathered a select and numerous audience last Wednesday evening, and there explained what was the object held in view. His purport, while encouraging the healthy exercise of swimming, was to give object lessons in the art of saving life. A person might be an excellent swimmer, yet there was great danger of his being drowned whilst grappling with someone struggling in the water. Then, again, even if the drowning person be brought to shore, it is necessary to know how to induce artificial

respiration, otherwise the risk and the trouble taken often proved unavailing to save life. The Society worked gratuitously to spread knowledge in this respect; but they found it very difficult to move the enormous mass of inertia, and to awaken enthusiasm on such a question. They did not attempt to teach anything new; they only sought to spread in all directions, even in the School Board schools, a knowledge of well-ascertained facts. These facts were then illustrated by teams of trained swimmers, who first went through their drill on shore, and then repeated the same in the water. This consisted of various methods of catching hold of, and conveying to shore, persons who were quiet and passive and those who struggled violently. Ingenious methods were shown by which a swimmer could disengage himself if held by the wrists, if clutched round the neck, or if he were grasped round the body and arms. In every case, the rescuer swam on his back and only with his legs. His arms were devoted entirely to holding the drowning subject, whom it is necessary also to throw on his back. The treatment on shore, so as to restore breathing, was also practically illustrated, and thus a series of very instructive object lessons were given which the audience loudly applauded. If the simple facts which were demonstrated during this enjoyable *soirée* were more generally known, undoubtedly, not only would more lives be saved, but those brave persons who attempt to rescue the drowning would incur less risk of sacrificing their own lives.

MISSILES FROM RAILWAY CARRIAGES.

THERE is hardly less of pathos than remonstrance in a notice recently issued by the London and North-Western Railway Company. The custom of throwing empty bottles from the windows of trains in motion is among the most familiar usages of the travelling public. The company desire that this careless habit shall be discontinued. They even prefer that any empty bottles should be left in the carriages. The reasons for this protest which comes in good time at the beginning of the tourist season are not far to seek. Railway *employés* have in many cases incurred serious injury from such missiles thus cast at random on the line. These men may well complain that their sensibilities and their safety are too little regarded by some of those in whose interest they labour. To them the traveller owes in no small degree the very ease of his journey, and he often repays the debt with an act which testifies that characteristic forgetfulness of other men's convenience which marks the most ordinary quality of human nature. It is therefore to be hoped and expected that every reasonable person who may be called upon to travel by rail will give to the remonstrance above mentioned, and to the important fact that it has been rendered necessary by injuries actually inflicted, as above stated, that careful attention which it clearly demands.

THE SOCIETY FOR THE RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

CONSTANT regret is expressed that the admirable Society for the Relief of the Widows and Orphans of Medical Men is not joined by a larger number of practitioners within the postal district of London. Many a case of hardship and distress has to be made the subject of a pitiful appeal to the profession that might, by a little forethought and the smallest amount of self-denial on the part of the practitioner, have been honourably provided for. The numbers of the Society at the end of last year, so far from being larger, were less by five than in the previous year. Under these circumstances it is not surprising that Dr. Glover should, at the annual meeting, have proposed the following resolution, which was carried by the casting vote of the President:—"That the directors be requested to consult an actuary, and to request from him suggestions for increasing the membership and usefulness of the Society, and to report to a future meeting."

SIR WALTER FOSTER.

LAST week Sir Walter Foster resigned his position as Professor of Medicine in Queen's College, Birmingham, and was appointed by the Council of the College Emeritus Professor of Medicine, in recognition of his long service in the Birmingham Medical School. Sir Walter Foster has been teaching continuously since 1860, and for the last twenty-four years has filled the position of Professor of Medicine—a period unequalled in the annals of the College as regards the chair of Medicine.

GREAT MORTALITY AMONG HORSES IN RUSSIA.

THE terrible famine which has prevailed in Russia since last autumn, and produced such dreadful results among the human population, has been also very disastrous to horses. In the British consul's report on trade and commerce in Taganrog, just issued from the Foreign Office, in reference to the effect of the famine, mention is made that up to last January it was estimated that 500,000 horses had died in the province of Samara alone. From a calculation it was believed that of a million of horses no more than 400,000 would be alive at the end of last month, and these would be in such an exhausted condition as to be useless for heavy agricultural labour. This is, indeed, a serious matter, not only presently, but prospectively, as it will require many years to replace these animals, and agriculture will accordingly suffer, even if the seasons should prove propitious. We do not hear that the starving peasants availed themselves of the flesh of the horses as food, and it might be inferred that they did not, but, like our soldiers in the Crimea, preferred to perish rather than consume such food. The French at Metz and in Paris in 1870–71 were not so "nice."

THE RECENT SANITARY CONFERENCE AT VENICE.

WE learn that Dr. Thorne Thorne, medical officer to the Local Government Board, is associated with Mr. Phipps of the British Embassy as technical delegate on the part of Great Britain in connexion with the Sanitary Conference now sitting at the Foreign Office in Paris, in addition to M. Barère and Drs. Brouardel and Proust, who represent France; Count de Keuffstein represents the Austro-Hungarian Government.

THE OPTIONAL ADOPTION OF SANITARY ACTS.

A PARLIAMENTARY return has just been published setting forth the names and the population of the sanitary districts of England and Wales which have notified to the Local Government Board on or before March 31st last that they had adopted the Infectious Diseases Notification Act, the Infectious Disease Prevention Act, 1890, and the Public Health Acts Amendment Act of 1890. In some instances diseases have been added to those specified in the first of these three Acts, and notification of these additional diseases rendered obligatory. We find that the Infectious Diseases Notification Act has been adopted up to the end of March in 622 urban sanitary districts, in 408 rural, and in 21 port districts. This grand total of 1051 districts comprises a population of 15,902,343, to which London, with 4,231,431, can be added, and fifty towns, with 3,878,625 inhabitants, which have notification under local Acts. It thus appears that the system is in force for 24,012,399 persons out of the 29,001,018 inhabitants of England and Wales. In seventy-two instances sanitary

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authorities have availed themselves of the latitude given by the Act to increase the number of diseases for which notification is compulsory. In seventy-one districts measles is added to the list; in seventeen, whooping-cough; in four, rötheln or German measles; and in two, chicken-pox. Five of the authorities subsequently, however, revoked the addition of measles. The Infectious Diseases (Prevention) Act has been applied to 374 urban and 154 rural districts, and the Act is also in force in London. Thus the population affected amounts to 15,384,780. The Public Health Acts Amendment Act (1890) has been in part or wholly adopted by 498 urban and 146 rural authorities, making a total of 644 sanitary authorities, representing 13,747,305 people.

THE OWNERSHIP OF AMPUTATED LIMBS.

A SINGULAR case has recently been tried before his Honour Judge Jones in the Bolton County-court. The plaintiff, Ellis Housley, sued the junior house surgeon at the Bolton Infirmary for £10, the value of one of the arms of his son, who had been injured in an accident at his work. The limb was amputated at the infirmary, and after the operation the plaintiff asked for the arm, but the house surgeon refused to allow him to take it away. A day or two later the boy died, and the father again demanded his son's arm along with the body for burial. It was argued for the plaintiff that he had a right to the limb, whilst for the defendant that there was no cause of action. His Honour said the plaintiff had no property in his son or his son's body, and even a guardian was only a guardian during lifetime and not of the dead body, and there was no obligation to bury. After further argument the solicitor for the plaintiff stated that if his Honour was against him on the common law, he could go no further, and there was a verdict for the defendant, with costs.

THE METROPOLITAN HOSPITALS INQUIRY.

THE Select Committee of the House of Lords on the metropolitan hospitals do not intend to take further advantage of the power granted them this session to examine more witnesses. They met on Monday, and again on Thursday, and resumed consideration of their report, which is now in a forward state.

PROFESSOR STRUTHERS.

FEW medical teachers have earned a better claim to the gratitude of a larger number of pupils than ex-Professor John Struthers, who has just been presented by some of the most distinguished of their number with his portrait, admirably executed by his fellow townsman, Sir George Reid. The ceremony took place in London, in the residence of his old friend and fellow-student, Sir Andrew Clark, who worthily filled the part of spokesman on the occasion. Professor Struthers made an eloquent and impressive acknowledgment of the testimonial, with characteristic modesty resting his claim to posthumous remembrance less on his own solid and, in some respect, unique merits than on the artistic *chef-d'œuvre* of which he has been made the subject. The good work he has done, however, is embodied in records whose "colours never crack and never need restoration." Not only by such masterly monographs as that on "the clavicle" has he widened the area of anatomical science, but by enlightened reforms, particularly in the standards of professional graduation, he has connected his name with some of the most salutary and productive legislation of the nineteenth century. What he achieved in the memorable years that preceded and followed the epoch-making innovations of 1858 was worthily [illegible] to the official work of the General Medical Council, where he "crowned the edifice" of a career which will long be remembered as among the most honourable and exemplary ever followed out by his compatriots.

NEW METHOD OF EXAMINING SPECIMENS OF BLOOD.

A METHOD of making permanent preparations of blood has recently been described by Dr. R. Muir in the *Journal of Anatomy*, which promises to be of great use in clinical investigation. The specimens thus prepared can be preserved indefinitely, and compared with others obtained from the same patient at subsequent periods. The method is quite simple. The films are prepared on cover-glasses in the usual way, and, before they have time to dry, are placed in a saturated aqueous solution of corrosive sublimate (to which a little common salt may be added) for half an hour. The corrosive sublimate is then washed away with a three-quarter per cent. solution of common salt, and the film is further hardened by a few minutes' immersion in methylated spirit, and then absolute alcohol. The specimen can then be stained by the ordinary reagents, very good results being given by double staining with eosine and hæmatoxyline, the red corpuscles being stained by the eosine, while the nuclei of the leucocytes are prominently revealed by the hæmatoxyline.

STUDIES IN THE GROWTH OF THE JAWS.

IN the museum of the Royal College of Surgeons there is a series of models of the same mouth, beginning at the age of four and continuing up to the age of twenty-one, prepared by the late Mr. Merryweather, an attentive study of which led Mr. Charles S. Tomes to read a paper on the Growth of the Jaws before the Odontological Society. This series affords a means of checking various more or less theoretical conclusions, as to the methods of growth of the jaws, which have been drawn from the study of separate dried specimens, these conclusions themselves having a very direct and practical bearing upon the subject of the treatment of irregularities. Sir John Tomes pointed out in the first edition of his "Dental Surgery" that in the region of the jaws occupied by the twenty temporary teeth very little growth or change subsequently takes place; so that it comes to pass that the incisors, canines, and bicuspids ultimately occupy an arch which hardly differs either in size or shape from that occupied by their predecessors, he having arrived at this generalisation from the measurement of a large number of children's jaws. Mr. Charles Tomes points out that there are several possibilities of fallacies in such averages; thus, it is difficult to be certain that the children and adults belonged to the same grade of society, as the former would be probably gathered in some institution; also it is possible that the children giving the smallest measurements were puny and stunted, and that few of them would survive to be represented amongst the adults. And therefore, notwithstanding the concurrence of all the evidence thus accumulated, the record of what actually happened during the growth of one individual is well worth the trouble of close examination. In order to check the older observations, which were principally based upon measurements of the lower jaw, Mr. Charles Tomes devoted his attention chiefly to the upper. Taking the thirty models of the series mentioned, he found that in the region occupied by the temporary teeth, there was from the age of four up to fifteen only a very slight gain in the length—not quite a millimetre—whilst in width there was about the same. Up to this time the course of nature had not been interfered with; but the mouth being somewhat crowded at the age of fifteen, the first upper bicuspid on the left side was [illegible]

result that at sixteen and a half the length of the left side had fallen two and a half millimetres; but what is very remarkable, the right measurement (no tooth having been extracted) had also fallen more than a millimetre, and that diminution proved to be permanent, as at twenty-one the measurements were the same. Examination of the lower jaw led to the same inferences—namely, that there is no increase whatever in the portion of the jaw occupied by the temporary teeth. It seems clear, from the examination of the jaws of anthropoid apes, that in the matter of the absence of growth in the anterior region of the jaw man stands alone, the orang differing from him more than the chimpanzee, and the gorilla still more, gaining no less than fourteen millimetres upon an original measurement of thirty-three, and that the growth corresponds with the periods of obliteration of their inter-maxillary sutures, and it seems a fair inference that these two facts are related as cause and effect. Mr. Charles Tomes remarks that it would be very interesting to ascertain if the progoathism of the African races can be due to the inter-maxillary suture remaining open to a later date than in European races. Referring again to the series of models in the museum of the Royal College of Surgeons, he makes the interesting observation that, after the age of twelve, there is an inequality between the length of the two sides, although the same teeth had been shed and retained upon the two sides, and anyone looking at the mouth a few years later would have certainly attributed it, without the least hesitation, to the extraction of the tooth on that side; yet such a verdict would be quite wrong, and shows that in the study of irregularities a too mechanical view of their origin is to be deprecated.

EFFECT OF BITTERS ON GASTRIC MOVEMENTS.

DR. PAUL TERRAY of Buda-Pesth has published an account of some investigations he has recently made, with the view of determining the effect of various bitters on the movements of the stomach. For this purpose he employed the stomachs of dogs taken from the body immediately after the animal had been killed by severance of the cervical spinal cord. Both orifices of the stomach were then tied and the organ was immersed in a bath of water, which was at the temperature of the living body and contained in solution 0·75 per cent. of common salt. Where no drug had been introduced the automatic movements continued for about three-quarters of an hour, after which time signs of death began to appear in star-shaped contractions; and in another half hour mechanical stimuli ceased to produce any response, irritability being subsequently lost, first to cold water, then to the galvanic current, and lastly to hot water. When the animal was kept on a restricted diet for two days, and a quarter of an hour before being killed a dose was introduced into the stomach of some bitter which acts on the peripheral automatic centres of the stomach, the movements were stronger, more rapid, and more persistent—the most powerful drug being gentian, and after that cetrarin and condurangin; then came taraxacum, quinine, and lastly quassia. The irritability of the stomach to mechanical stimuli was increased by gentian, taraxacum, quassia, strychnine, and columbine. Small doses of absinthin diminished the irritability, and large doses arrested it altogether. Columbine and strychnine increased the irritability until persistent general contractions were induced. Picrotoxin produced no effect on the contractions, while cetrarin not only set up increased movements in the stomach, but produced a similar effect upon the intestinal movements. From a therapeutic point of view, therefore, it appears that in atonic conditions and moderate dilatation bitters may be given with advantage. Certarin, it may be well to remark, acts as an aperient in addition to its effect upon the stomach.

FOREIGN UNIVERSITY INTELLIGENCE.

Bonn.—Dr. Albert Peters has been recognised as *privat-docent* in Ophthalmology.

Buda-Pesth.—Dr. P. Haberern has been recognised as *privat docent* in the Surgery of Bones and Joints, Dr. G. Direr in Gynæcological Operations, Dr. J. Bársony in Obstetrical Operations, and Dr. H. Rothmann in Odontology.

Granada.—Dr. Don A. Perales y Gutierrez has been transferred from the chair of Midwifery to that of Diseases of Children.

Innsbruck.—Dr. Heryng of Warsaw, who has been offered the Professorship of Laryngology, has declined to migrate.

Madrid.—Dr. Don Redondo y Carranceja, Professor of Clinical Medicine in Valladolid, has been appointed to the chair of Medical Pathology.

New York (Bellevue Hospital Medical College).—Dr. Alexander Smith has been appointed Professor of Medicine, in succession to Dr. Janeway, resigned; Dr. H. M. Biggs has been appointed to the chair of Materia Medica, vacated by Dr. Smith.

Utrecht—Dr. Gutteling has been recognised as *privat-docent* in Dermatology and Syphilis.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Paul Lannegrace, Professor of Physiology at Montpellier.—Dr. Carlet, Professor of Natural History at Grenoble.—Dr. Josef Oellacher, Professor of Histology and Embryology at the University of Innsbruck, of Pneumonia, at Botzen, where he had gone to spend the Easter vacation. He was in his fiftieth year.—Dr. Ivan Alexêevich Efremovski, Professor of Surgery in Warsaw, at the age of fifty-three. He had taken part in the ambulance work in the Franco-German War, and had written papers on wounds of the knee and resection of the shoulder and elbow.—Dr. J. J. Zedershtedt, formerly Professor of Special Pathology and Therapeutics in the University of Kazan, at an advanced age.

THE experiments which are being conducted under the auspices of the Commission on Tuberculosis are still in progress. Some delay was caused by the difficulty of obtaining suitable cattle when the foot-and-mouth disease orders were so extensively in force. That difficulty has now been removed. We understand that some interesting and important results have already been obtained.

A MEETING of the members of the Calcutta Medical Society and of the members of the profession in Calcutta was recently held in the theatre of the Medical College of that city to unveil the portrait of Brigade-Surgeon Kenneth McLeod, which is to be placed in the Medical College Hospital as a memorial of his distinguished services as a surgeon and professor of that institution.

SIR CHARLES A. CAMERON, F.R.C.S.I., D.P.H., medical officer of health, Dublin, has accepted the Presidency of the Congress of the Sanitary Institute to be held at Portsmouth in September next.

THE Cavendish Lecture for 1892 of the West London Medico-Chirurgical Society will be delivered by Sir Charles Cameron at the West London Hospital, on Thursday, June 2nd. The subject is the Etiology of Typhoid Fever.

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DR. PHILLIP MACLAGAN, brother of the Archbishop of York and of Sir Douglas Maclagan of Edinburgh, died at Berwick on the 25th inst. He was formerly surgeon to the 20th Regiment.

IT is stated as probable that Professor Virchow will visit Dublin on the occasion of the celebration of the tercentenary of Trinity College in July, as the guest of Sir William Stoker.

GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THE May Session of the General Medical Council opened on Tuesday under the presidency of Sir Richard Quain. There was a large attendance of members.

New Members.

Dr. Angus Fraser, the successor of Dr. Struthers in the representation of the University of Aberdeen, was introduced by Sir Wm. Turner, and Dr. George Hare Philipson, the successor of the late Dr. Heath in the representation of the University of Durham, was introduced by Dr. Macalister.

The President's Address.

In the course of his address the PRESIDENT said that the Council would recognise with satisfaction, as the result of the late election of direct representatives, that the gentlemen returned brought back the gain of five years' previous experience at the board. At the same time the Council should be informed that the cost of the election of the English members was £489, which by further additions would increase the total cost to £550. In Scotland, there being no opposition, the expense was a minimum quantity. In Ireland the expenditure was, in round numbers, £80. He referred to the presence of the new members, and said that the Council would especially miss the presence of Dr. Struthers, whose zeal and courtesy in dealing with the subject of education and examination had made a distinct mark in the progress of medical education, he having been chairman of the Education Committee. Before his term of office had expired he had left the questions bearing on medical education in such an advanced condition that little more remained for the Council to do than to watch and to supervise their progress. Dr. Heath was distinguished for his quiet and unobtrusive manners, and, though he seldom addressed the Council, for the very clear manner in which he expressed his well-formed and just opinions. He referred to the death of Sir James Risdon Bennett and of Sir George Edward Paget, who had been former members of the Council. Referring to Sir George Paget, the President said: "My feelings of high esteem for Sir George, then Dr. Paget, have led me to occupy your attention for a few minutes with this special reference to his name. To those members who may not know the fact, I may indicate that his bust is placed at the right hand of the chair—an enduring record of the esteem and affection in which he was held amongst us." He continued: "It has been felt by some members that the Education Committee should be of a more representative character than under its present constitution. The same observation applies to the Examination Committee, and notice of a motion on the subject has been given by Dr. Church. In my observations in November last I mentioned the receipt of a communication from the Privy Council, enclosing a copy of a *projet de loi* intended to regulate medical practice in France, and which, amongst many other subjects, had reference to the practice of foreign medical men in that country. This Bill had passed the Chamber of Deputies, but had not then come before the Senate. A further communication has been received from the Privy Council Office, enclosing a very full and elaborate report on the subject presented to the Senate by M. Cornil, a member of that body. In this report it is recommended that after an interval of a year from the passing of the Act no person should be entitled to practise medicine in France except those who hold the Government diploma of M.D., obtained after going through a certain course of study and passing certain prescribed examinations. The first clause of this Bill, including the above condition, has been adopted by the Senate. Certain exemptions to the law may be made by the Minister of Public Instruction, but in no case can these exemptions extend to the three final examinations. The position of *officier de santé* is to be suppressed; so, likewise, is the title of 'Doctor of Surgery'—inasmuch as the generic word 'medicine' comprises both medicine and surgery, the Doctor of Medicine is a surgeon as well as a physician. The latest information on the subject of this Bill tells us it has passed the Senate and gone back with amendments to the Chamber of Deputies. The Council might think well, in replying to the President of the Privy Council on the subject of this last communication, to submit a statement, prepared by our solicitor, of the terms on which foreign medical men are admitted to practice in this country, with a request that this statement may be forwarded to the medical authorities in foreign countries, in order that these authorities may have before them a permanent record of what these conditions are. The decision by the High Court of Justice that a person registered in respect of one qualification cannot hold himself out as possessed of others applies *a fortiori* to persons who hold no qualification, who yet assume professional titles. This decision is of the utmost importance for the protection alike of the public and of qualified practitioners. In regard to legal matter of great importance, it is merely necessary here to say that the resolution of the Council directing the Registrar not to register the qualifications of Licentiate or Member of the Royal College of Physicians of London as in themselves sufficient to admit to the Register was duly communicated to the implicated College. As a consequence, on the application of the College, a writ was issued from the Court of Chancery and served on the solicitor to the Council. An application was made at the same time for an injunction restraining the publication of the Medical Register, which contained a table of qualifications indicating a limitation—denied by the College—of its licensing authority. Had this injunction been granted, the publication of the Register must have been postponed, resulting in a very great inconvenience to the public and the profession. The Executive Committee, being advised by counsel that this page had no legal connexion with the Register, directed that it should be omitted for the present from the Register. This course being satisfactory to the College of Physicians, their application for an injunction was withdrawn. In further reference to this case, the Council may be informed that the fullest consideration has been given by counsel to the details of the case, and information has been freely supplied by the mover and seconder of the resolution, Sir Wm. Turner and Sir John Simon, between whom and the lawyers a consultation has been held. Sir Horace Davey and Mr. Muir Mackenzie have been retained to represent the Council when the case comes before the court, which is that of Lord Justice Kekewich. Owing to the great number of cases on the list, it is thought that it may not come before the court for several months." Referring to penal cases, the President continued: "No doubt the Medical Council is prepared to do what it has hitherto done in cases in which the interests of the public are damaged by professional delinquents, but it would certainly seem to be the duty of the Colleges which grant licences to exercise a full disciplinary control over Licentiates whose conduct brings discredit upon their institutions. An association called the Medical Defence Union has thought it its duty to bring this matter before the Council. If the Colleges cannot deal with these cases themselves they should bring the matter before the Council, not leaving it to a voluntary association to protect the character and interests of their institutions."

On the motion of Sir JOHN SIMON, seconded by Mr. MACNAMARA, the President was thanked for his address.

The Business Committee.

Dr. P. HERON WATSON reminded the Council that the resignation of Dr. Struthers left a vacancy in the Business Committee, and he moved the appointment of Sir William Turner, who he understood was willing to serve.

Dr. LEISHMAN seconded the motion, and it was agreed to.

The Society of Apothecaries of London.

Mr. BRUDENELL CARTER called attention to the state of matters with regard to the Arts Examinations of the Society of Apothecaries of London. It would be in the recollection of members, he said, that the Education Committee proposed to withdraw from the Arts Examination of the

Society, and that of some of the other bodies, the recognition which they had hitherto enjoyed. When the proposal was first mooted he expressed a strong opinion that the procedure asked for was wholly outside the powers of the Council, and that any attempt to do what was suggested would be absolutely illegal and null and void. Upon his suggestion the opinion of Mr. Muir Mackenzie was taken upon the case and read to the Council. Mr. Muir Mackenzie commenced his opinion by saying that he felt difficulty owing partly to not being thoroughly familiar with the course of the practice of the Council and partly to not knowing certain facts: "The state of matters which I understand to exist, and upon which I base my opinion." That state of matters did not exist really, and Mr. Muir Mackenzie's opinion was therefore of so much the less value, because it was founded in great measure upon misconception. In the meantime he (Mr. Carter) had had an opportunity of conferring with the authorities of the Society on the question. They had referred the case submitted to Mr. Muir Mackenzie, and that gentleman's opinion, together with the comments of their own legal advisers, to Mr. Rigby and Mr. Leverson, who had given an elaborate opinion upon the case. They confirmed entirely his original contention that the Council had no power to take the step proposed. He begged to move that the whole papers be referred to the Education Committee for examination and report.

Dr. BRUCE seconded the motion.

Sir WM. TURNER asked Mr. Carter whether the Society had looked to this solely as a legal question as to what their rights were in the matter, or whether they had considered what was the most suitable and advisable thing for them to do in connexion with the wish so often expressed by the Council, and which had been acted up to by all the medical corporations except the Society of Apothecaries—namely, that they did relieve themselves from the duty of conducting preliminary examinations, and allow them to be conducted by those whose business it was to conduct such examinations.

Mr. MACNAMARA reminded Sir Wm. Turner that the Irish bodies were exactly in the same category as the Apothecaries' Society in London. They were, no doubt, anxious to get rid of the examinations, but they found difficulties in the way.

Sir WM. TURNER expressed his thanks for the correction, but pointed out that the difficulties referred to were Irish and not English difficulties.

Mr. BRUDENELL CARTER said he had no absolute instructions from his Society upon this point, but as the result of conference with the authorities of the Society, he believed that they fully shared the opinion which he himself had strongly expressed at this Council—namely, that the proposal of the Education Committee was one of extreme impolicy and unwisdom; that it was the business of the medical profession to keep the key to the door of its own house in its own hands, and not to entrust the first step towards admission to the College of Preceptors or any other body which had no interest in, and could not possibly care for, the honour and dignity of the profession. He felt that very strongly, and he believed the authorities of the Society felt it as strongly.

Sir JOHN SIMON said he would like to know something about the documents before they referred them to the committee.

The PRESIDENT suggested that the opinion of counsel might be read.

Dr. HAUGHTON thought it futile to send this business to the Education Committee.

Mr. BRUDENELL CARTER said he would not interpose any objection to the documents being made public.

Sir JOHN SIMON pointed out that there were other questions than those of law to be considered. No one contended that this was a case where the Council could lay down any direct injunction upon the Society. Their method of procedure could only be by way of recommendation. The Council had plenty of ways in which they could, if they thought it desirable, resist the contention of the Apothecaries' Society that it was entitled to act as a general examining body in arts. It was one thing that the Apothecaries' Society might accept its own examination as sufficient evidence of the preliminary education of candidates for its own licence, but it was another and a different thing that the College of Surgeons or the Conjoint Board should be obliged to accept the examination in arts of the Apothecaries' Society as superseding any other sort of examination in the universities. For himself, he did not think that the Apothecaries' Society ought to be on their list as a body whose testimonial in arts should be of general authority. He begged to move that the documents be printed in the minutes for the general information of the Council.

Mr. MACNAMARA seconded this motion.

After some further discussion, Sir John Simon's motion was carried by a large majority.

Chemistry and Materia Medica.

Mr. MACNAMARA moved: "That this Council, when including in its lists of subjects for professional study chemistry and materia medica, never contemplated that such studies could be efficiently carried on independent of fully equipped laboratories and museums, or that any of the medical authorities would accept, as satisfactory evidence of such studies, certificates issued by (*a*) the holder of any medical qualification; (*b*) persons who had passed examinations on these subjects conducted by any public board; (*c*) prizemen on these subjects in any medical school, without having any evidence of the capacity of the instructor, or any investigation as to the materials at his disposal." He felt strongly on this subject, and he wished to discuss it altogether as an abstract question. Chemistry was coming more and more to the front. It was made the subject of searching examination by their examination boards. To imagine that instruction in chemistry could be given outside a chemical laboratory was a thing he could not conceive, and they all knew that chemical laboratories were increasing every day. He implored the Council out of their kindness and forbearance to accept what he said as facts; but if any members were disposed to question his veracity, he was in a position to bring forward evidence. There was a widespread belief in medical educational circles in Dublin that a certain gentleman sent forward a pupil with a certificate on these subjects given to that pupil by his coachman.

Sir WM. TURNER: By whom?

Mr. MACNAMARA said he threw himself on the mercy of the court he was addressing. He begged of it not to ask him to particularise these things. He was satisfied that such an expression of opinion by the Council as he now proposed would fructify in a very satisfactory fashion.

Mr. COLLINS seconded the motion.

Mr. TEALE said he did not think this a question for the Council, but rather for the examining bodies.

Sir WM. TURNER said the motion, if carried, would lead to consequences which the mover evidently did not contemplate. He (Sir Wm. Turner) sympathised with the desire that the education in materia medica should be properly conducted and in proper institutions. If this motion were carried, Mr. Macnamara himself would be precluded from giving a certificate in materia medica, and not only so, but any teacher who was at the same time the holder of a medical qualification would also be precluded from giving a certificate both in materia medica and chemistry. He thought, therefore, the motion should be amended in some way.

Dr. GLOVER said that before the Council could accept such a motion it must have some definite and reliable information. If Mr. Macnamara had evidence in his possession let him produce it.

Dr. HAUGHTON thought he could hardly vote for the motion without some evidence that the things alleged actually had taken place.

Dr. GLOVER moved that the motion be referred to the Examination Committee to consider and report.

Dr. ATTHILL seconded this motion, and it was agreed to.

Visitation and Inspection of Examinations.

The Secretary presented the report of the Executive Committee with respect to the visitation and inspection of examinations. It stated that, pursuant to the resolution of the General Council of Nov. 28th, 1891, directing the Executive Committee to appoint visitors and an inspector for 1892, and assign to them such duties as might seem fit, the Committee on Feb. 22nd last considered the appointment of visitors and an inspector. In answer to an application made to all members of the General Council, intimation was received from the following members of their willingness to act as visitors:—(*a*) Willing to attend at any time—Mr. Wheelhouse, Dr. Wilks, and Mr. Teale; (*b*) able to attend at certain specified dates—Dr. Church, Dr. Kidd, Dr. Leishmann, Dr. Tuke, Dr. Atthill, Dr. Bruce, Dr. Fraser.

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Applications for the post of inspector were received from twelve gentlemen, and from these the Committee selected Dr. Duffey of Dublin, who was accordingly appointed to the inspectorship. A calendar having been prepared by the Registrar according to the direction of the General Council, showing the final examinations to take place during the present year, the Committee decided that the examinations should be visited and inspected in the following order:—First year, Scotch Corporations and Irish Universities; second year, Irish Corporations and English Universities; third year, English Corporations and Scotch Universities.

On the motion of the Chairman the report was adopted.

Sir WM. TURNER then moved: "That the appointment of Dr. Duffey as Inspector of Examinations be continued during the year 1893, and that the Executive Committee be authorised to make arrangements for inspection and visitation of examinations during the same period."

Dr. BRUCE thought the appointment of Dr. Duffey was an excellent one. At the same time, in view of the importance of the position and of the fact that other candidates had presented themselves, he would suggest that in future the appointment should be placed on the programme as a separate item of business.

The motion of Sir Wm. Turner was then agreed to.

Dr. TUKE had a notice of motion to the effect that the reports of the inspector and visitors of examinations be not published until the series of inspections of the final examinations is completed. He said that the report of the committee gave no indication as to what was to be done with the reports of the inspector and visitors. He thought that until the Examination Committee had dealt with the reports, it would be unwise to give them to the public. He noticed that Dr. Heron Watson had put down an amendment which he was willing to accept in preference to his own motion.

Dr. HERON WATSON then moved "that the reports of the inspector and visitors of examinations be remitted to the Examination Committee for printing, and that this print, marked 'confidential,' be circulated among the members of the Council."

Dr. TUKE seconded, and the motion was unanimously agreed to.

It was further resolved, on the motion of Mr. TEALE, seconded by Dr. HERON WATSON, "that a confidential copy of the report of the inspector and visitors of examinations, as soon as printed, be sent to the body to which the report has reference."

Communication from the Examining Board.

The SECRETARY intimated that the Examining Board in England had forwarded, for the information of the General Medical Council, a copy of the regulations for a five years' curriculum, which was applicable to all candidates for the licence of the Royal College of Physicians of London and the diploma of Member of the Royal College of Surgeons of England who registered as medical students on or after Jan. 1st, 1892, with synopses of the subjects of the first and second examinations.

On the motion of Sir WALTER FOSTER, seconded by Dr. MACALISTER, these regulations were referred to the Examination and Education Committees for consideration, and to report to this Council.

The Sanitary Science Examination.

The Executive Committee submitted to the Council the following communication from the Royal University of Ireland:—"Dublin, March 9th, 1892.—Sir,—We would feel much obliged if you would favour us with your view of the requirement of the General Medical Council as to the twelve months which must elapse between a person obtaining his medical qualification and presenting himself for the examination in Sanitary Science."

Mr. MACNAMARA pointed out that in some cases, if the whole twelve months were enforced after the medical qualification was obtained, it would mean to some candidates an actual period of eighteen months or so.

Sir WALTER FOSTER moved that the Royal University be referred to the Council's rule as requiring not less than twelve months' interval between the attainment of the general qualification and the examination for the diploma in sanitary science.

Sir J. SIMON said that the expression "not less than twelve months" was meant to have its natural signification.

Mr. BRYANT seconded the motion.

Dr. CARTER pointed out that the University might change a little the period at which the examination in sanitary science was held, and in that way remove all trace of hardship from the candidates.

Sir JOHN BANKS said it was only right to state that the University of Dublin was ready to follow any opinion which might be given by this Council on the subject.

Sir WALTER FOSTER'S motion was then agreed to, after being altered so as to run as follows:—"That the Royal University be referred to the resolution of June 1st, 1889, marked B, and that the University be informed that the period of twelve calendar months is intended, and not any shorter period."

Preliminary Education.

The SECRETARY announced that communications had been received, in compliance with the Council's request that instances of deficiency in preliminary education should be reported by the medical examining bodies, from the War Office, the India Office, the Examining Board in England, and the University of Dublin. No returns had been received from the Director-General of the Naval Medical Department or the following bodies, all of whom had been applied to:—The Universities of Oxford, Cambridge, Durham, London, Edinburgh, Glasgow, Aberdeen, St. Andrews, Victoria University, Royal University of Ireland, Royal Colleges of Physicians and Surgeons of Edinburgh and Ireland, the Faculty of Physicians and Surgeons in Glasgow, the Apothecaries' Society of London, and the Apothecaries' Hall of Ireland.

On the motion of Dr. WHEELHOUSE, the communications which had been received were ordered to be entered on the minutes, and the thanks of the Council were given to the bodies who had replied to the request of the Council.

Dr. GLOVER moved that the returns be sent to the Education Committee, so that they might receive due consideration.

After some discussion,

Professor LEISHMAN moved the previous question, which was seconded by Dr. PETTIGREW.

In accordance with the standing orders, a vote was taken without further debate, and, the previous question being carried, the Council passed to the next order of the day.

Diploma in Public Health.

A communication was read from the Conjoint Board in Scotland with regard to a conjoint diploma in Public Health, and enclosing copies of the joint scheme or articles of agreement between the three Scottish corporations on the subject, and also copies of the relative draft regulations to be submitted to the Council for approval.

The communication was entered on the minutes.

There was next read a communication from the University of Aberdeen, enclosing a copy of the regulations for the granting of the diploma in Public Health in that University. It was stated that the regulations now submitted differed from the previous regulations only in respect of being more detailed, the requirements of study and the extent and nature of the examination being practically the same as were enacted under the previous regulations.

The communication was entered on the minutes.

Universities and Honorary Degrees.

The next business was the consideration of a communication from Dr. Francis J. Allan, hon. secretary of the British Institute of Public Health, directing the attention of the Council to the fact that the University of Durham had conferred a degree in Hygiene upon a gentleman who had not previously passed any examination for the same. The Council of the British Institute of Public Health felt very strongly that a most dangerous precedent was thereby created, and most respectfully asked the General Medical Council to consider the matter with the view of preventing any such degree or qualification being given in a similar manner, and thus prevent a great injustice being done to those who had obtained a qualification in Public Health after examination. The communication further stated that the Council of the British Institute were of opinion that the conferring of a degree in Hygiene or a diploma in Public Health was by no means on an equality with the conferring of such degrees as D.C.L. or LL.D.

Dr. PHILIPSON said the University of Durham had the power of conferring degrees in Hygiene. He took it that the degree referred to in the communication was that conferred upon Dr. Henry Armstrong. When the University

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took this action they were quite aware, in offering this honour to Dr. Armstrong, that it would not be registrable. This was stated to Dr. Armstrong, and the degree was conferred upon that understanding. Dr. Armstrong had been twenty years lecturer in the University of Durham, and fifteen years lecturer on Public Health. Further, he was medical officer of the city and county of Newcastle; he was President of the Society of Medical Officers of Health; he was one of the representatives of the University of Durham at the Hygienic Conference, and one of the delegates of the city and county of Newcastle. He (Dr. Philipson) wished to say, in face of the sweeping statement about the injury that would be done by this, that he thought Dr. Allan could not be aware of the position Dr. Armstrong occupied; that he had been a medical officer of health for over twenty years, and that, in accordance with the requirements of the Local Government Board of 1888, no degree was necessary for him. He had a letter from Sir Charles Cameron, in which he stated that the Royal College of Surgeons of Ireland conferred upon him (*honoris causâ*) their diploma in Public Health. He (Dr. Philipson) wished to emphasise this point, that Dr. Allan took exception to an honorary degree being conferred upon the ex-president of the Society of Medical Officers of Health, whereas there was no communication sent by this body with regard to the honorary degree conferred upon its own president. He trusted the University of Durham would be supported by the Council.

Mr. MACNAMARA said the Council of the Royal College of Surgeons of Ireland said Sir Charles Cameron, when the degree referred to was conferred upon him, held a diploma in Public Health.

Dr. HAUGHTON said the statement of Dr. Philipson had induced him to change his mind, and he congratulated the University of Durham on having done its duty.

Sir WALTER FOSTER moved:—"That Dr. Allan be informed that the Council has no power to interfere with the right of universities to confer honorary degrees, and that the Council is of opinion that the universities have in all cases exercised due discretion in the awarding of such degrees."

Dr. HAUGHTON did not think that went far enough, and he thought Sir Walter Foster shirked the question, as Parliamentary men did. Their minds got crooked in that horrible Parliament. He thought they should go straight, and say the Council approved of the action of the University. (No, no.) This was a mere shuffling, parliamentary, House of Commons negative, which did not satisfy him.

Sir JOHN SIMON thought it was essential not to confound two different questions. Among those who were conversant with the present practice of sanitary medicine in England there could not be any difference of opinion as to the merits of Dr. Armstrong. But there was the general question of the inconvenience which might attach to giving the same title as an honorary title and as a title after examination. He did not hear whether in this case it was expressly defined as an honorary degree.

Dr. PHILIPSON: It was

Dr. MACALISTER seconded the motion, which he thought the wisest form in which the opinion of the Council could be put.

After some conversation the motion was passed in the following terms:—"That the Council is informed by the representative of the University of Durham that the degree referred to in the letter of Dr. Francis Allan was expressly granted *in honoris causâ*, and that Dr. Allan be informed that the Council has no power to interfere with the right of any university to confer honorary degrees."

The Council adjourned at 6 o'clock until the following day.

WEDNESDAY.

Education Committee.

The following were appointed the Education Committee:—Mr. Wheelhouse, Dr. Glover, Dr. Macalister, Dr. Bruce, Dr. Batty Tuke, Dr. Leishman, Sir John Banks, Dr. Haughton, and Dr. Kidd.

Examination Committee.

Sir Dyce Duckworth, Mr. Brudenell Carter, and Mr. Teale; Sir Wm. Turner, Dr. Heron Watson, and Sir George McLeod; Mr. Macnamara, Mr. Collins, and Dr. Moore, were nominated as the Examination Committee.

Reciprocity with Foreign Practitioners.

A communication was read from the Lord President of the Privy Council, transmitting for the information of the General Medical Council a report of the Commission of the French Senate appointed to examine the Bill passed by the Chamber of Deputies with reference to the practice of medicine in France.

On the motion of Sir WALTER FOSTER, seconded by Sir WM. TURNER, it was resolved: "That with reference to the communication from the Privy Council Office in regard to medical practice in France, the Council authorise the President to have enclosed in any reply to the Lord President of the Council a statement prepared by the solicitor respecting the terms upon which foreign medical men are admitted to practise in this country, with a request that the statement may be forwarded to the proper ministerial authorities in each foreign country, in order that those authorities may have before them a permanent record of these conditions."

Licensing Corporations and Professional Ethics.

The consideration of the case of Charles Augustus Bynoe, who held the licences of the Royal College of Physicians, Edinburgh, of the Royal College of Surgeons, Edinburgh, and of the Faculty of Physicians and Surgeons, Glasgow, all of 1889, was the next business. The charge against him was that he was convicted at the Central Criminal Court on Jan. 11th last of forging a warrant for the payment of £7 16*s.* with intent to defraud.

Sir JOHN SIMON desired, before entering on the consideration of the case, to bring before the Council a point which he considered of great importance to them. Speaking as a witness of the spirit in which the Act under which they proceeded was constructed, he ventured to say that this agendum raised a question going to the very root of their professional morals; that the question of the moral government of their profession, the fundamental principle that the medical corporations were the guardians of the profession's honour, was connected with the proceeding it was now proposed to take. When there had been any question of encroachment on the autonomy and privileges of the medical corporations, they had declared that they were the security for the conduct of the medical profession; that if black sheep came into their body they cast them out. But surely it had to be seen that that autonomy justified itself. They had a right to expect, and, generally speaking, they took it as a fact, that the corporate bodies had a proper jealousy in the matter of the retention of unworthy members on their rolls. Their profession, at all events, had been that they kept clean rolls, and it was in that point of view that he desired to draw the attention of the Council to the fact that in this case the Medical Council was asked to execute judgment on a certain convicted felon who for three months after his conviction had remained a member of three corporations of the profession. He maintained that that was contrary, *primâ facie*, to the principle on which those corporations were authorities in the medical profession. *Primâ facie*, one would say that the form in which this matter should have come before the Council would have been that the three corporations in question found that a certain person had been convicted of felony, and had removed him from their respective rolls, that they brought the fact of that removal under the notice of the Council, and that the only question before them would have been to give effect to Clause 28 of the Act. He thought it a great grievance that this Council should have to go judicially, with unnecessary minuteness, into questions of this sort. They had a great deal to do, and, if the corporations were to justify the position they held in relation to the Council and the dignity of the profession, he ventured to say these cases ought not to come before the Council in any primary form, but as already pronounced upon by the corporations concerned. He was not prepared to say the Council ought to refrain from entertaining the case, but he was quite clear that the Council ought not to proceed in cases of this kind where the corporations had refrained from acting; that they ought not to proceed as a primary authority in questions of professional morals without placing on record some expression of their opinion that the corporations concerned ought to have taken action, and if unable, ought to have taken power to keep their individual registers free from discreditable admixture.

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The PRESIDENT said the observations of Sir John Simon were most important, and might apply in some other cases. But the Act of Parliament settled the matter for the Council. Section 29 was as plain as anything could be: "If any medical practitioner should be convicted of any felony or misdemeanour &c." This man had been convicted of felony.

Sir J. SIMON: I wish to point out that this case comes before us three months after the conviction, and that the man is still upon the registers of these bodies.

Dr. BATTY TUKE wished to explain, as representing one of the bodies concerned, that as far as he knew the case had never been reported to them.

Dr. PATRICK HERON WATSON said Sir John Simon forgot that legally the kingdom of Scotland was a foreign country as regards England. No doubt there were newspaper reports of convictions of this kind occurring in England, but they did not find that these cases were of such importance to Scotchmen as to be reported locally, so that the Colleges would have any knowledge of their having occurred. When this case appeared in the programme of business, the name was unfamiliar to him, and he telegraphed to Scotland to know whether the case had been before the College, and he had received an official answer that it had not been before them, and that they knew nothing about it. The corporations, he thought, might much more turn round to the officials here and say that they in London were duly informed of the matter by the proceedings in their criminal courts; and if this person were admitted to the profession by the Scotch licensing authorities, it was their duty to communicate with these authorities. When the Council had a simple duty to be performed under Clause 29 of the Act, it was absurd to say the corporations ought to have done it.

Charges against Practitioners.

The Council, having considered the case of Charles Augustus Bynoe, upon which the foregoing discussion arose, directed the Registrar to erase his name and qualification from the Medical Register.

The next case was that of David Hyman Dyte (registered as Member 1861, L.M. 1862, R.C.S. Eng.; L.S.A. Lond., 1861; L.R.C.P. Lond. 1875), who had been summoned to appear before the Council on the following charges, as formulated by the Council's solicitor: That he was on April 9th, 1892, convicted at the North London Police-court of the following misdemeanour—namely, that he, on March 18th, 1892, at Poole's-park, Holloway, in the county of London and in the metropolitan police district, did unlawfully and wilfully make and issue a false certificate concerning the death of one Susannah Elizabeth Waller, contrary to the statute in that case made and provided, and also that he had habitually acted as cover to an unqualified practitioner named Henry Smythe, permitting and enabling him to practise as if he were duly qualified, and signing medical certificates in cases attended by the said H. Smythe and not attended by him.

Mr. DYTE attended and expressed his sincere regret for the offence for which he had been convicted, and which he admitted he had committed; but he pleaded in extenuation that he had had a severe fall at that time, and was confined to his house for two or three days.

Dr. GLOVER asked if he was aware of the rule of the Council against qualified men keeping unqualified persons in separate houses at a distance.

Mr. DYTE replied that he was not aware of any rule prohibiting the employment of unqualified assistants. He knew that it was extensively done, but his rule had been to give personal supervision in every case. He admitted that in this case he did not give that supervision. He presented letters from Dr. Langdon Down, Mr. Jonathan Hutchinson, and Dr. Hughlings Jackson testifying to his honourable conduct, and also a letter from Professor Huxley acknowledging his medical services.

The Council deliberated in private, and on the readmission of the public,

The PRESIDENT, addressing Mr. Dyte, said: It is my painful duty to announce to you that the Council find it proved to their satisfaction that you have been convicted of the misdemeanour charged against you; secondly, it is the opinion of the Council that you have committed the offence charged against you of covering; thirdly, that the offence is, in the opinion of the Council, infamous conduct in a professional respect; and fourthly, the Council have directed the Registrar to erase your name from the Register.

Mr. DYTE asked if he could in any way appeal to the Council for their clemency.

The PRESIDENT said the Council had a duty to perform. This system was carried on very extensively, to the detriment of the profession and the public. They could not hear any more from him now.

The next case was that of Mr. John Gunn of Kilmarnock (registered as Lic. Fac. Phys. Surg. Glasgow, 1879), who was charged "that, being a registered medical practitioner, he had caused and enabled unqualified persons, under cover of his name, to carry on medical practice as though they were qualified, and had in his own name and for his own benefit given death and vaccination certificates in respect of cases attended only by such unqualified persons."

Mr. GUNN appealed to the Council to treat him leniently. He cast himself entirely upon their mercy. He never dreamt it was wrong to employ an unqualified assistant so long at least as he did not set him up in a branch or get him to work as a substitute. It was not for gain that he kept an assistant, because the practice could easily be overtaken by one man. He employed the assistant merely to help him during his ill-health.

After the Council had conferred in private for some time, the President communicated the decision. The Council, he said, had been greatly influenced by the character Mr. Gunn had received from his professional friends in the neighbourhood. They were of opinion that under the circumstances his conduct had not been proved to be infamous in a professional respect. They were, however, of opinion that he should be cautioned as to his conduct in the future. The Council had taken a very merciful view of the case. They might have ordered his name to be removed from the Register, but they had given him a full opportunity of redeeming his character, and in the future conducting his practice properly.

Mr. GUNN thanked the Council, and withdrew.

Extension of the Medical Act to India.

An Order of Her Majesty in Council extending the Medical Act to India was received and entered in the minutes.

The Council then adjourned.

THURSDAY, MAY 26TH.

The General Medical Council resumed its sittings at two o'clock to-day, Sir Richard Quain, President, in the chair.

On the motion for the confirmation of the minutes of yesterday's proceedings,

Sir J. SIMON pointed out that the minutes in reference to the Council's action in the case of a medical practitioner who had been convicted of felony required in his opinion to be supplemented. He had prepared a memorandum of what he would suggest should be added to the minutes. By it he proposed to record that he had drawn attention to the fact that the qualifications in respect of which the person convicted had been placed on the Register—derived from three Scottish corporations—had not yet been cancelled by those corporations; that in consequence of the offender's name not having been struck off the roll of membership of those corporations, this Council was being called upon to take the initiative under Section 29 of the Act, instead of being left with liberty and discretion to act under Section 28; and that he represented that, in the spirit of the Act, the Council was entitled to expect that cases like this should not be brought before it for judgment till the corporations which had conferred the qualifications on the inculpated person had themselves decided whether or not to cancel such qualification, and had reported to this Council. It should also be recorded that Dr. Tuke intimated that the Scottish Corporations in question had not been apprised of the legal proceedings. The minute should also state that the Council thereupon instructed—and he believed the Council had accepted his suggestion unanimously yesterday—the Registrar that in future, whenever information reached the office that a registered medical practitioner had been convicted of felony or misdemeanour, or had been under any judicial or other authoritative censure in respect of his profession or conduct, the Registrar should forthwith communicate the information to the medical authority from whom the practitioner held his qualification.

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The PRESIDENT pointed out that it would be a most unusual thing to alter the minutes as proposed, and certainly he could not allow it to be done without a vote of the Council.

Sir WM. TURNER said that the proposal introduced a serious novelty into the Council's proceedings. He did not agree that the Council had come to any such resolution as Sir John Simon had stated. If the Council had come to such a conclusion, it would have been on the minutes as a definite resolution. But there was no record of it, and he had no recollection of Sir John Simon submitting a written motion on the subject. Only those could be resolutions of the Council which had been formally presented to the chair, put from the chair, and agreed to by the Council. But he would point out that the object could be served by Sir J. Simon adding a rider to a motion on the paper for to-day requesting the Home Office to communicate to the Registrar all cases of conviction of medical men for felony, misdemeanour, or crime.

Sir J. SIMON accepted the suggestion.

The minutes were thereupon confirmed.

Petitions for Restoration to the Register.

The Executive Committee reported that they had received and considered petitions from Mr. John Keys, Whitehall House, Portobello, Dublin, and from Mr. Richard Davies Barree Gunn, Grove Mount, Fairfield-road, Droylsden, who were removed from the Register last year, praying for the restoration of their names to the Medical Register. The committee recommended: "That the Council should restore to the Medical Register the names of Mr. John Keys and Mr. Richard Davies Barree Gunn."

The report was received and entered on the minutes, and Mr. WHEELHOUSE moved that the report be adopted.

This motion having been seconded, and notice of opposition having been given,

The Council deliberated upon the case in private.

On resuming in public, the PRESIDENT announced that the Council had resolved, in accordance with the recommendation of the Executive Committee, to direct the Registrar to restore the names of Mr. Keys and Mr. Gunn to the Register.

Society of Apothecaries' Examination.

On the motion of Mr. CARTER, seconded by Dr. BRUCE, the case submitted by the Society of Apothecaries of London to counsel, and the opinion given thereon, together with the case submitted by the President to Mr. Muir Mackenzie, and his opinion, were referred to the Education Committee for consideration and report.

Documents for the Minutes.

Dr. LEISHMAN moved, "That it be in the power of the President, if he see fit, to remit documents for report to any Standing Committee of the Council to which in his opinion the subject might advantageously be referred." He said that at present any document that might be sent in was printed on the minutes, no matter what the nature of the communication might be. If they were examined by the President, and sent to the proper committee, much time and trouble would be saved.

Mr. MACNAMARA, in the absence of Sir W. FOSTER, seconded the motion, which was unanimously adopted.

The Council proceeded to consider the case of Edmund Byron de Boune Robertson, of Croydon (registered as Lic. Fac. Phys. Surg. Glasg., 1876), against whom a charge of covering was made, and in the result came to the conclusion to erase his name from the Register.

Another charge of covering was under consideration when the Council adjourned for the day.

We reserve until next week a fuller report of the proceedings in these cases.

ROYAL MEDICAL BENEVOLENT COLLEGE, EPSOM.

THE annual meeting of the governors of the Royal Medical Benevolent College was held in the rooms, at 37, Soho-square, on Thursday, the 26th inst., and the following candidates for pensionerships and foundation scholarships were reported by the scrutineers (Mr. Stamford Felce, M.R.C.P. Edin. &c.; Surgeon-Major H. De Tatham, M.D.; and Dr. R. H. Bradley) to have obtained the largest number of votes, and were declared to have been duly elected:—

		Votes.
	Pensioners.	
1.	Gray, Isabella	7833
2.	Hooper, James	7589
3.	Steel, Camilla Harriet	5214
4.	Walker, Mary	4803
5.	Keys, Caroline	4334
	Foundation Scholars.	
1.	Turner, Thomas W. Davids	7847
2.	Cockburn, John Jenkinson	7435
3.	Lidbetter, Arthur Earle	6879
4.	George, Eric Winnall M.	6600
5.	White, Charles Henry	6472
6.	O'Meara, John Morgan	5415
7.	Buchan, John Marsh	5071
8.	Davis, Robert Douglas	4654
9.	Danaher, Alfred John	4255
10.	Dewar, Charles Edward	4204

The report of the Council was read and showed a very satisfactory state of matters, financially and otherwise. It contained allusions to the fact that the Earl of Derby had consented to accept the office of president. The Council were confident that the institution would greatly benefit by his lordship's guidance and advice. The Council also heartily thanked the Right Hon. the Lord Mayor for his earnest advocacy of the claims of the College, the result of the appeal being a collection of close upon £3000. The report goes on to call attention gratefully to the services rendered to the institution generally, and in particular with regard to the proposed changes, by the Editors of THE LANCET. "Always very willing to give the Council the valuable assistance of their columns, the Editors of THE LANCET, at the Biennial Festival Dinner held in 1890, generously promised a donation of £1000, provided the remainder of the sum required for 'a permanent endowment fund' was collected. At the last festival dinner the before-mentioned condition was most kindly withdrawn, and the Messrs. Wakley gave their munificent donation, trusting that such a course would be an incentive to others to contribute without delay to the £26,000 which are required." The Council had pleasure in reporting that they have received the first instalment of £1000 under the will of the late C. G. J. Da Silva, for the purpose of founding scholarships of the value of £50 a year. A valuable legacy had been received, under the will of the late John Palmer Stocker, for the purpose of founding the "Doncaster Gift Scholarship," and Mr. France has given another scholarship for girls at St. Anne's Society. The report noticed that Dr. Holman, the treasurer, has succeeded in collecting the sum of £3457, and Mr. J. J. Purnell £1435. The report stated that in the school the numbers have risen further, the dormitories are quite full, the health of the boys is excellent, and there are many signs of effective teaching. A proposal was made to raise the fees from 49 guineas to £60.

Dr. HOLMAN moved the adoption of the report, and Mr. HEATH seconded. It was accepted unanimously.

Sir JOSEPH FAYRER moved, and Mr. AITKEN seconded, "That the Right Hon. the Earl of Derby be appointed President of the College." This was carried unanimously.

Sir EDWARD SIEVEKING moved, and Sir JOSEPH FAYRER seconded, that Dr. Holman, Mr. J. J. Purnell, and Mr. T. H. Wakley be appointed Vice-Presidents of the College. This was carried unanimously.

Mr. PURNELL briefly returned thanks for the honour that had been thus conferred upon the newly appointed Vice-Presidents by the Council.

The other business was of a purely formal kind.

DURHAM UNIVERSITY MEDICAL GRADUATES' ASSOCIATION.

THE annual meeting of the above Association was held at Durham on April 30th, when the following officers were elected for the year 1892-93:—President, Dr. Mantle; Vice-Presidents, Drs. A. H. Robinson and W. T. Wilson; Council, Professor Philipson, Drs. Arnison, Benington, Cullingworth, Drummond, Gowans, Openshaw, Slater, Tyson, Travers, Walford, and Wood; Honorary Secretaries,

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Drs. Beatley and Milson; Treasurer, Dr. Beatley; Auditors, Drs. Morton, Slater, and Squance. Several new members were elected, and it was shown that financially the Association was in a most flourishing condition. The retiring president (Dr. Milson) and the president (Dr. Mantle) both referred in feeling terms to the loss the Association had sustained in the death of Dr. Heath, the president of the College of Medicine and representative of Durham University on the General Medical Council.

The recommendation of the Southern Council to have rooms in London for the purpose of holding meetings was adopted, and it was agreed to accept the offer of the Medical Society of London, with London address of the Association at 11, Chandos-street, W.

It was decided to hold the next annual meeting at Newcastle-on-Tyne during the week of the meeting of the British Medical Association.

THE PATHOLOGICAL SOCIETY.

THE following is a list of the gentlemen who have held the office of honorary secretary (medical or surgical) at the Pathological Society since its foundation. It is clear from this record that there has been no attempt hitherto at representing, in rotation or otherwise, the teaching staffs of the various medical schools in making these appointments.

MEDICAL.	SURGICAL.
1847.—Edward Bentley, M.D.	1847.—Nathaniel Ward.
1850.—T. B. Peacock, M.D.	1849.—George Critchett.
1852.—Richard Quain, M.D.	1850.—Geo. D. Pollock.
1857.—John W. Ogle, M.D.	1854.—Mitchell Henry.
1861.—J. S. Bristowe, M.D.	1859.—Henry Thompson.
1865.—Chas. Murchison, M.D.	1864.—Timothy Holmes.
1869.—W. H. Dickinson, M.D.	1868.—J. W. Hulke.
1872.—W. Cayley, M.D.	1873.—Henry Arnott.
1875.—T. Henry Green, M.D.	1875.—W. W. Wagstaffe.
1877.—R. Douglas Powell, M.D.	1878.—W. Morrant Baker.
1880.—J. F. Payne, M.D.	1881.—Henry Morris.
1883.—J. F. Goodhart, M.D.	1884.—H. T. Butlin.
1886.—Sidney Coupland, M.D.	1887.—R. J. Godlee.
1889.—Samuel West, M.D.	1890.—S. G. Shattock.
1891.—F. C. Turner, M.D.	

As regards the medical schools represented in these offices during the forty-five years' existence of the Society, we find the following:—*Medical:* St. Bartholomew's, 1; Charing-cross, 2; St. George's, 2; Guy's, 1; London, 1; Middlesex, 3; St. Thomas's, 3; not attached to any medical school, 2; total 15. *Surgical:* St. Bartholomew's, 2; St. George's, 2; London, 2; Middlesex, 3; St. Thomas's, 3; University College, 2; total 14.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Yorkshire Combined Districts.—Dr. Mitchell Wilson reports on four rural and three urban districts, the reports being separate although included in one volume. In all the districts excellent work is going on, and the advice given as to future lines of act on is sound and well thought out. Especial advance has been made in such matters as water-supply, drainage, and scavenging, and much time has in some districts been spent in inspections under the Housing of the Working Classes Act. Cowsheds, common lodging-houses, factories, canal boats, and all such matters are kept under supervision by means of a well-matured organisation; and although there are localities where further progress and activity are needed, yet the advance made during recent years is substantial. In some localities—as, for example, in Goole—an account is given of the control of infection by resort to the use of the isolation hospital. In connexion with the sanitary supervision of these districts, we would also note that an excellent address was delivered before a local agricultural club on Our Milk-Supply, the whole subject of the relation of milk collection, storage, and delivery being set out in its scientific aspects, and yet in such a way as to be of considerable use to the farmer, dairyman, and general public.

Fleetwood Urban District.—The rate of mortality for this district during 1891 was 17·7 per 1000 living. The zymotic rate was excessively high—namely, 5·3 per 1000,—and of 25 deaths from infectious fevers no less than 19 were due to diphtheria. Unfortunately hardly a word is said as to this occurrence, except that during a certain period 6 out of 9 of the deaths were in families closely related. Indeed, an outbreak of 74 cases with a fatality of 19 is dealt with in a few lines; the opening sentence is, however, sufficiently significant, since it says that the figures alone "speak for themselves." Some details are given as to general sanitary progress, and Dr. J. D. Fausset gives an account of proceedings taken in connexion with a Bill promoted by the Fylde Waterworks Company.

West Bromwich Urban District.—This district is in the position of lacking proper by-laws, without which efficient sanitary administration is, in many respects, impossible. The death-rate for 1891 reached 22·5 per 1000, and the increase was in part due to influenza and in part to measles, which latter disease caused thirty-seven deaths in nine weeks. The system of waste-waterclosets is in some measure taking the place of privies and middens, but we may hope that Dr. Manley's reference to the pollution of the Tame, in connexion with this subject, does not imply that the change will in any way increase the existing mischief. Owing to the measles prevalence school restrictions had to be exercised. Diphtheria occurred especially amongst those inhabiting houses where excremental nuisances existed, and Dr. Manley feels convinced that the growth and development of the diphtheria poison are favoured by such conditions. The general death-rate for 1891 was 22·5 and the zymotic rate 2·9 per 1000 living.

River Tyne Port District.—During 1891 as many as 11,533 vessels were inspected in this port, 811 being found in a defective sanitary condition; and, excepting only a few vessels which left the port before they could be reinspected, all are known to have complied with the requirements imposed upon them. In 173 cases vessels had arrived from ports regarded either as infected or as suspect. The new pontoon hospital came into use in June, and a new disinfecting apparatus has been fixed on deck. Dr. Henry Armstrong, besides giving a general account of the work carried on, explains that the subject of emigration and the health of emigrants are constantly looked after, and that especial care is taken as to drinking water on board and as to the suitability of water-boats for affording the needed supply.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6433 births and 3769 deaths were registered during the week ending May 21st. The annual rate of mortality in these towns, which had been 19·7 and 20·4 per 1000 in the preceding two weeks, declined again last week to 19·3. In London the rate was 19·4 per 1000, while it averaged 19·2 in the thirty-two provincial towns. The lowest rates in these towns were 10·8 in Croydon, 11·6 in Brighton, 14·1 in Swansea, and 14·4 in West Ham; the highest rates were 21·5 in Birmingham, 22·5 in Oldnam and in Liverpool, 23·3 in Bristol, and 24·7 in Manchester. The 3769 deaths included 469 which were referred to the principal zymotic diseases, against 542 and 538 in the preceding two weeks; of these, 197 resulted from measles, 119 from whooping-cough, 57 from diphtheria, 35 from diarrhœa, 33 from scarlet fever, 24 from "fever" (principally enteric), and 4 from small-pox. No fatal case of any of these diseases occurred last week in Derby; in the other towns they caused the lowest rates in Brighton, Plymouth, Bradford, and Hull, and the highest rates in Bolton, Manchester, London, and Sunderland. The greatest mortality from measles occurred in Birkenhead, Manchester, Wolverhampton, Birmingham, Huddersfield, London, and Halifax; from scarlet fever in Cardiff and in Gateshead; from whooping-cough in Portsmouth, Preston, Swansea, Burnley, Bolton, Croydon, and Sunderland; and from "fever" in Norwich. The 57 deaths from diphtheria included 42 in London, 4 in Manchester, and 2 in Liverpool. Four fatal cases of small-pox were registered in London, but not one in any of the thirty-two large provincial towns; 84 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 17 in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet fever patients in the

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Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1677, against 1484 and 1592 on the preceding two Saturdays; 226 new cases were admitted during the week, against 200 and 232 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 297 and 304 in the preceding two weeks, declined to 202 last week, and were 38 below the corrected average. The causes of 80, or 2·1 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Portsmouth, Bristol, Bolton, Leeds, Sunderland, and in seven other smaller towns; the largest proportions of uncertified deaths were registered in Liverpool, Manchester, Hull, and Gateshead.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns which had increased in the preceding three weeks from 21·3 to 22·8 per 1000, declined again to 21·5 during the week ending May 21st, but exceeded by 2·3 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·9 in Edinburgh and 16·1 in Paisley to 20·8 in Leith and 26·8 in Glasgow. The 598 deaths in these towns included 32 which were referred to measles, 26 to whooping-cough, 9 to scarlet fever, 5 to "fever," 4 to diarrhœa, 2 to diphtheria, and not one to small-pox. In all, 78 deaths resulted from these principal zymotic diseases, against 65 and 80 in the preceding two weeks. These 78 deaths were equal to an annual rate of 2·8 per 1000, which slightly exceeded the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had increased in the preceding four weeks from 15 to 32, were again 32 last week, all of which occurred in Glasgow. The deaths referred to whooping-cough, which had been 30 and 24 in the previous two weeks, were 26 last week, and included 16 in Glasgow, 4 in Aberdeen, and 3 in Dundee. The fatal cases of scarlet fever, which had been 5 and 2 in the preceding two weeks, rose last week to 9, of which 7 occurred in Glasgow and 2 in Edinburgh. The 5 deaths referred to different forms of "fever" showed a decline of 3 from the number in the previous week, and included 3 in Glasgow and 2 in Dundee. The 2 fatal cases of diphtheria were recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 126 and 140 in the preceding two weeks, declined again last week to 126, and were 19 below the number in the corresponding week of last year. The causes of 60, or 10 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the preceding three weeks from 43·9 to 31·0 per 1000, rose again to 34·6 during the week ending May 21st. During the first seven weeks of the current quarter the death-rate in the city averaged 34·6 per 1000, against 20·0 in London and 18·9 in Edinburgh. The 232 deaths in Dublin during the week under notice showed an increase of 24 upon the number in the preceding week, and included 28 which were referred to measles, 5 to diarrhœa, 3 to whooping-cough, 1 to "fever," and not one either to small-pox, scarlet fever, or diphtheria. In all, 37 deaths resulted from these principal zymotic diseases, equal to an annual rate of 5·5 per 1000, the zymotic death-rate during the same period being 3·3 in London and 0·8 in Edinburgh. The fatal cases of measles, which had been 40 and 24 in the preceding two weeks, rose again to 28 last week. The 5 deaths referred to diarrhœa exceeded the number recorded in any week of this year. The fatal cases of whooping-cough, which had declined from 11 to 3 in the preceding three weeks, were again 3 last week. The 232 deaths registered in Dublin last week included 47 of infants under one year of age, and 51 of persons upwards of sixty years; the deaths both of infants and of elderly persons considerably exceeded the numbers in the preceding week. Six inquest cases and 4 deaths from violence were registered; and 70, or nearly one-third, of the deaths occurred in public institutions. The causes of 24, or more than 10 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

A COMPARISON.

THE Journal of the United Service Institution of India for March contains a paper by Surgeon-Colonel R. Harvey, M.D., Principal Medical Officer of the Punjab Frontier Force, in which a comparison is set forth between the medical arrangements for the expeditions of Lushai (1871-72) and Miranzai (1891), with reference to the bearing of the subject upon the efficiency of the troops and followers employed on those occasions. After adverting to the loss of life that attended the Crimean and other campaigns, and the reorganisation of the medical service that followed the Crimean breakdown, Surgeon-Colonel Harvey proceeds to illustrate the difference in method between the old regimental and modern field hospital systems by a comparison in their working as exemplified in the Lushai campaign of 1871-72 and the late expeditions on the Samana. The contrast shows what immense advances have been made in recent years. According to a tabular statement, we find that in the Lushai expedition, out of a total strength of 4564, composed of troops, coolies, and followers, 453 died, or in the ratio of 238·21 per 1000 per annum; whereas, in the first Miranzai expedition, out of a total strength of 7364 troops and followers, only 6 died, a mortality rate of 7·83 per 1000 per annum; and in the second Miranzai expedition, out of a strength of 10,085 troops and followers, the total deaths were 26, and of these only 10 were from disease, or in the ratio of 6·65 per 1000 per annum. The paper discusses the causes to which this enormous difference—the great mortality of the one and the insignificant death-rate of the other expeditions—was due. These may be summarily expressed by the scientific formula "non-conformity to environment" in the one case, "conformity to environment" in the other. Had all the arrangements been alike in the two cases the results would have been similar, and the deplorable amount of suffering and loss in the Lushai campaign would have been saved. It is only right to recognise that the Government of that day based its arrangements and rates of provision on previous experience, tradition, and the best advice available, with a desire, no doubt, at the same time to do things cheaply. In the Lushai campaign great natural difficulties had to be encountered, and the means taken to cope with them were inadequate. In the Miranzai expedition great, though not so great, difficulties were also met with, but the means taken were adequate. We have not space to enter into the detailed information set forth, but it is satisfactory to note that great progress, according to this paper, seems to have been made of late years in the hygienic and medical arrangements of our Indian Army.

THE ELECTRIC LIGHT AND THE SEARCHING FOR WOUNDED.

It has long been a problem how a battlefield on the night succeeding a battle could best be searched and stripped of its wounded. Many years ago an experiment was carried out at Aldershot with the electric light, and quite recently the Austrian medical authorities have been making similar experiments with the same end in view. It has been found that powerful search lights with reflectors are very effective aids where the country is open, but of comparatively little use where there are woods. An experiment has now been tried with portable electric lanterns, fed by accumulators, carried in the men's knapsacks. The men of the Army Medical Service conducted an experiment of this kind at Gratz, which is said to have been fairly successful, and is likely to be repeated.

NEW BARRACKS FOR THE CHIN HILLS.

The want of proper barrack accommodation for the troops in the Chin Hills having been much felt, a special grant for the construction of barracks has now been sanctioned. The work will be proceeded with as soon as possible at Fort White and Haka.

ARMY MEDICAL STAFF.

Surgeon-Captain T. A. Perry Marsh has been appointed analyst to the Aldershot Division.—Surgeon-Colonel A. Allan has been appointed to the Rawul Pindee District, vice Surgeon-Major-General A. F. Bradshaw, C.B., appointed Principal Medical Officer in India.—Surgeon-Captain J. R. Yourdi has been posted to the charge of the

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Station Hospital, Aden; Surgeon-Captain T. M Corker to the Station Hospital, Hyderabad; Surgeon-Captain H. J Wyatt to the Poona District.

The retirements on temporary half-pay on account of ill-health of the undermentioned Surgeon-Captains are post-dated as follows:—John Lees Hall, to Sept. 3rd, 1891, Vere Edward Hunter, to June 29th, 1891, and Whitley Bland Stokes, M.B., F.R.C.S.I., to March 2nd, 1890.—The Queen has approved of the resignation of the Service by the undermentioned Officer: Surgeon-Captain Herbert William George Macleod, Bengal Medical Establishment (dated April 25th, 1892).

YEOMANRY CAVALRY. — Northumberland (Hussars): Arthur Brumell, Gent., to be Surgeon-Lieutenant (dated May 21st, 1892).

INDIAN MEDICAL SERVICE.

We regret to announce the death of Brigade-Surgeon Wm. Dymock, retired Medical Storekeeper, with the Bombay Government. Deceased was at one time connected with the European General Hospital. He held the post of Medical Storekeeper from 1870 to 1890. In addition to his duties as Medical Storekeeper, the late officer held the post of Professor of Materia Medica in the Grant Medical College. He was well versed in Arabic and Persian languages, and was the author of the "Pharmacographia Indica."

The civil hospital assistants in the Punjab have memorialised the Surgeon-General with the Government of India, praying for an improvement of their emoluments and status, on the lines sanctioned for the military branch of hospital assistants.

Madras General Orders —Surgeon Major A. H. Leapingwell, District Surgeon, Malabar, and Superintendent of Gaol, Calicut, is appointed to act as District Surgeon and Superintendent of Gaol, Vizagapatam, during the absence of Surgeon-Major Lionel Beech on leave.—Mr. C. A. Lafrenais, Assistant Surgeon, Malabar, is appointed to act as District Surgeon, Malabar, and Superintendent of Gaol, Calicut, as a temporary arrangement, during the employment of Surgeon-Major Leapingwell on other duty.—Surgeon-Major T. H. Pope, M.D., Acting Chemical Examiner to Government, is appointed to act as Superintendent, Ophthalmic Hospital, Madras, during the absence of Brigade-Surgeon-Lieutenant-Colonel E. F. Drake-Brockman. — Surgeon-Captain F. J. Crawford, M.D., Second Surgeon, General Hospital, is appointed to act as Secretary to the Surgeon-General with the Government of Madras, during the absence of Surgeon-Major C. M. Thompson, M.B., on leave —Surgeon-Captain A. T. Lodgepatch, M.B., Acting Civil Surgeon, Coconada, is appointed to act as Civil Surgeon, Cannanore, during the employment of Surgeon-Major S. C. Sarkies on other duty.—The Commander-in-Chief is pleased to direct the following postings:—Brigade-Surgeon-Lieutenant-Colonel G. Andrew, M.B., in medical charge of the North Station Hospital, Bangalore, to the medical charge of the South Station Hospital, Secunderabad; Surgeon-Major G. D. Bourke, in medical charge of the South Station Hospital, Secunderabad, to the medical charge of the Central Station Hospital, Secunderabad. — Surgeon-Lieutenant W. C. Sprague, M.D., has been brought on the strength of the Bombay Medical Establishment from the 23rd ult., the date of his arrival at Bombay.—Surgeon-Lieutenant-Colonel W. McConaghy, M.D., Indian Medical Service, and Major H. C. E. Lucas, Indian Staff Corps, have been permitted by the Secretary of State for India to return to duty.—Surgeon-Captain A. Street, Indian Medical Service (in medical charge of the No. 5 Bombay Mountain Battery), left Poona *en route* for Neemuch on the 22nd ult., to take over the medical charge of the 26th Bombay Infantry.—The services of Surgeon-Captain M. B. Braganza, Indian Medical Service, 24th Bombay Infantry, have been replaced at the disposal of the Military Department, from Feb. 18th, on which date he was relieved of his duties as Officiating Medical Officer of the 2nd Regiment Central India Horse and of the Western Malwa Political Agency.

NAVAL MEDICAL SERVICE. — The following appointment has been made at the Admiralty:—Deputy-Inspector-General of Hospitals and Fleets Duncan Hilston, M.D., has been promoted to the rank of Inspector-General of Hospitals and Fleets in Her Majesty's Fleet (dated May 7th, 1892).

Correspondence.

"Audi alteram partem."

"THE DEBATE ON RENAL DROPSY."

To the Editors of THE LANCET.

SIRS,—Your leading article of last week on the debate at the Medical and Chirurgical Society on Renal Dropsy makes it necessary for me to correct one expression which fell from me which was far from conveying my meaning. I am represented as thanking Dr. Broadbent for supporting, not myself, but the truth. Far be it from me to presume that those who think with me therefore think right. What was in my mind to say—and I regret that my haste or awkwardness of speech prevented my saying it clearly—was that I recognised in Dr. Broadbent, not a desire to support myself personally, but to support what he thought to be true, and claimed for myself the same aim as supreme above personal contention. I had been careful even to iteration to say that there was no finality in an explanation which had been suggested; that some of the questions before the Society were difficult and complicated; that further help from physiologists was needed. I do not claim to be the exponent of truth, but only a seeker for it. With what modicum of success this search has been attended I should shrink from expressing an opinion, which would certainly be biased, and not improbably erroneous.

I am glad to take this opportunity of disclaiming an arrogance as foreign to my intention as inconsistent with my sense of propriety.—I am, Sirs, yours truly,

May 25th, 1892. W. HOWSHIP DICKINSON.

INCREASE OF SMALL-POX AND THE INTERIM REPORT OF THE VACCINATION COMMISSION.

To the Editors of THE LANCET.

SIRS,—The two letters on the above subjects in your issue of the 21st inst. are fraught with matter of the greatest importance to the future of this densely populated country, and I trust you will allow me to briefly allude to it. With reference to the first, I have little doubt that when the force of the small-pox contagion rises, the vast amount of inefficient vaccination, as evinced by the last small-pox epidemic at Sheffield, will be terribly manifested; and with regard to the second, the isolation and destruction of propagating influences in places like Leicester will be severely tested, as the present protection of that city is largely due to the amount of even the partially efficient vaccination around it, reducing the points of attack to a manageable number. This interim report, however, of the Vaccination Commission, if carried out, must lead to the complete failure of the methods now employed at Leicester to limit the small-pox contagion, as year by year the numbers of unvaccinated cases around the city will increase; for within a few months of the suggestions of the Vaccination Commission becoming law, anti-vaccination insurance societies will spring up, which for a very small monthly payment will readily provide the amount of the fine imposed, and as these penalties are not to be cumulative, the case will, of course, remain "unvaccinated." I was quite prepared for this decision of the Vaccination Commission, as the practical failure of vaccination at Sheffield and the success of isolation at Leicester must have had a great effect on many of the members composing the Commission, and, doubtless, led some to ask, Why continue fining those who persistently reject vaccination, when their system of protection, when judged by results, seems so superior to that which cost so much in rewards alone at Sheffield, and yet failed so signally, and that in the case of a city whose manufactures—iron and steel—are least of all capable of retaining or propagating the small-pox infection. Here, perhaps, I may allude to a strange anomaly witnessed in the mode of conducting inquiries in the failure of various systems when danger to life is incurred. In my paper, read at the Epidemiological Society of London this year, entitled "What is Efficient Vaccination?" I ask a

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question which ere long will have to be answered—viz., Why should an inquiry into the causes of failure in the management of a railway system—by which risk to, it may be loss of, life is incurred—be conducted by an officer of the Royal Engineers, and not by one of the civil engineers of the company, when the investigation into a failure in a system of vaccination, like that witnessed in the late small-pox epidemic at Sheffield, was carried out by a departmental officer, on whom was laid the invidious task of finding faults in a system so admirable in its execution that, in the opinion of those in the department best able to judge, it received in ten years more than £1000 in rewards?

I am, Sirs, yours faithfully,
ROBERT PRINGLE, M.D., Brigade Surgeon.

Blackheath, S.E., May 23rd, 1892.

DEATH UNDER CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—Upon reading the account of the case reported by Dr. Colvin Smith, one cannot help thinking whether the result would have been different if some brandy had been given before the inhalation was commenced. We direct a patient not to take food for some hours previously to the administration of an anæsthetic, but do we always sufficiently take into account the effect produced by the fasting? In the case mentioned we have a pale, anæmic child, aged eleven, who breakfasted at 7.30 A.M. (and perhaps did not take much), had to walk to the hospital, and, nearly six hours after his early meal, was operated on. The first meal of the day we know is rapidly absorbed, and, by eleven or twelve o'clock, in many who breakfast early, a feeling akin to exhaustion arises. Then, again, do we sufficiently consider the amount of shock which an operation causes, even when the pain is prevented by narcotism? A death under chloroform is so terrible to all concerned, that we ought not to think anything too trivial to attend to which might possibly be of use in averting such an accident. Dr. Colvin Smith will, I am sure, understand that I am only suggesting queries to thinking minds, and that I am not in any way desirous of acting as a censor. Notwithstanding the Hyderabad Commission, I feel perfectly certain (having extremely good reason for saying so) that the pulse ought to be carefully watched in every case.

I am, Sirs, yours truly,
R. H. MILSON, M.D.

South Hampstead, N.W., May 24th, 1892.

To the Editors of THE LANCET.

SIRS,—In your issue of May 21st there is the report of a death under chloroform at the Victoria Hospital, Chelsea. When we consider the circumstances of the case, I for one am not surprised that the boy died of syncope. It is stated that a boy of eleven was told to have breakfast at 7.30 A.M., and to eat nothing afterwards. Now, a boy of that age would probably have supper at 7 o'clock on the previous evening, and be put to bed about 8 o'clock. Getting up about 7, he had breakfast at 7.30. He was probably told to have a light one. Being an out-patient, he walked to the hospital, perhaps some distance off, waited there some weary hours, and was not operated upon until 1.15 P.M.—i.e., five hours and three-quarters after his last meal, and only one meal for eighteen hours and a quarter. Leaving out of consideration his state of nervous excitement, the poor little man must have been in almost a condition of starvation. For several years I have considered three and a half or four hours quite long enough after a meal to give an anæsthetic.

I am, Sirs, yours truly,
Plymouth, May 24th, 1892. J. ELLIOT SQUARE, F.R.C.S.

MIDWIFERY STATISTICS.

To the Editors of THE LANCET.

SIRS,—Under the heading "Startling Figures from a Doctor," a statement attributed to Dr. Rentoul of Liverpool appeared in the lay press in the latter part of last week, to the effect that "one in every fifteen first labour cases resulted in the death of the woman." Such an assertion may well be described as "startling," and if uttered by Dr. Rentoul it would be interesting to know the source of his information, as it does not agree with the experience gained by connexion with lying-in charities. Speaking more particularly of the City of London Lying-in Hospital, with which I have been connected for the past twenty years, the records furnish the following facts:—Since the establishment of an out-door department in 1872 20,631 women have been attended at their own homes by the midwives and pupils attached to the hospital. Of this number 45 have died, being at the rate of 2·13 per 1000. I regret I am unable to say how many of these were first labours. Since July, 1886, however, I have been in charge of the in-door department, and during this period 2393 women have been delivered in the hospital, of whom eight died. The number of primiparæ was 590, and of these three died, and I have no doubt that other lying-in charities can furnish similar results.

I am, Sirs, yours truly,
G. E. YARROW.
Surgeon-Accoucheur to the City of London Hospital.

May, 25th, 1892.

"THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED."

To the Editors of THE LANCET.

SIRS,—Having recently been the subject of annoyance and perhaps injury, I can readily bear testimony to the great value of combined support of my professional brethren. I will not trouble you with the details of my case, which I brought to the notice of the medical profession on public grounds; but I do feel I owe a deep debt of gratitude to many members of the profession, more particularly to Dr. Mead, Dr. Balding, and Dr. Grove, who spared neither time nor trouble to help me at a time when help and sympathy were invaluable, and I feel that had there not been friends like them I should never have obtained that triumphant vindication I did from the medical and local press. The able speeches of the chairman (Dr. Balding, J.P.) at the Cambridge meetings, and those of Dr. Latham, Dr. Beckett, Dr. Grove, and others, I much regret did not appear in print in the local press, as they would have been both valuable from a scientific point of view, as illustrating the difficulties in which medical men are often placed with respect to the stringent and little-known laws now in force in sanitary matters, and also as an enlightenment to boards of guardians and the public generally on questions of sanitary science.

I am glad to find the efficiency of this mode of combination for the professional good is likely to be rendered more efficient by the London and Counties Medical Protection Society (Limited). I am certain all members of the profession will feel that the interests of the humblest as well as the most highly placed will be safe in the hands of such men as Mr. Jonathan Hutchinson, F.R.S., Dr. G. A. Heron, F.R.C.P., and Dr. Mead. I have had the greatest pleasure in joining this Society, and in getting many of my friends to do the same. I have carefully examined the plan of organisation and fully approve of it. The system of local councils secures the least known from being passed over. The right of appeal in the first instance, if the aggrieved member wishes it, to the central council, or from the decision of the local council to the central council if he be dissatisfied, must commend itself to every lover of fair play, especially as there are on the council some of the best men of the day. I remain, Sirs, yours truly,

Brandon, May 23rd, 1892. C. M. FEGEN.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

The Hospital for Consumption and Diseases of the Throat.

THE in-patient department of this hospital is at Bowdon, Cheshire, some eight miles from Manchester. A new out-patient department in the centre of the city was recently opened, and at the time an appeal was made for further subscriptions, to enable the committee to open more beds at their Bowdon Hospital. It appears, however, from a letter written by the chairman and the treasurer, that only about £30 have been subscribed as a result of this appeal, and those gentlemen fear that, so far from opening new beds, some of those now open may have to be closed, as the institution has been getting into debt. It is much to be regretted that the public show so little practical interest in this matter.

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Consumption.

The Manchester Consumption Hospital is the only institution within a very large radius, with the exception of the workhouse hospitals, where sufferers from phthisis can be received as in-patients, and there is no doubt that the hospital would, if considerably enlarged, justify the expenditure both on the grounds of useful philanthropy and of the increase of medical knowledge.

The Chancellor of Victoria University.

Earl Spencer was this afternoon installed as Chancellor of the Victoria University. The ceremony was impressive and very successfully carried through. In his speech, Lord Spencer made some specially apt remarks as to the value of a University education to members of the medical profession; and likewise noticed the democratising tendency which the University had had on learning generally.

The Healthy Homes Society.

The Ancoats Healthy Homes Society, concerning the object and aims of which I wrote some time ago, held its last meeting of the season on May 12 h, when Dr. Ransome, F.R.S., gave a lecture on the "Cost of Disease." The secretary of the Society announced that the attendances had increased from 10,000 two years ago to 17,100 this year, and, from the increase of interest shown, augured hopefully for the future of the Society, which has already done undoubted good.

Diseased Meat.

Two butchers were fined £10 and costs each for the offence of exposing for sale meat unfit for human food. The quantities were in each case considerable. As both butchers were, it would appear, first offenders, the fine may with reasonable hope be expected to deter them from any similar acts in the future.

Scuttling.

A lamentable "scuttling affray" which occurred last month has ended in the death of a boy. The youth guilty of the crime was the other day convicted of wilful murder, with a recommendation to mercy on account of his youth, and was sentenced to be hanged. All punishments hitherto awarded have failed to deter the gangs of scuttlers. The sentence, if carried out, ought to have a wholesome effect.

Two members of the medical profession have recently been elected Town Councillors in Salford—Mr. James Gray, L.R.C.P., L.R.C.S. Edin., and Mr. Alexander M. Kinghorn, M.B., C.M.

Manchester May 25th

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Health of South Shields.

DR T. EUSTACE HILL, medical officer of health for the borough of South Shields, in his report in reference to the death-rate for the past year—22 per 1000—says that it cannot be considered satisfactory, especially as it is calculated on an increased population, as ascertained at the last census. The increase in the death-rate he says is largely due to prevalence of influenza on two occasions during the year, early spring and autumn. During the latter part of the year the town was also visited by an exceptionally severe attack of measles, which had the effect of materially increasing the zymotic death-rate. Dr. Eustace Hill, in reference to the population, says that at the last census it was 78,431, or just 7000 in excess of the calculation upon which the previous health statistics had been previously made. He shows that the rate of increase had been 38 per cent., and that this rapid rate had been greater than in almost any town in the country, with the exception of Cardiff, which he says is satisfactory, as pointing to commercial prosperity that places the town in a better position from a sanitary point of view.

Sanitary Lectures in Newcastle.

The course of sanitary lectures promoted by the Corporation of Newcastle is going on very well, and Mr. Vacher, late medical officer of health for Birkenhead, has given one on the Diseases of Animals and Meat. Mr. Vacher's well-known reputation as a sanitarian ensured a good attendance, and at its conclusion he received a cordial vote of thanks.

Berwick: Improvements at Spittal.

The suggested improvements at Spittal (the seaside suburb of Berwick) have been agreed to by the Berwick sanitary authority. The estimated outlay is £2000 and the improvements include the erection of an esplanade on the beach. The medical officer's report referred to the analysis of the spa well at Spittal, which proves the water to be a mild chalybeate likely to be beneficial to many invalids.

"The Doctor."

Mr. Luke Filde's celebrated picture, "The Doctor," has been on exhibition in Messrs. Mawson and Swan's gallery in this city. We are glad that Newcastle has been selected as one of the four provincial cities where this picture was allowed by the proprietor to be shown. This is not the place for criticism of this great work, which has already passed beyond that stage. It has been visited by thousands of our citizens, and I believe by most practitioners in the district. All admit it is "The Doctor," and of the hardworking class too, who often responds to the night bell. No one questions his qualifications, for he is "The Doctor"; but a country man the other day who had paid his sixpence for admission was rather disappointed that "The Doctor" was only a picture, as he sought in "the sixpenny doctor" a cure for a cutaneous disease.

Carlisle.

It is reported that the recent outbreak of typhus fever, which caused some alarm in Carlisle, has not so far spread. I believe there were about twelve cases, all of which (with one exception) were promptly dealt with by removal to hospital by order of the medical officer.—Dr. Campbell, in his late report of the County Lunatic Asylum at Garlands, says that on comparison the figures of the last three decades do not show that insanity is on the increase in the counties of Cumberland and Westmoreland. There are more patients in the asylum it is true, but there are fewer in the workhouses, and the reporting of lunatics is now more strict than it used to be. Dr. Campbell says that the recovery rate calculated on admission reached as high as 53 per cent.—It is announced that the annual meeting of the Royal Albert Asylum for Idiots and Imbeciles is to be held this year in September at Carlisle. The Lord Bishop of the diocese is to preside. The last time the annual meeting was held in Carlisle was in 1885.

Sunderland.

The Sunderland borough surveyor has made an important proposal to the members of the Health Committee relating to the Housing of the Working Classes Act, 1890. The surveyor's estimate shows that it is proposed to deal with nineteen different blocks, containing 223 houses, and displacing 374 tenants, at a total cost of over £32,000. The subject is to be considered at a special meeting, and it is to be hoped that if the scheme is carried into effect sufficient accommodation will be provided for these displaced tenants.

A Scientific Bequest and "the Law's Delay."

I hear that a bequest amounting to over £3091, made so long ago as in 1880 by the late Mr. John Christie of Newcastle, printer and lithographer, to found scholarships in connexion with the Durham College of Physical Science at Newcastle, is now available.

The Medical Officership of Durham County.

At a special meeting of the Durham County Council held at Durham on Monday last the health committee out of twenty-one candidates elected Dr. T. Eustace Hill, of South Shields, as medical officer of health for the county. The appointment will give satisfaction, at the same time it is felt in the profession that the salary is inadequate considering the duties and the population of the county, but this mistake can be soon corrected.

Newcastle-on-Tyne, May 25th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Pathological Department in the Edinburgh Royal Infirmary.

CHANGES in this department of the Royal Infirmary have for several weeks been under the consideration of the managers and the staff. This has been brought about at the present time by Dr. Russell's appointment as an assistant physician and Dr. Barrett's appointment to Belfast, and the consequent necessity of appointing two

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new men in their places. It has long been held by some of the more active men in the school that the infirmary should pay a man sufficient to enable him to devote his whole time to pathology. This opinion found expression, but, as is always the case in Edinburgh, there were two parties, one party wishing things to remain as they have been, the other wishing to make what they considered an important advance in pathology for the infirmary and the school. Those who oppose change are the University professors and a few others, while the majority of the staff and the extra-mural teachers appear to be in favour of it. The proposal is understood to be the appointment of a head pathologist who would give most of his time to the work, and of two assistant pathologists who would give part of their time. If money is obtainable for such a scheme it ought to be an important step in advancing pathology in Edinburgh, and the opposition of the University is quite incomprehensible, more especially as it has been suggested in some quarters that the professor of pathology might give up his clinical appointment and become head of the department.

Nurses' Sale of Work in the Edinburgh Royal Infirmary.

A sale of work, got up by the nurses in the Royal Infirmary, was opened on Tuesday afternoon by the Marchioness of Tweeddale. The sale is to raise money to help in the furnishing of the nurses' new home, which is now nearly ready for occupation. The sale was held in the afternoon and evening on both Tuesday and Wednesday.

The Queen's Birthday.

As in former years, the Queen's birthday was kept on the day of the opening of the General Assembly of the Church of Scotland by the Queen's representative, the Marquis of Tweeddale. None of the classes in the Medical Faculty met.

Health of Edinburgh.

The mortality last week was 65, and the death-rate 13 per 1000. Diseases of the chest caused 30 deaths and zymotic diseases 5. The intimations for the week were: typhoid fever, 12; diphtheria, 2; scarlatina, 28; and measles, 31.

Medico-Chirurgical Society, Glasgow.

At the annual general meeting of the Society the following gentlemen were elected office-bearers for the session 1892-93:—President: Dr. Joseph Coats. In the Section of Medicine—Vice-President: Dr. Middleton. Councillors: Dr. Alex. Miller and Dr. Auld. Secretary: Dr. C. O. Hawthorne. In the Section of Surgery—Vice-President: Dr. W. J. Fleming. Councillors: Dr. Macartney and Dr. Dalziel. Secretary: Dr. John Barlow. In the Section of Pathology—Vice-President: Dr. J. L. Steven. Councillors: Dr. Charles Workman and Dr. John Brown. Secretary: Dr. R. M. Buchanan. In the Section of Obstetrics—Vice-President: Dr. Samuel Sloan. Councillors: Dr. M. Cameron and Dr. Lapraik. Secretary: Dr. Lawrence Oliphant. Treasurer: Mr. Henry E. Clark. General Secretary: Dr. Walker Downie.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Surgeons.

THE annual election of president, vice-president, secretary, and Council of the College will be held on Monday, June 6th. Mr. Edward Hamilton and Mr. Thornley Stoker will be elected without opposition president and vice-president respectively; but the secretaryship, which has been held for so many years by Mr. William Colles, who has resigned, will be contested by Mr. Austin Meldon and Sir Charles Cameron. As regards the Council, there are twenty-seven candidates for nineteen places, and the following is a list of those competing who are not at present on the Council, according to their Fellowship seniority:—Messrs. George Foy, Lambert Ormsby, Richard Purefoy, John Cranny, H. Auchin Leck. Edward Thompson, Humphrey Broomfield, and Robert O'Callaghan.

Parliamentary Representation of the Medical Profession.

A meeting convened by private circular was held on Monday last for the purpose of considering the subject of parliamentary representation for Poor-law medical officers. A guarantee fund of £100 was subscribed by those present, and a committee was appointed to draft a circular urging the members of the medical profession in Ireland asking for their support. Mr. W. Dudley White was elected chairman, Messrs. Delahoyde and Falkiner honorary treasurers, and Messrs. Denham and T. Donnelly honorary secretaries.

National Hospital for Consumption.

Subscriptions are coming in rapidly, and the proposed site is beginning to engage public attention. Outside Dublin there is a general consensus of opinion that Dublin or its vicinity is altogether unsuited for an institution of the kind, owing chiefly to its damp climate. I have advocated the selection of Glengarriff on the coast of Kerry on more than one occasion, and I am gratified to find that several have endorsed my view, the climate being about the best in the three kingdoms for early cases of consumption. It is understood that Lord Howth has offered a site on the Hill of Howth; but a more unsuitable place could hardly be selected, for it has been pointed out that during the late autumn, winter, and early spring the east, south-east, west, and north-west winds enjoy a free and unrestricted sway, rendering any out-of-door exercise for invalids impossible.

Visiting Physicians to Irish Asylums.

The Medico-Psychological Association of Great Britain and Ireland have recently passed the following resolution, a copy of which they intend forwarding to his Excellency the Lord Lieutenant: "With reference to the Order in Council issued by his Excellency the Lord Lieutenant abolishing the office of visiting physician to district asylums in Ireland as future vacancies occur, the Association desires to approach his Excellency with an expression of their opinion in favour of this proposed change in the official work of asylum administration in Ireland. The Association believes that this change will be found to act with decided advantage to lunacy work generally in Ireland, as has been the case in other countries where the corresponding office has been abolished."

Puerperal Fever at the Belfast Workhouse.

At the meeting of the Belfast Board of Guardians, held on May 10th, attention was drawn to an outbreak of puerperal fever, and on May 17th a letter was read from the Local Government Board, enclosing a report on the subject from Dr. C. J. Clibborn, their medical inspector, with the request that the guardians would give his recommendations due consideration. Dr. Clibborn says that he visited the Union on May 11th and 12th, and saw the medical officers who had principal charge of these cases—Dr. Brice Smyth and Dr. Munn, the resident surgeon. He found that since March 24th, to May 1st, 1892, there had been eleven deaths among parturient women, occurring within ten days after birth of child. Of these, eight were evidently puerperal fever or from the puerperal state, two from phthisis, and one from pleurisy. After the death of the first case all unconfined and pregnant women were at once removed to another ward. The other cases were also removed into a separate ward, both nurses and resident surgeon being changed. Unfortunately, although every possible precaution in the way of disinfection was used, this second removal had not the desired effect, as it was found necessary to have these cases freshly attacked removed to the fever hospital, the only available place, and a fresh place was formed by the medical officer for confinement cases — namely, the children's ward, a separate building, all children having been removed to the original confinement department, nurses and attendants being again changed. It was now found necessary to bring matters more directly under the notice of the guardians, as there were no fresh nurses to fall back on if puerperal fever should again occur, nor any fresh building to which patients could be transferred. Up to this date no fresh case has occurred. Dr. Clibborn thinks every possible precaution has been taken to prevent the spread of the disease, as a most thorough system of disinfection of the building and the use of disinfectants by the attendants, as required by recent knowledge, is carried out in this department. Dr. Clibborn visited all the places referred to in his report, and he states that the portion of the Union buildings set apart for midwifery, and where disease first broke out, is a large ward, divided transversely into three departments and longitudinally by a wooden partition, on one side of which were chronic infirm cases, and on the other side the midwifery cases. This, he thinks, points directly to the probable cause of the outbreak, as no confinement cases should be mixed up with any other medical case. Further, on another floor, but under the same roof, there was a case of idiopathic erysipelas. Dr. Clibborn points out that, no matter

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how well conducted any institution is, there must always be the risk of communications and consequent contamination between wards under one roof, either through nurses or patients, including the temporary removal of patients from one ward to another. He advises the providing of a separate building for confinement cases, containing, say, thirty beds, which would allow a complete system of disinfection and changing of beds after each confinement before a fresh case was put into it. Further, he suggests the providing of a small ward to which puerperal cases, if they should occur, could be transferred. The system in existence at the time of outbreak cannot be resumed with safety to the lives of the poor, as any temporary crowding of these wards would certainly tend to another outbreak.

Proposed Convalescent Home for the Belfast Workhouse

On May 17th a report was handed in to the Belfast Board of Guardians recommending them to consider the advisability of establishing a convalescent department with grounds in connexion with the union infirmary. In doing this they would be conferring a great boon upon the sick under their care, and will be making an advance upon the existing state of affairs.

Queen's College, Belfast: Formation of a Students' Union.

On Wednesday, May 14th, a public meeting, for the purpose of inaugurating a movement for the formation of a students' union in connexion with Queen's College, Belfast, was held in the Examination Hall. The president (Dr. Hamilton), with whom the idea originated, explained the object was to establish a union similar to that in existence at Oxford, Cambridge, Edinburgh, &c.—a building to be erected in the College grounds, containing dining- and refreshment-room, reading-room, writing-room, and accommodation for the meetings of the various College societies and their committees. About six weeks ago, a small preliminary meeting was held in reference to the scheme, and it was resolved to go on with it, and more than £2000 has already been promised. The President mentioned that the friends and admirers of a former distinguished graduate of the College, and senator of the Queen's University—Mr. Hans McMordie, M.A.,—resolved after his death to perpetuate his name by a suitable memorial. They decided to connect the memorial with the College, in which Mr. McMordie had taken a deep and lifelong interest. At first their idea was to found a scholarship, but when this union scheme was projected they unanimously resolved to offer the sum contributed to help in erecting the building of the Students' Union, on the simple condition that one of the rooms in it should bear the name of Hans McMordie. Several other gentlemen at the meeting—Mr. Shaw, Q.C. (county court judge), Archdeacon Leaver, Mr. Macknight (editor of the *Northern Whig*), Rev. Dr. Lynd, Professor Purser, Mr. J. A. Henderson, A.M. (of the *Belfast Newsletter*), Professor Redfern, Mr. Adam Duffin, B.L., Dr. Mitchell (President of the Medical Students' Association), Professor Hodges, and Professor Dill—having spoken in favour of the scheme, an executive committee was formed, and at their first meeting decided unanimously to accept the offer made by Mr. Hans McMordie's friends, as stated by the President. In this way an additional sum of £500 will be secured for the erection of the Students' Union building, for which, I hear, already altogether nearly £3000 has been promised.

The Belfast Royal Hospital.

At the quarterly meeting, held on May 23rd, it was reported that 826 intern patients were treated during the past three months, and that during the same period there had been 5651 extern cases. All accounts against the hospital have been paid, and on April 30th a balance of £159 2*s.* 7*d.* remained in its favour. The demands upon the hospital increase from day to day, and upwards of 200 more intern patients have been treated this year than for the corresponding period of last year. There seems not to be sufficient elasticity in the resources of the institution to meet the great demands. The amount received from general subscribers and from church collections is less than for the corresponding period of last year, and there have been no bequests or donations; but, on the other hand, the receipts (£1188 19*s.* 5*d.*) from the working classes have increased. It has been arranged that Hospital Saturday is to be on June 11th.

The Summer Session at Belfast.

The summer session at the hospital and college is now in full vigour, and there is a good attendance of students. Dr. Barrett's pathological class is large, and in Biology (a practical course) Dr. Cunningham has a larger attendance than at any previous period. Mr. Jamison has been awarded the Coxeter Exhibition, and Mr. Arthur Pim the Malcolm Prize, both for proficiency at the Royal Hospital; and Mr. Hislop has gained the Gold Medal at the Belfast Hospital for Sick Children.

The fifty-third annual dinner of the Irish Medical Association will take place in the Royal College of Surgeons on the 6th proximo.

Sir George Joseph Wycherley, M.D., J.P., died at his residence, South-mall, Cork, on the 23rd inst.

May 24th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Professor Pinard's Treatment of Ante-partum Hæmorrhage from Placenta Prævia.

THE management of flooding due to malposition of the placenta—a condition erroneously designated by Rigby as "unavoidable hæmorrhage"—is a matter which has put to the proof the ingenuity of generations of accoucheurs. At this faculty reliance has hitherto been placed upon plugging of the vagina, and I much doubt if Barnes' views as to the efficacy of detaching the placenta from the "dangerous zone" have ever been frankly accepted here. The introduction into practice of Barnes' bags marked a distinct progress in this branch of obstetrics; but the results obtainable, therefore, were not so good that practical men were debarred from seeking still more efficient and expeditious means of averting the dangers run by the subjects of this condition—not to mention their progeny. Your readers will be glad to have laid before them Professor Pinard's new treatment of this dangerous complication of pregnancy. The slight hæmorrhage generally marking the commencement of the trouble is treated in the ordinary way by absolute rest in the horizontal position—the head low and the pelvis raised. Vaginal injections are made with a 1 in 2000 solution of red iodide of mercury, a 1 per cent. carbolic solution, a boric acid solution, or simply water, all at a temperature of 118·4° F. This vaginal *lavage* should be continued until the returning fluid is colourless. Opiates may be advantageously administered, and should the presentation be a cross one, turning by external manipulation may be practised. Should the hæmorrhage continue, radical measures must be had recourse to in order to induce labour. All due antiseptic precautions being taken, one or two fingers, or even the entire hand, are introduced as far as the internal os, where the membranes are freely ruptured either with the nail or with a special membrane-perforator. A Champetier de Ribes intra-uterine bag is now introduced, chloroform being administered in the case of nervous patients. For its introduction, two fingers of the left hand are passed up to the os, which is then drawn slightly forward. Forceps with an antero-posterior curve is now introduced, carrying with it the bag, empty and folded, and which, well anointed with boracic vaseline, is gently pushed through the os towards the side where the placenta has been diagnosed to be present. The forceps is now disjointed and removed, leaving the bag in the uterine cavity, it being maintained in position by the left hand of the operator. The bag is then slowly filled through a tube connected with it with about 400 grammes of water. The tap is turned off, and for greater precautions a clamp is placed on the tube outside the vulva. The distended bag, compressing as it does the detached placenta, arrests infallibly all further chance of hæmorrhage at the same time that it excites uterine contractions—the precursor of labour—after a brief delay, this delay being longer or shorter according to the degree of distension of the bag. A recurrence of the hæmorrhage being possible after the expulsion of the after-birth, the patient must be watched, such a complication being combated with intra-uterine injections at 118·4° F., no ergot being given. In serious cases champagne should be administered, together with subcutaneous injections of ether, and the lower limbs should be thickly enveloped in cotton-wool. And now for the statistics of the application of this apparently highly practical method. Six out of seven cases recovered without an accident, the seventh dying of septicæmia, due to the presence of a degenerated uterine tumour. Of the seven fœtuses, four

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were born living and healthy, one was in a macerated condition, and two were stillborn. From the moment of the introduction of the bag until complete dilatation, and the consequent expulsion of the bag into the vagina, in four instances an interval of from two hours and a half to three hours and a quarter elapsed, the intervals in the remaining three cases having been six hours and ten minutes, nine hours and a half, and nineteen hours and a half respectively.

Pasteur's Anti-rabic Inoculations as a Remedy for Epilepsy.

Most of your readers will peruse with astonishment the above heading, and will, doubtless, remark, "What next?" What connexion can there be between a neurosis like epilepsy and a disease distinctly traceable to the entrance into the blood of the microbe of rabies? Vulpian long ago stated that epileptic attacks were due to an exaggerated excitability of the medulla oblongata, and we know that the variable incubation period of hydrophobia is due to the variability of the time taken by the migration of the special microbe from the seat of inoculation to the medulla. Once arrived there, the explosion occurs, and all the characteristic train of symptoms peculiar to the disease appear. In 1891 two young epileptics who had been bitten by rabic dogs were treated at Pasteur's Institute. The treatment was successful; but what was more remarkable, the epileptic attacks to which they had been subject had disappeared. Struck by this phenomenon, M. Pasteur mentioned the circumstance to M. Charcot. On the 6th inst. M. Charcot sent to the Pasteur Institute an inveterate epileptic aged twelve years, who had been unaffected by all forms of treatment. Somewhat attenuated inoculations were employed, with the effect of determining, in six days after the commencement of the treatment, the total disappearance of the attacks, which had been hitherto extremely frequent.

Paris, May 25th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Professor Leyden on Dr. Wiederhold's Cases.

ON the 13th inst. Professor Leyden showed his students a female patient in whom hysteria had caused sudden dumbness, and who had been treated with the cautery iron. Leyden availed himself of the opportunity, and referred to the case of Dr. Wiederhold, who, as reported in my last, actually whipped a lady patient, to induce her not to scream. He said: "In order to produce an educative effect on the patient, the physician sometimes chooses rude means. The only question is how far one may go in this. It is a matter of course that in all civilised States medical men must refrain from all brutal but not from all painful means; nay, they may even, in order to produce an impression, use certain means which excite fear. Just as the surgeon may cause pain—nay, imperil the patient's life, I cannot see why the deliberate causing of pain and fear as a means to an end should not be permitted in medicine, provided, of course, that the remedy is founded on a scientific basis and on observed experience. We are perfectly justified in using means that cause pain, and in threatening to use them, if we wish to produce an educative impression. The laws of humanity, however, must not be transgressed, and, just as the use of the cane is limited in schools, we must regard the mode of treatment resorted to in Kassel as unjustifiable."

New Books.

"How to protect Children from Tubercular Diseases of the Glands and the Joints, from Diphtheria, and from Curvature of the Limbs," by Dr. Karl Roser; "What can be done against Blood Poisoning, Cancer, and Abdominal Hernia?" by Dr. Karl Roser; "Why must we Sleep?" by Dr. Emanuel Rosenbaum; "A Compendium of Veterinary Science," published by Breitenstein of Leipsic; "A Brazilian Murder Den of Yellow Fever," by H. Brammer.

Miscellaneous News.

Professor Friedrich Müller of Breslau has been appointed Professor and head of the Medical Consulting Clinic in Marburg.

Professor Stintzing has been appointed Professor of Internal Medicine at Jena.

A new eye clinic was opened at Rostock on the 16th inst.

Berlin, May 22nd.

AUSTRALIA.

Medical Titles: Important Legal Decision.

AT the Melbourne District Court, on March 15th, a medical man practising in Melbourne was charged with using the title of "M.D.," he being registered under the Medical Act (1890) only as a Member of the Royal College of Surgeons. The prosecuting counsel, Mr. J. T. Smith, submitted that, although the defendant held the diploma of membership of the Royal College of Surgeons of England, and was so registered under the Victorian Medical Act of 1890, he had no right or title to use the letters "M.D." or the prefix "Dr." It was proved that the defendant advertised extensively in the public newspapers as "Dr." Langston and as William Langston, "M.D." A copy of THE LANCET of Dec. 12th, 1891, containing the report of the trial, in the English Court of Queen's Bench, of "The Queen *v.* the Justices of Aston," was produced, and it was contended that the case before the court was on all fours with the English case. The defendant's counsel, Dr. Mullen, who is a distinguished graduate both in medicine and law of the Melbourne University, contended that although the case cited from THE LANCET was very strong, it had no bearing on the present case, because the wording of the English and of the Colonial Act was not identical. At all events, on the Colonial Act there could be no committal. Mr. Smith's contention was that it bore the construction, "It shall not be lawful unless registered as such." Mr. Smith, in replying, remarked that the action of the defendant in styling himself "Dr." might be simply an inadvertence, but there could be no doubt of his intention to mislead when he affixed the letters "M.D." to his name and described himself as a physician. The presiding magistrate (Mr. Nicolson) said that in the first case the defendant was charged with using the title M.D. It was decidedly a case where deceit had been practised, and he was very sorry that a person holding the credentials of the defendant should lay himself open to such a charge. The bench could not inflict a less penalty than £20, with £5 5*s.* costs; in default, one month's imprisonment, levy by distress. In the other case he looked upon the charge also as having been proved, but it was one of a different character. The word "Dr." was very commonly used by many people and by medical men. It seemed to be used by every medical practitioner, and no deceit was intended, so he thought a nominal fine would be sufficient. A penalty of £2 would be imposed, with £3 3*s.* costs; in default, fourteen days' imprisonment, levy by distress. Dr. Mullen asked for a stay of proceedings for seven days pending an appeal. The application was granted. Another case decided recently by the Supreme Court of Victoria was an appeal by an unqualified man against a police-court conviction for having advertised himself as an "oculist." The court upheld the magistrate's conviction, and established a precedent which will have beneficial results in saving the unwary from the hands of quacks.

Self-styled "Cancer Curers."

A horrible case has been occupying the attention of one of the Sydney coroners recently. A woman having died in the Sydney Hospital, the medical superintendent, Dr. Hull, refused to give a certificate of death, and reported the case to the coroner. It appears that the deceased applied at the hospital over a year ago, with a small epithelioma of the lower lip. She was advised to have it removed by incision, and agreed to return for that purpose. In the meantime a friend of hers recommended her to try a "Dr." Hood, who advertised as a cancer curer, and published testimonials of cure from patients. The poor woman, dreading the ordeal of an operation, consulted the man Hood, who undertook the treatment and promised a speedy cure. It was given in evidence that the treatment consisted in the use of strong escharotics, poultices, and the removal of the cancer by means of the finger-nails. The pain was excruciating when the operator, after burning the part with some strong acid, applied his fingers, and, as he told the unfortunate patient, dragged the cancer out by the roots. The coroner, by severe cross-examination, got out of this "Dr." Hood that he was not qualified, but that his cancer cure was a secret remedy which he had learned from the Maoris, and which he was passing on to his son, who was also a cancer curer. The son displayed even greater ignorance than his father. His idea of epithelioma was that it was a parasitic disease, and he averred that he

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had seen the parasites walking about in the matter. He also explained, for the benefit of the jury, that "cancer meant a crab, and a crab was a parasite, and that the 'cancer cure' killed the parasites." This highly original pathological explanation naturally gave rise to some merriment. Finally, it came out that this pair of quacks had treated the unfortunate woman for nearly a year, and then, when the case was beyond all hope, she made application for admission to the Sydney Hospital, where she died. It was found out during the hearing that the published testimonials extolling the "cancer cure" were written by the Hoods themselves and the patients made to sign them. In the end the jury found the two Hoods guilty of manslaughter, and they were both committed for trial, bail being allowed. After some trouble the old man's bail was forthcoming, but the son has had to remain in gaol. The jury attached a rider to their verdict calling the attention of the Government and Parliament to the matter, and asking that the Medical Bill should be pushed through this session. The evidence given was so sensational and the interest aroused is so great that there is every chance of the Medical Bill passing through the Assembly and becoming law before very long.

Obituary.

C. BLENCOWE NOBLE DUNN, M.R.C.S.

MR. DUNN died at his residence, The Tors, Crich, Derbyshire, on April 17th. He was born on Aug. 23rd, 1836, at Cumberworth, in the West Riding of Yorkshire, where his father was curate in charge, and by him he was principally educated. He was descended from a family of the same name who for many centuries resided at Howden, in the East Riding. He commenced his professional career with the late Mr. Charles Trotter of Holmfirth, and after that gentleman's death completed his pupilage with the late Mr. R. R. Allen of Belper. He studied at St. Bartholomew's Hospital, and obtained there the Wix prize for an essay on "The Connexion between the Studies of Ancient and Modern Literature and the Studies of the Medical Sciences." He also received a certificate for proficiency in physiology. He took his diploma in 1860, and shortly afterwards commenced practice at Crich, in succession to the late Mr. Nicholas Hathway, where, by his kind and genial presence, he soon gathered round himself a large and influential circle of friends. Mr. Dunn was medical officer and public vaccinator of the Crich district of the Belper Union, and held many honorary appointments. As a matter of fact, he was always ready to promote any scheme that would in his opinion contribute to increase the happiness and wellbeing of his fellow-creatures and the prosperity of the village he so dearly loved. Mr. Dunn was an excellent specimen of a true-hearted English gentleman, kind, considerate, and courteous to everyone. His funeral, which took place at the parish church on the Thursday after his death, although of the simplest possible character, almost took the form of a public function, so many were there anxious to pay a last tribute of respect to the memory of him who for thirty years had laboured in their midst. Amongst the many beautiful floral contributions was one from Miss Florence Nightingale with a touching inscription attached. The deceased gentleman was her medical attendant during her residence at her Derbyshire home. Mr. Dunn married the fourth daughter of the late Edward Trotter, Esq., surgeon, of Holmfirth, but leaves no family.

JAMES PENN HARRIS, F.R.C.S. ENG.

DEATH has removed from the ranks of the medical profession in Liverpool one of its oldest and most esteemed members. Mr. James Penn Harris, surgeon, of Rodney-street, died on May 20th, after many months of intense suffering. The deceased gentleman was born at West Cowes, Isle of Wight, on May 2nd, 1817, and had therefore this month completed a lifetime of seventy-five years, a full half-century of which he had spent in the practice of his profession in Liverpool. His studies were pursued at University College, London, and in 1841 he took the qualifications of M.R.C.S. and L.S.A. In 1853 he became a Fellow of the Royal College of Surgeons of England by examination. For some years he was house surgeon at the Northern Hospital, Liverpool, and subsequently had a very extensive general private practice, ultimately attaining the reputation of being one of the most skilful operating surgeons of his day. At the time of his death he still held the position of honorary consulting surgeon to the Liverpool Dispensaries, and honorary surgeon to the St. Anne's Dispensary and Eye and Ear Institution and the Asylum for Orphan Boys. He was a member of the Medical Institute and of the Royal Archæological Society, and also a Fellow of the Liverpool Northern Medical Society. As vice-president of the last-named society he delivered the inaugural addresses at the opening of the winter sessions of 1875 and 1876.

MEDICAL TRIAL.

JEAFFRESON *v.* HEWITT.

(Before Mr. Justice Day and a Special Jury.)

IN this case the plaintiff, a doctor, practising at Wandsworth, sued the defendant for his fees for attendance and medicines supplied to the defendant's wife.

Mr. Murphy, Q.C., and Mr. Montague Lush were for the plaintiff; Mr. Winch, Q.C., and Mr. Rentoul for the defendant.

Mr. Winch, Q.C., before the jury were sworn, made a statement on the defendant's behalf. He said the defence to the action had been based on the alleged negligence of the plaintiff in his professional duties; but the defendant now wished to express his conviction that there was no ground or reason whatever for such suggestion. The learned counsel further stated that the defendant's natural anxiety and inexperience as to his wife's health had misled him into suspecting the plaintiff's incapacity; as a fact, when the evidence was examined, there was absolutely nothing to lead to this conclusion, but to the contrary, and he was instructed to express great regret for the imputations made, and to withdraw them most completely and unreservedly, consenting to a verdict for the plaintiff.

Mr. Murphy, Q.C., said that the plaintiff had brought evidence of the highest kind to establish the propriety of his conduct of the case, but would gladly accept the defendant's withdrawal.

His Lordship said he considered the apology very complete and very proper. He entered judgment for the plaintiff.—(*The Times*)

Medical News.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—The following gentlemen have obtained the Fellowship of the College:—

Henry B. Goulding, Edward C. Stack, Crawford Warren, Wm. Henry Woodright.

ROYAL COLLEGE OF PHYSICIANS IN IRELAND.—At the May examinations the following obtained the Licences in Medicine and Midwifery of the College:—

Medicine.—A. R. Parsons, W. Scatchard, F. Spiller.
Midwifery.—R. Miller, W. Scatchard, A. L. Wykham,

The undernamed Members have been admitted Fellows:—

S. T. Gordon. | E. Lennon.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have passed the recent examination in the subjects indicated:—

Surgery.—R. S. Bernard and J. K. Kempthorne, King's College; A. H. Conder and H. E. B. Porter, London Hospital; A. B. Jones, University College; H. R. Phillips, Cambridge and Owens College; W. J. C. B. Pitt, Queen's College, Birmingham.
Medicine, Forensic Medicine, and Midwifery.—R. H. Calvert, Yorkshire College; C. G. Hoysted, Charing-cross Hospital; A. B. Jones, University College; R. N. U. Pickering and H. E. Simpson, St. Bartholomew's Hospital; J. W. Smith, London Hospital.
Medicine and Forensic Medicine.—S. H. R. van R. de Groot, King's College.
Medicine and Midwifery.—W. H. Savery, Middlesex Hospital; A. A. Macfarlane, St. Bartholomew's Hospital.
Forensic Medicine and Midwifery.—J. N. d'Esterre, St. Mary's Hospital.
Forensic Medicine.—R. A. Earle, Middlesex Hospital; V. J. R. Robin, King's College; G. P. Smith, Guy's Hospital; H. S. Ware, St. Thomas's Hospital.
Midwifery.—R. S. Freeland, Guy's Hospital; R. Freer, St. Mary's Hospital.

To the following candidates has been granted the diploma of the Society, entitling them to practise Medicine, Surgery, and Midwifery:—

Messrs. De Groot, Earle, Freeland, Freer, A. B. Jones, Pitt, Robin, Savery, Simpson, G. P. Smith, J. W. Smith, and Ware.

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A NEW CONVALESCENT HOME.—The Mayor of Birmingham formally inaugurated on Saturday the Stokes convalescent home at Llanrhos, near Llandudno. It is in connexion with the Birmingham hospitals.

ROYAL OPHTHALMIC HOSPITAL. — A meeting for the purpose of raising funds for the enlargement of this hospital was held at the Mansion House on the 19th inst., the Lord Mayor presiding. To carry out the intentions of the Board of Management £35,000 is required. Sir John Lubbock, M.P., president of the hospital, moved a resolution, which was carried, commending the work accomplished by the institution and its utility as a school for ophthalmic surgery, and earnestly advocated the claims of the charity for generous public support.

LEAD POISONING AT BRADFORD.—A conference of medical officers was held at Bradford on the 19th inst. to consider the recent development of lead poisoning. Mr. J. P. Aston presided, and representatives from thirteen out-townships supplied with water from Bradford were present. A series of resolutions were passed setting forth the serious danger to the public health of lead contamination in the water service, at the same time suggesting the adoption of necessary precautionary and remedial measures, and that the Bradford Corporation should take steps to free the water-supply of such pollution.

ST. MARY'S HOSPITAL, PADDINGTON.—Mr. J. D Allcroft, in the unavoidable absence of the Duke of Cambridge, presided at the festival dinner at the Hôtel Métropole, last week, in aid of the Clarence Memorial Fund, for the addition of a wing to the hospital, the foundation-stone of which will be laid in October next by the Prince and Princess of Wales. The chairman, in giving "Prosperity to St. Mary's Hospital," remarked on the urgent need of the proposed extension. All the property necessary for the enlargement had been purchased. The estimated outlay of the new wing is £100,000. After an eloquent appeal for financial support, subscriptions to the amount of £10,000 were announced.

POSTMEN'S REST HOUSES AND SANATORIUM.—On Monday Sir James Fergusson (the Postmaster-General) attended at the Portman Rooms, Baker-street, and formally opened a bazaar in aid of the funds of the Postmen's Rest Houses and Seaside House. Many of the Post Office employés have several hours' leisure in the day, and it is to these homes they repair to spend that time. There are five homes, and the sanatorium is at St. Leonards-on-Sea. Sir James Fergusson commended the movement, in support of which that bazaar was held. Every new post office was now provided with a room in which the men could rest and cook their meals. About three-fourths of the post offices in London were so provided. Some of these rooms were not altogether comfortable, and the institutions which they were then assembled to assist provided the real home.

SOUTHPORT NEW INFIRMARY.—On the 19th inst. a meeting of the joint committee of the Southport New Infirmary was held in the examination hall of the Schools of Science and Art, the special object being to inspect the plans which had been sent in for the new infirmary, which it is proposed to build on Scarisbrick New-road, at a cost not exceeding £13,200. The Mayor (Alderman Pilkington, M.R.C.S.) presided. Thirteen sets of plans had been sent in, eight or nine being by local architects, and these were referred to a sub-committee, who were instructed to make a selection of three to lay before the General Committee, and to call in professional assistance, if necessary, to help them to arrive at the best conclusion. A discussion having arisen with regard to the possibility of the practice of vivisection in the new building, the Mayor stated that the new infirmary would be vested with a body of trustees, and it was impossible for any committee to enter into any undertaking which should be binding on a body not yet appointed. He believed there was not a single institution of the kind in the country where vivisection was practised, and it was extremely improbable that such practices would be introduced in Southport. But, to meet the objection, the committee had undertaken to invest the money in question in a separate fund, and to have inserted in the trust deed a special clause, empowering the donors, or their heirs or executors, to claim a return of their subscriptions should vivisection ever be put into practice there. The amount of the building fund at the present time amounted to £12,870, including £1575 which the donors wished should be set aside for the endowment fund.

VACCINATION AT COVENTRY.—The Local Government Board has informed the Coventry Board of Guardians that the appointment of a Royal Commission on Vaccination was no reason for suspending the compulsory clauses, and they refused to sanction a payment proposed to be made to the vaccination officer in lieu of fees.

FRAUDS ON MEDICAL MEN.—At the Old Bailey Sessions, on Tuesday, Charles Clark, aged sixty-one, was sentenced to three years' penal servitude for obtaining money by false pretences from medical practitioners and others throughout the country. The prisoner was prosecuted at the instance of the Charity Organisation Society.

A MEDICAL COMMISSION ON "VITALINE."—It is stated that a Special Commission, composed of the most eminent medical men in St. Petersburg, has been appointed to analyse and thoroughly test Gatchkoffsky's "Vitaline." It is also stated that the doctor who treated the late General Gresser of St. Petersburg with "vitaline," and was arrested owing to the death of the General, has been released, but is prohibited from making any further use of "vitaline," pending the result of the analysis ordered by the authorities.

PRESENTATIONS.—Surgeon-Captain J. Scott Riddell, M.A., M.B., C.M. Aberd., has been presented with a handsome dressing case by the Aberdeen public ambulance class, as a mark of respect and appreciation of his lectures and services to the class.—Dr. A. F. Wood, the medical superintendent of the Edinburgh City Hospital, has had presented to him a handsome travelling bag by the matron and nurses of the institution, the occasion being the completion of seven years' service since the hospital was taken over by the Edinburgh Corporation.

UNIVERSITY OF LONDON.—The following resolution was passed on the 20th inst. by the annual committee specially instructed by Convocation of the University of London to represent the views and guard the interests of Convocation generally in all matters connected with the Royal Commission appointed on April 25th for the establishment under charter of an efficient Teaching University for London:—"That this committee is of opinion that the omission of a direct representative of Convocation of the University of London from the new Royal Commission on a Teaching University for London is calculated to prejudice the solution of the question. This committee therefore desires respectfully to represent to the Prime Minister, to the Lord President of the Council, and to the First Lord of the Treasury that Convocation should be directly represented on the Royal Commission by its chairman."

MEDICAL NOTES IN PARLIAMENT.

The Metropolitan Asylums Board.

LORD SANDHURST has given notice of his intention to bring to the notice of the Government the document issued by the Metropolitan Asylums Board, dated May 14th, 1892, as to the engagement of doctors and nurses for small-pox hospitals, and to ask whether the document is issued with the knowledge and sanction of the Local Government Board.

Vivisection.

In the House of Lords on Tuesday petitions for the suppression of the practice of vivisection were presented from inhabitants of Folkestone, Penge, Ashbourne, Grasmere, Ambleside, and the Anti-Vivisection Society in London. On the same day, in the House of Commons, there was laid on the table the annual report of the inspector of experiments on live animals. The report was ordered to be printed.

Police and Sanitary Regulations.

The work devolving upon the Select Committee of the House of Commons on Police and Sanitary Regulations Bills has become so heavy this session, and the time for its disposal so limited, that it has been resolved to add two members to the Committee, and to divide the Committee thus augmented into two committees, each of which shall have the full powers of, and be subject to the orders and instructions in force in the case of, the undivided Committee.

The Sanitary Conditon of Grandborough.

On the 24th inst., in answer to Mr. Leon, Mr. Stuart-Wortley said that the attention of the Local Government Board had not been called to the insanitary condition of the village of Grandborough, but since notice was given of the question they have communicated with the sanitary authority. They are informed, in reply, that the population of the village is 301, and that during the first four months of the present year there were five deaths, one from bronchitis, another from drowning, one from peritonitis, a fourth from pneumonia, and one from enteric fever. The report of the medical officer of health as to the water-supply, given verbatim, is: "I must tell you that the only water-supply considered unfit for drinking purposes was closed last week. Another well is being closed in the village. With that exception I believe the quality and quantity of water are good." The Local Government Board are also informed that notices under the Public Health Act, 1875, and the Housing of the Working Classes Act, 1890, have been

served by the sanitary authority upon the owners of insanitary and overcrowded houses.

The Vaccination Committee.

On Monday last, in reply to questions by Messrs. Channing, Summers, and Picton, the Home Secretary said the recommendations made in the interim report of the Vaccination Commission involved a considerable and important relaxation in the law on this subject, and Her Majesty's Government thought it right to consider the evidence more fully and carefully than they had yet been able to do, before deciding upon the legislation they will recommend to the House, especially as small-pox has considerably increased in several parts of the country. The recommendations of the Committee were so wide-reaching that they amounted almost to a repeal of the vaccination law, and before definitely deciding what course to pursue the Government were anxious to see upon what evidence the recommendations were founded.

The Oyster Trade.

A Bill has been prepared and introduced to Parliament by Sir Edward Birkbeck, the object of which is to permit the sale during the close time of foreign oysters which have been "bedded in British waters." The courts have decided that such oysters may not be sold during the close time.

Accidents to Children.

In the House of Commons on Thursday, in reply to a question, Sir Michael Hicks-Beach said that those in charge of children's excursions by rail ought to arrange that some person old enough to keep the children out of mischief should be in each compartment. He was informed that the Great Eastern Company had issued a circular to superintendents of schools, suggesting the distribution of the adults of each party. Certain recent accidents had arisen from children opening the carriage doors by the handles inside, and he understood that the Great Eastern Company would, as far as possible, avoid the use of carriages fitted with such handles in children's excursions. In those circumstances he did not see what further steps could be taken to secure the safety of the children.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ADAMS, E. W., M.R.C.S., L.R.C.P., has been appointed Assistant House Accoucheur to King's College Hospital.

AIRD, C. M., M.B., C.M. Aberd., has been appointed Government Medical Officer at Esk, Queensland, vice Langdon.

ALLAN, THOS. S., L.R.C.P., L.M., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed Medical Officer for the Third Sanitary District of the Tonbridge Union.

BRODRICK, H. E., M.D. Durh., M.R.C.S., has been reappointed Medical Officer for the Borrowly Sanitary District of the Northallerton Union.

BULLOCK, T. W., M.R.C.S., has been appointed Medical Officer of Health for the Heston and Isleworth Urban Sanitary District of the Brentford Union, vice H. Bullock.

CHAPMAN, J. T., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed a Public Vaccinator at Lancefield, Victoria, Australia.

DEMPSTER, J. H., M.R.C.S., L.R.C.P., has been appointed House Accoucheur to King's College Hospital.

ELLIOT, E. A. S., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer to the Workhouse, Kingsbridge Union.

FERGUSON, GEO. GUNNIS, has been appointed Assistant Medical Officer to the Convalescent Branch of St. John's Hospital for Diseases of the Skin.

GUNN, DONALD, F.R.C.S., has been appointed Ophthalmic Surgeon to the Seamen's Hospital, Greenwich.

HAMPER, CHAS. NORMAN, M.B., C.M. Edin., has been appointed Assistant Resident Medical Officer to the North-west London Hospital.

HARKIN, CHAS. F., M.B., B.Ch. Dub., has been appointed Health Officer for Wodonga Shire, Victoria, Australia, vice Mackenzie, resigned.

HARRIS, THOMAS, M.D. Lond., M.R.C.P., has been appointed Physician to the Manchester Royal Infirmary, vice Jas. Ross, M.D., deceased.

HENRY, G. F., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the St. James's Sanitary District of the Bury St. Edmund's Union.

HILL, THOS. E., M.B., C.M., B.Sc. (Public Health) Edin., has been appointed Medical Officer of Health for the County of Durham.

HODGES, JAS., M.R.C.S., has been appointed Medical Officer for the St. Mary's Sanitary District of the Bury St. Edmund's Union, vice Clarke, resigned.

HOWSE, N. R., L.R.C.P. Lond., M.R.C.S., has been appointed Government Medical Officer and Vaccinator for the district of Taree, New South Wales.

HUGHES, E. LUCAS, M.R.C.S., L.R.C.P. Lond., has been appointed Junior Obstetric Assistant to University College Hospital.

INNES, JOHN F., M.B., C.M. Aberd., has been appointed Health Officer for the Port of Gisborne, New Zealand, vice Pollen.

JAEGER, H. J., M.R.C.S., L.R.C.P., has been appointed House Surgeon to King's College Hospital.

JOYNT, H. N. H., M.D., B.Ch. Dub., has been appointed Assistant Government Medical Officer for Fiji.

LANE, THOS., L.R.C.P., L.R.C.S. Irel., has been appointed Government Medical Officer and Vaccinator for the District of Inverell, New South Wales.

MELVILLE, S. L., L.S.A., has been appointed Medical Officer for the Middlewich Sanitary District of the Northwich Union.

MILL, WM., L.R.C.P., L.M. Edin., M.R.C.S., has been reappointed Medical Officer for the Kintbury Sanitary District of the Hungerford Union.

PENBERTHY, WM., M.R.C.S., L.R.C.P., has been appointed Assistant Medical Officer to the Nottingham Borough Asylum.

PRITCHARD, ERICH, M.B., M.R.C.S., L.R.C.P., has been appointed House Physician to King's College Hospital.

RAMSAY, G., M.R.C.S., L.R.C.P., has been appointed House Surgeon King's College Hospital.

SHAW, JOHN THOMPSON, M.D., M.Ch., B.A.O. Irel., has been appointed Assistant Medical Officer to the Northampton Friendly Societies' Medical Institute.

SMITH, T. WADDELOW, L.S.A., has been appointed Clinical Ophthalmic Assistant to King's College Hospital.

SMITH, W. R., L.S.A., has been appointed Assistant House Physician to King's College Hospital.

STEPHENS, RICHARD J., M.R.C.S., L.S.A., has been appointed Assistant Medical Officer to the County Asylum, Whittingham, Lancashire.

SUTHERLAND, CHAS. D., M.B., C.M. Edin., has been appointed Resident Medical Officer to the North-west London Hospital, vice C. H. Fowler, resigned.

WADDELOW, J. J., M.R.C.S., L.R.C.P., L.S.A., has been appointed House Surgeon to King's College Hospital.

WALKER, NORMAN, M.D., F.R.C.P. Edin., has been appointed Assistant Physician (in Dermatology) to the Edinburgh Royal Infirmary.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BOROUGH OF CHELTENHAM.—Medical Officer of Health for three years. Salary £500 per annum. (Apply to the Town Clerk, Cheltenham.)

CAMBRIDGE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION, 20, Mawson-road, Cambridge.—Locum Tenens for three or four weeks, about the middle of June.

DENTAL HOSPITAL OF LONDON AND LONDON SCHOOL OF DENTAL SURGERY, Leicester-square.—Demonstrator.

HAMBLEDON UNION, Surrey.—Medical Officer of Health. Salary £100 per annum. (Apply to the Clerk, at his Office, 138, High-street, Guildford.)

LIVERPOOL ROYAL INFIRMARY.—Assistant Honorary Physician and Two Assistant Honorary Surgeons.

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich, S.E.—Junior Resident Medical Officer for six months. Salary at the rate of £30 per annum, with board, attendance, and washing.

POOLE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION, Market street, Poole.—Junior Medical Officer (out-door). Salary £120 per annum.

ROYAL FREE HOSPITAL, Gray's-inn-road, London.—Junior Resident Medical Officer for six months. Board and residence provided by the hospital.

ROYAL SURREY COUNTY HOSPITAL, Guildford.—Assistant Surgeon. Board, lodging, and washing provided.

TAUNTON AND SOMERSET HOSPITAL.—Assistant House Surgeon for six months. Board, washing, and lodging provided in the institution.

WEST LONDON HOSPITAL, Hammersmith-road, W.—House Physician and House Surgeon for six months. Board and lodging provided.

WILTS COUNTY ASYLUM, Devizes.—Assistant Medical Officer. Salary £120 per annum, with an annual increase up to £150, with board, residence, attendance, and washing.

WOLVERHAMPTON AND DISTRICT HOSPITAL FOR WOMEN, Wolverhampton.—Two Honorary Acting Gynæcological Surgeons.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—Resident Assistant for six months. Board, lodging, and washing provided.

WORCESTER GENERAL INFIRMARY.—Assistant to the House Surgeon and as Dispenser (unmarried), for one year. Salary £70 per annum, with board, residence, and washing.

Births, Marriages, and Deaths.

BIRTHS.

DAVIES-JONES.—On May 22nd, at Bodfeddyg, Cwmaman, Aberdare, the wife of Daniel Davies-Jones, M.B., C.M. Edin., of a son.

DELÉPINE.—On May 24th, at Wellesley Court, Croydon, the wife of Dr. J. Delépine, of a daughter.

JONES.—On May 20th, at Chesham-place, the wife of T. Ridge Jones, M.D., of a son.

MARRIAGES.

CHRISTIE—JOHNSON.—On May 18th, at All Saints', Ipswich, Alexander Livingston Christie, M.B., C.M., Staff-Surgeon R.N., son of the late John Christie, M.D., F.R.C.S.E., of Aberdeen, to Ruth Ormsby, third surviving daughter of the late Vice-Admiral Ormsby Johnson, of the Moorings, Ipswich.

CRESSWELL—BUTTANSHAW.—On May 17th, at St. Andrew's Church, Cotterstock, Northamptonshire, Francis Cresswell, M.R.C.S., L.R.C.P. Lond., of Winchmore hill, Middlesex, to Emily Christiana (Kitty) Buttanshaw.

DEATHS.

BARTON.—On May 22nd, at Cambridge-terrace, Dover, Francis Ezekiel Barton, J.P., M.R.C.S., aged 70.

HARRIS.—On May 20th, at his residence, Rodney-street, Liverpool, James Penn Harris, F.R.C.S., aged 75.

HUNTER.—On May 1st, at the Medical Mission House, Royapuram, Madras (of cholera), Janet Hunter, M.D. Brux., L.R.C.P. & S. Ed., aged 31 years.

KING.—On May 12th, William Henry King, M.R.C.S., formerly of Jersey, aged 72.

POCOCK.—On May 22nd, at Westwell-road, Streatham-common, William Pocock, M.D., aged 74.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

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Medical Diary for the ensuing Week.

Monday, May 30

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. R. Marcus Gunn: Cataract.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Genito-urinary Tract.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. A. Wynter Blyth: Water.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Professor C. W. M. Moullin: The Operative Treatment of Hypertrophy of the Prostate.
NATIONAL ORTHOPÆDIC HOSPITAL (Great Portland street, W.).—5 P.M. Mr. E. Muirhead Little: Deformities of the Head and Trunk, including Diseases of the Spine and Wry-Neck.

Tuesday, May 31.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Psoriasis.—Bethlem Hospital: 2 P.M., Dr. Percy Smith: Puerperal and Lactational Insanity.
SOCIETY OF ARTS.—8 P.M. Mr. William de Morgan: Lustre Ware.

Wednesday, June 1.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. R. Maguire: Congenital Affections of the Heart.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. S. Morton: Retinal Affections.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Professor C. W. M. Moullin: The Operative Treatment of Hypertrophy of the Prostate.
OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. Wheaton, Dr. John Phillips, Mr. J. R. Ratcliffe, Dr. Malins, Dr. McAdam Eccles, Dr. Galabin, and Mr. Bland Sutton. Mr. Lawson Tait: (1) Case of Ectopic Pregnancy in which the Fœtus seems to have been Developed to the Full Time in the Peritoneal Cavity still Retaining its Amniotic Covering; (2) Two cases of Hysterectomy.—Mr. Lawson Tait and Dr. Christopher Martin: The Growth of the Placenta after Death of the Fœtus in Ectopic Gestation.

Thursday, June 2.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. Penrose: Some cases of Anæmia in Children. National Hospital for the Paralysed and Epileptic: 2 P.M., Dr. Gowers: Affections of Sight from Brain Disease.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Dr. E. Law: Perforation of the Tympanic Membrane.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY (West London Hospital).—8.30 P.M. Sir C. Cameron: Etiology of Typhoid. (Cavendish Lecture.)

Friday, June 3

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. R. Maguire: Asthma.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Professor Crookshank: Actinomycosis (Sections, Human and Bovine).—Charing-cross Medical School: 8 P.M., Dr. Duncan: Abortion.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Professor C. W. M. Moullin: The Operative Treatment of Hypertrophy of the Prostate.

Saturday, June 4.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Percy Smith: Alcoholic Insanity.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 26th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
May 20	29·87	N.W.	58	55	115	67	53	·23	Cloudy
" 21	30·07	N.W.	55	47	111	68	47	..	Cloudy
" 22	30·03	W.	57	53	91	60	48	—	Cloudy
" 23	29·04	W.	58	53	112	71	49	—	Bright
" 24	29·93	S.W.	63	56	120	75	54	..	Cloudy
" 25	29·75	S.W.	67	61	123	80	58	·02	Cloudy
" 26	29·83	E.	60	59	105	71	58	·81	Fine

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

"ALLEGED SCARCITY OF MEDICAL MEN IN NEW ZEALAND."

THE *Colonies and India* of May 21st says:—

"A correspondent of THE LANCET makes the statement that there is a good opening for medical practitioners on the east coast of the north island of New Zealand. It is said that in spite of a guarantee of £100 by the Government and of £200 additional by the settlers on the east coast, a qualified man cannot be found; and this is somewhat surprising, if true, considering how full the colonies are of qualified men, hundreds of whom would probably ship for the Solomons or Tierra del Fuego at an hour's notice for a guaranteed £200 a year. Possibly the district referred to in THE LANCET is somewhere on the Maori borderlands in the Uriwera direction, and this would, of course, account for the disinclination of the hard-up medicos to settle in the place. It is not pleasant to live in a territory where the natives are capable of stealing the milk out of your tea if you do not watch them."

Mr. T. C. Horsfall.—Arrangements for the manufacture and sale of the Clausen stove in England have not yet, we understand, been completed.

Dr. J. A. Shaw-Mackenzie's paper is receiving consideration.

"A GENUINE GRIEVANCE."

To the Editors of THE LANCET.

SIRS,—Knowing that your columns are always open to the exposure of any real injustice affecting the medical profession, I venture to address you very briefly on a piece of careless indifference displayed by a great London Board.

My quarter's account, delivered last Christmas to the Poplar Board of Works, amounted to the sum of £1 12*s.* 6*d.* for notifications of infectious diseases. On application on two or three occasions I was told that the cheque in my favour had not yet arrived from the Metropolitan Asylums Board, and on my last application, some three days ago, I received a similar reply. So it practically appears that I may have to wait for this trifling sum a perfectly vague and indefinite period. My March account, it is of course understood, cannot be rendered until it is asked for, so my position seems to be that I am simply in the hands of the Metropolitan Asylums Board to pay me exactly when they choose. This, Sirs, is a genuine grievance. To my own knowledge many other medical men feel it, and I have therefore no hesitation in asking you to print this letter. Enclosing my card,—I am, Sirs, yours faithfully,

May 21st, 1892. FUTURUS.

A QUERY.

To the Editors of THE LANCET.

SIRS,—I shall be glad if any of your correspondents can recommend me a school in the country suitable for a boy aged about fifteen, who is partially paralysed, and whose speech is affected. In other respects his mental faculties are good.—I am, Sirs, yours truly,

J. SADLER CURGENVEN, L.R.C.P. LOND. &c.

Craven-hill-gardens, W., May 24th, 1892.

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TREATMENT OF INTESTINAL OBSTRUCTION BY THE ADMINISTRATION OF METALLIC MERCURY.

IT is not a little remarkable how discarded and discredited remedies at times reintroduced with success. Dr. Richter, of Gross-Wartenberg, relates in the *Deutsche Medicinische Wochenschrift*, May 19th, a case of acute intestinal obstruction in which, as a last resource, metallic mercury was administered with successful result. The patient, a woman forty-nine years of age, was suddenly seized with intestinal pains, for which she was treated with purgatives, including croton oil. When Dr. Richter was summoned subsequently, he found the patient very ill, the abdomen was immensely distended, painful, and tympanitic, and there was constant fæcal vomiting. Leeches, morphia, and ice gave some relief; but the distension and fæcal vomiting continued, and the patient was sinking. As the friends objected to operative interference, Dr. Richter administered a dose of 5·2 oz. of metallic mercury. This was followed by such complete apathy that death was momentarily expected. But after a few hours there ensued, with loud intestinal rumbling, five copious stools, accompanied by large quantities of stinking gases. The patient recovered rapidly, without any metallic mercury being noticeable in the evacuations.

S. T. O.—The matter is one for arrangement when an assistant is engaged. There is no invariable rule. It seems reasonable to give an assistant a holiday.

Dr. W. C. Beatley will see that we have answered his question as put by another correspondent.

Mr. Chas. W. Lancaster should consult his medical attendant.

"MEDICAL PRACTICE IN SOUTH CALIFORNIA."

To the Editors of THE LANCET.

SIRS,—In reply to "Quercus Ilex" in your issue of April 23rd, I would call his attention to Los Angelos and San Diego, counties on the "Orange Belt," in which there are several good towns to practise medicine, but, like all such climates, the places are overrun with physicians from all parts of the United States and Europe, seeking a balmy atmosphere in place of frost and chilly east winds. If "Quercus," to use a Californian expression, is a "one-lung man," then the sections above-mentioned are the best, but if he is sound in wind and limb, plenty of "go," and well up in his profession, there is room for him on the Pacific slope. The only outfit required is sufficient means to keep him while building up a practice and a thorough knowledge of his profession. In concluding, I would remind your correspondent that, in addition to the immigration of physicians from the United States and Europe, there are four colleges (two regular, one homœopathic, and one eclectic) in this city that turn out twice a year enough M.D.'s to fill every gap in the Golden State.—Yours truly,

San Francisco, April, 1892. H. ISAAC JONES, M.D., L.R.C.P., &c.

To the Editors of THE LANCET.

SIRS,—In reply to "Quercus Ilex" on the above subject, I fear he will be disappointed should he come to Southern California, as it is overrun with medical men, and the ranchers moreover are not overburdened with money. Most of the money is made out of eastern people who winter there.

Should "Quercus Ilex," however, determine to come out, let him make Los Angelos, Fresno, or Bakersfield his headquarters, and then look out for a suitable opening. As regards outfit, one requires a good set of instruments, as it is bad policy ever to refuse to undertake a case. A little extra practice in diseases of the naso-pharynx, the ear, and gynæcology would come in useful, as Americans love a specialist, and catarrh is a very prevalent disease. Living is cheap all over, but clothing is dear. Except in a large city, a top hat and frock coat is unnecessary. Simple sack suits of light weight and dark material are best. Tan leather boots save the trouble of blacking, which operation one has to do oneself.

Let "Quercus Ilex" write to the Secretary of the State Medical Board of California, San Francisco, for a copy of their official register, and he will find it afford him very useful information as regards fees, number of physicians in different localities, &c. I shall also be happy to answer any inquiries, and for that purpose enclose my card and address.

I am, Sirs, yours truly,

April, 1892. NEVADAN.

FOUR CHILDREN AT A BIRTH.

DR. SPECHT of Dudweiler reports in the *Deutsche Medicinische Wochenschrift*, No. 20, 1892, the birth of four children, three of whom were living and healthy, but the fourth was dead some time before birth. There were two placentas, each with two cords. The mother was a multipara.

IODOFORM TAKEN INTERNALLY.

To the Editors of THE LANCET.

SIRS,—Having occasion to order a patient a drachm of iodoform for surgical dressing purposes, I was surprised on calling next day to find that he had taken the whole of it on the previous night without any ill effects, but, on the contrary, he thought it had given him an appetite. On inquiry I found the full amount had been dispensed.

I am, Sirs, yours truly,

Ballarat, Victoria, April 18th, 1892. A. TREVAN.

CURE BY WITCHCRAFT.

WE are indebted to an interesting memoir entitled "Fifty-two Years' Medical Work in Jerusalem" for an apt illustration of the tenacity with which therapeutic superstition lingers. The superstition in question is that called the "indulca cure," "indulca" being a barbarous derivation from the Latin verb "indulcare," to sweeten. It is in high favour among the Spanish Jews for various conditions, such as madness, sudden blindness, sudden frights, epilepsy, sterility, and infantile mortality, and is divided into two classes—the great and the small "indulca." To take the latter, the small indulca, first. The patient is left alone in his room, all others of his household and all his neighbours having been excluded from the tenement and contiguous buildings for some days. The only other inmate of his room is the witch, who is in possession of the secret of his malady and its cure. The room having been emptied of everything, including the holy books, has been already cleaned, whitewashed, and put in decent order. On the night when the patient has to receive the indulca he is forbidden to pray, to recite the daily portion of Scripture, to breathe the word "heaven," and to mention aught concerning Holy Writ, and the witch prepares a small portion of wheat, barley, salt, water, milk, honey, eggs, and sweetmeats or sugar. At midnight she mixes these together, and sprinkles some of the compound on the patient's bed, on the threshold of the room, and in its four corners, whispering the while an appeal to the powers above to have pity on the patient, to pardon his sins, to give him health or life, and (if the patient be a barren woman) to vouchsafe children to her, or, if she is apt to lose them, to shield them from death. "Let this honey and sugar," she continues, "serve to sweeten your palates and mouths, the wheat and barley to feed your cattle and sheep, the water and salt to establish peace, friendship, love, and brotherhood, an everlasting covenant of salt between us and you." (Here she breaks the eggs, and pours their contents in the places above mentioned, kneels and prostrates herself, kisses the ground several times, and offers the following prayer: "Here I offer to you life for life, in order that you may restore the life, or reason, or health of this patient.") For two or more nights in succession this ceremony is repeated, and, if without good to the patient, is continued for seven or nine nights altogether. If through poverty the patient cannot meet the required expense, or if the neighbours decline to leave their quarters, then the witch contents herself with going to a cistern or bath, there to pour in a little salt and water, and to pray as before, saying: "Behold! water and salt to serve as a covenant of peace between us." So much for the small indulca, from which the great indulca differs only in being prolonged for forty-five nights, the patient being required to dress in rich white garments, while the room, in addition to the cleansing above mentioned, must be well lighted with many candles. Further, the ingredients of the magic compound already described must be supplemented by sundry savoury dishes and spices as adjuncts to the witch's appeal and incantation afore-mentioned. It is against superstitions like these that the medical mission in Jerusalem has still to struggle in the noble work it has for fifty-two years carried on.

A Reader.—The remarks were founded on notes on a fragment of a Coptic medical book. Information which would doubtless be useful to our correspondent appeared in the Comptes Rendus of the Académie des Belles Lettres, not in the Memoires. The paper only occupied three or four small pages. Our correspondent should also refer to the volume of the French Academy's Transactions on the subject at the Society of Biblical Archæology, 11, Hart-street, Bloomsbury, on any Monday, Wednesday, and Friday.

Member.—Undoubtedly the general and proper custom is for the senior to have the choice.

FRIENDLY SOCIETIES.

To the Editors of THE LANCET.

SIRS,—I should be glad if any of your readers would reply to the following questions.

X. is appointed surgeon to a friendly societies' dispensary, and signs an agreement not to practise his profession for a number of years within a radius of five miles of the surgery under a fine of £100. How far is such an agreement binding? Would it be modified if he abstained from taking clubs? And would the association have to prove the amount of damage he had done them before they could take steps to prevent him practising?

I have seen the above answered in your columns before, but I think not very clearly; and it appears to me that if such an agreement is binding, many provincial house surgeons and others are seriously affected, as well as

Yours faithfully,

May 24th, 1892. INIGO.

OBSTETRIC ENGAGEMENTS.

G. H. R. has, we believe, a legal claim to the fee, if he can show that he was ready on his part to fulfil the engagement. He must use his discretion as to pressing this legal claim. We scarcely advise it, unless he can show loss of time or great personal inconvenience.

Dr. Rentoul.—We cannot find room for the communication.

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ADVERTISEMENT OF NAMES OF MEDICAL STAFF.

A LARGE card is sent to us—which, we are informed, it is proposed to distribute to each factory in the neighbourhood of Newcastle-on-Tyne—advertising a hospital for sick children, with the names of the staff in large letters, and their days of attendance. We are asked our opinion of this. We confess that we strongly disapprove of it. We feel sure that none of the members individually would send round a card, and that none of them would like to see individual medical men of the town doing so.

Dr. Q. C. Smith (Austin, Texas).—We cannot recommend any particular system of shorthand as specially valuable to medical practitioners. The most generally used is, of course, Pitman's System of Phonography. With regard to medical reporting by phonography, we can bear testimony to its adaptability to medical terms, and its trustworthiness in skilled hands even in the most technical passages.

Mr. Casimir de Juravski.—We do not recommend practitioners. Our correspondent would no doubt obtain the information he requires from the pages of the Medical Directory.

Surgeon.—We may refer our correspondent to two papers on Exalgine, published in our present issue.

"FLOATING SPLEEN."

To the Editors of THE LANCET.

SIRS,—Dr. Higgins requests, at page 1169, information upon the above subject. A reference to Section 987 of the "Medical Digest" will enable him to study several interesting cases bearing upon his own case. I am, Sirs, yours faithfully,

Boundary-rd., N.W., May 25th, 1892. RICHD. NEALE, M.D.Lond.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

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NEWSPAPERS.—*Sussex Daily News, Freeman's Journal, Newcastle Daily Chronicle, Eastbourne Gazette, Bradford Observer, East Anglian Daily Times, Irish Times, Brighton Argus, North British Daily Mail, Sydney Daily Telegraph, Tasmanian Mail, Bombay Gazette, Pioneer, Carlisle Journal, Whitchurch Herald, Times of India, Galignani's Messenger, Le Temps (Paris), Nature, Engineering, Aberdeen Journal, Kirkcaldy Times, Northern Whig, Bristol Observer, Evening Herald (Dublin), The Bailie (Glasgow), &c.*, have been received.

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Lectures
ON THE
OPERATIVE TREATMENT OF ENLARGEMENT OF THE PROSTATE.

By C. W. MANSELL MOULLIN, F.R.C.S. &c.,
SURGEON TO THE LONDON HOSPITAL.

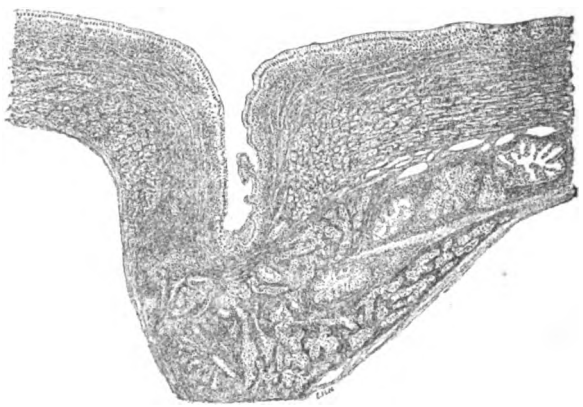
LECTURE I.[1]

MR. PRESIDENT AND GENTLEMEN,—The question of operation as a means of permanent cure in enlargement of the prostate must be regarded as upon its trial. Portions of the gland have frequently been removed in the performance of lithotomy; you yourself, Mr. President, have done so upon two occasions, and fifteen years ago you wrote that though you were not prepared to advocate cystotomy in all cases of chronic cystitis dependent upon enlargement of the prostate, you would venture to suggest the expediency of its application in exceptional instances. And but little advance has been made in other methods of giving relief; yet until recently, when the late Mr. McGill published his first series of cases of suprapubic prostatectomy, no one has come forward to uphold it as a measure to be taken into serious consideration. Happily in most cases the question need never be raised; no one supposes for an instant that simple enlargement requires operation; but there are certain complications which only too often make their appearance, and which if they once begin pursue their progress relentlessly until life becomes unendurable and the patient prays for release; and it is for these that the operation is, if ever, to be undertaken.

And, first, they are the direct result of the overgrowth, and are not caused, although they may be helped, by anything else. I admit the weight of authority is against this view. Mr. R. Harrison, for example, holds that the habit of partial retention often precedes the physical signs of prostatic enlargement. Sir H. Thompson writes that, in spite of his having travelled considerable distances abroad and elsewhere expressly for the purpose, he has never been able to find a patient who, having previously been compelled to pass all his urine by catheter, say, for a twelvemonth, is enabled to pass only half by natural effort after division of the prostate. While Professor Guyon maintains that in these cases the whole urinary tract is involved, not the prostate only, and that the disease is merely a local expression of general atheroma. On the other hand, I maintain that the prostate, so long as it is normal, has nothing to do with micturition; that its overgrowth is a purely local affection; that the complications that follow are the direct result of the obstruction it causes; and that removal of the obstruction will prevent the development of the complications.

The prostate a purely sexual organ, not connected with micturition.—The first portion of the urethra, as distinguished from the prostatic that surrounds it, belongs strictly speaking to the bladder: the two are not merely continuous; they are part of the same structure, the allantois, and are absolutely distinct from the rest of the genito-urinary passages. In the Monotremata they remain distinct. In them the penile part of the urethra never becomes organically united to the rest, or serves as it does in the males of the higher orders of mammalia for the transmission of urine. As with the correspondiog organ in the female, it retains throughout life its purely sexual character. Even in man this sometimes occurs in cases of arrested development, or so-called hermaphroditism; and in those instances of imperforate rectum in which the intestine still communicates with the urethra the opening definitely marks the line of division between the two portions—the one above formed from the allantois, and the other below developed in the front wall of the cloaca; the one which becomes so often the seat of overgrowth of the prostate and never of stricture, and the other, which is so frequently strictured, and is never invaded by the gland. As Guthrie long since pointed out, the true sphincter of the bladder is not at the so called neck; there is no collection of circular fibres there like a sphincter; the circular coat of the bladder ceases almost abruptly, and the longitudinal bands changing their direction sweep round obliquely, and are lost in the fibrous tissue that invests the prostate. The arrangement of the first part of the urethra above the opening of the prostatic utricle is the same in the male as it is in the female, with three exceptions—one is the presence of the caput gallinaginis, which I take to be the rudimentary representative of the original intromittent organ before the penis was developed; the second is the addition to its distal extremity of the penile part formed out of an entirely separate structure; and the third the addition to its circumference of a sexual organ, the prostate, and because of the support it gains from this the reduction in thickness and strength of its own proper wall. The sexual character of the glandular part is not questioned; it is developed from the lining of the urethra in close relation with the orifices of the Wolffian ducts; it does not attain full growth until sexual maturity; in geldings it wastes away, and in many of the lower animals it varies in size and in perfection of development according to the breeding season. On a small scale, the product of its secretion mixed with that from the testes may be compared with what Lataste has called the "bouchon vaginale" of certain rodents. The same is true of the stroma. Its origin is from the genital cord quite separate from the allantois. In structure it is identical

FIG. 1.



Sagittal section through the neck of the bladder from an infant six months old (a little to one side of the median line), showing the structural identity and continuity of the prostatic stroma with the tissue surrounding the vesiculæ seminales and the vas deferens.

and continuous with the tissue of similar origin that invests the vesiculæ seminales; and, as Griffiths has shown, it wastes away in geldings and varies in size with the breeding season, just as the glandular part does. Women and children suffer no inconvenience from the want of it; and there is no evidence that after castration micturition is either assisted or unduly prolonged. It is a purely sexual structure.

The nature of the enlargement.—This cannot be learnt from museum specimens; it must be studied from the beginning. Age is no cause for it. It does not occur in the majority of old men, it bears no relation to the age they reach, and it often occurs at a much earlier age than is usually supposed. The presence of residual urine must not be confounded with enlargement of the gland. I have figured one specimen in which it was well marked at forty-nine years of age, and I have met with two examples of typical prostatic retention at the ages of forty-eight and forty-one respectively. McGill operated upon patients at the ages of fifty-five, fifty-three, and thirty-five; and in the last case identified the part removed as prostatic tissue. One of Teale's patients was fifty-four; of Meinhardt Schmidt's, fifty-two; of Packard's, forty-three; of Bellfield's, forty-nine; of Dunn's, forty-five; of Iversen's, thirty-six; and of Mudd's (St. Louis), only twenty-seven. In all of these the overgrowth was already some years old. It is not connected with the utricle, which represents the vagina rather than the uterus. It is true there is a superficial resemblance between uterine fibroids and prostatic growths, but the

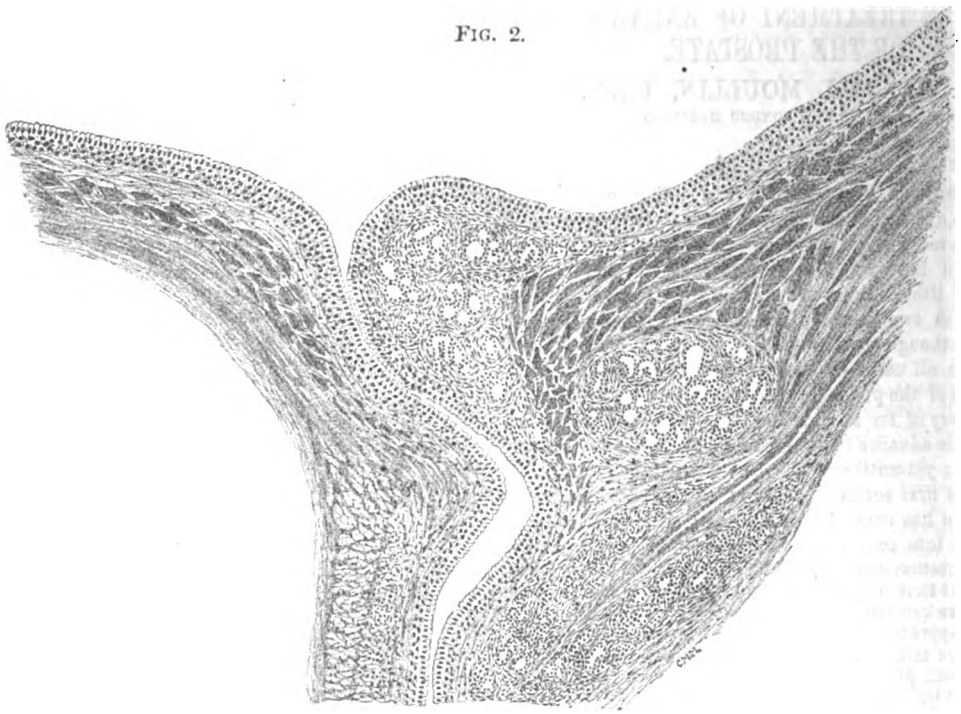
[1] Delivered at the Royal College of Surgeons of England on Monday, May 30th, 1892.

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fact that they can both sometimes be shelled out as from a capsule, and that they consist of apparently similar elements, is no proof of the identity of the organs from which they spring. Nor can it be due to atheroma. Putting aside other reasons, Guyon and Launois appear to

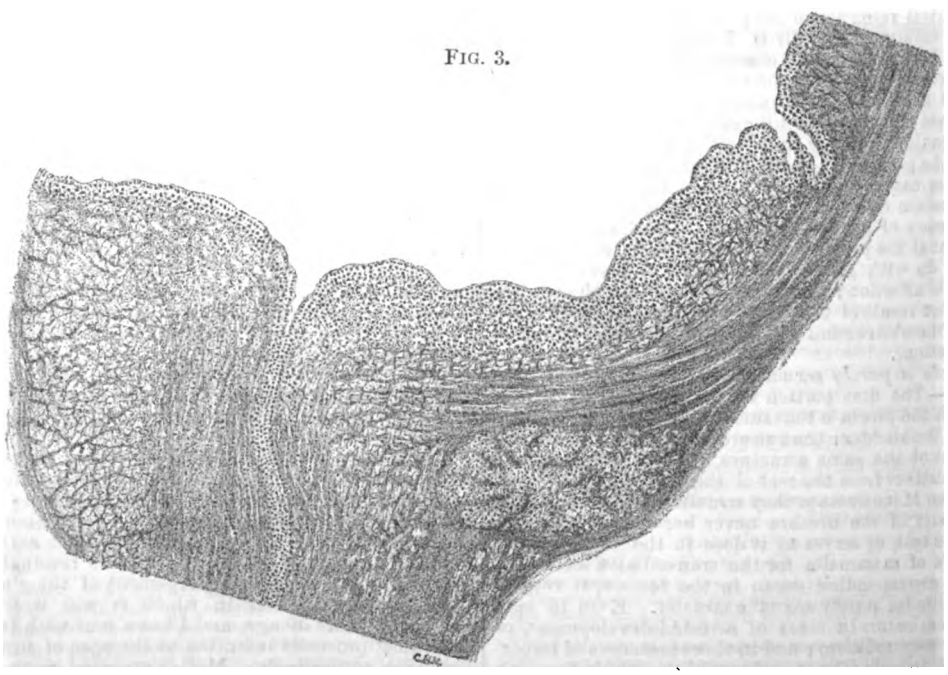
growth, distantly resembling that of the prostate, tubular, with occasional acini, but arranged absolutely without order. In the younger part there is little stroma, merely a few long fibre cells arranged concentrically around the tubules; where it is older it is much more dense, and the

FIG. 2.



Median sagittal section through the neck of the bladder of a man forty-nine years of age, showing the growth of the adenoma up the posterior wall of the urethra into the neck of the bladder. Seen from the inside the vesical orifice was markedly crescentic in shape, as if the median lobe were projecting forwards into it.

FIG. 3.



Sagittal section through the neck of the bladder, from a patient aged sixty-nine. The growth has extended up both the anterior and posterior walls of the urethra, and has reached quite to the back of the trigone. The muscular fibres around the neck are somewhat hypertrophied, and there is an indication of a commencing post-trigonal pouch.

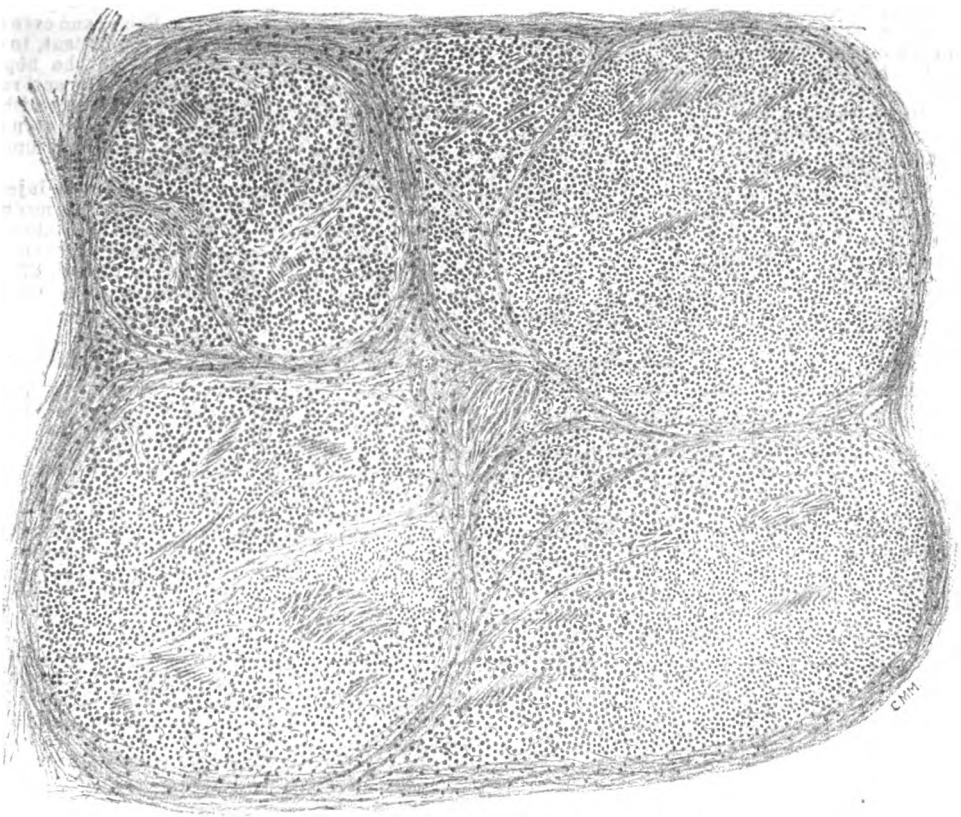
have entirely overlooked the primary change. They describe the substitution of fibrous tissue for gland as the dominant feature, whereas it is entirely secondary. In all the cases that I have examined the first change has always been the invasion of the tissues around by a glandular

glandular element disappears. The existence of a median lobe is immaterial; the growth spreads up the urethra, at the sides or in the middle, until it projects as a collar or a nipple into the neck of the bladder; then it may extend back over the trigone, or grow out into apparently isolated

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tumours. If the glandular part is in excess, it grows rapidly and forms a huge adenomatous prostate; if the fibroid change is early and extensive, the enlargement is slight but intensely hard. Whichever it is it is always local, and can be dealt with locally.

FIG. 4.



Microscopic section through the new growth, taken from the posterior boundary of the trigone of Fig. 3. It shows the peculiar character of the adenomatous tissue, composed apparently of irregularly arranged tubules, each with a basement membrane, a single layer of low columnar cells, and a few long fibre cells on the outer side, and here and there bundles of muscular fibre surrounded and isolated by the new growth.

The failure of the bladder is secondary to the enlargement of the gland.—It cannot be explained away as the result of old age or of atheroma, though undoubtedly these predispose to its occurrence. If it were the result of these, it would be much more common than it is, whereas it is only met with in a small proportion. Guyon, who holds that it is due to atheroma, relies upon the change in structure of the wall of the bladder; in many cases in which it appears to be hypertrophied it is really merely thickened and indurated, but this is the result of cystitis and not of arterial degeneration, or it would not be confined to the bladder. But the best proof is that when the obstruction is removed the bladder recovers; how often I shall discuss later. The loss of power is the direct outcome of the upward growth of the prostate. If the lateral lobes are enlarged without being elongated, the urethra is flattened into a slit like the trachea sometimes in cases of goitre, the resistance is increased, and the walls become thicker and more rigid. If, however, the growth spreads upwards into the neck, projecting as a collar or a nodule, or if the lateral lobes are so elongated that they raise up between them a fold of mucous membrane, the conditions are entirely different. The muscular mechanism for expulsion is thrown out of gear, the wave of contraction which normally spreads over the bladder on to the urethra in the act of micturition is broken, the orifice is closed before the cavity is emptied, a certain amount of urine remains behind, and that which fills the prostatic urethra slowly dribbles away. Then by degrees the muscular fibres whose function it is to close in the posterior fundus, being no longer equal to their work, begin to waste, the wall at the back grows thinner and thinner; meanwhile the rest of the bladder may become hypertrophied, and at length a definite pouch is formed. This is the beginning; age, atheroma, cystitis, and the persistent use of catheters may help, but the prime cause of the loss of power is the overgrowth; without this in the vast majority of instances all the various troubles that follow would never occur.

CURE OF A CASE OF HYDROPHOBIA.

BY PROFESSOR MURRI,

DIRECTOR OF THE PASTEUR INSTITUTE AND PROFESSOR OF CLINICAL MEDICINE IN THE UNIVERSITY OF BOLOGNA.

Translated from the Italian and Contributed by

THOS. WHITESIDE HIME, B.A., M.D.

[THE final triumph of the Pasteur anti-rabic method has been delayed, but is now complete and assured. Nearly seven years have elapsed since little Joseph Meister, the first person to be subjected to the Pasteurian anti-rabic method, began his course of treatment—a memorable date, July 4th, 1885. Hitherto the Pasteurian method had been applied to human beings only as a preventive.[1] But on

[1 In the early part of this year some important experiments were carried out at the Laboratory of General Pathology, Bologna, which seem to show that blood-serum from a rabbit, rendered immune by Pasteurian treatment, will cure rabbits in an advanced state of rabies. The serum was injected sometimes daily, sometimes every second day, and both subcutaneously and intravenously. The treatment in some cases extended over some fourteen days. The high temperature, paraplegia, loss of sensation, wasting, &c., all disappeared, and the animals rapidly recovered health and weight. V. Sul Modo di Quarire negli Animali la Rabbia sviluppata, nota di G. Tizzoni ed E. Centanni. Roma, 1892.—T. W. H.]

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March 27th last for the first time the method was applied successfully, in a modified form, to the treatment of a patient *already suffering* from indubitable symptoms of hydrophobia. Under ordinary circumstances his doom was sealed. No method of treatment known up to the present has ever saved a man seized with marked symptoms of this invincible malady. Fortunately this patient was under the care of an experienced medical man, skilled in the practice of his art, and the patient still lives as a witness of the triumph of science over a disease which has hitherto baffled every effort to combat it, slaying its victims so unerringly and certainly that, after the first symptoms have appeared, there is but little time even to attempt a rescue. The credit of having first won such a victory is alone due to Professor Murri. But it must not be forgotten, and he is the first to acknowledge it, that his triumph lies in the novel and bold modification of the method originated by Pasteur. The following is the record of the case kindly furnished to me by my friend, Professor Murri.—T. W. H.]

On March 3rd, 1892, a healthy and robust young man, aged twenty-two, of Castelfranco, was bitten in the calf of the left leg by a rabid dog. The leg was only covered by trousers made of light material which was torn by the animal. The wound, which was round and deep, was not cauterised. On March 7th the patient was placed under Pasteurian treatment at the Pasteur Institute, Bologna. The course of treatment consisted of forty-nine subcutaneous injections, each 1·5 cc., and lasted twenty days. During the first four days the emulsion contained, respectively, medulla of the fourteenth, thirteenth, twelfth, eleventh, tenth, ninth, eighth, down to the seventh day. On the sixth day medullæ aged six and five days were injected, and from the fifth to the twentieth day the ordinary series of medullæ were employed—i.e., those of six, five, four, and three days, repeated down to the end of the treatment. This method has been commonly employed without any drawback, even in the case of infants but a few months old. The patient went through the course perfectly satisfactorily. But in the night of the 26th–27th of March there was a change. The patient became very unwell. He grew very agitated; he felt a sensation of heat through his whole body, and intense pain in the spinal column throughout the lumbar and lower part of the dorsal regions. He could not sleep, nor even find any position in which his sufferings were alleviated. On March 27th, when attempting to get up, he noticed that both his legs, but chiefly the right, were enfeebled. The patellar reflexes were still normal. On March 28th the loss of power was still greater, and vomiting and fever set in, while the pains in the back continued unabated. By the 29th the paralysis of the lower extremities was complete, and was then associated with total retention of urine and fæcal matter. There can be no doubt that the patient had developed the paralytic form of hydrophobia. The subcutaneous injections were continued in still stronger doses, but without avail. As this method had previously proved of no service in the case of patients in a similar critical position, it was determined to employ a more rapid method to convey the anti-rabic agents to every part of the body, the ordinary hypodermic one being manifestly too slow to allow of the danger being overtaken in time. It was therefore determined to have recourse to intravenous instead of the hypodermic injections. This decision was justified by two observations. The first was one made by Dr. Novi, who had remarked that the absorption of the emulsion injected into the subcutaneous cellular tissue took place very slowly, as proved by the unusual swelling and induration which continued at the site of injection. The second observation, which guided the decision as to the change of treatment, was the fact noticed by Dr. Poppi, that intravenous injections of the emulsified medulla are quite harmless in the case of rabbits, provided it is used fresh and has been allowed to stand, so as to effect the subsidence of any solid particles. It was therefore considered justifiable, and even imperative, considering the dire condition of the patient, to employ the method of intravenous injection, in the hope that the direct, rapid, and energetic action of the anti-rabic agents, brought almost instantaneously into contact with every part of the nervous system, might arrest and even destroy the enemy in time to save the patient from what must otherwise prove certain and immediate death.

On March 29th, therefore, intravenous injections were commenced, with an emulsion containing medullæ of six, five, four, and three days, which had been allowed time to settle. The whole course of treatment after the appearance of the symptoms of hydrophobia (March 27th) until all treatment was discontinued, owing to eradication of the disease, is shown in the following table:—

SYNOPTICAL TABLE OF TREATMENT AFTER THE APPEARANCE OF THE SYMPTOMS OF HYDROPHOBIA.

Date of injection	March 27.		March 28.		March 29.		March 30.		March 31.		April 1.		April 2.		April 3.		April 4	April 5	April 6	April 7
Hour	A.M. 10	P.M. 6	A.M. 10	P.M. 6	A.M. 10	P.M. 5	A.M. 12 noon	P.M. 6	A.M. 10	P.M. 6	A.M. 10	P.M. 7	A.M. 11	P.M. 6	A.M. 11	P.M. 6	A.M. 11	A.M. 11	A.M. 11	A.M. 11
Age of the medulla injected (days)	6	5	5	4	5	4	3	4	4	3	5	4	3	5	5	4	3	5	4	4
Quantity injected (cc)	3	4	4	4	2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Number of injections	2	2	2	2	1	2	1	1	1	1	2	1	1	2	2	1	1	1	1	1
Mode of injection	Subcutaneous.				Intravenous.						Subcutaneous.		Intravenous.							

The patient was admitted into the hospital on March 30th, and the following careful details of his condition were recorded:—

Right leg, complete flabby paralysis; left leg, flabby paralysis, but slight contractility still existed in the domain of the crural nerve. Abdominal muscles and detrusor vesicæ paralysed; contraction of the muscles of the neck; respiration normal.

Cutaneous reflex movements.
- Plantars reacting to strong stimulation.
- Cremasteric abolished.
- Abdominal ,,
- Epigastric ,,
- Axillary ,,
- Scapular ,,

The tendon reflexes were all abolished, except those of the musculus triceps brachialis, which were scarcely perceptible. Pupillary reflexes normal; general muscular nutrition normal, as well as the force of the upper extremities; the electro-muscular contractility qualitatively unaltered, but under direct galvanic and faradaic stimulation a slight diminution was observed, especially in the domain of the right popliteal nerve. Tactile and thermic sensibility, local and general, diminished in the lower extremities, as was also "baric" (weight) sensibility; sensibility to pain slightly lessened in the same regions, but on the external side of the left thigh there were some hypoalgesic zones, as well as some hyperalgesic points. A hyperæsthesic zone extended like a girdle round the body, between the transverse mammary and umbilical lines. All other nervous functions normal, including the special senses. There was no alteration of the visual field, and ophthalmoscopic examination revealed nothing abnormal. This condition continued unchanged until April 2nd, when the patient became able to bend his head, and abduction and adduction of the left thigh were recovered to a slight extent. During the following days the power of movement increased rapidly; and the tendon reflexes reappeared, with exaggeration of the knee-jerk and foot-clonus. By April 10th the patient could get up, but he had difficulty in standing erect, and exhibited the gait of a person suffering from spastic paraplegia. From that

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day until the date of this paper (April 17th) there has been a marked improvement in all the functions of the cord, motor, sensory, and reflex.

This faithful and detailed record must convince the reader that Pasteur's method is not only marvellous as a mode of preventive treatment, but that it may also, when suitably modified, serve as a cure for the disease when manifested in its gravest form. It might be possible to raise the following objections:—

1. Was this patient bitten by a dog really rabid? Experimental proof of this was, unfortunately, impossible, because the dog was killed by some peasants in consequence of his behaviour, which convinced them it was rabid. It showed all the classic symptoms of rabies, and, having wandered (as rabid dogs invariably do) from home, it furiously attacked men and dogs. Of the former, one other person was bitten and treated at the Anti-rabic Institute; while all the bitten dogs were destroyed by the peasantry to prevent them becoming rabid. Of 609 cases treated at the Pasteur Institute, Bologna, five have died (0·82 per cent), of whom three were still under treatment when attacked by the disease. In only two (0·33 per cent.) cases, therefore, can it be alleged that the treatment was ineffective. Of these five cases, four occurred in persons bitten by dogs, which circumstance rendered it impossible to prove experimentally to have been rabid or not.[2] In the case of over 400 dogs the experimental test has been applied with positive results at the Institute, and, judging from this large experience, there is no room to doubt that the animal was rabid which bit this patient.

2. It may be asked if the patient really suffered from hydrophobia. Whoever has carefully read the preceding account cannot fail to recognise that he was suffering from acute myelitis of the lower dorsal region and the lumbar enlargement. The idea that he could have been suffering from hysteria is too absurd for serious consideration. There was no trace of hysteria or neuropathy in the patient's family or in himself; no stigmata were produced. At the outset the fever, intense rachialgia, the hyperæsthesic zone at the base of the chest, the paralysis of the bladder, and the entire abolition of the reflexes of the rectum, all prove incontestably that the medulla was profoundly affected and its functions interfered with, while a portion of the upper part, not so seriously implicated, was in a condition of excessive irritability with reference to centripetal impressions. Later on we find in the successive reappearance of the functions first abolished, and the occurrence of exaggerated tendon reflexes (to such a degree that the patient offered a typical example of spastic paraplegia), a clinical argument indicating the arrest of disorganisation of the medulla, occurring happily at the moment when destruction of the cord was impending. Further, it is a familiar fact that the bite of a rabid dog may be followed by the most serious symptoms of spinal affection, symptoms frequently present where hydrophobia occurs. To assume that the myelitis in this case was due to some unknown cause would indeed be most illogical when there existed so well-known a cause to account for it—viz., the infection from the bite of a rabid dog.

3. It might be suggested that the patient had hydrophobia, but that it was the effect of the treatment and not of the bite. But such a supposition is found to be devoid of any grounds when we consider not only the extreme rarity of cases of hydrophobia among persons treated by Pasteur's method,[3] but also the additional fact, now fully demonstrated, that the virus used for Pasteurian inoculations acts like that derived from animals suffering from street rabies. An ingenious theorist might possibly imagine that Pasteurian inoculations induce a certain immunity to their action in the bulb and cervical medulla, but which does not extend to the dorsal and lumbar portions of the cord. If this were so, then necessarily the cases of hydrophobia which occur among those who have been treated by Pasteur's method should be such as exhibit symptoms specially pointing to the concentration of the virus in the unprotected portion of the cord—i.e., the dorsal and lumbar parts. But they show no such character, and neither theory nor fact support the view that the disease is due to the treatment.[4]

The patient, then, was undoubtedly suffering from most grave symptoms due to the absorption of the virus inoculated when he was bitten by the rabid dog, and no such case has ever been known to recover. Some new influence alone saved him from death, and no other but the application of a modification of Pasteur's method can be recognised. Such a case as this gives grounds for hope that in future a cure may be at our command in even more grave cases. This opinion is not merely founded on this single case, but on consideration of the recorded cases of paralytic rabies, *including this one;* so that it must be regarded as one of a large series, all of which, with this one exception, proved fatal. Already Drs. Poppi and Novi, who proved themselves such able and zealous collaborateurs, are engaged in experiments to test all the aspects of this novel application of Pasteur's great discovery. It is to be hoped that others will be soon in a position to verify the results of this case by facts observed under similar circumstances.

[If it was worth while considering the ridiculous notion that in this case the symptoms might have resulted from the treatment, there is strong reason for observing that the treatment must have cured them. That the intravenous injections of strong material (medullæ of recent date) had no effect is of course absurd, and must appear especially so to anyone who could imagine that the subcutaneous injections actually caused the disease. The emulsion injected subcutaneously makes its way but slowly into the circulation, and that it did so particularly in this case is proved by the local phenomena; the injected material could be felt for some time, and seen as a swelling at the seat of the injection. While undergoing the preventive treatment at Paris, I several times noticed the same thing in my own case, the emulsion evidently remaining, at times, for many hours at the point of inoculation. While slowly making its way from the inoculated place into the circulation which is to carry it to the nervous tissue where it has to combat the dangerous virus from the bite, the emulsion is no doubt undergoing modifications. Undoubtedly all solid particles injected subcutaneously are perfectly filtered out in the tissues before any of the material, injected subcutaneously, reaches the nervous system. But when the emulsion is injected direct into the veins it is, in a moment almost, carried throughout the body, taking with it every particle of medulla, large or small, which it contains, and in this state it encountered the virus which was already multiplying and extending throughout the nervous system of the patient. If the subcutaneous anti-rabic injections could produce hydrophobia in a healthy man, then the intravenous injections into a man already suffering from the symptoms of hydrophobia should, like fuel added to the flames, have rapidly consummated the disaster. But, instead of doing so, we find that the symptoms soon began to disappear when once the protective material was, quickly and unaltered, brought to the seat of danger in the spinal cord of the patient. If the earlier subcutaneous injections, which were largely of weak material (old medullæ) are accused of causing the disease, then it is impossible to assume that the numerous strong injections direct into the veins could have been devoid of effect on the further development of the symptoms. But the fact is that the

[2 The same fact has been observed at the Pasteur Institute, Paris. Of 1316 persons treated there for bites by animals "suspected of being rabid" during 1886-9 there were seven deaths, being at the rate of 0·53 per cent. The general death-rate (including those bitten by animals proved by experiment to be rabid) was 0·67 per cent. This fact is probably due to the greater readiness of persons bitten by a dog presenting well-marked symptoms of rabies, or declared by a competent person to be rabid, to undergo treatment than is shown by those bitten by an unknown dog, which may not appear rabid. It is an unfortunate and general mistake to assume that rabid dogs are always furious.—(Les Vaccinations Anti-rabiques à l'Institut Pasteur, par M. L. Perdrix.)—T. W. H.]

[3 Out of 10,992 treated in Paris during 1886-91, only 62, or 0·56 per cent., died. If the treatment could cause the disease, one would certainly have expected more deaths among this great crowd of persons treated. Further, the death-rate has steadily and largely diminished year by year. How could this be accounted for if the patients all continued to be inoculated with similar material, and that a substance capable of giving hydrophobia?—T. W. H.]

[4 When an animal dies of rabies, after infection with the intense "laboratory virus," the virus taken from it is found to be still laboratory virus, and not to have changed by one passage through the animal in question. There can be no doubt that if a man were infected with hydrophobia by the virus inoculated as a preventive ("laboratory virus"), then an animal inoculated from him should exhibit symptoms of being infected by "laboratory virus." This, however, has never occurred, though such test inoculations have been frequently made. The animals inoculated with the virus from the man have not become infected in from five to six days and died in from ten to eleven days, as they must have done had the man died of "laboratory rabies"; on the contrary, they have always exhibited the symptoms, now perfectly familiar, shown by animals suffering from "street rabies." This, therefore, must have been the kind of virus from which the man died—the ordinary virus of the rabid animal which attacks and bites and not the intensified "laboratory virus."—T. W. H.]

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symptoms rapidly disappeared when the strong intravenous injections were adopted. It is absurd to accuse the Pasteurian method of causing hydrophobia by weak subcutaneous injections, while compelled to admit it can cure the disease by strong intravenous injections. There is no escape from the dilemma. If the anti-rabic injections caused hydrophobia in Professor Murri's patient at the outset, they also cured him at the end.—T. W. H.]

Bradford.

A REPORT ON THE

COMPLETE ABANDONMENT OF THE OPERATION FOR REMOVING CALCULI ENTIRE FROM THE BLADDER,

AND THE METHODS EMPLOYED INSTEAD, AT THE CIVIL HOSPITAL, HYDERABAD, SINDH.

BY SURG.-MAJOR J. FORBES KEITH, M.D. & C.M. ABER.,
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SEEING an account of a discussion at the Medical Society of London in THE LANCET of March 21st, 1891, concerning the various methods adopted at the present time for removing calculi from the bladder, I thought it my duty to lay before the profession a report on the complete abandonment of the operation for removing calculi entire from the bladder, and the methods employed instead, in the Civil Hospital under my charge. As a preliminary observation I may remark that my experiences in this branch of surgery are, as far as I am aware, unique. In the course of the three years I have held this appointment I have operated 739 times for stone. In the month of May, 1891, I performed fifty operations for stone—thirty-seven lithotrites and thirteen by other methods,—to be subsequently described, all successful, notwithstanding that the thermometer stood at 104° in the operating theatre, and that the cases operated upon were indiscriminately undertaken as to age, sex, duration of disease, condition of health, or size of stone.

The first method: lithotrity.—As performed in this hospital there need be no longer any hesitation in calling it by that name, aspiration as an integral part of the operation being almost if not entirely abandoned. Lithotrity is always performed here when the screw of the largest lithotrite the urethra can readily admit coincides with the diameter of the stone—in other words, when the diameter of the stone is small enough to allow the two screws (male and female) of the largest lithotrite the urethra can readily admit to combine with a hold sufficiently powerful to crush the stone. One exception to this rule, as far as my experience goes, is when the stone is too hard to be thus dealt with, in which case the hammer-and-chisel method—to be hereafter described—is adopted. In my first attempts to crush such stones I have had two accidents in about 100 cases. Once I broke the female screw of a fine new lithotrite just out from home, and once dislodged the male blade from the female at the angle of the jaw and bent it backwards towards the screw. After the administration of chloroform the first step is to thoroughly wash out the rectum with Condy's fluid. Lithotrity cannot be elegantly performed if the finger in the rectum, intimately coöperating with the lithotrite or catheter in the bladder, is constantly coming in contact with fæces. The bladder itself must also be thoroughly washed out if the urine is in any way tainted, as it frequently is in the aged, after which it will be found more tolerant of the auxiliary fluid. When a sufficient quantity of the latter has been introduced, the point of the lithotrite on its first introduction is met by the index finger of the left hand immediately on a plane behind the sphincter ani, and is then guided by the finger through the prostate and into the bladder. The information gained is to me of paramount importance, as my finger in the rectum never loses sight (so to speak) of the relation between the stone and lithotrite in the bladder. Further, the quantity of auxiliary fluid, which is readily detected by its bulging behind the prostate; the position of the stone, with its relation to the lithotrite; the amount, character, and position of the débris, with its relation to the evacuating catheter, and any débris lurking amongst irregularities of the mucous membrane of the bladder, or behind an enlarged prostate—all these conditions are readily distinguishable by the finger in the rectum coöperating with the lithotrite or catheter, as the case may be, in the bladder.

I mentioned that lithotrity was performed when the diameter of the stone coincided with the screw of the largest lithotrite the urethra was capable of readily admitting; but although the stone is broken up in the first instance by the largest instrument admissible, a size smaller is preferred to finish the operation. Experience taught me this lesson. Some stones break up into finely divided mud or sand, which, mixing with the fluid in the bladder, wells up between the lithotrite and the walls of the urethra. It has various colours, according to the quality of the stone, appearing sometimes almost milky white, and passing through various shades, such as from meerschaum and fawn to brick red. The welling up of these colours always warns me not to go on working with the largest lithotrite the urethra can admit, but to change it for one of much smaller size, otherwise great difficulty will be found in removing it owing to the instrument having lost its glossy smoothness and become coated by a bluish-black film, and the urethral mucous membrane itself will be found to have lost its oily smoothness and become coated by finely divided mud. *En passant*, I may mention that chemical action, moreover, is not absent, for I have noticed effervescence during the operation when crushing meerschaum-coloured stones, and their débris has a peculiar way of adhering to the walls of the bladder, requiring force to separate it, and gas bubbles remain intimately mixed with débris until it becomes dried. Along with these there is another danger mentioned by Surgeon-Major Keegan—viz., spasmodic irritation caused by the frequent passage of instruments along the mucous membrane of the urethra, and there is also the continual friction of the male blade of the lithotrite; but the result of all these circumstances can be avoided and all anxiety removed by operating with a smaller-sized lithotrite than the urethra is capable of readily admitting. This is my invariable practice, and I have rarely any cause now for anxiety, except when operating upon very young children with very narrow urethræ, which admit with difficulty, and sometimes not at all, the smallest lithotrites that can be made.

I mentioned that as the aspirator is very rarely used for the purpose of evacuating the débris of calculi from the bladder, the term "lithotrity," as the operation is performed here, is peculiarly applicable. No surgeon familiar with the numerous manipulations connected with the various stages of this operation can have failed to observe that the expulsive power of the bladder is normally greater than might at first be anticipated. As illustrations it may not be considered superfluous to bring forward the following facts, which are intended to have a twofold significance, not only to demonstrate the expulsive power of the bladder, but also to show what reasons led me to abandon the aspirator as a chief factor in the operation.

1. Some time ago a boy about eight years of age was admitted into hospital suffering from retention of urine. He was brought into the operating theatre, and his case with the diagnosis was handed to me. He was placed on the table, and it was observed that urine had accumulated to some extent in the bladder. A catheter was introduced, but it proceeded only a little way when it was found that there was a small calculus impacted midway between the scrotum and glans penis. Under chloroform I tried to move it, but it would not stir out of its place. When I was making preparations to slit open the urethra the patient made a violent strain, urine was voided, and the calculus shot clean out of the urethra over the table and fell into the basin below. No one would have thought of introducing an instrument into this child's urethra with a diameter equal to that of the little oblong pebble so summarily expelled from it. Calculi carried high up the urethra and impacted in like manner are, as every surgeon is aware, of frequent occurrence. 2. While pouring the auxiliary fluid into the bladder preparatory to the operation, and holding the nozzle of the syringe in the meatus urinarius externus, I have observed, when the patient was not profoundly under the influence of chloroform, the piston, which had been pressed quite home and all fluid expelled from the syringe, gently but surely forced back again, and I have also observed it rising sometimes to the middle of the syringe, and sometimes actually reaching its

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mouth. 3. Again, I have noticed that after the introduction of the lithotrite, when the auxiliary fluid could not make its way up between the walls of the urethra and the lithotrite, it forced its way up between the stems (male and female) of the lithotrite, and appeared like little beads on its shaft above the glans penis, and during the operation these beads will be seen coloured by the débris. 4. Lastly, on the first introduction of the evacuating catheter, whilst, on the one hand, I have often had it blocked so effectually that the aspirator was powerless in removing the obstacle, that the introduction of the stilette and the application of force were also as ineffectual, and at last the catheter had to be withdrawn and another used in its place, as valuable time would be occupied in extracting the débris from it; on the other hand, I have seen a column of débris expelled from its mouth and shot in a parabola six feet beyond the operating table. This *vis a tergo* appeared so great that the addition of *vis a fronte*—viz., aspiration—seemed to me superfluous.

Then, again, I had certain objections to the aspirator. 1. I have observed that after the first movement of aspiration a certain amount of mud is always mixed up with the fluid in the aspirator, and it increases indefinitely as aspiration proceeds, and for a longer or shorter period muddy water is thrown backwards and forwards between the aspirator and the bladder. I have noticed the fluid get so impregnated with mud that I could not see the heavier particles falling through it, and could only know I was gaining ground by the general accumulation of débris at the bottom of the bulb. 2. Again, in old subjects, who are invariably sufferers more or less from genito-urinary irritation, whose prostate glands and adjacent structures are congested, softened, and sometimes organically changed, whom one can scarcely touch without exciting hæmorrhage, in them it is found that, with the first aspiratory movement, not only mud, but (however delicate the manipulations may be), blood is also mixed with the fluid in the aspirator. 3. If care be not taken to keep the evacuating catheter always full of fluid at the moment it is connected with the aspirator, air will along with the mud and blood get churned backwards and forwards between aspirator and bladder. 4. During aspiration I have seen patients wince, even when under chloroform, when débris was forced against the walls of the bladder; for, if it rattles against the catheter, as it may be distinctly heard to do, it must also beat with an equal amount of force against the vesical walls. This may injure the mucous membrane of the bladder and evil results follow.

The two orders of facts connected with the bladder and aspirator were being continually contrasted together in my mind, and I confess to entertaining a certain amount of prejudice against the faults inherent in the construction of the aspirator. But although these defects kept me constantly thinking upon the possibility of remedying them, it never for once entered my mind to abandon the aspirator until I had actually done so for some time. Unwilling to pass blood through the aspirator if I could avoid it, and searching to counteract the defects of the instrument, I unconsciously found myself using the aspirator as a syringe. It was applied to the evacuating catheter, its contents gently emptied into the bladder, and the stopcock shut; after which the aspirator was removed in order to be refilled and used again in the same way. Then the water, with large fragments of débris tinged more or less with blood, would escape, always with force, sometimes with considerable violence, from the mouth of the evacuating catheter. By a few repetitions of this process I found that I not only got rid of the anxiety of having the aspirator contaminated with blood, but also of the to-and-fro movement, between the bladder and the aspirator, of débris, blood, and air; and that the evacuation of the débris from the bladder was as effectually performed as if I had been working with the aspirator itself. Having unconsciously groped my way so far in counteracting the defects of the aspirator, the next step was easy and quite natural—viz., to use a syringe instead of the aspirator, which had for some time now been performing this degraded office, with its own proper function held in abeyance. I continued to use the syringe for some time, and then an apparatus was contrived which was very simple, but at the same time very effective, and which successfully competed with the aspirator, and superseded the syringe, in the process of evacuation of the débris of calculi from the bladder, and adapted itself with peculiar facility to the coöperative process mentioned above between the finger in the rectum and the catheter in the bladder. At the other end (from the eye) of the evacuating catheter, and on the opposite side, an opening is made, close up to its mouth, similar to the eye, or like the hole of a flute, which can be closed by the finger or thumb as may be found convenient. This evacuating catheter is then attached to one end of a long piece of india-rubber tubing, which by its other end is connected with a little pipe, or tube, which issues from the bottom of an old kerosene oil tin-case, partially filled with boracic acid lotion of the proper strength. This simple apparatus forms a complete substitute for the aspirator in urethral lithotrity. When the stone is crushed and ready for evacuation, the catheter is oiled and introduced into the bladder, an assistant in the meantime pinching the indiarubber tubing between his finger and thumb to keep the water from flowing out of the catheter while it is being introduced. When the catheter is in the bladder the operator closes the flute-like opening with his thumb or forefinger, and the assistant simultaneously sets the indiarubber tubing free. Fluid flows into the bladder for a short period, and then stops of itself, as can be easily seen by a glass indicator which is attached to the apparatus. Directly the fluid stops, the operator with a simultaneous movement opens the flute-like eye in the catheter and pinches the india-rubber tubing. Fluid and débris issue with violence sometimes, always with sufficient force, from the flute-like opening. A repetition of this process for a few times, and the débris of most stones is rapidly evacuated. In children, where the débris must be reduced to finely divided powder or mud before it can get through the eyes or cannulæ of such small catheters, evacuation of the débris can be effected by merely letting the water fall out of the syringe into the mouth of the evacuating catheter without in any way connecting them, and the reflex action of the bladder thus excited will at once cause the evacuation of the débris. With the irrigation stopcock made by Joseph Leiter of Vienna (which can be opened and shut by a backward and forward movement of the thumb), attached to the india-rubber tubing instead of the evacuating catheter itself, a permanently going syringe can be held in the hand, and its nozzle can be connected with, or withdrawn from, the evacuating catheter at pleasure. Since receiving my new instruments from home (in February last) I have performed 100 operations without a death, and 157 with three deaths.

(To be concluded.)

NOTES OF A CASE OF EXCISION OF THE RECTUM.

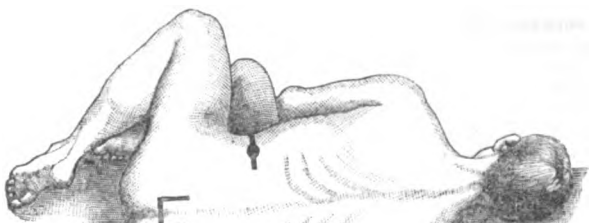
BY W. H. BROWN, F.R.C.S. IREL. &c.,
SURGEON TO THE LEEDS INFIRMARY.

EXCISION of the rectum for malignant disease has (with a few exceptions) hitherto been confined to growth affecting only the anus and that portion of the bowel within reach of a perineal wound. In that class of case where the disease has commenced high up perineal proctectomy is not possible, and the palliative colotomy was until very recently the only means of affording relief to the distress caused by rectal cancer. Kraske described a means of reaching the diseased bowel from behind, and it was after reading his account I was led to make the following attempt which, based on his idea, differs somewhat widely in method of procedure. The patient, a robust, healthy-looking man aged fifty-two, was sent to me by my friend, Mr. Wilson of Kirkby-Overblow. He had all the ordinary symptoms of cancer of the rectum, and was losing blood very freely each time the bowel acted. Upon examination the growth could be reached, but it was situated too high up to allow of an ordinary proctectomy. The bowel was, however, freely movable within the pelvis, and the finger could, though with difficulty, be passed beyond the disease. A left lumbar colotomy was first performed, and the patient returned home for a month prior to the major proceeding of excising the rectum being carried out. Five weeks later, the artificial anus being well established and acting freely, the lower segment of the intestine—i.e., between the colon opening and the anus—was thoroughly washed out with large quantities of carbolic lotion (1 in 80) twice daily,

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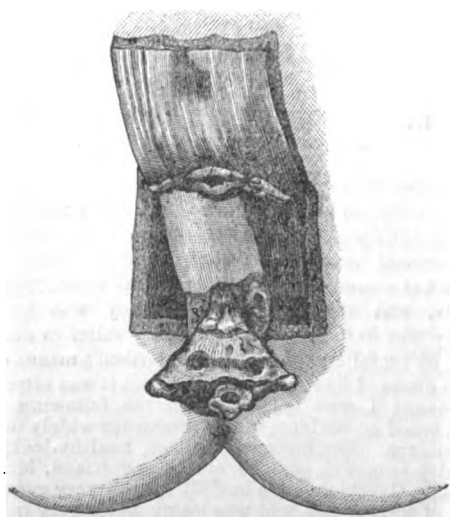
until the washings were quite free from fæcal taint; this was repeated on the two days preceding operation, and again just before the anæsthetic was administered. After ether had been given, a No. 12 silver catheter was passed into the bladder and held in position throughout the whole of the subsequent operation. The patient was then turned well over on to the right side and the thighs flexed upon the abdomen. A square flap, four inches in length and four in width (see Fig. 1), was raised from the posterior surface of the sacrum, the free edge being two inches above the anus and the attached border being opposite the third piece of the sacrum. This flap, which included in its

FIG. 1.



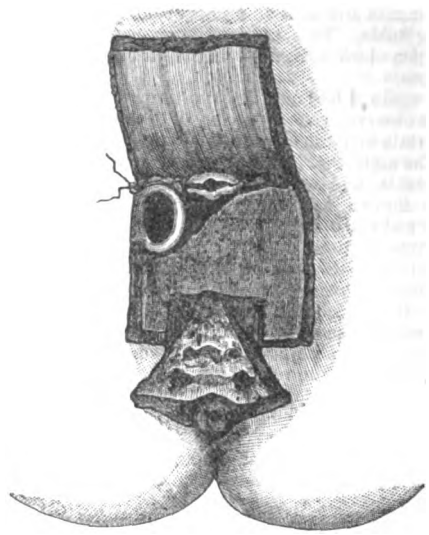
thickness all the tissues down to the bone, was turned *upwards*. The sacrum was then sawn transversely across at the level of the fourth vertebra, the lateral attachments below as far as the tip of the coccyx severed, and this bone "flap" turned *downwards* (see Fig 2). Hæmorrhage was very free, but was easily controlled by "clip" forceps and sponge pressure, a few larger vessels being tied. The finger was next passed through the anus well up into the rectum, and the gut gradually freed by means of scissors from its attachments. There was again smart bleeding, but it was easily restrained. On attempting to draw the bowel out of the wound, it was found that the disease extended higher than the level of the

FIG. 2.



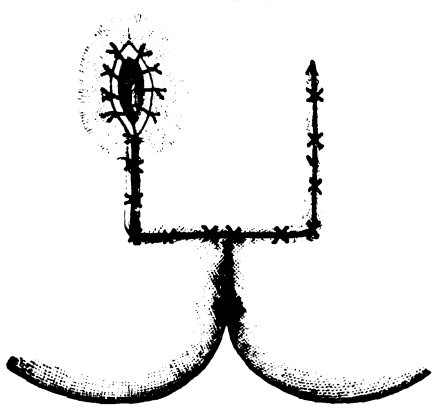
cut edge of the sacrum. A further portion of that bone (three-quarters of an inch) was therefore removed altogether. This gave the required space. The rectum was then divided just above the internal sphincter and drawn out of the wound, and slit up the posterior surface, the cut extending well above the upper limits of the growth. This posterior incision allowed of the rectum being opened out, and gave a clear view of the extent of the disease, enabling the removal to be undertaken with precision and deliberation. The bowel was now seized above the level of the growth with large pedicle forceps and cut away with scissors, the line of removal being half an inch above the upper limit of the disease. A few vessels in the bowel required ligature. The free end of the rectum was stitched into the upper angle of the wound (see Fig. 3), and plugged with a large sponge to prevent possible fouling of the cavity. All remaining bleeding points were then tied and the wound well filled with iodoform and gauze, after free irrigation with hot antiseptic lotion (perchloride 1 in 2000). The sacrum was then replaced and the skin flap turned down, and, free drainage being provided for, secured with a few points of suture (see Fig. 4). No enlarged glands were detected. The wound was dressed with dry wool, and firm pressure exerted by means of a bowel flannel roller. There was little shock; apparently the peritoneal

FIG. 3.



cavity was not opened. A few days after the operation the opening in the colon ceased to act, this being due to the "drag" made upon the bowel, causing the "spur" to disappear. The result was that fæcal matter passed downwards into the rectum, and, in spite of most careful and repeated dressings, the wound became foul, and the patient showed signs of septic poisoning. The wound in the bowel was therefore reopened, and the colon drawn out and divided. This effectually prevented any further fæcal escape into the rectum. In a future case I would deal

FIG. 4.



with the colon in this way, instead of again trusting to an ordinary colotomy. Beyond the accident the after-history is not important. The wounds healed slowly, taking some days to recover from the disturbance caused by the exposure to fæcal matter. The patient required the catheter so long as he was kept on his side, but passed urine without assistance so soon as he was allowed out of bed. His general health was well maintained, and he suffered but little pain.

Remarks.—As the operation constitutes a new departure in dealing with rectal cancer, I have described at length

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the method I adopted which, though based on the operation described by Kraske, still differs materially in many points. After reading Kraske's description of his operation and, further, the case related by Dr. John C. Davie,[1] it struck me that the incisions there mentioned might hamper one in manipulation, especially if the growth should be higher up in the bowel than at first diagnosed. I therefore made some experiments on the cadaver and decided on the incision I have described, as giving greater space without involving the sacrifice of any important structure. Again basing my action on the same experiment, I divided the sacrum transversely; this enabled me to get a clear view of the cavity. I was much struck by the extremely close relationship between the rectum, bladder, and urethra, and felt that one of the main difficulties to be avoided was wounding either of the latter. This led me to have a silver catheter kept in the bladder throughout the operation. Though this is not mentioned in either of the accounts I have quoted, I am sure it is necessary to enable the operator to avoid calamity whilst stripping off the rectum from the front. I found it by no means easy to define—when aided only by the finger in the rectum—the proper height at which to divide the bowel. I therefore slit up the rectum; this gave me a full and complete view of the area of disease, without in any way adding to the hæmorrhage or fouling the wound. This—which to me was a great help—does not appear to have been thought necessary in the previously recorded cases. The remainder of the steps of the operation were conducted on the ordinary principles employed in dealing with large open cavities. The operation is still on its trial. It seems, so far as can be judged from the few instances recorded, to afford opportunity of dealing with the particular form of cancer at least as successfully as many other recognised operations. It is also superior to the ordinary proctectomy in that it allows of a wider removal. I am, however, sure that it can only safely be employed in those cases of rectal cancer which are seen and diagnosed at an early stage, and should never be undertaken unless the limits of the disease can be clearly defined, and when the bowel is felt to be freely movable. It does not seem to be likely that it will ever be practicable to restore the continuity of the rectum with the sphincter after extensive removal, as the attempt would involve great tension, too great to permit of rapid union. The opening made into the pelvis is large, but its very size, I think, enhances the safety of the operation, for it permits of all parts involved being fully in view, and enables the needful dissection to be undertaken with precision, and, further, all bleeding points are well under control. Again, thorough drainage can be secured with certainty. In a smaller wound these difficulties and dangers would be less easy to overcome. It is certain that, should the operation be further tried, many variations and improvements will be suggested. For the present I offer this single experience, and I have endeavoured to point out the difficulties as they occurred to me.

The accompanying sketches illustrate the lines of incision and the appearance of the wound in the various steps of the operation, together with the present condition of the parts.

Leeds.

CONCEALED ANTE-PARTUM HÆMORRHAGE AND PLACENTAL APOPLEXY.[2]

BY JOHN B. HELLIER, M.D. LOND.,
LECTURER ON DISEASES OF WOMEN AND CHILDREN IN THE YORKSHIRE COLLEGE.

THIS paper is based upon observations made on the same patient in two successive pregnancies.

Mrs. A——, aged thirty-nine, mother of nine children, was daily expecting confinement; she is habitually sallow and anæmic, not strong, and liable to migraine. On August 16th, 1889, she was sitting quietly in her house sewing, when she suddenly at 4 P.M. became alarmingly faint. She had received no injury, and no shock physical or mental. There was no vaginal hæmorrhage, nor had there been any during the pregnancy. I first saw her at 6.30 P.M. She was extremely faint, with very weak pulse, and was decidedly blanched. She was not unconscious, and was said to be much better than she had been when the symptoms commenced. The os uteri was just sufficiently dilated to admit the tip of the finger; the membranes were intact, and the head was presenting. Very slight labour pains were present, but there was no coloured discharge. The patient was obviously very ill, and the probability of the presence of intra-uterine hæmorrhage at once suggested itself, but still it was not impossible that some other cause might have occasioned syncope in such a patient, especially as total concealment of accidental hæmorrhage is most uncommon. At 7 P.M. the pains were coming feebly, and I decided to give some ergot and to rupture the membranes. The liquor amnii was almost perfectly clear, and there was still no hæmorrhage. The head now came well into the os. As there seemed no indication for active interference, and as the patient was no worse, I awaited the course of events. At 11 P.M. a dead male child was born by natural efforts after an easy second stage. Now the diagnosis was placed beyond doubt. There is a phenomenon sometimes described in obstetric reports as an "avalanche." Such an obstetric avalanche was now seen. The child was followed by a gush of blood-stained liquor amnii and by a huge quantity of dark blood-clot, which at once filled an ordinary wash-hand basin, and also by the placenta. Fortunately there was no further hæmorrhage after this, and the patient was not obviously worse for what had just happened.

Convalescence was tedious, the patient suffering much from headache and insomnia, but ultimately recovery was complete. The patient again became pregnant about September, 1891, and progressed satisfactorily up to Jan. 3rd, 1892. Then she had an attack of metrostaxis, which lasted for two days and then subsided, but was followed by a very slight show for several days. On Feb. 8th, 9th, and 10th she had a return of the metrostaxis, which again was followed by a very slight daily show. On Feb. 26th hæmorrhage occurred rather severely, this time accompanied by slight pain. She also became very faint. I saw her about 9 A.M., and found on examination that the cervix was slightly patulous, and that it was difficult to reach any presenting part through the long cervix, but that the head was there. I inserted a Barnes' hydrostatic dilator and administered ergot, and at noon she was delivered of a dead female six-months' fœtus (not macerated). The placenta came in six or seven minutes, and there was no post-partum hæmorrhage. A small amount of clot accompanied the placenta. The mother made a good recovery.

Description of the placenta.—The placenta weighed seven ounces and a half. The fœtal surface was not abnormal but the maternal surface presented in its centre a soft fluctuating nodule as large as a good-sized walnut; on incision this was found to be occupied by a clot which could be enucleated easily. The clot was covered above by a layer of placental tissue, a quarter of an inch thick. Close to this there had been another hæmorrhage of about the same extent, but the clot had almost all escaped, and the smooth cavity which was left was torn open. There were several other smaller infarcts in different parts of the placenta, and at one spot the tissues were very soft and pale, as though an old infarct had broken down.

Remarks.—The patient presented, in the first place, an instance of concealed accidental hæmorrhage. Dr. Galabin says that at Guy's Hospital in 23,591 deliveries there were thirty-one cases of accidental hæmorrhage, and of these only one was concealed. Probably these figures under-estimate the frequency of the condition, but it certainly is exceedingly rare. Accidental hæmorrhage occasions some of the most dangerous conditions an accoucheur has to face. In 106 cases collected by Goodell 51 per cent. of mothers and 94 per cent. of children were lost. The present case was not an extreme one, the blood forming a localised clot and not bursting into the amniotic sac. In the last pregnancy we see an example of the occurrence of metrostaxis during pregnancy, a phenomenon which is not so very uncommon, and concerning which I have already made a communication to the Leeds and West Riding Medico-Chirurgical Society. In this instance we are able to demonstrate a cause for its occurrence. Hæmorrhage took place at more than one date into the placental structure, and probably also upon the uterine surface of the placenta. The first hæmorrhages did not interrupt the pregnancy; the

[1] Brit. Med. Jour., Feb. 13th, 1892.

[2] A paper read at the Leeds and West Riding Medico-Chirurgical Society, Feb. 5th, 1892.

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latest one would have done so, I believe, even without artificial dilatation of the cervix. The placenta as shown to the above Society is a very interesting and typical specimen of placental apoplexy. There was no history of syphilis or tubercle in this case. On microscopic examination a section through the placenta at the edge of the infarct showed some disease of the vessels, but no decided fatty change.

Leeds.

GASTRO-JEJUNOSTOMY FOR PYLORIC CANCER; RECOVERY.

BY F. A. PURCELL, M.D., M.CH.,
SURGEON TO THE CANCER HOSPITAL.

F. M——, aged forty-four, married and the mother of two children, was admitted into the Cancer Hospital on March 3rd, 1892. The patient, a spare woman, weighing (nude) 5 st. 13½ lb., is suffering from cancer of the pylorus and stomach wall. She complains of pain in the stomach and the right hypochondrium; vomiting (no blood) comes on about two hours after taking food; bowels irregular, habitually constipated, motions dark, with débris of blood; heart has a reduplication of first sound; lungs sound; urine alkaline, contains no albumen. A distinct tumour is to be felt over the pylorus, nodulated and movable, extending from the right to across the middle line of the umbilicus. The stomach is enlarged; a succussion splash is distinctly produced. The nature of the disease was explained to the patient. The gradual wasting, constant vomiting, and little or no fæces passed, confirmed the serious outlook of gradual starvation and exhaustion, caused by disease occluding the outlet of the stomach. After a consultation at which the condition was confirmed by my colleagues, it was decided to explore the pylorus and, if feasible, to perform pylorectomy, and gastro-jejunostomy by means of Senn's decalcified bone plates. The patient gave her ready consent to the resection of the pylorus. Preliminary to operation, on March 11th, the stomach was commenced being daily washed out by means of a long soft rubber syphon tube, passed into the stomach by raising the tube (with a funnel at top) and pouring the fluid in; then lowering the end below the bed, syphon action, the fluid was all drawn off, together with any débris of food and mucus; a quart of warm water was first used, then a quart of a 2 per cent. solution of salicylate of soda, finishing with a quart of warm water to thoroughly get rid of the salicylate of soda. The passing of the tube and the washing out process gave no distress, unpleasantness, or discomfort to the patient. Nutrient enemata were administered per rectum night and morning; peptonised milk and essence of beef only were given by the mouth. This was continued for nine days. On March 18th, the day prior to operation, the stomach was not washed out, owing to a feeling of weakness and faintness; that night the bowels were cleared out by a soap-and-water injection. At 10 P.M. she partook of five ounces of peptonised milk.—March 19th: Day of operating. Nothing given by the mouth. At 7 A.M. a beef-tea enema was administered, and at 2 P.M., just prior to being placed on the table, an ounce of beef-tea and an ounce of brandy were administered per rectum. Full preparations were made for resection of the pylorus, and for the gastro-jejunostomy two of Senn's decalcified bone plates were threaded with four long threads, the two end ones of Chinese silk, the two lateral of chromicised catgut; fine intestinal needles threaded with fine chromicised catgut for suturing the peritoneal surfaces together. A hot-water bed was placed on the operating table for the patient to lie on to keep her warm. She was anæsthetised with chloroform by Dr. Bourns. I arranged with him, so soon as I had completed the incision in the abdominal wall and had thoroughly explored the diseased pylorus, that he should ease the patient out of the chloroform, supplying enough to simply control her. This Dr. Bourns satisfactorily carried out. Time occupied, fifty minutes; amount of chloroform used, six drachms; no sickness. I was assisted by my colleague, Mr. F. B. Jessett. A four-inch incision was made in the middle line from the umbilicus towards the ensiform cartilage. The stomach presented itself in a much enlarged condition, and the free border on the right was implicated with disease for about four inches, extending into the pylorus and encircling the duodenum down to and fixing it to the spine below. Disease on the stomach wall was the movable tumour felt on examination. It was self-evident that the disease was too extensive to attempt resection of the pylorus. This, then, was abandoned. Gastro-jejunostomy was proceeded with. The jejunum was sought for and found deep down above the border of the left kidney and brought outside the abdominal wound. Its course towards the duodenum was travelled along until a part which came in easy apposition with the front wall of the stomach was selected to attach to the stomach. A piece about four inches was included between two round rubber elastic ligatures. These ligatures were lightly tied with one knot and clamped with torsion forceps to prevent slipping. The anterior wall of the stomach was drawn out and warm sponges packed around; a vertical fold was pinched up with the fingers, avoiding bloodvessels; a three-quarter inch incision was made with scissors through the entire coats; the mucous membrane that protruded was pared off, and a few bleeding points were secured and tied. One of the bone plates was then inserted through the opening. The lateral threads of chromicised catgut armed with needles were passed through the entire coats from within outwards, about one-eighth of an inch from the edge of the wound. The end threads of silk were brought out at the ends of the opening, and not passed through the walls of the gut; the several threads were held so as not to cross or get mixed.

The portion of jejunum already isolated was now taken; its internal aspect was pinched up into a transverse fold and cut across longitudinally three-quarters of an inch to correspond with the opening in the stomach; the mucous coat protruding was pared off, any bleeding vessel being tied; the second bone plate was passed in, and the several threads treated as above described. The threads were now drawn taut, and my assistant adapted the plates in apposition, the fingers of both hands encircling fixed them; the bottom gut ligatures were now tied firmly, but not too much squeezed; the tying was done by drawing the threads longitudinally down between the surfaces; the corresponding end threads of silk were tied; and, lastly, the upper lateral ones of gut; ends of all were cut short. My assistant still keeping hold of the plates, I passed some six quilt[1] sutures around the upper border and ends, securing the peritoneal coats of the stomach and bowel together; the under border was not touched. The round rubber ligatures were released from the bowel. The toilet completed, sponging of the abdominal cavity was necessitated to get rid of some ascitic fluid; the channel seemed perfectly stanch. The abdominal wound was brought together with silk-worm gut ligatures, dressings, and flannel binder applied completed the operation, which lasted fifty minutes. Much time was wasted in exploring the pyloric disease. The patient was nice and warm, and came easily out of the chloroform, having consumed six drachms. I thank Dr. Bourns for the way he managed the anæsthetic, and also thank my colleague Mr. Jessett for his kind assistance and for the admirable way he held the bone plates when inserted, which is a most material point in the operation.

That night, on account of severe pain, a hypodermic injection of one-sixth of a grain of morphia was inserted in the arm, after which she slept for an hour and a half. She was given a teaspoonful of tepid water every half hour; no sickness; a few drops of brandy were added later on during the night; urine drawn (seven ounces).—20th: Two teaspoonfuls of peptonised milk with the same quantity of water and four minims of brandy were given every hour; little pain. Slept three hours; urine drawn (nineteen ounces). Brandy increased to one ounce.—21st: Progressed since last report; sleep extended from six to seven hours. Milk-and-water has been partaken of freely, and to-day she has had mutton broth. Plenty of urine passed, no sickness, and little pain.—22nd: A soap-and-water enema relieved the bowels; diet increased by addition of eggs; brandy discontinued.—23rd: Fish dinner, which she enjoyed. Bowels moved by simple enema; all sutures in abdominal incision were taken out. The wound looks well; the dressing had not been touched since first put on.—27th: Removed from special ward to the general ward. She soon made a move up to the couch, and began to partake of the usual meals, without any distress

[1] The quilt or square suture for intestinal work was introduced by Mr. Halstead of Baltimore, and is a great improvement on the Lembert suture.

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or discomfort. Temperature on the 20th, at 10 A.M., went up to 100°F.; on the 22nd, at 10 A.M., it was normal; it slightly varied until the 26th, after which it was not taken. Pulse was steady all through, at 86 to 80. The patient is improved in appearance, and has gained flesh. Discharged from hospital on April 14th.

I thank my house surgeon, Mr. Sylvester Willard, for the way he prepared the patient for operation, and the care he bestowed during the after treatment.

Manchester-square, W.

ACQUIRED DEAF-MUTISM.

BY R. SHALDERS MILLER, M.B. LOND., F.R.C.S. ENG.

THE popular notion that the deaf and dumb are always born in that condition is by no means correct. Deafness may be acquired in the early months of life, and if it persist it results in dumbness. I can offer no information as to the relative frequency of congenital and acquired cases of deaf-mutism, but I wish to show that in some instances, certainly, the acquired form may be remedied. Children often become deaf in the early years of life, and there seems to be no reason why the same should not occur in their early months; and in the latter event they will never learn to speak naturally unless the cause of deafness be removed. I have met with one example of the recovery of fair hearing without treatment, in adult life or in adolescence, in a man who had been regarded as a deaf-mute; but he never learned to converse, though he could utter a few short words, and could answer questions if they were so formulated as to allow of monosyllabic responses. This man had not learned "lip-speaking"; he heard ordinary sounds around him, but he always wrote his remarks if they needed to be put into several words. Another patient, a woman, presented a very similar history and condition, but was unable to articulate any intelligible sound; she replied to questions by signs only. She was, however, of somewhat feeble intellect. The case to which I would more particularly call attention is that of a child, F. P——, who was first brought to me in April, 1889, and was then four years old. She was absolutely deaf to all sounds around her, and it was impossible to get any trustworthy indication as to hearing by conduction through the cranial bones. On examination the child was found to have slight otorrhœa, the membranes of the drums were somewhat retracted, there was chronic catarrh of the naso-pharynx, and the tonsils were greatly enlarged. I removed both tonsils, treated the meatuses and naso-pharynx by ordinary means, and inflated the tympana by Politzer's method. In a few days after treatment began the child gave clear indications of hearing, being startled by loud noises, and was evidently pleased with the sound of church bells &c. She would also answer a knock at the door, and imitated the "clucking" of poultry. For many weeks, however, she made no attempt to speak, and it was difficult for her parents and sister to overcome their constant habit of communicating with her by signs, for which she was extremely watchful. One of the earliest words she learnt was her own name. In about six months she was sent to school with her sister, where she learnt much more quickly, especially from her schoolfellows. She has had several relapses of deafness due to cold during the last three years, but has been promptly relieved by inflation. Her mother has laterly supplied me with a list of over sixty words which she pronounces plainly, one of the longest being "grandmother," and another (one of the most difficult perhaps) "Irish." The list also contains some sentences, such as—"Wait a minute," "I'll tell father," &c. She pronounces all the letters of the alphabet clearly except G, K, N, Q, R, S, and Z, which are less distinctly articulated separately, though words containing those letters are fairly well spoken. She is not quick at figures, but names them perfectly up to seven, and less plainly up to twelve. Before her meals she says "grace," consisting of eleven words exclusive of "amen," which she calls "apen." She also repeats a prayer of nineteen different words, which are well articulated, though in a childlike fashion.

Another case of acquired (as I believe) deaf-mutism was that of a child two years old, who was brought to me for treatment about seven years ago. This child had never given evidence of possessing a trace of hearing. Her drums were retracted, but she had no perceptible catarrh of the external meatuses. I tried inflation, and at the first attempt succeeded in filling the left tympanum with air, but not the right. After two or three visits the child noticed sounds—e.g., she looked round sharply when I entered the room, though her back was towards the door. The first sound this patient gave evidence of hearing was the loud clacking noise of a metronome which I set in motion behind her back. The child was under observation for only about three months, as her parents, being very poor, had to leave the neighbourhood to obtain work; but before going away she had learned to recognise her own name, and responded readily when it was uttered. Up to the time of my losing sight of the case I had never been able to inflate the right drum, but probably should have done so later on, especially if I had used the tympanic catheter. It was very noticeable that on the occurrence of any sudden sound the child invariably turned towards the left, the hearing side. The only other case of deaf-mutism that has been brought to me for treatment was certainly congenital, and curative treatment was impracticable.

Twenty years or more ago a French surgeon, whose name I forget, suggested that deaf-mutism might be due to Eustachian obstruction leading to retraction of the membrana tympani and consequent pressure upon or stretching of the chorda tympani, and that the injury to this nerve was the cause of dumbness, from which, perhaps, one may infer that he regarded the chorda tympani as a motor nerve of the tongue, or as being in some way concerned in the production of articulate speech, whereas it is a secretory nerve as to the submaxillary and sublingual glands and sensory as to the tongue. Any cause of total deafness in an infant would prevent speech, and therefore in all cases of deaf-mutism in children a removable source of deafness should be carefully sought and, if found, suitably treated. In connexion with this subject I would call particular attention to the use of the tympanic catheter, by means of which the drum may sometimes be successfully inflated when all other means have failed. I have also used it with excellent results to wash out an accumulation of mucus from the tympanic cavity, employing for that purpose a warm solution of pure carbonate of soda, four grains to the ounce.

Gloucester-place, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

AN ANEURYSM OF THE SUPRA-ORBITAL ARTERY CURED BY PRESSURE APPLIED BY THE PATIENT'S THUMB.

BY WM. MURRAY, M.D., F.R.C.P. LOND.

THE case of "Cirsoid Aneurysm of the Eyebrow" shown lately by Mr. G. R. Turner at the meeting of the Clinical Society recalls a case which seems worthy of record. The subject of this aneurysm was captain of a ship, and was treated in Charlestown, U.S., first of all by digital pressure and then by proximal ligature, for a small aneurysm of the supra-orbital artery, about three-quarters of an inch above the notch. Although the sac seemed to be consolidated and partly absorbed before he left Charlestown, another pulsating swelling appeared during his next long voyage. Having had experience of the digital pressure treatment, he of his own accord, while at sea, applied pressure in the following manner with success. He sat on a chair in front of a strong table and placed the right elbow on his knee, the uplifted forearm being supported by the edge of the table in front of him. The head was then brought down on the thumb, which was applied on the near side of the aneurysm just above the supra-orbital notch with sufficient firmness to stop pulsation in the swelling above. In this position the poor fellow, supported by the sympathy and succour of his men, held on for several hours, and was rewarded by finding that the tumour had become quite pulseless and solid. A few months after this I

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examined him, and found a small cicatrix on the forehead marking the site of the operation, and below it a slight thickening over the site of the second aneurysm, which had, I think, developed in the ligatured artery on its near side. Probably this was the origin of the second aneurysm, because the patient strongly averred that there was no return of the original swelling. Whatever value this case may possess from a surgical point of view is greatly enhanced by the almost romantic heroism of this "patient who healed himself."

Newcastle.

CASE OF HEMI-ALBUMOSURIA.

By J. WESTMORLAND, L.R.C.P. EDIN., M.R.C.S.

ON May 10th, 1891, I was sent for to see a lady, whom I found suffering from influenza. A few days after the febrile stage had subsided she complained of frequent micturition and an uneasy pain, which seemed to me to be about the base of the bladder. I directed her to send me some of her urine for examination. On adding a few drops of nitric acid to it in a test-tube it became cloudy; then, after applying heat and boiling, it became perfectly clear. I threw this away and thought no more of it, as in the course of a day or two the symptoms she had complained about ceased. About a month afterwards she had a return of these unpleasant symptoms, when I again examined the urine, adding nitric acid to it and boiling, and obtained exactly the same results as on the previous occasion; but this time after boiling I placed it in my test-tube rack. Accidentally looking at it next day, I noticed a deposit of fully an eighth in the tube. I boiled this again, and found that the precipitate entirely disappeared, but it was again thrown down on cooling. The same results followed on treating it in a similar manner with a saturated solution of picric acid. On floating it on potassio-cupric tartrate solution a distinct rosy red tint (biuret reaction) was observable. On treating it with a 10 per cent. solution of sodium chloride no change was observed when cold; but on boiling it became cloudy, and when again cold a white flocculent precipitate settled down. Saturated solutions of sodium chloride and magnesium sulphate, when added, threw down white flocculent-looking precipitates. On treating it with Tauret's reagent (potassio-mercuric iodide) a white precipitate was obtained. With the addition of alcohol it became very cloudy. In February last, on one or two occasions, on adding acetic acid to the urine, after the lapse of some considerable time, a gelatinous-looking cloudiness was observable. After a still longer time this settled to the bottom of the tube in a gluey looking precipitate. On boiling this disappeared, and, after cooling and being laid aside all night and part of the next day, was again to a much smaller extent deposited. This was peculiar, and what the explanation is, it is difficult to say; on all other occasions when treated with acetic acid only very slight cloudiness had been observed, which on boiling disappeared, but when again cool a slight white precipitate became observable. The specific gravity of the urine has ranged from 1012 to 1015, in reaction slightly acid, and under the microscope no casts of tubes, and nothing but some amorphous urates have been observed.

After the results I obtained upon treating it with nitric and picric acid, and the biuret reaction with potassio-cupric tartrate solution, I concluded that this urine contained hemi-albumose; this condition has continued since I first perceived it, the hemi-albumose being present in greater or less proportions ever since. My patient has no symptoms of osteomalacia, suffers from no purulent discharge of any kind, has no gastric trouble, but suffers occasionally from slight leucorrhœa. During my attendance I have had occasion to make a uterine examination, and found a small growth in the anterior uterine wall, the exact nature of which has not yet been determined. Since she had influenza in May last, the time I commenced attending her, she has never been well, and gets fatigued very easily. Prior to this she enjoyed average health. Is it not very probable that this condition of urine may be more frequent than is generally supposed? When one tests for albumen with nitric acid and finds any slight cloudiness to disappear on boiling, the urine is generally cast away and no more attention paid to it. I must honestly confess my attention was only accidentally directed to this condition of the urine on casually looking at my test-tube rack the following day after I had tested in the ordinary way.

Manchester.

A CASE OF HYDRENCEPHALOCELE; REMOVAL; RECOVERY.

By C. M. FEGEN, L.R.C.P. EDIN., M.R.C.S. &c.

AT the end of 1890 I delivered Mrs. —— of a female child. Labour was very prolonged through the existence of a tumour projecting from the occiput of the fœtus after birth the size of a medium-sized orange. This was diagnosed as a hydrencephalocele, pressure causing such diminution in its size that the portion of brain contained in it could be distinctly felt, though it could not be returned into the cranial cavity. The child was well developed at birth, but it began to waste at the end of about the eighth day. Ten days later—i.e., when nearly three weeks old—the tumour became turgid and very black in colour (at this time it was the size of a large orange, having steadily increased in size from about the end of the first week; no doubt the rapid emaciation of the child was due to the enlargement of the tumour,) causing the child great and continuous suffering. The child became very much worse, and appeared to be dying. The covering to the tumour had gangrenous sloughs all over it, and the integument peeled off on being touched. As a *dernier ressort* I decided to remove it. This I did by means of four double strong catgut ligatures passed through and through at the point of junction between the cranium and the tumour; and tying very lightly and separately I then sliced off the tumour, and found it to consist of gangrenous integument, meningo-opalescent fluid (about one ounce and a half), and a piece of brain substance about the size of a walnut. The child remained in a critical condition for about ten days, the pedicle sloughing and discharging very putrid pus. At the fortnight's end the ligatures came away and the child made an uninterrupted recovery. Indeed, some improvement was noticed within a few hours of the operation.

I cannot account for the gangrenous condition except by attributing it to the increase in the size of the tumour. The child was very well attended to, as the parents are most intelligent people. The tumour was kept well wrapped in cotton-wool. The child is now over twenty months old; is fairly intelligent and bright; small in size; health is very fair. She cut two teeth at six months, but none since. Occiput shows three distinct ridges running to a central prominence, just posterior to the foramen magnum, the site of the protrusion. This seems to be filled up with some fibrous material. I am well aware that most teachers of surgery advise that these tumours should be left alone; but when there is evident gangrenous sloughing and the child's life is endangered by it, I think it must be considered not only justifiable, but even necessary, to operate.

Brandon.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

KING'S COLLEGE HOSPITAL.

TUMOUR OF THE LEFT FRONTAL LOBE.

(Under the care of Dr. FERRIER.)

THE case, the particulars of which are given below, is one of considerable interest, and though it resembles closely in many respects others which have been from time to time placed on record, yet the completeness of its history and symptoms fully justifies its claim to a place in our columns. It illustrates the difficulty often met with in coming to a conclusion whether the origin of the growth was from meninges or cerebral tissue, though for purposes of treatment this was of comparatively little moment. The lesion of intellect, especially the loss of power of concentrating the attention, which has been observed as a constant result

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of destructive operations on the prefrontal area of monkeys, was in this case a marked feature. It is a matter of regret that, owing to the fatal intervention of an intercurrent malady, the patient was unable to reap the advantage which, had he survived longer, an exact diagnosis of the case and modern surgical progress justified him in expecting. For the notes of the case we are indebted to Dr. L. T. F. Bryett, medical registrar.

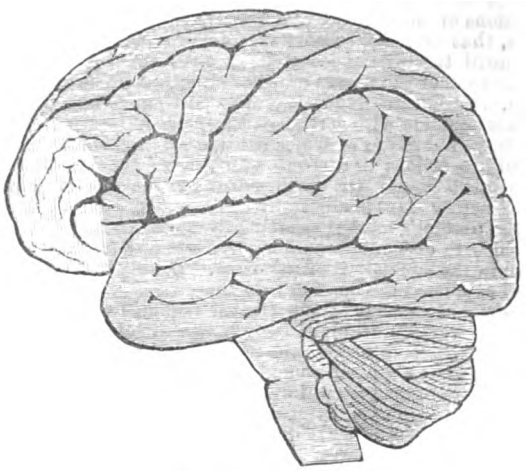
W. S——, aged forty, married, was admitted into the Todd ward, King's College Hospital, on June 30th, 1891, under the care of Dr. Ferrier. Family history unimportant. Seventeen years ago the patient was thrown from a vehicle, and is said to have been unconscious for a week. From this injury, however, he seems to have recovered completely, and enjoyed good health until October, 1890, when he caught a severe cold, from which time he is said never to have been "the same man as before." He exhibited great failure of memory, and from being energetic and active became incapable of any sustained effort, and constantly tended to fall asleep when left to himself. Occasionally he would brighten up for a short time, and again relapse into the same apathetic, drowsy condition. During his fits of drowsiness enuresis generally occurred.

On admission the patient had a healthy aspect, but with a dull, vacant expression, and when left to himself took no notice of his surroundings, and required a good deal of rousing before he could be got to answer questions. When roused, however, he answered intelligently. There was incontinence of urine. There were no indications of motor paralysis, though it occasionally appeared as if there were slight relative weakness of the right angle of the mouth. Owing to the patient's mental condition no satisfactory conclusions could be arrived at as to the condition of sensibility, general or special, more particularly as regards smell; but vision, hearing, and tactile sensibility appeared fairly good. The liver was somewhat enlarged, but in other respects the organic functions were normal. The knee-jerks were present and equal, and the plantar reflexes well marked. The pupils were small, but contractile to light. Ophthalmoscopic examination revealed the presence of typical double optic neuritis. In reply to questions, the patient denied the existence of pain in the head, but he generally winced when severe pressure was made over the left fronto-parietal region.

During the month of July the condition varied a good deal. Occasionally he brightened up and answered questions readily and rationally; at other times he was drowsy and apathetic and talked incoherently. The incontinence of urine continued. The patient would sometimes wander about in a vague, purposeless manner. He did not complain of headache, but as a rule he winced when pressure was made on the left fronto-parietal region as above indicated. During the months of August and September there was little if any alteration in the patient's condition. He was able to feed and dress himself and to walk about the ward, or go out occasionally with convalescent patients. During October he exhibited greater mental dulness. He did not know where he was, and frequently could not say what his name was, and when asked to sign his name wrote nonsense. He frequently dozed off to sleep. In walking there sometimes appeared to be relative weakness of the right leg, and his gait in general was rather tottery. The right pupil was somewhat larger than the left, and there was still marked swelling of both optic discs. There was no material alteration in the patient's condition during the month of November. He either sat in a chair, apathetic or asleep, or would wander about in a vague, purposeless manner, and with a slouching, uncertain gait. This condition continued practically unchanged until Jan. 23rd, 1892, when, during the prevalence of the influenza epidemic, he developed symptoms of this malady. On the 24th his temperature had risen to 104°, and he became delirious. He died comatose on the 26th, the temperature having risen to 106° immediately after death.

Necropsy.—There was hypostatic pneumonia at the basis of both lungs, but in other respects the thoracic and abdominal viscera were in a healthy condition. The anterior portion of the left frontal lobe was occupied by a large tumour, three inches from above downwards and two inches from before backwards. It extended from the external to the mesial surface of the lobe. It was hard, lobulated, and cut like a scirrhus. The dura mater was adherent over the front of the tumour. It was encapsuled and had displaced the convolutions. Locality: On the external aspect the tumour lay well in front of the ascending frontal convolution. The superior frontal gyrus ended against the posterior margin of the growth, as also did the superior frontal sulcus. The middle frontal convolution was broadened anteriorly, and ended against the margin of the tumour. Broca's convolution was displaced backwards. The mesial surface of the frontal lobe was entirely replaced by tumour growth. The tumour lay in front of the genu of the corpus callosum and of the gyrus fornicatus. It was difficult to distinguish the orbital surface of the frontal lobe, as the fore part was

FIG. 1.

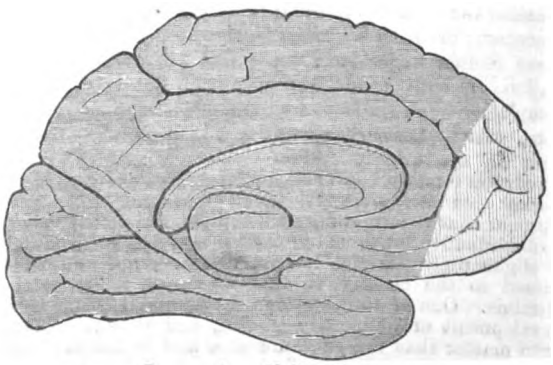


Lateral surface (left).

entirely replaced by the tumour, and a considerable amount of compression was exerted upon the posterior part. The triradiate sulcus was distinguishable behind the tumour.

Microscopical examination (Dr. W. Aldren Turner).—The tumour is found to consist of trabeculæ of a dense fibrous tissue (containing bloodvessels of various sizes), forming alveoli separated from each other by a fine fibrous meshwork. These contain numerous cells of round and spindle form, and large size. The cells are separated from each other, there is much fibrous interstitial material, which does not stain with logwood, but which is very distinctly

FIG. 2.



Inner surface of left hemisphere.

brought out by picro-carmine, nigrosin, and orange rubin. Character: Sarcoma, with a large fibrous element. From the close adhesions which the tumour had to the dura mater over the frontal lobe, the growth probably commenced in this structure, and grew backwards, compressing the frontal lobe.

Remarks by Dr. FERRIER.—This case is an excellent illustration of the symptoms that have been met with both in man and monkeys, as the result of lesions of the prefrontal lobe. Destruction of the prefrontal regions in monkeys causes no obvious physiological symptoms; that is to say, no perceptible defects in the domain of motion or sensation, but the operation causes a mental degradation of a peculiar character, which may be characterised as due

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to the loss of the faculty of attention or power of mental concentration. Monkeys deprived of their frontal lobes, instead of being as before actively interested in their surroundings and curious as to all that came within the field of observation, became apathetic or dull, or continually dozed off into sleep, responding only to the sensations or impressions of the moment, or varying their listlessness with restless and purposeless wandering to and fro. This description is almost precisely applicable to the condition presented by our patient, and similar symptoms have been observed and recorded by many observers in connexion with tumours of this region. It is not until the tumour presses backwards, and directly or indirectly disturbs the functions of the central and posteriorly situated convolutions, that motor or sensory symptoms declare themselves; and until these have occurred, or until there are signs of implication of the nerves or other structures in the anterior fossæ, an accurate diagnosis of the position of the tumour cannot be made with certainty, inasmuch as loss of memory and impaired power of concentration may also be produced by diffuse lesions or diseases which cause general disturbance of the brain. Of the structures in the anterior fossa, the olfactory tract is especially apt to suffer, but on account of our patient's mental condition it never could be ascertained with certainty whether there was any implication of smell in the one nostril or the other. During life, however, I had expressed the opinion that the case was in all probability one of tumour of the frontal region, but its precise position, whether deeply seated, or superficial, or connected with the corpus callosum, did not appear to me sufficiently clear. For this reason, though I frequently considered the advisability of operation, I did not think it well to interfere until definite localising symptoms should declare themselves; but the patient was carried off by an intercurrent malady before this event occurred. The necropsy, however, proved that the tumour might have been reached and in all probability safely enucleated by trephining over the left frontal lobe anteriorly.

ROYAL FREE HOSPITAL.

A CASE OF RECOVERY AFTER COMPLETE PARAPLEGIA DEPENDENT ON FRACTURE DISLOCATION IN THE UPPER DORSAL REGION OF THE SPINE.

(Under the care of Mr. W. H. BATTLE.)

THIS case is one of great interest and rarity. The precise pathological condition produced by the injury still remains obscure, owing to the large amount of swelling caused by the accident. Fracture was undoubtedly present, but whether the paralysis resulted from the amount of the displacement or from an excessive hæmorrhagic exudation must remain undecided; there was probably a combination of both conditions present. Recovery after a complete paraplegia from fracture dislocation is of itself rare, and it becomes especially so when the disturbance of the urinary system is so marked. The case illustrates forcibly the necessity of scrupulous care in the matter of catheterism, and it reflects great credit on the house surgeon that the urine for such a prolonged period showed no abnormality due to contamination, and though ultimately a slight urethritis was set up, this was not allowed to spread to the bladder, so that the urine never became alkaline. One of the most dangerous complications is the development of pulmonary trouble, and it was a fortunate matter that the subacute attack of bronchitis which developed at the end of the first fortnight yielded readily to treatment. Considerable importance is to be attached to the result of the manipulation under chloroform; this by depressing the displaced upper vertebræ led to a restoration of the line of the spinous processes, and its beneficial effect was proved by the marked relief which followed within a few hours, the girdle pain disappearing and the sensation commencing to improve. For the notes of this case we are indebted to Mr. A. Gale, late house surgeon.

G. B——, a labourer aged thirty-eight, was admitted on Sept. 6th, 1889, to the Royal Free Hospital. The patient was quite conscious when admitted, and complained of loss of movement in the legs and pain in the back, following an accident. He had always been strong and healthy, and had had no illness or accident before that he knew of. The patient was trying to lift a heavy beam of wood which stretched across a tunnel in which he was working. The beam was let into a hole in the clay at each side of the tunnel, and was also supported by uprights at each end. To shift the beam a little he got underneath it near one end, so that it rested across his shoulders; in trying to push one end further into the hole in the side of the tunnel the opposite end of the beam was pulled too far out of the hole in which it rested; the beam, being thus unsupported except by the patient's shoulders, forced him suddenly to the ground; he fell violently in a sitting position, with his legs stretched out before him; the weight of the beam then forced his head and shoulders forwards to such an extent that he thinks his head must have touched the ground between his legs, his back being very much bent forwards. The beam was lifted off, and he was immediately brought to the hospital.

On admission there was a fluctuating swelling over the junction of the cervical and dorsal vertebræ, about four inches by five inches in size, tender to touch, but with no discolouration of the skin. On pressure over this swelling a depression was felt, apparently below the seventh cervical spine, but it was difficult to localise. Both legs were paralysed. Both patellar and plantar reflexes were greatly exaggerated, but there was no ankle-clonus. There were excessive myotatic irritability and fibrillar contractions of nearly every muscle of the body, which, however, were temporarily stopped by drawing the finger forcibly across the muscle. Sensation was entirely lost below the level of the seventh ribs in front, there being perfect sensation in the arms. The pupils were equal, and reacted to light. Respiration was almost entirely diaphragmatic, but the lower ribs were slightly elevated. There were also priapism and retention of urine. The patient complained of feeling cold, but half an hour after admission he became warmer, the fibrillar contractions ceased, and he perspired freely. The patellar reflexes disappeared and sensation returned, with the exception of the inner side of the foot and sole. The urine was drawn off by a catheter, and came away in a pumping manner with each inspiration. The patient was placed in bed on his back, with his head low, and a pad beneath the lumbar region, and was given a milk diet. On the next day he complained of a girdle pain at the level of the manubrium sterni. He had spermatorrhœa, and his priapism and retention of urine still continued, and from this date the catheter was passed every twelve hours, being kept in a solution of perchloride of mercury (1 in 2000) when not in use. The left pupil was noticed to be slightly larger than the right.

Sept. 8th.—His bowels acted for the first time after five grains of calomel, a draught of one ounce of compound senna mixture and a simple enema.

9th.—The left side of the face and neck sweated profusely, accurately limited by the middle line. There was pain starting at both axillæ and running down the inner sides of the arms, ending at the wrist on the left side and at the elbow on the right side. The intercostal muscles were quite passive, inspiratory recession of the lower ribs being present. The abdomen was somewhat distended and moved considerably with respiration. All reflexes, with the exception of the plantar, were quite absent. Superficial sensation was quite absent up to the second rib in front and the first dorsal spine behind; the patient could, however, tell when his legs were deeply pinched or moved. Mr. Battle examined the back again, but the exact position of the depression could not be localised, owing to the difficulty in counting the spines caused by much œdema being present.

10th.—Sensation was present in the legs, and the patient could tell which of his toes was touched.

11th.—His plantar reflexes were much exaggerated, the other reflexes remaining absent. There was no sensation to pain, the patient being unable to distinguish a hot wire from ice or a pinch from a touch, up to a line just below the nipples. He was put under chloroform, and Mr. Battle manipulated the upper vertebræ backwards, so that the depression was very much less marked, and the patient lost his girdle pain the next day.

On Sept. 14th it was noticed that the slightest movement of the bedclothes caused involuntary reflex movements of the legs, and that priapism was only present when the bladder was full, disappearing after the urine had been drawn off. Sensation gradually improved, being on Sept. 14th good down to the level of the umbilicus, and on the 16th two inches lower. The

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skin over the feet and toes had now assumed a glazed appearance. On the 17th the cremasteric reflexes were present. On the 18th there were intermittent pains in the chest and down the inner side of the right arm, starting from the axillæ. The left foot was now a good deal inverted, and a red patch appeared on the dorsum. On Sept. 23rd he had slight bronchitis and could cough, using his recti abdominis in the act. Sensation in the right leg had much improved. On the next day (Sept. 24th) the patient could slightly twitch the sartorius and rectus on trying to move his right thigh; and this movement steadily improved, till on Sept. 27th he could draw the limb up by flexing the knee, but could not lift the foot off the bed. Two days later (the 29th) he could move his right great toe, and could twitch the adductors of his left thigh on attempting to move the limb; and the day following he could slightly draw up his left leg and flex his right ankle-joint. He was now on a meat diet. The urine had kept acid and normal up to Oct. 4th, when a few pus cells were found in the deposit; but the urine was still acid. Four days later the patient passed a little urine voluntarily (Oct. 8th), but a pint was drawn off by the catheter afterwards. His control over his bladder gradually improved, and on Oct. 13th it was found that the catheter would be required only once in twenty-four hours. The pus in the urine was due to a urethritis set up by the catheter. Up to Oct. 18th there had been complete incontinence of flatus and fæces, but on that day he was able to control them for the first time. The patient had been kept strictly on his back till Oct. 31st, a period of fifty-five days, before he was allowed to lie on his side. The movement in both legs had steadily improved, and on Nov. 7th he could raise the left leg off the bed. The legs were rubbed with oil daily for twenty minutes from this date. On the next day (Nov. 8th) the constant current was applied to the legs, and the muscles contracted well in response. He was propped up in bed for the first time on Nov. 14th, and three days later he was moved on to a couch. The constant current was applied daily till Nov. 17th, when the muscles ceased to respond; so on Nov. 19th the faradaic current was used, and the muscles responded well. The patient sat up in a chair for the first time on Nov. 20th, and three weeks later (Dec. 11th) he could stand alone for a short time, and ten days after this (Dec. 21st) he could walk alone with the help of a go-cart support. His left leg had a curious upward jerk when the thigh was flexed during the first few days, very much like the movement called "stringhalt" in horses. The amount of urine drawn off by the catheter gradually diminished each day, till the catheter ceased altogether to be required on Nov. 16th. He had occasional pains in the chest and in the left leg, and the left leg used to be drawn up occasionally involuntarily, requiring some force to extend it again. He had a small superficial gangrenous patch the size of half-a-crown on the left heel, which appeared on Sept. 24th, and the slough separated on Dec. 11th, after which the sore commenced to heal slowly. He steadily improved till Jan. 20th, 1890, when he was discharged. He could then walk alone with the aid of two sticks. The left leg was considerably weaker than the right, and was apt to be drawn up involuntarily occasionally, and the patient could only extend it by using his hands. Both knee-jerks were exaggerated, and his sensation was good. The sore on the left heel was not quite healed, and with this exception he had had no bed-sores. Measurements of the limbs and superficial temperatures were taken from time to time, but they showed no constant comparison or variations. When heard of in October, 1890, he could walk four miles with the aid of a stick, and a letter from the clergyman of the parish in which he now lives gives information of more recent date, March 24th of this year. He could then walk as above noted, but was unable to do any work.

METROPOLITAN OPEN SPACES.—After protracted negotiations, it is stated that the several freehold and other owners have agreed to accept £75,000 for Hackney Marsh, which comprises 337 acres, and will be an important addition to the metropolitan open spaces for the use of the public for recreation purposes. The purchase money is to be raised by the following contributions—namely, the London County Council, £50,000; the Hackney District Board, £15,000; the Lord of the Manor, £5000; and local and other contributions, £5000.

Medical Societies.

CLINICAL SOCIETY OF LONDON.

Cubitus Valgus and Cubitus Varus arising from Fracture at the Elbow-joint.—Sarcoma of Buttock treated by Ligature of Internal Iliac Artery.—Gastrostomy for Œsophageal Stricture at the age of four.—Leucocythæmia treated with Arsenic.—Living Specimens.—Annual Meeting.

THE last ordinary meeting of this Society for the present session was held on May 27th, the President, Sir Dyce Duckworth, in the chair.

Mr. NUNN read a paper on a case of Cubitus Valgus and Cubitus Varus arising from Fracture at the Elbow-joint. It was in continuation of one previously brought before the Society on injury to the elbow-joint, and of a proposal to treat fractures at the elbow-joint in the extended position in place of the flexed position usually recommended, seeing that some deformity, either cubitus valgus or cubitus varus, so frequently attended treatment in the flexed position. Photographs illustrating these deformities accompanied the illustration. Mr. Nunn had already, in a postscript to his former paper, published in the Transactions, stated that Dr. Illingworth of Accrington[1] and Dr. Carl Lauenstein of Hamburg[2] advocated treatment in the extended position. Dr. Illingworth's paper was mentioned first, as it was read in 1887 at the Dublin meeting of the British Medical Association, but a report of it did not appear until the date named. On the other hand, Mr. Christopher Heath, lately President of the Society, recommended, in a lecture published in THE LANCET of January, 1889, the flexed position, and described a case where "disastrous" results—namely, sloughing of the median and ulnar nerves—followed from treatment of a fracture at the elbow in the extended position; the accident had occurred at polo playing. Mr. Nunn contended that the extreme mischief in the case was not due to the method of treatment, but to the severity of the injury, the headlong pace at polo playing being such as to make the game excessively dangerous. The case, however, indicated how serious an injury fracture at the elbow in an adult might prove to be. Mr. Nunn thought it desirable to say that Dr. Lauenstein claimed to have obtained a more free ultimate use of the joint, and that the patients had escaped from the deformity of cubitus valgus or varus by treatment in the extended position. The latter enabled the surgeon by his eye to detect any deviation from the normal axis of the limb, and to correct such deviation by the leverage afforded by the bones of the forearm. Dr. Lauenstein, referring to the deformity of cubitus valgus or varus being a source of ulterior prejudice to the patient, and that, therefore, the surgeon should not be content with conserving the mobility of the joint, instanced a case where the individual had been rejected by the army surgeon as unfit for military service in consequence of such deformity. Mr. Nunn pointed to one of his photographs as that of the arm of a gentleman now a field officer in Her Majesty's service, who, when a candidate for admission into the Royal Military Academy at Woolwich, was very near being rejected on account of cubitus varus of the left arm, consequent on a fracture of the elbow when a lad. A second photograph of the same arm showed how completely the deformity was masked in flexion; this masking of the deformity constituted a very important point for consideration in treatment, as in flexion the surgeon might be deceived as to the actual relations of the fragments. In the museum of the Royal College of Surgeons, specimen No. 934, was an example of union of the trochlear end of the humerus at right angles to the shaft. It was a counterpart of a case cited by Dr. Lauenstein, where the misplacement was the result of treatment by the rectangular splint. Mr. Nunn referred to a dissecting room specimen of fracture at the trochlea, which he had exhibited at the Pathological Society, and at the same time he had demonstrated that the deformity, which was very evident on extension, was hidden by flexion.[3] Further, in the extended position there was less danger of the anterior capsule

[1] Brit. Med. Jour., February, 1889.
[2] Proceedings of the German Surgical Society, 1888.
[3] Vide Pathological Society's Transactions, vol. xviii., p. 211.

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of the joint being caught in the callus, as it was held on the stretch, and the risk of ankylosis diminished, especially as the position permitted of effectual application of the ice-bags for the control of inflammatory action. Mr. Nunn considered that fractures at the elbow-joint fell into two categories—those before the age of puberty and those after consolidation of the ossifying centres, since a far less degree of violence sufficed to disconnect the epiphyses than to fracture the bone, and that therefore a fracture at the elbow in the adult was, from the greater violence implied, the much more serious accident.

Mr. FREDERICK TREVES next contributed a communication on a case of Sarcoma of the Buttock treated by Ligature of the Internal Iliac Artery. It occurred in a lad of eighteen, and was of at least three months' duration. The internal iliac artery was ligatured by the intra-peritoneal method. Remarkable shrinking of the growth occurred, and the lameness and intense pain disappeared. The patient remained able to walk about for ten months after the operation, and died at the end of fourteen months. The case was reported to show the effect of the ligature of a main artery upon a sarcoma not amenable to treatment by excision.—The PRESIDENT inquired whether the operation had been previously performed, and whether it was to be recommended as a rule in such cases. It had evidently acted favourably as a palliative measure.—Dr. MANSON said that this method of treatment, though not new, had of late years not been practised. He did not imagine that it could be permanently successful; at any rate, he did not know of an authenticated case, and he could not believe that a malignant tumour would capitulate to a mere threat of starvation. In ligaturing the internal iliac artery he preferred the operation above Poupart's ligament, in which the peritoneum was opened; the objection to the sub-peritoneal operation being its difficulty, on account of deficiency of light.—Mr. NUNN said that he recollected seeing the lingual artery tied in several cases of cancer of the tongue, though in no instance was the disease permanently arrested. He could not expect that it would be, for at present the assumption that cancer was a constitutional disease had not been successfully controverted.—Mr. TREVES replied that he did not believe that ligature of both lingual arteries had any effect on cancer of the tongue, neither did ligature of the carotid on cancer of the tonsil. He thought, however, the result would be more promising in sarcoma. To tie the iliac artery by an incision in the median line was an extremely simple matter, and far easier than by a lateral incision.

Mr. CLUTTON related the particulars of a case of Gastrostomy for Stricture of the Œsophagus at the age of four, in which the normal passage was eventually restored. The patient, a girl, was admitted into the Victoria Hospital for Children, in July, 1889. Seven weeks previously she had swallowed some caustic soda. At the time of her admission she was unable to swallow anything at all, and a bougie was arrested at six inches from the teeth. During August she was fed entirely by nutrient enemata and no bougies were passed, so as to give absolute rest to the œsophagus. In September, although she had materially improved in general condition, no instrument could be passed through the stricture. On September 13th the œsophagus was opened in the neck, with the hope of being able to reach the stricture. The obstruction was found, however, to be within the thorax. After these wounds were closed with suturing, the first stage of gastrostomy was carried out by means of harelip pins. Five days afterwards the stomach was opened and the child fed through the gastric fistula. On Jan. 27th, 1890, a very small whalebone bougie was at last passed through the œsophageal stricture, and, after many months of varying success, a No. 14 œsophageal bougie was eventually passed with ease. During 1891 this large bougie was passed about once a month and the plug removed from the gastric opening. Attempts to close this opening were subsequently made by passing the actual cautery along the sinus, and it was now absolutely closed. She was in perfect health, and came to the hospital once in six weeks to have the bougie (No. 14) passed. No contraction could be felt. The points of interest were: (1) The age of the patient; (2) that after gastrostomy the œsophageal stricture was eventually dilated and the passage restored to its natural function. Mr. Clutton alluded to a similar case—Mr. Morgan's—recorded in the Clinical Society's Transactions for 1886, and the rapid method of performing gastrostomy by harelip pins, first successfully carried out by Mr. Barrow in 1884.—Mr. MORGAN referred to some details of the case he had recorded, and he inquired if Mr. Clutton's patient was now able to take solid food. He had brought his patient for the purpose of inspection, and it was seen that he was very well nourished. There had been no difficulty whatever about the closure of the wound; indeed, the difficulty had rather been to keep it open.—Dr. MANSON did not see the advantage of fastening the peritoneum to the skin; it certainly added to the length of the operation. He believed in making a very small opening for gastrostomy, large enough only to admit a No. 3 or 4 catheter.—Mr. CLUTTON, in reply, said that his patient was now fed on ordinary diet, and was very well nourished. The double operation took only an hour, and the opening was of about the size of a No. 9 catheter.

Mr. DOUGLAS DREW, introduced by Dr. Ringer, brought forward a case of Leucocythæmia treated with Arsenic, which was of interest in that repeated observations were made of the state of the blood while under treatment. The history was that for about three months before his admission to University College Hospital he had been growing weaker, and felt out of health. He had no other symptoms of importance. It was found that the spleen was greatly enlarged, it extended to within one inch of the right anterior spine of the ilium, and that the blood contained a large excess of white corpuscles, the exact number, as estimated with Dr. Gowers' hæmocytometer, being one white to fourteen red. Arsenic was given in increasing doses until the limit of toleration was reached. By about the end of the first month the patient was taking a drachm of the liquor arsenicalis daily. The spleen had become distinctly smaller, and the number of white corpuscles in the blood had fallen to one white to fifty-five red. By the end of the second month of treatment he was taking ninety minims daily, and the spleen had further diminished, so that it extended just to the right of the middle line, and one inch below the level of the umbilicus; the white corpuscles had also decreased to 1 to 159 red. The arsenic was steadily pushed until 100 minims of the liquor were being taken daily. About the end of the third month the spleen reached to half an inch above the umbilicus, and the white corpuscles had fallen to normal (1 to 400 red). The patient was better in health, and was able to do some light work. He remarked that, judging from this case, arsenic appeared to be quite as efficacious in leucocythæmia as in lymphadenoma and in pernicious anæmia, and the benefit derived seemed to be dependent on the drug being administered in sufficiently large doses. The point which was most striking in this case was the direct relation between the variations in the size of the spleen and the number of white corpuscles present in the blood; while under treatment the white corpuscles gradually decreased in number until they reached the normal proportion, and at the same time the spleen steadily diminished in size. The table showed the percentage of red corpuscles present in the blood, and also the relation of the white to the red corpuscles. It would be seen from this that there was a deficiency in the red corpuscles and also in the hæmoglobin, indicating that there was a moderate degree of anæmia:—

Date.	Percentage of red corpuscles.	Relation of white to red corpuscles.	Percentage of hæmoglobin.	Dose of liquor arsenicalis.
Aug. 13th	70	1 to 14	—	Aug. 12th, 18 minims daily
,, 20th	80	1 to 22	—	48 ,,
,, 28th	70	1 to 47	—	*40 ,,
Sept. 3rd	70	1 to 84	60	48 ,,
,, 12th	67	1 to 55	—	48 ,,
,, 19th	74	1 to 123	60	72 ,,
,, 28th	73	1 to 155	—	72 ,,
Oct. 5th	66	1 to 110	60	*48 ,,
,, 12th	66	1 to 159	60	90 ,,
,, 21st	56	1 to 142	50	102 ,,
,, 26th	60	1 to 152	54	100 ,,
,, 31st	62	1 to 300	—	100 ,,
Nov. 14th	84	1 to 256	—	*100 ,,
,, †28th	84	1 to 400	—	Full dose not being taken

* Dose decreased on account of vomiting and diarrhœa.
† Patient away at convalescent home.

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The PRESIDENT trusted that in a year's time the further history of the case would be put on record, and any observation as to cutaneous pigmentation or arsenical paralysis made. It was evidently important to push the remedy very considerably.—Dr. BRADFORD said that they had carried out this method of treatment for several years at University College. In leucocythæmia it was observed that the arsenic had little effect on the red corpuscles, whereas in pernicious anæmia and in lymphadenoma under similar treatment they largely increased in number. The drug evidently checked the destruction of red corpuscles, for the amount of iron in the urine observed in cases of pernicious anæmia diminished considerably under arsenic.—Mr. DREW, in reply, said that neither pigmentation nor paralysis had developed. The only symptoms of intoxication by the drug were pain in the abdomen and diarrhœa, controlled to some extent by opium.

The following living specimens were shown:—

Dr. PERCY KIDD: A case of Angeioma of Larynx.

Dr. C. W. CHAPMAN: A case of Myxœdema.

Mr. JOHN MORGAN: (1) A case of Lymphangiectasis; (2) a case of Multiple Exostosis.

The annual general meeting was then held. The report of the Council was taken as read and adopted. The treasurer's report revealed a favourable financial condition of the Society. The usual votes of thanks having been put and adopted, the meeting proceeded to the election of officers, with the following result:—President: Sir Dyce Duckworth. Vice-Presidents: Charlton Bastian, Sir George Buchanan, Alfred B. Duffin, J. G. Glover, H. G. Howse, and John Langton. Treasurer: William Miller Ord. Council: John Abercrombie, Thomas Barlow, W. H. Day, E. Diver, Donald William Charles Hood, T. Ridge Jones, Percy Kidd, A. T. Myers, Andrew S. Myrtle, William Pasteur, P. H. Pye-Smith, Frederick Roberts, W. H. A. Jacobson, William Anderson, William Henry Bennett, Anthony A. Bowlby, George Buckston Browne, G. H. Makins, Malcolm Morris, and Robert William Parker. Honorary Secretaries: W. B. Hadden and A. Pearce Gould.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

THE third quarterly meeting of the Society was held on May 23rd at King's College, London, Professor Sir W. Turner, F.R.S., President, in the chair.

Messrs. T. H. Openshaw, M.S., E. Cotterell, F.R.C.S., and A. A. Kanthack, M.B., were elected members of the Society.

It was resolved that the next meeting of the Society be held in Edinburgh on Tuesday, Aug. 2nd, one day prior to the meeting of the British Association for the Advancement of Science, in that city.

The following specimens were shown:—Mr. J. E. Lane: A Right Subclavian Artery passing with the Vein anterior to the Scalenus Anticus. Mr. J. Bland Sutton: Sections of the Velvet from Stag's Antlers showing Sebaceous Glands; and a specimen of an Articulation between the Astragalus and Cuboid Bones. Dr. A. W. Hughes: A specimen of Abnormal Obturator and Deep Epigastric Arteries arising from the Profunda Femoris. Mr. A. S. Graubaum: Specimens illustrative of the Embryonic Relations of the Femur and Fibula.

Professor W. ANDERSON read a paper entitled "A Plea for Uniformity in the Delimitation of the Regions of the Abdomen," which evoked considerable discussion. The matter was referred to a committee consisting of Professor Anderson, Professor Macalister, Professor Cunningham, Dr. Symington, Professor Shane, and the Honorary Secretary, to report to the Society as to the best method for general adoption.

Dr. SYMINGTON read a paper on the Relations of the Peritoneum to the Descending Colon in the Human Subject. An exhaustive consideration of published views on this subject was made, and Dr. Symington then gave the results of his own investigations on sections of fœtuses and adults, which tended to show that the frequency of occurrence of a descending meso-colon has been greatly exaggerated. In his opinion the method adopted for the investigation of the peritoneal relations of the gut have been unsatisfactory, and in some cases have tended "to develop" a mesentery where it did not exist naturally. These views were concurred in during a discussion, in which the President, Professor Anderson, and Professor Shane took part, the importance of the degree of distension of the gut at the time of examination being especially dwelt upon.

Dr. ROLLESTON communicated a paper on Some Points in the Anatomy of the Suprarenal Capsules, illustrating his views by preparations and sections for the microscope.

Mr. A. EICHHOLZ communicated a paper on a Racial Variation in the Length of the Palate Process of the Maxilla. The results of measurement show that the length in the so-called "higher races" is less than that in the "lower races," the variation being gradational. Variations in width, on the other hand, are rather to be regarded as minor fluctuations of a common mean value. It is found, however, that the relative measurements of height and width in the higher races are somewhat the more constant. It is also noted that the higher the race the less steep is the typical palate curve.

Mr. R. M. MICHELL communicated a note on the Topography of the Rectum, in which he put forward as the result of the examination of 116 bodies the views that the completeness of a meso-rectum to the first part of the gut varied with the amount of distension, as also does the extent to which the bowel crosses to the right side of the pelvis.

A full report of the proceedings and the original papers will be found in the forthcoming number of the *Journal of Anatomy and Physiology*.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

FRIDAY, MAY 6TH.

H. W. ROBERTS, Esq., President, in the chair.

Influenza.

DR. MOON read a short paper on Nervous Sequelæ and Complications of Influenza. He said that the high temperature was of a nervous origin. He drew special attention to the very marked character of the great despondency. The appetite was very capricious. He had seen cases where there was a most inordinate craving for food. He also drew attention to the rapid emaciation which often ensued, and the length of time taken by the patient to get fat again. He mentioned sciatica, colic, and pleurodynia as symptoms he had often seen.

Dr. ERNEST CLARKE read a paper on Ocular Manifestations in Epidemic Influenza. He said, with the exception of the ordinary catarrhal ophthalmia accompanying the attack in many cases, the ocular troubles were mostly those due to a lowering of the vitality of the system, and hence might be classed as neurotic. The three commonest eye complications have been: (1) Conjunctivitis, generally appearing during the attack; (2) corneal ulcers, generally appearing at the end of the attack; (3) asthenopia, manifesting itself mostly during the convalescent stage. The conjunctivitis was accompanied by a good deal of photophobia, but not, as a rule, with much discharge. Phlyctenular and simple keratitis, keratonitis, and herpes of the cornea have all occurred, but simple ulcer has been the commonest affection of the cornea. He had seen, only a few weeks previously, a very bad case of iritis and cyclitis following influenza. Affections of the more important regions of the eye, such as optic neuritis, optic atrophy, retinitis, glaucoma, &c., had all occurred, and had been chronicled, but were rare. Paralysis of the intrinsic and extrinsic muscles of the eye occurred, and reminded one of the similar trouble seen in diphtheria; it pointed to the presence of some poison in the blood. Asthenopia was the commonest complication. It sometimes showed itself during the attack, when the slightest attempt to use the eye, say for reading, brought on headache and ocular pain, and necessitated the abandonment of the effort. But it chiefly manifested itself during convalescence, or even later. He had seen a large number of patients complaining of eye strain for the first time after an attack of influenza. They were mostly cases of premature presbyopia; others had no refraction defect, and their asthenopia was of the neuropathic class, allied to the neurasthenic asthenopia, and often manifesting itself in those recovering from a long illness. The lowered nerve force which is such a characteristic symptom of influenza causes the ciliary muscle to be less able to stand fatigue, and to avoid

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the asthenopia many persons have been compelled to take to convex glasses earlier than usual. Muscular asthenopia due to convergence strain figures prominently as a sequel of influenza, and retinal asthenopia, diagnosed by the concentric contraction of the field of vision, has often been seen. The prognosis is good. Almost all the cases have in time made good recoveries, the exception of course being those in whom the more important structures have been attacked. There is no connexion between the severity of the attack of influenza and the ocular trouble. The treatment is chiefly rest and tonics, the local trouble being treated by the usual remedies. For the asthenopia weak convex glasses have to be ordered.

Dr. HORROCKS then read his paper on Influenza during Pregnancy and the Puerperal State. 1. Influenza during pregnancy: The phenomena of pregnancy generally are in no way altered or modified by influenza, although some of the symptoms, such as retching, vomiting, and coughing, may cause rupture of the membranes and so cause miscarriage. 2. Influenza during the puerperium: Influenza may attack a patient after child-birth, and its symptoms are apt to be confounded with those of puerperal fever. The differential diagnosis is that the influenza does not affect any of the natural processes taking place during the puerperium. The milk is not lessened; the lochia are unaltered; the uterus involutes; *vice versâ* pregnancy and the puerperium only slightly modify influenza. Advanced pregnancy intensifies the dyspnœa if present, and perhaps the blood changes of the puerperium may intensify the fever.

Mr. HARTT, medical officer of health for Greenwich, read a paper on Statistics of Mortality during the last Three Epidemics with reference to the Parish of Greenwich. The duration of each epidemic—viz., 1889, 1890, 1891, and 1892—was about six weeks, and in that respect resembled the epidemic of 1847. During the first epidemic, 1889–90, four deaths only were registered from influenza, but the number of deaths from diseases of the chest—viz., bronchitis, pneumonia, and pleurisy—were much larger than the average, and it was only fair to assume that the cause must be traced to the influence of a something which has the power of producing or, at any rate, making these diseases much more fatal than at ordinary times. During the first epidemic the deaths from influenza were 4, but the death-rate, which averages 26, rose to 42·2 per 1000. During the second epidemic the deaths from influenza were 41, and the death-rate from all causes was 30·5. The last epidemic was the most severe, and proved to be the most fatal. The death-rate rose to 46·6, and thirty-one persons lost their lives from influenza as a first cause. Influenza is a dangerous and infectious disease, and the only preventive treatment is isolation.—The President, Dr. H. Tavler, Dr. Forsyth, Mr. Thos. Moore, Mr. MacGavin, Mr. Hartt, Dr. Horrocks, Dr. Moon, and Dr. Ernest Clarke took part in the discussions which followed the papers.

Reviews and Notices of Books.

Flushing or Morbid Blushing; their Pathology and Treatment. By HARRY CAMPBELL, M.D., B.S., M.R.C.P., Senior Assistant Physician and Pathologist to the North-West London Hospital. Pp. 257. London: H. K. Lewis.

DR. CAMPBELL'S book deals with a symptom which, as he puts it, is a widespread nerve storm. He is not the only author who has deemed the matter worthy of minute attention, as Burgess produced a monograph in 1824, treating it from the side of physiology. Possibly he thought the pathology and treatment would fall more appropriately under the heads of the various nervous and visceral dyscrasiæ with which morbid flushing is associated. In the first part Dr. Campbell introduces the physiological aspect of his thesis. Flushing is considered at greater length in the second part, and is somewhat minutely analysed, according as (1) it is associated with dilatation of the cutaneous vessels, (2) their contraction, (3) excitation of sweat glands. Thus hot and cold flushes, shivering, perspiration, clammy sweat, are all taken as evidences of a central nerve storm. These dermic phenomena are then carefully traced, and cases cited in which they showed themselves in a varied sequence. The whole matter is worked out with the most laborious care. "Pathological blushing" occupies Part III., and is dealt with in detail and with as careful a hand as Part II. Very many of the cases are those of "shy persons," who doubtless—for their name is legion—will be glad to learn that their troublesome complaint has at length been thoroughly investigated, and a special system of treatment introduced. It is somewhat surprising to find a "champion athlete" who "always blushes when he thinks he will 'make a fool of himself.'" Having accepted the glowing cheek of this man of prowess, one is more prepared to find a "mason and builder" who is "timid and despondent," and who "blushes when he is looked at, but not otherwise." There is much of interest in the chapters dealing with blushing, and the one concerned with the question of its causation well repays perusal. The various forms of blush are well depicted. The reader becomes more than ever impressed as he passes through Dr. Campbell's pages that blushing, flushing, and the nerve storms which he associates with these vaso-motor disturbances are, after all, symptoms of either a poorly nourished or hereditarily feeble nervous system, or some morbid change attacking a healthy individual; and granting this, the treatment of such cases must resolve itself into the therapeusis of the general malady rather than of the symptom or group of symptoms. However, for those who wish to enter more minutely into the matter of treatment Dr. Campbell has written his fourth part, consisting of seven chapters. A copious index completes this carefully prepared contribution to the laborious literature of the medicine of to-day.

Travels amongst the Great Andes of the Equator. By EDWARD WHYMPER. With Maps and Illustrations. Two vols. London: John Murray. 1892.

THIS work belongs to a very select class of books of travel—to such works as "Belts' Travels in Nicaragua," "Bates' Travels in the Amazons," and "Humboldt's Travels." There are many writers who go deeper into science than the author, but few who are better representatives of the shrewd observer, gentleman, and scholar, who has withal a touch of humour. Mr. Whymper is perhaps the most practised mountain climber in Europe, and stimulated by the knowledge that equally high or higher summits than those he had successfully attacked in his own quarter of the globe remained unscaled in America, he determined to ascertain whether they could be ascended, and whether life can be sustained at elevations considerably above 14,000 feet. It probably occurs to everyone that Glaisher and others have reached heights shown by the barometer to be much more than 25,000 feet, and have descended in safety, but a balloon ascent is a very different affair from the ascent of a mountain. In the one case the body is entirely passive, in the other the muscular exertion involved is severe and prolonged, the only point in its favour being that the system has time to accommodate itself to the changed conditions.

Circumstances preventing the author from selecting the Himalayas or the highest of the Andes in Chili, Peru, and Bolivia, he turned his attention to the Republic of Ecuador. He took with him two well-tried Swiss guides, a set of aneroid barometers, and the usual outfit of a mountaineer. The book begins with a curious and highly interesting criticism of the statements made by Humboldt and by Boussingault in regard to their ascent of Chimborazo. Either these gentlemen made grave errors, or, and this is possible, the physical features of the mountain have changed; but Mr. Whymper shows that, as things are

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at present, it is impossible they could have reached the height they thought they did, nor could they have ascended and descended as rapidly as they report, for he finds that the average rate of ascent and descent of lofty hills is about 1000 feet per hour, whereas Humboldt and Boussingault managed to descend 5475 feet in an hour and three-quarters, notwithstanding there were many difficulties and halts. Another interesting point was noticed — namely, that aneroid barometers are not very reliable for the determination of great heights, for they not only differ *inter se*, but they have a great disposition to register too high an altitude, sometimes the pressure of the atmosphere being shown by them to be one inch lower than that shown by the mercurial barometer. Mr. Whymper appears to have been a disbeliever to some extent in the necessity for the occurrence of mountain sickness; but at about an elevation of 16,000 feet he and his companions and his mules all succumbed, the principal symptoms being feverishness, intense headache, tottering gait, great exhaustion, and gasping,—which last was so constant and imperious that they were unable to drink, much less to eat or to smoke; the tobacco, indeed, almost refused to burn.

Most interesting descriptions of the ascent of various volcanoes, including some active, as Sangai, from the summit of which the jets rose 6000 feet at the rate of 22 miles per minute, and Cotopaxi, and some inactive, as Cayambe, Antisana, and Caimborazo, are given. In some of these ascents the difficulties of travelling were extraordinary. Mr. Whymper at one place, having been previously rebuked for objecting to a certain route because his animals had sunk half way up their flanks, asked his monitor what he considered a bad road, and the reply was, "A road is bad when the beasts tumble into mud holes, and vanish right out of sight." The perils of these ascents are by no means limited to avalanches and crevasses, but the storms of hail and the electrical disturbances are sometimes truly appalling. Near the summit of Sincholagua the flashes of lightning were almost without intermission; several often occurring in a single instant, "each followed by a single bang, which is all one hears when close to the point of discharge," so that the thunder kept up an almost continuous roar. The ice axes hissed ominously; yet he with his companions managed to reach the summit, and, knocking it off, carried it with them in a bag. We have said enough to show that the narrative is most interesting and entertaining, and we doubt not that when quieter times come in Chili and Peru the vast mountain range which is the continuation of the Andes of the Ecuador will be further explored by our adventurous countryman. The second volume, which is of purely scientific value, contains numerous beautifully executed engravings illustrating the various fauna, chiefly insects, captured by Mr. Whymper. They include many new species of coleoptera and lepidoptera, and the whole area seems to be worth any naturalist's while to visit, as it is by no means exhausted. Appropriate descriptions of the various species found have been given by friends who are devoted to the study of the special departments to which the animals belong.

Solutions. By W. OSTWALD, Professor of Chemistry in the University of Leipzig. Translated by M. M. PATTISON MUIR, Fellow of Gonville and Caius College, Cambridge. London: Longmans. 1891.

MR. PATTISON MUIR has rendered a valuable service to science by giving to English readers the fourth and perhaps the most important part of Ostwald's "Lehrbuch der Allgemeinen Chemie." The subject of Solution, which to the uninitiated would appear a simple, is in reality one of the most complex of scientific phenomena. This is a common experience in science. The apparently simple is often the most inscrutable; and as we are still unable to account for gravitation or electrical attraction, so we cannot explain what takes place when a piece of alum is thrown into a tumbler of cold water, although we have a very definite idea of the action of nitric acid on glycerine, apparently a far more intricate operation. It would be quite beyond our province to discuss in detail the subject matter of this treatise, in which the highest mathematical treatment is brought to bear upon a very practical study. A short synopsis of the contents will give some idea of the facts and theories contained in the book.

The first four chapters are devoted to solutions of gases in gases, gases in liquids, liquids in liquids, and solids in liquids. The recent results of Tilden and Shenstone, Ebard, van 't Hoff, Le Chatelier, and others, are clearly explained, although sometimes a slight curtailment has been necessary. The two following chapters (V. and VI.) contain careful historical and critical studies of osmose and diffusion. To English students the classical researches of Graham are well known, and we think they scarcely receive sufficient recognition in these pages. But with the later investigations, chiefly carried out in Germany, most of us are far less familiar. Final conclusions are not yet reached, but great progress has been made. Chapters VII. and VIII. are entitled respectively "Vapour Pressures of Solutions" and "Freezing Points of Solutions." In both, but particularly in Chapter VIII., the work of Raoult naturally takes an important place. Few modern discoveries have done more to promote the development of chemistry than the law enunciated and proved by Raoult, that the lowering of freezing point produced by the solution of a solid in a liquid bears a definite ratio to the molecular weight of the solid. Space allows us only to mention the titles of the two remaining chapters (IX. and X.): "Salt Solutions" and "Simultaneous Action of Several Solvents." But the importance of the book to those who have passed beyond the elementary stage in their study of chemistry will be apparent. An excellent bibliography, in which not only references but also in most cases dates are given, and an equally excellent index, add materially to the value of the translation.

OUR LIBRARY TABLE.

Air and Water. By VIVIAN B. LEWES, F.I.C., F.C.S. Illustrated. London: Methuen and Co. 1892.—A useful little manual belonging to the University Extension Series. The story of the two bodies at one time regarded as elements is told in an interesting and clear way, such as will appeal to the requirements of an ordinary and intelligent reader. In fact the book contains information of a kind which it is desirable should be more widely known. We refer to important subjects like ventilation, atmospheric impurities, the impurities of water, filtration, &c., all of which are ably dealt with. Professor Lewes is much in favour of "carbalite" as a filtering medium, which, he says, possesses the best properties of both spongy iron and animal charcoal, and while it has all the purifying and decolorising powers of both it is far superior, since it contains no phosphate or nitrogenised animal matter. We have had no practical acquaintance with this substance; and although it is an artificial compound we do not learn, beyond that it contains iron, of what it is composed or how it is obtained. We may add, however, that animal charcoal may be and is prepared quite free from nitrogenous matter.

The Demography of South Australia. By THOMAS BORTHWICK, M.D., Medical Officer of Health for Kensington and Norwood, St. Peter's and Burnside, South

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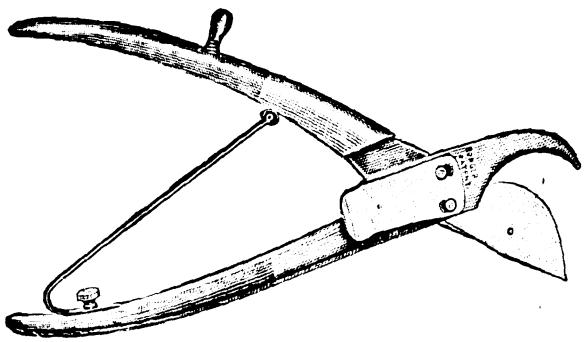
Australia. London: Baillière, Tindall, and Cox. 1891.—This is a useful and brief summary of the statistical and sanitary history of our South Australian colony, and deals with an area of 380,000 square miles; for the most part exposed to the influence of the sea. This vast tract of land was inhabited by the first settler in 1836. A few tents, a few wooden huts, were then the only signs of civilisation. On Dec. 31st, 1889, the population was estimated at 319,166. There are now 4000 miles of main road and 1750 of railway. The capital, Adelaide, has 45,000 inhabitants; and, with this rapid increase of population, the need of sanitary measures soon became urgent. It was not till 1873, however, that the first Public Health Act was passed, and it has since been amended, in 1876 and 1884. The necessity of these measures is fully demonstrated by Dr. Borthwick, and this notably in respect to the water-supply in mining districts. The author then proceeds to compare the proportion in sex, age, vitality of the population of South Australia with that of England and Wales. He shows that, whereas in the colony the urban population is equal to only 31·3 per cent. and the rural population to 68·7 per cent., it is precisely the reverse in England, where the urban population is equal to 66·6 per cent., and the rural population to only 33·4 per cent. This doubtless materially affects the death-rate, which is decidedly in favour of the colony. Thus, in 1889 the birth-rate to the 1000 of the population was equal to 32·7, the marriage-rate to 6·5, and the death-rate to only 11·1. During the same year in England and Wales there were 30·5 births to the 1000 of the population, 7·3 marriages, and 17·9 deaths. The death-rate of the colony has, it should be noticed, considerably decreased, for from 1861 to 1875 it exceeded 15·5 per 1000, and it continued to hover a little above or a fraction below 15 per 1000 till 1884. By that time the sanitary works and legislation began to tell, and then the death-rate steadily fell to the present almost ideal figure. In Adelaide, since the completion of the sewage works, the death-rate has fallen from the average of 25·5 in 1877–81 to 15·9 in 1885–89. Charts and elaborate statistics set forth in fuller detail these and other interesting facts. It is satisfactory to find that the necessity of sanitary legislation has once more been demonstrated, even at the very antipodes.

Second Report of the Superintendent of the Johns Hopkins Hospital for the Year ending Jan. 31st, 1891. Pp. 74. Baltimore: The Johns Hopkins Press. 1891.—This report, which is signed by Henry M. Hurd, superintendent, contains the statistics of the hospital during the year 1890. During the year 927 men and 725 women were admitted, a total of 1825. Of these, 165 remain under treatment, of whom 86 are men and 79 women. Twenty-six of the patients are coloured persons. In the surgical department there have been 408 operations; in the gynæcological 363; in the out-patient department 14,582 patients were treated. Courses of lectures, though not sufficient for an entire medical curriculum, have been delivered by distinguished members of the profession, and it is hoped that a complete education may soon be obtainable. The Nurses' Training School have assumed the responsibility of the nursing of sick children at the Thomas Wilson Sanitorium, supplying a head nurse and three pupil nurses. A report upon the Heating and Ventilation of the Hospital is appended by Dr. Abbott, showing that the arrangements for maintaining the temperature and purity of the air are exceptionally good, each individual receiving one cubic foot of fresh air per second. It is curious to read that in a land of equality a special ward is required for coloured persons in one of the largest hospitals in existence. There is a good plan of the hospital. There appears to have been a relatively large number of cases of malarial fever, rheumatism, typhoid fever, and of renal disease on the medical side; whilst on the surgical side the surgeons had under their care many cases of carcinoma, fistula in ano, gonorrhœal adenitis, hernia, tuberculosis, and fractures.

New Inventions.

NEW STARCH BANDAGE SHEARS.

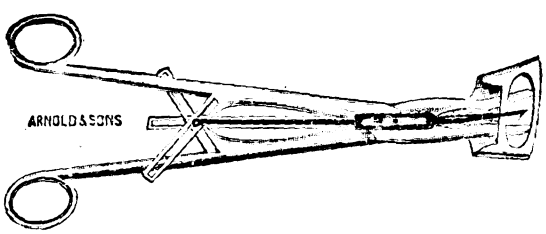
WE have received from Messrs. Evans and Wormull a sample of their new aseptic starch bandage or rib shears, the blades of which, by means of an excentric joint, have a distinct drawing as well as a cutting motion, which allows them to cut through bandages &c. instead of forcing the material forwards, as the existing patterns so often do. They



are easily and quickly taken apart for cleaning by simply raising the flat spring which secures the blades. They are made in various sizes, and the cost is not much in excess of the ordinary patterns in use. These shears are of a pattern which presents great advantages for the purposes for which they are designed; they differ, however, but little from shears built on a similar principle and in use already for the removal of plaster-of-Paris splints and bandages.

NEW TONSILLOTOME.

THE instrument which I have devised for the removal of enlarged tonsils commends itself by its simplicity in structure and by the ease with which it can be taken to pieces for the purpose of cleaning. The fenestra in the back plate is of sufficient size to admit of the entrance of any enlarged tonsil; and then, by the simple act of closing the scissors, the tonsil is removed, and at the same moment the



detached portion is transfixed by the spear, and thus prevented from dropping into the pharynx and being swallowed, or falling into the entrance of the larynx. Many other instruments allow the detached portion of tonsil to take care of itself. Messrs. Arnold and Sons have constructed for me a very satisfactory instrument, which answers the purpose admirably, and a separate back plate of smaller size is furnished with the instrument, which can be used in suitable cases.

A. HERBERT BUTCHER, L.R.C.P.I.,
Surgeon, Birkenhead Borough Hospital.
Birkenhead Park, Birkenhead.

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THE LANCET.

LONDON: SATURDAY, JUNE 4, 1892.

THE most important matters brought before the General Medical Council were connected with the consideration of charges of unprofessional conduct against medical practitioners. From the first the true position and function of the General Medical Council with regard to many of these cases formed a subject of frequent debate. The question it was desired to solve was whether the Council or the licensing body should take the initiative where there could be no doubt about the propriety of exercising penal powers. Sir JOHN SIMON raised the debate over the first case, in which a conviction for forgery formed the ground upon which it was proposed that action should be taken. He contended, with much forcible argument, that the corporations originally granting licensing powers should have taken the step of removing the name from their respective rolls and should have reported their action to the General Medical Council, and he urged this the more strongly because, in the case under discussion, the conviction was more than three months old, and the individual was still upon the registers of the licensing corporations. This question was so important that it is satisfactory to find that it was not allowed to drop, although it was argued that the corporations could scarcely undertake to keep themselves informed of criminal cases occurring in remote parts of the United Kingdom. Sir JOHN SIMON returned to the charge at a later period, and eventually it was decided to request the authorities at the Home Office to take such steps as would afford the Council early information of the conviction of a registered medical practitioner of any felony or misdemeanour; and it was also decided that the registrar should forthwith communicate such information to the medical authority or authorities from which the practitioner in question held his registered qualification or qualifications. The General Medical Council is to be congratulated upon having found such a very practical solution of a difficult problem, and Sir JOHN SIMON'S steady persistence in enforcing his views is worthy of every commendation. In the consideration of the individual cases the action of the Council was undoubtedly tempered with mercy. In two cases the inquiry ended with certain words of admonition, but in four others it was decided to erase the names from the Register. One of these calls for special note since the charges, as formulated by the Council's solicitor, were upon somewhat new lines—viz., the charge of systematically seeking to attract practice by means of extensive public advertisements, containing name, address, and qualifications, and invitations to persons in need of medical aid to consult him professionally, the advertisements being themselves alleged to be of a character discreditable to a professional medical man. These charges referred to the writings of Mr. T. R. ALLINSON in the *Weekly Times and Echo*, from which several quotations were read. For the report of the inquiry we must refer our readers to another column, where the attitude which Mr. ALLINSON adopts towards the medical profession, and his views upon the uses of drugs and upon vaccination, are fully described.

Another topic touched upon during the present session was the report of the Examination Committee upon the certificates of instruction in materia medica, systematic and practical chemistry, pharmacy, and physics. We have often in these columns had occasion to refer to the unsatisfactory nature of the evidence of instruction in these subjects required or received by the Conjoint Board for England, so that it is no surprise to learn that the charges mentioned last week (p. 1199) should be directed against this body. We had no intention of wounding any susceptibilities in noting the introduction of the story of the coachman, and the hesitation to go into particulars. Even with Mr. MACNAMARA'S letter before us, which we gladly publish, and with the report of the Examination Committee, it might still be thought that the coachman story was not supported by any proof. On the other hand, it now appears that attention was attracted because numbers of Irish students, who had not attended lectures in any recognised school in Dublin or any of the Queen's Colleges, were found to be going up for examinations. It may be hoped that under the five years' scheme this objection may be removed; but the regulations with regard to certificates are scarcely yet as restricted as Mr. BRYANT appears to believe, though they will doubtless check the reception of certificates from persons of "unascertained competency to instruct." The report of the Finance Committee indicated that during the past year the receipts had been largely in excess of the expenditure, a result which compared very favourably with that of previous years. This is a noteworthy and important fact, as it may be anticipated that the resources of the General Medical Council will, in the near future, be largely drawn upon by the expenditure incidental to the visitation and inspection of examinations. Another matter of general interest is the consent of the President to continue to act as chairman of the Pharmacopœia Committee for the ensuing year. The name of Sir RICHARD QUAIN is so intimately associated with the British Pharmacopœia that it would have been a subject for regret had his election to the presidential chair interfered with his previous genial supervision of the work of the Pharmacopœia Committee. The session is at an end and its labours have been somewhat of a routine nature and mainly confined to the exercise of painful disciplinary functions. We have not given here any detailed account of the cases investigated, as with one exception they are characterised by sadly familiar features, over which we willingly draw the veil.

MR. R. H. SCOTT, whose authority on questions of meteorology is of the first order, dedicates a paper in *Longman's Magazine* to the climate of Great Britain and Ireland, and brings out many facts of peculiar interest to the medical consultant. Having indicated the extreme untrustworthiness of popular estimates of the climate of watering-places and health resorts — estimates oftener inspired by local partiality and dread of competition than by really scientific data—he touches on temperature, and shows that differences in this respect between one

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place and another are mainly due to differences of exposure. Protection from winds, either by interjacent woods or by the contour of the ground, is what mostly renders a situation agreeable to invalids, so that "in any district the existence of a drive or a walk sheltered from north and east winds and exposed to any gleams of sunshine which may come, is sufficient to attract residents at once." Following up the subject, he pronounces the warmest spot, on the average of all the year round, to be the Scilly Isles, which are a whole degree warmer than either the west of Cornwall or the Channel Islands; while the coldest region he finds to be the extreme north-east of Aberdeenshire. In all this, however, he is speaking of temperatures at the sea level, not of temperatures recorded at stations high up on the hills or in the interior. "In winter the lines of equal temperature run generally north and south, the warmth lying to the south-westward," there being but small difference along the east coast from Aberdeen to the Thames, though the really coldest region of England is the Wash. As to the question of the variability of temperature, a question to be solved by continuous records (which "are costly things, and can only be maintained at large observatories"), Mr. SCOTT attributes the highest variability to London, where "the chance is that each day may be hotter or colder than its predecessor by more than 2½°." The most equable climate is found at the two south-western stations, Falmouth and Valencia Island; but *apropos* of these findings, he enters the important caution that "this variability is not an element of climate which really affects invalids very much, for it is the variability of the mean temperature of the entire day, and not merely of the hours at which people are usually out of doors and exposed to the open air." Summing up this part of his inquiry, he shows that while Cornwall and the South-west of Ireland, as already stated, enjoy the most equable climate, bathed as they are by the Atlantic, Aberdeen comes next in equability—a result hardly to be expected from its latitude, but explained by its proximity to the sea. Sunshine is another important factor, and under this head the Channel Islands bear pre-eminently the palm, being "the only region which records, on the average of the ten years, sunshine for one-half the time the sun is above the horizon in any month, and this it does in May, with 52 per cent., and in August, with 55." Here, again, anomalies occur, for in November the sunniest parts of the kingdom are the coasts of the Irish Sea, Douglas and Dublin, and the extreme south-west of England, Falmouth, while as yet, for some unexplained reason, "Jersey falls off completely," November being the one month in which it does not top the list. Fogs are another important factor in our insular climate, but our data for them are still as little clear as the subject. From such figures as are available, however, Mr. SCOTT pronounces the very foggiest tract to be the east coast, "Yarmouth and North Shields recording respectively thirty-four and twenty-eight days in the space of four winters or twelve complete months." London and Oxford come next, each with twenty-four days. The Thames Valley is the culprit in this case, the German Ocean in that of Yarmouth and North Shields. Another deeply interesting section of Mr. SCOTT'S paper is devoted to rain, the unequal distribution of which is mainly due to the presence or absence of hills, or to their position, in a district. "When a moist wind," he says, "comes in from the sea and strikes on a hillside, it is mechanically forced to rise, to get over the crest. As it rises its temperature is lowered at the rate of about 1° F. for every 300 ft. of elevation; so that in crossing hills 3000 ft. high, the loss of temperature is 10°. This cooling process causes some of the moisture in it to be condensed, and to come down as rain." A number of practical observations occur in this connexion, such as the choice of a residence, for which "a spot with hills lying to windward on the rainy side" is recommended. Again, the rainiest months in the west are those of the late autumn and winter; in the east, the maximum fall is somewhat earlier, as the winter months, with their greater prevalence of long-continued cold and dry winds, are less moist. Finally, the afternoons are decidedly wetter than the forenoons, noon being the finest part of the day, so that, according to Mr. SCOTT, it is wisest, "as regards our own comfort, to take our outing, if we can, before lunch." The whole paper is full of suggestions invaluable to the practitioner, and can be safely recommended to the notice of our readers.

THE variety of foreign bodies that may find entrance to the ear seems endless, and those versed in the literature or practice of aural surgery are acquainted with many instances of the entrance of peas and beans into the auditory canals of children. That they should germinate when contained in a warm and moist cavity is not remarkable. Recently the death of a boy occurred from the entrance of a horse-bean into his ear; the bean is said to have been found after death, and to have commenced to sprout. We have heard of a grain of wheat long retained under the upper eyelid germinating, and doubtless other examples have occurred, and are to be explained on the ordinary principles of nature. It is quite astonishing, the amount of ignorance that prevails among the public generally as to a correct estimate of the dangers attending the entrance of foreign bodies into the ears. Insects are supposed to be peculiarly fatal. The common "earwig," according to our experience, but seldom gains access to the auditory canal. Among the weak and credulous the entrance of an insect into the ear may originate well-marked delusions. Among these is a fixed idea that the intruder has propagated its species during its temporary imprisonment, and that henceforth colonies of its progeny are doomed to dwell in and issue forth from the affected organ. The ear, of all organs of the body, has, curiously enough, longest retained the privilege of being treated by some of the remedies of remote antiquity. We published on April 30th an interesting case of impacted lead in the tympanic cavity. Cases like the one reported by Mr. SHEILD must be, fortunately, extremely rare. The difficulty of their treatment is obviously very great, and the idea of employing metallic mercury to dissolve the irregular projections of the mass was undoubtedly ingenious. Whether this treatment will be, as the author suggested, useful for impacted bullets, remains to be seen. It is certainly worthy of trial.

MANY of the earlier writers on medicine and surgery

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treat of affections of the organ of hearing and of the foreign bodies that may gain access to it. From the frequent references to "worms in the ear," it may be supposed that this revolting complication of neglected otorrhœa was not infrequent in those days. Many of the remedies employed were most curious, and a detailed description of them would fill a small volume. Urine, women's milk, excrement, and decoctions of various substances, more or less disgusting, were commonly prescribed. The subject of foreign bodies impacted in the ear also received much attention. It is interesting to note that CELSUS advised their removal with a stream of water, and also counselled that the patient was to be laid on a table on his affected side, and then that the table was to be struck with a hammer, and the concussion would loosen or expel the substance. This practice is at least harmless, and has, in some respects, not been improved upon in modern days. PAULUS ÆGINETA, about the seventh century, wrote fully on the subject of foreign bodies in the ear, and recommended operations for their removal. Among much that was bad in the writings of these authors there were occasional glimpses of good. As often happens in matters other than surgery, the evils that men inculcate long survive them. All the ancient surgeons seemed to be impressed with the impropriety of ever leaving these cases alone, and most of them invented instruments, more or less formidable, designed for the process of extraction of the offending substance. In remote country districts the popular remedies for earache and foreign bodies are still numerous, harmful, and often disgusting. People generally look upon the entrance of a foreign body into the ear with much alarm and apprehension. There is no work on aural surgery but points out in eloquent and graphic terms the dangers that attend the use of instruments in these cases, and the small amount of comparative harm that accrues to the patient if the offending substance is left alone. Vainly do their authors quote the time-honoured aphorism of VOLTOLINI, "that even the point of a dagger left quietly in the ear will not do as much harm as attempts to remove it." A child—it is usually a child—forces a self-extracted tooth into its ear, a glass bead, a piece of slate pencil, a plumstone, or a little pebble. The lodgment of the foreign body certainly causes pain and discomfort, deafness, perhaps some slight discharge, but very rarely sets up meningitis or cerebral abscess. Every aural surgeon of experience can adduce cases in which adults have consulted him for deafness of long duration, and where the proper use of the syringe has expelled a foreign body which had lain forgotten and unsuspected in contact with the tympanic membrane. It is well to bear in mind that, beyond causing deafness and some local irritation, smooth round foreign bodies do no harm. Sharp, rough, angular, or pointed substances may be productive of greater evils. We believe, indeed, that it would be a safe rule for any practitioner not well accustomed to aural manipulations to trust entirely to the syringe in the removal of foreign bodies. In the vast majority of cases the proper and persevering use of the syringe will expel the offending substance.

THE unqualified assistant dies hard. He is an old-fashioned institution dating from a time anterior to the present highly organised constitution of the profession and a period when the State was not so exacting in its demands as respects the high training of those who served medically. The fact that four or five practitioners at the May meeting of the Council have been charged with using such unqualified assistants wrongly, and that nearly as many days of the Council's time have been occupied in dealing with these charges, ought to awaken registered practitioners to the risk they run unless they keep strictly within the bounds prescribed by the Council for the employment of unqualified assistants. One thing we may say at the outset, and it is this: that the Council does not appear to wish to dictate to the profession in its use of unqualified assistants; and, further, that in endeavouring to lay down rules it seems to have gone very thoroughly into the subject, and to have shown no disrespect to the old unqualified assistant, as he was known to most of us over fifty years of age in our earlier days. The duty of guarding the public against the attendance of unqualified persons under cover of qualified practitioners was very decidedly thrown on the Council ten years ago by Sir WILLIAM HARCOURT, the then Home Secretary. His attention was drawn in 1882 to a very bad case in which a practitioner was charged with having three different dispensaries at the East-end, at one of which "Colonel" GRIFFEN, apparently a half-caste, was in the habit of attending patients on behalf of the practitioner and signing certificates. Sir WILLIAM HARCOURT was asked if he could take steps to prevent such illegalities, when he replied: "Of course there is no legal authority which could deal with the matters referred to by the hon. member. The proper course would be for him to call the attention of the Medical Council, which has power to act by the 21 and 22 Vic., to these cases, and ask them to put the Act in force against them."

It must be allowed that, prior to that time, the Council had not either realised its duties or appreciated the gravity of the evil to which Sir WILLIAM HARCOURT'S attention was directed. Ever since, however, the Council has been more alive to both points. Those who doubt this, or would like to study the question of the scale on which, and the views with which, unqualified assistants are employed, would do well to obtain the Minutes of the Medical Council for 1882–83 and following years. They will be surprised at the detail with which the subject was gone into by the committee appointed, which included the late Dr. CHAMBERS (chairman) and Mr. (now Sir JOHN) SIMON, under whose influence the decisions of the Council and the rules for its guidance in trying such cases were framed. The strange thing is that ten years later we find five or six practitioners brought up charged with violation of or inattention to the often advertised rules of the Council. Not only have the rules been advertised, but the cases in which they have been broken have been from time to time reported in the medical journals. And yet session after session men appear before the Council and are struck off, and say, in answer to questions, that they were not aware that they were doing anything wrong or acquainted with the Council's views. The only explanation we can offer is of a twofold nature. First, some men seem to turn a blind eye to that which they

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do not wish to see; secondly, it must be admitted that there is a certain amount of vagueness in the rules of the Medical Council with regard to the employment of unqualified practitioners—just enough to throw on the individual practitioner the onus of considering whether in his individual case he is breaking these rules. We reprint in another column a resolution passed by the Council on April 21st, 1883, and a subsequent report of the Executive Committee on the use of unqualified assistants presented at the meeting in May, 1888. Surely it is possible for the Council to be still more definite, and to specify with more precision the conditions under which its censure would be incurred by practitioners employing unqualified assistants. In the meantime, the only safe course for practitioners to take is to study the bearing of the somewhat vague, but yet significant, resolutions of the Council and the report of the Executive Committee. This Committee was appointed in order to "consider under what circumstances a registered medical practitioner would render himself liable to the censure of the Council in reference to the employment of unqualified assistants." Meantime we may give this advice to any young men who, by their own fault or that of fortune, threaten to drift into the list of chronic unqualified assistants: to give diligence to escape from a position which, except in the temporary form of pupilage, is now discredited.

Annotations.

"Ne quid nimis"

THE VACCINATION COMMISSION.

BOTH in the House of Commons and in the House of Lords questions have been asked as to the intentions of the Government in respect of the recommendation contained in the interim report of the Royal Commission on Vaccination that vaccination prisoners should no longer be subjected to the same treatment as ordinary prisoners. Mr. Matthews, in reply to Mr. Channing, said that the recommendations made in the report involved an important and considerable relaxation of the law on this subject, and Her Majesty's Government think it right to consider the evidence on which those recommendations are founded more fully and carefully than they have yet been able to do before deciding what legislation they will recommend to the House, especially as small-pox has considerably increased in several parts of the country; the Government, it was said, would lose no time in announcing the course they proposed to take. Mr. Matthews' reply did not in any way give satisfaction to Lord Herschell, who last Tuesday severely criticised it in the House of Lords. Lord Salisbury, however, held that it was perfectly fair for the Home Secretary to conclude that although the Commission might have fully intended to maintain the vaccination law, and although in their judgment their recommendation might do so, yet the practical effect of it would be that the vaccination law would cease to be operative. The desire to see the evidence did not imply the slightest distrust of the Commission, but only indicated a wish to know the grounds on which these recommendations were founded. The proposals of the Commission appeared to enable persons to buy the privilege of making themselves centres of contagion. The principle of allowing a person, after paying the penalty for a first offence, to go on offending in the same direction was so novel in our legislation that he could well understand the Home Secretary's hesitation before promising to act upon it. There is no doubt the action of the Commission has placed it in an undesirable position. We have already commented upon this at length. It is probable that before the conclusion of the inquiry the increase of small-pox in England will have afforded more than one striking example of the effects of the neglect of vaccination, and the Commission may feel itself obliged to consider what substitute shall be provided for the machinery upon which reliance has hitherto been placed.

SIR W. A. MACKINNON, K.C.B.

ON Thursday, Mr. H. G. Croly, President of the Royal College of Surgeons in Ireland, accompanied by Sir Charles Cameron, Past President, R.C.S.I., and member of the Army Sanitary Committee, waited upon Sir W. A. MacKinnon, K.C.B., Director-General of the Army Medical Service, to present him with the diploma of the Honorary Fellowship of the Royal College of Surgeons in Ireland. The President stated that the compliment was an unanimous expression of the high sense which the College entertained of Sir William MacKinnon, not only as the head of the great department in which the College was so much interested, but also of his personal merits and reputation. Sir William MacKinnon expressed his thanks for the honour conferred upon him, and his appreciation of the services which so many of the Fellows and Licentiates of the Royal College of Surgeons in Ireland had rendered to the army.

THE METROPOLITAN ASYLUMS BOARD.

THE extent of the operations in London for the isolation in hospital of cases of infectious disease may be understood from the report which Sir Edwin Galsworthy presented to the Metropolitan Asylums Board last Saturday. During last year the ambulances of the Board removed 7725 fever patients from their homes to the hospitals of the Managers; 2392 convalescents to the Northern and other hospitals; 2343 patients, who had recovered, from the Northern and Gore Farm hospitals, and 140 from the hospitals to their homes. The mortality amongst 5262 scarlet fever patients had been 6·11 per cent.; among 1312 diphtheria patients, 30·61 per cent.; and among 755 enteric fever patients, 14·19 per cent. The report also gave account of the purchase of land for the enlargement of the Western Hospital, and of the conclusion of arrangements for the extension of the administrative buildings. At the Northern Hospital the number of small-pox cases received into the hospital had only been sixty-four, the forerunners of the more serious outbreak of this year. But Sir Edwin Galsworthy pointed out that if, unhappily, small-pox should again assume epidemic proportions in the metropolis, the Managers would, by means of their efficient ambulance service and the accommodation which they possessed in the hospital ships at Long Reach and in the convalescent hospital at Darenth, be far better prepared to cope with the outbreak than at the time of any previous epidemic. No doubt this is a gain to London, and it may be hoped that the existing arrangements will stand the test of time, and that there may be no reason for London to lose the advantages of a system that removes cases of small-pox so far from its boundaries. Sir Edwin Galsworthy, in his report, touched upon a subject which is not unnaturally present in the minds of those who have constantly before them the expense to which the community is put by the spread of infectious disease. In view of the fact, he said, that the powers of the Managers, in dealing with small-pox and other infectious disorders, were strictly limited to the removal and isolation of infected persons, it would hardly be matter for surprise if their efforts should sooner or later fail to prevent that which, with larger powers, they might

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not unreasonably hope to indefinitely postpone. They called special attention to the Managers being constituted a sanitary authority, with power to direct measures of disinfection, instead of this duty being shared, as the law now stood, between no fewer than forty-one distinct authorities. The question here raised is a very large one; it is, indeed, two questions—the one whether the business of disinfection of houses and of infected articles can best be done by a central metropolitan or district authority, and whether, if by a central authority, that authority should be the Metropolitan Asylums Board? Whether the Metropolitan Asylums Board should have its powers enlarged and become more intimately associated with the administration of prevention of disease in London is, we imagine, likely to receive only one answer. It is obviously impossible for two central metropolitan authorities to be engaged in the same duty, and it has indeed to be seriously considered whether the work relating to infectious disease now undertaken by the Managers should not devolve upon the London County Council. This, we believe, is the proper solution of the difficulties of divided administration upon which Sir Edwin Galsworthy dwells, and it may be expected that the need for the arrangement of the duties of the two bodies will be suggested to many by the report which has just been presented.

A REPORTED NEW ELEMENT.

IT is reported in the *Chemiker Zeitung* that a new element has been recognised in a mineral found in Egypt by Johnson Pasha in 1890. This mineral, first called "Johnsonite," but afterwards masrite, consists mainly of aluminium, manganese, cobalt and iron, in combination with sulphuric acid. It dissolves in water, and yields on treatment with sulphuretted hydrogen in an acetic acid solution a preliminary white precipitate, from which a pure hydroxide was prepared. The element masrium contained in this was found to have an atomic weight of 228. The sulphate is a white salt, crystallising badly from water, but readily from a 50 per cent. alcoholic solution. The reactions of a soluble salt of masrium somewhat resemble those of zinc. The free metal has not been obtained, neither has any vapour density been determined nor spectroscopic examination made. It would appear, therefore, that masrium has not yet been fully investigated, and the statement that a new element has been discovered must be received with some amount of reserve until more detailed particulars are forthcoming. The periodic law of Newlands and Mendeléeff indicates, however, an element of atomic weight 225 in the family containing glucinum, strontium, and barium.

DEATHS UNDER ANÆSTHETICS.

A DEATH under chloroform is reported from the Kent and Canterbury Hospital. The patient, a brewer's labourer aged thirty-two, was admitted into the hospital to undergo an operation for the relief of a strangulated hernia. He was stated to have been in a very bad state of health on admission. Chloroform was administered, but before the patient had passed completely under its influence he suddenly became collapsed and, according to the evidence of the house surgeon, died from syncope. There seems a peculiar liability to a fatal issue to cases of this nature, but it is impossible to say in the present state of our knowledge whether the danger arises from the general enfeebled state of the patients, or whether the large and important nerve plexuses which are disturbed in visceral traumatism are the determining cause. It would seem wiser to replace the use of chloroform in these cases either by a mixture, such as the A.C.E., or ether. We have to record another death under an anæsthetic, and we are indebted to the house physician, under whose care the patient was, for the following notes. The patient, a pale, weakly woman aged fifty-three, was admitted into University College Hospital suffering from a tumour in the right loin of doubtful nature. The lungs were healthy and the heart free from organic disease but feeble. On May 20th and 24th she was placed under ether. On the first occasion some difficulty was experienced, and respiration failed. However, on pulling forward the tongue with forceps the breathing was resumed, and no further trouble was experienced. On the 24th she took the ether quite well; two days later she was brought into the operating theatre and ether again given from a modified Clover's larger inhaler by a house physician of considerable experience in the use of anæsthetics. She passed under the influence of the ether rapidly and quietly, the breathing being deep and regular, although the pulse was from the beginning somewhat weak. The surgeon proceeded to cut down upon the kidney. After twelve minutes or so, and while the kidney was being manipulated, the patient began to vomit, expelling some greenish liquid. Synchronously the patient cease to breathe, and the pulse was completely lost at the wrist. She was at this time upon her left side. She was promptly turned on her back, the face piece removed, the lower extremities raised, the tongue drawn well out of the mouth, and artificial respiration by Silvester's method was adopted and persisted in. There was no blueness and no difficulty in getting air to enter the lungs. No recovery, however, took place; the heart never stirred from the first onset of syncope. Stimulation of the præcordium and other methods for resuscitation failed. A necropsy was made on the day following the fatality. The heart was found to be flaccid, and to contain no blood; the myocardium was pale and soft, and the cavities were dilated. The lungs were normal, and free from any of the signs of death from asphyxia. In this unusual form of death under ether there seems little doubt that the cause of the fatality was primary heart failure, as there was at no time any evidence of even pulmonary engorgement. The mechanism of this syncope is less clear unless we accept the hypothesis, which certainly has much to support it, that the death was really due to reflex inhibition of the heart, the inhibiting nerves being the visceral branches of the sympathetic stimulated by the manipulation which the kidney was undergoing, acting upon a heart only imperfectly guarded, as the patient appears to have been very superficially under the influence of the drug. The act of vomiting, while it heralded the partial resumption of consciousness, may itself have been a visceral reflex, associated, as we usually find visceral vomiting to be, with cardiac enfeeblement.

SENDING DISEASED MEAT TO MARKET.

A FEW days ago, at the Guildhall, London, a cattle dealer of Norwich was fined £50 and three guineas cost for sending four pieces of diseased beef to the London market, intending it to be sold for human food. It was stated that the defendant, being afraid that the cow, after calving, was suffering from milk fever, and would die, had it killed, dressed, and sent to market. An inspector stated that the flesh of an animal which had suffered from milk fever would be most dangerous and poisonous food. The punishment in this instance was well merited, we feel assured, if the evidence perfectly demonstrated that the animal was suffering from real milk fever when it was slaughtered. But if it was affected with what is often wrongly designated milk fever, even by professional people, then the decision to inflict such a heavy fine, or any fine at all, was unjustified; for it should be remembered that two very different disorders are only too frequently included in this designatio Puerperal or milk fever, which in the cow is nothing more or less than septic metritis, undoubtedly renders tha

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animal's flesh unfit for food; but another somewhat frequent disorder following parturition, and which only too often receives the same names, is marked by loss of consciousness at an early stage and symptoms of cerebral apoplexy. In this, however, there is no fever or indication of septicæmia, but merely brain congestion or hæmorrhage, and the temperature is either normal or subnormal, while in milk fever the temperature ranges high, and there are the other signs of blood poisoning. The latter is usually named "puerperal fever" and the former "parturient apoplexy" by veterinary surgeons, and the distinction should be rigidly observed, as in the first the use of the flesh as food should be prohibited, but in the case of the second it may be allowed, provided the carcase is accompanied by a certificate from a competent authority stating that the animal was only suffering from parturient apoplexy, and had not received any noxious drugs. This course would prevent fraud on the one hand and injustice on the other.

FEVER HOSPITAL PROVISION.

AN evening contemporary states that the Metropolitan Asylums Board proposes to acquire the City of London Union Infirmary at Homerton for the purpose of utilising it as a fever hospital, and it urges the inhabitants of the district to lose no time in offering an organised opposition to the scheme. We trust the inhabitants will do nothing of the kind. Fever hospitals are a necessary part of the machinery for the limitation of the spread of infectious disease, and it has been found that the use of fever hospitals does not endanger a neighbourhood in the same manner as small-pox hospitals. No doubt the introduction of a fever hospital into any part of London is at first regarded with considerable distrust, and may be attended for a time by some depreciation of property until a little experience has shown that the fears are groundless. The extension of the Homerton hospital would have no such effect, and it would be regrettable if the intentions of the Managers should be frustrated.

THE CURE OF ADVANCED RABIES.

IN connexion with Professor Murri's paper on page 1231, the following detailed account of the important experiments therein referred to may prove of interest. Our readers are already aware of the treatment of tetanus by inoculation, as practised by Professor Tizzoni of the University of Bologna—a treatment the success of which has emboldened the same indefatigable experimentalist to attempt, on similar lines, an improvement on the Pasteurian method of dealing with rabies canina. That method, says Professor Tizzoni in his memoir, presented to the last meeting of the Accademia dei Lincei, seeks to hinder the development of hydrophobia, but has hitherto failed of effect after the primary symptoms of the malady have set in. It is to the latter condition—that of developed hydrophobia—that he accordingly addresses himself, and the following is a summary of his *modus operandi*. He had already proved, in conjunction with Schwarz, that the serum from the circulation of an animal rendered proof against the hydrophobic virus reveals a disinfectant action, destroying the said virus when introduced by inoculation into rabbits, and this for an interval of time of about forty-eight hours. He next verified the validity of the doctrine laid down by Valli at the beginning of the century that the substance of the nervous system of rabid animals when subjected to artificial digestions loses its toxicity, and, moreover, when injected, that it acts like the medullæ of Pasteur, endowing the inoculated animals (always rabbits, as being more alive to the infection) with resisting power against rabies. So he set himself to inquire whether in the serum of animals rendered virus proof there might not be contained an active principle capable of withstanding the hydrophobic infection. As the result of his experiments he found that the said serum destroys the virus of rabies not only *in vitro*, but even in animals in which the virus had been inoculated in the most certain of all ways by means of the sciatic nerve. Not only does the serum of virus-proof animals prevent the development of rabies, but it cures hydrophobia even when it is already established—e.g., with such unmistakable symptoms as paralysis of the lower half of the body, nervous prostration, fever, diminution of weight, and the general aspect characteristic of the rabid animal. For his own method, the Bolognese pathologist claims a distinct advantage over that of Pasteur, as being efficacious even when the virus of rabies is already diffused throughout the nervous system, its efficacy having failed only in cases in which concurrently with the infection there were profound anatomical lesions. In man, consequently, recourse to the counteracting treatment should be had in the first period of the infection, as soon as this is revealed by its characteristic and numerous phenomena. No great quantity of the liquid is then required, and it may be injected hypodermically or into the bloodvessels, care having been taken that it loses none of its virtue by exposure to light and heat. Professor Tizzoni (assisted by his colleague in the Bologna Laboratory, Dr. Centanni, of whose coöperation he makes due acknowledgment) claims, by special methods and special solvents, to have succeeded in extracting from the medulla of a hydrophobic animal the vaccinating substance, deprived of its toxicity, which forms the active agent of the Pasteurian treatment. This substance, used as a prophylactic, invariably preserves infected rabbits; but when the treatment has been begun seven days after infection it is quite inoperative. If, then, instead of resorting to the substance above mentioned, the serum of vaccinated animals be employed, advantage is taken of the "immunifying substance" (as Professor Tizzoni calls it) already elaborated in the organism of the virus-proof animal, a substance which acts directly on the poison of rabies. In other words, the vaccinating substance remains inert when the malady is developed; the "immunifying substance" (*sostanza immunizzante*) enables us to combat the poison in cases where hitherto intervention of any kind has been unavailing. Professor Tizzoni and Dr. Centanni are so satisfied of this that they await with confidence the application of their method to man, and meanwhile promise to make their clinical experience *publici juris* as soon as a sufficient number of test cases have come under their cognisance.

THE METROPOLITAN ASYLUMS BOARD AND ITS PROFESSIONAL STAFF.

"ASSUMING that the arrangement was satisfactory both to the managers and the persons who were willing to give their services on the terms referred to, the Local Government Board were not aware of any reason why it should not be carried out." This aphorism, with which Lord Henniker dismissed the subject recently raised by Lord Sandhurst in the House of Lords, a report of which will be found in our Parliamentary column, concerning a certain circular issued by the Metropolitan Asylums Board, has about it an air of common sense that is unquestionably captivating, but perhaps a little deceptive withal. The circular in question contained an invitation to medical men and nurses to take office as clinical assistants and additional nurses at a remuneration limited to residence and rations. Now it is perfectly true that the experience which can be gained at the institutions under the control of the Board is valuable experience, and worth acquiring at some personal cost, both by medical men and nurses, and,

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were it proposed to organise the small-pox hospitals in the manner of a special medical school, there could be no dispute about the propriety, from the point of view of the profession, of allowing such students as chose to avail themselves of those educational facilities so to do. But there is a great temptation to the managers of any such undertaking to exploit the young professional person very unfairly to their own advantage. It is a truth which cannot be forgotten without public detriment, that the "labourer is worthy of his hire." The acquiescence of the party who gets the worst of the bargain is evidence of his inability to resist, but by no means evidence of his readiness to accept the position in which he finds himself. A young man, for example, who finds it difficult to make a start is often glad, in a sense, to accept a very disadvantageous arrangement which gives him employment and keeps his faculties from rusting. By astutely taking advantage of these necessities of a young man's or young woman's position, governing bodies may, and do, secure great pecuniary advantages in connexion with the filling up of junior places in their staffs, and to a large extent this evil must be endured, because there is no means of curing it. But with a public body, directly or indirectly responsible to Parliament, it is not impossible to make a protest, and we desire emphatically to support the complaint put forward by Lord Sandhurst. The question raised is one that nearly concerns the comfort and even the well-being of a large number of young and comparatively defenceless people, and cannot be answered by an epigram. It is taking an unfair advantage and securing an unworthy gain for the public which accepts their services to evade due payment for them by turning to the best possible account the "higgling of the market."

DEATHS FROM SWALLOWING ARTIFICIAL TEETH.

THE case reported in the daily newspapers last week of a police constable who met his death from the impaction of a set of artificial teeth in the neighbourhood of the larynx should draw general attention to a danger to which many are daily exposed. It will be remembered that in this particular case the constable, summoned by the whistle of a comrade conveying a prisoner, whom there was an attempt to rescue, to the police station, came running up and took hold of the arm of the prisoner, but almost immediately fell to the ground. He was at once conveyed to King's College Hospital, but died on the way there. The post-mortem examination revealed a set of false teeth impacted just above the larynx, and this had caused death from suffocation. The report adds that the teeth were of inferior make and no doubt became loosened through the deceased running. Year after year there are recorded cases of death from swallowing artificial teeth and probably many occur which are not reported or even suspected. As a rule these artificial teeth are what is known as "partial cases," where a few teeth are mounted on a small plate, with clasps attaching them to two or three of the remaining natural teeth. These plates may be so ill-fitted as to be loose from the first, and thus easily displaced; but more often the supports—the natural teeth—decaying little by little, the hold of the plate becomes very precarious, yet so gradual is the loss of anchorage that the patient in some instances hardly notices it, and by means of the tongue and the opposing teeth of the other jaw, keeps them in position, while the muscular movements are unconsciously performed. The danger in this latter class of cases is the greater because of the insidious growth of its cause. It has been urged that these small dentures ought never to be inserted, but this contention is hardly practicable; the dentist, however, should always impress upon his patient the necessity of seeking advice should they become loose, especially where they are worn during sleep. The extraordinary foolhardiness which is sometimes displayed in such a case is shown by the following history. A man wearing a gold plate carrying three or four front teeth attached by means of clasps to the bicuspids returned home one night after a carouse, and, in attempting its removal, allowed it to slip down his throat. After waiting patiently for three days he found, to his joy, that it had passed per rectum and he proceeded straightway to place it in its proper position. He saw his dentist a few days later, and told him that he had taken aperients, and passed a great part of his time looking for the lost teeth. The plate was green and slimy, but nothing could induce him to have it removed from his mouth or to have a frame made which would be impossible for him to swallow. However, it is not always the small artificial sets which have been the cause of death by suffocation, for the pharynx is sometimes large enough to accommodate a whole upper suction case, and in the museum of the Middlesex Hospital there is a preparation showing a loin mutton chop, including the bone, impacted in the pharynx, which is surely as large as anything made in the way of artificial teeth.

LIME IN THE SALIVA.

AN examination of the saliva for lime gives results of a variable character. A series of observations have been recently made by Dr. Lepkowsky on the subject in the hope of elucidating the cause of this variation. The method employed was that recommended by Krüger. In perfectly normal cases the saliva contained from 2 to 3 per cent. of lime, there being more a few hours after a meal than either just before or just after it. A rise of body temperature, too, appeared to cause an increase in the amount of lime. Where any of the teeth were affected by caries the lime increased to from 3 to 5 per cent. It did not appear to matter whether only one tooth or several were affected. The lime evidently was not dissolved from the teeth, for in the three-quarters of an hour during which the secretion was collected for analysis the utmost that could have been dissolved from the teeth was 0·000,004 gramme—a quantity too small to be detected chemically. Again, it was found that a still larger proportion of lime occurred in the saliva of persons who had lost all their teeth, in whom it contained from 6 to 9 per cent. Dr. Lepkowsky has not found himself in a position to advance any definite theory as to the cause of the variation in the amount of lime, but suggests that nervous influences probably play a not unimportant part in its secretion.

A NEW CONVALESCENT HOME FOR EUROPEANS IN BOMBAY.

THE new European Convalescent Home, recently opened at Khandalla, in connexion with the Bombay European General Hospital, appears to be a picturesque structure, with a handsome façade, occupying a very open and desirable site, and surrounded by a panorama of mountain and valley. The home has been erected on the plans prepared by Mr. John Adams, executive architectural engineer to the Bombay Government. The male and female quarters are isolated from one another by a large break in the centre of the building, but overhead, on the second floor, the front verandah spans the interval like a bridge, allowing a free promenade from end to end of the building, and also permitting nurses to pass from the male to the female wards and *vice versâ* without running up and down stairs. The male and female quarters have large dining-rooms, dormitories, bath-rooms, and nurses establishments. An institution of the kind has long been required, not only for patients, but in the interest of

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the European hospital nurses whose duties in an Indian climate are of a very exhausting kind. The present building owes its origin to the suggestions of a lady visitor to the European General Hospital in February, 1889. We wish the new convalescent home every success, and hope that the movement will commend itself, as it certainly should, to European residents in the Bombay Presidency and to travellers from England, America, and the Continent, who cannot fail to recognise the claims of an institution which will materially alleviate the sufferings of Europeans and others who have to earn their livelihood in a distant and trying climate. One of the chief advantages of this convalescent home is that it is only a short journey from Bombay, and easily accessible by rail.

EXPERIMENTS ON ANIMALS.

THE return made to the House of Commons upon the working of the Act 39 and 40 Victoria, c. 77, for the year 1891, by Dr. Poore and his Irish colleague, shows that the work done under the licences issued from the Home Office has continued during that period to be of the very highest importance both to the human and the brute communities. Recent discoveries in the nature of disease have naturally directed the industry of investigators into this channel, since only in the living body can those phenomena be observed from which it is possible to deduce the laws of the propagation of those minute organisms which are now known to be the agents and promoting causes of many diseases, and only in the living body, and under experimental conditions, can the precise effects of treatment be ascertained and demonstrated. The list of diseases which Dr. Poore enumerates as having occupied the attention of experimenters during the past twelve months is a highly suggestive one, and one which amply justifies the workers in this field, comprising as it does scourges so terrible both to man and beast as tubercle, cholera, cancer, erysipelas, diphtheria, influenza, rabies, glanders, anthrax, goitre, and cretinism.

PROGRESS OF PHARMACY.

THE report of Professor Attfield on the Progress of Pharmacy, presented to the General Medical Council, necessarily has reference mainly to progress in its relation to the future revision of the British Pharmacopœia. Year by year the British Pharmacopœia is made the subject of researches, and suggestions in medical, chemical, and pharmaceutical periodicals, and to Professor Attfield is entrusted the arduous task of keeping record of the researches and of criticising the suggestions. The question of nomenclature occupies the first place in the report, and then stress is laid on the desirability of using the words "solution" and "soluble" with greater regard to scientific accuracy. The looseness with which these words have been employed is sufficiently indicated by the familiar "soluble in acids," which in nearly every case means that the substance is first converted into some new chemical form which is soluble. It was pointed out by Ince in a paper in the *Pharmaceutical Journal* that Great Britain stands alone in treating Latinised English names as feminine, and it is suggested that perhaps it might be desirable to change "saccharata," "exsiccata," "granulata," "ponderosa," and "acida," to "saccharatus," "exsiccatus," "granulatus," "ponderosus," and "acidus." The subject of proposing additional official synonyms is approached with caution; but there can be no doubt that the list of official synonyms should be extended, as in this way uniformity in the potency and general qualities of raw drugs and of their preparations is promoted. The Unofficial Formulary issued by the British Pharmaceutical Conference is mentioned, with the laudatory note that many substances previously in this list have already been rendered official by incorporation in the Additions to the British Pharmacopœia. The report upon materia medica and compounds is mainly of pharmaceutical interest; incidentally, however, it is pointed out that some of the difficulties suggested would scarcely apply if pharmacopœial directions were closely followed. In view of the frequent variations in strength of acidum hydrocyanicum dilutum, and of the probability that it will be replaced by prescribing a freshly made solution of cyanide of potassium, it is considered that the purity and dose of the latter should be officially established. It will be seen from the above that this department of the work of the General Medical Council is being thoroughly and efficiently performed.

MR. IRVING ON CONSUMPTION HOSPITALS.

THAT our distinguished tragedian possesses what Dr. Johnson called "the art of doing little things with grace" has been shown on many occasions, but on none more felicitously than in the short speech with which, as president at the annual dinner of the North London Hospital for Consumption, he introduced the toast of the evening. He dwelt with humour and point on the charge brought against theatres, that they are *par excellence* the parents of phthisis, from the exposure incurred by their frequenters to the night air after long hours spent in a vitiated atmosphere. Thanks to better ventilation and, *inter alia*, to electric lighting our theatres are rapidly minimising the risks referred to, though the same cannot be said of our law courts, our places of religious and political assembly, and even the House of Commons itself. Besides, as he adroitly indicated, it is not so much the playgoer who is exposed to the dangers with which theatres are said to be fraught as the play actor, who has to exert himself—in mind and in body, in voice and in limb—at unseasonable hours, and in circumstances often far from favourable. As none can testify more authoritatively than Mr. Irving himself, the very proficiency of the actor in his part makes the public more exacting—even to his having to reappear again and again (though this is more specially true of the lyrical drama) in answer to the "encores" of imperiously vociferous audiences. A better pleader than Mr. Irving for the cause of medical charity it would be difficult to find. Off the stage, as well as on it, he illustrates what Addison, in a memorable paper, contended for—the uses to which the drama and its artistic interpreters may subserve, not merely for social culture and refinement, but for the diffusion of that sympathetic and coöperative spirit which tends to make "the whole world kin."

INCREASE OF CHOLERA.

DISQUIETING intelligence reaches us from the East regarding the increase of cholera. The disease for some time past has been smouldering in Persia, but now accounts are forthcoming of its active appearance in that country and in Cashmere. The chief places affected appear to be Meshed, where the mortality is said to have reached 60 per cent., and Srinagar, where the deaths have ranged between fifty and sixty per hundred of the cases. These reports may be, and we hope are, unfounded and exaggerated. Nevertheless, grave cause for apprehension exists, the more especially as cholera is reported to have shown itself at Turbeti Sheikh Djami, a town on the Perso-Afghan frontier. This looks as if there were going to be an extension into Afghanistan, and thence into India. Thus, Western civilisation is at present exposed to invasion by cholera at two points—viz., overland from Persia through Russia, *vid* the Central Asian railway communications, and by sea from India, through the Suez Canal. With regard to the former, the Russian Government is taking precautionary measures, chiefly of an

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administrative character, at Tiflis. It is satisfactory to learn that "sanitary precautions" are being taken at Djami. If these are carefully carried out in Afghanistan, the disease may not acquire an epidemic foothold in our Indian empire. Without in any way anticipating the conclusions or agreements of the parties to the Venice Sanitary Conference, it is to be hoped that the combined system of inspection and disinfection that will be promulgated in the Red Sea will arrest any Indian cholera infection at its entrance into Europe. For us Europeans, therefore, there is yet ample time given to put our houses in order, and to afford no opportunity to the dread enemy to settle in our midst. Should cholera burst the barriers raised against it in Russia and at the Canal, its success in establishing itself in any country will be in inverse proportion to the hygienic condition of that country. All filth conditions, of whatever sort, and every kind of pollution of air, water, or soil, are the nidus in which cholera flourishes. All our efforts, therefore, should be centred in perfecting our sanitary defence against the disease, which appears at the present moment to be afflicting our brethren in the East. The death of Sir Henry Harrison and his daughter at Chittagong from cholera has been the subject of much regret, as he was one of the ablest members of the Bengal administration, and was instrumental in carrying out many of the municipal reforms in Calcutta of late years. It is stated that many Europeans died of cholera at Chittagong in March last, but the disease was supposed to have disappeared.

THE LATE GENERAL H. H. MAXWELL, C.B.

ON Saturday, the 28th ult., in Rome, died one of the most accomplished and unwearied of public benefactors, General Henry Hamilton Maxwell. Placed by recent War Office regulations on the retired list, he was prematurely cut off from further distinction on the career of a soldier—distinction honourably earned in the Punjaub, in the Crimean campaign, and in the Indian mutiny; but, in keeping with the kindly nature he inherited, he could not be idle wherever thoughtful charity was to be exercised or humanity to be reclaimed. In conjunction with Count Beaufort he set himself to provide the poor victims of bodily mutilation, whether in war or in industrial life, with the mechanical assistance they required for resuming their place, even partially, in the ranks of the breadwinners. Italy, where the loss of an arm or leg is almost courted as an excuse for mendicancy, was the scene of his charity, and for more than twelve years he laboured to find out those who had been crippled in either limb, and by well-adapted artificial substitutes, gratuitously given, to save them from an all too easy lapse into beggary. Year by year he published reports of the "Arms and Legs Charity" in Rome and enlisted in the cause many compatriots who would otherwise have led the self-indulgent life of the artistic or lettered *dilettante*. From time to time THE LANCET called attention to this work and now that it has, we fear, been prematurely closed we cannot refrain from recording our sense of its value, and from laying this humble *immortelle* on its author's grave.

FLOWERS FOR THE SICK.

THE curative resources of medicine are not all included even within the compass of a bulky pharmacopœia. Nature has provided us with many such which are not the less potent in their proper place because they do not require to undergo any process of ordinary chemical preparation. Rest, exercise, diet, and the various methods of sanitation belong to this class. So likewise do numberless means of impression by which the mind is reached through the senses. The stimulant attraction of beauty is a suggestive example of this kind. It has from time immemorial been thus employed in a variety of ways, but never probably on so large a scale or with so great acceptance as where flowers have been its exponents. We are all aware of the fact that among ourselves the distribution of these to the sick has long been carried out by a special organisation, and the willing support which this body has always received is an excellent guarantee of the quality of its work. We cannot perhaps exactly trace its effects, but we know enough to be able to appreciate its refreshing influence upon mind and body when harassed by disease. Clearly, then, so useful a means should possess every facility in its mode of use. Instead of this, it is often found that flowers, though fresh and beautiful when cut, are, on their arrival at the bedside, crushed, withered, or decayed—no longer an aid to health, but a positive source of disease.

"Lilies that fester smell far worse than weeds."

Faults in packing, the failure to exclude air in particular, delays in transit or in distribution, and excessive handling by distributors, would account for their altered condition. A little care and forethought should effectually prevent this perversion of what must otherwise prove to the sick a real and unmixed benefit.

THE PERIOD OF ISOLATION IN SMALL-POX.

HAVING regard to the reappearance of small-pox in many parts of the country, and in reply to questions addressed to us on the subject, it may be useful at the present juncture to note that no uniform and definite period of time can be laid down as the minimum period of isolation of small-pox, as in measles or scarlet fever. There are so many varieties of small-pox, ranging from the varioloid and varicelloid to the confluent and hæmorrhagic, that no precise time-limit of infectiveness can be laid down. Bearing in mind the active virulence of the scabs resulting from the pustulation of small-pox, the period of complete and thorough separation of these is the only guide that we have. This will necessarily vary greatly—e.g., in a varioloid case, with only a few abortive pustules; in a mild, discrete case; in a coherent or semi-confluent case; and, lastly, in the confluent variety, where the face and head and many parts of the body show huge adherent coalesced scabs. The patient can only be pronounced free from risk of conveying infection when every trace of scabbing, and even of powdery scaling, has thoroughly disappeared. A careful system of bathing and of lubrication will, of course, greatly hasten the process.

THE POOR MAN'S MARKET.

AN interesting question was brought forward last week at the Marylebone Vestry election regarding the removal of the costermongers and stallkeepers who for years have plied their trade in High-street and Great Titchfield-street of that parish. The Markets Defence Committee urged the ratepayers to vote for such candidates as would be in favour of the retention of this threatened industry, and put forward the following arguments: That to the poor people of the district a cheap and handy market is an absolute necessity, and that during the fifty years this market has been permitted, no one has suffered annoyance, no interests have been injured, and no traffic interfered with. Moreover, it is stated to be a fact that the resident tradesmen have benefited by this open market, as no doubt customers are attracted to the locality when dealing at the stalls. Our sympathies, it must be confessed, are in favour of such cheap and open markets in cases where it can be shown that no interruption of traffic is occasioned, and where no nuisance to the surrounding district can be proved. To remove the barrows of the costermongers or the stalls of the itinerant vendors would prove a great hardship to the poor of the district, who would be driven further afield or else have to pay dearer by having to purchase their provisions

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at shops for which a high rent is paid. Nor when such a market has existed for fifty years without a complaint having been raised, as regards its conduct, can we find any just reason for the action of the vestry. If they would confer a favour on the residents it would be rather in a crusade against the street hawkers, rag, bone, and bottle merchants, who perambulate the streets, hang about areas, and too often encourage servants in petty thefts; these and the perambulating hawkers of flowers "all a'bloomin'" and "strawberries, fresh strawberries," and vendors of Sunday newspapers are veritable nuisances that ought to be suppressed. But the stationary costermongers—whose barrows in some back street provide on Saturday night fresh fruit, vegetables, and cheap fish at reasonable rates to the neighbouring poor—are, we believe, hard-working and honest men and women; and to drive them from the positions they have held for many years would be a piece of class injustice which, in cooler moments, we are sure the inhabitants of Marylebone will not endorse. Surely the sanitary authority can exercise proper supervision over this "Poor Man's Market."

NOTIFICATION OF INFECTIOUS DISEASE.

WE noted in our last issue an interesting Parliamentary return showing the districts in which notification of infectious disease is compulsory, and from which it appears that this system now applies to four-fifths of the population of England and Wales; but the districts where authorities have failed to require notification remain a source of danger to the rest of the country, and Mr. Ritchie's promised measure is much needed as the only remedy. While small-pox is making its appearance in numerous places, we are reminded that Mr. Ritchie has expressed the hope that he will be able to extend the provisions of the Notification Act to all places within the area of jurisdiction of the Local Government Board.

"OBITER DICTA."

THE reports of proceedings in courts of law which appear in the English press are universally acknowleged to be remarkable for their accuracy, even when they are much condensed in substance. We do not often hear of witnesses finding fault with the statements put in their mouths, and yet sometimes one is almost inclined to believe that the reporter is a wit who delights in making some people say more than they mean. Two rather curious examples which will by no means stand scrutiny, stated to have been uttered by medical witnesses, are thus reported this week. One occurred at an inquest upon a girl who died from perforating ulcer of the stomach after a few hours' illness. The medical witness is reported to have said that "the disease was one peculiar to maidservants; in fact, it was called 'the maidservants' disease,' being found in no other station of life." Doubtless this practitioner has, in the course of his experience, met with patients of "all sorts and conditions," but that he should never have seen a case of gastric ulcer except in one class of the community is as surprising as is the information conveyed to the coroner's jury, with all the importance of a recognised scientific truth. The other case is of a different nature, but singularly calculated to bring ridicule on the profession. In the case of a man accused of a petty theft we read that medical evidence showed that he was suffering from locomotor ataxy, which "made him pick up things without knowing it." The diagnosis was doubtless perfectly correct, and the hands of an ataxic may be partially devoid of sensation and of muscular sense, and their movements clumsy and awkward. But, as has been pointed out, the fingers would hardly "drop the parcel into a pocket." In fact, that is just the very thing that an ataxic would not do without a good deal of ill-directed fumbling. In all seriousness, we would impress upon our brethren great circumspection in drawing general conclusions or making specific statements as to the capacity of an individual to perform purposive acts. There are no doubt cases where from the nature of things there may be a conflict of medical testimony. But such examples as those we have quoted afford only too readily an opportunity for unmerited scoffing at scientific knowledge.

THE PROGRESS OF THE SMALL-POX EPIDEMIC.

RECENT accounts have come to hand of the extension of small-pox from the centres at which it has been already raging. Thus, from Pembroke Dock we already hear of the disease breaking out in certain villages in the Haverfordwest Union, and at Blaina in Monmouthshire. Again, small-pox is reported to be prevalent amongst the colliery villages around Wakefield, as well as in Brighouse and Halifax. No doubt the malady has extended itself to these places from Dewsbury and Batley. At the latter place it is locally stated that nearly 500 people in all have been attacked by the disease. This is an exceptionally severe incidence for a town of some 28,000 inhabitants. But it must be remembered that Batley is contiguous to Dewsbury, a noted anti-vaccination centre, where many hundreds of cases have occurred since last autumn. We also notice that a few odd cases have already been reported from Keighley, another centre of anti vaccination. As regards measures of precaution, both in Wales and Yorkshire hospital isolation appears to be the chief thing relied on. Already hospitals are being extemporised out of existing buildings, and combined boards are being formed amongst sanitary authorities for the purpose of erecting hospitals; but we hear nothing of carefully planned methodical systems of house-to-house inquiry with a view to securing vaccination and revaccination. To our mind, measures such as these are more truly preventive than the provision of hospitals for those already attacked. There is no doubt at all as to the pre-eruptive infectiousness of small-pox; and very often the mischief is done when the patient is removed. Of course, in ignorant or semi-barbarous communities, the very removal of the patient prevents the coarser forms of infection, as visiting and the like, and is, moreover, always of distinct individual benefit to the patient. But there should be no difference of opinion as to the superiority of prophylaxis by means of vaccination over mere arrest of diffusion by measures of isolation. Then, again, the means sometimes defeats the end in these cases, and small-pox hospitals injudiciously placed may foster the disease which they are intended to lessen, as the experience of Fulham and Sheffield has abundantly shown. Indeed, so powerful a factor was this in the case of the metropolis, that by competent observers much of the comparative freedom of London from small-pox since 1885 has been ascribed to the abolition of the large land hospitals, and to the substituted use of hospital ships at a remote distance on the Thames. We trust, therefore, that the responsible authorities in localities where small-pox is now prevailing will not lay undue and exclusive stress upon the provision of hospitals in checking the spread of small-pox; but that they will rely more upon measures of vaccination, aided by notification of infected persons and houses.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Leopold Caspar has been recognised as *privat-docent* in Diseases of the Urinary System.

Jena.—Dr. Stintzing has been promoted to the chair of Medicine in succession to Professor Rossbach, resigned.

Naples.—Dr. P. Sgrosso has been recognised as *privat-*

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docent in Ophthalmology, and Dr. E Reale as *privat-docent* in Clinical Chemistry.

New York (Policlinic).—Dr. Herter has been appointed Lecturer on the Anatomy and Pathology of the Nervous System.

Pisa.—Dr. A. Marianelli has been recognised as *privat-docent* in Darmatology and Syphilis, Dr. E. Faranielli as *privat-docent* in Ophthalmology, and Dr. E. Burci as *privat-docent* in Surgical Pathology.

St. Petersburg.—Military Medical Academy: Dr. Lebedinski has been recognised as *privat-docent* in Children's Diseases. Helene Pavovna Clinical Institute: Dr. Afanasieff has been appointed to the chair of Medicine.

Tomsk.—Dr. Popovski of Kieff has been appointed Extraordinary Professor of Operative Medicine.

Turin.—Dr. G. Carbonelli has been recognised as *privat-docent* in Midwifery and Gynæcology.

Vienna.—Dr. Stefan Bernheimer has been recognised as *privat-docent* in Ophthalmology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. E. Nagel, formerly Professor of Surgery and of Ophthalmology in the University of Clausenberg.—Dr. Mühsam, Sanitary Councillor of Berlin.—Dr. Abel of Stettin, Surgeon-General of the Prussian Army.—Dr. Theodor Meynert, the well-known Vienna Professor of Mental and Nervous Diseases, at the age of fifty-nine. His writings on the functions of the brain have made his name familiar to medical circles throughout the world. He had been in retirement for some little time, owing to his mind having been affected after the death of a favourite child.

AMONGST the numerous messages of sympathy and congratulation received by Dr. Sinclair Coghill at the close of the recent action in which he was concerned may be mentioned the message sent to him by the official head of our profession, the President of the Royal College of Physicians. Sir Andrew Clark's words aptly reflect the general opinion amongst the medical profession. Another highly gratifying expression of congratulations has been presented to Dr. Coghill by his fellow-townsmen and friends at Ventnor, where he has for many years been a leading practitioner.

PRINCESS CHRISTIAN has consented to lay the foundation stone of the new British Home for Incurables at Streatham on the afternoon of Saturday, July 16th, when invitations to a garden party will be issued by the President and Committee.

DR. B. W. RICHARDSON, as President of the Sanitary Inspectors Association, has accepted the invitation of the President of the Society of Hygiene of Paris to visit the French capital during Whitsuntide.

Pharmacology and Therapeutics.

PEPTONIC TABLOIDS.

THE peptonic tabloids of Messrs. Burroughs, Wellcome, and Co. are ingeniously constructed so as to combine in one tabloid properties for which two distinct preparations are usually given. The object in view has been to administer zymine (pure pancreatin, Fairchild) and lacto-phosphate of lime together with pepsin, and yet to provide against the probability of the destruction of the pancreatic ferment by the action of the gastric juice. This object has apparently been attained in these tabloids by the combination of a central kernel, which is intended to pass through the stomach unchanged, with an outer coating of pepsin covered with white sugar. The inner kernel is coated with keratine, which is insoluble in the acid gastric juice, but soluble in the alkaline secretion of the intestinal canal, thus allowing the lacto-phosphate of lime and the zymine to be mixed with the food as they pass through the duodenum. The obvious advantage of combining pepsin and zymine in this way is that they accompany the food in its passage through the alimentary canal, and respectively reinforce the ordinary digestive secretions at the precise time when additional help is most required.

PALMA CHRISTI (OLEUM RICINI AROMATICUM) (STANDKE).

This aromatic form of castor oil, prepared by Thomas Christy and Co., is entirely free from objectionable taste, and is extremely palatable. The small amount of aromatic ingredients present forms an agreeable addition, which enables this preparation to be taken by many to whom the ordinary taste of castor oil is repulsive. The efficacy of the oil appears to be in no way impaired by the special mode of preparation.

CAMPHOID.

We have received from Mr. W. Martindale, New Cavendish-street, and experimented with, a new preparation for which the name of "Camphoid" has been suggested. It is prepared by mixing equal parts by weight of camphor and absolute alcohol, and dissolving pyroxylin in this solution in the proportion of 1 in 40. This mixture rapidly dries, and yields an elastic film, which is unaffected by water. It forms an excellent substitute for collodion. Camphoid readily dissolves salicylic acid, carbolic acid, iodoform, and many other medicaments intended for external application. As a convenient protective it is likely to supersede sticking-plaster, as the thin film formed is not unsightly, does not present awkward corners liable to catch, and is not washed off even when moderately warm water is used. Healing of small abrasions rapidly follows the application of camphoid or of the mixture of camphoid and salicylic acid.

SOPORIFIC EFFECT OF SULPHURETTED HYDROGEN.

At a meeting of the Greifswald Medical Society Professor Dr. H. Schulz gave an account of some experiments on animals to determine the soporific effect of sulphuretted hydrogen. He put the subjects of the experiment under a large bell-jar, the air of which was charged with various definite proportions of sulphuretted hydrogen. In some cases restlessness and asphyxia were produced, in others sleep. Rabbits appeared to be better able to resist the effects of the gas than other animals, as they did not fall asleep until after they had been half an hour in an atmosphere containing from 0·27 to 0·44 per cent. of sulphuretted hydrogen. Dogs required from 0·07 to 0·17 per cent., and cats from 0·09 to 0·1 per cent., sleep coming on in about an hour. When a very small quantity of sulphuretted hydrogen was present the animals became drowsy. The new hypnotic drugs—sulphonal, trional, and tetronal—doubtless give off sulphuretted hydrogen in the body, for if they are put into a flask along with some fresh liver tissue at a temperature of 99° F. this gas is evolved, the reaction appearing to be even more energetic when the liver has just begun to putrefy.

PERMANGANATE OF POTASH IN PHOSPHORUS POISONING.

Permanganate of potash having been found by Dr. Antal, by experiments on animals, to act as an antidote in acute phosphorus poisoning, Dr. Hajinos has employed it with apparent success in some cases which recently came under his care in the Rochus Hospital, Buda-Pesth. One case was that of a patient who drank a solution of phosphorus made from two boxes of matches and was immediately brought into hospital. The stomach was washed out and within half an hour of swallowing the poison Dr. Hajinos introduced 500 grammes of a $\frac{1}{10}$ per cent. solution of permanganate of potash into his stomach. There was no vomiting or pain, and the next day, as the man felt quite well, he left the hospital, and nothing more was heard of him. The stomach was washed out within half an hour of the phosphorus being taken.

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GENERAL COUNCIL OF MEDICAL EDUCATION AND REGISTRATION.

THURSDAY, MAY 26TH.

THE Council resumed on Thursday, Sir Richard Quain, Bart., presiding. They proceeded to consider cases of alleged misconduct in a professional sense on the part of several medical practitioners.

Case of Mr. E. B. de B. Robertson.

The Council proceeded to consider the case of Edmund Byron de Boune Robertson (registered as Licentiate of the Faculty of Physicians and Surgeons, Glasgow, 1876), summoned to appear on the following charges:—"That in the carrying on of a medical practice at Croydon in his name by means of the employment there of assistants, one of whom was an unqualified person, he systematically permitted and enabled the same unqualified person, under cover of his name and qualifications, to attend and prescribe for patients on his own responsibility in all respects as if he were duly qualified, to the detriment of persons who applied for medical aid at the places where such medical practice was carried on." The depositions in support of the charges were read by Mr. Farrer, the solicitor, who also read the verdict of the coroner's jury in the case of Price. The jury remarked: "They desire emphatically to condemn the system by which the poor are induced to go to dispensaries under the impression that they will be attended in their illness by properly qualified medical men, and instead are attended by unqualified persons, and die as the result of lack of skilled aid and advice." Mr. Robertson's defence was also read. He stated that he had two assistants, one qualified and the other unqualified. All cases were seen by himself or his qualified assistant, and it was only in an emergency that the unqualified assistant saw any case. In the case of Price, his unqualified assistant at first refused to see the boy, and only did so ultimately at the urgent entreaty of the child's guardians. At the same time, he told them that they must get other advice. In the second case the unqualified assistant was called in and urgently asked to attend, in the absence of the parish doctor. In that case the jurymen complimented the assistant for his humanity on the occasion.

Mr. ROBERTSON afterwards addressed the Council in his defence. He stated that he had suffered very severely from influenza, and that was his reason for remaining at Brighton, and since he recovered sufficiently in February last he returned to his practice, being in attendance every day when he was wanted, remaining all night if necessary.

The PRESIDENT inquired whether his qualified assistant was physician or surgeon.

Mr. ROBERTSON replied that he was a licentiate of the Apothecaries' Hall, Dublin, and claimed to call himself a physician. He had managed his father-in-law's practice, and came to him with good testimonials as to ability. His (Mr. Robertson's) practice had been both private and dispensary. At present his residence was at Purley, two miles from Croydon, and he had resided there for four years. He only went to Brighton when he fell ill last December. He went there at night and came up every morning, saw all the patients who were to be seen at High-street, Croydon. He did not practice at Brighton, where he lived in a private house. He went to Brighton by the advice of a medical friend. His name was not on the door at Brighton, nor at his house at Purley. It appeared only on the doors at Croydon and Selhurst.

In reply to Dr. GLOVER, he saw the boy Roberts the first time himself. His qualified assistant saw him next, and then Allen saw him because the qualified assistant was engaged.

Mr. WHEELHOUSE: So that when you were not able to see a patient, and your qualified assistant was engaged, Mr. Allen did see patients?

Mr. ROBERTSON: Not urgent cases.

Dr. BRUCE: Surely this was an urgent case, because the man died next day.

Mr. ROBERTSON said his orders were that Allen was not to see urgent cases. He himself gave the practice all the personal superintendence he could.

Dr. GLOVER asked what would be the number of patients seen by himself, his qualified assistant, and his unqualified assistant.

Mr. ROBERTSON replied that there was a list drawn up every day which they went through, and then he and his qualified assistant saw all the cases that were urgent. Perhaps three or four cases might be seen by the unqualified assistant. Allen attended midwifery cases, but patients understood that he was not a qualified man. At all events, he gave Allen directions to inform them that he was not a qualified man.

The room was cleared, and on the public being readmitted,

The PRESIDENT announced the decision of the Council as follows:—"Mr. Robertson, it is my painful duty to inform you that, after the fullest consideration, and everything said in your favour that could be said, the Council has come to the determination that you have committed the offence charged against you. The second resolution of the Council is: 'That the offence is in the opinion of the Council infamous conduct in a professional respect.' The third resolution is: 'That the Registrar shall be directed to erase your name from the Register.'"

Mr. ROBERTSON said he considered he had not been altogether justly dealt with. He had endeavoured all through his professional career to do his duty honestly, uprightly, and faithfully, and in this matter he could not possibly accuse himself of acting unprofessionally or infamously.

Case of Dr. D. C. Martin.

The next case for consideration was that of Donald Cargill Martin (registered as M.D. R. Univ. Irel. 1884), who had been summoned to appear before the Council on Thursday, May 26th, at 4.30 P.M., on the following charges, as formulated by the Council's solicitor:—1. That he, being a registered medical practitioner, had been and was in the employment of certain unqualified persons who, under the name of the "Stourport Amalgamated Friendly Societies and Medical Aid Association," supplied at Stourport medical aid, advice, and prescriptions at a profit, and, by placing his services and registered qualification at the disposal of such persons, had enabled and did enable a medical practice for profit to be carried on by unqualified persons to the detriment of the public. 2. That an unqualified person named Kemp, also in the employ of the said Association, had, under cover of his name and qualification, and purporting to be his assistant, been enabled and permitted by him to practise and attend and prescribe for patients on his own responsibility, as though he were duly qualified, and that medical certificates had been given by him in respect of cases which the said Kemp had wholly or partially attended on his own responsibility.

Mr. A. T. LAWRENCE, barrister, appeared on behalf of Dr. Martin, who in his statutory declaration, which was read by Mr. Muir Mackenzie, stated that he was appointed medical officer of this Society in 1888. In consequence of the increasing number of members he was unable to attend to all the cases, and he asked the Committee to provide assistance. In 1891 they appointed Kemp as his dispenser and assistant, and he continued in that capacity until April last, when he was summarily dismissed. He (Dr. Martin) had nothing to do with his appointment. During the time Kemp acted as dispenser and assistant, he showed that he was possessed of considerable knowledge and experience of medical practice. He never acted as cover to Kemp, and the latter had never been allowed by him to attend cases on his own responsibility. He had never given a medical certificate unless he had attended the patient himself. If the Medical Council thought the acceptance of an appointment as medical officer of such an Association was unprofessional, he was quite prepared to resign the appointment, and never accept another.

Mr. KEMP, in his statutory declaration, denied that he had acted under Dr. Martin's cover.

Mr. CADOGAN-MASTERMAN, medical officer of health of Stourport, at whose instance this case was brought forward, addressed the Council. He stated that when the second case of diphtheria occurred he reported to the local board, of which Dr. Martin was a member, that had that child been seen by a qualified medical practitioner he would have detected it as a case of diphtheria, and it was not so detected. In spite of that warning a precisely similar case occurred two months afterwards. It was perfectly clear that Dr. Martin's unqualified assistant attended this child for four days while it was suffering from diphtheria without detecting the disease. Dr. Martin saw the child, who died nex

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morning. On hearing of the case, he (Mr. Cadogan-Masterman) thought it was his duty to take further steps. He consulted one of the magistrates of Stourport, and afterwards laid the particulars before the Public Prosecutor, who instructed evidence to be taken. The Public Prosecutor considered the case of importance. In the face of an increase of the death-rate he considered it his duty to bring the matter before the Council. If Dr. Martin had been a cleverer practitioner than he (Mr. Masterman), or if the community had received better health, he would not have said a word about it; but his income, which was £800 a year at one time, was now less than £200. He was reduced to poverty. If he saw that Dr. Martin cured more cheaply but better than he could do, he should have accepted that position and said it was the act of Providence.

At the conclusion of Mr. Cadogan-Masterman's speech the Council adjourned until the next day.

FRIDAY, MAY 27TH.

The Council met again on Friday, Sir Richard Quain, President, in the chair.

Registrations.

On the recommendation of the English Branch Council, it was agreed to register the names of Mr. John Henwood Blaney, M.R.C.S. Eng. 1886, and Mr. William Isaac Fern, L.M. K.Q.C.P.I. 1887, L.R.C.S. Edin. 1892; and on the recommendation of the Irish Branch Council it was agreed to register the name of Mr. Daniel Fegan, M.D. Q.U.I. 1870.

Notification of Default.

Mr. MACNAMARA moved: "That, in the opinion of the General Medical Council, it is highly important, for the purpose of carrying out the objects of the Medical Acts, that in any case where a registered medical practitioner is convicted of any felony or misdemeanour authentic information should as promptly as possible be given to the General Medical Council, and that the authorities at the Home Office be respectfully requested by this Council to take such steps as will afford the Council this early information." He had been assured on high legal authority that there would be no difficulty in giving effect to this motion either in England or Ireland, and he left it to his Scotch friends to say what would be the case in Scotland. He thought it was the duty of the Home Office to give the Council this information.

Sir WALTER FOSTER seconded the motion.

The PRESIDENT expressed the view that the motion was a very reasonable one, and required little discussion.

After some remarks from Dr. BRUCE, the motion was carried unanimously.

Sir JOHN SIMON moved: "That in future, whenever information reaches the Medical Council office that a registered medical practitioner has been convicted of felony or misdemeanour, or has been under the censure of any judicial or other competent authority in serious relation to his professional character, the registrar shall forthwith communicate such information to the medical authority or authorities from which the practitioner in question holds his registered qualification or qualifications."

Dr. CHURCH seconded the motion, and it was carried unanimously.

On the suggestion of Sir WM. TURNER, the two motions were made standing orders.

Finance.

Mr. BRYANT presented the report of the Finance Committee. The report stated that the income of the General and Branch Councils for the year ending Dec. 31st, 1891, had been £8713 1*s.* 3*d.*, an amount which was £640 2*s.* 8*d.* more than the income for the year 1890. The fees received by the English Branch Council in 1891 were £268 5*s.* more than those received in 1890, and those received by the Scottish Branch Council in 1891 were more by £195 5*s.* than those received in 1890. The receipts of the Irish Branch Council from registration fees during the same period exhibited, on the other hand, a decrease of £40 15*s.* The expenditure during the year 1891 had been £7695 8*s.* 9*d.*, an amount less than that of 1890 by the sum of £173 3*s.* 5*d.* A comparison of the income with the expenditure showed that the income during the past year had exceeded the expenditure by the sum of £1017 12*s.* 6*d.* A decrease of £422 14*s.* occurred in respect of the fees paid to members of the General Council, a decrease of £252 15*s.* 6*d.* in law expenses, and a decrease of £246 4*s.* 3*d.* on account of the British Pharmacopœia, the previous outlay on this work now being partly refunded by sales. There was an increase of £31 11*s.* in respect of the General Council's printing, of £9 8*s.* in respect of the Executive Committee's printing, and of £17 for other printing, making a total increase under the head of printing of £57 19*s.*; an increase of £34 2*s.* 2*d.* under the head of house expenses; and an increase of £37 8*s.* 9*d.* in miscellaneous expenses. While, therefore, the decrease of expenditure over that of the previous year in certain items amounted to £957 10*s.* 11*d.*, the increase in certain other items only amounted to £147 4*s.* 2*d.*, leaving a total decrease in expenditure during the year over that of the year 1890 of £810 6*s.* 9*d.* From the table which indicated the average income and expenditure of the General and Branch Councils during the last seven years, it would be seen that the average yearly income during that period had exceeded the average yearly expenditure by £277 0*s.* 9*d.* As to the investments, those of the English branch amounted to £35,000 the Scotch branch to £4300, and the Irish branch to £852 6*s.* 8*d.* The receipts of the Dental Registration Fund amounted to £931 19*s.* 2*d.*, showing an increase of £425 16*s.* 6*d.* on those of 1890, which were £506 2*s.* 8*d.*, an increase mainly due to registrations under Section 37 of the Dentists Act (1878) prior to the date on which the by-laws relating to that section were revoked. On the other hand, the expenditure had been £582 11*s.* 9*d.*, being less than the income by the sum of £349 7*s.* 5*d.* The indebtedness of the fund to the General Council amounted only to the sum of £94 8*s.* 9*d.*

Sir WM. TURNER expressed his satisfaction that the indebtedness of the Dental Fund was now almost removed. They had almost reached a stage when the income of the fund would balance the expenditure.

On the motion of Mr. BRYANT, seconded by Sir DYCE DUCKWORTH, the report was adopted.

The Education Committee.

Dr. LEISHMAN submitted the report of this Committee, in which it was stated that the committee had resolved to delay consideration of the regulations of the Examining Board in England, until at the end of the current year the regulations of all the bodies were submitted to them.

The report was adopted.

The Examination Committee: Mr. Macnamara and the Conjoint Board.

The report of this Committee set forth, with regard to the returns presented by the Public Departments and the Licensing and Examining Bodies, as to the results of professional and other examinations, that the Committee was not yet in a position to make any report. Respecting Mr. Macnamara's motion on the subject of scientific study, the Committee reported "that it had been brought to their knowledge that the Conjoint Board for England had received certificates of instruction in materia medica, systematic and practical chemistry, pharmacy, and physics from persons in Ireland of unascertained competency to instruct, who were not recognised as teachers by any Irish Examining Body, and who were imperfectly furnished with the means of instruction; and the Committee recommended that the Council should call the attention of the Conjoint Board to these irregularities, with a view to precautions being taken against their recurrence."

Mr. BRUDENELL CARTER, in moving the adoption of the report, said that Mr. Macnamara had laid before the Committee evidence of the most conclusive character that certificates had been received by the Conjoint Board from persons who could not have any proper claims to grant such certificates. It appeared to be the practice of other examining boards to receive certificates only from persons of ascertained competence. The recommendation of the committee was that the Council should call the attention of the Conjoint Board to the matter in order to prevent the recurrence of what they could not but think was an irregularity. He felt sure that the attention of the Conjoint Board had only to be called to the matter to bring about a change.

Mr. MACNAMARA, in seconding the motion, said he had been anxious to have this matter discussed simply as an abstract question. He had the greatest dislike to bringing the name of any of the authorities under the consideration of the Council. He was sorry to find THE LANCET had accused him of reviving the somewhat ancient story about the signing of a certificate by a coachman. He considered

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that the merits of the question would have been sufficiently met by an expression of opinion on the part of the Council that provision should be made by the different examining boards, his own among the rest, for the efficiency and proficency and position of the persons who signed these certificates. Now the reason why they entered into the investigation of these cases was that they found numbers of their pupils going over to a certain examining board, who they knew had not attended lectures in any recognised school in Dublin or any of the Queen's Colleges. They went to the expense of sending over a most intelligent professor, Professor Stoker, who went to the Conjoint Examining Board in England. This gentleman found the facts which he (Mr. Macnamara) had produced and laid before the committee. He reported: "I found that a considerable number of candidates had been admitted on certificates in materia medica, chemistry, systematic and practical, pharmacy, and physics, which would not be accepted either in Ireland or Scotland, and some of which were not in accordance with the recommendations of the General Medical Council requiring instruction in professional subjects to be taken subsequent to registration. I further noted, in the majority of cases, instruction in all the subjects had been given by one person. I found the practice to be that (1) any holder of any medical qualification was held competent to issue certificates in all the above-mentioned subjects; (2) persons who had passed at an examination at a public board could issue certificates for the subjects in which they had passed; (3) prizemen at medical schools had certified in the subjects in which they had been awarded prizes. No investigation was made as to the capacity of the instructor or the adequacy of the appliances at his disposal. I have most thankfully to acknowledge the great courtesy of Mr. Hallet and the ample facilities he gave for making all needful investigation." He had documentary proof in his possession when he introduced the subject. It was considered proper to refer it to the committee who had investigated the subject. He would suggest without any unkindly feeling to the Conjoint Board that when certificates came from Ireland on these subjects they should only be received from persons that the Conjoint Board in Ireland would accept. If they came to some such resolution as that, they would be perfectly safe. As he said before, he feared very much that they were going too far in the direction of depending on examination, to the exclusion of education. If the Conjoint Board in England confined themselves to certificates signed by bodies recognised by the Conjoint Board in Ireland, then they were safe; but as to the other certificates, they were simply bogus certificates. This did not hold in Scotland at all; it was confined to the English Conjoint Board.

Mr. BRYANT said he was quite pleased that Mr. Macnamara should have mentioned the board against whom he brought those charges. He was quite willing to admit that when the Conjoint Board framed their scheme they did not think it was expedient to draw the lines too closely as to the sources from which men should get their information. They felt that so long as they brought the information that was enough, guarding of course against any bogus certificates. Upon this the Board had acted up to the present time. But things have changed completely. They had the five years' scheme, and for the future certificates would only be accepted from schools and institutions which had been visited and which had been recognised as fit to give certificates upon any of these subjects. He thought, therefore, that the accusation fell to the ground. It was a thing of the past, and he believed it was scarcely possible to have introduced this arrangement sooner. It was not right to use the term "bogus certificates." When Mr. Stoker came over and got his information he admitted that there were no bogus certificates. The certificates were all true so far as they went. There were no certificates such as that of a coachman. They did not look on anything that had occurred as an irregularity. At any rate, nothing of the kind was now possible.

Mr. MACNAMARA said he was perfectly satisfied with Mr Bryant's statement, and he accepted it most cordially.

The report was then adopted.

The Executive Committee.

The following members were elected to the Executive Committee for the ensuing year—viz., Mr. Wheelhouse, Sir Dyce Duckworth, Sir Wm. Turner, Dr. P. Heron Watson, Mr. Teale, Mr. Macnamara, Sir Walter Foster, and Dr. Moore.

The Pharmacopœia Committee.

Mr. MACNAMARA announced that in response to the unanimous request the President had consented to act as the chairman of this committee for the ensuing year. In doing so he considered that the President was conferring a great boon upon all parties connected with the work of the committee.

Charges against Practitioners: Case of Dr. D. C. Martin.

The Council then resumed consideration of Dr. Martin's case.

Mr. LAWRANCE, counsel for Dr. Martin, said he wished to address a few words to the Council. While the charges brought against his client were of immense gravity, the evidence adduced in support of them was of extraordinary weakness. He submitted that Mr. Cadogan-Masterman's statement did not relate with any distinctness to the evidence before the Council. It was charged against his client that he had been guilty of infamous conduct in a professional respect, being in the employ of the Medical Aid Association. Mr. Cadogan-Masterman said that that differed essentially from all other employments at a salary, but counsel failed to see that that was so. He said that Dr. Martin had sold himself to this association. There was not a shadow of evidence of his having sold himself or that he was employed in any servile fashion. He received a salary for his services. The Council might have views upon the subject of these Medical Aid Associations. They might all have views with reference to the advancement of socialism. Counsel certainly had adverse views with reference to what was called socialism; but this was mere coöperation on the part of these people, and whether they regarded this kind of coöperation favourably or not it would come in spite of them. He had no reason to suppose that the Council was about to make its stand against coöperation in general, or in this particular form. Much less could he conceive it possible that the Council would think of commencing by treating as infamous conduct the conduct of this gentleman, who was employed by one of these associations. If there were a formal and general declaration on the part of the Council that it was not considered proper to enter into the service of such associations, then of course a man would enter them with his eyes open; but no such declaration had been made. There was no pretence by any fact for saying that Dr. Martin had sold himself or become a servant of these people, or that they were more his masters than in the scores of other cases well known to the Council, in which doctors received a salary and gave their professional attendance, not for remuneration in respect of each attendance, but for the service which they rendered a particular class of individuals. He could see nothing in this case to differentiate in essentials from those numerous cases to which he had alluded. The next charge made against Dr. Martin was that of covering. What Dr. Martin had done with reference to Kemp was to allow him to occupy the position of assistant. It was true that Kemp was an unqualified person in the sense of not having any medical degree; but, apart from that, there was no evidence whatever that Dr. Martin was behaving improperly in using his services as assistant. The evidence was clear that he was neither engaged nor discharged by Dr. Martin. He was engaged, upon excellent testimonials, by the committee of this association. He was the son of a surgeon himself, and had been apprenticed to his father. After that he had been for two years in the General Hospital at Sheffield. From 1872 until 1891 he had acted as assistant to various practitioners. Counsel did not know whether it was right or wrong to employ an unqualified assistant, but it was clearly not a thing which had hitherto been treated as infamous conduct. It might perhaps be suggested that Dr. Martin allowed Kemp to act as though he were duly qualified. He could easily understand that there might be conduct worthy of so strong a term as infamy, if one medical practitioner allowed another—an unqualified one—to fraudulently pretend that he was qualified, and so to use his qualifications as a cover to his conduct. But here Mr. Cadogan-Masterman, examined, said that it was notorious that Kemp was not a qualified man. It must be observed that the people with whom he was dealing were all members of the association whose committee had retained him; and really, to make this into a case of fraud was to ask this Council to believe that all these people were blind or idiots. They had themselves chosen this gentleman by their committee, and Dr. Martin had nothing in the world to do

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with it. So far as Dr. Martin was concerned, he was able to testify to the Council that Kemp behaved properly in every respect. Kemp, it was true, was dismissed by the Association, and he thought it was to Dr. Martin's honour that he had not paraded the causes of that dismissal. His instructions were to say nothing unkind of Kemp. Dr. Martin did not desire to do the man the smallest injury; but his leaving the employment of this association had nothing to do with Dr. Martin. Coming to the details of the charge counsel said he was at a loss to know why any imputation should be made upon Dr. Martin in respect of these three cases. A severe outbreak of diphtheria occurred in Stourport, and these three persons were among the victims. Nothing was said by Mr. Cadogan-Masterman to justify the charges. The only thing in the declarations of any importance was that the father of the child Cook declined to make a declaration in support of the charge against Dr. Martin.

Mr. CADOGAN MASTERMAN, addressing the Council again, said that the charge he made against Dr. Martin was that he had enabled a trading company—an association of mechanics and tradesmen—to make money by employing a medical practitioner as their servant. It was perfectly clear that the medical association could not exist without him.

The PRESIDENT invited Mr. Cadogan-Masterman to keep to the point whether Dr. Martin had covered an unqualified practitioner. He need not trouble about what the association did.

Mr. CADOGAN-MASTERMAN said his contention was that Dr. Martin enabled the association to employ an unqualified assistant. It was perfectly clear that the association could not itself engage an unqualified man to act for them. Therefore they must get some qualified man to enter their service, and then engage an unqualified assistant to act for them. He submitted that that constituted a clear case of covering. He begged that the deposition of Mrs. Cook, the mother of the child that died, might be read to the Council.

Several members of the Council expressed doubt whether this should be done.

The PRESIDENT said that their object was to get at the truth. If they could not do so now the only course open to them would be to adjourn the case.

Mr. LAWRANCE asked the President if the document might be read rather than that it should be supposed Dr. Martin made any objection. Indeed, his client would far rather that it was read.

Mr. FARRER, solicitor to the Council, read at this stage a letter from the Public Prosecutor to Mr. Cadogan-Masterman, saying that no criminal proceedings could be successfully instituted against Dr. Martin, and that in his judgment the charges might very properly be made the subject of inquiry by the General Medical Council.

The PRESIDENT repeated that the object of the Council was to get at the truth, and no technicality should be allowed to hinder them. Mr. Lawrance had said that there was no objection on the part of Dr. Martin to the document being read. If it were not read, and the whole evidence were not available, he thought the case should be postponed.

After some further discussion, it was agreed that the statement should be read.

Mr. FARRER thereupon read it. After explaining that she, her husband, and all the family were members of the association, Mrs. Cook detailed the circumstances prior to the death of the child. She said that if Kemp had only been able to discern the disease from which the child was suffering she would have called in further assistance, and the child's life would have been spared. She further said that she felt Kemp had been guilty of great neglect, and that he was responsible for the death of her child.

Questions were then addressed to Dr. Martin by members of the Council.

Dr. MARTIN, in reply to Dr. Glover, said he found the work of the association too heavy for him, and he applied for an assistant. He wanted an assistant, not only for dispensing medicine, but for seeing patients. In the first instance the association appointed a qualified assistant, who left of his own accord. He did not protest against an unqualified man being appointed. He was not aware that it was improper for him to have an unqualified assistant. He was somewhat doubtful about it now. When the appointment was made it never occurred to him that it was improper to have an unqualified man. When the child Cook was brought to the surgery diphtheria might not have developed, and if he had seen the child probably the treatment would have been the same as that prescribed by Kemp. It was not usual for patients coming to the surgery to see Kemp, but only when he (Dr. Martin) happened to be called out. In reply to Mr. Macnamara, he said he had no ground for believing that he was acting in an infamous manner in having Kemp, an unqualified man, under his supervision. The association knew he could not do all the work himself. Kemp was never represented to anyone as a qualified man. He did not come here to defend Medical Aid Associations; that was none of his business. In further reply to Dr. Glover, he said the majority of the members of the association were poor persons. In answer to Dr. Macalister, he said he was at present without an assistant, and the association were advertising for one—this time a qualified person. In reply to the President, he said that in the case of the child Cook he must admit that he regretted deeply that he had not seen it before. He did not know that its life would have been spared, for qualified men as well as unqualified made mistakes.

The Council then deliberated in private for some time on the case which had been presented to them.

The PRESIDENT announced the decision. The Council, he said, had considered the case very carefully, and had come to the conclusion that the charges made against Dr. Martin had not been proved; but the Council were of opinion that he should have been more careful to avoid associating himself with an unqualified person. That was all he (the President) had to say. No doubt Dr. Martin would be more careful in the future.

Dr. MARTIN asked whether the Council were disposed to give any expression of opinion as to his holding his present position.

The PRESIDENT said they did not deal with that; it was not their business.

The Council then adjourned.

SATURDAY, MAY 28TH

The Council resumed at one o'clock, Sir Richard Quain presiding.

Pharmacopœia Committee.

The Pharmacopœia Committee presented the following report:—"The registrar reported that during the past year a reprint of 3000 copies of the British Pharmacopœia of 1885 had been issued, making the total number of copies of this edition issued up to the present date 35,000. Professor Attfield attended and handed in a report on the Progress of Pharmacy, in relation to the future revision of the British Pharmacopœia." Accompanying the report was a communication from the Secretary of State for India, enclosing a letter from the Government of India, in which it is suggested that reference should be made to the General Council upon a proposal which has been made that "crocus" should be expunged from certain medical preparations, and asking that Viscount Cross might be favoured with the opinion of the Council upon the subject. Copies of two reports by Dr. Macnamara, examiner of medical stores, were annexed. In the first of these reports, dated Feb. 26th, 1891, Dr. Macnamara states that in their tenders for the supply of crocus, "the Government of India are paying £176 for a substance which medicinally is absolutely inert and useless, excepting as a flavouring or colouring ingredient. Beyond doubt no one would be one whit the worse if this expensive and therapeutically obsolete drug was no longer supplied to India."

The report continued: "It was agreed to inform the Secretary of State for India that the suggestions contained in his communication will be fully considered, but that it was not possible to name a time for the issue of the next edition of the British Pharmacopœia. It might, however, be said approximately that it would not be before the year 1895."

On the motion of the PRESIDENT, the report was entered on the minutes and adopted.

Case of Mr. T. R. Allinson.

The Council then took up the consideration of the case of Thomas Richard Allinson (registered as L.R.C.P. Edin., 1879, L.R.C.S. Edin. 1879), who was summoned to appear before the Council on the following charges, as formulated by the Council's solicitor: "That, being a registered medical practitioner and Licentiate of the Royal Colleges

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of Physicians and Surgeons of Edinburgh, he systematically seeks to attract practice by a system of extensive public advertisements containing his name, address, and qualifications, and invitations to persons in need of medical aid to consult him professionally, the advertisements so syste matically published by him being themselves of a character discreditable to a professional medical man."

Sir JOHN SIMON asked if the case was brought before them in consequence of any communication addressed to the Executive Committee, and, if so, he thought the Council should have these documents before them. They had an anonymous accusation brought against a medical practitioner. He wished to know whether the Scottish Colleges had sent any kind of memorial in regard to the case, and, if so, whether the memorial could be laid before them.

The PRESIDENT said there were such documents in existence, but the Executive Committee thought it better that they should not be made public. A representative of a public body would appear before them in support of the charge.

Sir JOHN SIMON protested against the documents being withheld, and said it was necessary they should know the relations of the Scottish Colleges to the question.

Sir WALTER FOSTER said they had got a certain charge made against this gentleman by a certain public body, and that public body would be represented there in the person of the secretary. He should consider the case simply on the evidence that was laid before him, and he did not want to be saddled with any other documents before he heard the evidence.

Sir JOHN SIMON observed that Sir Walter Foster referred to a public body taking proceedings. He asked where there was any evidence on their programme that a public body was taking proceedings.

The PRESIDENT replied that there was the sworn affidavits of Dr. Bateman. Secretary of the Medical Defence Union.

Dr. HERON WATSON thought the matter should be considered *in camera*.

The PRESIDENT said they must really proceed to business. There was a distinct charge made by a society composed of several very well known medical men, and they were prepared to hear the charge.

Sir JOHN SIMON said his point was that the public body ought to be named in the programme.

The PRESIDENT thought they should now ask Mr. Allinson to come in.

Mr. MUIR MACKENZIE said that the body who had brought the matter before the Council was the Medical Defence Union, and, in view of the decision in a recent case, he thought it would be expedient that the President should inquire if there were any representatives on the Council who were members of the Medical Defence Union.

The PRESIDENT accordingly asked if there was any gentleman present who was a member of the Medical Defence Union.

Mr. TEALE said he had been a member of the Medical Defence Union, but had now withdrawn from it.

Dr. GLOVER also stated that he had formerly been a member of the same body, but had withdrawn.

Sir WM. TURNER suggested that, in the event of the case being taken to a higher court, it should be limited.

Mr. Allinson, accompanied by Mr. H. Schulbes Young, his counsel, was then admitted, and the registrar having read the charge.

Dr. A. G. BATEMAN, who appeared for the Medical Defence Union in support of the charge, addressed the Council. He said that Mr. T. R. Allinson resided at 4, Spanish-place, Manchester-square, and he was brought up there for what amounted to a charge of infamous conduct in a professional respect. The charge was founded on facts, of which there could not be any dispute. Mr. Allinson had been advertising himself for many years—his address, his qualifications, and his method of treatment—in the *Weekly Times and Echo*, which was published every Saturday in London. They were not making any charge against Mr. Allinson for the adoption of any particular treatment of medicine and surgery; what they did complain of was that, in advocating the principle of hygienic medicine, he never lost an opportunity of advertising himself and his qualifications, and rarely lost an opportunity of depreciating all other members of the medical profession by calling them "drug doctors," and almost charging them with murder. Dr. Bateman put in twenty-five copies of the *Weekly Times and Echo* of different dates, from May, 1891, to January, 1892, containing Mr. Allinson's advertisements. Following these advertisements was a column of general advice as to what to eat and what to avoid. Amongst the things to avoid, specially mentioned, were all drugs, medicines, pills, powders, potions, lotions, gargles, ointments, &c. Then followed a number of so-called answers to correspondents, and he (Dr. Bateman) had no hesitation in stating, after a careful examination of these answers, that a very large number of them were purely bogus. In one of his advertisements Mr. Allinson invited the readers of the *Weekly Times and Echo* to forward a postal order for 5*s.* and a stamped directed envelope, and he would send them advice which would benefit them. In another advertisement he said that his fee was reduced, and that those who wanted to know what it was would have to send a stamped directed envelope. In regard to the treatment of influenza, he advised the public to avoid all drugs or medicines, and stated that the majority of those who died during the last epidemic died because of the drugs they took. He further stated that he had scarcely lost a patient between the ages of six and sixty, and that a large percentage of those who died between six and sixty years of age were killed by drugs and by the absence of hygienic treatment. In another advertisement Mr. Allinson said his patients died of old age, and were not hurried out of life by poisonous drugs. "It is my lot," he said, "more than that of the ordinary run of doctors, to have as patients those who are suffering from severe long-standing disease. The drug doctor gives them poisonous medicine, and in any case makes them worse; those who do get well, get well in spite of the drugs." Dr. Bateman quoted a number of other extracts from Mr. Allinson's advertisements, in which the latter condemned the use of opium and other medical prescriptions. Mr. Allinson was cautioned by the Royal College of Physicians of Edinburgh in January last, but his column of advice continued to appear in the *Weekly Times and Echo*.

Mr. YOUNG then examined Mr. Allinson in his defence. In reply to the questions put to him, the accused said he had every week about 150 letters sent to him to answer through the *Weekly Times and Echo*. To the best of his knowledge all the statements made in his column of the paper were true. He had no interest whatever in a paper called the *Hygienic Advertiser*. Of the 150 patients whom he advised every week in the *Weekly Times and Echo*, perhaps about 5 per cent. came to him directly through the paper. He had never advertised any secret remedy. Everything was open and above board, and there was no invitation in any one of his published books to patients to consult him. When he signed the Edinburgh Register in 1879 there was no mention of advertising, and, so far as he knew, there was nothing in the rules of the Scottish College which prevented him from advertising. Any advertisements he made use of were not so much advertisements of himself as of a system he advocated. He had a hospital in which patients were treated according to his ideas. He took patients into the hospital at a nominal sum, and he was out of pocket by it. He had never advertised the hospital, and had never requested any patient to come there to be treated privately. He had treated 400 or 500 patients in the hospital during the last two or three years, and there had only been three deaths altogether. Between 80 and 90 per cent. of them had been cured or relieved. He was strongly opposed to vaccination. The Royal College of Physicians of Edinburgh had once or twice complained of his articles disparaging drugs and vaccination, and threatening to cancel his diploma on these two grounds. He did not know that they had ever complained of his advertising. In 1888 he gave an undertaking to the Royal College of Physicians of Edinburgh that he would discontinue issuing a little pamphlet entitled "How to Avoid Vaccination." He had kept his promise and had never issued the pamphlet since. His books dealt solely with hygienic treatment, and were not medical books in the ordinary sense of the term. About the beginning of this year he issued an order to the advertising agent to stop all his advertisements, and they had all been stopped. In regard to the column which he wrote in the *Weekly Times and Echo*, he was quite willing to receive any suggestions from the Medical Council as to any modification of his language, and to attend to these suggestions as far as he could.

Dr. BATEMAN said he had no questions to put to Mr. Allinson.

In cross-examination by Mr. Muir Mackenzie, Mr.

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ALLINSON stated that the hospital was conducted by himself. The patients had to pay a small fee, which did not cover the cost of maintenance. He was in the habit of delivering public lectures on health subjects. He had no control in the management of the *Weekly Times and Echo*. He simply sent in his column every week, and the editor cut out what he chose. He received a salary from the paper.

Mr. YOUNG said his client was amply paid for the health and hygienic advice he gave in the paper, but he did not make use of the paper as a means of getting patients.

The PRESIDENT (to Mr. Allinson): Do you think the drug portion of the medical profession are little short of murderers?

Mr. ALLINSON: Oh! certainly not. I do not say that.

The PRESIDENT: When you so strongly disapprove of drugs, why do you desire to continue a member of those Colleges which recognise drugs? Why do you not withdraw altogether from such an association?

Mr. ALLINSON: Simply because of the social advantages it gives me. I am perfectly independent of the Colleges, and I only wish to remain a member of the medical profession in consequence of the influence it has on the public.

The PRESIDENT: You desire to derive any advantage you can from association with the medical profession?

Mr. ALLINSON: I only desire to remain in the profession in order that the public may know that I am a properly qualified man.

In answer to Dr. Batty Tuke, Mr. ALLINSON admitted that in August, 1890, in one of his answers to correspondents in the *Weekly Times and Echo*, he advised a woman in a case of vaccination to wash off the vaccine matter as soon as possible. In giving the advice he did not consider that he had broken his promise to the College of Physicians of Edinburgh to discontinue the publication of his leaflet on "How to avoid Vaccination." He had never reissued the publication. The Anti-vaccination Society had reproduced the leaflet, or what was substantially the same leaflet, but he had nothing whatever to do with it himself. It belonged to the Society, and his name was not attached to it.

Sir WM. TURNER: Still you continue to advise people to get it?

Mr. ALLINSON: Certainly. The same as I advise them to avoid vaccination.

Dr. GLOVER: Do you still justify the leaflet?

Mr. ALLINSON: I simply told a correspondent to apply to the Anti-vaccination Society to get whatever printed advice they might have.

Dr. GLOVER: In the *Weekly Times and Echo* there is a reference to "the ranks of professional poisoners." Will you define the difference between a poisoner and a murderer?

Mr. ALLINSON: A poisoner is only a matter of degree. Give a small dose, and it poisons; give a large dose, and it kills.

Dr. GLOVER: Do you withdraw the expression, "the ranks of professional poisoners"?

Mr. ALLINSON: If you give drugs I stick to it.

Dr. GLOVER: Do you still justify it?

Mr. ALLINSON: Well, sometimes I have been very much irritated and annoyed by medical men, and in a moment of pique perhaps I have said some rather strong things about them.

Dr. GLOVER: And you apply this libel to the whole medical profession, of which you wish to continue a member? Dr. Glover then questioned Mr. Allinson with regard to a piece of advice he had given a correspondent, in a case of rupture—namely, to "leave it alone." Mr. Allinson justified the advice in the case of an umbilical rupture of a child.

Mr. YOUNG: In respect to the question of drug doctors being murderers, have you ever suggested that medical men deliberately treated their patients in a manner in the efficacy of which they did not believe?

The PRESIDENT: That is a quite unnecessary question. It has never been suggested that any medical man deliberately ill treated anybody.

Mr. YOUNG: Mr. Allinson has simply stated that he believes drugs are poisonous.

Mr. ALLINSON said he entirely repudiated any idea that a medical man who gave drugs did so with the intention of poisoning. All he said was that the giving of poisonous drugs did harm. He simply objected to the mode of treatment, and not to the men who administered drugs. In objecting to the system he had never mentioned any medical man by name.

Mr. YOUNG then addressed the Council on behalf of his client. At the outset he reminded the Council that they were not only the judges, but also the jurors, who would deliberate in secret, and they were the intimate associates of the accusers, two of whom had been admitted to the Council within that very week.

Mr. MUIR MACKENZIE: That is not so.

Mr. YOUNG: Two members of the Medical Defence Union.

Mr. MUIR MACKENZIE: No.

Mr. YOUNG: Well, one member—Dr. Philipson.

Dr. PHILIPSON: I resigned my position in the Medical Defence Union the same day I was elected a representative on this Council.

Mr. MUIR MACKENZIE: No representative on this Council is connected in any way with the Medical Defence Union.

Mr. YOUNG went on to say that Mr. Allinson was not summoned before them on a charge of vilifying medical men or objecting to vaccination, but simply on the one ground of advertising. These advertisements were advertisements of Mr. Allinson's books, and not systematically advertisements of himself. In these books there was not a single invitation to persons outside or inside the profession to consult him for a fee or otherwise. When his client had never been before the Council or reprimanded by them for issuing advertisements, he submitted that it would be an unprecedented thing to take any severe steps against him on that occasion. The present charge in part arose from his contempt of drugs. Although he must denounce medical men as drug-givers, it could not be alleged against him that under the strongest incitement or provocation he had even allowed himself to write or speak against any individual medical man. He simply told the public that "prevention was better than cure." The learned counsel went on to complain of the action of the Medical Defence Union in bringing a charge against Mr. Allinson for advertising, and pointed out that members of that body were guilty of a similar practice themselves. He denied that the Medical Defence Union were representatives of the profession, and complained that that body showed a distinct prejudice in attacking Mr. Allinson, while they left alone other men in the profession of doubtful qualifications. There was no precedent, he said, for removing a professional man from the Medical Register unless his advertisements were personally objectionable and persisted in. Mr. Allinson had withdrawn all his advertisements from the press, and he was perfectly willing to modify what the Council might see amiss in his writings.

The Council then deliberated in private. On the readmission of the public,

The PRESIDENT informed Mr. Allinson that, in the opinion of the Council, he had committed the offence charged against him; that, in the opinion of the Council, it amounted to infamous conduct in a professional respect; and that his name would be struck off the Register.

Mr. ALLINSON asked when he could apply to have his name placed on the Register again.

The PRESIDENT said he could apply at the office after a certain interval.

Sir JOHN SIMON then asked that a notice of motion should be entered on the day's minutes, setting forth that although the conduct of which Mr. Allinson had now been found guilty was practically the same as that of which complaint had been made to the College in Edinburgh in years gone by, yet no step had been taken by the College; and that the Council expressed regret that the College had not seen fit to take any action, but had left the initiative to the Council under Clause 29 of the Medical Act.

Dr. BRUCE seconded.

The PRESIDENT ruled that the motion could not be received.

Dr. BATTY TUKE protested against such a motion at the present time. He should be most happy at the beginning of the November session to consider any resolution which Sir John Simon might bring forward with the view of elucidating the matter.

Sir WALTER FOSTER said they were all very much of the same mind as Sir John Simon. He had entered his protest in the shape of giving notice of motion, and if he put it on the agenda for the November meeting they could then discuss the matter fully and arrive at some conclusion which would

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probably be favourable to his view. He thought that ought to satisfy Sir John Simon.

Dr. GLOVER said it could not be urged that this motion had been sprung on the Council, because they really had had notice of it for three days, when this question was first raised.

The PRESIDENT took the opinion of the Council upon the question, when it was decided that the motion should not be entered and printed on the minutes.

Sir JOHN SIMON gave notice of his motion for the adjourned meeting of the Council.

Sir WM. TURNER pointed out that the adjourned meeting was for the special business of confirming the minutes.

The PRESIDENT: I think we may consider the matter settled.

This concluded the business of the session.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

A MEETING of the Committee of the Association of Fellows of the Royal College of Surgeons of England was held on June 1st, at the residence of the President of the Association, Mr. G. D. Pollock, who occupied the chair. There was a large attendance of members of the Committee. After the minutes of the preceding meeting had been read and confirmed, the honorary secretary, Mr. Percy Dunn, read a letter from the secretary of the College, in reply to the request of the Committee that a deputation should be received at the College in reference to the advantages to be extended to the Fellows. This reply was published in THE LANCET of May 14th (p. 1112). The Committee decided that it was unnecessary to send any answer. A letter, dated May 8th, was read from Mr. Lawson Tait apologising to the Committee for having announced in THE LANCET his intention not to accept the invitation of the Committee to stand for the Council before previously communicating his decision to the Committee. He also tendered his resignation as a member of the Committee of the Association, and concluded by saying that he was also retiring from the political affairs of medical life. The Committee instructed the honorary secretary in his reply to express the regret of the Committee, and to add that they trusted he might perhaps see his way at some future time again to coöperate with the Committee on behalf of the Fellows of the College. The subject of obtaining a second candidate to represent the views of the Association at the coming election at the College was then discussed, and in connexion with this subject two letters—addressed to the honorary secretary by Mr. C. Steele of Clifton—were read. Mr. Steele had been asked by the honorary secretary whether he would stand as a candidate if nominated in the Committee, and one of his letters was to the effect that he did not feel prepared to do so on the present occasion. The following resolution was unanimously passed by the Committee: "That, considering the present critical condition of College politics in relation to the Fellows of the College, and of the great importance of returning to the Council candidates of high position in the profession favourable to increasing the privileges of the Fellows of the College, this Committee unanimously requests Mr. T. Holmes to allow himself to be put in nomination for the Council. Mr. Holmes, in reply, intimated his inability to come forward again, but said that he would return to the hon. secretary an official reply in a few days' time. Other names were mentioned in the Committee, and ultimately it was agreed to invite Mr. Paul Swain of Plymouth, who originated the Association in 1884, to come forward, and in the event of his declining, to write to Mr. Mayo Robson of Leeds. It was considered advisable to secure, if possible, a provincial candidate. The hon. secretary presented an estimate for printing and binding the report of the proceedings of the Committee of the Association, lately drawn up by a subcommittee appointed for the purpose. This report was submitted to the Committee at the last meeting and approved. The estimate was passed, and in the course of a fortnight the report will be issued to the Fellows of the College. Every Fellow whose address is known will have a copy sent to him. The hon. secretary reported the decease of Mr. William Adams of Regent's-park, a member of the Committee of the Association. Some other routine business was transacted, and the Committee adjourned at 6.30 P.M.

THE INFLUENZA EPIDEMIC.

THE full history of the remarkable visitation of influenza which the world has experienced during the past three years has still to be written. Meanwhile, thanks to the Society for Internal Medicine at Berlin, we are in possession of a record which, for completeness and interest, surpasses any yet produced. In a handsome quarto volume,[1] embellished by many well-executed maps, is contained the analysis of a "collective investigation," commenced in January of last year, under the auspices of a committee of the above Society and of delegates from the Medical Society and the Public Health Association. The plan pursued was that which for some years was undertaken in this country by the British Medical Association, as promoted by the late Dr. Mahomed, and it is with some regret that we feel that, owing to the cessation of that work, the opportunity for collecting facts upon influenza should have been allowed to slip past in England, whilst Germany, not loth to adopt new ideas, should have carried on work which an organisation like the British Medical Association should have been able to continue. For the purpose of collecting information the Berlin Committee issued some 20,000 cards to all practitioners in Germany, and of these more than 6000 were returned with more or less ample information. The points raised in the queries thus addressed to the profession comprised the time and place of the first observed cases in the practitioner's district, the time at which the epidemic was at its height, and at which it may be said to have terminated, the age, sex, and occupation of the patients, details of noteworthy symptoms (nervous, circulatory, respiratory, digestive, cutaneous), complications, and sequelæ; the frequency of the association with pneumonia and the type of the latter; the frequency of relapse, the course of convalescence, the influence of influenza upon other diseases, the mortality and causes of death, the treatment adopted, and, lastly, the opinion of the practitioner as to contagiousness.

The analysis of the returns, which is shared in by many eminent men, is preceded by an article on the Literature of Influenza—a bibliography extending over thirty-eight pages, and comprising references to works dating from the year 1700 to the end of October, 1891. This is furnished by Dr. A. Wurzburg. Then comes a section on Statistics by Dr. Carl Rahts, based on the returns. From this it appears that the majority first met with cases in December, 1889; but one case was observed in Gobersdorf (Silesia) on Sept. 15th, and at Homburg (Baden) on the same date; at Eilenberg (Saxony) on Oct. 1st, at Berlin on Oct. 1st and 30th. The epidemic prevailed from the middle of December to the end of January, but many of the returns either give no information upon its termination, or state that the disease was still present. Very varied are the estimates of the numbers attacked relative to the whole population, but a mean is given as being about 40 to 50 per cent. It is also impossible to get an accurate idea of the mortality, since some reporters include all indirect causes of death, and therefore give a death-rate of enormous proportions, whilst others, setting aside all complications and sequelæ, reduce the rate practically to *nil*. It is curious to note that whereas in Bavaria and Saxony the majority of practitioners affirm the contagiousness of influenza, in Berlin the majority take an opposite view. Practically, about 57 per cent. of the whole number expressing their views on this point (2643) are in favour of its contagiousness, and 42·5 per cent. of its non-contagiousness. Some guarded themselves by asserting that it was contagious "under certain conditions," or that it was miasmatic as well as contagious." Most of the patients were between the ages of twenty-one and fifty years, and

[1] Die Influenza-Epidemie, 1889-90. Im Auftrage des Vereins für Innere Medicin in Berlin. Herausgegeben von Dr. E. Leyden und Dr. S. Guttmann. Wiesbaden: J. F. Bergmann. 1892.

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in the practice of 1273 there were more males affected than females, in 190 more females than males, whilst 1221 stated that there was no difference between the sexes. By far the majority found that the calling of the patient (out-door or sedentary) had no appreciable influence in determining an attack. Respecting relapses, 2849 practitioners supplied information; of these, 410 had not met with cases of relapse, 1788 had "occasionally," and 654 had "often" seen them.

Next follow two very interesting papers—the one, on the Course of the Epidemic of 1889-90, by Dr. G. Lenhartz; the other, on the Course of the Epidemic of 1891-92, by Dr. J. Wolff—and the charts appended to the volume embody in a striking manner the information here collected. As to the first epidemic, the earliest notice was by Heyfelder, who observed cases among the Europeans at Bokhara in the latter half of May, 1889, which he subsequently identified as similar in character to those occurring in St. Petersburg six months later. By July about one-half the population of Turkestan had been attacked; next the disease spread to East Siberia, and thence to the Caucasus and South Russia; but of its progress in China there is no information. In November it was raging at St. Petersburg, and its further course was in a direction more or less generally from east to west. By the end of November it was at Copenhagen, Stockholm, and Berlin; in the first week of December it appeared at Kiel, Bremen, and Leipsic; in the second week at Breslau, Mayence, and Frankfort-on-Oder; in the third week at Halle, Dresden, Strasburg, Hanover, Cologne, Frankfort-on-Maine, Hamburg, and Stuttgart; in the fourth week at Magdeburg, Nuremburg, Bonn, Dusseldorf, Heidelberg, and so on; the steps of the epidemic in Germany being also illustrated on charts. Its extension to other countries—Austro-Hungary, Turkey, France, Switzerland, Italy, England, Ireland, North America, Central America, South America, Egypt, Burmah, China and Japan, the Cape, Australia, and New Zealand—in much this order took place with marvellous rapidity, but it was not until July, 1890, that it appeared in Iceland and the Azores. The tale is taken up by Dr. Wolff in his article, who points out that influenza epidemics do not often recur as the present one has done; but in 1729-30 an epidemic which arose in Russia, and traversed the globe in the space of a year, returned two years later with similar intensity and course, and that a like experience was afforded in 1829-33. The epidemic of 1889-90, which had completed the circuit of the earth by October, 1890, when it was noted in Central Africa, was followed by another wave, which mainly took a reverse course—viz., from west to east. Meanwhile, there had been several localised outbreaks, sometimes repeated three or four times in the same place (e.g., Copenhagen), and from one or other of these a fresh extension took place. A mild course and gastric character generally marked these local epidemics of "autochthonous" origin. At the beginning of 1891 a fresh pandemic started on its world-journey. It began in New Orleans, thence travelled north to New York and Chicago, persisting in the States to the end of April, by which time it had already reached Ireland and England, when Hull and Sheffield, which had but a slight visitation in the previous year, were severely attacked, and when most other of the large towns, notably Nottingham, Liverpool, and London, were again visited. It was found that in this second outbreak there was a greater liability for children and old people to be attacked, and that there were a larger number of cases with nervous complications and gastric symptoms. From England, where it remained until the end of August, it radiated in two directions—viz. (1), S.E. to Spain and Portugal, and thence to France (October), whence some extension occurred into Germany, and (2) N.E. to Scandinavia, Denmark (end of July), Russia (September), Poland, Germany (November), and Italy (December). Then it careered back again over Denmark (December), Sweden, the Netherlands (December), to Ireland and North America (end of December). It is "not unlikely," adds Dr. Wolff, "that in the coming spring and summer, perhaps from the residua of this second pandemic, there may be local epidemics here and there, and then we may hope that for a series of years mankind will be free from this malevolent visitor." Had his record been extended into the present year (1892) he would have found ample corroboration of this surmise, and we trust that his concluding hope will be verified.

(To be continued.)

THE ROYAL MILITARY TOURNAMENT.

THE arrangements made by Colonel Tully, the secretary of the Royal Military Tournament, and his staff, to ensure the success of so popular a meeting as the Royal Military Tournament cannot be spoken of in terms of too high praise. The organisation of so vast an undertaking entails immense labour and untiring attention. Evidences of this were everywhere visible, both in the arena and behind the scenes. The vast masses who attended testify to the public interest in an exhibition by our soldiers. On the Continent the military element is always in evidence, the people are familiarised with military pageants; but in this country military displays are as rare as they are frequent in other portions of Europe. The "best troops in the world" are, as it were, hidden away, and it is therefore not surprising that the Military Tournament should excite much enthusiasm on the civil part of the public as being an occasion on which opportunity is afforded for witnessing feats of arms and skill, of expertness and precision, which can only be attained by prolonged experience and training. But it was not only in the arena that points of interest could be observed.

For example, in travelling through the long rows of horses stabled in the hall an interesting sight was observed. Some of the troopers quartered there, with a thoughtfulness and kindliness that cannot be too warmly commended, endeavoured to relieve the suffering of their horses by fanning them with huge Japanese fans. This picture of brave warriors thus tending their horses is very creditable to the soldiers, but it does not suggest that the ventilation of the Agricultural Hall is completely efficient for such an enormous mass of animate creatures as this gathering brings together. It is, indeed, but another illustration of the manner in which the important question of ventilation is neglected. Day after day the Hall has been crowded to overflowing. To meet the emergencies incidental to gatherings so large, special arrangements of a very complete kind have been organised by the Ambulance Association, and under the immediate superintendence of Surgeon-Captain E. J. Lawless, M.D., 4th V.B East Surrey Regiment, and staff officers of the Royal Military Tournament. Two huts have been erected under his special direction, one for male cases and the other for female, and have been equipped with all the armamentaria requisite for ambulance work by Messrs. Evans and Wormull. The Civil Hospital for the reception of lady patients was under the charge of Miss Edith Ward, who nursed the Royal Princes, and her sister, Miss Luisehen Ward, of the Royal Infirmary, Edinburgh. This ward was fitted with the electric light, and communication with Dr. Lawless in cases of urgency was kept up by an electric bell. Two orderlies from University College Medical Corps were under the command of the two sisters. This is an entirely new department. It has succeeded well, and the public will doubtless be grateful for the arrangements made for their comfort. The casualties treated at the female station included a transverse fracture of the tibia, a lacerated wound of the hand, and many cases of syncope, epilepsy, and hysteria. The position was no sinecure. In one single afternoon there were no less than nine ladies taken suddenly ill. Most of those treated were cases of syncope, and not altogether unconnected with bad ventilation. Undoubtedly the question of ventilating so large a building is a very difficult problem to grapple with. Some have suggested that steam punkahs might be beneficial. But we are not prepared, offhand, to say what methods of ventilation are best suited to such a place as the Agricultural Hall under ordinary or exceptional circumstances. This much, however, we may say—namely, that no system of ventilation will be effective unless mechanical force is employed. It is comparatively easy to set air in motion when it is very cold—that is, when there is a great difference between the in-door and the out-door temperature—or else when the wind is blowing violently. It is, however, when the air is quite still, when it is hot and close everywhere, that ventilation is most wanted. But it is just at such a moment that any system of ventilation which is not based on a mechanical motive-power altogether fails to act. Consequently there may be some good in the proposal to use steam punkahs at the Agricultural Hall. But though it may be pleasant to be fanned by steam power, something more scientific than this

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is required. It does not suffice to beat about or stir up the air. The hot and vitiated atmosphere has to be driven out and fresh air admitted in the necessary volume, and yet so equably as not to occasion draughts.

The male ambulance station was in charge of a party of the Volunteer Medical Staff Corps—in the afternoon furnished by No. 1 University College Company, Surgeon-Captain V. Matthews; in the evening by No. 5 City of London Company, Surgeon-Captain J. Squire—and was also made use of for minor casualties.

Accidents which occurred to the soldiers in the arena were attended to in an army hospital fully equipped with all the hospital armamentaria from Aldershot. This hospital was under the charge of Surgeon-Captain F. J. Greig from Aldershot, who was assisted by Surgeon-Captain J. B. Beach from the same station. Fortunately the services of these gentlemen were not called into requisition except to attend to a trooper who received a subcoracoid dislocation of the humerus during the Balaclava *mêlée*. The dislocation was reduced in the army hospital, under chloroform, and next day the patient was sent by ambulance waggon to the Guards' Hospital in Rochester Row. Besides the above-mentioned officers, twelve men and three non-commissioned officers of the Medical Staff Corps were in attendance.

The sanitary arrangements had received considerable attention. Latrines were provided by the Sanitas Company, and several of Moule's earth closets were erected.

The sanitary appliances for the soldiers had likewise received attention from those in charge of the tournament. Water was plentiful, and ablutions could be performed with comparative comfort. Objection, however, must be taken to the sleeping accommodation provided for the soldiers. Tents had been erected in an upstairs portion of the building. It may be that this is the readiest mode of providing the men with a "local habitation," but tents under such circumstances are not sufficiently airy and ventilated to be occupied at night, and can hardly be taken to illustrate, even from a spectacular point of view, the exigencies of life in a military camp. That British soldiers should be sweltering in a small, ill-ventilated tent in the upper room of a building, the air of which has been vitiated by its having been occupied for many hours by vast numbers of men and horses, is scarcely in harmony with army hygiene or complimentary to those who made the arrangements. It seems to us that it would have been an easy and preferable arrangement to provide the required accommodation in the shape of extemporised cubicles.

THE DRAINAGE OF RANGOON.

THE municipal authorities of Rangoon have courageously grappled with the drainage problem, and this is the more creditable as local circumstances rendered the question one of exceptional difficulty. Rangoon is situated at a distance of thirty-five miles from the sea, on very low-lying ground. It was occupied by the British troops from 1824 to 1827, but did not become definitively an English possession till 1852. At that time it was but a collection of bamboo and plank houses and huts built on piles that had been sunk into a swamp which was periodically flooded by spring and other high tides. Yet, historically, the town is very ancient, having been founded, according to popular belief, by the brothers Pov and Tapaw, B.C. 585. Thus the swampy ground on which Rangoon stands has had ample time to be contaminated by its inhabitants.

Though annexed by the English forty years ago no attempt was made to deal with the sewage before 1873. The population had greatly increased. It was only 8660 in 1826, but it rose to 61,138 in 1863, and 98,745 in 1872. The cesspools with which the town was provided leaked frequently, and in 1873 they were abolished; but the pail system, instituted in their stead, was only a partial improvement. These pails were conveyed in carts to the jetties on the river bank, and there emptied into the water. Thus the air of Rangoon was polluted throughout the night by the horrible stench caused by the emptying and washing of the pails. For many years, however, no better plan could be devised. To build ordinary sewers was a matter of exceptional difficulty, as the ground was too flat and too unstable. Then there was the question of the rainfall, which is equal to 100 inches per annum; but as this rain comes down in the course of six months, the sewers would have to deal with what in England we should consider as equivalent to an annual rainfall of 200 inches. At Rangoon rain falls sometimes to the amount of 5·5 inches in one single hour. The soil becomes softer and softer and more unstable the deeper the trenches for sewers are dug. It was therefore impossible to build sewers large enough to deal with such a rainfall. Under these circumstances the Shone system seemed well suited to solve these special local difficulties if applied as a separate system, the rain being left to flow to the river in the ordinary manner. The gravitating sewers of this system are only 6 inches in diameter, and the largest sealed main 21 inches. Such small sewers, even in the driest seasons, are easily and efficaciously flushed. The fall given to the gravitating sewer is always sufficient, even in so flat a town as Rangoon; for it is never less than 1 in 200 for a 6-inch pipe. This advantage has been secured by dividing Rangoon into twenty-two sections or districts. Each of these districts has its ejector station, where there are two ejectors of 200 gallons capacity each. This means that Rangoon has twenty-two outfalls, situated where they are most needed—that is, at the lowest levels. These ejectors can be placed anywhere, even in the most crowded part of a town. Their construction need not be minutely described, as the system is now so well known, having been applied to the Houses of Parliament at Westminster and the towns of Eastbourne, Henley-on-Thames, Lowestoft, Southampton, and many other places being drained in this manner. The point to note is that when once the small and comparatively short 6-inch sewer has reached the nearest ejector, a distance which rarely exceeds 400 yards, the sewage is locked up, and has no further communication with the outer air.

When the ejector is full the pressure of the sewage on the air confined in a bell or cup, situated in the top of the ejector, forces open a valve, and then there is a rush of compressed air into the ejector. The force of this air is sufficient to lift the sewage out of the ejector up to a higher level, and into a sealed main. The compressed air is distributed to the various ejectors with the same facility and in the same manner as coal gas for lighting purposes. As the motive power consists of compressed air, it causes but little friction and practically no wear and tear. The sewage being forced out from the bottom of the ejector, the whole of the sewage—including solids, sludge, grit, &c.—brought down the sewer, is discharged out of the ejector. Therefore no screening or straining of sewage is necessary, as is the case with pumps, and the nuisance caused by the cleaning of pumps is avoided. Then the sudden rush of the whole contents of the ejector into the sealed main forms a good flush. Finally, each ejector acts as a trap, which completely disconnects the house drains of each district from the other districts and from the main outfall sewer. This main outfall is made of iron, and as it receives the sewage from the twenty-two ejectors it is always full and under pressure. The sewage has no time or space to generate sewer gas, nor could such gas escape and pollute the town, for the pipe main is air-tight. Its outfall is in the Rangoon river (which is much larger than the Thames), and is placed three feet below the lowest tide.

Each 6-inch gravitating sewer pipe has an automatic flush tank of 200 gallons. As these pipes are short and the fall ample, the sewage from the furthest house cannot take more than five or six minutes to reach the ejector, and there it is, as it were, locked up and put out of harm's way. To further ensure the perfect cleanliness of these pipe sewers, and so that all sewage, when in certain parts of the day the quantity is very slight, should not remain any length of time in the ejectors, there is an automatic discharge of 200 gallons of clean water from the flush tanks. In a 6-inch sewer, where sewage travels the whole distance in a few minutes, there is not time or space for the generation and accumulation of sewer gas. Also, as the volume of air in the pipe is very small, the flow of sewage and the regular flushing are more likely to be a sufficient motive power to replenish the air within the pipe. By smallness in diameter and shortness in length of the pipes, the volume of water and of air required to thoroughly flush and ventilate is reduced to a minimum. Financially the great cost of deep cuttings is avoided, and it is not necessary to provide for more than the district actually requiring drainage. The system can afterwards be easily

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extended according to the increase of population. The air-compressing station built near the fire brigade station supplies the motive power capable of raising 3300 gallons per minute, or 4,750,000 gallons of sewage or water per day to a height of sixty-two feet. All the machinery and all the pipes had to be sent out from England, and the cost of skilled labour at Rangoon is about double what it would be in England; and yet the outlay on sewage works for the town proper only amounted to £155,377, or £2 5*s.* per head of the population. There are towns in England which have cost as much as £8 per head for their sewage works. But there has been an extension of the original scheme at Rangoon, increasing the total cost to £162,573. As, however, this embraces a population of 77,196, the cost per head is reduced to £2 2*s.* 4*d.*

Such, briefly, are the main features of the drainage works successfully accomplished at Rangoon. They seem to have given the greatest satisfaction. Major R. C. Temple, President of the Rangoon Municipality, in speaking on the subject at the International Congress of Hygiene and Demography of 1891, said:—"Most exhaustive trials have been made of the works, which have now been in operation nearly two years, and the result has placed beyond doubt that the favourable estimate originally formed of the Shone system has been completely justified by the result of its working. Rangoon is now the only city in the Indian empire which can boast of a scientific system of drainage which fulfils all the requirements of sanitarians."

It is nevertheless regrettable that at Rangoon the outfall sewer should pour all the sewage into the river. The volume of water in the river is estimated roughly at 150,000 times the volume of sewage, but in any case there is a waste of useful fertilising material. Then again, however satisfactory the Shone system may be in itself, the coupling of the houses to this system has not yet been fully accomplished; and where the connexion is established the workmanship has not always been of a satisfactory character. These are points on which the municipality should enact very severe by-laws and exercise a strict supervision. We have little doubt that this will ultimately be successfully accomplished, and hope that the example afforded by the town of Rangoon will stir all the great municipalities of India to similar useful sanitary action.

THE MEDICAL COUNCIL AND UNQUALIFIED ASSISTANTS.

THE following resolution of the Council and Report of the Executive Committee should be in the possession of practitioners who employ unqualified assistants.

RESOLUTION OF THE COUNCIL, APRIL 21st, 1883.

"That the Council record on its Minutes for the information of those whom it may concern that charges of gross misconduct in the employment of unqualified assistants, and charges of dishonest collusion with unqualified practitioners in respect of the signing of medical certificates required for the purposes of any law or lawful contract, are, if brought before the Council, regarded by the Council as charges of infamous conduct under the Medical Act."

REPORT OF THE EXECUTIVE COMMITTEE ON THE USE OF UNQUALIFIED ASSISTANTS.—MINUTES, MAY 22ND, 1888.

The Executive Committee, without attempting to make a formal definition of the misconduct in question, reports to the General Council that, in its opinion, "a registered medical practitioner would render himself liable to the censure of the Medical Council in case of the employment of an unqualified assistant in the practice of medicine, surgery, or midwifery on behalf and for the benefit of such registered practitioner, either in complete substitution for his own services or under circumstances in which due personal supervision and control are not, or cannot be, exercised by the said registered practitioner." "The Executive Committee furthermore takes this opportunity of stating, in reference to the proceeding known as 'covering,' that in its view a registered practitioner covers an unregistered person when he does, or assists in doing, or is party to, any act which enables such unqualified person to practise as if he were duly qualified."

ANNUAL MEETING OF THE BRITISH MEDICAL TEMPERANCE ASSOCIATION.

THE sixteenth annual meeting of the British Medical Temperance Association was held on Tuesday last in the rooms of the Royal Medical and Chirurgical Society, 20, Hanover-square, W. The President, Dr. B. W. Richardson, took the chair at 5 P.M. The annual report was read by the hon. secretary, Dr. Ridge, and showed the total number of members in the United Kingdom to be 415, and of associates eighty-one, the latter being medical students. Thirty-eight new members had joined during the year, but there had been some losses by death (including Dr. Alfred Carpenter, Dr. Maclagan, and Rev. Mr. Lowe) and by resignation. The balance-sheet showed a debt of £8 to the treasurer. A rule was added to admit lay associates interested in science, under certain conditions, without vote. Mr. Moir subsequently read extracts from a lecture on Alcohol delivered in 1837 by Dr. H. W. Dewhurst, who took up an advanced position with regard to the evils resulting from the use of intoxicating liquors.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 6444 births and 3797 deaths were registered during the week ending May 28th. The annual rate of mortality in these towns, which had been 20·4 and 19·3 per 1000 in the preceding two weeks, rose last week to 19·4 In London the rate was 18·8 per 1000, while it averaged 19·9 in the thirty-two provincial towns. The lowest rates in these towns were 8·7 in Derby, 13·0 in Brighton, 13·4 in Portsmouth, and 13·8 in Croydon; the highest rates were 24·0 in Liverpool, 25·2 in Manchester, 25·6 in Wolverhampton, and 27·5 in Sunderland. The 3797 deaths included 478 which were referred to the principal zymotic diseases, against numbers declining from 542 to 469 in the preceding three weeks; of these, 203 resulted from measles, 113 from whooping-cough, 51 from diphtheria, 49 from scarlet fever, 44 from diarrhœa, 17 from "fever" (principally enteric), and 1 from small-pox. No fatal case of any of these diseases occurred last week in Derby or in Gateshead; in the other towns they caused the lowest rates in Huddersfield, Newcastle-upon-Tyne, Plymouth, and Leeds, and the highest rates in Bristol, Manchester, Sunderland, Wolverhampton, and Halifax. The greatest mortality from measles occurred in Birmingham, Sheffield, London, Liverpool, Manchester, and Halifax; from scarlet fever in Cardiff; from whooping-cough in Burnley, Blackburn, Wolverhampton, Bristol, and Sunderland; and from diarrhœa in Wolverhampton and Bolton. The mortality from "fever" showed no marked excess in any of the large towns. The 51 deaths from diphtheria included 39 in London, 3 in Birmingham, 2 in Portsmouth, 2 in West Ham, and 2 in Oldham. One fatal case of small-pox was registered in London, but not one in any of the thirty-two large provincial towns; 96 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 12 in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1741, against numbers increasing from 1226 to 1677 on the preceding nine Saturdays; 202 new cases were admitted during the week, against 232 and 226 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had been 304 and 292 in the preceding two weeks, further declined to 285 last week, and were 25 below the corrected average. The causes of 51, or 1·3 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in West Ham, Bristol, Leicester, Leeds, Newcastle-upon-Tyne, and in seven other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Halifax, and Hull.

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HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·8 and 21·5 per 1000 in the preceding two weeks, rose again to 22·1 during the week ending May 28th, and exceeded by 2·7 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 16·3 in Aberdeen and 17·1 in Edinburgh to 24·8 in Greenock and 26·5 in Glasgow. The 616 deaths in these towns included 32 which were referred to measles, 25 to whooping-cough, 10 to diarrhœa, 5 to scarlet fever, 5 to "fever," 3 to diphtheria, and not one to small-pox. In all, 80 deaths resulted from these principal zymotic diseases, against 80 and 78 in the preceding two weeks. These 80 deaths were equal to an annual rate of 2·9 per 1000, which exceeded by 0·5 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 32 in each of the preceding two weeks, were again 32 last week, all of which occurred in Glasgow. The deaths referred to whooping-cough, which had been 24 and 26 in the previous two weeks, were 25 last week, and included 18 in Glasgow and 4 in Edinburgh. The 10 fatal cases of diarrhœa exceeded the number in any recent week, and included 6 in Glasgow. The deaths from scarlet fever, which had been 2 and 9 in the preceding two weeks, declined again to 5 last week, of which 4 occurred in Glasgow. The 5 fatal cases of "fever" corresponded with the number in the previous week, and included 3 in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had been 140 and 126 in the preceding two weeks, further declined last week to 120, and were 53 below the number recorded in the corresponding week of last year. The causes of 65, or nearly 11 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 31·0 and 34·6 per 1000 in the preceding two weeks, declined again to 29·1 during the week ending May 28th, a lower rate than in any week since December last. During the first eight weeks of the current quarter the death-rate in the city averaged 33·9 per 1000, against 19·9 in London and 18·7 in Edinburgh. The 195 deaths in Dublin during the week under notice showed a decline of 37 from the number in the preceding week, and included 23 which were referred to measles, 6 to whooping-cough, 4 to "fever," and not one either to small-pox, scarlet fever, diphtheria, or diarrhœa. In all, 33 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·9 per 1000, the zymotic death-rate during the same period being 3·1 in London and 1·6 in Edinburgh. The fatal cases of measles, which had been 24 and 28 in the preceding two weeks, declined again to 23 last week. The deaths referred to whooping-cough, which had been 3 in each of the previous two weeks, rose to 6 last week. The 4 fatal cases of "fever" considerably exceeded the number recorded in any recent week. The 195 deaths registered in Dublin last week included 28 of infants under one year of age, and 43 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons showed a marked decline from those recorded in the preceding week. Five inquest cases and 4 deaths from violence were registered; and 66, or one-third, of the deaths occurred in public institutions. The causes of 21, or nearly 11 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

LIEUTENANT MCMUNN, R.A.

IN a recent article we incidentally called attention to the latest example of British pluck and enterprise as exhibited in Burmah by a young officer of the Royal Artillery, Lieutenant McMunn. It may interest our readers to know that this officer is the son of Dr. J. A McMunn, formerly Surgeon in the Royal Horse Artillery, and now Senior Physician and Surgeon of the Royal Hospital, Chelsea. Dr. McMunn, before he retired from the Army on half-pay, had served in the Crimean campaign and Indian Mutiny. His son, Lieutenant McMunn, has, it is stated, been recommended by the Commander-in-Chief in India, Lord Roberts, for the Victoria Cross, which he certainly deserves. and we may congratulate Dr. McMunn, of the Royal Hospital, Chelsea, on his son having already made his mark in the Service.

THE LATE MORTALITY AMONG THE NATIVE FOLLOWERS IN BURMAH.

We directed attention in THE LANCET of May 7th to the deplorably high death-rate among the native followers of the British army in Burmah, as set forth in an address of Deputy Surgeon-General C. Sibthorpe, of the Indian Medical Service. This loss of life, alleged to be attributable to preventable causes and the want of proper provision in the way of food and necessaries for these unfortunate natives, has, we have since understood, excited much attention in India; and assuming that there is no mistake about the facts and figures—viz., that only 400 out of 6000 native followers admitted into the General Hospital recovered sufficiently to return to their duties in the field—we cannot wonder at it.

FIELD MEDICAL SERVICE CODE FOR INDIA.

A new edition of the Field Service Departmental Code, Medical, India, and the Syllabus of Field Medical Organisation for the Indian Army has just been issued by the Government of India for the information and guidance of all concerned. This code will be henceforward the sole authority on all the subjects to which it refers, and is to be quoted in all official correspondence. It is to supersede the Field Medical Service Manual of 1888 The principles underlying the regulations of the medical service in India may be said to be identical with those which obtain elsewhere in the British army, but the methods by which the objects are attained are somewhat different, as might be supposed. The code for field medical service in India is distinctly good. It is short, clear, and precise, and does not darken counsel with a cloud of words. The appendices include a vast amount of information in tabular form, and arranged in scales of establishments and equipments, according to the strength of the force and nature of the service.

THE GENERAL HOSPITAL, MADRAS.

Consequent upon the strong recommendation of the Surgeon-General, the local government has agreed to the proposal to increase the professional staff of the General Hospital, and has accordingly addressed the Government of India on the subject.

ABOUT SOLDIERS, BY A SOLDIER.

The June number of *Blackwood's Magazine* contains an article under this heading which is worth reading at the present time, in connexion with the controversy that has arisen about the state of the army, for the fair commonsense and unsensational spirit in which the subject is discussed.

YEOMANRY CAVALRY. — Gloucestershire (Royal Gloucestershire Hussars): The undermentioned Surgeon-Majors to be Surgeon-Lieutenant-Colonels: W. Wickham and A. Grace (both dated May 28th, 1892).

INDIAN MEDICAL SERVICE.

Surgeon-Major Edward Levinge, District Surgeon, Kistna, died at Masulipatam on the 7th inst.

The services of Surgeon-Captain T. W. Shaw, M.B., I.M.S., have been placed at the disposal of the Government of India in the Foreign Department.—Brigade Surgeon-Lieutenant-Colonel R. Bowman, I.M.S., has returned to duty on the Indian Establishment.

Hospital Reports, Bombay.—Prof Wellington Gray has started an annual volume in which a selection of the cases coming under the notice of the Medical and Surgical Staff of the Jamesetjee Jejeebhoy Hospital and Grant Medical College will be published.

Bombay.—Brigade-Surgeon-Lieutenant-Colonel A. Berry has been appointed to the medical charge of the 6th Bombay Cavalry, vice Surgeon-Captain T. D. C. Barry.—The following transfer of medical officers has been effected:—Surgeon-Major H. D. Masani to the medical charge of the 24th Bombay Infantry, vice Surgeon-Captain Braganza, and

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Surgeon-Captain M. B. Braganza to the medical charge of the 30th Bombay Infantry, vice Surgeon-Major Masani.

Government of India Orders.—Surgeon-Major G. S. A. Rankin, M.D., Bengal Establishment, is appointed to officiate as Secretary to the Board of Examiners during the absence on special leave of Colonel H. S. Jarrett.—Brigade-Surgeon-Lieutenant-Colonel W. Center, M.B., Civil Surgeon, Lahore, is appointed to officiate as Administrative Medical Officer and Sanitary Commissioner, Central Provinces, vice Surgeon-Colonel J. G. Pilcher.—Mr. W. R. W. James is temporarily admitted into the Uncovenanted Medical Service, and appointed to the Central Provinces.—The undermentioned pensioned officers are temporarily employed, and their services placed at the disposal of the Bengal Government: Honorary Surgeons C. L. Fox and E. W. Browne.

Dr. R. A. K. Holmes, who was appointed to officiate a few weeks ago as Inspector-General of Gaols in the North-West Provinces and Oudh, in place of Sir John Tyler, on leave, has been compelled to go home on sick leave. Dr. E. Mair, Superintendent of Bareilly Central Gaol, will act till Sir John Tyler returns.

In the Chin Hills.—4th Bengal Cavalry: Surgeon-Captain W. W. White to medical charge of Regiment.—24th Punjab Infantry: Surgeon-Captain H. F. Whitchurch to medical charge of Regiment.—26th Punjab Infantry: Surgeon-Captain J. H. Close from 21st Punjab Infantry to medical charge of Regiment.

Surgeon-Captains F. O'Kinealy, E. Wilkinson, and W. Henvey have been appointed to the officiating medical charge of the 2nd Bengal Lancers, 2nd Sikh Infantry, and 2-5th Gurkhas respectively.

The transfer of Surgeon-Colonel R. Harvey from the administrative medical charge of the Punjab Frontier Force to that of the Presidency District has been cancelled.

Surgeon-Captain H. N. V. Harington, Indian Medical Service (Madras), Medical Officer of the Deoli Irregular Force and of the Harowtee and Tonk Pol Agency, is appointed to officiate as Agency Surgeon in Ulwar, from the date of assuming charge, and during the absence on furlough of Surgeon-Major A. S. Faulkner, or until further orders.

Surgeon-Captain R. Shore, M.D., Indian Medical Service (Bengal), Officiating Residency Surgeon in Turkish Arabia, is appointed to officiate as Medical Officer of the Deoli Irregular Force and of the Harowtee and Tonk Pol Agency, from the date of assuming charge, and during the absence of Surgeon-Captain H. N. V. Harington, or until further orders.

Surgeon-Captain E. Butt, M.S., Ranikhet, to hold charge of the civil medical duties of Ranikhet, in addition to his military duties, from date of taking over charge from Brigade-Surgeon-Lieutenant-Colonel J. R. Greenhill, who has resigned the appointment, and until further orders.

Surgeon-Major A. E. R. Stephens, Officiating Deputy Sanitary Commissioner, 1st Circle, on being relieved by Brigade-Surgeon R. Jameson, to officiate as Superintendent to Central Prison, Lucknow, during the absence on deputation of Surgeon-Major R. A. K. Holmes, or until further orders.

Brigade-Surgeon-Lieutenant-Colonel Spencer, Chief Medical Officer, Rajpootana, succeeds Deputy Surgeon-General Morice, invalided from Calcutta. Brigade-Surgeon-Lieutenant-Colonel W. Center will on promotion relieve Brigade-Surgeon-Lieutenant-Colonel Welch, at Peshawar. Dr. Center is one of the best chemists in India, and his services in this respect have, during his residence at Lahore, been utilised by the local and supreme Governments. Surgeon-Captain D. G. Crawford, Civil Surgeon of Purneah, goes to Chupra as Civil Surgeon of that station. Surgeon-Captain E. Harold Brown, Civil Surgeon of Cooch Behar, accompanies her Highness the Maharanee to England.

NAVAL MEDICAL SERVICE.—The undermentioned Staff Surgeons have been promoted to the rank of Fleet Surgeon in Her Majesty's Fleet:—Ralph Westropp Brereton (dated May 13th, 1892), and Isaac Henry Anderson (dated May 19th, 1892); Staff Surgeon Horace E. F. Cross to the Haulbowline Hospital (dated June 1st, 1892).

Correspondence.

"Audi alteram partem."

THE GENERAL MEDICAL COUNCIL.

To the Editors of THE LANCET.

SIRS,—Your leader writer, in his anxiety to poke fun at me, in your last issue, remarks that I had not adduced any evidence in support of my statements in reference to the reception of certificates from parties whose certificates would not be received by the medical authorities in the divisions of the kingdom whence they emanated, "and that I threw myself on the mercy of the Council." That I did so is true, but it was in the direction of begging of the Council not to ask me to name the authorities that so acted, but rather discuss the matter as an abstract question. That I had plenty of evidence to support the charge is evidenced by the report on the subject of the Examination Committee.

I am, Sirs, yours obediently,

Langham Hotel, May 28th, 1892. R. MACNAMARA.

HEALTH IN TOWNS.

To the Editors of THE LANCET.

SIRS,—Among the many valuable facts in Dr. Poore's recent lecture, not one of the least valuable is his statement as to the amount of land on which may be used the refuse of the average house. This amount he places at thirty perches, or rather less than one-fifth of an acre, which, he says correctly, is about the maximum amount of garden which a business man can cultivate at his leisure.

The greatest risks to dwellers in towns, *pace* sanitary engineers, arise from drains and the matters passed into them. The present system of dealing with these waste products is most harmful and extravagant, and only to be defended on the score of necessity. These products, which, put into the ground, become transformed into innocuous and life-giving products, when allowed to putrefy in drains become a source of the greatest danger to man. This danger might be avoided in great measure—altogether except for neighbouring drains—by the possession of the above amount of ground, and the using of the waste material on it. And, as Dr. Poore says, "a wise sanitary authority will do well by a remission of taxation to encourage" such by the means in their power. It is to be feared that sanitary authorities are not wise in this way; that they consider property and land as rateable objects, and not simply for the good of the individual citizen. Unfortunately, even sanitary authorities think more of trade than of health, and that a closely packed town is preferable to a large semi-rural village; for these authorities are composed of tradesmen, and crowding is good for trade.

I am, Sirs, yours obediently,

St. James's-rd., Liverpool. RICHARD LEIGH, M.R.C.S. &c.

THE ELECTION TO THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—Permit me briefly to recite my connexion with the contests for seats on the Council for the last three years, and I am sure you will see that you do me some slight injustice in your leading article of May 28th. I was induced to take an interest in the questions of College reform by several members of the Association of Members, and after having gone as thoroughly as I could into it, I came to a conclusion which I formulated in a speech at the annual meeting of that Association held at the Holborn Restaurant in 1888. I was then elected a Vice-President, and my views were to the effect that "the Membership of the College included all corporate rights, and the Fellowship is a mere academic distinction." Despite Mr. Justice Romer's decision, I hold this to be the fact still, for I cannot understand how, according to the constitution of our country, a mere Royal Charter can override an Act of Parliament. At the trial of Steele *v.* Savory this question was never touched, and

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not a particle of the voluminous evidence bearing on it was heard. In not one word that I have ever written or uttered have I departed from this platform, but the unfortunate action of the Committee of the Association of Members has made any further efforts to fight it perfectly impossible. I fully accepted the platform of the Association of Fellows, but at the very last meeting of its committee, at which I attended, I asked for an alteration of wording in a resolution which seemed to me essential, so that I might be free to retain my platform. My colleagues most courteously granted my request, so that I cannot see how they at least could misunderstand my position. At the next meeting, when I was not present, they paid me the compliment of asking me to be one of their candidates, but unfortunately, the day before, the circumstances had occurred which determined me that the fight for the Members' rights had become perfectly hopeless. The first announcement I had of my selection was in your own columns, and I was obliged hurriedly to make these columns the vehicle of my declining to stand.

The grievances of the Fellows, which are apart from those of the Members, are of but slight political import, but they are real. The grievances of the Members are practically those of the whole country in the reign of George II. The decision of Mr. Justice Romer would make the position of any ardent democrat on the Council of the College of Surgeons a very bed of thorns. What could such a one as I am do save sit till the end of each Council meeting and then go out, like the Scotch laird, into the road and "swear at lairge"? I am deeply grateful to those Fellows who have supported me in past years, and I express my deep regret to any of those who may have voted for me under the mistaken belief that I was a sort of liberal-conservative in college politics. I retire from the contest, for I feel that the battle is hopeless; but at the annual meetings of the College I shall as often as I can be one to support the annual vote of censure which the Council so pachydermatously endures.

I am, Sirs, yours obediently,

Birmingham, May 31st, 1892. LAWSON TAIT.

THE USE OF MERCURY IN SUSPECTED SYPHILIS.

To the Editors of THE LANCET.

SIRS,—As no surgeon has commented upon Mr. Arthur Cooper's article in your issue of May 7th on Certain Modes of Treatment which interfere with the Diagnosis of Syphilis, I would like to ask one or two questions. Mr. Cooper strongly deprecates the use of (1) lunar caustic, (2) iodine paint, and (3) mercury internally, in cases of suspected syphilis in an early stage, on the ground of the obscuration of diagnosis. As regards the two former, I have nothing to say; but I submit that the use of mercury in such cases is not to be too readily ruled out of court. Mr. Cooper's objection to the use of mercury in these suspected cases is that, if the case be syphilitic, it may so modify the early signs of the disease as to render them difficult to recognise, or may even prevent them altogether, "bearing in mind the remarkable rapidity with which syphilis in some cases is influenced by the drug." I do not gather that if syphilis be not present the mercury will do any harm.

Now, a certain diagnosis is of course highly important; but is there not some danger, if I have understood the author's meaning, of sacrificing the patient's interests to the diagnosis? Suppose that a sore is acquired which is not yet characteristically indurated, but one that most probably will become so after a few weeks. The surgeon has a remedy which, on Mr. Cooper's own showing, has a powerful effect in preventing or greatly modifying the early symptoms of the disease. Ought he to refrain from its use in order that the disease may develop its symptoms unchecked, and so provide him with a certain diagnosis? There is no doubt difficulty in the after-treatment of cases in which under mercury the sore has healed without induration, and such cases would doubtless need watching and much caution in the disuse of the remedy; but would not the gain to the patient have been a real one?

I am, Sirs, yours truly,

R. HINGSTON FOX, M.D.

Finsbury-square, E.C., May 31st, 1892.

DEATH UNDER CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—I venture to trespass on your valuable space to make answer to the letters appearing in your last issue touching the circumstances of the death under chloroform which occurred recently at this hospital, as I, and not Dr. Colvin-Smith, was responsible for the preparation of the patient. I quite concur with the opinions expressed in those letters that the interval between the boy's breakfast and the operation was undesirably (and, I may add, unintentionally) long; but I do not hold that it contributed materially to the unfortunate result. It is so important that the stomach should be empty before an anæsthetic is administered that it is better for the patient to fast a little longer than usual, rather than run the risk of being narcotised with the stomach filled with recently ingested, and as yet undigested, food. It is a matter of great difficulty to get parents to appreciate this, and at least a quarter of the number of out-patient children who are anæsthetised vomit up large quantities of undigested food either during or immediately after the administration of chloroform. In many cases where this has occurred the parents have assured me that the children have had no food within the prescribed four hours, the obvious conclusion being that the stomach frequently does not rid itself of its burden of semi-digested food under four hours; while in other cases the children have been plied with biscuits or cakes to keep them quiet, shortly before being brought to the hospital, and the operation has been postponed in consequence. To avoid these difficulties as far as possible, I direct the mother to give the child nothing after eight o'clock, the operation being performed between twelve and one, thus ensuing a clear interval for digestion of four or five hours, which in the majority of cases is sufficient. Different directions are of course given for very young children or those who are being suckled. In this particular case the boy had his breakfast at 7.30, finishing it some time before 8; the operation was delayed till 1.15, in consequence of there being a large number of out-patients to be seen, and because it was thought desirable to perform the other two operations fixed for that day first, the patients being babies who required circumcision. Dr. Milson's suggestion of the administration of brandy before operation is one which I have many times put into practice whenever the condition of the patient or the severity of the operation has appeared to call for it; and I feel sure that on more than one occasion it has helped the patient to come with safety through the ordeal. In the case of out-patients the operations performed are not severe or prolonged, neither are the patients in a state of great debility, such as to demand the exercise of extra precautions, and I have not yet seen reason for administering brandy beforehand to such patients. The possibility that a dose of brandy might have prevented the unhappy result in this case I must admit; of the probability I venture to doubt. Most London patients affected with adenoids are pale and anæmic and of weakly constitution, and this boy was no worse than many I have seen. While recognising the reasonableness of Dr. Milson's *ex post facto* suggestion, I do not think there was anything about the boy's aspect to cause me to think that extra precautions were necessary.

As regards Mr. Square's remarks, I feel bound to say that he has, perhaps unintentionally, entirely overstated the facts. The boy was told to have nothing after 8 o'clock. It so happened that he began his breakfast at 7.30, though that hour was not mentioned expressly by me. The meal consisted of bread and milk, an egg, and tea, probably about as much as he would ordinarily take. He went to bed at 9 o'clock the previous evening, a little earlier than usual, and had his supper just before. He walked to the hospital, a distance of a little over a mile, not an excessive walk for a boy of eleven years, arriving about 11.30, the time he was told to come, accompanied by his mother, who remained with him in the waiting-room, where there were several other people, during the "weary hours" preceding the operation. It surely is a little ridiculous to assert that the boy had had but one meal in eighteen and a half hours, seeing that he had had both his supper and breakfast within that interval.

The "state of nervous excitement" is entirely a myth the boy took the chloroform quietly and composedly, as

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Dr. Smith stated, and was in no way agitated. He was anxious to get the operation over, so that he might have his dinner. When Mr. Square says that he has found three and a half or four hours a sufficient interval at which to give an anæsthetic after a meal, I presume he is alluding to patients in hospital wards, to whom nourishment in a concentrated and easily absorbed form can be administered with the full confidence that the stomach will not be embarrassed by its contents at the time of operation. I must apologise for trespassing at such length upon your space, but it seemed to me that Dr. Milson's suggestion deserved acknowledgment, and that Mr. Square's statements required an answer.

I am, Sirs, yours truly,
HERBERT G. COOK, M.B., F.R.C.S.,
House Surgeon.

June 1st, 1892.

To the Editors of THE LANCET.

SIRS,—The profession is much indebted to Dr. Milson and Mr. Square for having directed attention in your last week's issue to the danger arising from too many hour's fasting before the administration of an anæsthetic. As Mr. Square says, the boy must have been in almost a condition of starvation. Adding to this low condition the amount of chloroform administered (two drachms used in from five to ten minutes), the danger from an overdose was enormously increased. Some time ago I had chloroform administered to a very nervous boy of six years for the removal of both tonsils. My friend, Mr. Newham, who kindly gave the chloroform, in order to allay the boy's fear, allowed him to hold the face-piece himself before his face, whilst he gave the vapour in very small doses, probably no more than one-tenth part of a minim with each inspiration. No objection was made to breathe the vapour, and satisfactory anæsthesia was induced, and the operation completed within five minutes, with the consumption of thirty minims of chloroform. Full consciousness was regained within ten minutes.

I am, Sirs, yours faithfully,
F. A. PURCELL, M.D., M.CH.

Manchester-square, June 1st, 1892.

"STEELE *v.* SAVORY" FUND.

To the Editors of THE LANCET.

SIRS,—In forwarding herewith the first list of subscriptions to the above fund, the special committee formed for the purpose of collecting the same, and thus relieving the four plaintiffs and others of the legal responsibility resting upon them, desire to draw attention to the fact that the total amount of the costs on both sides, to be paid by the Association of Members, is now ascertained to be £2162, and that of this sum less than half has up to the present time been received. The committee, however, confidently appeal to those Fellows and Members who have not yet contributed to do so without delay, and would urge that if each subscribed even a small sum the full amount required would easily be realised.

An impression existed in the minds of some that the Council of the College, taking into consideration the special circumstances of the action, would refrain from pressing for costs. But although the Council derive a yearly income of £17,000 from its Members alone, and have recently expended £70,000 of the corporate funds on building operations, without even consultation either with the Fellows or Members, they find they cannot conscientiously forego the comparatively small sum of £720 incurred in ascertaining the legal position of the larger portion of the body corporate. On the application of the four plaintiffs for remission of such costs the Council resolved that their solicitors be instructed to recover the same forthwith. Accordingly, half has already been paid in cash, and personal security, to the satisfaction of the President, has been given for the remainder, and the committee trust that the necessary funds will be forthcoming shortly to enable them to settle the costs incurred by the Association. Although in the law courts the Association of Members has been defeated, the justice and reasonableness of its claims remain the same; and efforts will now be directed to the furtherance of the Bill in Parliament with which the Members are familiar, and all other legitimate means used until success is ultimately secured.

I am, Sirs, yours faithfully,
GEO. DANFORD THOMAS, Treasurer.

Park Lodge, Paddington, W., June 1st, 1892.

*** Donations may be forwarded to the treasurer or paid direct to "Steele *v.* Savory Fund," The National Bank, Bayswater, London, W.

	£	s	d
Dr. Wm. Carter	50	0	0
Mr. W. G. Dickinson	50	0	0
Dr. Ralph Gooding	50	0	0
Mr. Jabez Hogg	50	0	0
Dr. Danford Thomas	50	0	0
Dr. T. Wallis B. Mason	50	0	0
Dr. Wynn Westcott	50	0	0
Mr. Lawson Tait	50	0	0
Dr. T. Stretch Dowse	50	0	0
Mr. Joseph Smith	40	0	0
Dr. Robt. Collum	10	10	0
Mr. Jno. T. Churchill	5	5	0
Mr. Walter C. Fox	5	5	0
Deputy Surgeon-General McKellar	5	5	0
Mr. T. Morton	5	5	0
Mr. R. T. Peart	5	5	0
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Dr. F. W. Goodsall	5	0	0
Mr. Josiah Ramskill	5	0	0
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Mr. S. Crawshaw	2	10	0
Mr. E. Parker Young	2	2	0
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Mr. R. W. Garham	2	0	0
Mr. Henry Armstrong	2	0	0
Mr. W. W. Cooper	2	0	0
Mr. John Hall	2	0	0
Mr. James Adams	2	0	0
Mr. M. Brownfield	2	0	0
Dr Edgar Barnes	1	11	6
Mr. E. Charles Barnes	1	11	0
Mr. J. Morley Chadwick	1	10	0
Dr. Eugene Cronin	1	10	0
Mr. J. B. Crosse	1	10	0
Mr. T. Evans	1	10	0
Mr. G. H. Bailey	1	10	0
Mr. W. J. Harvey	1	10	0
Mr. C. O. Rowley	1	10	0
Mr. C. T. Vachell	1	10	0
Mr. T. S. Grenson	1	10	0
Mr. T. C. Galton	1	10	0
Mr. James Adams	1	10	0
Mr. T. Carter	1	10	0
Mr. A. Chillingworth	1	10	0
Mr. C. G. Johnson	1	10	0
Mr. R. H. Kinsey	1	10	0
Mr. G. Robinson	1	10	0
Mr. Jas. Turton	1	5	0
Mr. Edward Jeffery	1	5	0
Dr. F. H. Alderson	1	1	0
Mr. F. M. Mackenzie	1	1	0
Dr. Greenwood	1	1	0
Dr. H. G. Rawdon	1	1	0
Mr. E. M. Swanwick	1	1	0
Mr. Samuel Smith	1	1	0
Mr. Thos. H. Bickerton	1	1	0
Mr. Edwin H. Roe	1	1	0
Mr. A. O. Grosvenor	1	1	0
Mr. R. R. Llewellyn	1	1	0
Dr. J. Maughan	1	1	0
Dr. W. Gayton	1	1	0
Mr. L. B. Calcott	1	1	0
Dr. Barnes	1	1	0
Mr. A. Barron	1	1	0
Mr. Wm. Owen Jones	1	1	0
Mr. Arthur Evershed	1	1	0
Mr. Wyndham Randall	1	1	0
Mr. Henry Barnes	1	1	0
Dr. Fredk. Needham	1	1	0
Mr. Stanley Haynes	1	1	0
Mr. Chas. E. S. Fleming	1	1	0
Mr. N. C. Humphreys	1	1	0
Mr. A. E. Dodson	1	1	0
Mr. John Deardon	1	1	0
Mr. Alfred Slate	1	1	0
Mr. John Manley	1	1	0
Mr. H. Langley Webb	1	1	0
Mr. W. Moore	1	1	0
Mr. W. H. Taylor	1	1	0
Mr. Henry Hicks	1	1	0
Mr. Geo T. B Stevens	1	1	0
Mr. T. M. Stothard	1	1	0
Mr. Thos. Finch	1	1	0
Mr. F. Bossey	1	1	0
Mr. Robt H. Woodhouse	1	1	0
Mr. B. Walker	1	1	0
Mr. Cornelius Beddle	1	1	0
Mr. John Carr	1	1	0
Mr. Shapland White	1	1	0
Mr. Druce J. Slater	1	1	0
Mr. Oliver Lemon	1	1	0
Mr. John N. Winter	1	1	0
Mr. J. Peckett	1	1	0
Mr. Chas. F. Ayres	1	1	0
Mr. T. A. J. Howell	1	1	0
Dr. Gill	1	1	0
Mr. R. J. Davison	1	1	0
Dr. F. Birkbeck Nevins	1	1	0
Mr. R. K. W. Oram	1	1	0
Mr. Julian Wilks	1	1	0
Dr. P. Temple Wright	1	1	0
Dr. T. Orme Dudfield	1	1	0
A. M. F.	1	1	0
Mr. F. L. Milburn	1	1	0
Mr. Wm. Collier	1	1	0
Dr. Stowell	1	1	0
Mr. A. G. Osborn	1	1	0
Mr. Francis J. Bond	1	0	0
Dr. J. Mason	1	0	0
Dr. Appleton	1	0	0
Mr. John Morton	1	0	0
Mr. W. Cortin Finch	1	0	0
Mr. Lewis Jones	1	0	0
Mr. T. D. Nicholson	1	0	0
Surg.-Major J. R. Poole	1	0	0
Mr. W. A Hunt	1	0	0
Mr. Wm. Fuller	1	0	0
Mr. Thos. Sansome	1	0	0
Mr. C. Egerton Fitzgerald	1	0	0
Mr. Arthur Roberts	1	0	0
Mr. Robert Nash	1	0	0
Mr. Chas. H. Fox	1	0	0
Mr. Chas. J. Renhaw	1	0	0
Mr. Henry Hunt	1	0	0
Mr. Joseph Harper	1	0	0
Mr. E. R. Mansell	1	0	0
Mr. F. Le Fevre Milburn	1	0	0
Dr. W. Eager	1	0	0
Mr. J. Hunton	1	0	0
Mr. W. H. Mansfied	1	0	0
Mr. J. R Milsome	1	0	0
Mr. Walter Ryder	1	0	0
Mr. John Lomax	1	0	0
Mr. A. J. Moore	1	0	0
Mr. H. F. Morley	1	0	0
Mr. A. Kibble	1	0	0
Mr. J. Marshall	1	0	0
Dr. J. E. K. Nadin	1	0	0
Mr. B. Rix	1	0	0
Mr. W. D. Spanton	1	0	0
Mr. G. T. S. Taylor	1	0	0
Mr. W. H. D. Mence	1	0	0
Mr. W. Slaymore	1	0	0
Mr. L. E. Knott	1	0	0
Mr. Hubert J. Simpson	1	0	0
Mr. R. F. Stephens	1	0	0
Mr. C. P. S. Wayman	1	0	0
Mr. Clement Palmer	1	0	0
Mr. Thos. Spurgin	1	0	0
Mr. F. P. Lansdown	1	0	0
Mr. W. H. Day	1	0	0
Mr. W. H. Kerberg	1	0	0
Dr. W. J. Sproll	1	0	0
Mr. E. Swales	1	0	0
Mr. Alfred Upton	1	0	0
Mr. F. E. Vernède	1	0	0
Mr. J. T. Waller	1	0	0
Sir Charles Soane	1	0	0
Mr. W. W. G. Stables	1	0	0
Mr. J. R. Wynne	1	0	0
Mr. J. L. Loe	1	0	0
Dr. Emanuel May	1	0	0
Mr. D. M. Williams	1	0	0
Anon.	1	0	0
Mr. Alfred Freer	0	10	6
Mr. J. Ford	0	10	6
Mr Richard Samuel	0	10	6
Mr. Frank Newcombe	0	10	6
Mr. W. E. Greene	0	10	6
Mr. Wm. Berry	0	10	6
Mr. Joseph H. Wilson	0	10	6
Mr. J. H. Connor	0	10	0
Dr. T. J. Woodhouse	0	10	0
Smaller sums	8	15	0

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TREATMENT OF COMPOUND DEPRESSED FRACTURE OF THE SKULL.

To the Editors of THE LANCET.

SIRS,—In the preliminary remarks upon the case of compound depressed fracture of the skull under the care of Mr. Walsham at the Metropolitan Hospital which was published in your last issue, I observe that you regard the entire closure of the wound as an unusual procedure, and one which is not free from risk unless the surgeon "felt perfectly satisfied as to his power to make the wound and adjacent parts thoroughly aseptic and keep them so afterwards." With regard to this point I venture respectfully to make a few observations. I think that if the surgeon has satisfied himself that the wound has been rendered thoroughly aseptic at the time of the operation, he is more likely to succeed in maintaining it in an aseptic condition by avoiding the use of a drainage-tube. It is now, I believe, well recognised that in antiseptic operations it is best to discard the drainage-tube whenever possible, and, when it is found necessary to use them, to keep them for a very short time, for the reason that, if used for any length of time, they establish a sinus which offers an easy entrance to septic organisms, and is therefore difficult to keep aseptic. In the case in question I think there was less danger in running the risk of an accumulation of fluid within the wound than in exposing the wound to the chance of septic infection through the use of a drainage-tube, because the former complication could have been at once detected and rectified in a patient who was under close observation. Moreover, in this case the use of a tube for even twenty-four hours was not necessary: first, because the wound was nearly dry before the sutures were tied; and secondly, because a small triangular space was left in the scalp sufficient to drain away any oozing which might occur in the first twenty-four hours.

I am, Sirs, yours truly,

May 31st, 1892. C. F. MARSHALL, M.D.

TERRITORIAL MONOPOLIES OF QUALIFICATIONS.

To the Editors of THE LANCET.

SIRS,—In your admirable annotation you say: "We should like to see our Irish and Scotch friends begin by liberalising the rules of their own hospitals" &c. I am happy to assure you that there is no hospital in Ireland in which any particular diploma is required for office. Prior to the Medical Act, 1858, county infirmaries' surgeons should be licentiates of the Irish College of Surgeons, but that body at once consented to the removal of the restriction. Now, in two of the clinical hospitals of Dublin there is a surgeon without that diploma, and in a third a physician who is not connected with the Irish College of Physicians.—I am, Sirs, your faithfully,

E. D. MAPOTHER,
Chairman of Council, Irish Medical Schools' and
Cavendish-square. Graduates' Association.

DRAINAGE AT SURBITON.

To the Editors of THE LANCET.

SIRS,—I think you will admit there must be some reason for complaint as regards the drainage at Surbiton when eight out of thirteen medical men resident in the district have signed a petition asking for a regular inquiry into the matter. Four out of the eight medical men whose names do not appear on the requisition paper are, in one way or other, connected with the public health service, and their signatures were not asked for. It may be urged, as you say, that it is the duty of each person to get his own drains properly inspected, and put in order; but it must not be lost sight of that it is impossible to educate all people up to this standard, and, moreover, that this is a matter which concerns not only the occupant of any particular house, but to a greater or less extent all the inhabitants of the district, inasmuch as one case of infectious disease may, under circumstances, be the cause of a serious outbreak. Besides all this, the resident medical men are particularly anxious that the sanitary condition of the place should be proved beyond all doubt, once and for all, because at the present time, when it becomes known that a few cases of infectious disease have arisen, some person who is not over-anxious about the welfare of the locality at once writes to the papers to say that we have a serious outbreak of disease. If this can be stopped it will be of great benefit to us all.

I am, Sirs, your obedient servant,

Surbiton, May, 1892. F. P. ATKINSON, M.D.

*** In expressing the hope that the residents of Surbiton will, without delay and before illness occurs, have their house drains carefully tested by some competent persons, we did not propose to suggest that the sanitary authority was free from responsibility in this matter; but we presume that the cost of reconstruction, if necessary, must fall on the owner, and certainly owners will do well not to wait until compelled by the authority.—ED. L.

FARCY AND GLANDERS."

To the Editors of THE LANCET.

SIRS,—In THE LANCET of March 12th is a leading article on the Prevalence of Glanders in Great Britain, pointing out several defects in the Contagious Diseases (Animals) Act, under the working of which farcy and glanders are looked upon as separate diseases, and twenty-one days have to elapse before an animal declared to be affected can be destroyed. It may perhaps be interesting to you to know that in the Punjab the Glanders and Farcy Act (Act 20 of 1879) has been in operation for the last thirteen years, and all the defects in the English Contagious Diseases (Animals) Act have been avoided. In it glanders and farcy are looked upon as one and the same disease. On a diseased animal being certified as such, destruction is instantaneous. Animals that have been in contact with a diseased one are isolated, at the owner's expense, until certified to be fit to work. The disinfection of stables and premises, as well as the disposal of the body of the diseased animal, has to be carried out at the owner's expense. Any gear, saddlery, or grooming apparatus is destroyed. No compensation is given, and any person obstructing an inspector under the Act in his duties, or preventing his entering any premises where he has reason to suspect there is a glandered animal, is liable to a fine or imprisonment, or both. Surely, if an Act that so completely provides for the suppression of what is not only a fatal disease with equines, but which is also transmissible to mankind, can be worked in a country like India, there ought not to be any difficulty in making the alterations that are required in the English Act.

I enclose a copy of the Glanders and Farcy Act of India (Act 20 of 1879).—I remain, Sirs, yours faithfully.

JOSHUA A. NUNN, F.R.C.V.S.,
Veterinary Captain, Army Veterinary Department, and
Principal, Lahore Veterinary College.

Lahore, Punjab, May 6th, 1892.

VOLUNTEER MEDICAL OFFICERS.

To the Editors of THE LANCET.

SIRS,—I am requested to send you the following copy of the reply received from the War Office to the letter of April 21st, which was published in THE LANCET of the May 7th. I am, Sirs, yours faithfully,

J. EDWARD SQUIRE, M.D.,
Surg.-Capt., V.M.S., Hon. Sec.

101, Great Russell-street, Bedford-square, W.C.,
London, May 31st, 1892.

[COPY.]

No. V.—General No. 1561.

War Office, Pall Mall, S.W., May 16th, 1892.

SIR,—I am directed by the Secretary of State for War to acknowledge your letter of April last, submitting for his special consideration the claims of medical officers of the Volunteer force to share in the honours and rewards bestowed upon the combatant officers of that force, and soliciting on their behalf that the distinctions of Queen's Honorary Physician and Queen's Honorary Surgeon conferred upon officers of the Army Medical Staff may be accessible to medical officers of Volunteers who have established a title to them by long and efficient service. In reply, I am to state, for the information of the Council of the Volunteer Medical Association, that, as regards the eligibility of medical officers for the Order of the Bath, Mr. Stanhope regrets he can add nothing to his letter of June 5th, 1890, wherein his views upon the subject were expressed. In regard, however, to the distinctions of Queen's Honorary Physician and Queen's Honorary Surgeon, I am to observe that service in the Volunteer force, under its normal conditions, does not appear likely to lead to any qualification for these honours, inasmuch as they are only conferred upon officers of the Army Medical Staff either in

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recognition of service in the field or as the reward of special professional merit displayed in services to the Army, under conditions of exposure to epidemics and diseases in unhealthy climates throughout the world, to which medical officers of Volunteers are not subject.

I have the honour to be, Sir, your obedient servant,

RALPH THOMPSON.

The Hon. Secretary, Vol. Med. Assoc.,
10, Great Russell-street, W.C.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

Proposed Memorials of Newcastle Citizens.

A MOVEMENT has been initiated to perpetuate the memory of the late Dr. J. C. Bruce of Newcastle. Seeing that he was so long and intimately connected with our Royal Infirmary, and indeed gave his last hours to its service, it is appropriately suggested that the "Bruce Memorial" should be connected with the institution, and it is proposed to do this by building a pavilion to be called "The Bruce Pavilion." The Mayor has been requested to call a public meeting to consider the proposal. Then we have "The Heath Memorial;" but about this I have heard little since its inception. If it is true that Dr. Heath has himself left about £19,000 for various purposes connected with the College of Medicine, it appears to me that he has left his own memorial in that splendid building; and if it is not true, it is a pity that the Heath and Bruce Memorials could not be combined; and probably sufficient funds would be forthcoming to go a long way to erect a new building in place of the present old one, which is open to many objections viewed in the light of modern hospitalism, to say nothing of its defective site.

A City without a Fever Hospital.

It is strange that the ancient city of Durham, with its comparatively modern University, is without a Fever Hospital. Dr. E. Jepson is taking active steps to induce his fellow-citizens to supply the want. There is now a disused Board School available for the purpose, and it can be made convertible to hospital requirements at a small cost. Dr. Jepson should receive ready aid in his effort to remedy this sanitary shortcoming in Durham.

Great Church Parade of Tyneside Cyclists.

On the 15th ult. a great church parade of cyclists took place at Delaval Hall, near Blyth, kindly lent by Lord Hastings for the meeting. It is estimated that about 1500 cyclists attended. The sermon was preached by the Bishop of Newcastle, who was formerly as noted a wheelman as he is now a pedestrian. The Bishop rarely employs wheels of any kind now if he can possibly walk The collection which was made at the conclusion of the service was double that of last year, and it was principally devoted to the Newcastle and Tynemouth Infirmaries, but at the same time the minor charities were not forgotten.

Carlisle.

On Thursday last the Mayor of Carlisle, in the presence of a large number of citizens and invited guests, laid the foundation stone of a new institution to be built by the Corporation of Carlisle, comprising a public library, museum, school of science and art, and art galleries. The cost is estimated at between £18,000 and £20,000, which has been raised partly by subscription and partly by the Corporation out of the city fund, and other resources which the Town Council happened to have available. The mechanics' institution, after an existence of sixty years, handed over their library on the adoption of the Public Libraries Act, and a fine old mansion in the city (Tullie House) has been purchased, and will, when altered, make the scheme complete.

Ambulance Work in the North

Surgeon-Major Hutton has examined an ambulance class at the Sailors' Mission, Middlesbrough, composed of seamen, rivermen, and dockmen, who have been instructed by Dr. Howell. Mr. Wayman Dixon has taken a great interest in the class from its commencement, and has given several lectures. Surgeon-Major Hutton spoke very highly of the efficiency of the class, which commenced with sixty-five members, fifteen of whom were prevented attending the examination by being called away to sea. At West Hartlepool Dr. Gourley's ambulance class was examined by Dr. Ellerton of Middlesbrough. The class includes policemen, naval reserve men, and civilians. Dr. Jepson of Durham has examined a class of railway men in ambulance work at Leamside station, near Durham.

Death of Mr. Alexander Fothergill of Darlington.

Mr. Alexander Fothergill of Darlington, a well known dentist, died last Thursday from cardiac embolism. Mr. Fothergill had reached nearly seventy years of age, and was a member of a well-known medical family at Darlington, his father being Mr. John Fothergill, well known in connexion with the Croft Spa waters and from his very long practice in Darlington as a surgeon.

I regret to hear that Mr. Young, surgeon of West Hartlepool, had a severe accident last week. While driving, one of the wheels of the trap came off, throwing the unfortunate gentleman on his back, and, together with the shaking, injuring his left leg. He was dragged some distance by the horse before he could extricate himself from the reins.

Newcastle-on-Tyne, May 30th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

The Edinburgh University Medical Staff Corps.

THIS corps has returned from its annual camp out. The camp was near Dunbar on Mr. Hamilton Ogilvy's property, and was under the command of Surgeon-Captain Hepburn. They seem to have had a very good time, in great part owing to the kindness shown them by Mr. Ogilvy, by whose orders the camp was supplied daily with wood for fuel, while the members were granted various privileges about his house and grounds. They received a cordial invitation to return next year.

Edinburgh Royal Infirmary and Lady Medical Students.

Notice has several times been taken here of questions bearing upon the admission of lady medical students to the Royal Infirmary. One of several reasons given for the enlargement of the Infirmary is that provision could then be made for their instruction in clinical medicine and surgery. The matter has come up again in a somewhat acute form by an application from the Scottish Association for the Medical Education of Women to the infirmary managers, requesting that arrangements be made for the clinical instruction of twelve women. It is well known that for various reasons the managers are anxious to accede to this request, but they necessarily felt bound to consult the staff while indicating their own strong desire to provide what was asked. At a meeting of the staff it appears that it was determined by fifteen votes to five that no arrangements could be made until the infirmary extension was carried out. It has transpired that the managers are not satisfied with this reply.

The Edinburgh City Hospital.

A report by the medical officer of health and the staff of this hospital has been laid before the authorities dealing with the necessity of reconstruction, in order to make the hospital more satisfactory for the treatment of some of the more infectious and dangerous of the diseases which are admitted into its wards. This report will doubtless receive careful consideration, and the great value of the hospital to the community has been so thoroughly established that the authorities would do well to take such steps as would remove any possibility of suspicion that patients suffering from one infectious malady were liable to contract another within the hospital. It may even be hoped that they may see their way to complete reconstruction, so that Edinburgh may have an Infectious Diseases Hospital, of which the public might be as justly proud as they are of the Royal Infirmary.

Health of Edinburgh.

The mortality last week was 82, making the death-rate 16 per 1000. Diseases of the chest caused 35 deaths, and zymotic diseases 4. The intimations for the week were—typhoid fever 2, diphtheria 1, scarlet fever 10, and measles 41.

Proposed Extension of Aberdeen City Hospital.

The Public Health Committee of Aberdeen Town Council have had before them Dr. Matthew Hay's report as to the necessity for extending the City Hospital. Dr. Hay, in his statement, said that while Aberdeen had bed accommodation in the hospital for one out of every 1300 of population,

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Edinburgh had one for every 888, and Glasgow one for every 830 of population. The numbers admitted to the hospital in recent years were as follows:—In 1886. 473; 1887, 454; 1888, 167; 1889, 427; 1890, 579; and 1891, 632. The present accommodation in the hospital for patients was practically only ninety-six beds. After discussion, the matter was remitted to a small committee, in conjunction with Dr. Hay, to make full inquiry as to all modern appliances in use in epidemic hospitals, and to furnish a report on these matters as well as on the point as to how additional accommodation could be provided. The committee appointed have visited the principal fever hospitals in Scotland and the north of England, and have suggested increased accommodation for about fifty patients, but no official report has yet been issued.

Aberdeen University Students' Representative Council.

At the last meeting of this Council, the President (Mr. Ashley W. Mackintosh, M.A.) proposed the following motion, which was unanimously passed:—"That the Students' Representative Council of Aberdeen University, understanding that the Lord Rector's Assessor has given notice of a motion praying the University Court to sanction the admission of women to graduation in the said University, desires to place on record its satisfaction that the claim of women to receive a full academic training has been recognised by the Universities Commissioners, and its respectful hope that the University Court of the University of Aberdeen will see fit to open freely the doors of that University to students without respect to sex; and instructs the Secretary to communicate the terms of this resolution to the said University Court."

June 1st.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Dinner to the President of the College of Surgeons.

MR. H. GRAY CROLY, J.P., President of the Royal College of Surgeons, was entertained to dinner at the Royal Marine Hotel, Kingston, last week, by the vice-president, Mr. Carte, J.P., and the Council of the College. The dinner was a most enjoyable one, and the toast of Mr. Croly's health as the first biennial president of the College was enthusiastically received by those present.

Proposed Testimonial to Mr. Wm. Colles, F.R.C.S.

Mr. Colles has recently resigned the secretaryship of the Royal College of Surgeons, which he has held for upwards of a quarter of a century; and in recognition of his services some of his friends held a meeting last week to carry out the necessary steps for presenting to the College of Surgeons a portrait of the late secretary. A committee has been appointed, of whom Mr. Meldon, D.L., 15, Merrion-square, is hon. secretary, and Dr. E. H. Bennett, 26, Lower Fitzwilliam-street, treasurer. Subscriptions are limited to one guinea. I learn that in addition to the names of Sir C. Cameron and Mr. Meldon, J.P., already mentioned as candidates for the post vacated by Mr. Colles, may be added that of Mr. J. Kellock Barton, ex-President of the College and Senior Surgeon to the Adelaide Hospital. The election will be held next Monday, June 6th.

Meath Hospital, Dublin.

It has been decided that the money subscribed for a memorial to the late Earl of Clonmell shall be devoted to the Meath Hospital. A ward in that institution is to be called the Clonmell ward, and one bed is to be kept exclusively for patients from the county Kildare. The Marquis of Drogheda and Mr. Percy La Touche are trustees of the fund, and a third will be appointed by the governors of the hospital.

Local Government Bill.

The Royal College of Physicians have petitioned Parliament in reference to the sanitary clauses of this Bill. They state that having carefully considered the provisions of the Local Government (Ireland) Bill, 1892, they are of opinion that Clause 12, which provides for the transfer to county councils of the powers of boards of guardians acting as rural sanitary authorities, is defective in the following particulars: in being permissive, not compulsory; that it is vague, and introduces elements of confusion into the existing sanitary organisation of the country, the exact relations of which to the proposed county councils are not specified. The College also believe that in Clause 52 an invidious distinction is drawn between the county surveyor and the medical officer of health by inference. The former officer cannot be dismissed by the County Council, who may remove at their pleasure the medical officer of health and other officers. The College, while not considering the existing sanitary organisation of Ireland to be perfect, or even satisfactory, urge that the clauses in the Local Government (Ireland) Bill now before Parliament which affect that organisation should be omitted from the Bill.

Prosecution by the Pharmaceutical Society.

At Ballybay Petty Sessions a firm of chemists and druggists were prosecuted for four breaches of the Pharmacy Act by compounding medical prescriptions. Before the case came into court the defendants admitted they had committed the offences for which they were charged, and agreed to a penalty of £5 in each case and 5 guineas costs. They also promised that for the future they would strictly observe the provisions of the Act. Fines amounting to £20 and £4 costs were then recorded and paid by the defendants.

May 31st.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Horse-itch in the Human Being.

THE polymorphism of the disease due to the burrowing under the epidermis of the female sarcoptes hominis is traditional, but even such an authority as M. Besnier avowed himself at first nonplussed by a case recently seen by him, in which the man's body was red from head to foot, covered with a confluent red miliary eruption complicated with hyperidrosis, the hands, beard, eyebrows, the nape of the neck, and a part of the scalp being, in addition, covered with a thick layer of seborrhœic crusts. The nipples were, on the contrary, normal, as were also the elbows and the armpits. The patient was a groom, and had suffered from the disease for nine weeks. After a period of very natural hesitation, M. Besnier pronounced the disease to be the itch. A well-known veterinary surgeon, M. Méguin, saw the case, and said at once that the crusty concretions were quite characteristic of scabies as found in the large ruminants, and the correctness of the diagnosis was proved on the spot by the discovery of the parasite.

Poisonous Gingerbread.

The Minister of the Interior—very appropriately named in this instance—has addressed a circular to the Prefects of Departments, calling their attention to the adulteration of the above popular confection with "tin salts" or stannous chloride. The addition of this salt, so useful in the hands of the dyer and calico-printer, allows of the utilisation of inferior flour in the manufacture of gingerbread, as also of the substitution of molasses for honey. Analyses of such gingerbread, conducted by the Comité Consultatif d'Hygiène, showed that the proportion of the salt used varied from 500 to 2000 grammes per 100 kilogrammes of flour. One pennyworth of gingerbread weighing about 200 grammes was found to contain from one to two grammes of stannous chloride. On the double ground of fraud and of danger to public health involved by the employment of this irritant poison, the inspectors of drug stores and grocery establishments have received instructions to maintain a sharp look-out for this adulteration of the delicacy so beloved of Parisian youth in the month of April, when the famous gingerbread fair is held on the Boulevard Richard Lenoir.

The Relationship between the Odour and the Toxicity of Alcohols.

M. Passy tells us[1] that researches recently conducted by him on the above subject enable him to formulate the following observations: (1) The *pouvoir odorant* of alcohols increases in a nearly constant ratio with their molecular weight; (2) a remarkable parallelism exists between the increase of toxicity and that of the *pouvoir odorant*, although the latter slightly oversteps the former as the

[1] Acad. de Méd., May 24th.

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scale of alcohols ascends. This second law only holds good as far as amylic alcohol.

A Statue to Ricord.

The world owes a debt of gratitude to the man who, by his labours in the investigation of syphilitic diseases, confirmed (in 1838) Benjamin Bell's views (dating from 1793) as to the non-identity of gonorrhœa and syphilis. It was not to be expected that Ricord's name and fame would be allowed to remain unrecognised, and the Paris Municipal Council have authorised the placing of his statue on a spot in the Boulevard de Port-Royal, exactly fronting the Hôpital du Midi, the scene of his labours and teaching for thirty years. The statue, due to the chisel of M. Barrias, is now on view at the Salon. Its existence is due to the exertions of a committee who undertook the charge of a subscription raised by his pupils and friends. I last saw Ricord on the occasion of the funeral of Béclard, late Dean of the Faculty. He was then a decrepit old man, nearly bent double. Not very long after his own remains were escorted, with equal pomp, from his well known residence in the Rue de Tournon—a stone's throw from the Faculty—to their last resting-place. Some of his quaint sayings deserve to find a permanent place in treatises on the branch of medicine so intimately associated with his name. Who could forget that the lymphatic gland situated the nearest to a hard penile chancre was larger than the rest of the inguinal group when he christened it "Le Préfet de l'Ain" (*aine* = groin)? The atrophied remains of a syphilitic testis he wittily described as a "haricocèle," from its resemblance to a bean or pea. It is such little touches as these that reveal the good and successful teacher.

Paris, June 1st.

EGYPT.

(FROM OUR OWN CORRESPONDENT.)

English Language Prize Fund.

SINCE Napoleon's expedition to Egypt nearly a century ago the country has virtually been intellectually occupied by France; so that, while many adult officials talk French, there are very few who are conversant with English. But a year ago some fifty Englishmen here subscribed £170 to offer prizes to the boys in the Government schools, including the Medical College. The idea took so well that 1312 pupils competed, from twenty-three Government schools in the country, for 123 prizes, for a prize or two was offered to every class learning English. In some cases the examination was very severe, and it is highly satisfactory to report that 1074 candidates gained more than half marks, while 533 of them obtained over 75 per cent. The chief credit is of course due to the staff of recently imported English teachers, who are doing their utmost to make our language popular. There is no difficulty on the part of the students, but the movement has unfortunately aroused the active jealousy of the French, who do not seem to understand that there is nothing to prevent their offering similar prizes for proficiency in their own language.

Infectious Diseases.

There is at present a mild small-pox epidemic in six provinces, as well as in Cairo, Suez, and Damietta, numbering 104 cases altogether. Fortunately the native still remembers the scourge of serious small-pox, and therefore believes in vaccination; but the barbers who vaccinate are ignorant and careless about lymph, so that complete immunity is not always secured. Experiments are being made upon calves with the idea of starting a Government Vaccine Institute, where the operation may be well done and well taught to country barbers. At this time of year there are always some cases of typhus fever from overcrowding and underfeeding during the winter months. Now there are reported fifty-five cases from Damietta, Cairo, and Cherbine. No infectious hospital exists in the whole country, so the sick are at present isolated in tents in the desert. This is excellent so far as hygiene goes, but makes nursing and guarding the sick difficult. In the Tourah hospital, to which sick prisoners are sent, there were last month thirty typhus fever patients collected from four different prisons.

Influenza Epidemic.

For the third time influenza was introduced into Egypt from Europe by visitors last October; but no cases then occurred except in families which had been in direct communication with infected ships. The disease seemed at that time unable to spread, possibly from a limited amount of infective zones; but in December there were a few doubtful cases after fresh importation, and during January and February there was a serious outbreak among both residents and visitors. The poison was more intense than in the two previous winters, and the bacilli (?) showed a decided preference for the broncho-pneumonic form of the disease, thus differing markedly from the former epidemics. As a consequence, many Europeans were seriously ill from the complications of influenza, though there were practically no deaths. Among the natives there was for a month greatly increased mortality from lung diseases. Some of the schools, including the Medical College, had to be closed for a time. The disease travelled leisurely up the Nile, and treated the invalids massed at Luxor with great leniency. (Could this have been immunity secured by one or two previous attacks?) But in February the disease suddenly broke out at Assouan among the Egyptian troops in the well-known classical method. So many hundreds of the native soldiers were attacked that the spring manœuvres on the frontier had to be abandoned. Since the end of March influenza has not been heard of in Egypt. After an experience of three years, the third having been decidedly the worst, it seems evident that influenza runs a much milder course here than in Europe or America. The disease, as pointed out before, is entirely different to dengue, though it resembles it in contagiousness, short incubation, and other particulars. Influenza doubtless retained its hold upon the hotels in Cairo, in part owing to the carelessness of patients who refused to isolate themselves during invasion and convalescence.

The "Bosphore Egyptien."

This is a French daily paper published in Cairo, and famous for its attacks upon English officials. Seven years ago, in consequence of its hostile attitude to the Egyptian Government, it was officially suppressed; but the French Government insisted upon its rights of capitulation, and the paper has appeared ever since. One of its last exploits has been to accuse the present Premier of Egypt of having been actively concerned in the disappearance of a pacha, who is said to have been strangled by Ismail Pacha's orders several years ago. The issue of May 4th contained two editorial columns in large type, headed "Dissecting Room or Hospital?" This is an attack upon the English doctors attached to Kasr-el-Aini Hospital, and is probably written or inspired by a native medical man. The writer states that Kasr-el-Aini Hospital has been transformed into an enormous and painful field for experiments, and goes on to quote two cases where he alleges normal pregnancy was mistaken for tumours and then wrongly operated upon, occasioning the death of the patients. England is invited to send some surgeons to Egypt, instead of butchers! And it is stated that lives are daily sacrificed to surgical apprenticeship and morbid curiosity. The article winds up by begging for a denial if possible, and in any case for an inquiry into the "abominable practices" thus disclosed. Mr. Milton, who as the chief operating surgeon is the person obviously attacked, has determined, with the sanction of the Egyptian Government, to take the *Bosphore* at its word, and has brought a civil action against them for £10,000. Sympathy for Mr. Milton is felt on all sides, and it is thought that this presents a good opportunity for teaching the French press to restrain its criticisms within certain limits. It will be easy to prove in the law courts that pregnancy was diagnosed in the cases referred to, and that one of the patients is alive to this day after the removal of a huge uterine fibroma containing a fœtus of two months. The other patient died of intestinal paralysis fifteen days after removal of a dermoid tumour.

Cairo, May 17th.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC, BLOOMSBURY.—The annual report for the past year is, on the whole, very satisfactory; the good work done was larger than in past years. The hospital provides 170 beds, and this number is shortly to be raised to 190; eighty pensions have been founded for incurables. The receipts for the year were £15,539, the largest amount since the hospital had been rebuilt, and since the preparation of the last account the board had been enabled to repay several loans. The number of in-patients was 839, and the attendances of out-patients had increased to 25,588.

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Obituary.

PROFESSOR CESARE FEDERICI.

TUSCANY has lost her leading consultant in Dr. Cesare Federici, who died in the Villa Sardé at Maiano on Sunday last, the 29th ult. His end had been manifestly approaching for some time back; he himself anticipating it even whilst his intimate friends, who, loth to lose him, continued to hope against hope for his recovery. He retained his cheerfulness and serenity to the last, leaving behind him the clearest and fullest directions for the perpetuation of the clinical and balneological work in which he had already proved himself a master. He was born at Serravalle del Chierenti, in the province of Macerata, on Feb. 9th, 1838. The son of Dr. Francesco Federici, a local practitioner of high cultivation and professional skill, from his youth he was passionately fond of study, and both at school and university he laid solid foundations of humanistic and scientific accomplishments which afterwards stood him in excellent stead when he advanced to medical qualification. After graduation he entered on an academic career in 1870, when he filled the chair of medicine in the free University of Camerino. In the December of that year he was promoted to the professorship of clinical instruction in the University of Palermo, where, two years later, he rose to be professor extraordinary, and in October, 1873, to be professor in ordinary, of the practice of physic. By this time his fame as a consultant and teacher had spread throughout the peninsula and even beyond its frontiers, diffused as it was by numerous papers read before the various medico-chirurgical societies of Italy and by successive contingents of enthusiastic pupils who found posts in the chief professional schools. On Nov. 4th, 1883, he was nominated Professor of Clinical Medicine in the Istituto di Studi Superiori e di Perfezionamento at Florence, and more than justified the favourable anticipations with which he entered on the duties of the chair. He soon became the most popular consultant in the city and province, winning not only the respect but the devotion of his colleagues and his *clientèle* by his high proficiency in the hospital and the household, by the remarkable success of his treatment, and by the singular suavity of his disposition and address. Another post which he filled with yearly enhanced acceptance was that of Director-in-Chief of the Government baths of Montecatini, the signal efficacy of which in hepatic disorders and in passive congestions he placed before the world with clearness and cogency both by pen and speech. The growing favour with which these mineral waters are regarded, not in Italy only but throughout Europe, is due in great measure to his advocacy of them for drinking as well as bathing, his lucid and skilful directions as to the special cases in which they are indicated having been ably supplemented and reinforced by his colleagues, Drs. P. Fedeli and Casciani. The elevation of balneology, indeed, to the position it now holds in the therapeutic armoury owes not a little to him, especially in Italy, where justice is only beginning to be rendered to resources in mineral waters hardly inferior, if at all, to the best of France, Germany, and Austro-Hungary.

Dr. Federici filled many other posts besides those of clinical medicine in the Florentine School and of the official directorate of the Government baths of Montecatini. He sat on the board of the "Consiglio Superiore d'Istruzione Pubblica," of the "Consiglio Amministrativo del Regio Arcispedale di S. Maria Nuova," and of the "Consiglio Sanitario Provinciale" of Florence. He was also a member of the Florentine "Consiglio Comunale," a position where he did admirable service to city and province in all matters of education, of hygiene, and of the general advancement—moral, intellectual, and material—of Tuscany and its capital. As a consultant, not only in private practice, but also at the baths of Montecatini, he came frequently into contact with English-speaking practitioners, American as well as British, and never failed to earn their respect and gratitude by the more than professional interest he took in the cases brought before him, and by the kindly spirit of coöperation with which he received, or modified, or finally adopted suggestions in circumstances of delicacy and difficulty. His loss will be felt by brother-consultants of many another nationality besides that of Italy, and when the great International Congress of Medicine and Surgery meets in Rome in the September of 1893 there will be few whose presence will be more regretfully missed than that of the able and pleasant-mannered Tuscan physician who has all too prematurely passed away.

The funeral, which took place on Monday, the 30th ult., was a public one and in its progress from the church of Sant' Ambrogio to the cemetery was attended by all the chief dignitaries—official, municipal, and professional—of the city and province. One special characteristic dwelt upon by the orators who, *more Italiano*, pronounced eulogies over his grave was his love of country, attested by his active interest in the several struggles for its unity and independence, to which he enthusiastically dedicated the best years of his youth and early manhood.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—In addition to the list published in THE LANCET of May 7th, the following gentlemen have passed the necessary examinations, and, having conformed to the by-laws and regulations, were admitted Members of the College:—

Bobardt, Albert Otto, M.B. Melb., Putney.
Bracewell, Walter Hansford, M.B. Melb., West Norwood.
Fisher, Walter Mulrea, L.S.A., Accrington.
Harman, Albert Brice, L.S.A., Ruishton, Taunton.
Lunt, David Charles Morgan, L.K.Q.C.P.I., Edinburgh.
Porritt, William, L.K.Q.C.P.I., Huddersfield.

The above candidates have not presented themselves under the regulations of the Examining Board in England.

UNIVERSITY OF LONDON.—The following is the list of successful candidates at the recent examination for the degree of M.B.:—

First Division.—Arthur Norman Boycott, St. Thomas's Hospital; Herbert Caiger and Harry Finley, University College; Malcolm Langton Hepburn and Wilfrid Kent Hughes, St. Bartholomew's Hospital; Thomas Holmes, Percy Lord, and Alfred William Sheen, Guy's Hospital; Harry Lambert Lack, King's College; J. Herbert Parsons, B.Sc., Bristol Medical School and University College; Caroline Sturge, London School of Medicine for Women; William Howard Sturge, London Hospital; Arthur Longley Whitehead, Yorkshire College.

Second Division.—Albert James Adkins, St. Thomas's Hospital; Annie Mary Slate Anderson and Amy Sheppard, London School of Medicine and Royal Free Hospital; William John Cameron, Queen's College, Belfast; Charles John Girling and John William Frank Jewell, Guy's Hospital; Sasi Bhusan Mitra, B.Sc., and William Britain Morton, University College; William Robert Smith, King's College; William Kay Walls, Owens College and Manchester Royal Infirmary.

THE DUFFERIN FUND, BURMA BRANCH.—The fifth annual report of this branch states that during the year 1891 the objects of the Dufferin Maternity Hospital and the Training Home for Burmese Nurses and Midwives in Rangoon had been maintained. The patients and pupils showed a steady increase, and the institution had grown in favour with the Burmese and other inhabitants of the city; 131 in-patients had paid sums varying from R.1 to R.50 for treatment, the receipts from this source amounting to R.2236·13. The balance-sheet showed that R.3330·7. had been transferred to the Building Fund, which now amounts to about R.18,000, and the balance on the current account was R.1668·12.

QUEEN'S COLLEGE, BELFAST.—The prizes of the medical classes of this College for the session 1892 have been awarded as follows:—*Anatomy and Physiology:* Second Year—William Hanna, A. G. Caldwell, Robert Watt, J. A. Corbitt, M. J. Ryan, T. D. Luke. First Year—Joseph Matson, F. T. Heron, F. E. Shawe. *Practical Anatomy:* Third Year—J. J. Wallace, R. J. Mac Keown, J. A. Corbitt, A. Y. Caldwell and M. J. Ryan (equal). Dissections—R. H. Steen, Wm Hanna. Second Year—William Hunter, J. C. Adams, F. T. Heron, Robert Watt. Dissections—T. D. Luke. First Year—R. R. M'Lean, James Huston, B.A. Dissections—Alexander Burns, A. L. M'Cully. *Medicine:* W. J. J. Arnold, B.A., and T. S. Kirk, B.A (equal). *Surgery:* Second Year—W. D. Donnan and Samuel Gaun (equal). First Year—James Colville, B.A., T. S. Kirk, B.A., J. C. Rowan. *Materia Medica:* Alex. Burns, R. H. Steen, B.A., and J. F. Stewart (equal), W. J. M'Keown, Robert Watson. *Midwifery:* W. J. J. Arnold, B.A., Robert Watt, Adam Fulton, B.A., J. B. Johnson. *Practical Chemistry:* Laboratory—R. W. Bingham. Practical Class (senior division)—Alexander Burns. Practical Class (junior division)—W. A. M'Williams, F. T. Heron, and H. J. Ritchie (equal).

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VACCINATION GRANT.—Mr. Peter Swales, public vaccinator, Sheerness, has been awarded the vaccination grant for the tenth time.

DIPHTHERIA.—This disease has broken out amongst the children at North Creake during the past fortnight. Of the eight cases which occurred one proved fatal. The school is closed in consequence.

A HOFMANN INSTITUTE.—The committee of the German Chemical Society, of which the late Professor Von Hofmann was president, has resolved to honour his memory by founding a "Hofmann Institute" in Berlin, to serve as a centre for efforts of all kinds in the province of scientific and practical chemistry.

EPIDEMIC OF MEASLES AT LEAMINGTON.—Sixty cases of measles had occurred up to the 30th ult. among the children of the Clapham-terrace Infants' School, Leamington, and the disease had also attacked the children of the infants' school, Leicester-street. Both schools have been closed in consequence.

IN MEMORIAM.—The Board of Management of the Salford Royal Hospital has resolved, in order to perpetuate the memory of the late Mr. Oliver Heywood's connexion with the institution, that a ward be named the "Oliver Heywood Ward," and also to erect in the entrance-hall a marble memorial tablet by private subscription.

CREMATION.—The annual report just issued (for 1891) of the Cremation Society shows that the number of cremations at Woking during the year was 99, against 54 in the previous year.—It was resolved at a meeting of the Liverpool Burial Board, held on the 26th ult., that the application of the Liverpool Crematorium Company to purchase half an acre of ground be entertained, subject to certain conditions. It was also resolved to apply to the general vestry of Liverpool for power to sell a portion of the unappropriated land for the purposes of a crematorium.

HOSPITAL FOR CONSUMPTION, BROMPTON.—The annual report for 1891 (the 51st) showed that 1774 in-patients had been admitted during the year, 13,392 new cases had received treatment as out-patients, and the attendances were 70,618 The total year's income, from all sources, was £37,395, and the expenses £27,829. Contracts had been accepted for the necessary enlargement of the chapel, undertaken as a suitable memorial of the Jubilee year of the hospital. Subscriptions amounting to £1380 towards this special object had been received, but a considerable deficit remained to be made up.

SMALL-POX.—Mr. J. W. Walker, medical officer of the Wakefield rural sanitary district, reported on the 25th ult. that since the last monthly meeting of the sanitary authority there had been thirteen cases of small-pox reported up to that time, from Lingwell Gate, Rothwell Haigh, Robin Hood, Lofthouse, Middlestown, and Crigglestone, but by the prompt measures adopted the further spread of the disease at each of the centres had been checked. It was also reported that there were cases of small-pox in the hamlet of Middlestown which had not come under the notice of the medical officer, owing to the infected persons not being attended by a medical practitioner.

PRESENTATIONS.—Dr. A. Dingwall, of Fraserburgh, has been presented with a purse of sovereigns by the members of the Fraserburgh Ambulance Association in appreciation of his valuable services to the class.—On Thursday, May 26th, Mr. O. Pemberton was entertained at dinner and presented with a large silver bowl at the Grand Hotel, Birmingham. Mr. Whitcombe occupied the chair, and there was a large gathering of medical men of the city and neighbourhood. One of the last acts of the late Sir William Bowman, whose medical education commenced at the Birmingham General Hospital, was to join in paying tribute to the esteem in which Mr. Pemberton is held. An address was presented with 130 signatories attached. It pointed out the forty years' service of Mr. Pemberton to the Birmingham General Hospital, and congratulated him on his election as coroner of Birmingham. It concludes with the words—"We are both proud and gratified that the responsibilities of such a position should have been entrusted to so eminent a member of our own profession. We wish you every happiness, and trust that you may long be spared to fill the honourable post to which you have been called, and to adorn our profession."

CENTENARIAN.—Mrs. Markham, a widow, residing at Royley, near Winterton, Lincolnshire, attained her 107th year on the 29th ult. Excepting failing sight, she retains the use of all her faculties.

BINGLEY COTTAGE HOSPITAL.—This institution has recently obtained an endowment of £3000 from Sunderland's charity, which was founded in 1671, by Samuel Sunderland of Bingley. The hospital was one of the memorials of the Queen's Jubilee. This endowment will augment the funds by about £80 per annum. The income for the past year was £376.

MEDICAL NOTES IN PARLIAMENT.

Birmingham Corporation Water Bill.

THIS Bill gave rise to several long discussions on Thursday in the House of Commons. They had reference mainly to common and fishing rights in the proposed area of supply. Mr. Chamberlain undertook that when the Bill reaches the House of Lords provisions shall be introduced to give a local inquiry with regard to certain of these rights when required by the County Councils concerned. A new clause was added to the Bill on the motion of Mr. Morton, providing that the Corporation of Birmingham shall not use any barbed wire in connexion with the proposed works.

The Gibraltar Sanitary Board.

Lord Carrington has given notice that on Thursday, June 16th, he will call attention to the recent changes in the constitution of the Sanitary Board of Gibraltar, and ask the Secretary for the Colonies (Lord Knutsford) whether he will lay the correspondence on the subject before the House.

Sale of Food and Drugs Act (1875) Amendment Bill.

A petition against this Bill from Glasgow was presented to the House of Commons on Monday.

Casual Wards in London.

The President of the Local Government Board (Mr. Ritchie) has prepared a Bill "for the provision of central stations in connexion with casual wards in London and for other purposes relating to such casual wards." It sets forth that the managers of the Metropolitan Asylum District shall provide a central station and other stations for the reception of information as to the state of accommodation in the casual wards, and speedy means of communication either by telephone, telegraph, or otherwise between the stations and the wards. They shall also, where necessary, provide for the conveyance of any person in need of accommodation in a casual ward to the ward where that accommodation can be most conveniently obtained. Where the Local Government Board by order declare that the board of guardians of any poor law union in London have failed to provide within their union such casual wards with such fittings and furniture as the Board consider necessary, they may require the Metropolitan Asylum managers to make such provision, the managers being vested with the same financial powers for this purpose as the board of guardians. The Bill also gives the boards of guardians power to transfer casual wards belonging to them to the Metropolitan Asylum managers.

Hospital Doctors and Nurses.

In the House of Lords on Monday last, Lord Sandhurst rose to call attention to a document issued by the Metropolitan Asylums Board, dated May 14th, 1892, as to the engagement of doctors and nurses for small-pox hospitals, and to ask whether the document was issued with the knowledge and sanction of the Local Government Board. He said that a circular had been received by the managers of a large general hospital with which he was connected from the Metropolitan Asylums Board, asking whether they were willing to receive clinical assistants and additional nurses, the remuneration to be limited to residence and rations. He did not think it was a good principle for a great institution like the Metropolitan Asylums Board to advertise for medical men and nurses on such conditions as this circular set forth, and he wished to know whether, if the circular was issued without the knowledge or sanction of the Local Government Board, they would communicate with the Asylums Board on the matter.—Lord Henniker said the Local Government Board were not aware of the issue of the circular letter referred to by the noble lord. They had made inquiry on the subject, and they found that the letter was addressed to several of the general hospitals in London. This, however, was not altogether a new question. As regarded the question of clinical assistants, the matter was brought under the attention of the Board so long ago as 1886. It was then proposed by the managers of the metropolitan asylum district that they should be empowered to arrange for registered medical practitioners to reside in the hospital, on condition of their making a payment at the rate of 12s. per week for board and lodging, and the payment of a fee to the medical superintendent. It appeared to the Board that this was not a desirable arrangement, and they suggested to the managers that if the services of clinical assistants were required it would be better that such assistants should be appointed by the managers as officers of the hospital, and that they should receive remuneration for their services, although such remuneration might, if the managers deemed it expedient, be limited to board and residence in the hospital. The managers would have in connexion with the hospital their regular medical staff for the treatment of cases, and the clinical assistants would no doubt render help; but the primary object in proposing the arrangement, and in the Local Government Board agreeing to it, was not that the staff of officers of the hospital should be supplemented by assistants of this character, but that means should be afforded to medical practitioners of obtaining experience in the treatment of small-pox cases. With regard to the question of nurses who were employed as probationers the Board had had no communication from the managers on the subject. But as to the nurses, also, it might be assumed that th

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managers had in view the affording of opportunities for them to obtain experience with regard to cases of this disease. Of course, the managers had their own staff of nurses, quite independently of the assistance rendered by such probationary nurses. The matter, so far as regarded the nurses, was one which the Local Government Board left entirely in the discretion of the managers, and the Board would hesitate to intervene unless for very substantial reasons. The Board were not aware whether it was probable that the offer that had been made by the managers would be accepted by suitable persons, but, assuming that it was, and that the arrangement was satisfactory both to the managers and the persons who were willing to give their services on the terms referred to, the Local Government Board were not aware of any reason why it should not be carried out.—Lord Thring's remarks on this subject were inaudible to the reporters.

The Royal Commission on Vaccination.

In the House of Commons on Tuesday last Dr. Clark asked the Home Secretary whether, in view of the opinion expressed by the Royal Commission on Vaccination in their recent report, he could see his way to recommend local authorities to refrain from prosecuting until Parliament had had an opportunity of considering the before-mentioned report.—Mr. Matthews: It would be an unprecedented and an arbitrary course of conduct on my part to recommend local authorities to disregard an unrepealed law in the manner suggested by the hon. member, and I cannot see my way to adopting his suggestion.

Sale of Intoxicating Liquors to Children.

On the motion of Mr. Conybeare, leave was given to bring in a Bill to prohibit the holding out of inducements to children to visit public-houses, and the Bill was afterwards brought in and read a first time.

Drainage and Improvement of Land (Ireland) (No. 2) Bill.

This Bill was read a second time.

The Alkali Works Bill.

Sir Henry Roscoe has given notice that on the second reading of this Government Bill he will move, "That no extension of legislation for the control of the escape of noxious vapours will be satisfactory which does not bring processes evolving certain specified noxious gases under inspection and regulation."

The Health of Arabi Pasha.

In the House of Commons on Thursday Mr. J. W. Lowther was questioned as to the state of Arabi Pasha's health. In the course of his reply he stated that a Medical Commission had investigated the complaints made by Arabi, and they reported that no change had taken place in the health of the exile. He suffered from dimness of vision in the right eye. The question of the continued exile of Arabi was a matter for the Egyptian Government. The Foreign Office had no information as to a report by Dr. Vandhort certifying that Arabi was in a state of chronic invalidism.

The Police and Glove-fights.

In the House of Commons, on Thursday, a large number of questions were addressed to the Home Secretary with reference to the glove contest, at the National Sporting Club in London, between Jackson and Slavin. Mr. Matthews said that before the contest the manager of the club was cautioned by the police that he would be held responsible if any breach of the law occurred. He had requested the Public Prosecutor to consider whether there was any cause for proceedings being taken. It was not so much a question about gloves being used. There might be a prize-fight with gloves; the question was whether it was really an athletic sport, an exhibition of skill, bringing in manly strength for self-defence, or whether it was a vicious contest, with intent to do harm. The police did their utmost to put down prize-fighting, but they could not take the law into their own hands.

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Diagnostik der inneren Krankheiten auf Grund der heutigen Untersuchungs-Methoden. Von Dr. Oswald Vierordt. Dritte verbesserte und vermehrte Auflage. Mit 170 Abbildungen im Text. 1892. pp. 622.

Fifteenth Annual Report of the Board of Health of the State of New Jersey, and Report of the Bureau of Vital Statistics, 1891 (J. L. Murphy, Trenton, N.J.).—Eleventh Annual Report of the State Board of Health of Illinois for the year 1888, with an Appendix of the Official Register of Physicians and Midwives, 1892 (H. W. Rokker, Springfield, Ill., 1892.)—Hypnotism and Humbug: a reply; by M. Bramwell, M.B. (Goodall and Suddick, Leeds).—Intestinal Anastomosis and Suturing; by Robert Abbe, M.D. (Trow Directory Printing Company, New York, 1892).—Cases of Gall-bladder Surgery; by Robert Abbe, M.D. (reprint, 1892).—The Social Centres of London; compiled by the Polytechnic Reception Bureau, 309, Regent-street, London, 1892; price 6d.—Les Anomalies Musculaires, considérées au Point de Vue de la Ligature des Artères: par Professeur L. Testut (O. Doin, Paris, and Baillière, Tindall, and Cox, London, 1892.)—Andrew Thomson's Yachting Guide and Tide Tables, 1892 (Thames Yacht Agency, Pall-mall, London); price 1s.—Tables for the Diagnosis and Treatment of Syphilis; by J. K. Barton, M.D., F.R.C.S. Irel.; third edition, 1888 (Fannin & Co., Dublin).—Second Progress Report on Koch's Treatment of Tubercular Disease; by J. W. Springthorpe, M.D. Melb., M.R.C.P. Lond. (Stillwell & Co., Melbourne, 1892).—Archives de Neurologie; par J. M. Charcot; Vol. XXIII., 1892 (Bureaux du Progrès Médical, Paris).—Index Medicus: Authors and Subjects; Vol. XIV., No. 4, April, 1892 (Trübner and Co., and K. K. Lewis, London).—Proceedings of the New York Pathological Society for the year 1891 (G. P. Putnam's Sons, New York).—Magazines for June: Sunday at Home, Leisure Hour, Boy's Own Paper, Boy's Out-door Games and Recreations, Girl's Own Paper, Girl's Own Out-door Book (Religious Tract Society).

Appointments.

Successful applicants for Vacancies, secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ADAMS, C. E., M.R.C.S., L.S.A., has been appointed Medical Officer for the Norwood District of the Parish of Lambeth, vice G. L. Rugg, resigned.

ANDREW, J. GRANT, M.B., C.M. Glasg., has been appointed Surgeon to the Victoria Infirmary, Glasgow.

BANKS, A., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

BASU, BAMAN DAS, L.S.A., has been appointed Civil Surgeon of Jacobabad.

BOARD, E. C., L.R.C.P. Lond., M.R.C.S., has been appointed Honorary Consulting Surgeon to the Royal Infirmary, Bristol.

BOWRING, W. A., L.R.C.P., M.R.C.S., has been appointed Resident House Physician to St. Thomas's Hospital.

BOX, C. R., B.Sc. Lond., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

COOPER, A. TANNER, M.R.C.S., L.R.C.P., has been appointed House Physician to the Hospital for Women, Soho-square.

COOPER, H. J., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.

COUNSELLOR, CHARLES EYRE, M.D., L.S.A. Lond., has been appointed Physician to the Carson and Colorado Railroad Company, State of Nevada, U.S.A.

COUPER, DAVID, M.D., C.M. Glasg., has been appointed Surgeon for Diseases of the Skin to the Victoria Infirmary, Glasgow.

DALZELL, A., L.R.C.P., M.R.C.S., has been reappointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.

DORMAN, M. R. P., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Throat to St. Thomas's Hospital.

DUTT, U. K., B.Sc. Lond., M.R.C.S., D.P.H. Camb., has been appointed Medical Officer for the Fourth Sanitary District of the Cambridge Union.

FISHER, J., B.A., M.B., B.C. Cantab., has been appointed Ophthalmic House Surgeon to St. Thomas's Hospital.

FISHER, J. H., L.R.C.P., M.R.C.S., has been appointed Assistant House Surgeon to St. Thomas's Hospital.

FLETCHER, JAS. L., M.B., C.M. Edin., has been appointed Resident Medical Officer to the Manchester Hospital for Consumption and Diseases of the Throat.

FOOKS, W. P., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Non-resident House Physician to St. Thomas's Hospital.

FORDE, T. A. M., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

GANN, THOMAS W. F., M.R.C.S., L.R.C.P., L.S.A. Lond., has been appointed Medical Officer and Magistrate (combined) to Orange Walk, British Honduras.

GOODALL, E. W., M.D. Lond., has been appointed Medical Superintendent for the Eastern Hospital of the Metropolitan Asylums District.

GREGSON, T. W., M.B., C.M. Glasg., has been appointed Medical Officer for the No. 1 Blackburn Sanitary District of the Blackburn Union.

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GREIG, DAVID M., M.B., F.R.C.S. Edin., has been appointed Assistant Surgeon to the Dundee Royal Infirmary.

HAMILTON, JAMES, M.B., C.M. Glasg., has been appointed Physician to the Victoria Infirmary, Glasgow.

HARNETT, A., L.R.C.P., L.M., L.R.C.S. Edin., has been appointed Medical Officer for the Sixth Sanitary District of the South Stoneham Union.

HOLT, H. M., L.S.A., has been appointed Medical Officer for the Leavening Sanitary District of the Malton Union.

HOWES, H. A., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer and Public Vaccinator for the Hemingby District of the Horncastle Union.

HUNTER, GEO., L.F.P.S. Glasg., has been appointed Surgeon for Diseases of the Eye to the Victoria Infirmary, Glasgow.

INGLE, A. C., M.B., B.C. Camb., M.R.C.S., has been reappointed Medical Officer for the Third Sanitary District of the Cambridge Union.

JENKINS, T. W., M.D., C.M. Glasg., has been appointed Physician to the Victoria Infirmary, Glasgow.

KELLOCK, T. H., M.A., M.B., B.C. Cantab., F.R.C.S., L.R.C.P., has been reappointed House Surgeon to St. Thomas's Hospital.

KELLY, A. BROWN, B.Sc., M.B., C.M. Glasg., has been appointed Surgeon for Diseases of the Throat, Nose, and Ear to the Victoria Infirmary, Glasgow.

KENNEDY, ROBT., M.B., C.M. Glasg., B.Sc., has been appointed Surgeon to the Victoria Infirmary, Glasgow.

LATTER, C., M.A., M.B., B.C. Cantab., has been appointed Obstetric House Physician to St. Thomas's Hospital.

LAW, R. R., B.A., M.B., B.C. Cantab., has been appointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

LOVELL, C. P., M.A., M.B., B.Ch. Oxon., L.R.C.P., M.R.C.S., L.S.A., has been reappointed Clinical Assistant for Diseases of the Skin to St. Thomas's Hospital.

MAC DONALD, GEO. G., M.B., C.M. Glasg., has been appointed Medical Officer for the Crich Sanitary District of the Belper Union.

MILTON, W. F. E., L.R.C.P., M.R.C.S., has been reappointed House Surgeon to St. Thomas's Hospital.

MORRIS, H. C. L., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Humbleton Sanitary District of the Henley Union.

ORR, W. R., M.D., C.M. Irel., has been appointed Medical Officer for the No. 3 Sanitary District of the Hollingbourne Union.

SIMPSON, H., B.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant for Diseases of the Ear to St. Thomas's Hospital.

TOLLER, S. G., L.R.C.P., M.R.C.S., has been reappointed Ophthalmic House Surgeon to St. Thomas's Hospital.

WAINWRIGHT, W. L., L.R.C.P., M.R.C.S., has been appointed Obstetric House Physician to St. Thomas's Hospital.

WALLACE, F. G., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been appointed Non-resident House Physician to St. Thomas's Hospital.

WRIGHT, J. CROSSLEY, M.B., B.C. Camb., has been appointed Honorary Medical Officer of the Halifax Infirmary.

WYMAN, C., M.A., M.B., B.C. Cantab., L.R.C.P., M.R.C.S., has been reappointed Resident House Physician to St. Thomas's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Honorary Physician.

BRADFORD EYE AND EAR HOSPITAL.—Special Assistant Surgeon. Honorarium 100 guineas per annum.

BRISTOL ROYAL INFIRMARY.—House Surgeon. Salary £100 a year, with apartments, board and washing.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, Victoria-park, E.—House Physician for six months. Board and residence and allowance for washing provided. (Apply to the Secretary, 24, Finsbury-circus, E.C.)

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY, Wakefield.—House Surgeon (Junior). Honorarium £40 per annum, with board, lodging, and washing.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge-road, S.E.—Physician to Out-patients.

GRIMSBY HOSPITAL.—Locum Tenens House Surgeon. From the middle of July to the middle of August. Terms 2 guineas a week and second-class railway fare.

GUILTCROSS UNION.—Medical Officer for the First District of the Union. Salary £43 10s. per annum, with such extra fees as shall be authorised by the Guardians and by the Orders of the Local Government Board. (Apply to the Clerk to the Guardians, New Buckenham.)

LIVERPOOL ROYAL INFIRMARY.—Assistant Honorary Physician and Two Assistant Honorary Surgeons.

MANCHESTER HOSPITAL FOR CONSUMPTION AND DISEASES OF THE THROAT AND CHEST, Hardman-street, Deansgate, Manchester, and Bowdon, Cheshire. Honorary Assistant Physician.

MASON COLLEGE, Birmingham.—Professorship of Medicine. Lectureship on Ophthalmology. Lectureship on Dental Surgery and Dental Pathology.

MANCHESTER AND SALFORD PROVIDENT DISPENSARIES' ASSOCIATION.—Vacancy on the Medical Staff, Ancoats Branch. (Apply to the Honorary Secretary, Rodney-street Mills, Manchester.)

MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich, S.E.—Junior Resident Medical Officer for six months. Salary at the rate of £30 per annum, with board, attendance, and washing.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-on-Trent.—Assistant House Surgeon. Board, apartments, and washing provided.

ST. BARTHOLOMEW'S HOSPITAL, London.—Assistant Surgeon.

STEPNEY UNION.—Medical Officer. Salary £350 per annum, to include all fees. (Apply at the Guardians' Offices, York-street West, Ratcliff, London, E.)

WILTS COUNTY ASYLUM, Devizes.—Assistant Medical Officer. Salary £120 per annum, with an annual increase up to £150, with board, residence, attendance, and washing.

WESTERN INFIRMARY OF GLASGOW.—Qualified Superintendent. Salary £350, with free house within the infirmary grounds, and board in the hospital.

WARNEFORD HOSPITAL, Leamington.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

WOLVERHAMPTON AND DISTRICT HOSPITAL FOR WOMEN, Wolverhampton.—Two Honorary Acting Gynæcological Surgeons.

Births, Marriages, and Deaths.

BIRTHS.

CLARKE.—On May 29th, at Morley, near Leeds, the wife of Arthur Clarke, B.A., L.R.C.P. Lond., &c. (late of Street, Somerset), of a daughter.

COLLIER.—On May 27th, at West Kensington-gardens, W., the wife of N. C. Collier, L.R.C.P., of a son.

FIRTH.—On May 26th, at The Paddock, Dover, the wife of Surgeon-Captain R. H. Firth, Army Medical Staff, of a daughter.

HOUCHIN.—On May 28th, at Durham House, High-street, Stepney, the wife of E. K. Houchin, L.R.C.P., L.R.C.S., of a daughter.

MAC GILLIVRAY.—On May 26th, at Rutland-street, Edinburgh, the wife of Charles Watson Mac Gillivray, M.D., F.R.C.S. Edin., of a son.

ROBERTS.—On May 26th, at Seafield, Beckenham, the wife of Sidney Roberts, M.A., M.B., B.C. Cantab., M.R.C.S., of a daughter.

MARRIAGES.

BARTRUM—SMITH.—On June 2nd, at All Saints' Church, Northallerton, Yorks., Alfred E. Bartrum, L.R.C.S., L.R.C.P. Ed., to Carrie, daughter of John Smith, Esq.

BATTLE—VULLIAMY.—On May 30th, at the English Church in the Rue d'Aguesseau, by the Rev. E. D. Wickham, Vicar of Holmwood, Dorking, assisted by the Rev. Dr. Noyes, and afterwards at the Church of the St. Esprit, Paris, by M. Le Pasteur Sautter, William Henry Battle, F.R.C.S., of 6, Harley-street, London, son of the late T. R. Battle, Esq., J.P., of Lincoln, to Anna Marguerite, second daughter of Edward Vulliamy, Esq., of Montigny sur Avre, Eure et Loire.

CARLESS—DOBBIE.—On May 25th, at Blackheath, Albert Carless, M.S., F.R.C.S., of 19, Welbeck street, W., to Ada, youngest daughter of the late Lieut.-Gen. G. S. Dobbie, Madras Army.

FITZGERALD—KELSALL.—On May 26th, at Upton, near Chester, William A. Fitz Gerald, M.D., son of the late Richd. A. Fitz Gerald, of Dublin, to Roberta Mabel, youngest daughter of the late Robert Kelsall, of Deeplish Hall, Rochdale.

SELLERS—DIXON.—On June 1st, at St. George's Church, Preston, by the Rev. Canon Rawdon, Vicar of Preston, assisted by the Rev. Chas. Wood, Incumbent, W. H. Irvin Sellers, M.B., C.M. Edin., M.R.C.S. Eng., to Annie, elder daughter of the late R. B. Dixon, Esq., of Oak House, Preston.

DEATHS.

COCKERTON.—On May 30th, at 205, Green-lanes, N., Charles Edward Cockerton, L.R.C.P. Edin., and L.M., M.R.C.S. Eng., aged 51 years; dearly loved husband of Mary Ann Cockerton.

HAYNES.—On May 29th, at Fern Cliff Villas, Cork, William Haynes, M.A., M.D., of Old Kent-road, London, second son of the late Michael Haynes, of Inchigaggin, county Cork.

KANE.—On May 27th, at the residence of his son-in-law, Newport-road, Cardiff, Matthew Kane, M.D., Deputy Inspector-General of Hospitals, Madras Army (Retired List).

MACLAGAN.—On May 25th, at Berwick-upon-Tweed, Philip Whiteside Maclagan, M.D., aged 73.

PEARMAN.—On May 27th, suddenly, George Benjamin Pearman, L.D.S., of Kingston-on-Thames, and late of Torquay.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on May 31st, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	288*	75	..	16	..	379	422
North-Western Hospital	271	48	..	5	2	326	411
Western ,,	112*	33	..	7	4	156	224
South-Western ,,	234	38	..	4	1	277	369
South-Eastern ,,	309	8	1	12	3	324	424
Northern ,,	492	24	..	..	..	516	732
Totals	1697	226	1	44	10	1978	2632

* One infant with mother.

SMALL-POX. *Atlas* hospital ship, 71; *Castalia*, 29. Total, 100.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 2nd, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
May 27	29·83	W.	66	62	102	76	60	·25	Cloudy
,, 28	29·72	S.E.	75	62	127	82	61	..	Hazy
,, 29	30·07	S.W.	64	56	118	69	53	—	Cloudy
,, 30	30·15	S.W.	62	57	125	78	56	..	Cloudy
,, 31	29·90	S.W.	71	61	130	80	60	..	Cloudy
June 1	29·86	S.W.	61	56	122	71	55	·06	Cloudy
,, 2	29·71	S.	58	56	70	60	56	03	Cloudy

Medical Diary for the ensuing Week.

Monday, June 6.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. W. Lang: Diseases of the Cornea.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Nervous System.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. A. Wynter Blyth: Disinfection.

Tuesday, June 7.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

ROYAL INSTITUTION.—3 P.M. Professor R. C. Jebb: Some Aspects of Greek Poetry.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: The Diseases called Lichen.—Bethlem Hospital: 2 P.M., Dr. Theo. Hyslop: General Paralysis of the Insane.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. H. B. Robinson: Certain Diseases of the Breast.

Wednesday, June 8.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. R. Maguire: Pathology of Pulmonary Phthisis.—Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Colour Blindness.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. H. B. Robinson: Certain Diseases of the Breast.

Thursday, June 9.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

ROYAL INSTITUTION.—3 P.M. Mr. R. G. Moulton: Faust.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-st.: 4 P.M., Dr. Arkle: Pathological Demonstration, Tuberculosis.—National Hospital for the Paralysed and Epileptic: 2 P.M., Mr. R. Brudenell Carter: Ocular Symptoms in Diseases of the Nervous System.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Dr. Whistler: Laryngeal Phthisis.

BRITISH GYNÆCOLOGICAL SOCIETY (20, Hanover-sq.).—8.30 P.M. Specimens of Three Dermoid Cysts by Dr. Wm. Travers. A Discussion on Anæsthetics in Gynæcology will be opened by Dr. Dudley Buxton.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Patients and Card Specimens at 8 P.M. Mr. Story (Dublin): Detachment of the Choroid.—Dr. Bronner (Bradford): (1) Recurrent Keratitis Punctata Superficialis, Symptoms aggravated by Cocaine; (2) Mercurial Deposit in the Cornea after the use of Sublimate Lotion.—Mr. Swanzy (Dublin): Primary Leuco sarcoma of Iris.—Mr. Priestley Smith: Lodgment of Metallic Particle in Retina for many months.—Mr. Griffiths: Instrument for the easier Removal of Meibomian Cysts of the Lower Eyelid.

Friday, June 10.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. R. Maguire: Pathology of Pulmonary Phthisis.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: Leprosy and Glanders (Sections).—Charing-cross Medical School: 8 P.M., Dr. Duncan: Cancer of the Uterus.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Professor H. B. Robinson: Certain Diseases of the Breast.

OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—9 P.M. Bowman Lecture by Professor Leber on "The Origin of Inflammation and the Action of Phlogogenetic Substances."

ROYAL INSTITUTION.—9 P.M. Professor Dewar: Magnetic Properties of Liquid Oxygen.

Saturday, June 11.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Theo. Hyslop: General Paralysis of the Insane.

ROYAL INSTITUTION.—3 P.M. Professor H. Marshall Ward: Some Modern Discoveries in Agriculture and Forest Botany.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

"AN APPEAL."

DR. JOHN LOWE asks us to acknowledge the following subscriptions, received in support of the unfortunate practitioner (an M.D.) whose circumstances were described in a letter under the above heading in our issue of May 14th (p. 1116):—A Surgeon, 10*s.*; Amicus, 10*s.*; Dr. Watson (Pevensey), 10*s.*

Dr. Herbert R. Spencer.—The paper has received consideration, and is marked for insertion.

Mr. D. Ainley is referred to an annotation on the subject.

FILLING UP FORMS FOR INSURANCE COMPANIES.

To the Editors of THE LANCET.

SIRS,—On several occasions, after signing the ordinary death certificates, the deceased's relatives have brought me printed forms from insurance companies to be filled in by me before the policies could be paid. These forms contained a large number of searching (and perhaps useless) questions, and involved considerable trouble and responsibility; but, being entirely for the companies' use, I applied to the companies for a fee, and have always been told I must apply to the relatives of the deceased. This I did not like to do, for their expenses and troubles were quite enough without their having to pay for certificates other than those from the registrar. If I refuse to fill in these forms—and the insurance companies will not pay policies without them—I give offence to, and perhaps lose, connexions; and if I do the work without a suitable fee I consider I am encouraging the insurance companies in their already great and, it seems to me, increasing impositions on the profession. Some time ago, when I remonstrated with an insurance agent at being paid only 10*s.* 6*d.* for examining for a £200 policy, when the fee for a £500 was 21*s.*, although the questions &c. were the same for both, the explanation given was that the law compelled a certain amount of the premium to be invested, so it was impossible to increase the smaller fee. I have lately been informed that this law does not prevent a certain amount being deducted from the second or subsequent premiums to make up an adequate fee for the examination; and if this information is correct, it appears the insurance companies are determined to get their medical examinations done at the cheapest rate possible, and subsequently to obtain, *at no cost whatsoever*, additional professional evidence concerning the deaths of those they have insured, even if the forms have to be filled in by other practitioners than those that examined for the policies.

To-day a form has been sent me in which I am asked not only to give particulars of the causes of death &c., but also opinions concerning the deceased's state of health before his last illness. The latter I declined to do. Suggestions as to how to act in similar cases will be thankfully received by

Yours truly,

Ormskirk, May 20th, 1892. HENRY PILKINGTON, M.R.C.S. &c.

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THE METROPOLITAN PROVIDENT MEDICAL ASSOCIATION.

Mr. C. H. Warren, the Secretary of the Association, in a courteous note, admits our chief charge that in the Bills complained of all and sundry persons and families are invited to membership, without any mention of conditions as to circumstance, means, &c. This is entirely unjustifiable. He says, indeed, that a wage limit of 30*s.* a week for single men, and 40*s.* for men with a family is enforced. Men with such wages have no difficulty in coming to terms with medical men privately. Many such pay their medical men with a regularity and a readiness that is not exceeded by richer people.

Dolens will perceive, by reference to the present issue, that his communication has not been overlooked.

THE USUAL BOND AND FRIENDLY SOCIETIES' AGREEMENTS.

To the Editors of THE LANCET.

SIRS,—In reply to your correspondent "Inigo," I beg to say that I do not think his agreement with the Society binding. The distance is too great for the consideration money, and *vice versâ*. Medical men who become identified with these medical aid associations should be exceedingly careful to ascertain beforehand the terms and conditions upon which they are engaged, for in the majority of instances it is only after three or four months of their engagement that these documents are forced on the medical officers to sign. In a purely business transaction—e.g., where a man sells his business, goodwill, &c.—purchaser binds vendor not to oppose him in any way within a given radius. Here "Inigo" will see that purchaser has paid vendor for something, and the latter agrees that in consideration of this, the money paid, he will not "set up" within the prescribed distance. Should he do so he forfeits the penalty stated in the bond, and, moreover, purchaser may (through a lawyer) apply to the county court judge for a restraining order, and restrain vendor within a month—i.e., at the next sitting of the court. Now this cannot be done in the case illustrated by "Inigo," for "Inigo" pays nothing, and has received nothing more than his salary for services rendered by him as servant to the members; the same observation holds good with the usual bond between principal and assistant. I have been assured on good legal authority that nearly all the agreements between principals and assistants are worthless for reasons above stated. A subject's liberty cannot be destroyed thus, unless he has received in consideration of the contract something more than mere wages, the worth of which he returns to his employer in work done. This is equity, the fundamental basis of legal jurisprudence, and is therefore a forcible argument. Probably this is what "Inigo" and several correspondents have alluded to previously. I know of several cases where medical officers to these societies have been shamefully treated through appending their signatures to one-sided covenants, the legality of which would have been severely denounced in a court. I have by me a copy of agreement which I keep for its novel character. Several of the clauses would suggest the medical officer to be a pronounced rogue. "Inigo's" agreement is doubtless one that would be successfully criticised in a court of equity; but as law is somewhat expensive when fought out to its limits, I would advise him to consult a barrister, plenty of whom would not charge him more than a guinea; and failing this, if I were he, and had been shabbily treated or "taken in," as several of my colleagues have, I would start practice, and let them sue in the county court for the penalty, which he need not pay, for with ten pounds (which covers all expenses) he may seek the protection of the honourable Court of Bankruptcy, by filing his petition, and putting them in the schedule. After this he may start when and where he pleases. This was done at Ashford, in the case of an institution which I believe is now defunct. The proceedings may be dubbed sharp practice, but when professional men have dealings with the class who constitute the management of these so-called Medical Aid Associations, such action often becomes imperatively necessary. May I suggest that should "Inigo" seek a barrister's help, he would kindly give us through THE LANCET the result and benefit of the consultation, as the question is very interesting, and one of great moment to a large number of the profession? The validity of the so-called usual bond might be settled once and for all. I would strongly urge every medical officer to these societies to join the Medical Defence Union, as the nature of their employment renders them particularly exposed to libel, threats, breaches of contract, &c. Trusting you will kindly give this long-vexed question publicity once more,

I am, Sirs, yours obediently,

May, 1892. AN ASSISTANT MEDICAL OFFICER.

THE USE OF PESSARIES.

To the Editors of THE LANCET.

SIRS,—Having noticed accounts of pessaries being retained for lengthened periods in the vagina, I beg to state that a patient came under my treatment recently suffering from a leucorrhœal discharge which resisted treatment. On making a vaginal examination a foreign body was found, which proved to be an ordinary vulcanite ring pessary, corroded and encrusted with the various secretions of the parts. The pessary was removed with some difficulty, owing to its having formed a deep groove for itself in the soft parts. The patient appeared unconscious of its presence in the vagina, but on being interrogated stated that she remembered something being placed there some fourteen years ago when attending the hospital.

I am, Sirs, yours faithfully,

Charrington-street, N.W., May 30th, 1892. R. J. KENNEDY.

MEDICAL ADVERTISING IN INDIA.

M. J. C. MACDIARMID, whose consulting-room is at Nos. 1. and 2, Mysore Medical Hall, Bungalore, invites public attention through an Indian newspaper, the *Spectator*, to the "very special" modern and advanced principles and treatment for infectious, contagious hereditary, endemic, and cerebro-spinal diseases, as well as septic poisons," &c. Our readers can imagine the rest. All is under the direct European professional management, and under the right honourable and distinguished patronage of the public. *Payment by results.* We commend this advertisement to the corporations who include Mr. Macdiarmid in their roll of diplomates.

L.R.C.P., L.R.C.S.Edin.—A certificate must be obtained from a teacher of vaccination. Certain of these teachers may, after satisfactory examination, give certificates to persons whom they have not themselves instructed.

Mr. Edw. F. Grün.—We would advise our correspondent to lay his facts before the Society in question.

Mr. Sidney Hersee (Chiswick).—We do not recommend practitioners.

Mr. Jas. Thompson.—The address, we believe, is Fulham.

CORONERS' INQUESTS AND FEES TO MEDICAL MEN.

To the Editors of THE LANCET.

SIRS,—On Sunday last I was called to a house near, and on arriving I found that in the absence of the family at church, and when quite alone in the basement, the cook had died, a large quantity of blood being on the floor of the kitchen and on that of a front room. I at once sent for the police, and, as life was quite extinct, returned home. Shortly afterwards a constable called upon me and asked if I could give a certificate. This I could not do, as I had not attended the woman during life, and I stated that without a further examination I could not give an opinion as to cause of death with certainty. The constable said the coroner liked to have the opinion of the medical man attending, and at his instance I again visited the house; and on the removal of much bloodstained bandage and the stocking I found, as I had previously surmised, that the hæmorrhage had proceeded from a large ulcer in the leg. I made a report to the police, which they submitted to the coroner; and he did not think it necessary to hold an inquest, as he considered that my evidence would prove death from natural causes. I wrote to him asking if he was prepared to pay my fee for the examination and report, and in answer I received the enclosed letter.

I think the case is of interest to the profession, first, as the woman was going on with her usual work, and made no complaint to her fellow servant, and yet was dead from hæmorrhage in a very few minutes, before any aid could be summoned; and, secondly, because I should like your opinion expressed as to whether I should be justified in any other case of sudden death in reserving my evidence until in the witness-box—as, if medical evidence is to be obtained and used without fee, it seems to me that the profession will greatly suffer.

I am, Sirs, your obedient servant,

Southsea, May 29th, 1892. ALBERT BENTHALL.

*** Mr. Benthall has certainly just cause of complaint. At the same time the coroner has no power to give any fee, except for evidence given on oath before him at an inquest, or for a post-mortem examination made on his order. Our correspondent does not state who called him in the first instance to the deceased woman. If it was one of her fellow servants, the master or mistress of the house would be responsible for his fee for the visit. Again, if he paid the second visit at the request of the police officer, the local police authorities should have remunerated him for this. *Fees paid by the coroner must not be considered as remuneration beyond that for giving evidence or for making post-mortem examinations.* Giving, however, every latitude to the coroner's discretionary power, it is clear that the death was sudden, and also that its cause was sufficiently unknown to demand an inquest. Assuming the correctness of our correspondent's statement that the coroner's reason for not holding an inquest was that his evidence would prove death from natural causes, it may first be observed that death from hæmorrhage from varicose veins is not a natural but an unnatural death, and, combined with its sudden character, brings it doubly within the terms of the third clause of the Coroners Act, 1887. Again, to assume beforehand what a verdict would be is begging the whole question of inquests. We would advise our correspondent in any future similar case to send the coroner a note giving the name and address of the deceased, with the necessary details and the addition that the circumstances are such as to demand an inquest. Medical men have as good, or even better, right to express this than has a coroner to express his opinion that a death from hæmorrhage was natural.—ED. L.

Anti-Tax.—If actually separated, we think the smaller tax only should be charged; but probably the passage unites both premises as one tenement.

Mr. R. H. Elliot should consult our advertising columns.

F.R.S. has not enclosed his card.

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RECOVERY OF LUNACY FEES.

To the Editors of THE LANCET.

SIRS,—In the autumn of 1890 I was by a magistrate's order directed to examine and report on a patient not a pauper and not wandering at large. I subsequently (but without receiving any subpœna) gave evidence before two magistrates. Every effort has been made by the second doctor who examined the patient to recover this and other fees, but unsuccessfully, as no magistrate will sign an order, and threaten that if the matter is carried further he may lose his appointment as district medical officer. I am naturally anxious to put a stop to this state of affairs, and shall be obliged if any of your readers will say what steps I ought to take, as I do not care to apply to a magistrate until I know what steps, if any, can be taken in case the order for payment of fees is refused. The Lunacy Act makes no provision for such a case. In order to be safe, I should like to know what fee should be applied for, as the Act only mentions "reasonable remuneration." Does the interval since the examination at the end of 1890 in any way affect the recoverability of the fee?—I am, Sirs, yours faithfully,

May, 1892. RURAL.

Penang.—The following journals might be useful: Le Progrès Médical, Gazette Médicale de Paris, La Semaine Médicale (weekly); Revue de Médecine, Archives de Médecine (monthly). Each about 15*s.* to 20*s.* annually.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. D. Aler, Halifax; Mr. Blackett, London; Mr. Battle, Paris; Messrs. Braun and Co., Los Angeles; Mr. R. Broadbent, Leicester; Mr. Baron, Manchester; M. Berthier, Paris; Mr. Booker, London; Mr. A. Benthall, Southsea; Dr. J. Braithwaite, Leeds: Dr. H. R. Brown, Edinburgh; Dr. Beddoes, Aberystwith; Mr. T. B. Browne, London; Mr. Alexander Cairns, Paisley; Mr. Clowers, Attleborough; Mr. S. F. Conolly, North Kensington; Mr. E. C. Cutpeck, London; Messrs. T. Christie and Co.; Messrs. Condy and Mitchell; Messrs. Coxeter and Co.; Rev. T. Carson, Dublin; Sir W. Dalby; Dr. A. Duke, Dublin; Dr. Morgan Dockrell; Mr. Dixey, Chepstow; Mr. H. Evans, London; Dr. Hingston Fox; Mr. Fitzpatrick, Liverpool; Dr. Jas. Fraser, Hull; Dr. Féré, Heathfield; Mr. R. H. Gilpin, Evesham; Messrs. Greachy and Co., Glasgow; Mr. Gort, London; Mr. Horton, London; Messrs. Hertz and Collingwood, London; Dr. Hopwood, London; Messrs. Hopkinson and Co., Nottingham; Mr. Hunt, Manchester; Mr. Hordley, Stoke-upon-Trent; Mr. J. P. Henry, Lewisham; Dr. C. R. Illingworth, Clayton-le-Moors; Messrs. Isaacs and Co., London; Messrs. Krohne and Sesemann, London; Mr. Kühn, London; Messrs. Kilner Bros., London; Mr. R. Meredith Littler, Burton-on-Trent; Messrs. Lee and Martin, Birmingham; Mr. Little, London; Messrs. Llewellyn and Thomas, Cardiff; Mr. Lamb, London; Messrs. Ledger, Smith and Co., London; Mr. Lichfield, Paddington; Mr. Richmond Leigh, Liverpool; Mr. C. Mansell Moullin, London; Messrs. Merryweather and Sons, London; Mr. McLauchlan, Edgbaston; Messrs. Mitchell and Co., London; Dr. Mead, Mentmore; Mr. Mason, London; Mr. G. H. Makins, London; Mr. A. Mackellar, Notts; Dr. H. Murphy, Twickenham; Dr. G. H. Miles, Derby; Mr. Nock, London; Dr. Jas. Oliver, London; Messrs. Oppenheimer and Co., London; Mr. Polland, Wakefield; Dr. R. Pringle, London; Dr. Purcell, London; Mr. Pentland, Edinburgh; Mr. Pratt, Grimsby; Mr. F. S. Palmer, East Sheen; Dr. Steele, London; Miss Spriggs, London; Messrs. Smith, Elder, and Co., London; Mr. W. G. Sutherland, Liverpool; Messrs. W. H. Smith and Son, Manchester; Mr. Stenhouse, Glasgow; Messrs. Silver and Co., London; Mr. J. R. Shaw; Messrs. G. Street and Co., London; Mr. Thompson, Workington; Mr. Thompson, Macclesfield; Mr. Tate, Nottingham; Mr. Townson, Birmingham; Dr. J. W. Spring Thorpe, Melbourne; Mr. Taylor, Weatherby; Dr. E. Willoughby; Mr. E. B. Whitcombe, Birmingham; Mr. Wand, Leicester; Messrs. Whitworth and Stuart, Manchester: Mr. Wall, London; Messrs. J. Wheatley and Son, Sheffield; Mr. Warrington, Leamington Spa; Messrs. Watson and Son; Y. Z.; Anti-Tax; Podma, London; S. H. J., Bristol; Bona Fides, London; Galen, London; Delta; Medicus, Notts; Secretary, Bristol Royal Infirmary; Cantor, London; C. H., Birmingham; Lex, London; Ferrum, London; Justice, London.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Taylor, Andover; Mr. Abrahall, Biggleswade; Messrs. Hazell, Watson, and Co., London; Mr. Anderson, Carmarthen; Mr. Francis, Wandsworth Common; Dr. Ridge, Enfield; Dr. Clarke, Leeds; Messrs. Cavendish and Co., London; Mr. Bartram, Northallerton; Mrs. Gann, Hayling Island; Mr. Twyford, Hanley; Mr. Killick, Taunton; Messrs. Keith and Co, Edinburgh; Mr. Lowe, Breconshire; Messrs. Slinger and Son, York; Mr. Jones, Southend-on-Sea; Moh. El Calamany, Port Said; Mr. Thompson, Buxton; Mr. Howe, Ellesmere; Messrs. Vinton and Co., London; Mr. St. Dalmas, Leicester; Messrs. Hooper and Co., London; Dr. Carmichael, Barrow-in-Furness; Messrs. Brady and Martin, Newcastle-on-Tyne; Mr. Bryden, Shipley; Messrs. Wilcox and Co., London; Mr. Davison, Newburn-on-Tyne; Messrs. Stent and Sons, Guildford; Mr. Tyte, Minchinhampton; Dr. Findlay, West Auckland; Mr. Hicks, London; Mr. Craig, Wick, N.B.; Mr. Fulton, Muirhead; Mr. Noble, Southport; Mr. Breach, Newbury; Mr. Thin, Edinburgh; Mr. Roberts, Beckenham; Mr. Bean, Brentwood; Mr. W. Adams, London; Mr. Evans, Llanberis; Mr. Cormack, Kilnhurst; Mr. Sergeant, London: Dr. Foulston, Liverpool; Dr. Palmar, Sherborne; Dr. Fletcher, Uttoxeter; Mr. Sampson, York; Mr. Cornish, Manchester; Mr. Warne, Croydon; Miss Bacchus, Thanet; Mr. Jones, Melbourne; Mr. Hanson, Fareham; Mr. Adkins, Banbury; Mr. Wise, Rotherham; Mr. Martindale, London; Mr. Power, Cork; Mr. Barlow, Switzerland; Mr. Watt, London; Mr. Meier, Redhill; Messrs. Mackie and Co., Warrington; Mr Fiske, Aylesford; Messrs. Reynolds and Branson, Leeds; Mr. T. Smith; Mr. Russell, Suffolk; Dr. Nevin, West Auckland; Mr. Moore, Bridgend; Mrs. Jupp; Mr. Heywood, Manchester; Mr. Hosegood, Alexandria; Mr. Mainwaring; Mr. Barcroft, Amesbury; Medical, St. Peter's-park; Mrs. W.; R.C.Phys., London; X. Y. Z., Stockton-on Tees; Dr. L., London; Secretary, Norfolk and Norwich Hospital; H. B., London; Graduate, London; Clerk, South Shields Union; English, London; Secretary, Cambridge; Wonford House Hospital, Exeter; Eucalyptus, London; Clerk, Cardiff Union Workhouse Hospital; Clio, Hanley; Andrew, London; Hich, New Romney; L. C., London; M.A., London: Secretary, West Bromwich Hospital; R. S. O., London; W. R. Y., London; Secretary, Western Infirmary, Glasgow; Avondale, London; Cleopatra, London; Sanitas Co., Bethnal-green; Iota, London; Cevon, London; Clerk, Township of Manchester; F. M. W., London; Secretary, Ashton-under-Lyne Infirmary; Stock, London; A. B. D., London; Russell Advertising Co., London; Surgeon, Stratford; Roma, London; Secretary, Chester General Infirmary; Zeta, London; R., Bradford; Secretary, County Asylum, Rainhill; Pax, London; S. C. S., Ealing; Liverpool Trained Nurses' Institution; Dr., Bucks; X. M. O., Birmingham; 228, Kentish Town-road; Assistant, co. Durham; Expectans; Racquet, Shepherd's Bush; Landlord; Omega, Hackney; M. B., Highbury Quadrant.

NEWSPAPERS.—*Madras Times, Melbourne Daily Telegraph, Australian Advertiser, Manchester Guardian, South Wales Daily News, Manchester Courier, Cape Times, Western Daily Mercury, Newcastle Journal, Guy's Hospital Gazette, Scholastic Globe, Surrey Advertiser, Radical Review, Cheltenham Examiner, Home News, Lincoln Gazette, Times of India, Shanghai Mercury, Pioneer, East Cumberland News, Bath Chronicle, Southampton Times, Isle of Wight Herald, Le Temps (Paris), Belfast News Letter, Haddington Advertiser, Isle of Wight Advertiser, Northern Whig*, &c., have been received.

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AN ABSTRACT OF

The Cavendish Lecture

ON

SOME POINTS IN THE ETIOLOGY OF TYPHOID FEVER.

By SIR CHARLES A. CAMERON,

EX-PRESIDENT, DIPLOMATE (HONORIS CAUSA) IN PUBLIC HEALTH, AND PROFESSOR OF CHEMISTRY AND HYGIENE, R.C.S.I.; PRESIDENT OF THE BRITISH INSTITUTE OF PUBLIC HEALTH AND OF THE IRISH MEDICAL ASSOCIATION; ETC.

MR. PRESIDENT AND GENTLEMEN,—I have selected a subject which has engaged so many pens that its literature would fill many volumes, and in relation to which it is no easy matter to make any novel contributions. There is, however, some degree of appropriateness in my choice of it from the circumstance that I am the principal health officer of a city which is more ravaged by typhoid fever than almost any other town in the United Kingdom. The results of my observation of typhoid fever in Dublin may perhaps be of some slight use in the general consideration of the causation and modes of propagation of this widespread and formidable disease.

The lecturer, after giving some statistics showing "that in Dublin typhoid fever causes a greater waste of life than in any English town except St. Helens, and in Ireland is only exceeded by Belfast," observed that Professor Notter of Netley had pointed out the marked increase of typhoid fever in the European army in India, which was all the more remarkable as the general and zymotic death-rates in that army had decreased. During the ten years ended in 1879 the deaths amongst the troops ascribed to typhoid fever were in the ratio of 2·03 per 1000; in the period 1880–85 they were 2·98 per 1000; in 1887, 3·76 per 1000; and in 1888, 3·75 per 1000 Compared with these rates the mortality caused by this disease in British cities—even in Dublin—was trivial. He said: "Typhus fever caused formerly frightful ravages in Dublin, and even within a comparatively recent period it was rather rife. If we compare the mortality produced by this disease with that attributed to typhoid fever during recent years, it will be seen that the former is rapidly dying out, whilst the latter is increasing. The lessened death-rate in our towns, and more especially the decrease in the mortality caused by the infective diseases taken as a group, are unquestionably due to the improved hygienic conditions under which the urban populations are now placed. Acts of Parliament which deal with this subject, aided by the efforts of sanitary associations, of individual sanitarians, of hygienic literature, and a more general knowledge and appreciation of the natural laws of health, are lessening decade by decade the difference between urban and rural death-rates. Typhoid fever is probably coextensive with man, but it is more prevalent in some countries than in others, and in many parts of the world, including the British Islands, it is endemic. There seems to be little doubt as to the disease being caused by a micro-organism. This organism has been found in the blood, spleen, liver, kidneys, and other organs, and in great numbers in the mesenteric glands. Whether an attack of typhoid fever can occur without an antecedent one is a question which has often been discussed, and has been answered affirmatively by one of the greatest authorities on the subject of fever, the late Dr. Murchison. The spontaneous origin of the *materies morbi* of the disease by the decomposition of fæcal matters is a theory which recent bacteriological research has, I think, completely exploded. There being a consensus of medical opinion in favour of the microbial origin of typhoid fever, the biology of the microbe comes to be a subject of great interest. There are pathogenic microbes which apparently soon perish when detached from the animals in which they have been developed, whilst others are more persistent, and the spores of many kinds long retain, like vegetable seeds, their vitality and power to develop under favourable conditions. When supplied with nutrient material, such as gelatine, potato, &c., the pathogenic microbes seem to live and multiply, from which we may infer that they may, when detached from animals become deposited by accident in dead organic matter capable of affording nourishment to them. It may, however, be reasonably assumed that the great majority of the pathogenic micro-organisms would soon perish if the animals with which they are associated ceased to exist. It is, moreover, quite certain that the microbes which produce some diseases would continue. For example, the bacillus malariæ and amœboid bodies, and no doubt the bacilli and other micro-organisms producing all kinds of intermittent fevers, have an independent existence. They are found in the soils of many districts, or rich alluvium, and in the polders and banks of rivers, especially in tropical and subtropical climates. They existed abundantly in these islands in former times, and have been got rid of by the drainage and cultivation of the soil. These organisms are clearly of the earth, but they produce specific diseases in man. Without admitting or denying the theory that there is a kind of hybrid fever—typho-malarial—intermediate between typhoid fever and ague, I am disposed to believe that in relation to their propagation there are several points of resemblance between typhoid fever and the intermittent fevers. The intimate connexion between them has been pointed out by Dr. Harley in the Lumleian Lectures for 1889. Johnston,[1] treating of Continued Fevers of the South (the United States), states that it is probably changing its character in that region, is assuming a less defined type, and a milder form. He believes that many cases of so-called malaria are really typhoid fever, and he concludes by acknowledging the existence of a typho-malarial fever. I am disposed to look very favourably upon Dr. Woodhead's theory, that all bacilli are primarily saprophytes—that is, have an independent existence apart from animals; and that they become under altered conditions pathogenic, and prey upon living tissues.[2] The saprophytes are, with perhaps the exception of the micro-organisms connected with malarial diseases, innocuous; but under certain conditions, at present not well understood, they may acquire virulence. Those eminent bacteriologists, MM. A. Rodet and G. Roux, have stated very positively that the typhoid bacillus of Eberth is merely an altered and virulent form of the bacillus coli communis described by Escherech. This assertion is a very remarkable one. Pasteur and others have shown that the 'attenuation' or degeneration of certain pathogenic microbes greatly reduce their virulence, and may even render them completely innocuous.

"According to Rodet and Roux[3] the bacillus coli communis, without losing its general botanical characters, acquires a toxic nature within the human organism, and becomes, in fact, Eberth's typhoid bacillus. The researches of Rodet and Roux seem further to show that the bacillus coli communis, which may exist in the human organism without doing injury to the latter, can become highly virulent and infective when introduced into water. Hence they conclude that not only typhoid dejections, but simple fæcal pollution of water, may produce typhoid fever in those who drink it. This view would seem to favour Murchison's pythogenic theory; but they really differ completely. In the latter it is assumed that the toxic principle of typhoid fever may originate in decomposing fæcal matter; but, according to Rodet and Roux's theory, a harmless saprophytic organism acquires by mere contact with water new and infective properties. It seems not improbable, then, that an organism which can exist for at least some weeks in earth and water is the *materies morbi* of typhoid fever. The organism may be harmless until it has undergone certain transformations in the system, or it may be immediately infective. Such an organism is clearly much nearer akin to the microbes of malarial disease than to those of such affections as gonorrhœa, typhus fever, or measles. The condition of soils or water has little relevancy to these and most other of the infective diseases; but it has a great deal to do with remittent, intermittent, and typhoid fevers—perhaps, also, with dysentery and diphtheria. The connexion between the sinking of ground water and the occurrence of typhoid fever has been investigated with great care by Professors Pettenkofer and Buhl of Munich. They found that the cases of typhoid fever increased whilst the ground water was sinking, and that they were most numerous when the water, having been unusually high,

[1] Philadelphia Medical Bulletin, 1890.

[2] Bacteria and their Products. By German Sims Woodhead, M.D. London: Walter Scott, 1891.

[3] Comptes Rendus de la Société de Biologie, tome II., No. 7, 1890.

sunk rapidly to the lowest level. This theory has been supported by many eminent epidemiologists, and opposed by others. It holds good as applied to several German towns; but it is stated that in others no relation between the sinking of ground water and increase of typhoid fever has been noticed. In England Pettenkofer's theory has not received much support. An elaborate official report upon the prevalence of the disease in Cologne was issued in 1889. It attributes it, not to fluctuations of the underground water, but rather to the temperature and composition of the subterranean atmosphere, the proportion of bacterial life in it, and the opportunities afforded the micro-organisms to invade the atmosphere.

"Localised outbreaks of typhoid fever can frequently be directly traced to the use of a particular supply of polluted water or milk; but the widespread epidemics of this disease, and even its persistent occurrence in so many towns, must be due to some other cause or causes. For example, in Dublin it was epidemic in 1891–2 and in 1889; it appeared in all parts of the city and adjacent districts. The city and all its suburbs, with one exception, are supplied with water procured from a gathering ground twenty-six miles distant, in a mountainous region of the county of Wicklow. There are very few persons living on the drainage-shed which furnishes the Dublin pipe water, and of those few nearly all reside in a small village close to the reservoir in which the water is impounded. Last year it was asserted that a portion of the drainage of the village passed into the reservoir, but the statement was completely refuted. I believe there are few cities in the world supplied with such good water as Dublin fortunately possesses. I make this statement from the result of many careful examinations of the reservoir and its surroundings, and of hundreds of chemical and biological examinations of the water. There are very few wells now in Dublin, and only an almost infinitesimal proportion of the water drunk by the inhabitants is obtained from those sources. I dwell upon the fact that Dublin has a very pure water-supply, because, in view of the undoubted fact that typhoid fever is propagated by the medium of infected water, it is noteworthy that Dublin has almost the highest typhoid fever death-rate in the United Kingdom. The one suburb of Dublin (Rathmines township, population 27,410) which has an independent supply of water derives it also from a pure source, the gathering grounds being districts in the Dublin mountains composed of granite and silurian rocks. In Rathmines typhoid fever prevails much to the same extent as in the other townships which are placed under similar conditions as regards site and drainage.

"The street sewers in Dublin are of excellent construction, and many of the more important ones have been recently reconstructed. Unfortunately at present they deliver their contents into a tidal river (the Liffey) which bisects the city. The mouths of the sewers are provided with valvular gates, which close and open as the tide in the river rises and falls. Some of the sewers are sealed up for the greater part of the twenty-four hours, and consequently their contents accumulate, and have to be in part removed by the usual methods of pumping them up to a higher level, whence they are run into the river. The sewers are provided with the usual ventilators, which allow a free communication between the street air and the sewers. It will be seen, then, that Dublin is a low-lying city. The floors of the basement storeys of houses are not above the level of the highest tides, and some are actually below it. It is evident, then, that the soils, subsoils, and rocks in the low-lying districts of the city have but a poor natural drainage, and that for a large portion of the day drainage is altogether suspended, except from the more elevated parts of the city, in the lower. There is much stagnation of the water in the ground. A railway which, passing over the Liffey, connects the Dublin and Kingstown Railway with the Great Northern Railway, has recently been constructed. In sinking for foundations for the many bridges required by this line, a good opportunity for examining the nature of the subsoils and rock was afforded. I took advantage of it. I found that near the river the deep-lying gravel was more or less filled up with mud, which often possessed an offensive odour, and even evolved sulphuretted hydrogen gas. The water taken from the excavations was loaded with organic matter, and literally teemed with micro-organisms. Fraenkel found a similar condition of things in the soil of Berlin, near the Spree. On the whole, the distribution of typhoid fever in the suburbs resembles that described for the city. There is not much of the gravel in Clontarf, but upon it most of the cases in the district occur. The rate is as high as in the city, whilst the general and zymotic death-rates are lower. In our report to the War Office on the sanitary condition of the Royal Barracks, Dublin, Dr. Grimshaw, Registrar-General, and myself pointed out that typhoid fever prevailed where the gravel existed."

The lecturer then indicated the different localities on the map where the fever prevailed, and showed that many were scarcely above sea level. Continuing, he said,

"Dublin is a city with an undue amount of typhoid fever in it. It is supplied with pure water drawn from a distant source. Its local wells have fallen into disuse. Its street sewers are as good as those in the English towns. Like other places, its milk-supplies may be now and then infected with typhoid poison. The prevalence of typhoid fever in Dublin in 1889 and 1891–2 was by many persons attributed to the consumption of oysters, and for a time so great was this oyster scare that the sale of the molluse nearly died out. In Belfast the same idea prevailed, but not so generally. I have repeatedly detected sewage in oysters taken from the shores of Dublin Bay. Oysters, cockles, mussels, and other lamellibranchiate molluscs are often eaten uncooked, and their shells enclose a liquid which is also often drank raw. Although oysters, when deserted by the tide, usually keep their valves closed, they do not invariably do so, and therefore at low water sewage trickling down the shore is likely to find its way into the interior of the oyster and other shell fish. I would prefer having my oysters taken from the lonely coasts of Clare and Kerry than from the estuaries of rivers which receive the filth of large towns. It is possible that vegetables taken from an infected soil might be the vehicle of the disease. Salad, radishes, and other esculents are often brought into the house without having been separated from the soil in which they have been grown. It might happen that, if eaten without being perfectly washed, they might introduce the microbe of typhoid fever into the body. Although infected food may cause cases of typhoid fever in Dublin, it is not probable that they are more numerous there than elsewhere; we must therefore look for some other more common source of the disease than infected water, milk, and other foods. Of course, the house drains may be blamed for the prevalence of the disease. I examine, or cause to be examined, the sanitary condition of the houses in which it occurs; in a large proportion of them defects are detected, the traps are out of order, the drains are choked up with fat or other obstruction, or they may consist of rubble—in short, the usual sanitary defects found in so many houses when carefully overhauled are detected in nearly half of the houses examined. On the other hand, the disease constantly makes its appearance in houses where no defects can be detected, where the 'smoke test' shows no leak of drain or defect of trap, where the waterclosets are of the most recent construction and in good working order, and where the water is taken direct from high-pressure taps.

"It is admitted that there has been a great improvement during recent years in the construction of house drains, and the old 'built' sewers have been all but completely replaced by earthenware pipes laid in cement. As I have already stated, the zymotic death-rate has greatly declined, but still typhoid fever more than holds its own. I can only account for this by assuming that the microbes of the disease have established themselves in the soil, that they multiply therein, and that they issue occasionally from it into the atmosphere, which, consequently, becomes infected. It is only in this way that we can reasonably account for the periodic character of the disease, for its seasonal intensity, for its epidemics. It may be said as against this view that we have epidemics of small-pox, scarlet fever, measles, and so on; but these diseases are directly communicable from person to person, whereas that is not the case with typhoid fever. The waterclosets, house drains, and street sewers do not vary much from year to year, and when they do vary it is generally because they are improved. In the soil therefore we must look for the cause of the endemicity of typhoid fever in Dublin and in other places. This theory is greatly strengthened by the fact that the porous soils are to a much greater extent likely to be the habitat of the disease than the stiff clays. The conditions of existence to all kinds of organisms are more favourable in loose soils than in adhesive dense clays, in which air cannot freely circulate. The action of strong winds and the rising and sinking of underground water

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more readily cause movements of air in gravels and loose soils than in clays; and the escape of microbes from the former under such circumstances must the more freely occur. The streets of Dublin have lately been to a large extent paved with stone setts, which circumstance may, perhaps, account to some extent for the increase of typhoid fever. The underground air cannot now diffuse into the atmosphere over the roadway, and therefore may be drawn in larger quantities into the houses, the basement floors of which are rarely concreted. Hoffman[4] has pointed out that there is in porous soils what he terms a superficial zone of evaporation, in which the moisture varies from saturation to zero. In the hot summer weather the zone is considerable in extent, and when rain descends on it, after a period of heat and drought, it is often capable of retaining the whole of the latter without its lower border becoming wet. In such there is always a dry layer between the surface part, which is temporarily wetted by the rain, and the deeper strata in which the water lies. Under these conditions the impurities which reach the soil become deposited in the dry zone; under this zone is situated a layer which is always wet. When the upper zone is filled with rain the amount of water in the second zone remains constant, for any excess which it may receive passes down into the third zone, or that of the underground water. If the typhoid bacillus exists in the first zone, it must alternately be immersed in water and in air. In the former case it remains in the soil, in the latter it may be transported to the atmosphere by air currents. The deeper the ground water sinks the greater will be the extent of the zone in which the movements of organisms can take place; but even whilst the ground water is sinking the outermost layer of soil may be kept moist by slight and long-continued rain. In this case, however large the dry zone, none of its organisms would escape from it into the air. I admit that the chances of detaching micro-organisms from most surfaces are slight, but it must occur now and again. Those of typhoid fever have not, I believe, been detected yet in the atmosphere, but pus organisms and the microbes of diphtheria have.

"It is to the bacteriologist that we must look for the proofs that several forms of microbes are concerned in the production of the typhoid diseases. At present they are not agreed as to the actual form of the typhoid microbes. Letzerich has described them as consisting of micrococci, either isolated in colonies or in chains, very dissimilar to those of diphtheria and infectious pneumonia, but which by cultivation reach a size twice or thrice greater than the micrococci of the last-mentioned disease. On the other hand, Klebs describes the bacillus typhosus as large-sized filaments of 50 micro-millimetres in length and 0·2 micro-millimetres in breadth, without segments or ramifications. As typhoid fever presents considerable diversity, not only in individual cases but in its epidemics, it is only reasonable to suppose a similar variety in the microbes which produce it. This may account for the somewhat conflicting accounts which bacteriologists have given in reference to the micro-organisms found associated with the disease.

"The means which we must use in order to eliminate typhoid fever or lessen its ravages are numerous, and on the whole costly, and all directly or indirectly relate to the ground. A supply of pure water is absolutely necessary. The disease is propagated by means of water, but that which we use is gathered from the ground, and consequently from the latter it derives its pathogenic organisms. London is a city in which the water carriage of excreta is general, but it is fairly free from typhoid fever. Bolton, Preston, Salford, and other towns where waterclosets are few, have excessive typhoid fever death-rates. I attribute the prevalence of typhoid fever in Dublin to the system of storing excreta in pits, generally having a mere clay bottom. This practice, continued for centuries, has ultimately caused the soils to become impregnated with filth and its organisms. The development and retention of those organisms are favoured by the circumstances that subsoil drainage of a large part of the city is very defective, and I attribute in part to this condition of the soil the undue amount of typhoid fever to which I have so often referred. I look to its thorough drainage and its freedom from pollution as the two important means of lessening the amount of typhoid poison in it. As the microbes can only escape when the outer layer of soil is dry, it is well to prevent dust rising from the roadways, by having the latter well watered in hot and dry weather. A most important preventive measure is to keep the soil from pollution by fæcal matter, or any kind of organic matter, upon which microbes could develop. We should be as careful not to pollute our ground as our air. I am convinced that typhoid fever is often caused by underground air entering our dwellings. This may be to a great extent prevented by having even the thinnest layer of asphalte or allied material covering the whole of the site upon which the house rests. No air or moisture can pass through such a layer. As microbes are most abundant in the upper layers of soil, the water from superficial wells should not be drank. The fact that typhoid fever is the one zymotic almost equally fatal in town and country may be due to the use of water from very shallow wells by the rural population. The lower the well the more likely is its water to be free from microbes. I found in a very deep well that two kinds of water were present; near the bottom it was hard and comparatively free from bacteriological life; near the top it was soft, loaded with organic matter, and teeming with micro-organisms."[5]

[4] Archiv für Hygiene, vols. i. and ii., part 2.

[5] See Parkes' Hygiene.

Lectures
ON THE
OPERATIVE TREATMENT OF ENLARGEMENT OF THE PROSTATE.

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LECTURE II.[1]

THE operations that have been performed for the relief of prostatic retention may be divided into palliative and radical. The former do not require mention, except in so far as they provide a standard by which the others are to be judged. Supra-pubic tapping and perineal drainage are the simplest. Supra-pubic cystotomy with the same object was performed by Sir H. Thompson as long ago as 1869. Recently McGuire of Richmond has modified the operation by making the fistula run obliquely from the bladder to the upper end of the cutaneous incision; and Morris of New York has still further improved upon this by lining the channel with two flaps of skin transplanted into it from the sides. In some instances the patient appears to have been able to dispense with a permanent drainage-tube, and has managed fairly well by passing a catheter down the new route occasionally, and in a few even this has not been necessary. Bennett May has shown that where there is a large intra-vesical growth a supra-pubic drainage-tube cannot be borne, owing to the irritation it causes; but in other cases there is no doubt a very fair degree of comfort may be obtained in this way, and many patients are exceedingly enthusiastic about it, but their praise is rather discounted by comparison with the misery they were suffering before. Of radical operations there is a great variety, not all of them deserving the name. Iodine, ergotine, and other substances have been injected into the gland itself, but the practice is not without danger, and it has not been shown that any permanent benefit has been derived from it. Galvanism and electricity have been employed in many ways. Newman of New York speaks very highly of superficial cauterisation of a mucous membrane by means of instantaneous flashes of the galvano-cautery. Biedert first, and later Casper and Roux, claim to have effected some reduction in size by introducing the negative pole of a battery through the wall of the rectum into the substance of the gland. Casper made use of a current of twenty milliampères and prolonged the sitting for fifteen minutes, changing the position of the needle from time to time. Roux used a much stronger current, so that there was severe pain. Biedert found great improvement in one out of five. Casper claims to have cured two out of four, but the amount of residual urine was very considerable still, and in one

[1] Delivered at the Royal College of Surgeons of England on June 1st, 1892.

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there was a rectal fistula. Of Roux's six patients one did not return, one was under treatment still, and in four there was a sensible diminution. Many sittings, however, were required; other treatment was employed at the same time; and no evidence is brought forward to show how far the improvement was due to the electric current. Reduction in size has often been noted after simple puncture.

Penile operations.—Gouley of New York has recently revived Mercier's method of incising the prostate or punching out pieces from it with a prostatectotome, through the urethra, using an instrument which differs chiefly from Mercier's in the greater inclination of the back of the male blade to the shaft (so that it rides more easily over the obstruction), and in the edge being flattened instead of sharp. He finally expresses himself, however, as in favour of the perineal route; and as part of the after-treatment consists in introducing a catheter every day for the sake of irrigating the bladder and maintaining the patency of the opening, it is difficult to see where the benefit lies. Four cases operated upon in this way by Swinford Edwards all relapsed within a few months; and in two in which the operation was repeated the period of relief was shorter the second time than it was the first. Bottini makes use of the galvano-cautery, applying it by means of a special instrument directly to the obstructing mass. According to the latest account he has operated upon seventy-seven cases in all. Of these two died (it is only fair to say they were among the earliest), in twelve there was no result, in eleven some improvement, and in fifty-two complete cure. In addition to these a few cases have been operated upon in England by Bruce Clarke and Harry Fenwick. Unhappily, no definite account as to the condition of the bladder before and after the operation accompanies any of these statistics; it is merely stated that the residual urine ceased to collect, or was very greatly reduced in amount—a result which is not uncommon for a time, without any operation, in patients who have previously neglected themselves. On the whole, it seems more satisfactory than Mercier's, and it is not so likely to be attended by hæmorrhage (which has been known to prove fatal on more than one occasion), but it shares with it the very grave disadvantage of being performed altogether in the dark, without any exact knowledge about the size, shape, or position of the obstruction. It is useless for advanced disease; or if the lateral lobes are enlarged or if the growth projects upwards into the bladder, the form which, above all others, causes the most distressing symptoms. If the obstruction is confined to the posterior wall of the urethra, just at the neck of the bladder, and has not caused thickening of the lateral lobes or elongation of the canal, it can be dealt with in this way, so far as immediate removal is concerned, provided, that is to say, the condition is diagnosed and the symptoms are sufficiently severe to require it—a combination which is not usual; but even if the immediate result is successful, it is very doubtful if the improvement would be permanent. For a cure to be lasting either the glandular tissue that is left must undergo fibroid transformation and cease to spread, or the amount removed must be sufficient to leave a channel too wide and too capacious to be closed by any ordinary form of overgrowth.

Prostatectomy in the course of lithotomy.—The number of cases in which portions of the prostate have been removed is very large; in most it has been accidental, a pedunculated median lobe being caught in the angle between the blades of the forceps and torn away, or a rounded mass shelling out from its bed under the pressure of the finger. In others, however, it has been done of set purpose after exploration with the finger. More rarely the lateral lobes have been torn away as in Dittel's case, in which, while extricating a calculus by the median route, at the third attempt he pulled out both, together with a stone. In a few of these cases there was permanent improvement in micturition, notably in Landerer's, in which the patient was enabled to dispense with the use of a catheter, which before had been necessary; and none seem to have been in any way the worse; but in the majority there was no difference one way or the other. Nor is this to be wondered at. In nearly all the part removed was either a pedunculated median growth or an isolated tumour that was accidentally exposed and sometimes divided by the lateral incision; but it is quite the exception to find either of these conditions developed sufficiently to act as an obstruction without at the same time great modification in the rest of the gland. It is true, as Thompson suggests in the account that he gives of his own four cases, that the muscular coat of the bladder may never have recovered, but certainly in most it never had the chance; the whole, or even the greater part, of the obstacle was not removed.

Perineal prostatotomy and prostatectomy.—The perineal operation consists in opening the urethra at the apex of the prostate, exploring the canal from the interior, and then dealing with the obstruction according to what is found. It may be divided and split open, or transfixed and excised. Isolated growths may be shelled out; sessile portions may be punched out with a prostatectotome, or the galvano-cautery may be used. It is plain at the first glance that this method must be much more thorough than the penile, but it is equally clear that it must fail in the majority of cases. The anatomy of the part is against it. A small pedunculated median lobe can be removed, or a V-shaped channel punched out; but this is the limit, and cases that require operation and present no more serious obstruction than this are few and far between. Nothing can be done for the lateral lobes; vesical growths, which often cause as much irritation as phosphatic calculi, are quite out of reach; and a median lobe of any size requires such an amount of manipulation (especially as in these cases the urethra is usually compressed into a slit) that the tissues around would be bruised and crushed beyond recovery. In one case that was under my care a fatal result followed ten weeks after the operation from this cause; the wound was never repaired, the cavity could not contract, the walls remained covered with sloughing shreds, and the patient sank from exhaustion. Not only the width but the length of the urethra is against it. If the neck of the bladder is distant more than three inches from the perineum, the finger cannot reach into it to explore it. So long as the perineum is soft and yielding an extra half inch can be gained by passing a sound through the wound by the side of the finger, hooking it against the trigone and pulling it down; but if the increased distance is due to fat in the perineum or to overgrowth of the lateral lobes this is of no avail. Watson, in his monograph on the operative treatment of the hypertrophied prostate, states that out of thirty specimens taken from a museum, he would have failed to reach the bladder in one third. McGill put the proportion, and I believe correctly, very much higher. According to him, in only three out of his first twelve cases would it have been possible to remove satisfactorily the projecting portion of the prostate by the perineal route.

Results.—Excluding those cases in which portions of the prostate were removed during lithotomy (though as none of them proved fatal, they would tend very considerably to lower the death-rate), I have been able to collect particulars of thirty-eight cases. Of these, three died—one, eighty years of age, from uræmia on the third day; a second, from either iodoform poisoning or uræmia on the tenth day; and the third, the one I have already mentioned under my own care, from exhaustion and secondary hæmorrhage in the tenth week. Of the rest, in one case the operation was not completed, and in another there is no note as to the final condition. Seventeen are described as cured, and sixteen as benefited or improved. These results, however, are capable of further analysis. Simple incision in the median line behind seems almost as useless as the urethral operation, and for the same reason. The few cases that have derived any benefit from it probably owe it to the congestion having subsided. Prolonged drainage after division, as recommended by Harrison, is much more satisfactory. It cannot act simply by mechanical dilatation; probably the more or less friable tissue of the prostate undergoes disintegration around it and then slowly heals over so as to leave a canal of greater width; but undoubtedly it greatly increases the chance of success. Of the eleven cases in which it is expressly mentioned, six are returned as cured and two as much improved. Two, however, were distinct failures; a third was very little benefited, and in one of the successful ones a small fistula persisted. Leaving this aside, however, the cause of the failure is of some importance; it is not now recurrence of the obstruction, but decline in the expulsive power of the bladder; the route was opened, and remained so, but the muscular coat was damaged beyond recovery. The fault this time was not in the operation, but in the operation having been delayed too long. Perineal prostatectomy has better results still. Of fourteen cases two (those already mentioned) died;

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one was a complete failure, the growth springing from the anterior wall of the urethra and reaching into the bladder (it was subsequently removed by the supra-pubic method with complete success), and the remaining eleven were practically cured. One, it is true, suffered from a small perineal fistula afterwards; but as he was eighty years of age, and was relieved by the operation both from the hæmaturia and the frequent and painful micturition which he had endured for years, the result cannot, I think, be considered a bad one. One other could not empty his bladder thoroughly, although his condition was so far improved that incessant dribbling was replaced by voluntary urination at intervals of three or four hours. But these were the only exceptions. Occasionally, but not nearly so often as is usually believed, a small median outgrowth is found acting like a valve. Complete retention comes on suddenly in an old man who has not been conscious previously of any serious urinary trouble. A catheter can be introduced without difficulty, showing that there is no congestion, but not a drop of urine can be passed without its use. Such instances are rare, but they do occur, and they can be diagnosed. One such I have met with myself, and the result of removal of the growth through the perineum was most successful. Sometimes, too, the enlargement is so shaped that a wedge can be excised or punched out, or even burnt away from the posterior lip; and occasionally both these conditions are met with in the same subject, but this I believe to be the limit for the perineal operation. If the lateral lobes are much enlarged, either the urethra is compressed into a slit or so elongated that the finger cannot reach the bladder. Vesical growths are quite out of reach, and masses of any size, even if they are pedunculated, cannot be extracted without inflicting a most injurious amount of bruising. Of the fourteen prostatectomies I have been able to collect, certainly one of the two deaths, and one failure, must be put down to the fact that the method adopted was unsuitable.

Dittel's operation, or lateral prostatectomy.—The difficulty of dealing with the lateral lobes through the prostatic urethra, which is practically inoperable, has given rise to another method which, although it is not likely to meet with general acceptance, deserves mention, as it has been practised with some success by Küster. It was first devised by Dittel, who, however, only tried it upon a dead subject, and it consists in excising a wedge-shaped piece from the under or posterior surface of each lateral lobe with the view of making their inner surfaces recede from each other and leave the urethra open. The patient may be placed either in the prone or the lateral lithotomy position. The bladder is emptied, a catheter tied in, and the rectum filled to establish its position and avoid injury. The external incision is carried from the tip of the coccyx around the sphincter ani, on one side, laying open the ischio-rectal fossa. The rectum is separated from the right lobe of the prostate, and the latter carefully exposed. A little farther dissection beyond the middle line enables the same thing to be done upon the other side; and then as soon as the bleeding has ceased and a good view can be obtained a wedge-shaped piece is removed from each. This was proved by actual demonstration on the dead subject to be capable of relieving prostatic obstruction when due to increased thickness of the lateral lobes: it allows their urethral surfaces to fall apart and restores the shape of the canal, which is practically flattened into a narrow slit. Küster has performed this operation upon three occasions with a certain measure of success. In one only was there much bleeding; but in one the membranous part of the urethra was opened unintentionally, and in one the vesicula seminalis of the left side was cut into. In two instances (in both of which the urethra was opened during the operation) fistulæ persisted, though in one it is true that the opening was very small; and in one the residual urine still amounted to 50 cc. As the lateral lobes can in general be dealt with quite as well, if not better, from the interior of the bladder, it is not likely Dittel's operation will be frequently required, though now and then a case may occur in which supra-pubic prostatectomy is indicated, but is practically impossible owing to the small size of the bladder and the rigid character of the walls; but it is of interest as showing the great importance attached by him and Küster to the usually neglected lateral lobes, and the necessity, if the operation is to be a radical one, for dealing with them thoroughly.

INTRAVENOUS INJECTION OF "NORMAL" SALT SOLUTION FOR THE GRAVE HÆMORRHAGES OF MIDWIFERY.

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THIS paper is an account of eight cases in which "normal" salt solution has been injected into the veins for the treatment of grave hæmorrhage unrelieved by ordinary remedies. The cases occurred amongst 10,000 labours attended in the out-door maternity of University College Hospital from July 1st, 1887, until Jan. 11th, 1892. They are the only cases amongst that number in which the operation has been performed, and they include all cases of death from hæmorrhage—with or without injury to the parturient canal, "exhaustion," "syncope," or "shock"—with the exception of four patients who died either unexpectedly or before I could be summoned.[1] I was led to inject "normal" salt solution in quantity for the treatment of hæmorrhage in 1888 by a conversation with my friend and colleague, Dr. J. Rose Bradford, who informed me of the very large quantities which had been successfully injected into animals by physiologists, and by the fact that small quantities had already been injected by some of the staff of University College Hospital, although, I believe, without success. I was till a few weeks ago unaware that the treatment had been previously employed for hæmorrhage in the human subject, but find that Landerer,[2] on July 10th, 1881, injected a litre of normal salt solution into the veins of a patient aged seventy-one, suffering from shock and hæmorrhage after amputation of the thigh. The patient temporarily improved and recovered consciousness, but died an hour later. On Oct. 8th, 1881, Bischoff[3] successfully treated a case of post-partum hæmorrhage by injecting 1250 cc. of normal salt solution into the radial artery. Recently cases have been published by Hermann Thomson,[4] Mr. W. H. Brown,[5] Mr. Arbuthnot Lane,[6] and others. The literature of the subject of intravenous injection of "normal" salt solution, which, on the experimental side, is somewhat copious, may be found quoted in the references I have given. It is right here to remark that to Goltz[7] is due the credit of showing that the cause of death from hæmorrhage lay, not in the loss of corpuscles or hæmoglobin, but in the loss of fluid and the consequent incomplete filling of the heart, and that as long as the blood could be kept moving by injection of fluid life could be saved. Kronecker and Sander[8] were, I believe, the first to suggest the injection of normal salt solution for this purpose in animals. I trust that the following cases will afford evidence of the value of the treatment in hæmorrhage in the human subject:—

CASE 1. *Multipara; adherent placenta; severe post partum hæmorrhage; fetid ischio-rectal abscess at time of labour; transfusion of thirty ounces of saline fluid; recovery.*—On April 24th, 1888, I was called by my assistant, Mr. L. de Chazal, to a case of severe post-partum hæmorrhage. The following are the notes of the case. Mrs. G——, aged thirty-seven, is naturally a strong plethoric woman. She has had five children and one miscarriage. Five years ago she was attended at University College Hospital for placenta prævia. Three years ago she nearly lost her life from post-partum hæmorrhage caused by an adherent placenta. She has since had a child normally. In the present pregnancy her only complaint was that she had not been able to sit down without pain for the past month. The present labour was normal in the first and second

[1] The cause of death in these four cases was—1. Accidental and post-partum hæmorrhage; the patient, thought to have safely recovered, died suddenly of syncope. 2. Post-partum hæmorrhage (one pint); the patient, thought to have safely recovered, died suddenly of syncope. 3. Accidental and post-partum hæmorrhage (same patient as Case 4 in the paper); died before I could be summoned. 4. Perforating laceration of cervix, with hæmatoma of the broad ligament; patient died before I could be summoned.

[2] Virchow's Archiv, 1886, No. 105, p. 357.
[3] Archiv für Gynäkologie, 1881, No. 23.
[4] Deutsche Medicin Wochenschrift, 1891.
[5] THE LANCET, vol. i. 1889, p. 527.
[6] Ibid., vol. ii. 1891, p. 606.
[7] Virchow's Archiv, Bd. xxi.-xxix.
[8] Berliner Klinische Wochenschrift, 1879, No. 52.

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stages, which were over in four hours. Directly after the birth of the child blood poured out with gushes in considerable quantity. As expression of the placenta could not be performed by the student, he (against regulations) gave a drachm of liquid extract of ergot and summoned the obstetric assistant, who arrived an hour and a quarter after the birth of the child. Attempts to remove the placenta had meanwhile been made by the student and a neighbouring practitioner, but without success, and the patient had during this time lost an enormous quantity of blood, which filled a chamber-utensil and soaked through the sheets and mattress. On the arrival of the obstetric assistant the patient was in a very grave condition, extremely blanched, the pulse very small and compressible, beating at the rate of 140 to the minute, but at times it could not be felt. The patient was extremely restless and faint, complained of nausea and retching, but did not vomit, was constantly throwing her arms about and wanting to change her position and to get fresh air, and yawned frequently. The pupils were moderately dilated, and she could see well; there were no noises in the ears; the mouth felt dry, and the patient craved for drink; the tongue was moist. Part of the placenta was found lying in the vagina, and the rest was removed by the hand, except a portion as big as a crown piece, which was very firmly adherent. The patient during this manipulation lost a small amount of blood, and as it was feared she was dying, no further attempt was made to remove the remaining portion. An intra-uterine injection of iodine solution having been given, I was summoned. On my arrival, four hours after the birth of the child, in addition to raising the limbs, hypodermic injections of ether and drachm doses of brandy had been administered every few minutes. The pulse was, as nearly as could be counted, 140 to the minute; but for a few seconds at a time it was quite imperceptible, and at best it could but just be felt. Within a quarter of an hour of my arrival the patient's condition got even worse. She began to get drowsy, answering only when addressed in a loud voice; the heart apex beat could not be felt, and the pulse was as bad as possible. I considered that the patient would die unless transfusion were performed. I therefore opened the right median basilic vein (the patient not feeling the operation) and injected thirty ounces of normal saline fluid at a temperature of 104° F. Two minutes after the fluid had begun to flow the pulse was felt to be stronger. As the flow continued the patient roused up, and she felt better and not so faint. The radial pulse could be *seen* beating; and at 12.50 P.M., when all the fluid had been injected, about fifteen minutes after the commencement of the operation, the pulse was regular, of normal size and fair strength, and 110 to the minute. Some colour had appeared in the patient's lips. All her symptoms definitely ceased, and she said she felt well and comfortable. At 1.15 P.M. the pulse was 110; at 1.30, 100; at 8 P.M. it rose to 120, but was not very compressible, and all the beats could be felt, and the patient was cheerful and comfortable. Ten hours after the operation half a pint of urine was drawn off and examined by my colleague, Dr. J. R. Bradford, and found to be normal and free from hæmoglobin. On April 25th, at 9 A.M., the patient had a rigor. I found an ischio-rectal abscess, from which I let out about three ounces of fetid pus, and after disinfecting with chloride of zinc solution dusted with iodoform. Next day I removed the adherent piece of placenta without an anæsthetic. The patient had slight fever during the puerperium, the highest temperature being 102·6° on the fourth day; it was practically normal on the eleventh day. She made an excellent recovery, although she remained pale for two or three months. The patient menstruated regularly from September, 1888, till February, 1890, when the courses ceased. She was in good health, and had a good colour when seen on Feb. 4th, 1892 This is, so far as I know, the first successful case of intravenous injection of normal saline fluid for hæmorrhage.

CASE 2. *Accidental hæmorrhage; transfusion; recovery; relapse; a second transfusion; recovery.*—Mrs. K——, aged thirty, multipara. On July 1st, 1888, at 1 A.M., the patient, who was nearly at the full term of pregnancy, suddenly lost a large quantity of blood from the vagina, and fainted several times in succession. She had not strained or injured herself to her knowledge. On the arrival of the obstetric assistant, at 1.30, the patient was pale, but the lips not blanched. She had just recovered from a fit of unconsciousness, in which she had been throwing herself about. The pulse was about 90 to 100, full and soft. The clothes were saturated with blood. She appeared to have lost from one to two pints. Bleeding had then stopped. The os was the size of half a crown; the head presented; the membranes were intact; no placenta could be felt. The membranes were at once ruptured and one drachm of ergot was given. Profuse hæmorrhage now occurred, and after an unsuccessful attempt at version the os was dilated by bags and the forceps applied, and a dead child delivered. The placenta was expressed, together with a moderate amount of blood and clots. The continuous hæmorrhage during the above manipulations had greatly depressed the patient, who had become extremely blanched, the lips being of an ashen hue; the pulse rose in frequency to 150 or 160, and gradually diminished in force till it was quite imperceptible, and the patient became unconscious, with insensitive conjunctiva and moderately dilated pupils; the heart sounds could only just be heard. This state of the patient had been reached by a steady downward progress, and in spite of the employment of all the usual remedies. On my arrival, at 3 A.M., I did not think the patient had five minutes to live. I at once opened the right median basilic vein, and in twenty minutes transfused thirty ounces of saline fluid. The patient was completely unconscious, and did not move when the incision was made. After ten ounces had been injected she recovered consciousness, expressed herself as feeling better, and conversed rationally. The pulse, from being extremely frequent and finally imperceptible before the operation, rapidly improved in force and volume, and stood at 110 at the end of the operation (3.20 A.M.). Dr. Deanesly watched the patient till 10.30 A.M., and took notes of the pulse every few minutes. During the last hour or two of this time the patient's condition again became grave, the pulse rising in frequency and failing in strength, so that at 10.30 A.M. it was almost imperceptible. I decided to repeat the transfusion in the other arm, and injected thirty ounces into the left median basilic vein. After this the pulse became stronger and steadier, and the patient looked and felt better. In the after progress the highest temperature was 101·2° on July 5th and 8th; on the 10th it was normal, and remained so. The patient remained anæmic for two or three months, but was able to get about. She was seen by me about two years afterwards in robust health. On Feb. 4th, 1890, she had a miscarriage at four months and a half, when she lost a good deal of blood. The hæmorrhage continued for six weeks. On Jan. 29th, 1892, she was alive and in fair health.

CASE 3. *Accidental hæmorrhage; transfusion of saline fluid; death.*—Mrs. H——, aged thirty-one, had had eight children in fourteen years without any difficulty. Her mother died from flooding in childbed. The patient suffered from prolapse of the womb, but was otherwise a strong, healthy woman. On Sept. 12th, 1888, she was up washing all day "hard at work." At 7 P.M. the pains came on "pretty strong" for an hour; there was no "show." At 8 P.M. the pains ceased and she fainted. The student in attendance found the abdomen very prominent and distended, and the membranes intact. As he could not make out the presentation, the obstetric assistant was summoned and a little brandy administered. At 9.45 the patient was seen by the obstetric assistant. She had recovered from her faintness. There had been no external bleeding; the pains had not returned. The uterus, which was prominent and much tilted forwards, was very tense, and external examination was difficult. The uterine souffle was very loud and the pulse 88. She complained of a good deal of pain all over the front of the abdomen, no special point being indicated. There was no history of any sudden pain. The os was very high up, the edge thick and soft, of the size of half a crown; the membranes intact, but not tense; the vertex presenting. The patient looked a strong, healthy woman, not blanched or appearing any longer faint. Twenty drops of laudanum and rest were ordered. She was left at 11 P.M. At 11.35 external bleeding occurred in considerable amount. At 11.50 the student arrived, and found a large amount of blood in the bed, and a copious flow occurred on vaginal examination. At 12 midnight the obstetric assistant saw her, thought the membranes were ruptured, and made strong pressure on the uterus by a binder; the external bleeding had ceased. At 12.30 she was seen by me. She was lying on her left side, quiet, and speaking rationally, with an occasional parturient moan. She answered only

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when spoken to in a loud voice; said she felt faint and a little sick. She vomited once, and retched a good deal. In looking at her as she lay on the shady side of the badly lit room there was nothing to attract particular attention. She was not at all restless, and had scarcely any pains. She had lost about a pint of blood. I had a good light thrown on her face. It was quite white, the lips being of a pale ashen colour. She was quite pulseless on both sides. The heart was beating 148 to the minute, but only one sound, apparently the second, could be heard. The uterus was very tense; the os as big as a crown-piece, easily dilatable; the head in the fourth position; the membranes unruptured; no placenta to be felt. Recognising her almost hopeless condition, and that she was bleeding internally, I at once ruptured the membranes, a considerable quantity of bloody fluid escaping. I then applied the forceps and easily delivered the child, without rupturing the perineum. The body was easily extracted, and was followed by the placenta and some large adherent and loose clots, and, I should say, a pint and a half of fluid blood. The uterus contracted well and remained hard, with the exception of a momentary relaxation which permitted the escape of a couple of ounces of blood. The patient was now a little restless. The head was lowered, the legs raised and bandaged, the binder tightly applied, and brandy given her. Once or twice she raised her arm above her head and partly rolled over, and said quietly "Can't I have some air?" She now became deaf and rapidly became unconscious. The pupils were moderately small, as they had been all along. I at once opened a vein in the right arm. When the cut was made through the skin she murmured, "Who's that pinching me?" and then lay quite quiet as if dead. Before two ounces had been injected her face became set with a hideous grin, lasting a few seconds; then a few clonic contractions of the face and slight ones of the arms and legs appeared, and she was dead.

(To be concluded.)

A MODIFICATION OF THE OPERATION OF PARTIAL OR COMPLETE EXCISION OF THE TONGUE.

By W. ARBUTHNOT LANE, M.S.,
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THE suggestion which I am going to make in this brief communication is possibly one that is already familiar to some surgeons; but as I have never seen it used or heard of its use, I think it is of sufficient importance to bring it before the profession. Though it is but a trifling modification of the usual methods adopted, I have found it of the very greatest service not only in diminishing the pain and discomfort which are usually experienced by the patient after these severe operations on the tongue, but also in lessening the danger of pneumonic trouble by the small amount and inoffensive character of the discharge, and in hastening very considerably the process of recovery. The mucus which collects in the mouth and pharynx can also be removed without the patient experiencing any considerable pain, since the sponge is not applied to any raw and sensitive surface. In some cases also the patient retains a fair proportion of the sense of taste. In the case of removal of a half of the tongue the suggested modification consists in the very accurate suturing of the cut margin of the mucous membrane on the dorsum of the tongue to the edge of that covering the floor of the mouth in such a manner that no raw surface is left uncovered by mucous membrane. In some cases it is necessary to alter the form of the portion of the tongue left, so as to make it fit the gap left with perfect accuracy. This is, however, easily met by a little ingenuity, and assistance may often be obtained by loosening the mucous membrane from the floor of the mouth and gum. When it is necessary to remove the body of the tongue, after carefully defining the extreme limits of the growth and giving it a wide margin, a large flap of mucous membrane with a substratum of muscular tissue is sliced off from that portion of the tongue which is of a certainty free from growth, and this flap is accurately sutured with fine silk sutures to the free margin of the mucous membrane in the floor of the mouth, and to that covering the root of the tongue, in such a manner as to cover the whole of the raw surface of cut muscle which is left exposed by the removal of the tongue. This procedure would, of course, not be adopted if there was any chronic inflammation of the mucous membrane, which might form the starting-point of malignant disease; but even in these cases the mucous membrane covering the under-surface of the tongue is probably unaffected, and it is surprising how large an area of raw surface a small portion of mucous membrane can be made to cover. The very vascular flap of muscle and mucous membrane unites with remarkable rapidity to the subjacent raw surface, and in this manner within a few hours of the operation the floor of the mouth is covered by a smooth layer of mucous membrane, instead of by a large inflamed or granulating area discharging abundantly a secretion which rapidly decomposes, and which may be, and often is, readily sucked into the larynx and air passages, where it produces trouble with which we are only too familar.

As illustrations of the mode of application of this method I will give only two cases, the following brief descriptions of which are, I think, sufficient to indicate its advantages.

J. S——, aged fifty, was admitted into Job ward under my care on June 26th, 1890, suffering from a deep epitheliomatous ulcer in the right margin of the tongue in the middle third of that organ. The growth had started in a gumma which had not been treated. There were two or three small glands to be felt in the right submaxillary triangle. These were removed and the lingual artery was tied. The right half of the tongue was removed, with the exception of a portion of its posterior part. The remainder of the tongue was so altered in shape by small incisions that when the mucous membrane covering its dorsum and under surfaces was attached by sutures to that covering the stump of the right half of the tongue and that lining the inner half of the right half of the body of the jaw no raw surface was left exposed. Within forty-eight hours of the operation these margins appeared to have united. Certainly at no period did any gaping or yielding take place along the lines of suturing. The well-being of the patient after the operation, as regarded freedom from discomfort or pain, the absence of discharge, the ready manner in which mucus could be painlessly, or almost painlessly, removed by sponges from the mouth and throat, together with the very rapid convalescence, was remarkable as compared to the usual course pursued by such cases.

T. O'B——, aged forty-five, was admitted into Job ward, under my care, on Dec. 9th, 1890, suffering from an ulcerating epitheliomatous growth involving about a third of the diameter of the tongue in its middle third, and extending slightly over its margin to the mucous membrane covering the floor of the mouth. A small gland could be felt in the submaxillary region on the same side. On Dec. 19th the right lingual artery was tied, and three small glands were removed from the submaxillary region. Eight days after, tracheotomy having been performed, the right cheek was split back to the anterior margin of the masseter in order that free access might be obtained to the floor of the mouth on that side. A carefully-planned flap of mucous membrane and muscle was then cut from the left side and tip of the tongue, every care being taken to keep at what appeared to be a perfectly safe distance from the margin of the growth. The rest of the tongue was next removed, and the flap was then accurately sutured into the floor of the mouth by means of silk sutures, which attached it to the divided margin of mucous membrane both in the floor of the mouth and along the alveolar margin, where it was necessary to remove the mucous membrane covering the floor and to that covering the closure of the stump of the tongue posteriorly. The subsequent course of this case was quite as satisfactory as that of the preceding.

I have used this method on several occasions, and in every case I have felt myself very well repaid for the time and trouble spent in perfecting the operation, and if used with discretion I can see no circumstances under which it could be other than of the greatest benefit to the patient. The increased duration of the operation is of very slight moment as compared to the advantages obtained by it, and in order to ensure the accurate approximation of the divided edges I do not hesitate to split the cheek or perform tracheotomy, although either of these measures might be unnecessary if one were satisfied with the ordinary mode of excision. The benefit gained counterbalances the slight extra risk.

Since writing this I have read the account of an operation

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by Dr. Widenham Mansell,[1] for excision of the tongue in leucoplakia or cancer and the utilisation of a portion of the under surface of the organ to fill accurately the gap with the best possible results.

St. Thomas's-street, S.E.

SCORBUTIC HÆMATURIA IN AN INFANT.

BY JOHN THOMSON, M.D., F.R.C.P. EDIN.,
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THE following case seems worthy to be put on record, as being an example of an extremely rare type of infantile scurvy. The clinical facts are as follows.

J. E——, aged seven months, brought from Leith on Feb. 11th, 1892. The infant has been losing flesh and energy for two months, and for the last month his urine has been red. The parents are healthy and tolerably well-to-do. They are very careful of the infant, and his home surroundings seem, on inquiry, to be quite satisfactory from a hygienic point of view. At birth he seemed quite strong and healthy. From birth to the present time he has been given condensed milk. During the first week of life he had nothing else. Then for a month or two months he had barley-water added to it. After that for about ten days he was given a little raw meat juice along with the condensed milk; but he did not like it, and it was therefore stopped. When the raw meat juice was abandoned (four months ago) he was given a pancreatised "infant's food," and on that, along with condensed milk and water, he has been fed exclusively since. He has been in the habit of vomiting about half of the food given to him. His bowels have always been regular and normal in their action. Of late he has been very restless at night; he has always sweated very freely on his head. He has never before had any illness, except that he was "feverish" and had a slight cough when his teeth appeared. About two months ago the infant was noticed to be very languid and to be getting thinner and paler. This has gone on steadily increasing. At the beginning of January the father, who was eating an orange, held it out to the infant. He made a wry face at first when he put his lips to it, but immediately afterwards he clutched hold of the orange with both his hands, and would not give it up until he had sucked a considerable amount of the juice. After doing this he was very sick. The parents were amused at his eagerness to suck the orange, but they thought they had made him ill by letting him have it, and therefore they have never allowed him to have anything of the kind since. About a month ago the urine was noticed to be bright red, and it has remained so ever since. The infant has suffered no pain of any kind, except occasionally "from wind." No special tenderness or bruise of any part has ever been noticed.

The infant is very languid and listless, with a pale, yellowish, earthy complexion; the gums are pale, and not at all swollen, and there are no ecchymoses on them. The lower central incisors are the only teeth through the gum. The fontanelle is large and the ribs beaded, but there are no further signs of rickets. The abdomen is normal; no tumour is to be felt, and the liver and spleen are not enlarged. The heart and lungs are normal; temperature also normal. There is no distinct tenderness anywhere on palpation or passive movement, but the child evidently dislikes being pulled about. There is no ecchymosis, and no swelling of any bone, or joint, or other part. The urine is of a bright-red colour. On standing, a copious reddish deposit takes place, but the clear urine which is left remains bright red; reaction acid. Much albumen found on testing with nitric acid and boiling. On microscopical examination the deposit is found to consist almost entirely of red blood-corpuscles. There are also a few leucocytes and blood-plates, but no tube casts, and nothing else of importance. The case was diagnosed as scorbutic hæmaturia due to improper feeding. The infant was ordered to have nothing but the following diet: (1) As much fresh cow's milk and barley water (equal parts) as he will take, every three or four hours; (2) a dessertspoonful of raw meat juice (prepared as advised by Dr. Cheadle) thrice daily; (3) a dessertspoonful of orange juice twice daily. No medicine.—Feb. 18th: For some reason the diet recommended was not given until the evening of the 13th. On the 14th the urine was quite free from any red colour, for the first time for a month. On the 15th it was somewhat pink, but since then it has been quite free from any tinge of red. It is now found on examination to be perfectly normal in appearance; there is not a trace of albumen, and no deposit is seen with the naked eye or under the microscope. The mother reports that the child is "very much better." He sleeps better, is more satisfied with his food, and has stopped vomiting altogether. He is also "much cheerier." His complexion has improved greatly, and he kicks about his legs while being examined in a healthy way which contrasts strongly with his former lassitude.—21st: Improving in every way. "Just very well." Urine remains quite clear.—29th: Still improving in every respect except that he is somewhat restless at night and sweats a little on the head. Ordered cream, to be added to the milk, and cod-liver oil emulsion.—March 14th: Sleeps well; sweating stopped. Oat flour once daily.—24th: Very well in every respect; has cut two upper incisors.—May 5th: Has continued to gain steadily in strength since last note, and now has a rosy complexion, firm limbs, and the general appearance of a thoroughly healthy child.

Remarks.—The specially interesting and, so far as I know, unique feature of this case is the fact that, with the exception of the general lassitude, the hæmaturia was the only apparent manifestation of scorbutus present. And yet there cannot surely be any doubt whatever about the diagnosis, in spite of the entire absence of sponginess of the gums, periosteal hæmorrhages, and the other well-known signs. Hæmaturia is a recognised symptom of infantile scurvy, although one which is met with only in a small proportion of cases. Dr. Cheadle reports[1] a case of "obstinate and unexplained hæmaturia," very like this one, which, however, was found to be associated with ecchymoses, œdema of the limbs, and sponginess of the gums, and which was clearly scorbutic. The absence of spongy gums in this case does not militate against the diagnosis, for not only is this condition not met with where there are no teeth, but Dr. Barlow has published[2] an undoubted case of scurvy in which two incisors had appeared (as in this case), yet the gums were quite unaffected. The diet in my case was one well fitted to produce scurvy. The child's craving for the juice of an orange is an interesting incident, and tends to confirm the diagnosis. A similar craving in an infant with scurvy, who clutched hold of an orange which was offered to it, and "then proceeded to souse its lips and nose in the juice," has recently been recorded by Dr. Northrup of New York.[3] Finally, we have here, in a marked and satisfactory degree, the "most important diagnostic of all, definite and rapid amelioration by anti-scorbutic regimen" (Barlow).

Edinburgh.

[1] A New Method of Excising the Tongue. (Read at the New Zealand Medical Association, Dunedin, 1890.)

[1] Artificial Feeding and Food Disorders of Infants, p. 193.
[2] Article "Scurvy" in Keating's Cyclopædia of Diseases of Children, vol. ii., p. 269.
[3] Archives of Pediatrics, Jan., 1892, p. 5.

A REPORT ON THE

COMPLETE ABANDONMENT OF THE OPERATION FOR REMOVING CALCULI ENTIRE FROM THE BLADDER,

AND THE METHODS EMPLOYED INSTEAD, AT THE CIVIL HOSPITAL, HYDERABAD, SINDH.

BY SURG.-MAJOR J. FORBES KEITH, M.D. & C.M. ABER.,
CIVIL SURGEON AND SUPERINTENDENT, MEDICAL SCHOOL.

(Concluded from p. 1235.)

The second method: perineal lithotrity.—When the diameter of the stone is too large for the screw of the largest lithotrite the urethra can readily admit, then recourse is had to the second or perineal method or perineal lithotrity. It is only a modification of the first method, which may be distinguished as "urethral" in contradistinction to "perineal." I do not think it will be considered a waste of valuable time to briefly review the various incidents which

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led me to adopt the perineal method. When I took over charge of this appointment there was in the hospital a little girl about nine years of age, who had been lately operated upon for stone by the cutting method. When she was lying quietly on her back the urine collected in small quantities in the bladder, but when she assumed the perpendicular posture all the accumulated urine escaped with a rush. This case made such a profound impression on my mind that I determined to try some other operation. There were a few lithotrity instruments in the hospital; but some of them were old and of a very inferior sort, and none of them were fenestrated. However, by the kindness of the engineer in charge of the municipal workshops here, I got them as well fenestrated as could be expected from men unaccustomed to such work. The first case admitted was a young child about five years of age. She had a wide urethra for such a young child, and no dilatation was necessary. The operation was completed without a drop of blood having been lost, the water in the bulk of the aspirator not having been even tinged by it; there were no signs of irritability of the bladder after the operation, and its functions remained unimpaired. No more convincing proof of the good results attending the operation in this hospital can be given than the fact that the children refuse to keep their beds the morning after the operation. These facts have been brought forward not so much for their own importance, although that is a sufficient reason, as to render the one which is to follow much more conspicuous—viz., the fact that during the operation no auxiliary fluid could be retained in the bladder. This last-mentioned fact was my bugbear; and if I had not been driven to try lithotrity on females as the only operation which seemed fitted to preserve in their integrity the functions of the bladder, I would have been frightened to try the operation about to be described on males. It may be said, however, that we can do anything we like with children and they get over it, but the next case operated upon was an old woman at the other extreme of life. She had a very large stone, suffered from great irritability of the bladder, frequent and painful micturition, and her urine contained pus, and was very fetid. Now, although no auxiliary fluid could be kept in the bladder during the operation very little blood appeared at the meatus urinarius externus during the crushing of the stone, the bulb of the aspirator was only slightly tinged with blood during aspiration, and all symptoms of irritability of the bladder ceased with the evacuation of the débris. The functions of the bladder remained intact. The operation was in every way successful. But to show the success of the operation in all phases of life, as well as in healthy and diseased conditions of the bladder, I may be permitted to introduce also the case of a young girl about the age of fifteen, whose bladder was as irritable as in the preceding case. The fetor of the urine was overpowering during the operation, although disinfectants were freely employed. So penetrating was the odour that I felt it long after the operation was finished. The stone was also a very large one. Now, although no auxiliary fluid could be retained in the bladder, the show of blood during the act of crushing the stone was very insignificant; during aspiration the fluid in the bulb of the aspirator was only slightly tinged with blood, for the débris could be seen falling down through it. All symptoms of irritability may be said to have ceased with the final washing out of all the débris from the bladder. Its functions remained intact after the operation.

I could go on multiplying these experiences. Quite recently I operated on a child about six years of age, using a No. 5 lithotrite with a No. 6 catheter. The débris was evacuated without so much as the appearance of blood in the bulb of the aspirator; and the functions of the bladder were left completely unimpaired, and the child was playing next morning in the verandah as if nothing had happened to her. But now enough, I think, has been put on record to justify the establishment of the following proposition: That lithotrity in the female can be successfully performed in the absence of auxiliary fluid in, and even in the presence of a high degree of irritability of, the bladder without disturbing its functions in any way. The truth of this proposition being established, it next occurred to me that an operation similar to this could be performed on males whose urethræ were too small to readily admit the lithotrite, whose screw coincided with the diameter of the calculus. The narrowest part of the male urethra is the membranous portion; it is only necessary, therefore, to slit open this part of the canal, and the remainder, the prostatic portion, offered no obstacle to the passage of larger instruments. The only step necessary, therefore, to make the operation in the male almost similar to that in the female, was to make a direct opening through the perineum into the membranous portion of the urethra, large enough to admit a lithotrite whose screw was long enough to embrace the diameter of the stone to be crushed. I had contemplated the possibility of the perineal method long before the experiences recorded above were realised, although the idea of the impossibility of retaining a sufficient amount of auxiliary fluid in the bladder rose up and condemned the operation in my mind. Still the determination to risk any, rather than the cutting, method in the female, the unexpected success and brilliancy of results which attended my efforts at lithotrity in them—its beauty, simplicity, and perfection—urged me on to try a similar operation in males in whom urethral lithotrity was inadmissible on account of the size of the stone and narrowness of the urethra.

The operation suggested above is performed by me as follows: I introduce a grooved staff into the bladder in the ordinary way in operations for stone, then take a sharp-pointed narrow-bladed knife, and, holding the staff up against the angle of the pubes with the left hand firmly resting on the patient, insert its point at the angle formed by the root of the penis with the perineum, and push it upwards and slightly backwards into the groove of the staff, making slight forward and backward movements to make sure the knife has entered it, and keep it there. I then take a small director and push it alongside the knife into the groove of the staff, making with it also some decided backward and forward movements to make sure it is in the groove of the staff; then removing the knife, I push the director home into the bladder and withdraw the staff. Thus far there is no difficulty. That the director has entered the bladder is known in two ways. One can as a rule feel the stone, and urine escapes from the wound. An endeavour should now be made to find if that lithotrite will enter the wound whose screw coincides with the diameter of the stone, the size of which can be most accurately determined by previously measuring it by means of a lithotrite which the urethra can readily admit. If the wound in the skin and the membranous portion of the urethra is not large enough to readily admit this lithotrite, a probe-pointed knife must be introduced into the groove of the director and the wound slightly enlarged. Having fitted the wound for the lithotrite, its point is to be gently introduced along the groove of the director with the handle downwards. When the jaws of the instrument have been completely introduced into the wound, by simultaneous movements the director is withdrawn, and raising the lithotrite upwards to the perpendicular by a sweeping motion to the right, it is gently pushed into the bladder. If we let, by some accident, the director fall out of the wound and its walls collapse so that the bladder cannot be entered again, the best way out of the difficulty is to introduce the staff again, and we may get the director into its groove, and so into the bladder; if not we must make another incision, which is bad practice, although I never yet saw any untoward circumstance occur attributable to this contingency. The knife must not to pushed along the groove of the director in the direction of the bladder; if we do so the prostate will be in danger of being wounded and the great aim of the operation will be lost, its end and design being to preserve both the structure and the function of the prostate gland intact. There is, as a general rule, no blood lost after the introduction of the lithotrite and after it has begun to work, for the wound is in all cases exceedingly small, it is in the mesial line, and only capillary vessels are cut. The débris is removed in the ordinary way by the evacuating catheter and aspirator. In this method the aspirator is necessary, as the catheter remains more or less in the horizontal position during aspiration.

Urethral and perineal lithotrity dispose, therefore, of all stones whose diameters coincide with the screws, not only of the largest lithotrites that can be readily introduced through the urethra into the bladder; but also of all stones, except very hard ones that lithotrites cannot crush, whose diameters coincide with the screws of any lithotrite made, and yet preserve in their integrity the structure and function of the prostate gland.

By the perineal operation I have successfully removed

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the largest stones whose diameters coincide with the length of the screws of the largest lithotrites that can enter the urethra; and, firm in the impression that lithotrites of much larger dimensions could be introduced into the bladder without injuring the prostatic portion of the canal after division of the membranous portion, and that this operation could be extended to yet much larger stones without in any way endangering its chief object, I ordered a perineal lithotrite from Coxeter and Son, Grafton-street, which is two sizes larger than the largest lithotrite the urethra can admit, together with a catheter corresponding in size. I have successfully commenced operations with this one, but I believe, as the calibre of the prostatic portion of the urethra differs in size in different individuals, I shall require a series of perineal lithotrites and evacuating catheters to perfect the parallel between the perineal and urethral operations. This problem will have to be solved by future experience.

The chief peculiarities of this new modification of the lithotrite are its length of screw (which, in order not to make the instrument abnormally long, derives its length by encroaching on the shaft), its massiveness of jaws and shaft, and the strength of the female screw. This last I have found to be the weakest part of urethral lithotrites. When I wrote out the description of the kind of lithotrite I wanted to Messrs. Coxeter and Son, I little thought I should receive an instrument so perfectly adapted in every way to the work it would have to perform. After it came into my possession only a few days passed before I had an opportunity of testing its merits. The patient was an old man about sixty, with a urethra so narrow that it would scarcely admit a No. 10, and when the stone was seized by it the screw was quite outside the box, and when the diameter of the stone was measured it was found to be a little over the length of the screw of even the largest urethral lithotrite. The idea of introducing such a large lithotrite by slitting up the meatus and running the risk of stretching the urethra could not in this case, or, in my opinion, in any other case of a patient so far advanced in age, be lightly entertained. In other hospitals the patient would have had to submit to some one of the usual three operations—the lateral, median, or supra-pubic. The small perineal incision was made, and scarcely any hæmorrhage occurred. The new lithotrite passed through the prostatic canal with the greatest ease, the anticipations about the capabilities of the calibre of this part of the canal to admit larger lithotrites being fully realised. The large instrument was as sensitive and as easily handled as could be wished. The first break was the loudest I have heard, as of course I had never before crushed such a large stone. After crushing the stone into small fragments the operation was finished by my favourite No. 10. It is my belief that the lighter and more sensitive the instrument used the more benefit to the patient. The wound was not too large for the No. 20 evacuating catheter, for no fluid escaped during aspiration from between its walls and the catheter, which invariably takes place if the wound is too large. The operation lasted about two hours, the delay being due to the phosphatic and adhesive quality of the débris of the stone and the consequent difficulty of separating it from the vesical walls. The stone weighed about two ounces. The patient passed urine freely by the penis after the operation, and continued to do so afterwards, the wound in the perineum being scarcely even wet during micturition. But the best proof of the success of the operation is the fact that the patient left the hospital cured on the third day after the operation, with the functions of the bladder and prostate intact, and the structure and function of the latter remaining unimpaired. It is reasonable to suppose that the sexual powers were not interfered with. I have now done seventy-six of these operations, with only two deaths.

The advantages of the operation may be briefly enumerated as follows:—1. Non-interference with the structures and functions of the bladder and prostate. This can be proved to demonstration. After the operation is finished and the débris evacuated with the large perineal evacuating catheter, introduce the nozzle of a syringe (= a No. 16 catheter) through the wound and empty its contents into the bladder; then, on withdrawal of the syringe, no fluid escapes; but if now the smallest evacuating catheter be introduced, the bladder will immediately empty itself through the catheter. 2. Smallness of the wound and no important structures cut. 3. No hæmorrhage to speak of. 4. The scientific accuracy with which the operation can be performed. 5. Urine as a general rule passes almost, if not entirely, by the urethra instead of through the wound; and it is always a voluntary act. 6. The bedclothes are kept dry. 7. Speedy recovery. 8. No danger of fistulous openings. 9. Absence of shock, unless the patient be old and weak, and with a large stone. 10. Non-interference with the sexual powers, as inferred. 11. Mortality comparatively favourable; two deaths in seventy-six operations, or 2·6 per cent.

Third method: hammer and chisel.—When the stone is too large for the largest-sized lithotrite, then recourse is had to the hammer-and-chisel method. This was the system adopted before I received my perineal lithotrite; now this method is employed only for those stones which are too large for it. The object of the operation is to remove the débris of the largest stones through an opening capable of admitting the largest lithotomy forceps with concave jaws, the amount of débris removed at each time being limited to that contained within the concavity of the closed jaws. The operation may be described as follows: An incision is made in the median line through the perineum into the bladder large enough to admit the largest-sized lithotomy forceps, with concave jaws. Having introduced the forceps and firmly seized the stone and handed the forceps over to the care of an assistant, I take a small-pointed chisel, and, introducing it parallel to and on the mesial line of the forceps, push it onwards until it is felt to be well planted against the stone, and, holding it so that it cannot pass beyond control, hit it firmly with the hammer. If it is a soft stone, a few firm little taps will be sufficient to crush it; if it is a hard one, more force will have to be used. In soft stones, when they are broken up—which will be known by the handles of the forceps coming together—the forceps should be withdrawn with the mouthful of débris contained between the closed jaws. But projecting splinters of hard stones must be carefully guarded against. If, by the finger in the rectum, they are found projecting beyond the lower side of the forceps, it must be partially opened and the projecting portion or splinter pushed within the concavity of the jaws of the forceps, or made to project on their upper side; then, firmly closing the forceps, I take a sharp, crescent-edged chisel, and introducing it as above, shave off the projecting splinter or splinters. By this method I have successfully removed from one patient seventeen ounces of débris. It is devoted only to very exceptional cases (4 per 1000), as is shown by comparing the number of stones in the museum of this hospital with the screw of my new lithotrite.

These methods which I have described above, for the removal of vesical calculi, have in my hands proved satisfactory, as being the operations attended by the least risks and with a very fair result as to mortality. I have performed in the present year 270 operations for stone. Since receiving my set of lithotrity instruments I have done 157 lithotrities with three deaths, seventy-six perineal lithotrities with two deaths, and twelve operations by the hammer-and-chisel method with four deaths. The proof of the success of the operations is seen in the fact that a much larger number of patients flock to the hospital now than formerly. In former years the average number of cases was about 180 per annum. Last year, up to the beginning of October, there have been 270 cases; and as the people come to take advantage of the new methods at an early date of their complaint, it is reasonable to suppose that the few exceptional cases (= 4 per 1000) of stones too large for the grasp of even my perineal lithotrite will become absorbed by them, and therefore the hammer-and-chisel method will also, along with the cutting methods, sooner or later become obsolete. As these methods will, with regard to the various terms used for the removal of stones by crushing, make "confusion worse confounded," I have taken the liberty of coining the following word for distinguishing the methods herein advocated — namely, "lithotritlapaxy," hence "urethral lithotritlapaxy" and "perineal lithotritlapaxy."

Hyderabad.

THE FORRES HOSPITAL, LEANCHOIL.—Sir Donald A. Smith, R.C., M.P., Montreal, a native of Forres, has sent a further endowment of £3000 to this institution. The first endowment was £5000, the second being promised on the completion of the buildings, which are now opened for patients. In addition to these endowments, Sir Donald Smith also paid £260, the cost of the site. The buildings, which are handsome and commodious, cover a considerable extent of ground, and are situated about a mile from Forres.

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SEA-SICKNESS.

BY HERBERT DANVERS, L.R.C.P., L.R.C.S. EDIN., &c.

AFTER several years' experience as a ship surgeon I should be glad of an opportunity to chronicle my experiences of the above evil, which comes to most of us on leaving our native element. First, as to the cause: I consider it to be brought about by a mechanical irritation of the walls of the stomach due to contact of parts not usually in apposition with one another. The effect of this is to produce (*a*) reflexy stimulation of the vomiting centre in the medulla and directly a subacute gastritis, (*b*) diminished blood-supply to the head and neck (as seen in the extraordinary pallor of the face), and a disturbance of cerebral circulation, resulting in a general nerve starvation, evidenced by headache of neuralgic intensity. I would therefore for clinical purposes group all cases into three divisions, according as (1) head symptoms largely predominate, (2) gastric symptoms largely predominate, or (3), the most common, those in which one finds head and gastric symptoms equally combined in minor degrees, and which I propose to speak of as mixed cases. Cases of the first group I have found always among delicate nervous women, men in broken-down health, and young people of both sexes between the ages of twelve and sixteen. There is little if any vomiting, but they complain of the feeling of nausea, total anorexia, ringing in the ears, and intense headache either frontal, vertical, or as a constriction round the temples. Every object on board seems dancing about before their eyes; and in bad cases this continues for some days even after landing—they are utterly incapacitated, quite unable to leave the prone position, and occasionally even beg to be thrown overboard, as life has lost all charm.

Cases of the second group are seen chiefly among young women and men of the burly overfed or "liverish" types. They complain of constant retching, acrid eructations, and vomiting of intensely bitter green or greenish-yellow fluid; but their chief complaint is a total inability to keep down any food. They can sit on deck in their chairs and try to take some nourishment, which the stomach only retains a short while. Headache is present as a dull pain in the occipital region. To the third group belong the large majority of cases, in which neither headache nor vomiting is specially prominent, and who only experience a certain temporary amount of discomfort at the altered conditions for equilibrium; they can come down to meals but complain of having to leave hurriedly in the middle.

Next as regards treatment: In the first group of cases one is generally called in the day after sailing—the time when the headache &c. is most acute,—and invariably finds the bowels have not acted for at least twenty-four hours and the urine is very scanty and high coloured. Here I commence with a dose of calomel or an enema, and then give some form of nerve sedative, as bromide of ammonia with aromatic spirit of ammonia, antipyrin with chlorodyne, butyl chloral with compound tincture of chloroform, bromidia, or the effervescing hydrobromate of caffeine, which is my favourite remedy. Here I may mention an experience of nitro-glycerine for these cases. I was summoned on deck one afternoon to a passenger sitting in a chair with a very anxious, startled expression, and complaining of giddiness and cold hands and feet although it was an extremely hot day. His history was as follows: He was an hotel proprietor, and a phthisical patient who came out from England and stayed at his hotel had presented him with a sure cure for sea-sickness. The invalid had been given the prescription at home by the physician who ordered him abroad, but having had no occasion to use it on the voyage out, he presented the box intact to his landlord, who owned to being a very bad sailor. On this trip the landlord had recourse to the new remedy whenever he felt any headache, and altogether had taken "about a dozen of the little chocolate pills" since sailing that morning. The box was labelled "Tab. nitro-glycerine, $\frac{1}{100}$ gr each. One to be taken at intervals when necessary." He said he had no headache; the pulse was decidedly intermittent. However, the recumbent position, hot stimulants, and handing the "cure" over to me, effectually tided him over by night. I have not felt justified in making any experiments with this "cure," and should feel obliged if any therapeutist would explain the *rationale* of the drug. Diet ought to be an important part of the treatment in these cases; but, finding it nearly always impossible to get patients to take anything, I fall back on alcohol—administered in the form of champagne, sparkling moselle, or gin and potash water, with a dry biscuit. My contention is that the patient's view of life in general is already extremely morbid, and under an entirely depressant line of treatment this would be aggravated. Finally, I would insist on the necessity of getting patients either up on deck or in the ladies' boudoir at the earliest opportunity. Nothing is more fatal than to let them stew down in their cabins with only their melancholy thoughts for company. In cases of the second group I always begin treatment with a couple of glassfuls of warm water, which are promptly rejected, and then give a mixture composed of the following: carbonate of bismuth, bromide of potassium, dilute hydrocyanic acid, and spirit of chloroform; or bicarbonate of soda, carbonate of bismuth with chlorodyne; either prescription effectually allays the gastric irritability. In the cases, however, where nature suggests the remedy by a craving for lemons or lime juice, I give small doses of this mixture: dilute muriatic acid with the infusion of cusparia and spirit of chloroform shortly before an attempt is made to take any food. I have also found cocaine tabloids useful here.

Alcohol in any shape is unsuitable for these cases, causing further congestion of the already irritable mucous membrane of the stomach, which is evidently wrong. I give as little fluid as possible, and ice to relieve the thirst. Diet should be of the blandest substances—cornflour, sago, or tapioca boiled in milk, *weak* mutton broth or beef-tea, not taken too warm. Broths or beef-tea as usually made by a cook are bitter, unpalatable fluids, so I always order them made weak, and then a body given by boiling down tapioca in them. These cases should not be interfered with too soon, as the vomiting is undoubtedly nature's curative effort on a system overloaded with bile, produced by the series of farewell dinners and luncheons preparatory to sailing. A dose of white mixture (carbonate of magnesia, sulphate of magnesia, and essence of peppermint) in hot water the first thing one morning is a most useful finale. For the mixed cases I find some soda and compound tincture of cardamoms or nitro-muriatic acid and gentian during the day with a pill of calomel, colocynth, and hyoscyamus at bedtime, all that is necessary to make them come up smiling to breakfast next morning. They have found their sea legs by then. As regards diet generally, at first one always recommends plain grilled or cold meats, with toast or a dry biscuit, and some fruit, and for drink, weak tea with a slice of lemon (no milk), or whisky, or brandy-and-soda. Coffee and cocoa as a rule do not suit. I must mention, however, that I have seen such a variety of foods and fluids taken as "preventives," with apparent success, that the conclusion is forced on me that each one's palate is the best judge of what suits. "What is one man's food is another man's poison" is a wise saying which contains the experience of many generations, and, as Dr. Austin Flint very sensibly puts it, "Diet should be regulated by the appetite, the palate, and by common sense."

The foregoing remarks apply solely to large ocean steamers on which the passengers remain a week or more; but alluding now particularly to short trips on small vessels, I feel sure we do not possess any drug or combination of drugs which will act as a panacea in all cases of *mal de mer*; and think the practice of giving some powerful drug, hypnotic or otherwise, to anyone who dreads crossing the Channel a most reprehensible one. A *placebo* suits all the cases which would not be ill; there is a great deal in faith, and no drug will alleviate appreciably the sufferings of bad sailors in the course of an hour or two. It is entirely a question of how soon a system can adapt itself to the altered conditions for equilibrium. I have often seen an altered motion of the ship, pitching for rolling or *vice versâ*, upset passengers again who thought they had quite found their sea legs. Old tars off a sailing vessel have frequently been known to be sick on a steamer; and many a passenger off a big Transatlantic liner, who fancies himself a bit of a sailor, has had to part with his last meal when crossing over to France or Ireland in a little Channel steamer. The motion of a sailing ship and steamer is entirely different, and the difference in motion between a big ocean liner and a Channel steamer is as marked as the difference between a thoroughbred's stride and a Margate donkey's canter. In an excellent article by Dr. Burney Yeo,

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on the "Cure of Pulmonary Tuberculosis," he holds as a first essential that the conditions of cure shall be present in the individual. So here I maintain that those who are not sea-sick have the conditions of cure in themselves, while those who suffer can only get over their trouble by steadily declining to leave *terra firma*.

CHLORIDE OF GOLD AS A REMEDY FOR COBRA POISON.

BY A. A. KANTHACK,
JOHN LUCAS WALTER STUDENT IN PATHOLOGY, CAMBRIDGE UNIVERSITY.

IN a recent number of the *Annales de l'Institut Pasteur*,[1] Calmette states that he succeeded in neutralising and counteracting the effects of cobra poison on animals by means of chloride of gold. My attention was roused by this statement, because about nine months ago I had tried the same substance in India, but unfortunately with no result. It seemed reasonable to try it, as it had proved successful in the treatment of diphtheria artificially induced in animals. At that time I had tried the chloride locally only. I gather from A. J. Wall's book[2] that he also tried the same substance, but was equally unsuccessful. That chloride of gold neutralises and precipitates the albumose of cobra poison in a test tube is a well-known fact. Therefore, when a mixture of cobra poison and chloride of gold is injected into an animal no harm will result; but, of course, this is not a cure, as one might as well inject as much water into the animal. Calmette's experiments may be arranged under the following headings:— (*a*) injection of a mixture of cobra poison and gold chloride; (*b*) injection of a lethal dose of poison and gold chloride all round the seat of inoculation; (*c*) injection of a lethal dose of poison and gold chloride into a part some distance from the seat of inoculation; (*d*) injection of a lethal dose of poison and intravenous injection of gold chloride. For the latter he used 0·2 per cent. solutions of gold chloride, in all the other cases 1 per cent. solutions. The first series of experiments we need not discuss, as practically no poison had been injected. The second series may be subdivided into two classes. In some cases Calmette injected the chloride all round the seat of inoculation *immediately* after the administration of the poison, in others he waited five minutes and more. Of the former most survived, but not all—viz, nine out of ten,—of the latter many died: four out of five. It might be claimed that injecting the chloride immediately after the inoculation is hardly a fair test. However this may be, it is a significant fact that even under such favourable conditions at least one death occurred, and that after waiting a short time the percentage of deaths rose enormously. And if it be remembered that Calmette worked with comparatively small doses, it will be seen that even if the results were always equally good, yet for practical purposes the method will be of little use, if of any.

In India I performed a series of experiments similar to these, the results of which I propose to summarise here. (*a*) Three rabbits were inoculated with 1 cubic centimetre of cobra poison solution (sufficient to kill a rabbit in from one or two hours), and without removing the nozzle of the syringe 6 cubic centimetres of a 1 per cent. solution of gold chloride were vigorously injected. Two animals survived, but the third died after four hours—i.e., after a slight delay. (*b*) Three rabbits were inoculated as above, and gold chloride of the same strength as in the previous set of experiments injected all round the seat of inoculation after an interval of three, four, and five minutes respectively. All the animals died; one after three hours, the other two after an hour and a half. (*c*) Three rabbits were taken, and the skin over the abdomen shaven. They were then bitten by three different cobras, and at once 15 cubic centimetres of gold chloride (1 per cent.) injected around the seat of inoculation. All three died in from twenty to ninety minutes. It must be remembered that an inoculation by a strike from a cobra differs greatly from a cautious hypodermic injection; and in several cases I found that it was possible to cause a certain delay of the exitus lethalis while working with smaller doses and a syringe, after injecting some trichloride of iodine over the seat of inoculation; but when an animal was actually bitten no such delay occurred. Before, then, any procedure is pronounced as a cure, it should be tested under natural conditions.

On reading Calmette's paper I was naturally astonished at the discrepancies between his and my results. I therefore repeated some of his experiments lately at the Cambridge University Pathological Laboratory, using guinea-pigs and rabbits. (*a*) A guinea-pig inoculated with 1 cubic centimetre of a cobra poison solution (sufficient to kill it in an hour), and at once treated by injecting 4 cubic centimetres of gold chloride all round the seat of inoculation, survived. (*b*) Four guinea-pigs were inoculated with 0·75 cubic centimetres of the same poison solution, and at once 2 cubic centimetres of 1 per cent. gold chloride injected into each pectoral muscle and 2 cubic centimetres into each leg, so that the animal got 8 cubic centimetres of the chloride. All died, practically as quickly as the control animals. (*c*) Two rabbits were treated in like manner, and with like result.

From these experiments, then, it follows that what we may call the "remote" treatment with gold chloride is useless. I cannot offer any theory why Calmette should have succeeded in a certain percentage of cases. There may have been some difference in the poison used by him.

The gold chloride used in my experiments was perfectly fresh, and small quantities of a 1 per cent. solution completely neutralised the poison *in vitro*. The solution of poison used in my recent experiments was of such strength that 1 cubic centimetre killed a guinea-pig in from one to two hours, and 2 cubic centimetres killed a rabbit in the same time.

The most important experiments of the French writer are those where he prevented and inhibited the action of the poison by means of *intravenous* injections of gold chloride (0·2 per cent.). He succeeded in saving the lives of two out of three animals used. I repeated his experiments carefully on four rabbits. They succumbed as quickly as the control animals. I desisted from repeating his further experiments—i.e., of injecting the chloride some time after the poison—as, from his own results and my previous experience, I was sufficiently convinced of the futility of such treatment.

To sum up, I am not in a position to explain the successes obtained by Calmette, but find that gold chloride is of no use whatever as a cure against an inoculation with cobra poison, unless it is *immediately* administered, and even then it is not a certain agent. When the animal was actually bitten by a cobra it always failed to neutralise the poison. If we consider the conditions of an individual bitten by the snake, the necessary delay that must always occur before any treatment can be applied, and further, that a delay of three minutes is already fatal, we see the necessity of being extremely cautious before we allow false hopes to be raised in our minds. Analysing Calmette's experiments, I find that he experimented on twenty-two animals, of which three died. Of those twenty-two, three were treated with a mixture of poison and gold chloride, and naturally survived, and these three cases must be subtracted, as they practically got no poison at all. Thus we have nineteen animals treated, with three fatal results. Again, in estimating the practical value of his method, ten cases must be subtracted in which the chloride was given *immediately* after the inoculation and all round the seat of inoculation. But even of these one died. Thus of nine animals treated two ended fatally. Now, in one of these nine cases Calmette had given a very small dose, and it would be fairer to exclude this case, so that there were eight cases, of which two died. Adding to this list his second series of experiments—i.e, in which he allowed some time to elapse before he applied his curative agent, there were five cases in which the gold chloride was injected all round the seat of inoculation; and of these four died—i.e., thirteen cases treated, with six deaths. Two animals treated by a "remote" injection of gold chloride some time after the inoculation survived, so that the final result is fifteen cases with six deaths. He relates one further case treated by means of remote injections, but on referring to the original it will be seen that this case is open to doubt, as the animal had previously been treated with gradually increasing doses of attenuated poison. Calmette's success, therefore, can hardly be considered a brilliant or convincing one; but it seems surprising

[1] Vol. vi., 3, p. 160; see also Brit. Med. Jour., Weekly Epitome, April 23rd, p. 67.

[2] Indian Snake Poisons.

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that he had any successes at all with the remote and intravenous injections, which here invariably failed signally. I am inclined to think, after a careful repetition of his work, that some experimental errors must have crept in somehow or other, but do not hesitate to pronounce gold chloride to be quite useless as a remedy for, or preventive against, cobra poison.

Cambridge.

A FEW PRACTICAL OBSERVATIONS ON THE TREATMENT OF ULCERS OF THE LEGS.

BY J. M. FINZI, L.R.C.P. LOND., M.R.C.S., &c.

As it has fallen to my lot to have an opportunity of treating many cases of ulcers of the legs, and almost always with success, I think a few notes of my experience may be found of use to the readers of THE LANCET, more especially when it is found necessary to carry out the treatment without the usual routine method of confining the patient to bed. I will pass over the general treatment by remarking that it should be prolonged and regular, depending on the constitutional predisposing cause, and that in most cases of an indolent nature a persistent course of astringent iron tonic is of great use, with total abstinence from alcoholic stimulants. Coming now to the local treatment, the principal objects to be held in view are the promotion of a healthy circulation in the limb, the relief of pain, and the production and maintenance of complete asepsis. To obtain the first result it is necessary in every case that the leg should be satisfactorily bandaged, and in order to get good results this should not be left to the patient or friends, but should be done by the medical attendant himself daily, every alternate day, or every third day, as the case may require. Rest and elevation of the leg when possible are, of course, useful adjuncts to treatment in many cases, and in a few essential; but I wish to lay especial emphasis on the fact that in many persons ulcers of the legs can be cured without in any way interfering with their ordinary avocations, and in some cases they seem to progress more rapidly when treated thus than when kept completely at rest. In dealing with indolent chronic and callous ulcers the usual treatment recommended for promoting the absorption of chronic inflammatory products is pressure, and this is generally recommended to be applied by strapping the ulcer, or by the use of the rubber bandage. I have seen cases treated by both methods in which the results have been highly unsatisfactory. We are all aware of the rapid healing of an ulcer that follows—I believe invariably—after an attack of erysipelas; and, guided by this indication, I would advocate the systematic production of a similar condition, though not of a septic origin, in indolent and callous ulcers. I would suggest that our endeavour should be to produce, in almost all, if not in all, cases of indolent or callous ulcer an inflammatory condition of the ulcer and of the skin immediately surrounding it—in fact, an eczema—by some of the means to be afterwards enumerated. I have been led to the foregoing conclusions by observing how rapidly ulcers become amenable to treatment after eczema produced by causes other than erysipelas—such as putrefaction of the discharges, and by local irritant applications. In my hands this treatment has been attended by a considerable amount of success, rapid healing taking place under sedative applications after the induction of this condition. It is obvious that the replacing of the chronic congestion of the ulcer and parts around by an acute hyperæmia must promote the absorption of the products of chronic inflammation, and with satisfactory results, where the process can be kept under control by the surgeon. The local applications used in dressing ulcers of the legs may be considered under three heads: those in which the medicament to be applied is dissolved in water, those in which it is applied in the dry state, and those in which it is mixed with or dissolved in or emulsified with some oleaginous material. As a rule, those cases in which water is used as the menstruum require very frequent dressing, and cannot be carried out satisfactorily without rest in bed. There are two subdivisions of this method—one in which the water is allowed to evaporate, in which case it becomes practically a dry dressing until the renewal of the application. By this method I have seen some very brilliant results, in one case in particular, in which a large ulcer completely encircled the leg; a rapid cure was effected by applying dressings soaked in a weak solution of liquor carbonis detergens and keeping them frequently moistened with the same. I have also seen a case of perforating ulcer of the foot cured by the frequent injection of a weak carbolic lotion, while applying weak iodoform ointment to the apertures, in conjunction with appropriate constitutional treatment. Water or watery applications applied like this sometimes cause eczema.

The second subdivision of this method is where the applications are covered by an impermeable covering, as in the ordinary water dressing or poulticing. This method is very soothing in some cases; in others it produces eczema, especially when applied to a sore which has been previously dusted with iodoform; and in others œdematous granulations when continued too long. Under this subdivision comes the application of rubber bandages—a treatment apparently very much in vogue, and by many used as a routine procedure in treating ulcers of the legs. I would suggest that treatment by this method is unscientific, as keeping the whole limb in a continually sodden and relaxed condition, when we only want to produce that effect locally in and around the ulcer. As a matter of fact, the elastic compression produced by it can be equally well obtained by using over the water dressing elastic bandages which will allow the evaporation of the perspiration from the skin. My experience of these bandages has led me to condemn them as a rule.

Under the second and third heads, the dry and oleaginous applications, I would say that these are most useful when it is necessary for the patient to be about, and I generally make the applications to the ulcer direct, and cover with lint, or apply them to the lint before laying it on the ulcer; in either case several layers of lint are used, or else over the single layer of lint a mass of some absorbent and antiseptic material is placed, in all cases of sufficient thickness to prevent the discharge soaking through to the bandage during the interval between each dressing. Foremost among dry applications is the use of iodoform, and I find this one of the most useful applications for ulcers of the leg, especially when they are sloughing or spreading, and frequently when they are indolent. In a very large number of cases iodoform causes severe eczema of the surrounding skin, accompanied by much irritation and burning pain, with profuse watery discharge. This may come on after a single dressing, but very often does not appear till after several applications, and is the condition we require to produce in order to start the healing in callous and indolent cases. It is sometimes so violent, apparently in very intemperate subjects, as to promote the spread of the ulceration. In some cases iodoform causes an antiseptic scab at the edges of the wound where the discharge is not free enough to wash it away, and healing progresses rapidly underneath this scab. A thin coating of iodoform, and that in the crystalline form, is the best application. Iodoform immediately relieves the pain in cases of gangrenous ulcer. All ulcers in which there are exuberant granulation or a fungous condition require dry and absorbent dressings with or without the usual astringent applications, also firm bandaging.

Lastly, I come to consider the oleaginous applications, and these may be roughly divided into the stimulating and sedative—the former for cases in an indolent condition, the latter for those in a healing, inflamed, or eczematous condition. Of the former, the blister is one of the most powerful and rapid means of procuring the inflammatory condition previously mentioned, and is not so painful as one would expect in these cases. Then iodoform mixed with lanoline, vaseline, or lard is very irritating if used sufficiently strong. Carbolic oil or an emulsion of solution of coal tar with oil; the official ointments of tar, resin, eucalyptus, salicylic and carbolic acids, and red and white precipitate, are all very useful. The last two are also very beneficial in eczema. Among the sedative applications are emulsions of lime water or saturated solution of borax with olive oil or linseed oil, and of liquor plumbi subacetatis with oils, the ointments of zinc, oleate of zinc, calamine, boric acid, acetate and carbonate of lead, and especially bismuth. An ointment composed of equal parts of oleate of bismuth and paraffin molle I find one of the most soothing applications that I know of, and one that

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will rapidly finish the healing of an ulcer which has become stationary under other methods of dressing. In the use of ointments it is necessary to spread them thinly on the lint, otherwise they cake and obstruct the flow of the discharge.

Sutherland-avenue, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

SOME BURSAL AFFECTIONS.

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HÆMORRHAGES and sudden serous effusion into the cavities of bursæ have not received much notice or the attention they deserve. Hæmorrhage into a bursa is traumatic in origin, and may follow (*a*) contusion or (*b*) severe and sudden movement of a joint over which the bursa is situated. The sacs most liable to this injury are, in order of frequency, (1) the two pre-patellar, subcutaneous and subfascial; (2) that over the olecranon process; (3) that over the tuber ischii; and (4) the subacromial bursa. The position of these over bony surfaces or "points" favour the production of this condition.

In support of these statements I append the following cases as typical of the two chief causes:—1. An old man, aged seventy, a month before coming under notice fell and struck his buttock A swelling over the right tuber ischii quickly appeared, which has remained the same size, the skin over it now being red and œdematous. On incision the tumour was seen to consist of a glistening cavity lined with blood clot, which was turned out and drainage established. It would not close, so the bursa was excised, and the patient made a good recovery. (2) A coalheaver, aged forty, when lifting a weight, felt a "click" in the right elbow, and found a soft swelling at the point of the elbow. This "hardened" on the way up to the London Hospital, and on admission I found a tense, painless swelling in the situation of the olecranon bursa, which on palpation was felt to contain clot. The history here was so circumstantial that I regarded it as a case of hæmorrhage into a bursa following exertion. In a similar manner a fall on, or the impact of a falling body on, the point of the shoulder causes the subacromial bursa to fill; subsequent crackling on active or passive movement has led to the diagnosis of "fractured anatomical neck" &c.

Signs and symptoms.—The subject of hæmorrhage is important because the signs accompanying the presence of blood in bursal sacs are those which would lead us to confidently expect pus, and I have seen many cases of enlarged bursæ treated by incision when the sole contents were blood in various states of change, or merely serum more or less blood stained. Following a blow, fall, or severe strain, a swelling appears in the anatomical position of a bursa; this enlargement comes on rapidly—usually in a few minutes,—and patients tell you that the lump has been "the same size ever since the fall &c.," a most important point in the history. On palpation fluctuation is readily obtained with a certain amount of pain and tenderness, especially when caused by contusion; in a few days redness and œdema of the skin over and round the bursa appear, and we have the classical cardinal signs of inflammation ("tumor, dolor, rubor, calor") present, but as we shall afterwards see not pus but "cruor." The thermometer is here our best, though not an infallible, aid. In hæmorrhage pure and simple, although the signs of suppuration appear so unequivocal, we find the temperature rarely above normal. Relying on signs alone, I have seen many bursæ opened as abscesses, to find nothing but a blood clot or serum, with, in some cases, such as the pre-patellar bursæ, thin pus in the subcutaneous, but blood-clot only in the thick-walled subfascial, cavity, analogous to the so-called "reflex abscesses" outside a joint the seat of commencing disease. It is in these cases that ecchymosis is not present; when it is, no doubt exists as to what composes the tumour contents. Crackling or rubbing is a sign especially marked on palpating a subacromial bursa filled with blood-clot. The so-called "melon-seed bodies," so often to be demonstrated by palpation at the bottom of such bursæ as the olecranon and pre-patellar, are, I take it, evidences of former hæmorrhage, being composed of condensed decolourised (more or less) fibrin, either free in the cavity or moored by a longer or shorter pedicle to the interior; occasionally they are fixed and sessile. My object in calling attention to these points is to prevent bursæ being needlessly opened, for tedious suppuration almost invariably follows and the bursa has to be excised.

Treatment.—The limb should be immobilised on a splint, an ice-bag or evaporating lotion applied, and rest of the joint ensured for several weeks if the patient be anæmic or tubercular in order to prevent suppuration The swelling slowly subsides, leaving "melon-seed bodies" behind, and these seem to be the starting point of hæmorrhage following exertion. That hæmorrhage into bursæ is more common than it is supposed is proved by finding broken-down clot in the contents of abscesses caused by the bursting of a suppurating bursa into the subcutaneous tissues—e.g., round the knee-joint.

Another interesting condition, of which I have seen several examples in the subcutaneous pre-patellar sac, is the deposit of tubercle in bursal cavities leading to infiltration of the overlying skin, suppuration, and finally an ulcer of the size and shape of the bursa. These have been accompanied by other tubercular affections, and are most obstinate to treatment.

Plymouth.

TREATMENT OF A CASE OF CHRONIC PLEURISY BY CONTINUOUS DRAINAGE.

BY B. BASKETT, M.R.C.S., L.R.C.P. LOND.

THE following case may be of interest to readers of THE LANCET, as I am unable to find any record of the disease having been so treated. The patient was under the charge of Dr. A. J. Harrison in the Bristol General Hospital, and it is by his permission that I am allowed to submit it for publication.

W. B——, a middle-aged man, a sailor by occupation, with a history of previous good health, was admitted to hospital on July 13th, 1891, suffering from very considerable pleuritic effusion on the left side. All the physical signs were well marked. There was absolute dulness on percussion all over the left side, breath sounds could not be heard, and the heart was displaced well over on to the right side. The symptoms had first been noticed about six weeks before admission, but he had not been tapped. As was to be expected, he was then in a very low state of health. Aspiration was at once performed, and forty-four ounces of serous fluid were removed; but, as he showed symptoms of faintness at this point, the operation was discontinued. There was no difference in the percussion resonance after tapping, and the only change observable in the physical signs was that ægophony, which could not be heard before, was perceptible at the level of the seventh dorsal spine, and that vocal resonance was present in the upper part of the cavity. The first tapping made no permanent difference, and the fluid began obviously to reaccumulate within a few days. Aspiration was accordingly done again, and then again, in all seven times—the amount removed at each sitting varying from two to six pints. Every effort was made to restore his strength by tonic medicines and nutritious diet; and later on in the case he was put on diuretics and counter-irritants applied to the chest wall. But he went steadily down hill, and after nine weeks of this treatment matters began to wear a very grave aspect. At this stage it was finally determined to drain the pleural cavity continuously. From the cachectic state at which he had arrived there was much reason to expect that the fluid, hitherto serous under the irritation of the constant presence of a drainage-tube and the frequent exposure to the air at the time of dressing, might become purulent, however rigidly the antiseptics were maintained; but if it did so, the inflammation thereby indicated might serve a useful purpose and close the cavity; while if it did not, the drainage, as in other serous cavities, might restore the balance between secretion and absorption, and so end the case. Careful examination of the fluid had been made and was hereafter made, but no tubercle was

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ever found, nor was there any indication of its presence in the lung substance on either side.

Accordingly an incision was made in the fifth space in the anterior half of the axilla under chloroform, and a drainage-tube inserted as for empyema. To avoid the danger of syncope from the otherwise sudden relief of pressure, a small Southey's trocar was inserted, and was allowed to remain in the left side for twenty-four hours previously to the administration of the anæsthetic; in this way nearly seven pints had been removed. Secretion continued at an enormous rate, but we were rewarded from the first by an obvious tendency to expansion on the part of the lung; the breath sounds began at once to be heard. The case was a long one and uneventful throughout its whole course, save that the fluid gradually became purulent before three weeks had passed. The pus was always thin and watery, though very copious in amount. But in spite of the great drain on the system which so continuous and so abundant a discharge must necessarily have entailed, the man gained in health and strength gradually but distinctly. In about four months after the drainage-tube was inserted the discharge stopped, the wound healed, and he was completely restored to health. The lung has expanded as far as one could have reasonably ventured to hope. There is compensatory hypertrophy in the right lung to make up for the deficiences of the left. The dulness is still present all over the left side, but less marked in degree. The heart has nearly regained its position. He was so well when last seen that he was about to begin work again. At intervals in the case his temperature rose intermittently. It seemed generally to be due to the shortening of the drainage-tube, which every now and then appeared justifiable by reason of the lessening of the discharge. It was always remedied by reinserting a tube of the previous length, or, as once was done, by making a fresh incision further forwards in the axilla. There was no true hectic temperature throughout his illness.

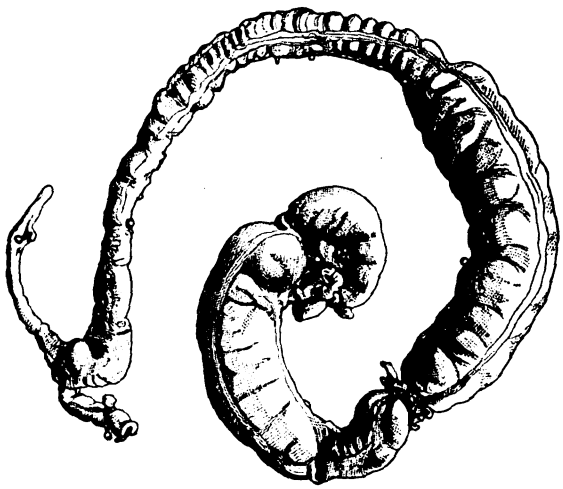
Crossfield-road, N.W.

CONGENITAL CONTRACTION OF THE ASCENDING AND TRANSVERSE COLON.

BY ARTHUR H. DODD, L.R.C.P. LOND., M.R.C.S.

IN this case (J. P——, a male infant) unusual straining at stool was the earliest symptom which attracted the attention of the nurse, but the infant notwithstanding thrived noticeably during the first three weeks. At first there were one or two actions of the bowel each day, but very shortly only every other day. About the end of the third week sickness commenced, occurring from five to ten minutes after taking the breast, and at that time only, which was then thought probably due to too frequent suckling. This symptom, however, increased in severity, the amount rejected at first being only slight; but in a few days from its commencemens the mother thought the whole meal, or nearly so, was returned. I should mention that the character of this sickness was peculiar, the vomited matter not simply rolling over the edges of the mouth, but "shooting out" (if I may use the expression) beyond the mother's lap into the room. There was evidently now a good deal of pain, the child lying curled up, with the thighs flexed tightly against the abdomen, the feet crossed, and crying at very short intervals night and day. At the fifth week there was a cessation of all symptoms for about seven days, but then sickness, constipation, and pain returned. Throughout there was never any distension of the abdomen, but double inguinal hernia was produced at a later stage, as a result of the perpetuual crying and straining. At the seventh week Dr. E. G. Whittle saw the case with me, and chloroform was administered, but nothing was revealed by examination. No localised enlargement, tumour, or anything unusual could be detected, and we came to the conclusion that there was some congenital deformity existing in the bowel, and thought that no operation was justifiable. Constipation increased, drugs and enemata gradually becoming useless. The motions at first were normal in appearance, but in the later stage resembled thick yellowish-brown oil paint. It was curious that during the last fourteen days of existence no sickness whatever occurred, and yet there was not any distension of the abdomen and only very slight action of the bowels—in fact, I thought that during that period the little that did follow the enemata was simply from the lower part of the colon. Wasting commenced after the third week, the child gradually sinking from exhaustion at the end of the twelfth week.

The necropsy, at which Dr. E. G. Whittle kindly assisted me, was made twenty hours after death. Rigor mortis had not set in. It revealed congenital contraction of the ascending and tranverse colon, which was throughout but little larger than an ordinary lead pencil. The



head of the cæcum was normal; the vermiform appendix was about two inches and a half in length; the descending colon, sigmoid flexure, and rectum were distended, but normal, with the exception of partial contractions of an annular character of the sigmoid flexure; the small intestine was abnormally narrow; the ileum for a few inches before its junction with the cæcum was very much contracted; the stomach was peculiar in shape, resembling an hour-glass contraction near the cardiac end. All the other organs were normal.

The photograph taken for me by Mr. J. Williamson very well illustrates the condition found. Unfortunately in removing the descending colon from the body a slight injury occurred to it, preventing proper distension of the part removed for the purpose of illustration.

West Brighton.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum propriss collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

GENERAL HOSPITAL, WOLVERHAMPTON.

TWO CASES OF BILATERAL EMPYEMA.

(Under the care of Mr. KEOUGH.)

THE subject of effusions into the pleura in children is always of interest, especially in relation to the question of prognosis. Experience shows that the younger the patient the more is there likelihood of the effusion becoming purulent, and if promptly treated the chances of complete recovery are greater. Very few cases of bilateral purulent effusion have been placed on record. In the first related below pneumonia seems to have been the predisposing cause, and there was perhaps some association with a tubercular taint, for the child was delicate, and there had been trouble with both eyes. The immediate preliminary aspiration to relieve the pressure symptoms, followed later by resection, is a

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plan of treatment which strongly commends itself, especially in cases in which the displacement of the heart is marked, as it minimises the chances of the supervention of dangerous symptoms which are apt to follow a too sudden evacuation of the pleural sac. In children a favourable result has in rare instances been obtained by aspiration alone; but these have been probably simple cases unassociated with visceral inflammation. Evacuation, mopping out the cavity, and drainage brought about a cure without irrigation; the latter has often proved quite inexplicably fatal, and as experience shows that recovery often follows without it, it should be abandoned as a rule. The early recognition of the loculus of pus on the right side no doubt contributed materially to the successful result, and its evacuation and drainage produced no increase in the respiratory difficulty—a fact which has been before noted. The tender age of the second case, coupled with the severity of the malady, militated much against the chances of successful treatment. In view of the fact disclosed by the necropsy that the empyema on both sides was general, it is a question whether it would not have been advisable to have aspirated a few times before resorting to resection and drainage. Though the presence of adhesions is favourable if the condition is bilateral, yet the loculated condition often contributes to an unfavourable result. Small or large collections of pus shut off from the general pleural cavity are often difficult to detect, especially when they are situated between the lobes or on their internal aspect. The cause of sudden death in some cases of pleural effusion with great cardiac displacement appears to be a "kinking" of the great veins produced by axial rotation of the heart, and giving rise to impediment to the venous flow. For the notes we are indebted to Dr. Edward Deanesly, house surgeon.

CASE 1.—L. W——, aged ten years, was admitted to hospital on Dec. 23rd, 1891. She was stated to have been taken ill three weeks previously with inflammation of the lungs, and to have gradually got weaker and thinner. On admission she looked very weak and ill. The face was flushed, the lips blue, respiration 64 per minute, gasping in character, pulse 144, and very weak. She had been a delicate child, and had lost the right eye from inflammation; the left showed an adherent corneal ulcer. There was some œdema of the legs and feet. The chest was flat, and badly developed. The left side was dull throughout, and the heart's apex beat felt in the right fourth interspace near the nipple. There was also dulness over the right base behind, as high as the seventh rib. Half an hour after admission twenty-two ounces of pus were removed from the left pleura by the aspirator. On the following morning chloroform was given, and three-quarters of an inch of the fifth rib resected in the left posterior axillary line. Thirty-eight ounces of pus and lymph were then evacuated, and the pleural cavity mopped out freely with cotton-wool sponges. A tube was inserted and an antiseptic dressing applied. On the sixth day after the operation the temperature, which had fluctuated between 98° and 101°, rose to 103·4°, and the dyspnœa, which had been relieved, increased. The right base behind was then explored, and three ounces and a half of pus removed by the aspirator. This gave some relief. Eleven days after the operation on the left side chloroform was given and the right empyema was opened and drained by free resection of the eighth rib in the scapular line. It was explored with the finger and found to be quite localised, being confined to the lower and posterior portions of the pleural cavity, reaching upwards to the seventh rib and forwards to the posterior axillary line. It contained only a few ounces of thick pus and lymph. The anæsthetic was taken well, and the opening of the right pleura produced no dyspnœa or other bad symptom, although the left pleura was still draining freely through its tube. After the second operation the patient made rapid and uninterrupted progress, and was discharged to a convalescent home on Feb. 1st, having been in the hospital forty days. A week later both wounds were soundly healed. When last seen—on April 28th, 1892, four months after the first operation—the patient was looking well and strong, and had gained considerably in weight. Both sides of the chest expanded fairly, and were everywhere resonant, though somewhat less so than those of a normal child. Air entered freely to the extreme bases of both lungs, the breath sounds being normal in character and free from adventitious sounds. Both scars were quite sound.

CASE 2.—H. W——, aged eighteen months, was admitted on March 21st, 1892, with a history of gradually increasing weakness and wasting of indefinite onset. On admission the child was fairly well nourished, but of a very marked opaque greenish-yellow colour. It had considerable dyspnœa. The left side of the chest gave the ordinary signs of general pleural effusion, the heart's apex being felt in the fifth right space in the nipple line. The right side of the chest gave no abnormal physical signs. The diagnosis of empyema was confirmed by a hypodermic syringe. The day after admission half an inch of the left eighth rib in the scapular line was resected and a large quantity of thin pus evacuated from the pleural cavity. The operation was performed without an anæsthetic. For eight days after the operation the temperature remained below 100°, and the symptoms were relieved. On the ninth day the temperature rose to 103°, and the respiration became quicker. Three days later a hypodermic syringe inserted into the right base behind revealed the presence of a second empyema. Dulness at that time reached only as high as the angle of the scapula, and symptoms were in no way urgent. It was resolved to open and drain the right empyema, but death occurred rather suddenly on the following day, before the operation could be carried out. At the necropsy the empyema, which had been opened on the left side, was found completely drained, but a second small loculus of pus was found in the lower and anterior part of the pleura, not communicating with the general cavity. The right pleural cavity was completely full of thin pus, and the whole lung collapsed and covered with patches of lymph. Heart and pericardium normal.

Remarks by Dr. DEANESLY.—Judging from the scanty reference to the subject in text-books and medical literature, bilateral empyema appears to be of somewhat rare occurrence. Mr. Godlee, in his article on Empyema in Heath's Dictionary of Surgery, refers to the condition as almost necessarily fatal unless one or the other be localised. The same surgeon, in THE LANCET of 1886, gives a second empyema on the opposite side as the cause of death in one of the cases in his list. These are the only references I have been able to find. I have, however, been informed by Mr. Godlee of a case similar to that reported above, in which a second empyema on the opposite side was opened and drained by him, with a successful result. The main condition which renders such a proceeding possible in cases of general empyema is, as might be expected, the presence of a considerable amount of adhesion of lung to chest wall on one side before the pleural cavity is opened on the opposite side. This condition was amply fulfilled in Case 1, where eleven days elapsed between the two operations—a time quite sufficient for the contraction of pleural adhesion. The fact that in this case the second empyema was a loculated one, and therefore shut off from the general pleural cavity, rendered the second operation free from danger, and no doubt contributed more than any other cause to the successful result. In Case 2 both empyemata were general and not localised, and the second one should no doubt have been aspirated as soon as it was discovered, although the collection at that time appeared to be a small one, and symptoms were not urgent. It was thought, however, that sufficient time had elapsed (twelve days) since the opening of the first empyema to render it safe to open and drain the second. Unfortunately the rapid increase of the effusion brought the case to a fatal conclusion before this resolution was put into practice. Whether the proposed treatment would have had a different result is an interesting moot point.

TIVERTON INFIRMARY.

A CASE OF HEAD INJURY.

(Under the care of Mr. MICHELMORE.)

THE clinical history of a case of head injury is given below, which appears to be one of concussion combined with cerebral irritation. The complete unconsciousness, the bleeding from the nose, and the very slow pulse and respiration, suggest the possibility of a fracture of the anterior fossa, with some limited extravasation of blood. Four days after the injury, when the patient had recovered somewhat from its immediate effects, the characteristic attitude and mental indications of cerebral

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irritation became marked. The recovery was rapid considering the severity of the symptoms. The points of unusual interest were the persistence of the vesical trouble for nearly a fortnight and the excessive craving for food during convalescence. The particulars of the case are as follows:—

W. N——, aged seventeen, a groom by occupation, was brought to the Tiverton Infirmary on the evening of March 8th, 1892, having been thrown from a horse he was exercising. On admission, two hours after the accident occurred, the patient was found to be quite unconscious. There was a little frothy saliva at the right angle of the mouth, bleeding from the nose, conjunctival reflexes absent, face flushed, jaws clenched (but the tongue had not been bitten), no scalp wound, pupils normal in size but acting slowly to light, no paralysis. Pulse 50, rather bounding; respiration deep and prolonged; temperature 98°.

March 9th.—Patient still unconscious, and resists any attempt to rouse him; urine had to be drawn off with cathether; normal in reaction and appearance. Pulse 46; respiration 12; temperature 98·4°

10th.—Patient remains in much the same condition. Pulse 44, diminished strength; respiration 10; temperature 98·4°.

11th.—Partially recovered consciousness to-day, but is very drowsy, and takes time before he answers a question; retention of urine still. Pulse 44; temperature 97°.

12th.—Patient is still very drowsy, and lies principally on his right side, with the chin flexed on the sternum, and the knees drawn up towards the abdomen, and is very irritable if any attempt is made to alter his position. Pulse 42; respiration 10; temperature 97°.

13th.—He passed a quiet day, but late in the evening became delirious, the delirium being of a noisy character. The retention of urine from which he had been suffering up to this time gave way to complete incontinence. Bowels cannot be moved without enemata; pupils dilated, but act to light. Pulse 42, weak; respiration 12; temperature 97°.

14th.—The patient is somewhat better this morning, and conscious at intervals, but incontinence of urine is still present. The pupils are dilated. Pulse 44; temperature 97°.

15th.—He had a good night, and is much brighter this morning. Has regained control over his bladder. Pulse 42; temperature 97·4°.

16th.—The patient is not so well this morning. He passed his urine in the bed during the night. The pupils are still dilated. Pulse 50; temperature 97·6°.

17th.—Incontinence of urine still present, but general condition much improved. Is continually asking for food. Pulse 44; temperature 97·6°.

18th.—The patient has a most ravenous appetite, and is continually crying out for food; still has incontinence of urine. Pulse 48; temperature 97·6°.

19th.—Patient has not passed his urine in the bed so frequently to-day, and is very much brighter, and wishes to get up. Pulse 56; temperature 98°.

20th.—Improvement still marked, and there has been no incontinence of urine. Pulse 64, strong and regular; temperature 98°.

Patient convalesced rapidly, and was discharged on April 2nd quite recovered.

Medical Societies.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

MAY 16TH.

Mr. SHIRLEY MURPHY, President, in the chair.

The Working of the Infectious Diseases Notification Act.

THE evening was by previous arrangement devoted to the discussion of the above subject, and the expediency of including measles among diseases to be notified. Three short papers were contributed: the first by Dr. Woodforde, on the working of the Act in rural districts; the second by Dr. Armstrong, on the desirability of notifying measles; and the third by Dr. Campbell Munro, on the benefits derived from such notification in his districts.

Dr. WOODFORDE said that in his combination seven of the eight rural sanitary authorities had adopted the Act, one rural and the urban authorities still refusing to do so. The population of the districts under the Act was 114,000, and that of the others 44,000. In the years 1890–1 the total cases notified were 667, with 113 deaths, including 214 cases of scarlatina, 184 of diphtheria, and 88 of enteric fever, with 658 and 22 deaths respectively. The mortality from the notifiable diseases in the districts under the Act was 0·3 per 1000; in the others 0·6, or just double; but that from measles and whooping-cough was 145 deaths in the former and 41 in the latter, or 50 per cent. more than from all the other diseases put together. He thought there could be no doubt as to the immense aid to preventive measures afforded by notification, which ought to be everywhere made compulsory. The dual system met every objection, but he could not get his authorities to prosecute neglect on the part of parents. He would like to see erysipelas dropped, since the great majority of the 146 cases, none fatal, were nothing of the kind. But he made no objection to doubtful diagnosis, though many trivial sore-throats were reported as diphtheria; and he would have croup made notifiable, the designation "membranous" being dropped, for when the parents demurred to notification, deaths from diphtheria were returned as croup. The gossip of neighbours gave far more publicity than notification.

Mr. FOSBROOKE was satisfied as to the benefits of notification, though measles was often reported as scarlatina, and Dr. Dudfield agreed with Dr. Woodforde on the question of erysipelas.

Dr. ARMSTRONG said that in Newcastle they worked under a local Act, and did not pay the fees for "suspected" cases and others in which on admission to hospital the diagnoses proved to be erroneous; nor when delayed until a death had been returned. Notification on erroneous diagnosis often led to serious consequences, but was much less frequent through the activity of the sanitary authority. Indeed, prompt action as well as early information were essential to the successful working of the Act. The removal and disinfection of bedding &c. was invariably carried out, the objections raised by well-to-do families being met by the employment of first- and second-class vehicles; and, after ten years' experience, all opposition to notification had ceased.

Dr. PARKES was satisfied that during the past year the notification and removal of 100 cases of small-pox had averted an epidemic. So many cases of alleged erysipelas were reported that no action was taken. The cases notified as diphtheria were, he believed, in excess of the truth; but he feared that the reverse was the case with puerperal fever, notwithstanding its importance from a sanitary point of view. Dr. Sykes regretted the paucity of terms in the Act which gave opportunities for concealment. Puerperal fever was septicæmia, yet if called by that name or blood poisoning it was not notified. Varicella was suspiciously prevalent during epidemics of small-pox, and the police regulations enjoined in consequence the same action as regards disinfection &c.

Dr. SERGEANT would not drop erysipelas, if only from its being a frequent cause of puerperal fever, as he had himself seen. The President considered it of the highest importance for the opportunities it gave for sanitary improvements, while the cost of certificates was insignificant. He reminded the meeting that Mr. Ritchie had stated his intention to bring in a Bill to make the Act compulsory throughout the country, and proposed that the resolution in favour of such extension, which was put and carried unanimously, should be forwarded to the president of the Local Government Board.

The discussion on the Notification of Measles was then opened by Dr. ARMSTRONG, who described the mortality from that disease as awful. He hoped that it would soon be adopted in his town, the resolution having on the last occasion of his bringing it forward been lost by only a single vote. Not only was the mortality four times as great as that of scarlatina, but it led to much subsequent disease. The question was as to how it could be prevented; and it seemed to him that all the arguments against its notification were based on the fallacious notion that it differed essentially in some way or another from all other infectious diseases. But its very prevalence should urge us to more strenuous action, and if it were more infectious before it could be recognised it was not less so afterwards. Every objection would, he maintained, be found to break down on close examination. As

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regarded diseases that were already notifiable, the mortality in the ten years 1880–90 had been reduced to one-fourth in the towns under the Acts, while in those where it was not in force it had greatly increased. Notification of measles would enable preventive measures to be taken by the sanitary authorities and school teachers conjointly to check its spread; it would do away with the concealment of scarlatina under the name of measles, and would inculcate on the public a true estimate of its gravity. He was always ready to certify for the Government grant when a school was closed so soon as an outbreak of an infectious disease appeared, but refused to do so when closure was delayed so long that the evil was already done.

Dr. MUNRO'S paper, a short abstract of which he read at the Epidemiological Society last year, was intended to demonstrate the effect of early information and school closure in checking the spread and reducing the mortality of measles. In Jarrow there had been between 1883 and 1891 inclusive five biennial outbreaks, and the notification having been respectively none, voluntary late, voluntary early, compulsory late, and compulsory early, the mortality had steadily declined from 4·0 to 0·7 per 1000 to nearly one sixth. On one occasion twenty-eight out of the first twenty-nine cases occurring simultaneously in one district were those of children in the infant department of a single school. Under such circumstances prompt closure led to the extinction of the epidemic in a fortnight or three weeks.

Mr. WIGHTMAN demanded hospital provision for severe cases. Among the poor, especially the Irish, in his district it was the cause of much blindness.

Mr. FOSBROOKE said that at Kidderminster the simple keeping of the children in-doors by order of the inspectors had reduced the death-rate to one-fourth; but Dr. SERGEANT had found that at Bolton the additional labour paralysed all other sanitary work until it was discontinued after two years' trial.

Dr. SYKES remarked that isolation covered exclusion from school as well as seclusion in hospital, but Dr. PARKES believed that measles spread at least as fast while the schools were closed.

Dr. DUDFIELD said that the 3000 deaths in London last year represented probably 100,000 cases, all other notifiable diseases numbering 30,000. To provide for such was utterly impracticable, though bad cases ought to be admitted into hospital.

Dr. ARMSTRONG again insisted that the magnitude of the scourge should act as an incentive to exertion, that much good might be done without hospital provision, except for really severe types of the disease, that the mortality was in the strictest sense preventable, and that, in view of the recurring wave periods, the period of trial of the Acts should not be less than ten years.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

A MEETING of the Section of Pathology was held on May 13th, Mr. NIXON in the chair.

Chronic Tubercular Spinal Meningitis.—Dr. H. T. BEWLEY showed a spinal cord from a case of chronic internal tubercular pachymeningitis. The disease lasted four years, causing complete loss of motion and partial loss of sensation in the legs. At first there had been marked incoördination with increased reflexes, but afterwards the reflexes culminated in permanent rigidity. Four years after the paralysis showed itself the spine became curved, the tenth dorsal spine becoming prominent. This singular curvature became rather more marked. Finally he died of tubercular meningitis. At the post-mortem examination it was found that the external surface of the dura mater was healthy; the internal surface was thickened. This thickening was most marked in the lower dorsal region, where there was about one-sixth of an inch of tough, whitish tissue growing from the dura and attached to the arachnoid and pia mater. This tissue thinned off gradually above and below. On microscopical examination this structure was seen to consist of granulation tissue containing giant cells and tubercle bacilli, and in many places had become caseous. This tissue compressed the cord in the lower dorsal region. The cord showed ascending and descending degenerations above and below this point. The ninth, tenth, and eleventh dorsal vertebræ were carious, and there was cerebral tubercular meningitis. The disease had started in the internal surface of the dura mater, and the bone disease was secondary. That this was the course of the case is shown by the following facts: (1) The external surface of the dura was healthy, the internal diseased; (2) the spinal disease did not show itself till three years after the paraplegia had become complete.

Horny Epithelial Tumour.—Dr. ARTHUR BENSON showed a tumour which he had removed from the outer side of the left brow of a woman, aged about thirty, in St. Mark's Ophthalmic Hospital. It was not adherent either to the skin or the bone, and was removed under the impression that it was an ordinary dermoid tumour. It had been present all her life, and, except for the disfigurement, was no trouble to her, though she thought it was growing a little larger. The tumour was oval, and about three-quarters of an inch long and half an inch wide.—Dr. GRAVES showed microscopic sections of the horny epithelial tumour. The tumour was completely invested by a strong fibrous capsule which sent in many trabeculæ, dividing off the masses of epithelial cells of which the tumour was composed. The great bulk of these epithelial cells were horny. In one place these horny cells were seen to be directly connected with a mass of Malpighian cells. This tumour was precisely similar, in macroscopic and microscopic appearance, to a tumour removed from the neck by Mr. Wheeler, and exhibited last year at the Pathological Section of the Royal Academy of Medicine (vol. ix., page 428).

Artificial Dental Caries.—Dr. A. W. W. BAKER read a paper upon artificial dental caries, and showed microscopic specimens.

Perforating Ulcer of Stomach.—Dr. JOSEPH REDMOND exhibited a case of perforating ulcer of the stomach in a male aged sixty. On opening the stomach it was found to contain two solutions of continuity, the larger of which, situated on the posterior wall, measured four inches by two inches and a half. The floor of the ulcer was formed by the pancreas, to which it was intimately adherent. The smaller ulcer was situated about one inch to the lower and mesial side of the œsophageal opening, and separated from the larger by a distance of about one inch and a quarter. Its shape was nearly circular, and was about one inch in diameter. Its floor was irregular, without any trace of hæmorrhage, and at one corner was the perforation which had occasioned the fatal termination.

Pedunculated Sarcoma of Cerebellum.—Dr. M'WEENEY read a paper on a case of pedunculated sarcoma of the cerebellum which had occurred at the Mater Misericordiæ Hospital. The patient, J. S——, had been admitted to hospital on Jan. 11th under the care of Mr. Hayes, suffering from persistent vomiting and headache, and from debility and insomnia, the result of these symptoms. Twelve months previously he had been unconscious for two hours after a severe fall, but apparently recovered his usual health till about four months previous to admission, when the vomiting began to be troublesome. On examination the right side of the tongue was found insensible to impressions of taste, and there was almost complete deafness of the right ear, which he had noticed only three weeks before admission. The right pupil was larger than the left, and reacted to light. There was no optic neuritis and no facial paralysis. Cough was troublesome, and there was a certain amount of bronchitis. Urine small in quantity, of sp. gr. 1032–36. Urates present in abundance; no other abnormality. Bowels confined; temperature occasionally rose to 100°–101° F.; skin always dry. The patient became suddenly comatose, and died on Jan. 29th. Post-mortem: A disc-shaped pedunculated tumour was found on the right side of the under-surface of the cerebellum. Its inner aspect was closely in contact with the crus, pons, and medulla, which were flattened and distorted by the pressure. The tumour lay in front of the amygdala of the cerebellum. The exact shape of the tumour was that of a somewhat crumpled and convoluted roughly circular disc, of which one surface looked upwards and inwards, the other downwards and outwards. The diameter of the disc was one inch and three-quarters; its thickness averaged one-third of an inch. Its peduncle was very riband-shaped, and entered the cerebellum about the region of the flocculus, slightly posterior to the roots of the facial and auditory nerves. The bulging caused by the passage sideways of the superficial fibres of the pons was quite obliterated by the tumour, and the seventh and eight pairs of nerves were adherent

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to the upper surface of the disc. The pneumogastric and glosso-pharyngeal nerves were adherent to the posterior edge of the disc, flattened and disintegrated into small bundles of fibres. The peduncle of the tumour seemed to run into the white centre of the cerebellum, and near the upper surface of that organ in the quadrate lobule was a remarkable vascular condition consisting of a plexus of large thin-walled veins (one-fifth of an inch in diameter), lying both in the medullary substance and in they gray matter of the sulci. Microscopic examination showed the tumour to be composed chiefly of sarcoma tissue, the cells being of various shapes, the nuclei close packed, oval, vesicular or epithelioid. There was no definite grouping of the cells, and round the large venous blood-spaces which abounded in the sections the cells were affected for some distance with hyaline degeneration. The cortical substance of the cerebellum, with its two layers and intervening Purkinje's ganglion cells, were found by serial sections to extend on the outside of the tumour for some distance, the nervous layer gradually becoming thinner and thinner. The cerebellar cortex in the neighbourhood of the peduncle of the tumour showed no microscopic change save thinning of the layer of granules and a certain amount of diminution in the number of medullated fibres. The area occupied by the venous plexus was, save for its presence, healthy, the nerve fibres coming right up to the margins of the large veins. Dr. M'Weeney demonstrated a series of sections from different parts of the growth, stained with Delafield's hæmatoxylin and eosin, picrolithic carmine, Weigert's and Pal's methods, and with Sahli's borax-methylene-blue.

Ovarian Cyst.—Mr. GRAVES showed an enlarged prostate, dilated ureters, and diseased kidneys, with microscopic sections, for the President of the Royal College of Surgeons in Ireland. Mr. Graves also showed a large multilocular ovarian cyst for Dr. Wheeler.

Dry Gangrene of Finger; Lacerated Wound of Heart.—Mr. F. A. NIXON showed these specimens. The dry gangrene of the finger was caused by an incised wound in a patient, a young lady, aged fifteen years. The lacerated wound of the heart was caused by a runaway horse. The patient was brought into hospital. There were four ribs broken on the left side without laceration of lung or pleura. The pericardium was filled with blood, which came from a lacerated non-penetrating wound of the left ventricle.

Reviews and Notices of Books.

International Clinics: a Quarterly of Clinical Lectures. Edited by JOHN M. KEATING, Philadelphia; J. P. CROZIER GRIFFITH, M.D., Philadelphia; J. MITCHELL BRUCE, M.D., F.R.C.P., London; DAVID W. FINLAY, M.D., F.R.C.P., Aberdeen. Volumes III. and IV. Philadelphia: Lippincott. Edinburgh and London: Young J. Pentland. 1892.

WITH the appearance of the fourth volume of this novel and singularly interesting serial its first year of issue is completed; and we cannot but congratulate both editors and publishers upon the general high standard of excellence that has been maintained throughout, and the manner in which the volumes have been produced. All branches of surgery and medicine are well represented, whilst the variety of style and the general practical tendency of the lectures afford an excellent review of the teaching of the present day on each side of the Atlantic. As each volume contains more than forty lectures, nearly all by different hands, the wealth of material must be obvious, and to the practitioner who desires to keep abreast of current doctrine such a collection should be invaluable.

It would be obviously impossible to deal in detail with each of the topics, treated with more or less thoroughness, in these volumes; but perhaps some idea of their contents may be gleaned from a brief notice of a few of the more important. Dr. Hirschfelder of San Francisco describes minutely the procedure for the clinical estimation of the gastric secretion, in a lecture upon a case of Acid Dyspepsia. Professor Gairdner of Glasgow discusses the question of Operative Interference in Acute Intestinal Obstruction—of value for the warning gained by his own experience against regarding stercoraceous vomiting as an absolute indication for resort to surgical measures. The subject of Hodgkin's Disease is reviewed by Dr. McDonnell of Montreal. A practically useful and well-compiled lecture is that on the Examination of the Sputum for Tubercle Bacilli and its bearing on Diagnosis and Treatment, by Dr. Percy Kidd, of the London Hospital. It affords strong testimony to the value of this "sputum test" in diagnosis; but Dr. Kidd points out that it is fallacious as a guide to prognosis. He wisely refers to the extravagant hopes arising out of the discovery of the bacillus as to the effect of bactericidal remedies in phthisis. Drs. Goodhart and Carpenter contribute a lengthy article upon Tubercular Peritonitis, from their experience at the Evelina Hospital. They distinguish three varieties: (1) Matting of bowels associated with tubercular ulceration and caseous disease of mesenteric glands; (2) miliary tuberculosis; and (3) tubercular tumour; and their paper is full of points to be remembered in diagnosis. It may be said that of the thirty-one cases dealt with in the article, fifteen are known to have died, six are "doubtful," and ten "are at present alive and, so far as is known, in fair health." Among surgical lectures in the third volume may be cited one by Dr. Carmalt of Yale University, on a Successful case of Excision of the Cæcum for Malignant Disease; one on Congenital Tumours of the Head and Spine by Dr. W. W. Keen—a Meningocele operated on successfully, two cases of Spina Bifida, and one of Coccygeal Tumour. Mr. R. W. Parker, of the East London Hospital for Children, writes on Chronic Glandular Enlargement in Children and its Treatment, a thoroughly practical paper. Tuberculosis of the Bladder, by Dr. Bryson of St. Louis, and Tumours of the Bladder, by Dr. Watson of Boston, are of much interest, collating the experience of the writers. The views of Dr. Champneys upon Removal of the Uterine Appendages are well known; but everyone will be glad to have his two lectures on this subject which form a dispassionate and careful study of the reasons for and against interference, and a protest against the abuse of an operation which in selected cases may be rightful and necessary. Dr. da Costa of Philadelphia supplies a lecture on Malarial Paralysis, and Dr. Weir Mitchell one on Permanent Headaches, and there is also an interesting study of Adult Chorea by Dr. Dercum. A remarkable case of recurrent exfoliative dermatitis is described by Dr. Blanc of New Orleans.

The fourth volume opens with a memoir of the late Dr. Charles Theodore Parker, whose portrait forms the frontispiece. Dr. Thomas Oliver has an interesting lecture upon the Various Forms of Purpura, containing a description of a fatal case of idiopathic purpura hæmorrhagica, one of purpura simplex, and two of purpura rheumatica. It is noteworthy that one of the latter patients eventually died of ulcerative endocarditis. Dr. Gilman Thompson of New York speaks favourably of the Brand method of treatment of typhoid fever. Dr. Bristowe discusses the subject of Hydronephrosis; and other lectures on renal disease are those on the Last Stage of Chronic Bright's Disease, by Dr. Baumgarten of St. Louis, and on Chronic Tubal Nephritis, by Dr. Danforth of Chicago. Sir Dyce Duckworth contributes a lecture on the Treatment of Acute Pneumonia. Dr. Dennis writes on Gangrene, which he divides into (1) traumatic, (2) idiopathic, (3) infectious, and his lecture closes with rules as to the performance of amputation for gangrene. The subject of Osteotomy for Curved Tibia is dealt with by Dr. F. Willard of Philadelphia; and Mr. John Morgan, of Charing-cross Hospital, speaks on Defective Gait. Mr. G. Peters of Toronto details a case of Tumour of the

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Spinal Meninges localised in the lower dorsal region "Laminectomy" was performed and the tumour removed, but the patient died on the fourth day. Dr. Nancrede gives the details of a case of Traumatic Epilepsy for which trephining was performed, and sclerosed bone, as well as the centres for the lower face and left side of the tongue, removed. The operation was followed by some transitory aphasia. Dr. E. G. Davis describes the Destructive Operations upon the Fœtus, and the conditions calling for them. Amongst the lectures upon nervous diseases there is an excellent survey of Insanity by Dr. E. D. Fisher of New York; a case of Tumour of the Spinal Cord, described by Dr. J. S. Graham; Hysterical Paraplegia in Children, by Dr. N. Hun of Albany; whilst the Clinical Aspects of Chorea are reviewed by Dr. Carter Gray of New York. Dr. Sidney Coupland, of the Middlesex Hospital, revives Trousseau's term "cerebral rheumatism" in discussing the subject of Hyperpyrexia in Rheumatic Fever; Dr. Græme Hammond of New York writes on Migraine; Dr. Eskridge on Ataxia; Dr. Brown of Chicago on Reflexes of the Brain and Spinal Cord; and Dr. Morris Lewis of Philadelphia on Aphasia. There is an interesting survey of the present aspect of the Leprosy question by Dr. Van Harlingen of Philadelphia, in which it is clearly acknowledged to be a bacillary disease and communicable. "It may be," he says, "transmitted directly from one individual to another, or it may run through a stage of intermediate life, a spore condition, which may flourish in the soil, water, or food, but which can originate only in a leper."

The Practice of Hypnotic Suggestion, being an Elementary Handbook for the use of the Medical Profession. By GEO. C. KINGSBURY, M.A., M.D. Univ. Dub. Bristol: John Wright and Co. London: Simpkin, Marshall, Hamilton, Kent, and Co. 1891.

IN this volume Dr. Kingsbury proposes to give English readers a sketch of the practical applications of hypnotism to disease. As stated in the preface, "it has no pretension to do more than acquaint its readers with the rudiments of practical therapeutic hypnotism, and to warn them against its dangers and difficulties. The book is a general sketch of the entire subject, with special emphasis, however, on therapeutics and practice. It adds but little to the materials afforded by the works of Bernheim, Liégeois, Moll, Heidenhain, Wetterstrand, Krafft-Ebing, Luys, and the host of other recent writers on the subject. But the work is well written and clearly arranged, and will give a fair idea of the subject to those who are only beginning its study. The author writes as an adherent of the Nancy school; he is confident of the practical therapeutic usefulness of hypnotism, and believes that its dangers are comparatively trivial, and not greater than those that attend numerous accepted methods of treatment. It might be suggested that wider knowledge will convince him that in his book he has under-rated the difficulties of the subject and ventured upon dogmatism, when tentative inquiry would be the genuine scientific attitude. Dr. Kingsbury objects to the use of the word "hypnotism." We want, however, some word to indicate the condition on which this heightened receptivity of suggestion depends, and we can hardly hope for a less objectionable word than hypnotism, until we know the physiological basis on which the phenomena depend. We need not follow him through his account of the work of Braid, Liébeault, Bernheim, Forel, Charcot, and others, or dwell upon his description of the phenomena, stages, &c., of hypnotism. He is here upon very familiar ground, and his exposition, if somewhat unduly confident and roseate, is in the main clear and fair.

Dr. Kingsbury gives the following list of affections in which hypnotic treatment is said to have been followed by relief or cure—viz., sciatica, tic, pleurisy, insomnia, headache, indigestion, spasmodic cough, eczema, writer's cramp, constipation, diarrhœa, anæmia, hysteria, hystero-epilepsy, gastralgia, stammering, enuresis, neurasthenia. This strikes us as a rather curious catalogue. That the pain of pleurisy or the itching of eczema may be relieved by hypnotism is very probable, but with our knowledge of the pathology of these conditions it would be utterly futile to rely upon this method alone. The same remark applies *mutatis mutandis* to the case of anæmia. "In one case of apparently established habit of lying and thieving I have seen truthfulness and honesty as apparently rooted after a few hypnotic sittings"! We should be curious to know how the author would prove such an assertion. As regards the alleged dangers of hypnotism, Dr. Kingsbury "has no hesitation in saying that though he has induced hypnosis hundreds of times he has never yet seen any injurious consequences, moral, intellectual, or physical, follow." The last thirty-two pages of the work are devoted to the narration of fifty "illustrative cases," in which the value of hypnotism was, in the author's opinion, demonstrated. We have not space to discuss these cases adequately, but we have weighed them carefully and we must confess they have not made a favourable impression upon us. The evidence is rather loosely put together, conclusions are confidently drawn, and the *post hoc ergo propter hoc* fallacy is somewhat too apparent. The study of hypnotism seems likely to do some good by heightening our estimate of the psychical element in our nature, and giving us clearer views regarding the very real and potent influence of mind on body. That it will ever go beyond this point seems still doubtful, and the attempt at Nancy and elsewhere to erect it into an all-sufficing system of therapeutics seems to us to be a cardinal error which can bring nothing but discredit upon scientific medicine.

Text-book of Comparative Anatomy. By Dr. ARNOLD LANG. Translated into English by HENRY M. BERNARD, M.A. Cantab., and MATILDA BERNARD. Part I. London: Macmillan and Co. 1891.

THE translators in their preface state that this translation may be regarded as the first instalment of the second edition of Professor Lang's "Lehrbuch der Vergleichende Anatomie," as they have had at their disposal his notes, collected for the purpose of emendation and expansion. In a masterly preface which follows Professor Ernst Haeckel tells us that Professor Lang's book was founded on an older text-book by Oscar Schmidt, and was practically its ninth edition, although rewritten on a larger scale. Oscar Schmidt's work resulted from the transcription of Johannes Müller's lectures, and went through eight editions. The present work, therefore, has been in process of construction for over forty years—from the time, indeed, when Müller commenced to compile his famous lectures. The first volume, which alone has as yet been published, covers the ground from the protozoa to the arthropoda, and the plan adopted is to give a systematic review of each race or phylum, in which the various classes and subclasses are enumerated, with an epitome of the characteristic features of each and a list of the chief families of the class. After this some general remarks on each race are made, followed by an account of the body form, and then the various systems are treated in a definite order under the following heads:—Integument and its Appendages; Musculature; Digestive System; Nervous System; Sensory Organs; Vascular System; Excretory Organs; Respiratory Apparatus; Sexual Organs. The chapter is usually brought to a close by a description of the development and phylogeny of the race, followed by an enumeration of the bibliology bearing upon

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it. Chapter I. commences with an introduction on the cell, and after that the protozoa are systematically described; the last part of the chapter being devoted to the early stages of reproduction and the building up of tissues from one cell, which leads up to a description of the various simple tissues in the animal body. Chapter II. commences with an introduction to the study of the metazoa, and discusses their origin; then the cœlenterata are described, and the chapter ends with an explanation of the law of biogenesis, and of egg segmentation and gastrulation, which prepares the reader to understand the ontogeny of the cnidaria. Chapter III. is devoted to a description of the platodes, and seems to us the best chapter of a very good book. Two or three pages at the end of it are devoted to the influence of parasitism on the structure and development of animals, followed by a definition of strobilation and segmentation. To students of human and veterinary medicine this chapter should be especially valuable. Chapter IV. contains an account of the vermes, or true worms, while V. and VI. are devoted to the arthropoda, the crustacea being dealt with in the first and the rest of the arthropods in the second of these. The illustrations are copious and judiciously selected, they are perfectly clear and in many cases highly artistic; all the letters indicating the different parts are placed at the margin, and do not obscure the drawings. Where diagrams are necessary they are inserted, but as a rule nature is closely adhered to. The type and paper are excellent, and the English clear and readable. The work is brought well up to the present date. Altogether we may congratulate the translators on their successful revision of Professor Lang's well-known work, and may recommend it to all who wish to acquire a scientific knowledge of modern comparative anatomy. We look forward with pleasure to the appearance of the second part.

Analytical Records.

FLUID COCA AND CUCA CHOCOLATE.

(HENSON & CO., BEULAH HILL, S.E.)

FLUID COCA (Henson) is a preparation containing all the essential principles of the coca leaf, and in the course of its production the indigestible and waxy constituents have evidently been carefully eliminated. It yields, on suitable treatment, an abundance of the alkaloid cocaine, contains no alcohol, and is miscible with water or with wines. The liquid is slightly acid to test-paper, is of a clear greenish-brown colour, and evolves, when warmed, a fragrant odour characteristic of the coca leaf. It is clearly a reliable preparation, and may be conveniently used for the extemporaneous preparation of coca wine, or for adding to tea, coffee, aerated water or milk. Cuca chocolate contains a definite quantity of the stimulating and restorative leaf principles in a palatable form convenient for the use of travellers and others.

DR. BANCROFT'S CONCENTRATED BEEF OR AUSTRALIAN PEMMICAN.

(JAMES GRAY, 116, QUEEN VICTORIA-STREET.)

Experience has shown that pemmican, if not tasty, is certainly nutritious. It consists, as is probably known, of a mixture of the best beef and fat dried together. All the nourishing and sustaining principles of fresh beef are, according to our examination, to be found in the above preparation, which in many respects resembles pemmican. Microscopical as well as chemical examination showed the presence of a large proportion of fat together with muscle fibre. Analysis gave the following results:—Nitrogen, 10·17 per cent.; fat, 40·00 per cent.; moisture, 2·12 per cent.; and mineral matter, containing of course soluble phosphate and but little common salt, 4·80 per cent. No objectionable preservatives were detected. From the small proportion of water present in the preparation it is, as might be expected, somewhat hard, and it requires to be stewed for some time and duly seasoned before its flavour can be fully appreciated. It is doubtless a valuable form of portable food. We must take exception to the inclusion of the name of a medical man in the designation of a commercial product.

MALTO-RICINE.

(BURROUGHS, WELLCOME, AND CO., SNOW-HILL BUILDINGS, E.C.)

As its name would imply, this is a compound of active malt extract with castor oil. Under the microscope the preparation is seen to be perfectly uniform and homogeneous until a drop of water is added, when instantly myriads of minute globules of oil separate. While the preparation is quite tasteless as regards castor oil, it affords an excellent and effective medium for the administration of one of the best and safest aperients. The action of diastase upon oils in emulsifying them, and upon many other substances, is still vaguely understood, and the subject might well be taken up as an excellent and interesting one for investigation.

MÉDOC, PAUL DURAND (BORDEAUX).

(HENRY DAUBER, JUN., 19, SWEETING-STREET, CASTLE-STREET, LIVERPOOL.)

A delicate, agreeable, and no doubt a genuine Bordeaux wine. It contains no antiseptics such as are sometimes used for the preservation of French wines, and yields on analysis the following normal results:—Absolute alcohol by weight, 6·65 per cent.; by volume, 8·35 per cent.; residue dried at 100° C., 2·12 per cent.; and mineral water, 0·23 per cent. It is a good, light dinner wine, and inexpensive.

ROSBACH MINERAL WATER.

(THE ROSBACH WATER COMPANY, 4, SUSSEX-PLACE, LEADENHALL-STREET, E.C.)

Natural sparkling waters are without doubt superior to those artificially produced. The carbonic acid gas contained in them is generally perfectly pure, and has probably been in contact with the water for a very long time and at a very great pressure; the water is consequently more permanently impregnated with the gas. Rosbach water is bottled at springs near Homburg; it is agreeably soft and clean to the palate, and belongs to the class of mineral waters known as mildly alkaline. On evaporation it yields 127·6 grains per gallon of mineral residue, consisting chiefly of carbonates of magnesium, calcium, and sodium, together with the chloride of the last-named metal. The solids are without change on ignition, so that the water may be taken to be free from organic matter or matter that readily undergoes charring.

MEDICINAL TOKAY.

(W. BURROWS, 243, BROMPTON-ROAD, S.W.

A choice wine of characteristic sweet, sherry-like taste, and exhibiting chemically the composition of genuine Tokay. The residue dried at 100° C. amounted to 19·85 per cent., consisting mainly of saccharine matter, and the mineral constituents to 0·45 per cent. The wine yielded on distillation 10·00 per cent. of absolute alcohol by weight, or 12·40 per cent. by volume. There is indication of the wine being of an honest kind, and it may accordingly be used, as recommended, for medicinal purposes.

MAIZE BREAD.

(THE NATIONAL FOOD REFORM SOCIETY, NEW-CROSS, S.E.)

Well cooked, beautifully white, of uniform texture, keeping moist for a longer time than, though not so palatable as, good wheaten bread, are our observations concerning this specimen. The loaf is said to contain 25 per cent. of malted maize, which has the property, it is claimed, of keeping the bread moist for a considerable period. It must not be forgotten, however, that the addition of maize flour must naturally reduce the proportion of certain valuable and essential constituents belonging to wheaten bread. Thus maize flour contains much more starch than wheat flour, far less nitrogenous and mineral matter, and no fat.

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THE LANCET.

LONDON: SATURDAY, JUNE 11, 1892.

WE present to our readers to-day, by way of Supplement to THE LANCET issued in support of the Hospital Sunday Collection which is appointed to be made on Sunday, the 19th inst., a statement showing, as well as we are able to exhibit it, what has been in recent years, and still is, the growth of hospital work in the metropolis. The results, though striking enough for their magnitude and significance, will not surprise those of our readers who have been accustomed to keep their information abreast of the facts as to the movements of the population amid which we live. But they can hardly fail to arrest the attention of all, and to the great public, for whose information, and with the intention of securing whose active support our supplement is specially written to-day, our facts and figures will come home not less as matters of new than of strange and wonder-stirring interest. Among the subjects upon which we have this year sought information from our various correspondents, the hospital work of twenty years ago occupies a conspicuous place. The inquiry was one to which it must of necessity be impossible to obtain a full answer, as we indeed *foresaw*, and we desire to record our thanks to the various secretaries and other hospital authorities who have, at no small pains to themselves, supplied such information as was available for the purpose. Indeed, our acknowledgments are due not only to those who have dealt with this branch of inquiry, but also to all who have assisted us, and to whose support we have on this, as on former occasions, been indebted for the substance of our appeal. But notwithstanding the pains taken to further our purpose on the part of our various friends, it has proved quite impossible to compile anything that could afford a basis of statistical comparison between hospital work in the metropolis twenty years ago and now. There are gaps in our statistical tables which we regret, but which we feel sure are due to unavoidable causes and not to any unwillingness on the part of hospital authorities to coöperate in our work and assist our efforts. To judge from the general impression conveyed by a perusal and comparison of the reports sent to us, it must be admitted that private beneficence does not appear therefrom to have grown in proportion to the growth of population; and although, as we state elsewhere, there does not seem to be any general falling off in the private subscription lists, which, on the contrary, show upon the whole an advance, yet the advance is certainly less than the well-wishers of hospitals would desire, and less probably than might have been reasonably expected. On the other hand, it must be borne in mind that since the date specified there has been a very great increase in the number of new institutions. The Post-office Directory for 1872 contained the names of seventy-five hospitals and forty-eight dispensaries established in London. The same authority in the present year gives a corresponding list of one hundred and two hospitals and one hundred and nineteen dispensaries. Here, then, is an increase in point of number of thirty hospitals (nearly 50 per cent.) and seventy-one dispensaries (nearly 150 per cent.), and, as most of these institutions come upon the purses of the charitable, it is easy to understand that their competition keeps down the growth of subscription lists to the older institutions, and that any estimate of the amount of public beneficence which did not take account of this fact, but rested wholly on a comparison of the incomes of particular institutions then and now, would be apt to be exceedingly misleading. We are not, therefore, disposed to accede to the view that public charity has decayed, or is decaying. It is natural enough that those who are engaged in the anxious and often disappointing work of gathering in the offerings of the people should be apt to take this view; but if we can induce them by the presentation of these facts to take a more hopeful view, we shall ease their minds, and certainly not increase their difficulties.

Turning from the past to the immediate future it is not possible to avoid a certain anxiety for the success of the forthcoming collection. In the first place it must be borne in mind that the success of former collections—the record of which must be beaten before success can be registered in this present year—has been obtained at the cost of great efforts on the part of all friends of the Fund, and the present task cannot be discharged without at least an equal effort. Then, again, we must naturally remember at such a time the stalwart support which has for many years past been given to the movement by some whose strong and effective aid is no longer available. The names of Cardinal MANNING and of Dr. ALLON will at once suggest themselves as representing the ravages of death. Still, new years bring new men, and we trust that the successors of those whose services have been lost either by death or other causes will prove to be not less helpful than were those others whose places they have taken. And in this connexion we will venture to repeat an appeal which we made last year to our professional brethren in the metropolis to make this cause their own. We then reminded them that they, above all men, can speak with authority concerning the work and the claims of the hospitals and medical charities and that their advocacy will carry a very special weight. It is gratifying to us to know that to that appeal a most generous response was made, and that some of the very largest contributions which reached the treasurer's hands in 1891 were the direct results of the advocacy of members of our profession. It is, therefore, with a well-assured confidence that we renew the appeal to-day, and ask, not only for their personal contributions, which will be forthcoming in any case, but also for their good word and influence with patients and friends, a matter of scarcely, if at all, inferior practical importance.

IT is satisfactory to find that the Association of Members of the Royal College of Surgeons of England is not discouraged by the unfortunate termination of the action STEELE *v.* SAVORY. We say unfortunate not so much on account of the summary decision of Mr. Justice ROMER in favour of the defendants—for law is proverbially uncertain, and the best of causes may suffer temporary discomfiture,—but chiefly because the heavy costs incurred in carrying on

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the suit are very disproportionate to the value of the action, and must tend to cripple the resources of the Association in the prosecution of more hopeful plans for the reform of the constitution of the College. Until the costs of the action are defrayed the Association cannot direct its undivided attention to the elevation of the constitutional position of the Members of the College, and we would again urge upon the Members of the College generally that duty and interest alike require some contribution, however small, towards the expenses of the action. A few of the most ardent reformers have contributed liberally to the fund, and the Association has found a most generous friend in the treasurer, Dr. DANFORD THOMAS; but it is not right that a burden of this nature should be borne only by a few, when its distribution amongst a large number of Members would not be felt by any. Three or four thousand subscriptions of half a guinea each would wipe off the obligation, and leave the Association with money in its coffers and free to prosecute the campaign in earnest. "Although," says Dr. DANFORD THOMAS, "in the law courts the Association of Members has been defeated, the justice and reasonableness of its claims remain the same, and efforts will now be directed to the furtherance of the Bill in Parliament with which the Members are familiar, and all other legitimate means used until success is ultimately secured." This is the proper course for the Association to pursue, and success is by no means so remote or so unlikely as some in the hour of defeat may have considered it to be. The Members of the Royal College of Surgeons of England in reality constitute the Corporation, and it is out of the funds which they have contributed and are contributing that the College is maintained. To the Members of the College, who number at the most moderate estimate 12,000, the College is indebted for the weight and importance which are attached to the deliberations and decisions of the Council of the College. Yet these 12,000 medical men—a highly educated and intelligent constituency—are as absolutely destitute of any voice in the management of the College and the election of the Council as medical men who have no connexion whatever with the institution. They are treated in the same way medico-politically as the occupants of gaols and the recipients of parish relief are treated in the body politic. It is not to be supposed that in the nineteenth century this condition of things will be permitted to continue. There will come a time when, under other conditions, the whole fabric of exclusion will fall like a pack of cards. It is not probable that the existing condition of affairs could survive very long after a full and fair discussion in Parliament, and it is undoubtedly the right policy for the Association of Members to pursue to promote a Bill in the next Parliament for the amendment of the constitution of the College. We cannot agree with Mr. LAWSON TAIT that the recent action of the Committee of the Association of Members has in any way rendered it impossible for him or anyone else to fight the battle of the Members. If the Committee had appealed against Mr. Justice ROMER'S decision, the probability is that the costs would have been increased and the decision confirmed. The abandonment of an appeal was the result of high legal advice, and coincided with the views of almost everyone who has thought and written on medical politics. The only means by which the grievances of the Members can be redressed are either the action of Parliament or the convictions of a majority of the present electoral body of the Fellows that the claims of the Members are just and reasonable. If Mr. TAIT wishes to help the Members he should secure a seat on the Council of the College; and it is by no means certain that he could not obtain even now votes enough to carry him into the Council whilst adopting the liberal platform which he has always professed. In 1889 justice to the Members was made a leading feature by Mr. TAIT and others, and he polled almost as many votes as he did last year. The too radical character of the Bill then promoted by the Members' Association aroused the fears of the Fellows, who evidently strongly objected to being swamped entirely by the Members of the College. Under the most discouraging circumstances from 150 to 180 Fellows voted in favour of the representation of the Members on the Council of the College; and it is very unlikely that the opinions of the Fellows will become less liberal as time rolls on; for whilst the position of the Fellows in relation to the Council and the College is sure to improve, the position of the Members must advance *pari passu*. We ground this opinion on the fact that as every individual belonging to the Corporation must be a Member, privileges cannot be granted to one section of the Members—the Fellows—without being claimed by the Members at large. If the Council consults the Fellows on any question it cannot legally refuse to consult the Members. If it did, there would be a distinct grievance, and the more grievances there are, the stronger will the case of the Members become. Absolute exclusion of the men who are the backbone of the College from all voice in the management and expenditure of the College is an anachronism so pronounced that only patience, perseverance, and determination on the part of the Association of Members are required to ensure the success of their reasonable and righteous cause at no distant date.

THE prospect of the International Medical Congress of 1893 in Rome is likely to direct the attention of the medical world in an unusual degree to Italy during the next twelve months. A brief survey of the condition of that country with regard to the prevalence of one of its chief scourges—malaria,—as revealed by the most recent official information, will not be without interest to our readers. The present generation of medical men are apt to forget that time was, and not so very long ago, when ague pressed heavily upon the population of these islands and formed one of the most serious items in the annual bills of mortality. The progress of agriculture, the drainage of marsh lands, the general elevation of the average standard of comfort amongst us, have done much to banish it; but there are still districts which are, at least by comparison, distinctly productive of ague, such as Huntingdon, Cambridgeshire, and parts of Kent and Surrey. In the main, however, the improvement in this respect in the British Islands is most notable, and no doubt many medical men in different parts of these islands pass many years of active practice without once seeing a case of indigenous malaria.

Very different is the state of Italy, which ranks among the

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countries in Europe in which ague is most prevalent The deaths from malaria in that country amounted (according to Dr. DAVIDSON) in one year—viz., 1887—to 21,033, which would give the very high rate of 700 per million living. When we point out that this is *only* slightly below the mortality which scarlet fever causes amongst ourselves, it will be seen how important a *rôle* malaria plays in the pathology of Italy. The prevalence of the disease varies greatly in different localities and at different periods of the year. According to the authority just referred to, the most malarial districts are Basilicata (the region just north of the Gulf of Taranto), Calabria, Sardinia, Apulia, and Latium, while the disease is less prevalent in the districts of Liguria, the Marches, Tuscany, Lombardy, Umbria, and Piedmont. The variations are notable. Thus Basilicata shows a proportion of 822 deaths from malaria to 10,000 deaths from all causes; Latium, a proportion of 490; while the rate falls to 52 in Tuscany, 38 in Lombardy, and 7 in Liguria. This last figure is very reassuring to the vast numbers of invalids and tourists who annually seek health and relaxation in the Riviera and along the beautiful shores of the Gulf of Genoa.

The rates of mortality from malaria in the various Italian towns bring out many interesting facts. Rome indisputably takes the first place of all the large cities. The rate there is about 12 deaths from malaria per 10,000 of the population, which compares very unfavourably with the rate of 5 in Messina, 1·9 in Palermo, 1·2 in Milan, 0·9 in Venice and Naples, 0·2 in Florence, and 0·1 in Genoa. We were scarcely prepared to find the bad pre-eminence of Rome so decided, or for the remarkably good place taken by Venice, Naples, Milan, Florence, and Genoa. It will be seen from these figures that temperature alone will not account for the varying degrees of mortality from malaria, although on the whole the northern parts of the country suffer much less than the southern. We can imagine few more interesting problems in geographical pathology than the working out of the causes of this disparity. The salubrity of Venice is remarkable. Dr. DAVIDSON rather ingeniously suggests that it may be regarded as very much in the position of a vessel anchored out at sea.

There seems ample evidence of the good results which have accrued in various parts of Italy from drainage, and also from preventing the admixture of fresh and salt water in the lagoons of the littoral districts. Malaria has waxed and waned in many places just in proportion to the efficiency with which such measures have been adopted and kept in operation. Of the various forms of malaria in Italy, quotidian remittent fever is the most frequent amongst newcomers. Tertian takes the first place amongst residents, and quartan and other varieties are less frequent.

Very curious are the facts regarding the prevalence of malaria in Rome and the Roman Campagna. The most densely peopled and filthiest regions in the central parts of the city suffer least, while "the less densely peopled suburbs, where the houses are few, well built, surrounded by gardens, and apparently answering the conditions required for perfect salubrity, are extremely unhealthy. In the Campagna fever exists independently of any marsh. In this plain there are only a few cultivated spots. The danger of encountering the exhalations is such that the harvesting has to be done, as it were, stealthily, and with precipitation, in order that the sojourn in the plain may be as brief as possible. It seems as if each harvest were "a sort of larceny committed upon this murderous soil." Still worse than the dry plain are the neighbouring marsh lands of Ostia and the Pontine Marshes.

We confine ourselves at present to the mere question of the localisation of malaria, but we must not leave the subject without some acknowledgment of the excellent work accomplished by Professor MARCHIAFAVA and Dr. CELLI in investigating the pathological conditions present in these cases. The subject of melanæmia, the elucidation of which owes so much to their researches, is one of great interest and importance.

Italy must always possess supreme interest to the artist, the poet, the historian, and the student of human progress and development. Her "dono infelice di bellezza," of which FILICAIA sings, has contributed to make her the scene of many of the most stirring events in human history, and her attainment during recent years of an assured place amongst the great Powers of Europe has nowhere been more sincerely hailed than in Great Britain. She has still many great problems—social, economic, and political—awaiting solution, and amongst these few touch more closely the happiness and well-being of her people than the measures to be taken to abate in her midst the prevalence of the great, but preventable scourge of malaria.

THE reassembly in Paris of the late Venice Sanitary Conference gives some hope that the difficult question of the sanitary control of shipping in its passage from the Red Sea into the basin of the Mediterranean at last approaches a point when it bids fair to be solved. Again and again for the past thirty or forty years have the various European Powers assembled in conference on this subject, and although they have on each new occasion suggested restrictions which savoured less and less of severity, yet the adhesion to quarantine as the basis of such restrictions has always prevented this country from consenting to be a party to any convention dealing with the subject. The Venice Conference in January last was evidently intended by our Government to be, in the main, a work of diplomacy, and the delegates representing this country were chosen accordingly. But France at once flung down the gauntlet and demanded that the question should be controlled by considerations of public health, and the other Powers, finding that the French had already prepared a code on this basis which was much more acceptable to them than the diplomatic arrangement that had been contrived between Austria and England, at once determined to discuss the French proposals. These, after having been materially modified and improved in the direction of such leniency as England always aims at securing, were signed by all the Powers represented except England and Turkey. For awhile, it was hoped that England's assent was only temporarily withheld, but it soon became evident that there was no chance of securing it except as the result of a further substantial modification of the convention arrived at in Venice. Hence the present reopening of the confer-

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ence in Paris. On this occasion the matters under discussion appear to be essentially medical ones, and though the three Powers that are represented at it—namely, Austria, France, and England—have each appointed a diplomatic delegate, yet it is generally understood that it is the technical delegates—namely, Dr. THORNE THORNE, Professor BROUARDEL, and Dr. PROUST—with whom it mainly rests to arrive at such conclusions as will be acceptable to the French and English Governments. Should such a result be attained, it is to be hoped that the other Powers will assent to the conclusions arrived at by the two countries whose interests in the Suez Canal and in the Mediterranean altogether outweigh those of the other European Governments. We have learnt from our Paris correspondent that, according to French views, the French delegates have done very much to meet the demands of England; and that the point on which this country is most sensitive is the detention at Suez of persons who, though as yet healthy, are looked upon as suspect because they happen to be on board a vessel on which there has been cholera between the date of its departure from Indian ports and its arrival at Suez. No one would pretend that, even were the safety of the passengers alone concerned, such vessels ought to be free from all restrictions; but we have a strong conviction in this country that absolute cleanliness and such disinfection as is capable of being carried out on a properly appointed vessel is practically sufficient to do away with such risk as attaches to the existence at some antecedent period of the journey of one or two odd cases of cholera. And, as a matter of fact, we know that for a long series of years so-called infected vessels have not constituted any danger to the Mediterranean or to our own ports, even when all the so-called suspected persons have been left on board. Under these circumstances it is but natural that England cannot consent to any wholesale landing from her vessels of these persons on the shores of the Red Sea, merely because other nations dare not admit their own vessels into their own ports under similar circumstances. The reopening of the Conference seems to suggest that the demands of France in this respect may be curtailed, and that England may make some advance with a view to meet them; and the visit of the British delegates to the Foreign Office last week to confer at home on the new points raised again implies that matters are proceeding more satisfactorily than at any previous Conference. Since the return of our delegates to Paris a further sitting of the Conference has been held. We learn that the most cordial relations exist between the several delegates, and that the French delegates are willing, beyond any former occasion, to give such facilities to England in the passage of the Suez Canal as is demanded both by her commercial interests and her well-known advance in public health, whether on shore or at sea. France is, we think, herself recognising as she never has done before how quarantine may without risk be superseded by efficient sanitary control. Years ago it was sought to abolish the word quarantine; but it was impossible, for the system was retained under a new title of "observation." Now, at last, there seems a chance that, as regards the Suez Canal, all semblance of the ancient system may disappear. England is not particularly discontented with the Egyptian restrictions as now imposed; but the Alexandria Board possesses powers far in excess of those she at present exercises, and on the advent of any cholera scare in Europe there is no knowing what severities might not be reproduced. For these reasons alone we shall be thankful to find that France and England are of one mind in this matter. Their joint influence on the remainder of Europe must certainly be considerable.

Annotations.

"Ne quid nimis."

METROPOLITAN HOSPITAL SUNDAY FUND.

WE would remind our readers that the annual public meeting at the Mansion House in support of the Hospital Sunday Fund has been convened by the Lord Mayor for Friday, June 17th, at 3 P.M. Mr. A. Egmont Hake will deliver the address, and be supported by several influential speakers. We trust that there will be a large attendance of the public in general and members of the medical profession in particular. Nothing can prove more strongly the deserving character of the movement than the interest taken in it by our professional brethren.

THE COUNCIL ELECTION AT THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

WE would remind Fellows of the College who are thinking of becoming candidates for the Council of the College that the 13th inst. is the latest date for sending in nomination papers. The advertisement of the meeting of Fellows for the election of councillors appeared on Friday, the 3rd inst., and every eligible Fellow desirous of seeking a seat in the Council should within ten days from the publication transmit or deliver "a duly signed notice to the secretary of the College." That this reminder is not superfluous may be inferred from the fact that last year one of the intending candidates forgot to send in his papers till the eleventh hour, when several Fellows met at the College to sign a nomination paper for the forgetful candidate, and telegrams and special messengers were despatched in every direction and extraordinary arrangements made for the reception of the declaration of the Fellows for the purpose of conforming to the letter of the by-laws. Up to the present time the names of eight intending candidates have reached us. In addition to Mr. Thomas Smith and Mr. A. E. Durham, who desire to be re-elected, the names of Mr. Cowell, Mr. Warrington Haward, Mr. McCarthy, Mr. Howard Marsh, Mr. Henry Morris, and Mr. John Tweedy have been reported to us. If all these candidates go to the poll, the election will be a very open one; but of course at the last moment some of the names may be withdrawn. It is to be hoped that candidates who intend to withdraw will not leave their retirement to the last moment, but will withdraw before their names are printed on the voting papers or published in the *London Gazette* and two London daily newspapers. This publication must take place not less than ten days before the day appointed for election. As the *London Gazette* is issued on Tuesday and Friday, the publication will probably be made on Friday, June 24th. Until the names of the candidates appear in the *London Gazette* it will not be possible to say positively what candidates will go to the poll, and we shall defer comments upon the claims of the candidates until the process of natural selection and survival of the fittest has worked itself out.

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DISPARAGEMENT OF MEDICAL CERTIFICATES.

THERE is a disposition to make too much of Mr. Justice Hawkins' reflections on the value of medical certificates. Even judges sometimes speak in haste and make all the members of a body suffer for the sins of two or three of its members. This is, at any rate, not very judicial. If a judge is dissatisfied with a medical certificate or suspects it, he has the power to require an independent one. There is a disposition in some quarters to attribute all the financial embarrassments of benefit societies to the carelessness with which the medical officers give medical certificates, failing to detect malingering, and other deceptions. We should require better evidence of this than has appeared. We could have no sympathy with medical men who, to curry favour with members of benefit societies, give them false certificates of sickness. If the scale of such false certification is anything like that alleged as obtaining in a certain society, the authorities should prove it by a careful investigation of cases by an independent examiner. We should like to know more particularly from whom false certificates do proceed, whether from registered practitioners or from unregistered. It is only necessary to demonstrate such a breach of morals to the Medical Council or the examining board from which the practitioner holds his diploma to bring down on his head severe censure, and possibly to ensure the erasure of his name from the Medical Register. And in taking such a course the Medical Council or the examining bodies would have the full sympathy of the profession. Only there must be evidence. We deny that evidence on any such scale as to affect the general value of medical certificates has been produced. We shall hear from medical men their answer to these charges.

SUCCI'S MADNESS.

THE Italian fasting-man has succumbed to the fate which many of his compatriots anticipated for him—he has lost his reason and is now an inmate of the Asylum of Saint Anne in Paris. It is not so long ago that he was in London repeating, or attempting to repeat, the continuous abstention from food which had procured him such notoriety in Florence and elsewhere. He broke down, it will be remembered, and the failure to accomplish the self-imposed feat preyed on his mind, which, at the best of times, could never be called sound. From London he repaired to Paris, and there, it seems, such mental sanity as he preserved gave way, and, after comporting himself in an obstreperous and even wild manner on the Boulevard des Italiens, he was removed by the Commissary of Police, protesting that he was the "Emperor Cæsar." This was on the night of the 29th ult.; but some days before he had been observed by his Parisian neighbours to be dejected, taciturn, and troubled—in the state, in fact, which usually precedes an outburst of mania. At the infirmary of the depôt to which he was taken by the Commissary his demeanour became hourly more excited, and he passed the night in a furiously maniacal condition, shouting, gesticulating, and blaspheming in the polyglot dialect of which he is a master. Seen next day at noon by Dr. Garnier, he was pronounced to be labouring under the form of mania known as "religious persecution," not actually dangerous to himself or to bystanders, but apt, in all likelihood, to become so. This development of insanity is often a derivative from what Italian alienists classify as "megalomania"—the madness of self-exaltation, of which, in the spring of 1888, when he performed his great fasting feat in Florence, he betrayed the premonitory symptoms. Those who saw him at that time, watched night and day by relays of medical undergraduates in his room attached to the Istituto di Studi Superiori, could not fail to detect the diseased self-importance which characterised his demeanour and conversation, more particularly when he attempted, in the daily ride allowed him under surveillance, to cross the path of Her Majesty Queen Victoria, whose notice he did everything to attract. No doubt the nutrition of his brain was seriously affected by his abstinence from food, and the inhibitory paresis that must in any case have overtaken him was accelerated, if not actually invited, by the practice. We trust his fate will act as a warning to those who would follow in his footsteps, and deter them from a repetition of feats which have long ago yielded whatever scientific fruit they were capable of bringing forth. Certainly, of all the "careers" known to a century prolific in eccentricities the stupidest, if not the ignoblest, is that of the professional fasting-man—earning his bread by refusing to take it!

SIR GEORGE HUMPHRY ON THE NEW CAMBRIDGE SCHOOL.

SIR GEORGE HUMPHRY on the "Medical School of the University of Cambridge" is like Cicero "Pro Domo Sua"—discoursing on the subject of which he, of all others, is best qualified to treat. The great seats of learning on the Isis and the Cam, till late in the present century, maintained an attitude to the medical sciences by no means in keeping with their position as Universities, with the resources at their command, or, in short, with their duties as representatives and foster-mothers of post-Renaissance culture. Competition, however, an equivalent for "that blessed word compulsion," forced them, in self-defence, to recognise the daily growing claims of medicine as a science, and even as an art, and, not a moment too soon, they widened and deepened their curriculum so as to supply the training, professional and still more pre-professional, for which the young medical aspirant had had previously to repair north of the Tweed or across the Channel. At Cambridge a beginning was made in this direction sixty years ago, when a building for anatomy and medicine was established in Downing-street, and about the same date a nucleus of an anatomical and pathological collection was formed in the museum. At that time, however, the pupils were few in number—"no more than four or five annually," says Sir George Humphry—and not till a generation afterwards, when regular clinical teaching was made possible at Addenbrooke's Hospital, and practical anatomy, with physiology, minute anatomy, and comparative anatomy, received something like due attention, did the medical student find it worth his while to prepare for his profession on the banks of the Cam. It was the institution of the Natural Sciences Tripos in 1857, however, as an avenue to medicine that put Cambridge on the lines upon which she has continued to advance as a great medical school. With the increased influx of students her teaching became subdivided and perfected, her examinations were made more stringent and more practical, and fresh professorships, lectureships, readerships, demonstratorships, and assistantships were from time to time added to meet demands. At the present moment, indeed, she can point to an excellent medical teaching staff, and the education she can now supply to the student finds yearly a more extended appreciation, till in point of attendance in her class-rooms she ranks as one of the largest medical schools in England. To have "qualified at Cambridge," indeed, is about as valid a certificate of proficiency as the academic world can show, implying as it does a previous grounding in classics and mathematics, followed up by a superstructure of physics, chemistry, and biology, and thereafter by further courses of anatomy and physiology, such as no other seat of learning can surpass before "crowning the edifice" with strictly professional qualification in medicine and surgery. These pre professional studies she carries on

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under peculiarly favourable auspices, away from the distractions and temptations of life in great cities during the "years of April blood," in surroundings which, according to Mark Pattison, should be those of "University and poet's garden" alike—"not wholly in the busy world, nor quite beyond it." The aroma of academic culture never leaves the professional man whose early impressionable manhood has been attained in "the ampler ether, the diviner air," of a fully equipped University, redolent of the *spolia opima* of centuries of moral and intellectual triumphs; and with the character, the mental tone thus formed, he enters on the specially qualifying course—that of clinical observation and research in the hospitals, of which London offers the largest and completest supply. Medicine proper, surgery, and gynæcology, the next stage in the Cambridge student's career, find him, therefore, in the metropolis, with formed habits of study, with a high standard of proficiency—with, indeed, all the pre-requisites of that "complete professional mind" on which Sir Henry Acland has so eloquently insisted. He is thus at a very considerable advantage over the student who, however able and enthusiastic, has had no University career or associations, but has simply passed from the public school to the teaching staff connected with an urban hospital. Still more is he fitted to profit by attendance at the great continental cliniques—such as Berlin, Vienna, or Paris—and to perfect himself by familiarity with the methods and the practice of European schools for the position of consultant in the most cosmopolitan of all professions. In summing up the opportunities and advantages Cambridge can afford the aspirant to the higher medical honours, Sir George Humphry gives reasons as cogent as they are candid for the attractions she yearly holds out to an increasing number of students; for admitting that London and the chief cliniques abroad are simply indispensable for the training which must precede all practice at the bedside, he makes it no less clear that the well-disciplined mind, such as a University has special means of forming, is equally indispensable for profiting by that training to the full. "A great physician is a great artist" is a true and a memorable saying; but, unless history belies herself, the great artist, whether in medicine or in any other professional calling, has incomparably the better chance of excelling if his native aptitude has been developed and reinforced by early proficiency in the culture on which his peculiar art depends.

SLEEPLESSNESS.

WHETHER, as appears likely, sleeplessness is more characteristic of our own days than those of our predecessors, or that, in accordance with a scientific fashion, it is now more noticed, we certainly hear of its prevalence with somewhat startling frequency. The nostrums proposed for the cure of this disorder are numerous. Many, if not most of them—we do not for the moment speak of narcotic drugs—are empirical, and are cast upon the public intelligence without any conscious reference to causes actually at work upon the brain and other nervous tissues. It does not necessarily follow that they are valueless, and we should no more think of repudiating their ordinarily legitimate exercise than of refusing the occasional aid of such medicinal agents as may be trusted safely to discharge the same needful function. It is to be understood, however, that we would, wherever possible, avoid, and replace by simpler non-medicinal methods, even such occasionally useful aid. This attitude is but rational, if we consider that the true object of treatment is never by choice merely palliative, but curative, and for cure there is needed the detection and removal of an active cause. The revelation of the causes of insomnia is, indeed, no simple matter. Thus much, however, we may say—namely, that just as the state of the brain in normal sleep implies a quiescent cerebral circulation somewhat reduced in volume, so in those whose nights are habitually restless we shall commonly find a condition of cerebral vascular tension. This, let it be noted, is not incompatible with general anæmia or with defective brain nutrition. There is, indeed, nothing so conducive to local vascular congestion as the constant exercise of a weakened organ. Mental worry thus acts upon the jaded brain, and we need not wonder, therefore, that it "murders" sleep. The true means of relief is as clear as it is often impossible. In such cases, however, and still more in others where adequate, or even more than adequate, nutrition is maintained, we find a simple and ready antidote in physical exercise. Muscular activity, in fact, may be employed to balance nervous irritation. In it we provide a means of counter exhaustion. There is a transference of vascular excitement, and of tension, with corresponding relief at the site first affected. Further, the same process implies a stimulation of the general metamorphic energy and the removal from the tissues of irritant excretable products. This brings us to another cause of insomnia, particularly of that which we sometimes observe in the gouty and rheumatic. It is probably on the ground of removal of such superfluous substances that we must explain the salutary action of the traditional "night-cap" of hot water, or the boiled onion, a stimulant of the kidney, at supper. Where mental over-activity or irritation has to do with insomnia, the influence of change—that is, of a change in thought—should have a trial. It is no doubt a blind groping after this remedy that induces some to read themselves asleep. Better in several ways is the practice introduced by the German Kant, who spent some time before he retired for the night in cutting off by an effort of thought each mental occupation of the previous working hours. We might, however, multiply the stock of remedies without meeting all possible needs. The desirable course for any sleepless unfortunate to adopt is obviously not to resort to sedative drugs to allay his distress, but to seek the advice of his trusted medical attendant and its remedy in the discovery and the removal of its cause.

THE HYGIENIC EXPOSITION AT MILAN.

EARLY in the year we drew attention to the "Esposizione Medico-Igienica," which it was proposed to organise in Milan in the ensuing summer, and we referred to the novel features which would make it in some important respects unique among exhibitions of the same kind. These anticipations have been fully realised, as the numerous public which has thronged its departments ever since its opening on the 30th ult. continues to attest. The Museo Civico has been set apart for it by the Municipality, while the coöperation of the Government, represented at the inauguration by the Prefect of Milan, has stimulated competition by the facilities placed at the disposal of exhibitors from all parts of the peninsula. No more significant proof of the advance Italy has made in hygiene, public and private, could be put *en évidence* than the ample and varied assortments of mechanical, chemical, surgical, and orthopædic appliances now on view in this her latest and best organised exhibition. She has profited by comparison of her own resources in sanitation with those of other States, European and transatlantic, and, while adopting and sometimes improving upon their special products, she has contributed others of her own, from which they, in turn, have not a little to learn. Notably is this the case in the sections devoted to the *armamentarium* of the Red Cross, a movement which, with justice, we believe, she claims to have suggested and set on foot, long before its international recognition by the Geneva Convention. In keeping with this parental pride in it, she has brought to the

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amplification and the perfecting of its contrivances for raising the wounded from the battlefield, for transporting them to the stations of first assistance, and for their clinical tendance and treatment in ambulance, an ingenuity, a patience, and a success which recall the proficiency she displayed in surgery and medicine during the best years of the Renaissance. The "Sezione del Sotto-comitato Milanese della Croce Rossa" (Section of the Milan Subcommittee of the Red Cross) is, in fact, the most striking and attractive feature of the whole exhibition, as is evidenced by the full and continuous flow of visitors who gather round its novel and really artistic "objects of interest" throughout the day. Admiration seems divided between the new "Ospedali da Montagna" (mountain hospitals), fitted up for fifty beds apiece, with the most ingenious contrivances for combining convenience and comfort with lightness and mobility, and the hardly inferior ingenuity shown in the "Ambulanza Fluviale" (river ambulance), or means of transporting the wounded in war *viâ* the waterways, natural and artificial, by which Lombardy, for example, is intersected. A full description of this latter addition to the resources of the Red Cross has already been given in our columns; and now these resources are on the high road to completion by the contrivance of light hospital railways to run in correspondence with the network of transport by water, as already systematised from the Lago Maggiore to the mouth of the Po, and including ample canal communication between. Milan, indeed, has taken the initiative in utilising these "silent highways" for Red Cross mobilisation, as was fully admitted at the general assembly of the Croce Rossa Italiana held on the 30th ult. in Rome. But her supremacy in sanitarian and hygienic progress is not confined to that movement. Her "Esposizione" affords proof, enough and to spare, that the lead she assumes in commerce and industry has its counterpart in science—especially in the mechanical *matériel* of public health and its administration. Those of our readers who can command the time, or whose presence in Switzerland or at the Italian Lakes puts them within easy distance, might profitably devote a few days to this exhibition, worthy as it is of the best traditions of the Lombard capital under the fostering care of young Italy, united and independent.

EXCRETION OF UREA IN BRIGHT'S DISEASE.

IT has long been known that the daily excretion of urea is diminished in Bright's disease, but it is not a universally acknowledged fact that this symptom precedes the other positive evidences of the disease for a considerable period. In the *American Journal of Medical Sciences*, vol. xcii., p. 22, Dr. C. J. Bond, of Richmond, Ind., maintained three years ago that this was the case, and published fifty cases illustrating his views. Four of these cases, besides showing a diminished daily excretion of urea, passed large quantities of albumen, with casts in the urine. They proved fatal, and in three of them, in which post-mortem examinations were made, chronic interstitial nephritis was found. Three more of the cases showed diminished secretion of urea, but no albumen or casts were found in the urine; and one of these was proved after death to have been suffering from nephritis. Three other cases that died likewise had diminished urea excretion, but only passed albumen and casts in the later stages of the disease. A necropsy was obtained in one of these cases and showed chronic nephritis. The remaining forty cases recorded, were all living at the time of the report. All had symptomatic evidences of Bright's disease, eighteen had albuminuria, sixteen of them passed casts, but in all the excretion of urea was diminished. Upon these grounds Dr. Bond claims that diminished excretion of urea is an evidence of Bright's disease, and the earliest certain symptom. But for this sign to be of importance the patient must be upon a mixed diet, and the diminution of urea must exist during a considerable time as shown by frequent examinations. Extending his researches, Dr. Bond[1] has called attention to the relation of urea excretion to disease of the serous membranes. It is well known that Bright's disease is often complicated by a sudden effusion into the pericardium or pleural cavity. It occurred to Dr. Bond that inflammations of serous membranes might at times be caused by latent Bright's disease—that is to say, by the conditions preceding the manifestations of the disease; and if so, such cases could be differentiated by diminished urea secretion, and upon actual examination he found this to be true. One of the most interesting cases which he reports in this connexion is one of acute pelvic peritonitis in which no specific history, no previous pelvic troubles, and no traumatic or other cause could be found. The attack commenced with chilly sensations and acute pain in the abdomen, followed by serous effusion. The case terminated in recovery, the effusion being absorbed; but the patient still complained of headache, slight nausea, dyspnœa on exertion, and general weakness. Examination of the urine showed no albumen or casts, but the daily excretion of urea was considerably diminished. Six months later there was a relapse of the peritonitis, which was, however, cut short by treatment with pilocarpine and saline cathartics. In addition to this case, Dr. Bond refers to three more cases of pelvic peritonitis, to four of pericarditis, two of arthritis, and four of endarteritis which showed diminished excretion of urea. These observations of Dr. Bond are of considerable interest, and he has pointed out an important diagnostic sign. At least, diminished excretion of urea is an evidence of deficient elimination, and is a means of determining when certain conditions, particularly serous inflammations, are autogenetic.

"AN AMERICAN LEPER."

DR. MONTGOMERY, Professor of Pathology and Clinician for Diseases of the Skin in the University of California, Clinician for Diseases of the Skin, San Francisco Polyclinic, publishes in the *Pacific Medical Journal* for April, 1892, under the above heading, some particulars of a case of leprosy. The patient was a man forty-three years of age, born in Massachusetts of American parents. He had never been "out of the United States, excepting a few hours in passing from Buffalo to Detroit over the Canada Southern Railway." This man died a leper in the San Francisco Pest-house last February. Twenty years before his death he had a "sore on the penis" after having had connexion with a white woman. This occurred while he was living in the State of Navada, and "shortly after the acquisition of the sore, and while still in Navada, he had charge of a gang of Chinamen on the railroad." While in that position he had frequent connexion with Chinese prostitutes, who were inmates of the camp. He "did not remember that any of the Chinese" showed symptoms of leprosy. Also, he remarked that "he did not know anything about leprosy at that time." About thirteen years after these events "he noticed areas of brown discoloration on the body and limbs." These symptoms were regarded as due to syphilis, and were treated from that point of view. It was not until two years later that his real condition of disease was diagnosed by Dr. G. L. Fitch of San Francisco. Six months after that date he entered the San Francisco Pest-house, where he remained for two years, when he left the institution for about a year, and then returned and lived during his remaining year of life in the Pest-house. His

[1] Abstract in the Journal of the American Medical Association, vol. cii., p. 269.

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leprous condition was a typical one, and the bacillus leprae was found in a leprous nodule which had been removed from the inner side of his left leg. Just now a certain amount of special interest attaches to this case, and the reason for this is stated in the opening sentence of the account of it from which we have quoted. It is this: "The contagiousness of leprosy, and the likelihood or unlikelihood of its spread in the United States, and especially in those States fronting the Pacific Ocean, and in active communication with countries where leprosy is endemic, such as China and the Sandwich Islands, is exciting so much attention now that any case of an American acquiring the disease in the United States becomes of uncommon interest."

FUNERAL REFORM.

FROM the *Morning Call*, a newspaper published in San Francisco, we learn that, thanks to the individual perseverance of a Captain George A. Raabe, great progress has been made there towards abolishing the dangerous custom of standing bareheaded at funerals. It would seem that there is every prospect of "hats off" becoming the exception. This is as it should be. The lamented death of the Duke of Clarence and Avondale followed by those of less illustrious persons shortly after attending funerals bareheaded called serious attention to this matter, and, what is of more importance, kept it there. At many funerals the officiating clergymen warned the attending mourners and friends of the deceased against the dangers of removing their hats, and the advice was followed. The winter and spring are passed and the summer is at hand. Still we would counsel the wearing of the hat at funerals in summer as in winter. Standing bareheaded beneath a burning sun has its own peculiar dangers, which need not be further specified. And even in hot weather colds may be very easily contracted. Our climate, in short, is one which does not admit of persons going about bareheaded, and those who do so must expect to pay the penalty.

THE LOCAL GOVERNMENT BOARD AND THE MEDICAL OFFICERSHIP OF THE CITY-ROAD WORKHOUSE.

WE quite agree with a guardian that the Local Government Board ought to know "the facts of the case"—the case being that of Dr. Yarrow, medical officer of the City-road Workhouse, in whose place several of the guardians wish to place a resident medical officer. Dr. Yarrow is an officer of many years' experience, against whom no compaint has been made till quite lately, and all that was serious in that complaint fell through. It is monstrous that such an officer should have his office determined except on good grounds and with such compensation as to remunerate him for the loss. The Local Government Board seem to have been satisfied that it is desirable to appoint a resident officer. But they have very properly pointed out to the board of guardians that Dr. Yarrow must be compensated. According to the account in the *Islington Gazette* of the report of the General Purposes Committee, a member of the committee was not content with recommending the board to determine Dr. Yarrow's appointment, but suggested to the Local Government Board that the compensation allowance should not be a large one, taking into account the fact that Dr. Yarrow is at the present time medical officer of health for the parish of St. Luke's, "and to which, it was understood, he should devote the whole of his time." At another stage of the debate it was stated that Dr. Yarrow got £80 as public vaccinator. We cannot doubt that the Local Government Board will ascertain the truth of these statements before agreeing to any inadequate compensation to Dr. Yarrow. Everybody knows that under the anti-vaccination craze the value of vaccination appointments has seriously fallen for the present, till sense and small-pox reassert themselves. As to Dr. Yarrow being expected to devote his whole time to a medical officership of health for £400 a year the idea is absurd. Dr. Yarrow was a man with many public appointments and a large private practice, and, if we are rightly informed, he gave up his private practice and his police appointment when he obtained the medical officership of health, but with the distinct understanding that he was to retain the officership of the workhouse and the public vaccinatorship. If this be so, the Local Government Board must see that they get accurate information with reference to the compensation of Dr. Yarrow.

LOW TEMPERATURE AND PHTHISIS.

OF all devices which, since its discovery, have been attempted to destroy the bacillus tuberculosis in the body none, perhaps, is more irksome—and, indeed, barbarous—than that of keeping the unfortunate victim of phthisis in a cold temperature, as if the normal temperature of the blood were in the very least affected by that of the atmosphere. Nevertheless, such views are held by the Russian physicians who have the care of the health of the Czar's second son, the Grand Duke George, who developed symptoms of pulmonary disease when on his Indian tour. He has, we learn, been spending the winter at Abbas-Tuman, in the Caucasus, dwelling in barely furnished rooms, with little bedding, only a very moderate fire, and the windows continuously open. No doubt the pure mountain air is the chief agent in the effort to keep the disease in abeyance, and not the cold, which has been so severe that his Royal Highness's attendants have suffered greatly from it; and we trust the hopes of the physicians that the Grand Duke will in two years' time have completely recovered may be realised. Very likely he would have done equally well at Davos or St. Moritz, without such a sacrifice of that comfort which phthisical patients so much need.

NEWSPAPER COPYRIGHT.

THE proceedings taken last week by the proprietors of *The Times* to assert their proprietary rights in copyright matter appearing in their newspaper has had the effect of eliciting from the judge who heard the cause a very important declaration as to the effect of the law upon this subject. There has gradually grown up a system of newspaper production by quotation which has received some very striking developments in recent times, and it is not unnatural that those who bear the cost of providing original matter should become increasingly desirous of monopolising, as far as possible, the commercial fruit of their enterprise. At the same time, it is easy to see that where current news is in question, the definition of a satisfactory copyright becomes exceedingly difficult. It was accordingly upon those parts of *The Times* case which related to paragraphs of this description that the counsel who appeared for the *St. James's Gazette* took their stand. Plainly the mere accident of being first to learn and publish a fact cannot be permitted to give to its publisher the right to forbid anybody else from communicating the fact, whether by print or otherwise. Inasmuch as in current news the fact is commonly everything, the literary form a matter of small or no account, it seems idle to assert a copyright in matter of this description. But Mr. Justice North did not dispose of the matter in any rough-and-ready manner of this sort. He held that the plaintiffs were entitled to a copyright even in these short paragraphs of news, but he took care to discourage litigation based upon any such minute grounds of complaint as the infringement of such rights could furnish

by refusing the plaintiffs' costs so far as these particular matters were concerned. Probably a right recognised in law, but in practice fettered by the risk of incurring incommensurately heavy costs is the best practical solution of the difficulty. It is not logical, nor is it quite easy to explain; but it is very easy to understand, and it has a tendency to make both parties desire to act well within their rights—a temper which, when such delicate matters as literary properties are concerned, is eminently worthy to be commended.

THE AFTER-CARE OF THE INSANE.

WE would direct the attention of all who take an interest in the welfare of their suffering neighbours to the work of practical kindness carried on by the London After Care Association. Instituted for the benefit of poor convalescents from mental disease, this Society is exercising alone, and under considerable pressure of adversity, functions as distinguished by their conservative utility as they are humane. Its objects are to provide for the boarding out in country homes of the class of convalescents already mentioned, and to find occupation for such of them as may be able to follow a calling. Gifts of clothing and the like are allowed in suitable cases. The total number of applicants during the year ending June, 1891, was seventy-three as compared with sixty-six in the year preceding. The number of working associates has considerably increased. Unfortunately we cannot say as much for the funds of the Society, which have undergone an appreciable, though not a great, reduction. In estimating the practical value of the Society's efforts, we have to take into account the fact that the afflicted persons whom it assists are, by the very nature of their illness, excluded from the majority of ordinary convalescent establishments. This circumstance alone should suffice to justify the claim for public support issued by the Association. If still further proof be desired, it is to be found in a report of the Council for 1890–91, published by E. A. Beckett, 111 and 113, Kingsland-road, N.E.

AMŒBIC DYSENTERY.

ATTENTION has already been drawn in these columns to a form of dysentery characterised by the appearance of amœbæ in the stools. An elaborate series of investigations on this subject was undertaken by Drs. Councilman and Lafleur, of New York, and their results are published in the Johns Hopkins Hospital Reports, vol. ii., Dec. 1891. We shall only refer here to the description of the pathogenic micro-organisms. The amœbæ have already been described by Lörch, Kartulis, and Osler. In searching for the organisms some choice had to be exercised in the portions of stools destined for examination. Thus they were rather more numerous in the small gelatinous masses which were often contained in the fæces than elsewhere. The numbers of them which were found in the different cases, and even in the same case, at different times, varied greatly. At times no single portion of the fæces which could be examined was free from them. In other cases single examples of them were only found after long and careful search. Their numbers in general were proportional to the severity of the lesions. They were most abundant in the cases in which the lesions were most acute and most extensive. The amœbæ differed somewhat in appearance according as they were active or inactive. In an inactive condition they were round or slightly oblong, and were more refractive than the other cells which surrounded them. In this resting condition there could frequently be distinguished no division into an ectosarc and an endosarc, but there appeared to be simply a body enclosing vacuoles of greater or less size. These vacuoles were clear, and their contents much paler than the substance which enclosed them. They varied greatly in size. Some were found one-third the diameter of the entire amœba; others were much smaller, and in some cases the whole mass was so filled with tiny vacuoles of equal size that the organisms resembled a compound granular body. In other cases there was a sharp division between the outer and the inner portions of the amœba. The outer portion was composed of a pale hyaline or homogeneous substance, and the inner contained vacuoles and was much more refractive. The amœbæ were difficult to recognise in this condition unless active ones were found at the same time, and so attention was directed to their presence, otherwise they were easily overlooked. Their appearance when moving was characteristic. The activity of their motion, however, varied greatly in the different cases, and even in different observations made on the same case. Every degree of activity of movement could be seen. At times the movements were so slow that the observer had to look carefully for some time to be sure that any change had taken place, whilst at others the movements were so rapid that certain of their phases could scarcely be followed. The movements consisted essentially of two kinds, a progressive movement and one limited to the thrusting out and retraction of pseudopodia. In some instances there seemed to be a certain rhythm in these movements, which occurred at regular intervals. An amœba in which no movement could be detected would suddenly make one or several quick movements, thrusting out large pseudopodia or even changing its position, then become perfectly quiescent, suddenly repeating the movements after an interval. The movements were increased when the examinations were made on a warm stage. Various bodies were frequently enclosed in the amœbæ. The most common of these were red blood-corpuscles, which were often found in considerable numbers. Many of them were perfectly preserved; others had lost their colour, and could be recognised only from their outline. Pus cells, well preserved, or in various stages of disorganisation, were also seen, either in the ectosarc or in the vacuoles. Both bacilli and micrococci and the spores of the former were sometimes seen in them. Blood pigment was occasionally found under two forms—as irregular brown masses or as distinct black granules. These granules were often arranged in the form of a distinct ring, but this formation was more often seen in the amœbæ in sections of intestine than in the fresh specimens.

MORE STREET DANGERS.

IF we were to examine the matter thoroughly, we should probably find that hardly any accident which occurs is the result of a single cause. This point is, at all events, clearly brought out in the history of a case recently decided in the Marylebone County Court (Nunning *v.* Peter Robinson). The plaintiff, while passing along a pavement one evening, struck his foot against the projecting metal of a wooden flap let into it, tripped, and fell. The plea of contributory negligence, on his part not being made out, the defendant, the owner of the flap, was cast in damages somewhat heavily for allowing the existence of a dangerous obstruction. It is easy to understand the meaning of this verdict. Its logical consistence is of course apparent. At the same time, we must admit a certain degree of sympathy with the defendant, more especially as the roadway in question is said to have been fairly lighted, and the obstruction by no means formidable or, indeed, other than trivial to persons walking by day, and using ordinary care. In this case the accident occurred after nightfall. Had it happened by day the suit might not unfairly have been dismissed. We would not, indeed, have any of the reasonable privileges of wayfarers encroached upon by those of property, but we are still of opinion that the former should not be altogether absolved from exercising the necessary elements of caution

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required for personal security. All avoidable petty legislation is objectionable, and it would be the height of unreason to found a by-law on such an incident as this. Its most satisfactory result will doubtless be the removal of a number of prominent screws, nuts, and other obstacles from public footways; and we trust that, when these minutiæ are provided for, such relatively greater evils as the open trap-door which ought to cover the household coal-cellar or the store caverns of many City warehouses will also be considered and treated.

LEPROSY IN THE CAUCASUS.

IN a paper read before the Caucasian Medical Society, Professor Minkh gave a history of leprosy in the Tersk district. He showed that it must have been in existence there amongst emigrants from the borders of the Don and of the Volga during the latter part of the last century, and that though there are no statistics of the number of persons affected up to 1840, it must have been appreciable, as there were lazarets in a good many places for lepers. From 1841 to 1883 the disease seems to have been steadily on the increase, but after that the number of victims rapidly diminished. It is an interesting fact that in localities where lepers were kept apart from healthy persons in special buildings the numbers attacked diminished, while in other localities where segregation was not practised they increased.

INFECTIOUS DISEASE AND SCHOOL CLOSURE.

INDICATIONS are not wanting that sanitary authorities throughout the country are beginning to act upon the knowledge so abundantly gained as to the close relation of the prevalence of infectious disease and the factor of school attendance. Thus, in the Watford urban and rural districts schools are being closed wholesale owing to the prevalence of scarlet fever and measles, and it is currently reported that there are more than 1000 children absent from school owing to this cause. Again, at Hale and Tongham, in the Farnham rural district, the schools have been temporarily closed owing to the reappearance of diphtheria in that classic haunt of the disease. Similar measures have been taken at the remote village of Garton-on-the-Wolds, in Yorkshire, where diphtheria has broken out. We trust that these several hygienic precautions will prove of use to the authorities concerned in repressing the spread of the infectious diseases with which they have to deal. But they must be carried out in a firm and complete manner. No half measures are of use in emergencies such as these.

LONDON SEWAGE.

THE present system of dealing with the sewage of the metropolis by chemical precipitation is, significantly enough, regarded as a legacy from the Metropolitan Board of Works to the County Council. An enormous sum of money was expended on its establishment, and it is thought that the system should have a fair trial before deciding on one still more expensive. So far, the method is in reality totally inadequate to deal with the requirements of the metropolis. The effluent appears to be clear, but the water all around the outfalls of Barking and Crossness is black and repulsive, and although it does not seem to contain suspended matter, yet doubtless it contains plenty of dissolved organic substances that readily undergo putrefaction, and such that will give rise to an intolerable nuisance. That the condition of the river does not improve is borne out by the fact that the dredging expenses of the East India Dock Company have in three years risen from £13,000 to £40,000, and this increase is attributed mainly to the way in which the sewage is treated. Apart from the public health point of view there are shipping interests to be considered, for it appears that the navigation of the river is seriously interfered with by the deposition of sewage matter. During the last year or so complaints have not been so frequent, probably because the weather has been of such a character as to provide an abundant supply of water in the river; but as soon as we experience a period of hot and dry weather such as we are now promised, all the abominations of a sewage-polluted stream may be reasonably anticipated. The sewage works at Barking and Crossness were visited and inspected by a special committee appointed by the Chamber of Commerce on the 3rd inst., and they considered that although some improvements had been effected since the early part of the year, very much yet remained to be done to render the sewage system of the metropolis perfect.

PROGRESS OF THE CHOLERA.

CHOLERA appears to be still raging at Meshed, more than a hundred deaths occurring every day. The last news is that the disease has appeared amongst the English camps in the hills, and that *cordons sanitaires* are being formed to arrest the movement of pilgrims. We had hoped that the last had been heard of this antiquated mode of warfare against disease, and that the time consumed in forming *cordons* might have been more usefully employed in the direction of an improved system of sanitary defence.

THE ROYAL SEA-BATHING INFIRMARY.

WE regret to observe that unless additional contributions are speedily forthcoming the Royal Sea-bathing Infirmary at Margate will have to reduce the number of its beds from 220 to 80. Such a curtailment of the benefits of so meritorious an institution would be a calamity, and we trust that the appeal published on Monday last will be successful in warding it off. That appeal was most influentially supported, the Archbishop of Canterbury, the Lord President of the Privy Council, the Presidents of the Royal Colleges of Physicians and Surgeons and of the General Medical Council being among the signatories. The Sea-bathing Infirmary was founded in 1791, and is practically unique. After so long and useful a career, it would be pitiable were it suffered to fall into neglect. Rather should we be hearing of its extension and increase in accommodation than the reverse.

GLYCOSURIA FROM COAL-GAS POISONING.

THAT glycosuria is an invariable after-effect of poisoning by oxide of carbon is stated in text-books—mainly continental ones it must be admitted—as an irrefragable fact. Professor Jaksch, to instance one pathologist among many, gives currency to it in the last edition of his authoritative work. Dr. Garofalo, however, in a publication entitled "Glicosuria per Ossido di Carbonio e per Gas Illuminante," traverses this teaching in the most trenchant manner, grounding his criticism on data reached by himself after a careful series of experiments in Professor Colasanti's laboratory in Rome. Having reviewed the previous state of our knowledge on the question, as given in medical treatises and clinical memoirs, he proceeds to set forth the results he has independently obtained. He asphyxiated a number of dogs with vapour of carbonic oxide, and in no case found this mode of poisoning followed by the slightest vestige of sugar in the urine. Thereafter he made prompt and thorough examination of a clinical case of acute oxy-carbonic asphyxia, and again ascertained the urine to be totally devoid of sugar. From these observations, in which the search for sugar was conducted and checked by every test known to modern

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analysis, he concluded that glycosuria, if really found in the renal excretion after carbonic acid or coal gas poisoning, is a purely accidental and variable phenomenon—a coincidence of two different processes set up in the system, certainly not a consequence of one condition upon another. He animadverts with apparent truth on what struck him in the observations of more than one experimentalist—viz., that these were based on methods in the reduction of alkalino-metallic solutions which could hardly fail to yield fallacious results.

THE POWERS OF COUNTY HEALTH OFFICERS.

AN important point has been raised by the Northallerton Local Board as to the power of the North Riding health officer to examine cases of suspected disease in their district in the absence of the medical officer of health of the district. Animated correspondence is already passing between the Local Board and the County Council. We refrain from comment on the matter, which will most likely be referred to the legal advisers of the Local Government Board for decision.

TERRITORIAL MONOPOLY OF QUALIFICATIONS.

WE are glad to notice that the territorial monopoly of qualifications has received a severe blow at Hastings. The rule of the Hastings Hospital has been altered, and now reads as follows:—"No person shall be elected to the office of physician or assistant physician unless he be a Fellow or Member *by examination* of the College of Physicians of London, *Edinburgh*, or *Dublin*, and be a Graduate in Medicine of one of the Universities of the United Kingdom, and be also duly registered under the Medical Acts." The italics represent the enlargement and liberality of the change made. We cannot go quite so far as Dr. Heath and say that the Medical Council, by doing its duty, shows the equality of their various examinations. The duty of the Medical Council is only to ascertain that the various examinations guarantee competency to practise. This does *not* necessarily involve fitness for hospital appointment, or equality of severity in the higher examinations in different divisions of the kingdom. The Medical Council is seriously defective in power and authority here. And the defect constitutes one great reason for some amendment of the Medical Acts; but, meantime, there is now no such ascertained inequality as to justify the monopoly of the London colleges, and it behoves all hospital authorities in the various divisions of the kingdom to act in the spirit of the Medical Act, and not argue, as one gentleman did, that men who have passed in Edinburgh and Dublin could not complain if, to gain an English appointment, they were called on to pass again in London.

BABY FARMING AT LINCOLN.

CERTAIN points connected with the history of a case of baby farming recently tried at the Lincoln police court are worth noting, if merely to remind us of the features most commonly characteristic of this form of crime. The child, which was illegitimate, had evidently died of starvation, not a particle of fat being found about the body at the post-mortem examination. It had been in the charge of two other persons prior to its arrival in the house where death occurred. The real significance of the word "starvation," as applied to such cases, may be noted. It need not here, as at a more advanced age, imply the want of food, since the mere mismanagement of this may easily be so contrived as to impoverish the system of the child while duly sparing the small sum allowed for its maintenance. The fact is familiar to most medical practitioners, and it is one which ought not to be overlooked. In the case already quoted conviction was obtained on the ground of failure to register on the arrival of the second of two nurse children. The authorities appear to have acted in the matter with commendable promptitude. We must, however, admit a degree of dissatisfaction that the practice of registration cannot as yet be carried out in still further detail than it is. It need not entail any meddlesome interference on the part of local authorities if even single nurse children are subject to registration. Their careful supervision would thus be better ensured, their transference from nurse to nurse rendered more easily traceable, and the farming system still practicable in their case exposed at its last remaining root. In conclusion, let us once more impress upon our readers an obligation incumbent upon all medical men—namely, that of refusing to certify, in the event of death, any cases which may be suspected of belonging to this class.

MIDWIVES REGISTRATION BILL.

THE Committee of the House of Commons on this Bill do not propose to hear more evidence, and will meet on Friday, June 17th, to consider their report.

THE SMALL-POX EPIDEMIC.

SMALL-POX continues to spread throughout the country in much the same proportion as has been the case recently. Some sixty cases a week are reported throughout the kingdom, of which the metropolis furnishes about a half, and Dewsbury and Batley the next largest proportion. There are signs of some recrudescence of the disease in these latter places, as well as in the Wakefield Rural District.

WATER POLLUTION IN THE RHONDDA VALLEY.

IT is alleged that the intake of the Ystrad Waterworks Company has been largely fouled by the entrance into the stream above the intake of a considerable amount of human and animal contamination from the Blaenrhondda Colliery levels. A representative section of the ratepayers in the district has requested the sanitary authority to institute legal proceedings against the Water Company unless the latter at once remove the intake to a point above the colliery levels.

A REMARKABLE VERDICT.

AN inquest was held at the Ordnance Arms, Chatham-extra, on June 4th, by Mr. W. H. Bell, LL.B., touching the death of a child aged seven months. The mother of the deceased deposed to its having been a sickly child, and that of late it had suffered from a bronchial affection. She consulted Dr. Jefferiss on several occasions, when he prescribed. Previously to the last visit some cough mixture obtained at a herbalist's had been administered. On this occasion Dr. Jefferiss noticed that the pupils were contracted, and he came to the conclusion that the symptoms were in part due to morphia poisoning. The wife of the herbalist admitted that she sold the mixture, and that it contained one drachm of chloroform and half a drachm of acetate of morphia to the gallon. The child had half a drachm of the syrup given to it, which would be equivalent to about $\frac{1}{16}$ grain of acetate morphia, a quantity certainly dangerous to an infant, especially when suffering from bronchitis. Dr. Jefferiss testified that the death was primarily due to morphia poisoning. The coroner's jury utterly ignored this, and returned a verdict of "Death from natural causes—viz., bronchitis." We are entirley at a loss to reconcile this verdict with the evidence. Surely there ought to be some means of preventing ignorant people from dealing in a deadly mixture which they seem to dispose of quite heedless of its dangerous nature.

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SUCCESSFUL TREPHINING FOR TRAUMATIC EPILEPSY.

IN a recent number of the *Philadelphia Medical News* Dr. Binkley gives details of a case in which the removal of depressed bone from the skull in a case of traumatic epilepsy, some years after the injury, was followed by a most satisfactory result. The patient was a man thirty-seven years old, who had been struck on the head by a hatchet sixteen years ago. There was a good deal of exfoliation of dead bone some little time after the injury. The injury was four inches above the left orbital margin, over the prefrontal convolutions, and, beyond producing temporary unconsciousness, seems to have caused no symptoms, the man being able to resume work in a day or so. From this time, however, he began to suffer from epileptic fits (no detailed account of which unfortunately is given), at first occurring monthly, but becoming more frequent till during the four months preceding the operation he had from two to four fits every day. He was trephined over the site of the injury, and an area of depressed bone two inches in diameter was removed, the brain substance not being interfered with. The relief afforded seems to have been immediate and complete, and when the case was published, seven months after the operation, there had not been a single recurrence of the fits.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. von Coler, Surgeon-General of the Prussian Army, has been granted the title of Honorary Professor.—Professor Wilhelm Krause of Göttingen has settled in Berlin, and has been recognised as a *privat-docent*. Though he formerly taught morbid anatomy, he latterly confined himself to normal histology. His inaugural lecture had for its subject the Anthropology of Ireland.

Brussels.—The collection of apparatus, together with the library of the late M. Stas, has been purchased by M. Solvay, and presented to the University. The same donor has promised to build and equip laboratories for medical physics and physiological chemistry at a cost of 500,000 francs.

Freiburg.—Professor Hugo Muensterberg has obtained prolonged leave of absence in order to go to America and superintend the establishment of a psychological laboratory at Harvard University.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. L. A. Krohn, Lecturer on Surgery in Helsingfors, at the age of fifty-five. He was employed by the Prussians as surgeon during the Franco-German war, and during the Russo-Turkish war he acted as chief of the Finnish ambulance.—Dr. Lesser, Sanitary Councillor, of Obernigk.—Dr. Leff Konstantinovich Ivanovski of St. Petersburg. He was formerly prosector to Professor Landtsert, and at one time taught anatomy to the female students. Latterly he had devoted himself to military medical work, and had taken a great interest in anthropological archæology.

UNDER the provisions of the 8th Section of the Factory and Workshops Act, 1891, Mr. Matthews has certified that the "processes carried on in factories and workshops, or parts thereof, in the manufacture of lucifer matches, except such as are made with red or amorphous phosphorus, are injurious to health." The clause under which the Home Secretary has taken action provides that "where the Secretary of State certifies that in his opinion any machinery or process or particular description of manual labour used in a factory or workshop (other than a domestic workshop) is dangerous or injurious to health, the chief inspector may serve on the occupier of the factory or workshop a notice in writing, either proposing such special rules or requiring the adoption of such special measures as appear to the chief inspector to be reasonably practicable, and to meet the necessities of the case."

THE *Jewish Chronicle* of the 3rd inst. announces that Dr. Leopold Casper has been elected to the much-coveted position of a member of the Senate (consisting of twelve) of the Faculty of Medicine of the University of Berlin. "Dr. Casper," our contemporary states, "has attained considerable eminence in his profession, having studied in England under Sir Henry Thompson, in Vienna under Dittel, and in Paris under Guyon. In the years 1886 and 1887 he published two translations of the principal works of Sir Henry Thompson, and he has also written several original works. The election of the first Jew to the Senate is of importance in the face of a somewhat strong anti-Semitic feeling."

THE Sub-committee of Nursing and Hygiene in connexion with woman's work at the Chicago Exhibion will meet at 53, Berners-street, W., on Monday, June 13th, at 5 P.M., to consider the most suitable furniture for a general hospital ward, and will welcome any suggestions concerning the construction of hospital beds, bedding, and cots.

COUNSEL on behalf of Mr. T. R. Allinson moved, on June 3rd, before a Divisional Court of the Queen's Bench, for a rule calling upon the General Medical Council to show cause why an injunction should not issue to restrain the Council from removing Mr. Allinson's name from the Medical Register. A rule *nisi* was granted.

THE Russian Government has directed Dr. Lunkiewitz, the director of the Caucasian Military Medical Laboratory, to proceed to Afghanistan and the Trans-Caucasian territory to study the question of cholera.

THE annual dinner of the Army Medical Staff will be held in the Whitehall-rooms of the Hôtel Métropole at 7.30 P.M. on Monday, June 13th, 1892.

A TELEGRAM has been received at Berlin containing what purports to be confirmation of the rumour of the death of Emin Pasha.

CAMBRIDGE UNIVERSITY LONG VACATION.—The Professor of Pathology during the long vacation will lecture upon Elementary Pathology on Mondays, Wednesdays, and Fridays, at 9 A.M., and on Thursdays, at 10 A.M., beginning Friday, July 8th. In connexion with these lectures Dr. E. Lloyd Jones, Demonstrator of Pathology, will conduct a practical course in Morbid Anatomy and Histology, at 2.15 P.M., on Tuesdays and Thursdays, and at other times, to be arranged when the class meets. This course will begin on Tuesday, July 12th. The fee for lectures and practical work will be £3 3*s.*, payable to Mr. Shipley at the New Museums. There will also be a complete course of lectures and practical work in Bacteriology, with special reference to the requirements of candidates for the diploma in Public Health, given by Mr. Adami, Mr. Kanthack, and Dr. Lloyd Jones. This will be held thrice weekly, beginning Friday, July 8th. The fee for this, including apparatus and the use of immersion lens, will be £6 6*s.* For fuller information concerning this course it is requested that application be made to Mr. Adami, Pathological Laboratory, New Museums. The accommodation will only suffice for a limited number of students.

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THE INFLUENZA EPIDEMIC.

(*Concluded from p. 1267.*)

THE fifth section of the report is devoted to the general pathology of influenza, and is contributed by Dr. Hugo Ribbert. He commences with a description of the lesions so constantly met with in the respiratory tract. As regards the lungs, he points out that the forms of pneumonia which accompany or follow influenza are somewhat varied; often there is lobar pneumonia, in which the hepatisation has on section a peculiar smooth aspect, differing from the granular character of ordinary croupous pneumonia; or this condition may be commingled with areas of lobular hepatisation; or the latter alone may be present. Again, in some cases there is marked interstitial inflammation, a character which may account for the greater tendency to the supervention abscess and pulmonary gangrene observed in influenzal cases. Of course, pleurisy is a frequent concomitant; while pericarditis, and sometimes myocarditis, have been observed. Dr. Ribbert notes the enlargement of the spleen, upon which it may be remembered that some stress was laid (especially by Baumler) in the early history of this epidemic. There may be cloudy swelling of the kidneys or even glomerulo-nephritis. Cerebro-spinal meningitis and cerebral abscess have been met with. But the chief feature of the morbid anatomy of influenza is the inflammation of the respiratory organs, to which the main mortality is due. Brief reference is made at the close of the article to the discovery by Pfeiffer and Canon independently of a bacillus in the blood and bronchial secretion.

The symptomatology of influenza cases is described by three contributors. Dr. M. Litten deals with the symptoms of disorder of the circulation and respiration. The pulse, he says, is generally small, sometimes unduly slow, more often quickened, perhaps to an abnormal extent. In some cases there has been great cardiac weakness, terminating in sudden death from cardiac paralysis during the convalescent stage of the primary attack. Other patients have been liable to anginal attacks; whilst in some the symptoms of inflammation of the membranes of the heart and its wall have been manifest. In connexion with the tendency to cardiac asthenia, the records he gives of cases of thrombosis, venous and arterial, are of interest. The respiratory phenomena are dealt with fully. There is the frequent nasal catarrh—not perhaps so prominent a feature in this epidemic as in others on record—and associated therewith is the liability to epistaxis. Pharyngitis, tonsillitis, laryngitis, have all been observed. Bronchitis, with tendency to asthmatic seizures and sometimes croupous bronchitis, form a notable feature of influenza. As regards pneumonia, Dr. Litton thinks it was quite as prevalent as in former times, and calculates the proportion of influenza cases attacked with it to be as high as from 5 to 10 per cent. We should not have placed it so high as this. He notes the more sudden invasion of the croupous form as contrasted with the insidious onset of the equally common bronchial or catarrhal type, and states that the pneumonia was complicated frequently with pleurisy, and sometimes with pericarditis and meningitis. The pneumonia was frequently bilateral (especially the catarrhal form), or of a "wandering" type. Eleven cases are reported of "relapsing pneumonia;" eight cases of pulmonary abscess, and six of gangrene. The subjects of pulmonary phthisis were always made worse by an attack of influenza, which, doubtless, during its prevalence, added to the mortality from that disease. The derangements of digestion are described by Dr. L. Riess, who confines himself to a close analysis of the returns. Out of 3231 replies having reference to digestive symptoms only 275, or 8·5 per cent., give reliable answers; 6·8 per cent. allude to them as being of the nature of "dyspepsia;" 18·9 per cent. speak of "gastric catarrh;" 17·3 per cent. of "gastro-intestinal catarrh," and 7·2 per cent. simply of "intestinal catarrh." It is clear, therefore, that the majority refer the lesion to inflammatory disturbance analogous to that of the respiratory mucous membrane. It was observed that the gastro-intestinal disorders were more severe and complicated in South-west Germany than in North-east, where, although the number of cases was large, these affections were of milder type. Speaking generally, for the whole country the slighter disorders were very frequent, and about one-fourth were more severe, with varying predominance of special symptoms, as vomiting, diarrhœa, constipation, &c., and as to the duration of convalescence. It is clear that in one class the symptoms were almost purely gastric; in another gastro-intestinal. The symptoms of nervous type are analysed by Dr. W. Zülzer, who reports that 50 per cent. suffered from headache, and 27 per cent. from pains in the back, loins, limbs, and joints. Prostration is a constant feature. Vertigo occurred in 12·6 per cent.; insomnia in only 6 per cent.; delirium in 8 per cent. On the other hand, neuralgic affections, especially trigeminal neuralgia, were reported in 45 per cent. of the cases. Allusion is made to disorders of taste and smell, and a table is given of the rarer forms of nervous disease. Several articles follow on the complications and sequelæ of influenza. The first, by Dr. F. Stricker, reviews the whole subject, and shows by the aid of maps how the various affections for which influenza is responsible were distributed throughout Germany. Then follow articles on Pneumonia, by Dr. Litten; on Affections of the Larynx, by Dr. J. Lazarus; on Affections of the Eye, by Dr. Karl Horstmann; on Affections of the Ears, by Dr. A. Hartmann, who distinguishes two forms of influenzal otitis, one by direct extension from the nasal mucosa through the Eustachian tube, and the other of hæmatogenous (infective) origin. The same writer contributes an article on Affections of the Nose; whilst Dr. M. Jastrowitz writes on Mental Disorders. Under the general heading of "Course and Issue," there are two articles—one on Convalescence, by Dr. Paul Fürbringer, showing how in by far the majority recovery was rather slow than rapid; and one on the Causes of Death, by Dr. P. Guttmann. Out of 3625 returns, respiratory diseases are responsible for 68 per cent. of the fatal cases (and of these pneumonia was the chief), circulatory diseases for 13·3 per cent., digestive (gastro-intestinal) for 1·7 per cent., nervous for 6·4 per cent., acute infective diseases (influenza *per se*, typhoid fever, diphtheria, acute tuberculosis, pyæmia, septicæmia, puerperal fever, erysipelas) for 1·4 per cent., constitutional maladies (alcoholism, diabetes, leukæmia, pernicious anæmia) for 0·6 per cent., and a series of other affections (not classified) 8·0. All these are analysed under each Department and State of Germany, and form a valuable statistical summary.

The subject of treatment is dealt with by Dr. Paul Fürbringer. He says that the view that there is a specific remedy for influenza is only held by 2 per cent. of the reporters, whilst 200, or 6 per cent., term their treatment symptomatic or expectant, 400 advocate diaphoretic treatment, and 305 say that the essentials are warmth and rest in bed. A marked minority—viz., 123, or only 4 per cent.—advocate the use of cold; 1160, or 35 per cent., prescribed antipyrin; 606, or 18 per cent., quinine; 485, or 15 per cent., antifebrin; and 470, or 14 per cent., phenacetin. He finds that, whereas antipyrin was most in favour in Berlin, the Rhine provinces show a larger prescription of phenacetin; whilst in Saxony there was about an equal number of prescriptions of these two drugs. Salicylic acid and the salicylates were prescribed by 200; thallin hardly at all; calomel and iodide of potassium by a few. Cardiac tonics, sedatives, and alcohol were given by a considerable proportion, about 250 advocating a stimulant and restorative method by generous diet, gastric tonics, and alcohol as being especially useful in the convalescent stage. A few abstained wholly from the use of drugs, and found that confinement to the room during the attack and, for a week after it, was all-sufficient. A general summary of the remarks invited from the reporters is given by Dr. A. Hiller. The most interesting of these refers to the period of incubation of the disease. The majority place this between two and six days, the shortest being twelve hours given by Dr. Kockmann (Abenberg), the longest seventeen days, by Dr. Hennig (Leipsic). Some reporters explain the immunity enjoyed by certain people as being due to their comparative isolation—e.g., persons without families, the inmates of convents, &c. One writer thinks tobacco confers immunity. Some advocate the use of quinine as a prophylactic. In addition to these articles the volume contains, further, two

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special articles—one on Influenza in Childhood, by Dr. Baginsky, and one on its occurrence in Prisons, by Dr. Baer. It is noteworthy that on an analysis of four prisons, having an average daily number of inmates equal to 1486, only 168, or 11·29 per cent., were attacked during the epidemic.

THE IMPERIAL INSTITUTE OF EXPERIMENTAL MEDICINE IN ST. PETERSBURG.

THIS institute owes its origin to the circumstance that an officer of the Imperial Guard was bitten by a rabid dog during the latter part of the year 1885; and also to the interest taken in the case by the commandant of the corps, Prince Alexander Petrovich of Oldenburg, who sent the officer to M. Pasteur in Paris, in order that he might undergo the treatment by inoculation, which was then just beginning to become known. The Prince also sent Dr. Kruglevski, with instructions to make himself familiar with the preventive treatment of rabies as practised by Pasteur; and he afterwards established at his own expense a laboratory in the veterinary infirmary of the Horse Guards. During the succeeding summer arrangements for the treatment were in full force. Two years later the Prince obtained from the Emperor authority to establish an Institute of Experimental Medicine, which should combine the functions of Pasteur's Institute in Paris with those of the Hygienic Institute of Berlin. It is not a mere collection of laboratories, but an organised series of departments, each of course in charge of an eminent professor, and the whole under a director who is responsible to the Prince himself, who is "curator." The grounds occupy 37,464 square metres, and are situated in the Aptekarski Island, a suburb of St. Petersburg. The principal building comprises sections for the anti-rabic treatment, for epizootology, for physiology, for chemistry, for general microbiology, for pathological anatomy, and for pathogenic microbiology, together with a lecture theatre, a library, and rooms for mechanical work and for small animals; another building is temporarily devoted to the chief of the section of syphilidology; a third building is occupied by animals of various kinds; a fourth is a kennel with thirty-two cages, four of which are intended for dogs suspected of having rabies; a fifth building is occupied by monkeys; a sixth is set apart for experiments on highly contagious diseases, such as glanders (this building consists of three isolated compartments, each having a special entrance); a seventh is intended for a human patient and his attendant, as it may sometimes be necessary to study the course of a disease in the human subject; an eighth building contains the hydraulic, electric, and other machinery. The illumination of the whole institute is carried out by means of 600 incandescent lamps, which are worked by two horizontal steam engines and two dynamos. There is, besides, an accumulator with a charge of 360 ampère-hours. The greatest care has been taken to prevent any contagion spreading outside, all solid matter, such as the dung and the litter of the animals, being burnt, and all the liquid sewage sterilised at 140° C., by means of an ingenious apparatus devised by Mr. Hanneken, the engineer, which is capable of sterilising fifty cubic metres in the twenty-four hours. The sewage from all sources is collected in a large iron reservoir, where the solid matter is separated by a special filter and afterwards burnt, the filtrate being passed through the sterilising apparatus before being allowed to flow into the town sewers. In addition to the buildings already mentioned, there are several others containing the apartments for the staff, also a chemical laboratory. A complete account of the institute and a plan constitute the first volume of the *Archives de Sciences Biologiques*, which has just appeared.

DOUBTFUL ECONOMY.—It is stated that the Devizes Urban Sanitary Authority has decided to abandon for the present an extension of the fever hospital, for which the Local Government Board had sanctioned an outlay of about £1200. The reason assigned for this decision is the heaviness of the present rates.

THE SO-CALLED VENEREAL DISEASES IN ANIMALS.

MUCH interest, from a comparative pathologist's point of view, attaches to these diseases of the domesticated animals, and especially to a syphiloid disorder affecting horses, which has for a considerable number of years attracted much attention and received a good deal of investigation.

A non-specific gonorrhœa is not unfrequently observed in the dog, in which there may be balanitis and posthitis, as well as urethritis, and which is sometimes troublesome to cure; but there is no evidence that it is communicable or productive of anything more than local lesions, though these are often very distressing to the animal. This condition is generally seen in pet dogs, though out-of-door animals—such as watch-dogs—are not exempt. It sometimes accompanies scabies, but is chiefly due to uncleanliness, over-feeding, and such-like causes. Urethritis is not uncommon in old rams, and is supposed to arise from over-copulation; it is at times so severe and persistent as to lead to stricture, but it does not seem to be very communicable to ewes. A similar disorder affects the bovine species, chiefly the male, and is known to those who have to deal with cattle as "bull-burnt." Its contagiousness has been denied by some authorities, though they admit that the acridity of the discharges will excite inflammation in mucous membranes with which they come in contact. But the majority of observers concur in the opinion that it is contagious, the contagium being very subtle. All the cows in a village may be contaminated by a diseased bull, and intermediate communication has been recorded, cows being infected by sponges that had been used to dress the affected bulls. In one instance a cow was the means of conveying the malady to nine others without the intervention of a diseased bull, contamination taking place by the affected animal rubbing against the healthy, and the continual whisking of the tail owing to the irritation in the vagina and urinary passages. The disease may attack the same animals several times; bulls have been known to receive the contagium from cows three times at short intervals. The symptoms in the cow are those of more or less acute vaginitis, with small vesicles or yellowish translucid pustules, the size of a grain of millet, studding the surface of the mucous membrane; this eruption is rapidly transformed into ulcers, when the exudate becomes purulent, the discharge being often rather copious. The ulcerations are frequently accompanied by local induration, their borders being irregular and thickened and their centre unhealthy looking. When they heal the cicatrices are whitish, smooth, and regular or stellate in shape. If there happens to be a sore in the vagina when infection occurs, then the case is more serious, as it may lead to sloughing of gangrenous patches. In rare cases the inflammation extends to the uterus and Fallopian tubes, and even beyond these. Slight fever is present in the majority of cases, and the appetite, rumination, and lacteal secretion are diminished. In exceptional instances pregnant cows abort, and frequently there remains a persistent vaginal catarrh. In the bull similar symptoms are noted; the urethritis causes frequent micturition, preceded and accompanied by violent expulsive efforts; phimosis is common; erection of the penis often causes the ulcers on it to bleed, and in exceptional cases gangrene occurs over a large surface. The animals become debilitated, while the appetite is diminished and rumination suspended. The disease runs its course in from eight to fifteen days, though it may occupy three or four weeks. In France it is known as the "éruption du coït" and "maladie aphtheuse des organes génitaux," and in Germany as "Aphtherausschlag" and "gutartige Beschälkrankheit," to distinguish it from another venereal disorder to be noticed presently. It may continue for some months in the same cowshed.

A similar infectious exanthematous disease of the genital organs is observed in the equine species, and the symptoms do not differ much from those noticed in cattle; while it is spread in the same manner, though it is not so common. For instance, in Prussia, in 1884–85, it was reported as affecting 784 cattle, but only 75 horses; in the various provinces of Germany, in 1886, it attacked 3944 cattle and 248 horses; in Bavaria, in 1885, there were 455 of the former

and 9 of the latter; and in Würtemburg, 362 cattle and 13 horses were diseased. This frequency in the bovines, however, is only relative, and is due to cattle being more numerous than horses. The malady is usually spread by coition, and it may assume an epizootic form, as one diseased stallion can contaminate a large number of mares. It is said that one attack does not confer immunity from another, and it has also been stated that a stallion is capable of infecting several weeks after having been apparently cured. Foals have received the disease from the mares while sucking, the ocular, nasal, and buccal mucous membrane becoming affected. The period of incubation is from three to six days. In serious cases the inflammation may extend to the limbs, involving the lymphatic vessels and glands, and giving rise to abscesses and ulcerations in the neighbourhood of the mammæ, anus, and tail, with metritis, high fever, and general disturbance. Sometimes death ensues in these cases; and when it does not, recovery is very tedious.

French veterinary pathologists insist that this exanthematous disease of the generative organs in the bovine and equine species is horse-pox transmitted to the former; and certainly the clinical and experimental evidence produced in France supports that view; while the Germans, who appear to deny or overlook this evidence, themselves furnish what might be accepted as proof, for they show that the exanthem is sometimes communicated to people, and most frequently to those who attend to the animals. Inoculation usually occurs on the hands, and the German pathologists admit that it produces a varioliform eruption, with tumefaction of the whole arm, swelling of the axillary glands, and febrile disturbance.

But the most interesting, as it is the gravest, of the venereal disorders of animals, is that designated by the Germans the "Venerischekrankheit der Pferde, Chankerkrankheit, bösartige Beschälkrankheit, Lähmungskrankheit"; and by the French the "maladie du coït, maladie vénérienne des solipedes, maladie paralytique du cheval, épizoötie chancreuse," &c.; while by the Arabs it is designated "el dourine" (the unclean disease). It has also been described as the "lues venerea equina." It has only come into notice at a comparatively recent date, and was first described by the German veterinarian Ammon, who saw it at the Trakehnen breeding stud, in North Prussia, in 1796, affecting the mares and stallions. From 1801 it disappeared in Prussia, but extended northwards, causing much loss in Lithuania, and returned again to Trakehnen in 1807. Such is the early history of the malady; but it may be remarked that it was supposed to have been seen in Southern Russia before this period, and Renner mentions that it prevailed among the horses of the Imperial stud at Skopin, and in the governments of Kazan, Pottchinkoof, and Nischni Novgorod. In 1815 it was noted in Austria, and had spread into Hungary and Bohemia in 1821, in which countries it became extraordinarily prevalent in 1859 and 1862 Switzerland was visited by it in 1830, and it inflicted heavy losses in the studs; in 1836 it invaded Italy, and it was observed for certain in Russia in 1843. It was reported in 1847 in the province of Constantine, Algeria, by a French military veterinary surgeon, who described it as an "epizootic paraplegia that had appeared among the horses of the Rigas tribe." Not aware of the existence of the malady on the European Continent, he designated it by one of its chief symptoms, and casually mentioned that it had appeared in a serious form every fifteen or twenty years; in this visitation it destroyed 600 horses, and subsequently, among those of this and other tribes, it has caused great havoc. Soon after it was reported from Algeria it was discovered in Syria; in 1851 it revealed itself in France, among the brood mares in the plain of Tarbes, and was soon found to prevail in thirty-one communes containing 1874 mares, of which 127 were diseased, and of these 52 died. In 1852 it manifested itself in the Valley of Lourdes, and since that time has spread and destroyed many horses. Its advent in France was traced to the introduction of a stallion from Syria in 1851, and two others in 1861; and its perpetuation in the southern portions of that country was ascribed to the climate resembling that of Syria, where it nearly always prevails. The disease has not yet been witnessed in this country, Belgium, Spain, Denmark, Australasia, or India; but three years ago it was carried to the United States of America by imported Percheron stallions. It is a chronic infectious, or rather contagious, malady, at first localised in the genital mucous membrane, but becoming more or less rapidly generalised. Its average duration is from six to twelve months, but it may take two, three, and even four years to run its course; during this time it may almost disappear and recur repeatedly, the local symptoms becoming ameliorated and then subsiding as general infection is accomplished. The mortality is at least 70 per cent. of those affected, and a cure is only possible at the very commencement; even then there is no certainty of absolute recovery, as the malady may reappear in two or three years and terminate fatally. In 1886, of 26 stallions attacked with the "dourine" at Blidah, Algeria, 16 died, 4 were sold after castration, and 6 appeared to be temporarily relieved.

The malady is more particularly observed at the period when mares are put to the horse, and it is almost exclusively transmitted in copulation, the stallion being mainly instrumental in diffusing the contagium, the mares having a less share in this, though the male is always infected by them; but a diseased stallion will convey it to all the mares he is put to. Owing to its chronicity, it not unfrequently happens that affected animals are able to spread the contagion for more than a year. Professor Thanhoffer, of the Buda-Pesth Veterinary Institute, who has published an interesting work on the subject, states that the infecting agent is a micrococcus existing in the vaginal secretions, semen, spinal fluid, medullary roots of the sciatic nerves, and the blood. Hertwig found the disease to be transmissible by inoculation with the vaginal mucus; and in a paper read by Professor Nocard, of the Alfort Veterinary School, before the French Academy of Sciences on Jan. 25th last, it appears that this able pathologist has ascertained that the spinal cord is virulent, and he has also assured himself that it is inoculable in dogs. Several of these animals, into the anterior chambers of whose eyes he had injected a small quantity of nervous matter from a softened portion of the spinal cord of a horse that had succumbed to "dourine," died in from six to eleven weeks, after being paraplegic or monoplegic, and undergoing progressive emaciation to an advanced degree. He has also noted that the virulence is retained for a long time in spinal cords immersed in pure neutral glycerine. Roloff, Jessen, and some others believed the disease to be hereditary.

The symptomatology is interesting, the clinical features varying with the stage of the malady. At the commencement, and after an incubation of from eight days to two months, there is inflammation, and usually ulceration of the genital mucous membrane; and when the infection has become generalised the spinal cord becomes affected, this showing itself in paraplegia commencing in the dorsal region, with muscular wasting, until at last the animal cannot stand, but persistently maintains the recumbent position, and finally dies from hypostatic pneumonia, or septicæmia consecutive to extensive bedsores. Accompanying these symptoms there is a peculiar syphiloderma that merits notice. There is remarked on the surface of the skin, especially in the stallion, well-defined rounded patches from the size of a florin to that of a five-shilling piece, and projecting uniformily from a quarter to half an inch. This cutaneous vaso-neurosis is evidently due to infiltration into the papillæ of the derma in the spaces corresponding to the smaller cutaneous arterioles. The patches are frequently rapidly developed, and sometimes disappear as quickly; but in the majority of cases they persist for several weeks, gradually become denser, and are slow in going away. Their usual seat is on the croup, shoulders, chest, and abdomen.

Besides the lesions observed on the mucous membranes, Thanhoffer has remarked indications in the spinal cord of myelomycosis, central hæmorrhagic myelitis or a syringomyelitis, or localised degenerative processes. The cord is thinner at certain places, and on section it is found to be asymmetrical, softened, and studded with hæmorrhagic points; while the grey substance is atrophied and shows small patches of softening. The meninges of the cord and brain are altered, generally congested, and contain effusions; the brain substance is frequently œdematous, and the ventricles contain a larger quantity of serum than usual. The ganglionic cells are also altered in their bodies and nuclei, as well as the axis cylinder, the bloodvessels and the neuroglia, which is increased in quantity. There is enlargement of the lymphatic glands of the generative organs, and they are pigmented, and have caseous foci of various sizes. The mesenteric glands are also sometimes enlarged to the size of an apple; and the intermuscular

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connective tissue and neurilemma of the large spinal nerves are the seat of a gelatiniform infiltration.

The origin of the malady is involved in obscurity. Some authorities have imagined it is human small-pox transmitted by syphilitic Arabs to the female ass, which communicates it to the male ass, and this in its turn conveys it to the female horse. The Arabs themselves believe it to be human syphilis, transmitted by diseased persons to mares with which they have intercourse, from a notion that this will free them from their disease. But there is no evidence whatever that the human disorder can be so transmitted to animals, and there are grave doubts as to whether it can be conveyed by inoculation. Though positive results are said to have been obtained by certain authorities with the monkey, rabbit, guinea-pig, cat, dog, horse, and pig, yet a series of experiments carefully performed by equally competent men on dogs, cats, cattle, pigs, mules, rabbits, and guinea-pigs have yielded only negative evidence. There is certainly no instance recorded of the so-called horse syphilis being communicated to man, and though between the two affections there are several points of resemblance, yet there can be no doubt that they are essentially distinct.

The same sanitary police measures are applicable to both; and it is a somewhat remarkable fact that in Germany, where the horse disease caused heavy losses, since the promulgation and strict enforcement of the law against contagious maladies in animals it has almost disappeared; indeed, for some years it has not been mentioned in the reports of the sanitary officers of that country.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6522 births and 3506 deaths were registered during the week ending June 4th. The annual rate of mortality in these towns, which had been 19·3 and 19·4 per 1000 in the preceding two weeks, declined last week to 17·9. In London the rate was 17·4 per 1000, while it averaged 18·4 in the thirty-two provincial towns. The lowest rates in these towns were 10·8 in Portsmouth, 11·8 in Croydon, 12·8 in Plymouth, and 12·9 in Gateshead; the highest rates were 21·9 in Liverpool, 24·2 in Halifax and in Manchester, and 25·9 in Burnley. The 3506 deaths included 455 which were referred to the principal zymotic diseases, against 469 and 478 in the preceding two weeks; of these, 189 resulted from measles, 106 from whooping-cough, 51 from diarrhœa, 48 from diphtheria, 32 from scarlet fever, 26 from "fever" (principally enteric), and 3 from small-pox. No fatal case of any of these diseases occurred last week in Croydon or in Norwich; in the other towns they caused the lowest death-rates in Bolton, Bradford, Wolverhampton, and Gateshead, and the highest rates in Sunderland, Manchester, Preston, and Halifax. The greatest mortality from measles occurred in Huddersfield, Manchester, Birmingham, London, and Halifax; from scarlet fever in Plymouth; from whooping-cough in Manchester, Salford, Swansea, Sheffield, Nottingham, Preston, Derby, and Sunderland; and from diarrhœa in Preston. The mortality from "fever" showed no marked excess in any of the large towns. The 48 deaths from diphtheria included 40 in London. Three fatal cases of small-pox were registered in London, but not one in any of the thirty-two large provincial towns; 89 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 11 in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1820, against numbers increasing from 1226 to 1741 on the preceding ten Saturdays; 215 cases were admitted during the week, against 226 and 202 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London further declined to 240 last week, and were 41 below the corrected average. The causes of 73, or 2·0 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Portsmouth, Oldham, Leeds, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Bristol, Birmingham, Norwich, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 21·5 and 22·1 per 1000 in the preceding two weeks, declined again to 20·2 during the week ending June 4th, and exceeded by 2·3 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·1 in Aberdeen and 14·1 in Leith to 22·3 in Perth and 23·9 in Glasgow. The 563 deaths in these towns included 34 which were referred to measles, 20 to whooping-cough, 11 to diarrhœa, 7 to scarlet fever, 3 to diphtheria, 1 to "fever," and not one to small-pox. In all, 70 deaths resulted from these principal zymotic diseases, against 78 and 80 in the preceding two weeks. These 76 deaths were equal to an annual rate of 2·7 per 1000, which exceeded by 0·4 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of measles, which had been 32 in each of the preceding three weeks, rose to 34 last week, of which 31 occurred in Glasgow. The deaths referred to whooping-cough, which had been 26 and 25 in the preceding two weeks, further declined to 20 last week, and included 15 in Glasgow and 3 in Edinburgh. The 11 fatal cases of diarrhœa showed a further increase upon recent weekly numbers. The 7 deaths from scarlet fever exceeded by 2 the number recorded in the preceding week, and included 5 in Glasgow. The 3 fatal cases of diphtheria corresponded with the number in the previous week, and included 2 in Paisley. The deaths referred to diseases of the respiratory organs in these towns, which had declined from 140 to 120 in the preceding three weeks, were 123 last week, and 19 below the number in the corresponding week of last year. The causes of 67, or nearly 12 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 34·6 and 29·1 per 1000 in the preceding two weeks, further declined to 28·6 during the week ending June 4th. During the first nine weeks of the current quarter the death-rate in the city averaged 33·3 per 1000, against 19·7 in London and 18·7 in Edinburgh. The 192 deaths in Dublin during the week under notice showed a decline of 3 from the number in the preceding week, and included 21 which were referred to measles, 3 to whooping-cough, 3 to "fever," 1 to diarrhœa, and not one either to small-pox, scarlet fever, or diphtheria. In all, 28 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·2 per 1000, the zymotic death-rate during the same period being 3·0 in London and 1·4 in Edinburgh. The fatal cases of measles, which had been 28 and 23 in the preceding two weeks, further declined to 21 last week. The deaths referred to different forms of "fever," which had been 1 and 4 in the preceding two weeks, were 3 last week. The fatal cases of whooping-cough, which had been 3 and 6 in the previous two weeks, declined again to 3 last week. The 192 deaths registered in Dublin last week included 36 of infants under one year of age, and 46 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons exceeded the numbers recorded in the preceding week. Nine inquest cases and 5 deaths from violence were registered; and as many as 73, or more than a third, of the deaths occurred in public institutions. The causes of 12, or more than 6 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

DR. MATTHEW KANE, Deputy-Inspector-General of Hospitals, Madras Army (Retired List), died on the 27th ult., at the residence of his son-in-law, 147, Newport-road, Cardiff.

MEDICAL OFFICERS IN WAR.

We called attention some time ago to the gallantry o Surgeon-Captain Melville, of the Indian Medical Service, during the revolt in North Lushai, and the circumstance

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serves to prove that the application of the term "non-combatant" to medical officers is entirely misleading. A medical officer has to take his part with the rest of the expedition of which he forms a part. He is subjected to all the risks and dangers of any fighting just like other officers, and when an engagement is over for other officers his responsibility and work only begin again. The every-day occurrences of military life in the field show that such distinctions cannot be drawn.

ARMY MEDICAL STAFF.

Surgeon-Captain H. E. Deane has taken over the charge of the Hospital for Soldiers' Wives and Children at Aldershot; Surgeon-Lieutenants E. M. Pitcher and E. M. Morphew have been appointed to the Cambridge Hospital, Aldershot; Surgeon-Lieutenant J. F. M. Kelly to the Second Station Hospital, Aldershot; Surgeon-Lieutenants G. S. Crawford and H. P. Johnson to the Third Station Hospital, Aldershot.—Surgeon-Captain C. R. Tyrell has been appointed Assistant Instructor at the Depôt and Training School, Aldershot.—Brigade-Surgeon-Lieutenant-Colonel Charles Stratherne Close is placed on retired pay (dated May 29th, 1892).

YEOMANRY CAVALRY.—Middlesex (the Duke of Cambridge's Hussars): Surgeon-Lieutenant William Duncan, M.D., to be appointed Captain (dated June 4th, 1892).

INDIAN MEDICAL SERVICE.

Surgeon-Major Salaman, Superintendent, Yerrowda Central Gaol, will, it is understood, officiate as Inspector-General of Prisons, Bombay, for three months, during the absence of Mr. Filgate, who goes on leave from the 21st inst.

Brigade-Surgeon-Lieutenant-Colonel George Bainbridge, M.D., I.M.S., has been appointed Honorary Surgeon, Sind Volunteer Rifle Corps.

The services of Surgeon-Captain T. D. C Barry, I.M.S., have been placed at the disposal of Government for permanent employment in the Civil Department.

The services of Surgeon-Captain T. E. Dyson, M.B., I.M.S., have been placed permanently at the disposal of Government for employment in the Civil Department.

Government of India Orders.—Medical: With effect from the date on which Brigade-Surgeon-Lieutenant-Colonel K. McLeod, M.D., retired from the Service, Brigade-Surgeon-Lieutenant-Colonel D. O'C. Raye, M.D., is appointed Professor of Surgery, Medical College, Calcutta, and *ex officio* First Surgeon to the College Hospital.—Surgeon-Lieutenant-Colonel J. O'Brien, M.D., Civil Surgeon, Darjeeling, is appointed Professor of Surgical and Descriptive Anatomy, Medical College, Calcutta, and *ex-officio* Second Surgeon to the College Hospital, vice Brigade-Surgeon-Lieutenant Colonel D. O'C. Raye.—Surgeon-Captain J. Scott, M.B., 6th Infantry, Hyderabad Contingent, is granted leave in India (p a) for forty-two days.—Surgeon-Major E. S. Brander, Civil Surgeon, Etawah, is appointed to officiate as Superintendent, Central Prison, Bareilly, during the absence on deputation of Surgeon-Major E. Mair.—Surgeon-Captain H. J. Pocock, M.S., is appointed to the civil medical charge of Roorkee, in addition to his military duties, from the date of taking charge and during the absence on leave of Surgeon-Major J. Young, I.M.S.—Surgeon-Captain L. G. Fischer, Civil Surgeon, Manipuri, is appointed to hold visiting medical charge of the Etah District, in addition to his own duties, during the absence on privilege leave of Surgeon-Captain H. E. Drake-Brookman.—Mr. H. R. Warner is appointed to officiate as Assistant District Superintendent of Police, and to be posted to the Lucknow District.—Surgeon-Major J. Anderson, Civil Surgeon, Bareilly, is appointed to be in visiting medical charge of the Pilibhit District from March 27th, 1892.—Surgeon-Major H. Seymour, M.B., of the Medical Staff, is appointed to hold charge of the civil medical duties of Moradabad, in addition to his military duties, during the absence on furlough in India of Surgeon-Major P. J. Freyer, Civil Surgeon.

Ghazipur Volunteer Rifle Corps.—Honorary Surgeon J. H. Maclaren, M.B., I.M.S., is granted twelve months' leave of absence, on private affairs out of India, from April 23rd, 1892.

Surgeon-General Rice, who has recently been granted an extension of office, will probably proceed on leave shortly, in which case Deputy-Surgeon-General Richardson will officiate for him.

Surgeon-Colonel F. W. Wade, Administrative Medical Officer, Allahabad, has been granted sixty days' privilege leave.

Surgeon-Major Robertson acts as British Agent during Colonel Durand's visit to India.

Surgeon-Captain F. P. Maynard is appointed to officiate as Civil Surgeon of Burdwan during the absence, on furlough, of Surgeon-Major G. Price, or until further orders.

Surgeon-Captain Narendra Prasunna Sinha, Civil Surgeon of Faridpur, is allowed leave for one month and fifteen days, under Art. 291 of the Civil Service Regulations, from May 15th, 1892, or such subsequent date as he may avail himself of it.

Surgeon-Captain W. J. Buchanan is appointed to officiate as Civil Surgeon of Midnapur, during the absence, on deputation, of Surgeon-Major A. Tomes, or until further orders.

Surgeon-Major P. J. Freyer, M.D., Civil Surgeon, Moradabad, furlough in India for twenty months, from May 10th, 1892.

Honorary Surgeon A. R. W. Sedgefield, M.B., I.M.S., is granted twelve months' leave of absence, on private affairs out of India, from April 30th, 1892, or subsequent date.

NAVAL MEDICAL SERVICE.

Until the beginning of last year, when a ship with a post-captain or senior commander was commissioned, a staff surgeon was appointed; and failing that, or if through death or invaliding a vacancy occurred, the surgeon appointed received the acting rating, and pay of the higher rank. This was an equitable arrangement, as he had heavier duties to perform and had charge of more valuable stores, the loss of which would be made good out of his pay. It has lately been the custom, however, to appoint a surgeon to a post-captain's command in lieu of a staff surgeon. There are a number of surgeons on the list holding these positions, and doing the heavier work, for which they receive no extra pay. We are given to understand that a circular has been received from the Admiralty ordering surgeons in future to be considered as part complement of commanders' and of nearly all captains' commands, by which acting vacancies will be done away with. As acting vacancies are the rule in other branches of the service we do not see why medical officers should be put upon a different footing.

The undermentioned Fleet Surgeons have been promoted to the rank of Deputy-Inspector-General of Hospitals and Fleets in Her Majesty's Fleet:—James William Fisher, M.D., and Thomas Henry Knott (both dated May 30th, 1892).

VOLUNTEER CORPS.—2nd Volunteer Battalion, the East Surrey Regiment: Brigade-Surgeon-Lieutenant-Colonel E. Pocklington is made Supernumerary in place of being seconded (dated June 4th, 1892).—2nd Volunteer Battalion, the Loyal North Lancashire Regiment: Surgeon-Captain A. Kershaw resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the Battalion on his retirement (dated May 24th, 1892); Surgeon-Lieutenant J. F. Scowcroft, M.D., to be Surgeon-Captain (dated May 24th, 1892).—2nd Volunteer Battalion, the Queen's Own (Royal West Kent Regiment): Mowbray Taylor, M.B., to be Surgeon-Lieutenant (dated June 4th, 1892).

IRISH MEDICAL ASSOCIATION. — The following office-bearers have been elected for the ensuing year:—President: David R. Jacob. Vice-Presidents: G. E Greene, W. W. Leeper, Thomas Hayes, Richard O'Kelly. General Council: Sir J. T. Banks, Arthur Benson, R. Browne, Sir Charles Cameron, H. Chapman, F. Davys, J. Delahoyde, N. Falkiner, F. C. Fitzgerald, Kendal Franks, J. Gray, E. Hamilton, W. J. Hepburn, A. H. Jacob, Dillon Kelly, W. G Jacob, R J. Kinkead, R. Leeper, Austin Meldon, H. Minchin, J. A. MacCullagh, P. J. Macnamara, George Mackesy, H. Oulton, J. R. Phillips, John Ringwood, P. C. Smyly, Sir William Stokes, W. T. Stoker, and W. J. Wheeler.

PRESENTATION.—The officers of the Holborn Union Workhouse, on May 30th, presented Mr. Oscar B. Shelswell with a handsome silver egg-stand as a mark of respect and esteem on the occasion of his marriage.

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Correspondence.

"Audi alteram partem."

THE ELECTION TO THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS.

To the Editors of THE LANCET.

SIRS,—With Mr. Lawson Tait's conduct towards the Association of Fellows, I, as a member, have little concern. I have already stated what the "circumstances" were to which Mr. Tait still mysteriously alludes as his reason for deserting his colleagues in both Associations, and apparently neither the Fellows nor the Members can see in them any justification for the course which he has taken. I desire, however, to protest against Mr. Tait's assertion that "the fight for the Members' rights has become perfectly hopeless." That it was so while conducted on the lines dictated by him I fully admit; I admit, further, that his interposition has probably delayed the realisation of the Members' aims for several years, but that the present generation will see an entire change in the mode of government of the College I no more doubt than that the sun will rise to-morrow. Mr. Tait has passed as a disturbing influence across the path of College reform, which will, I trust, now return to its proper orbit.—I remain, Sirs, faithfully yours,

June 6th, 1892. W. G. DICKINSON.

DEATHS UNDER ANÆSTHETICS.

To the Editors of THE LANCET.

SIRS,—I forward you an account of a case of death under an anæsthetic.

L. W——, a well-developed and healthy woman, aged thirty-five, applied to me in March last suffering from chronic sinuses in right axilla, following an abscess about eighteen months ago. I sent her to Evesham Cottage Hospital, where she was given A.C.E. mixture by my brother, Mr. Frank Gilpin, M.R.C.S., and without any abnormal symptoms she remained under it from twenty minutes to half an hour, while I opened up and scraped out eight large sinuses, these afterwards healing well. She was discharged at the end of the third week practically cured, with the exception of a small surface about a quarter of an inch long, which cicatrised over in about a fortnight from her discharge. About the middle of May she again applied to me, with this last named spot broken down, and, after dressing it for ten days or so, on May 29th I again advised her to go into hospital for a few days, and ordered her admittance before 12 o'clock. But on the 30th I found the woman in a most excited state, and the matron informed me she had not appeared until 9.30 P.M., decidedly the worse for drink, having been detained at a police-station. I declined to do anything until the next day, May 31st. On my arrival I found her quite composed and most anxious to get the operation over. About 12 o'clock the matron and nurse had the patient ready (she had had her breakfast soon after 8 o'clock). I did not consider an anæsthetic necessary, but at the last moment yielded to her express wish that I should give her some. Her pulse was 72, regular and of fair tension. I used the flannel inhaler (after Middlesex Hospital pattern), A C E. mixture in a two-ounce glass stoppered bottle, which I had freshly opened the day before to give another case some for purpose of abdominal examination. She was slightly excited at first, and soon showed some signs of faintness, when I got the matron to give a hypodermic injection of about one drachm of brandy, but within a minute or so she became slightly cyanosed and her respiration became irregular. I stopped, and injected half a drachm of ether, when she seemed better, but within another minute she seemed to get worse. I immediately commenced artificial respiration, the patient's tongue being kept well out of her mouth with tongue forceps. As she did not improve, I ordered hot fomentations over the præcordia and two more hypodermic injections of ether in the same region, and sent for Mr. J. S. Slater, M R.C.S., he being the nearest medical man, who kindly came in about ten minutes or so; but on his arrival the patient was practically pulseless and the heart sounds were scarcely audible. We performed the artificial respiration for some five minutes or so longer, but found she was then dead, I having kept the artificial respiration going for just half an hour. I had no galvanic battery at hand. At my request the coroner ordered a post-mortem examination by Mr. Slater. We found the lungs hypostatically congested with a few scattered old adhesions. The pericardium was markedly adherent, especially in front. The heart was of average size, slightly dilated; the muscular walls of the left ventricle were flabby; the valves were normal. Liver and kidneys seemed healthy. As to the cause of death, I would suggest whether the excited state of the woman's mind the few days previously, she turning out to be a known chronic alcoholic, together with the state of heart and pericardium, would not sufficiently account for it.

I am, Sirs, yours faithfully,

R. HARRISON GILPIN, L R.C.P. &c.

Evesham, June 7th, 1892.

To the Editors of THE LANCET.

SIRS,—The following are notes of a case of death under chloroform:—

The patient, a boy aged twelve years, was admitted into hospital, March 15th, with a large psoas abscess (right). Two days later this was opened and explored under chloroform, which the patient took well. A few days after this he had signs of pneumothorax, and later hydrothorax, of left chest. This was aspirated, and after a few days the chest signs began to clear up and his general condition improved. For the next six weeks he went on in much the same condition, with discharging sinus in the right groin, but health improving a little. At the end of this time—i.e., May—a large abscess had formed over the right sacro iliac joint, and was about to be opened when death occurred. The chest had been examined every week, and the following was the condition of lungs and heart a few days previously to May 27th:—Heart: Impulse in fifth space close in to left edge of sternum. Both sounds normal; no bruits heard. Pulse usually about 85 Lungs: Dulness at left base behind from eighth rib downwards, with impaired voice and breath sounds and loss of tactile fremitus. He had been prepared for the anæsthetic, and had only had a little milk and bread four and a half hours previously. The following is the report of the assistant house surgeon, who acts as anæsthetist to the hospital, and was administering chloroform when the death occurred:—"It was administered on a piece of lint (doubled) held in front of the face. Patient was not at all nervous. Administration had been continued for between two and three minutes, when the respiration, which had been regular but shallow, became deeper. About three such had been taken when breathing ceased suddenly. The pulse was found to be imperceptible at the wrist, and the corneal reflex gone, and pupils widely dilated. Artificial respiration (Sylvester's method) was commenced at once. Two inspiratory gasps only were taken. Hypodermic injections of ether, hot sponges to præcordium, raising extremities, and galvanic current to heart were all tried without success, artificial respiration being kept up for half an hour. Altogether one drachm of chloroform had been given." A post-mortem examination was made the following day. Below are the notes Lungs: Right quite healthy; left, upper lobe healthy, lower carnified. There was an empyema on this side which contained about sixteen ounces of pus. The heart was lying rather more to the right side than normal. The muscles and valves were healthy.

I am, Sirs, yours faithfully,

NORTON CLOWES, House Surgeon.

Reading, June 7th, 1892.

"STEELE *v.* SAVORY" FUND.

To the Editors of THE LANCET.

SIRS,—Dr. Danford Thomas's appeal in your last week's issue will, I feel sure, commend itself to the Members of the College of Surgeons, and provide at once the necessary funds to defray the costs, amounting to £2000, in the above action. Up to the present date £800 has been received; £600 of this has been subscribed by the twelve members of the committee, an average of £50 each. I feel confident the Members of the College will not allow these gentlemen to be saddled in this manner. The Council of the College would not abate their costs one farthing, and like Shylock

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determined to have the pound of flesh, and distrain if necessary on the goods of the four plaintiffs. I hope that the Members will at once respond to Dr. Thomas's appeal, not only to pay the £2000 owing for costs, but also to place the Association on a strong footing, so that Parliamentary action may be taken to secure for the Members that reform in the management of the College affairs which I feel confident they all desire. Subscriptions, however small, will be thankfully received by Dr. D. Thomas, Park Lodge, Paddington.—I am, Sirs, yours faithfully.

JOSEPH SMITH,
Vice President, Association of Members of the Royal College of Surgeons.

June, 1892.

RHEUMATOID ARTHRITIS AND RHEUMATIC ARTHRITIS.

To the Editors of THE LANCET.

SIRS,—I have just read, in the account of the meeting of the Royal Medical and Chirurgical Society, held on May 24th, the report of Mr. Hugh Lane's paper on the above subject, and there are some points with regard to it about which I should like to be allowed to make a few remarks. Not having been present at the meeting, I must consequently depend upon the necessarily somewhat abridged report in the medical press. If, therefore, I should put words into Mr. Lane's mouth which he did not make use of, I hope that he will forgive me, and recognise the cause of my error. Now, in the first place, speaking of rheumatoid arthritis, Mr. Lane says that "it is a constitutional disease of debility, invariably having a history of phthisis or gout, or both." Apparently he holds that it is a tubercular disease, and the obvious question which indeed was asked was, "Has Mr. Lane ever demonstrated the presence of the tubercle bacillus?" Unfortunately the answer to this question was not reported, which is a pity; for it would be interesting to know, first, if the bacillus has been found in those cases in which there is a marked tuberculous history; secondly, whether it is present in other cases; and finally, what method of staining Mr. Lane finds most convenient. In my own experience at the Mineral Water Hospital I find that in this mysterious disease there is a family history of phthisis in a large number of cases; but I also find that there is a still larger class in which it is absent, and "invariably" is hardly the word which one would use to express the frequency of the connexion between the two. If Mr. Lane maintains that a history of phthisis or gout is invariably present, of course he would not recognise any cases in which such a history was absent as being rheumatoid arthritis. What will he call these, and where will he class them? A history of phthisis is probably found as frequently as it is in rheumatoid arthritis by virtue of the fact that it is a debilitating disease, and a very common one, and, moreover, one in which the debilitating influence is transmitted to the offspring; but beyond this I do not believe that there is any relation between the two. There are other causes which predispose to rheumatoid arthritis, as Mr. Lane allows, but there is one of considerable importance which he does not recognise, and this is acute rheumatism. I certainly think that this disease should be given greater prominence as a predisposing cause; for there are a large number of cases of rheumatoid arthritis where the symptoms have started from an attack of rheumatic fever, and I hope before long to be able to show in a tabulated form my grounds for this statement.

Next, with regard to differentiation. In rheumatoid arthritis Mr. Lane finds that the reflexes are normal or subnormal, whilst they are increased in rheumatic arthritis, "especially late in the disease." Now, it would seem, on the face of it, more probable that they would be absent in rheumatic arthritis "late in the disease," when, to use Mr. Lane's own words, "the resulting ankylosis is very firm." I have especially noticed the point of the reflexes for a long time, and I am quite certain of this: that, as a general rule, in rheumatoid arthritis they are distinctly increased, and that it is the exception for them to be subnormal. I quite agree with Mr. Lane in saying that rheumatoid arthritis is a disease of all ages; but it is rather comic that he should emphasise the point that in chronic rheumatic arthritis the young seldom suffer. There is one thing more. As a minor point in the differentiation, Mr. Lane says that "anti-rheumatic treatment never did any good" in cases of rheumatoid arthritis. In my own experience, I find that in this disease the patient is liable to frequent attacks, accompanied by increased pain and swelling of the affected joints. Under these circumstances salicylate of soda is of great benefit, both for reducing the temperature and also relieving the joint troubles. But the fact that a case was benefited by salicylates would, of course, cause Mr. Lane to cease to recognise it as rheumatoid arthritis; it would be removed from the category of that disease, and, like others that have already been mentioned, would have to seek shelter in the class of the unknown. In conclusion, I trust that Mr. Lane will excuse my differing from him on a few somewhat important points; and I hope that he will believe that I am approaching this subject from a purely scientific standpoint.—I am, Sirs, your obedient servant,

PRESTON KING, M.D. Cantab.,
Resident Medical Officer, Royal Mineral Water Hospital, Bath.

May 30th, 1892.

REGISTRATION OF MIDWIVES.

To the Editors of THE LANCET.

SIRS,—The following are a few of the reasons against the establishment of an order of "registered midwives":—1. All women *bonâ fide* practising at present must be admitted to the Register at commencement; hence no good can result for many years. 2. No women who choose to act as midwives can be prevented from doing so because not on the Register, provided they omit the word "midwife" from their cards or plates. 3. Any registered midwife would be able, if she think fit, to abstain from calling in medical aid in all cases; because, being legally qualified to attend "ordinary cases" without such aid, it would be practically impossible to decide where self-confidence begins to be culpable. 4. Experience proves that the education required of medical practitioners is too little always to ensure competent obstetric practice, and hence any lower standard of training is greatly to be condemned. 5. Obstetric practice, when in the hands of midwives alone, was unscientific in character and horrible in its results; and the establishment by law of a profession of midwives will hinder the gradual disappearance of a class dangerous to the community. 6. The establishment of a register will lower to an utterly insufficient minimum the training regarded necessary for competent obstetric nurses, and will thus render a lower standard prevalent generally. 7. The establishing of a new register conferring legal privileges and powers on those so registered will be unjust to those already entered on the registers of the British Nurses' Association and other bodies, which require a very high standard of training, and restrict the practice of those registered to the proper duties of nurses, acting under medical supervision. 8. The giving of legal sanction to the untrue and dangerous doctrine, that a very moderate amount of skill and training are sufficient for the due management of parturition, will lead to neglect in providing properly against the sudden, insidious, and frequent dangers which plunge so many homes in mourning. 9. The elevation of ignorant midwives into the position of "obstetric practitioners" will cause the obstetric art to be regarded with contempt, and lead to its neglect by the more highly educated members of the medical profession. 10. Every woman can at present obtain the skilled attendance of qualified medical practitioners at rates no higher than the wages of competent midwives, and hence there is no need for the less skilled attendants. 11. The demand for registration of midwives comes entirely from a number of West-end consultants and nurses whose knowledge of general practice is small, and whose motives are obviously not entirely disinterested; while there is no demand for it on the part of the public. 12. The mass of the medical profession (who are the best judges in the matter) regard the proposal as retrograde and dangerous to the public health, and they view the suggested legislation with the utmost abhorrence.

I am, Sirs, yours faithfully,

HUGH WOODS,
Master of Obstetric Art (Dublin).

June, 1892.

EXCISION OF CANCER HIGH UP THE RECTUM.

To the Editors of THE LANCET.

SIRS,—In your issue of the 4th instant Mr. W. H. Brown details an operation for the above purpose, in which the

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sacrum was sawn through at the level of its fourth vertebra. While congratulating Mr. Brown on his success, I cannot help thinking that as good a result might have been attained, without the preliminary formation of an artificial anus, by a much more simple procedure, involving neither shock nor troublesome hæmorrhage. When a malignant growth is found beyond the reach of an ordinary proctectomy, yet freely movable, a posterior incision from the margin of the anus to the tip of the coccyx should be made through the sphincter. Free access being thus gained, the tumour should be dragged down, encircled by the wire loop of the galvanic écraseur, and removed. Two cases successfully treated in this way have been already reported.[1] In neither has there been recurrence; one patient, an old lady, now over eighty, and in the best of health, had a considerable mass of pendulous fungous growth, seemingly higher up than in Mr. Brown's case, as the upper limit could not be touched except under anæsthesia. Such heroic measures as resection of the sacrum or coccyx are rarely admissible in persons enfeebled by malignant disease; and, even if temporarily successful, are still more rarely productive of any benefit commensurate to the attendant risks.

I am, Sirs, your obedient servant,

Gloucester-place, W., June 7th, 1892. HERBERT SNOW.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Midwives' Bill.

ALLUSION has been made in a previous letter to the efforts towards improving the status and education of midwives in this city ever since the institution of the Ladies' Charity nearly a century ago. It was even then at least a step in the right direction, the midwives attached to the Charity being educated in their duties, subject to the supervision of the surgeons, and liable to dismissal, with the loss of what was to them a considerable income, if they were guilty of any serious neglect. More recently still greater efforts have been made in the way of improvement and by the amalgamation of the old Ladies' Charity with the Lying-in Hospital the value of each of these kindred institutions has been greatly enhanced. The fusion took place in 1869, since which date a new lying-in hospital has been erected, having all the most recent improvements, with every means for securing, so far as is possible, the perfect recovery of each patient. The candidates, after being duly educated, commence their duties as midwives should they have proved themselves worthy of the trust under proper supervision. I consider that nothing can be more reasonable or praiseworthy than this endeavour to raise the midwives of the present day to the same level, so far as practicable under the different circumstances, as that of the hospital nurses, and with much success. That no woman should be allowed to practise as a midwife for gain unless she shall have been trained in her duties under competent medical supervision is too reasonable to be seriously disputed.

The Assizes.

The only case of murder tried at the May Assizes, before Mr. Justice Cave, was that of a married woman who strangled her two children. It was proved by the evidence of Dr. Wiglesworth, of the County Asylum, Rainhill, that the unfortunate prisoner was of unsound mind at the time and not responsible for her act. She was therefore ordered to be detained till Her Majesty's pleasure should be known. There were also some cases of severe wounding and of brutal violence, for which very severe sentences were awarded.

A Coroner on the Removal of Bodies.

An inquest was held on the 4th inst. by Mr. Smith, the coroner for the Manor of Prescot, upon the body of a miner who had been killed by a fall of roof which had been found to be properly timbered shortly before its fall. The manager was rebuked by the coroner for removing the body from the district of the coroner in which the accident occurred into that of another coroner. It was a proceeding not only attended with much inconvenience, but it was also very unfeeling to send the body home without any previous intimation to his widow. Under the Coroner's Act, 1887, the coroner within whose district the body is lying must hold the inquest.

Whit Monday Bank Holiday.

The glorious weather has made this year's Whit Monday an ideal Bank Holiday. Some notion of the advantage taken of it may be gathered from the fact that close upon 170,000 passengers were in the course of the day conveyed across the four Mersey ferries—Birkenhead, Seacombe, Egremont, and New Brighton. Not one single accident is recorded, a fact most creditable to the management of the ferries, which indeed is most excellent all the year round, but especially on such occasions as Bank Holidays &c. The traffic by the Mersey Railway, the Lancashire and Yorkshire, Cheshire lines, and London and North-Western was very heavy, but no accidents are reported.

St. James's Cemetery.

A visit is to be made to this cemetery on Saturday next, the 11th inst., by Dr. Hoffman, the medical inspector of the Burial Acts Department of the Home Office. The cemetery is situated in the centre of the city, and is surrounded on all sides by dwelling-houses. Complaints have been made sometimes of unpleasant odours, more frequently of the lugubrious sight of hearses, mourning coaches, &c., appearing there, when, in the opinion of some residents, they should all be relegated to cemeteries outside the city. Both those who wish to have the cemetery closed and those who wish to see it still used will have an opportunity of stating their respective cases on Saturday. The cemetery occupies eleven acres of ground and the interments number upwards of 45,000.

June 8th.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Model Dwellings for Labourers.

A LARGE block of model dwellings for labourers was opened on May 30th in Ancoats. The block had been made by reconstructing an old mill, and about 150 tenements have been arranged in the building, and at the time of opening the great majority of these were already occupied. The building has been undertaken by a private society, the Manchester Labourers' Dwellings Company, and, so far as can be judged from the opening success of a new attempt in this direction, the efforts of the company are appreciated by those whose condition it seeks to benefit. Among the promoters of the scheme are a number of influential citizens, and many people interested in the matter attended the opening ceremony. It was stated by the chairman that this was the first of the company's undertakings, and that they hoped to complete many more buildings of the kind. The tenements will be let at rates yielding a moderate interest on the capital expended, and the company will thus be self-supporting. In subsequent speeches by the mayor and the chairman of the sanitary committee of the corporation, it was stated that the corporation would help as much as possible the efforts of the company, and would welcome the latter as purchasers of suitable land at moderate prices rather than themselves erect labourers' dwellings. Incidentally the great amount of useful work done by the sanitary committee in closing and ordering repairs and alterations to be made in unhealthy houses was pointed out. Manchester is very scantily supplied with tenement houses of this sort, and everyone taking an interest in the improvement of the housing of the labouring classes must heartily congratulate the Labourers' Dwellings Company on the spirit of their enterprise and on their manner of carrying out their first work.

Baths.

A new public bath—the fourth belonging to the Salford Corporation—was opened last week. The number of persons using these baths is very great, but nevertheless a slight pecuniary loss in working them results, and this has to be recouped out of the rates.

New Fever Hospital for Salford.

Next week there will be opened a new fever hospital for the borough of Salford. The old "Wilton" hospital has been found insufficient for the requirements of the town,

[1] Brit. Med. Jour., Oct. 11th, 1890.

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and was, moreover, situated in a densely populated neighbourhood. The new one is near Eccles, surrounded by plenty of open space, and will have accommodation for about 100 patients, which is calculated to be sufficient for all reasonable needs of the borough.

Manchester, June 8th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

North Shields and Tynemouth Dispensary.

THE annual meeting—the ninetieth—of the North Shields and Tynemouth Dispensary has been held. The number of patients admitted by ticket was 966, being a considerable increase; the number of casual patients was 6758, showing the large increase of 2663. This, it was pointed out, was owing to the influenza epidemic. The house surgeon had also made 3520 visits to the homes of patients. The committee were of opinion that a more commodious and larger central dispensary was required for the borough.

South Shields.

The Mayor of South Shields, in reference to the resignation by Dr. Eustace Hill of the office of medical officer of health for the borough (having been appointed health officer for Durham County), said it was a source of deep regret that they had to part company with him. Dr. Hill had won the confidence not only of the county, but of the entire town. He was a comparatively young man, and they might congratulate him on receiving such an important appointment.

Ambulance Work in the North.

At Hexham, last week, Surgeon-Major Hutton examined a large class of over fifty males and females who had been instructed by Mr. Duncan Stewart, assisted by Major J. P. Gibson, in ambulance work. At the close of the examinations Surgeon-Major Hutton addressed the students, and encouraged them to hold regular practices. He remarked that if it were necessary he would undertake to place a thousand ambulance men at a short notice on any part of our coasts. The oldest student was Mr. W. Stokoe, who is in his seventy-sixth year, and who had been engaged in the work of giving first aid to the injured at the Fallowfield mines for forty years. The county police, railway servants, and Volunteers were represented in these classes.—At Darlington, too, a highly successful concert was given last week, at the conclusion of which Miss Fry presented certificates to the students who had passed in the recent examinations, and a presentation was afterwards made to Dr. Petter by the class as a slight token of their appreciation of that gentleman's services during the session. The chairman expressed his satisfaction with the success of the ambulance work, and hoped that next session another class might be formed.

Carlisle.

The outbreak of typhus fever at Carlisle may now be considered at an end. I regret to say that the nurse who attended the patients in their convalescent stage contracted the disease and died after a short illness. The medical officer of health has made some practical suggestions to the health committee, in which he shows that the disease, when it appears in Carlisle, usually breaks out in the month of April. This he accounts for by the fact that typhus fever is a disease of poverty and overcrowding, and that poor people are more susceptible to the infection when their scanty stock of health is reduced to the lowest ebb by the privations of the previous winter, and that Carlisle, being on the highway in connexion with Newcastle, Whitehaven, and Liverpool, is liable to the importation of the infection. I believe, however, as regards Newcastle, it is not so liable; for I have heard of no cases for the last few months. The medical officer makes a very useful recommendation to the committee, to establish a block hospital for the reception of doubtful cases of continued fever, so that when practitioners are uncertain as to the type of the malady patients may be sent there until its nature is cleared up.

The late Mrs. Wilson of Dallam Tower, whose will has been proved at Carlisle, left, amongst other charitable bequests, £100 to the Royal Albert Asylum at Lancaster.

Newcastle-on-Tyne, June 8th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The Admission of Women as Medical Students to the Edinburgh Royal Infirmary.

IT is understood that the managers of the Royal Infirmary have decided on holding a conference with the staff with a view to trying to arrange for the clinical instruction of the twelve women who have applied for it.

The Pathological Department of the Royal Infirmary, Edinburgh.

As was mentioned here last week, proposals were under the consideration of the managers of the infirmary regarding the pathological department. The proposal was to have a senior pathologist who would devote his time to the work, and that he should receive a fair remuneration for doing so; and that there should be two assistants, who might be junior men, and would assist in the investigation of cases and in other work in the department. Nearly the whole staff, always excepting the University professors, were in favour of this, and it was felt that the arrangement would probably give a stimulus to pathological work, and would greatly enhance the opportunities for original work in the department. The scheme has been opposed by the University for a very curious reason—namely, that the senior pathologist might become so strong that he would attract students from the professor's classes. Whatever the reasons may be, the University thought it worth while to fight strongly against the proposals, and the result is that they have been thrown out, and the *status quo* is adhered to.

The Health of Edinburgh.

The mortality last week was 87, and the death-rate 17 per 1000. Diseases of the chest accounted for 40 deaths, and zymotic diseases for 6 The intimations for the week were typhoid fever 3, diphtheria 1, scarlet fever 14, and measles 45.

June 7th.

IRELAND.

(FROM OUR OWN CORRESPONDENT.)

Royal College of Surgeons.

THE annual elections took place on Whit Monday, Mr. Hamilton being elected President, and Mr. Thornley Stoker Vice-President, without opposition. There were three candidates for the post of Secretary, Sir Charles Cameron being successful. The office is an honorary one, and since 1784 only four members have been elected. As has been pointed out, the first holder was Mr. Henthorne, who held office for the long period of sixty years. Mr. James Cusack succeeded Mr. Henthorne, his tenure lasting for seventeen years; and was followed by Mr. Hutton, who occupied the post for four years. The last was Mr. William Colles, who resigned recently, and retained office for twenty-seven years. The changes in the old Council are as follows: Mr. Croly, late President, and Mr. Carte, late Vice-President, go on the Council; Messrs. Stoker, Colles, and R. F. Tobin resign, while Mr. Hamilton becomes President. The two vacancies are filled by Messrs. Alcock Nixon and A. H. Benson. The annual meeting of the Fellows to consider the report of the Council was fixed for Saturday, the 4th inst. The accounts for the year show a decrease in the ordinary expenses of the College amounting to £488 12*s.*, while there is an increase of £40 11*s.* 10*d.* in the receipts during the same period. In connexion with the proposal to establish a new university in London, and to exclude from its medical degrees all candidates save those who have studied in London schools and hospitals, the suggestion was made by the Conference Committee of the College and the Royal College of Physicians, that communications should be opened with the Senate of the Royal University, with the object of effecting such conjunction of its examinations with those of the Colleges as would enable the diplomates of the Colleges to obtain the degree of M.D. without passing through a separate curriculum and series of examinations. The proposal, however, came to nothing, as the Senate of the Royal University refused to have anything to do in the matter. Dr. Davy, one of the professors

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of medical jurisprudence, last month sent in his resignation, which has been accepted by the Council. The subjects of exclusion of Irish diplomates from hospital appointments in England, the enlargement of the College school buildings, and the abolition of the visiting physiciancies of Irish lunatic asylums are also fully considered in the report.

Rotunda Lying-in Hospital.

At a meeting of the governors last week the plans for the proposed new auxiliary hospital were adopted, and a committee appointed to carry out the proposed scheme. In addition to the proceeds of the bazaar held last year it is estimated that a further sum of £4000 will be absolutely necessary to complete the new building, and an account has been opened at the Bank of Ireland to receive contributions for the desired purpose.

Irish Medical Association.

The annual meeting was held last Monday, presided over by Sir Charles Cameron, and afterwards by the newly elected President, Dr. Jacob of Maryborough. The report of the Council as regards its financial position was satisfactory, a considerable increase having taken place in the income of the Association, owing to 107 new members having been elected since the previous year. Several members who were in arrears for their annual subscription were struck off the list. The chief place in the programme of the Association was accorded, by the wish of the members and the Council, to the promotion of a Bill to secure pensions as of right for Poor-law officers, medical and non-medical, whenever they shall have become incapacitated from duty. The Council approached the Chief Secretary to obtain the support of the Government for the Superannuation Bill, but met with scant encouragement from that official, the interview accorded after one refusal to receive a deputation being strictly private, no reporter being allowed to take notes of the interview; and the attitude of the Chief Secretary to the proposals of the delegates was one of hostility. The Council have constructed a skeleton Bill to provide for safeguarding the issue of tickets, for much greater facilities for cancelling such tickets, and for a declaration that the issuer or the recipient may be held liable to pay the fees of the medical officer if the ticket shall have been knowingly or negligently issued to an improper recipient. The Council, however, do not intend to complete the proposed measure or introduce it into Parliament, being of opinion that no legislation on the subject should be actively promoted until the Superannuation Bill has been disposed of. The following resolutions were adopted by the meeting:—

"That we, the members of the Association, declare the claim of the Poor-law officers of Ireland to superannuation whenever they shall have become incapacitated for the performance of duty to be an equitable principle, and indispensable to the efficiency of the Irish Poor-law system. That, inasmuch as the services rendered by Poor-law officers are strictly obligatory, and are much more onerous than those performed by most civil servants, there is no just reason why the grant of pension, which is assured in the case of civil servants, should be left to the caprice of any body, as is the case of Poor-law officers. As experience has abundantly proved that the discretion vested in boards of guardians to refuse or grant pensions has operated as a great hardship towards Poor law officers, and very much to the disadvantage of the service, it is therefore a matter of policy, apart from justice to the officer, that the grant of a pension in old age or infirmity shall be a matter of right. We therefore, while approving of the steps taken by the Council to obtain legislative authority for the necessary change of law, urge the Council to persist in the demands which they have put forward, and to relax no effort to bring the matter to the notice of the next Parliament."

"That the dispensary medical system of Ireland can never be satisfactory nor its medical officers contented until the method of the issue of medical relief tickets shall have been altered, so that persons of independent means may be prevented from availing themselves of the gratuitous services provided by the ratepayers for the relief of the poor. Such abuses not only operate as an encouragement to pauperism, but they burthen Poor law medical officers with work for which they are not paid, and, by withdrawing from those officers the private practice which is their legitimate means of livelihood, impose upon the ratepayers a much higher charge for Poor-law medical services than would otherwise be necessary. For these reasons a change in the law and regulation governing the distribution of Poor-law medical relief tickets is urgently needed; and the Council is hereby requested to press the matter upon the notice of Parliament, whenever a favourable opportunity shall arise, without delaying the settlement of the superannuation question; and that this Association cordially approves of the movement to secure direct Parliamentary representation with a view to obtaining redress of the above mentioned grievances."

"That the cordial thanks of the Association be, and they are hereby, returned to the Parliamentary Bills Committee of the British Medical Association, to the Irish Medical Schools' and Graduates' Association, to the Royal Colleges of Physicians and Surgeons, and to the Poor-law Officers' Association, for the valuable countenance and assistance given to this Association in its efforts to promote measures for the redress of the grievances of the Poor-law medical officers, and that these thanks be conveyed by the secretary to the representatives of the bodies named."

"That the thanks of this Association are hereby gratefully tendered to the professional and general press for their constant advocacy of the claims of the medical profession, as well as for having given publicity to the proceedings of the Association."

The officer-bearers for the ensuing year having been appointed, the proceedings terminated. In the evening the annual dinner took place in the Royal College of Surgeons.

At a meeting of Convocation of the Royal University of Ireland the Rev. M. Leitch, Professor Sinclair of Belfast, and Mr. Thomson, M.D., F.R.C.S.I., of Dublin, were elected members of Senate.

The Medical Board of the Mater Misericordiæ Hospital have elected Mr. O'Sullivan, M.B., B.Ch., resident surgeon for the ensuing year.

June 7th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Influence of Incubators and "Gavage" on the Mortality of the Newborn.

AT the Paris Maternity there are born annually an average of 400 infants before term. As may be imagined, the mortality amongst this premature addition to the infant population was very great before the introduction of the system of incubation combined with "gavage." The beneficent effect of this system may be gathered from the perusal of the following figures: Mortality in the ante-incubator period:—Infants born in the sixth month, 100 per cent.; at six months and a half, 78·5 per cent.; at seven months, 61 per cent.; at seven months and a half, 46 per cent.; at eight months, 22 per cent.; at eight months and a half, 12 per cent. The incubator and "gavage" have converted these figures into 84, 63·4, 50·2, 23, 11·2, and 4 per cent. respectively. Comment is superfluous. It is, however, only right to recall the predominant part taken by Professor Tarnier in popularising this method of saving to the world a not inconsiderable number of human beings who would, under the old *régime*, have had hardly the time to make their bow to the family circle before quitting it for ever.

Precautionary Measures against Hydrophobia.

The walls of Paris are now covered with posters signed by the Prefect of Police, enjoining all owners of dogs either to muzzle their pets or lead them by a string during their peregrinations through the streets of this capital. Any infringement of this edict will be punished in a manner very unpleasant to the master, and still less pleasant to the poor beast, the police having orders to conduct it to the pound, where it will be killed. It will astonish no one who is familiar with the slovenly way such orders are carried out there when I state that this very day I noticed in the streets, wandering at their own sweet wills, numerous unmuzzled dogs.

The Paris Water-supply.

As usual, at this time of year, certain districts of Paris are obliged to consume water derived from the Seine, the *eau de source* being, owing to the continuance of dry weather, insufficient to supply the whole of the town. It is only right to explain that the parts of Paris most frequented by visitors are spared this dangerous infliction as much as possible, spring-water being supplied to them; while the inhabitants of the more populous arrondissements have to drink the fever-laden liquid known as *eau de Seine*. But since in the course of their wanderings tourists might wish to assuage their thirst in one of the infected areas, I should strongly advise them to make inquiries of the landlord of the hotel or pension at which they are staying as to the distribution of this polluted water. Only the other day, being seated at a *café* near the Panthéon, I was the means of preventing the absorption of this dangerous stuff by a fellow countryman who, although resident in Paris, was not posted up in these matters. A practical proposition has been recently adopted by the Municipal Council to the effect that all public fountains found in the less-favoured parts of Paris be fitted with *filtres hygiéniques*. I very much doubt, however, if anything short of boiling would induce me to drink Seine water. I again repeat that early next year we are promised

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a supply of pure water equivalent to 100 litres per diem per inhabitant, which will render this city independent of drought and its regrettable corollary—recourse to Seine water.

Election to the Academy of Medicine.

Death has been very busy of late, and has caused many vacancies in the ranks of those eminent medical men who compose the Academy of Medicine. At the last election Dr. Desnos was successful against three competitors for the coveted honour—Drs. Dumontpallier, Laveran, and Hallopeau.

Professor Benjamin Ball.

The numerous friends of our distinguished compatriot, Dr. Ball, professor of mental medicine at this faculty, will regret to hear that illness has, for some time past, compelled him to discontinue his admirable teaching at Sainte Anne Asylum and at the Laennec Hospital. His kindness and courtesy to English practitioners visiting Paris for educational purposes are traditional, and I am sure that in wishing him an early recovery I am only echoing the sentiments of all who have come in contact with him.

Paris, June 8th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Langenbeck House.

THE annual surgical congress will be opened to-morrow in the new Langenbeck House, which is now finished. The building stands close to the Surgical Clinic of the University, fronting the Spree. The entrance is from the Ziegel Strasse. It is a plain brick building of three storeys, containing a fine assembly hall capable of seating 700 persons, a smaller hall to accommodate several hundred, a library, a reading-room, a museum, and custodian's rooms. The large hall is to be adorned by a portrait and a marble bust of Langenbeck, and the names of great surgeons are to be painted on the walls under the gallery. In the main corridor will be placed a marble bust of the late Empress Augusta (who took a keen interest in the project), flanked by portraits of the present Emperor and Empress. In the wall opposite these works of art are doors leading to the large hall, between which marble busts of Bardeleben, Billroth, Bruns, Busch, Taiersch, and Volkmann are to be erected. The site and the entire building cost about £27,500. This sum was raised by the German Surgical Society, aided by the Berlin Medical Society and the friends, pupils, and admirers of the great surgeon whose name the building bears. The ground behind the building is to be laid out as a garden.

Children's Hospitals on the German Coasts.

The Society for Children's Hospitals on the German Coasts, of which the Empress Frederick is patroness, held its twelfth annual meeting last Friday evening, Professor Leyden in the chair. The number of children received last year by the hospital which bears the Empress Frederick's name in the North Sea island of Norderney was 744. The number of children cared for there during the winter was 104. At Wyk, in the island of Föhr, also in the North Sea, 157 children were received; at Grossmüritz, on the Baltic, 206; and at Zoppot, also on the Baltic, 68. Of the total number (1175), 483 were cured, and 610 improved, some of them very considerably.

Statistics.

In the week which ended on the 21st ult. 2 persons died in Berlin of puerperal fever, 2 of typhus fever, 4 of quinsy, 5 of erysipelas, 8 of scarlet fever, 8 of whooping-cough, 9 of measles, 12 of cerebral apoplexy, 17 of gastro-intestinal catarrh, 17 of senile decrepitude, 22 of diarrhœa, 24 of diphtheria, 50 of diarrhœa with vomiting, 59 of pneumonia, and 86 of pulmonary phthisis. Twenty died by violence, including 8 suicides. Of the German cities, Hanover had the lowest death-rate (13·1), Chemnitz the highest (28·5). The death-rate of Leipsic was 18·1, of Berlin 20·8, of Breslau and Frankfort-on-the-Maine 22·4, of Hamburg 24·2, and of Munich 28·3.

Miscellaneous Items.

The German naturalist, Hermann Burmeister, died at Buenos Ayres on the 22nd ult., aged eighty-five. His main advice to science was the investigation of the climate, soil, and fauna of Brazil and Argentina. He founded the Natural History Museum in Buenos Ayres.

The magistrates of Berlin have appointed Professor Moeli director of the new lunatic asylum of Herzberge, near Lichtenberg, a large village east of Berlin.

Dr. Paul Guttmann, director of the internal department of the hospital belonging to the city of Berlin in the suburb of Moabit, celebrated his twenty-fifth anniversary as a private lecturer in Berlin University yesterday.

Berlin, June 7th.

AUSTRALIA.

The Sydney Cancer Curers.

THE trial of the two Hoods—father and son—for the manslaughter of a woman named Cohen was concluded last week, and resulted in a verdict of "guilty" being found against both the prisoners. The facts elicited at the trial were of a most startling nature, and furnish most convincing proof of the "gullibility" of the general public. In February, 1891, a Mrs. Cohen applied at the Sydney Hospital for treatment, and was seen by the medical superintendent, Dr. Hull. He diagnosed the case as one of epithelioma of the lower lip, and advised the woman to have it excised. She went away promising to return, and no more was seen of her until the following Christmas, when she again sought hospital treatment. Then it was found that the growth had extended widely and had involved the tissues of the neck, that the woman was in a very depressed condition, and that she was beyond all human skill. It was elicited from her that she had been under the treatment of the Hoods, who had applied caustics and poultices to the cancer, and for eleven months had lured her on with promises of a cure. The woman died in February of this year, and, Dr. Hull having refused a certificate of death, the matter passed into the hands of the coroner. The case went on for several weeks, and ended in the committal of the Hoods for manslaughter, of which they have just been found guilty. The evidence showed that the unfortunate woman had had Hood's "secret cancer cure" applied to her lip, and that shortly after the application Hood had taken the growth between his fingers and dragged part of it away, causing her most intense agony. A poultice was then applied, and the wretched patient sent home. During the operation some of the "specific" fell on the woman's dress, and it was of such a nature that "it burned holes in the cloth." Both the prisoners showed themselves profoundly ignorant of everything appertaining to medicine and surgery. Neither had had any training, and the elder man was not able to say what the M.D. and B.A. which he wrote after his name meant. In accordance with the law which obtains in this country both the accused were allowed to go into the witness-box and give evidence in the case. This gave the Crown Prosecutor an opportunity of finding out what they really knew about cancer. Here is their definition of cancer: "A parasitic spongy tumour containing cells growing from the glands and bloodvessels, and infested with microbes of the size of a louse's egg. The parasite has a mouth and a body, and takes its nutriment from the surrounding bodies by 'exorption.'" Hood had never seen the parasites, but had felt them as hard bodies; it required a microscope to see them. Hereupon the prosecuting counsel produced a microscope and some slides, and asked the accused to demonstrate the parasites to the jury. The man had evidently never used a microscope, and was utterly unable to use it. It is a clear gain to the public that two such shameless charlatans are safely within the gaol walls, and both the public and the profession owe a deep debt of gratitude to Dr. Hull for the manliness and public spirit he showed in bringing about that result.

The Windsor and Rainhill Murderer.

The trial of Deeming, or Williams, for the murder of his wife in one of the suburbs of Melbourne is of more than local interest because of the allegations made against him by the English police, and of the suspicion entertained by the authorities that he is the perpetrator of the Whitechapel outrages. On the first day of the trial an attempt was made to have it postponed, and two medical men who had examined the prisoner gave evidence to the effect that he had had fits, probably epileptic, that he had had syphilis, and that he was possessed of the belief that his deceased

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mother visited him every morning at 2 A.M. to counsel him to murder his wife and the woman who infected him with syphilis. On these grounds time was asked to investigate Deeming's mental state, and to prove, if possible, that he was an epileptic, and that instead of being tried for murder he should have been sent to a lunatic asylum. The judge pointedly asked the medical witnesses whether, supposing they got all the family and personal history they desired, they would be able to say whether Deeming was sane or insane on the day on which the murder was committed. The doctors having replied in the negative, the judge ordered the trial to proceed.

Anæsthetics in Sydney.

The Colonial Treasurer tabled in the Assembly a return of the number of persons to whom anæsthetics were administered in the metropolitan hospitals of Sydney during the year 1891, together with particulars of the fatal cases. The return shows that in the Sydney Hospital 503 persons were anæsthetised during the year, but that no deaths resulted. In the Moorcliff Eye Branch of the Sydney Hospital forty-six persons were anæsthetised, and of these one person died, the anæsthetic used being chloroform. At the Prince Alfred Hospital 897 persons were treated, resulting fatally in one case, this person having been placed under a mixture of chloroform and ether. Two hundred and ninety persons were treated at St. Vincent's Hospital, 1 at the Coast Hospital, 165 at the Children's Hospital, Glebe Point, 32 at the Children's Hospital, Lewisham, 37 at the North Shore Hospital, and 15 at the Balmain, but in no case did the treatment have a fatal effect. Thus it would appear that last year there was one death in every 993 anæsthetisations. As the estimated average in the Sydney metropolitan hospitals for the seven years 1885–91 is one death in about 700 anæsthetisations, there is something to be thankful for in last year's returns. Seeing, however, that the Berlin mortality is only one in 4000 anæsthetisations, the profession in Sydney has yet some advance to make.

The Intercolonial Medical Congress.

This Congress will open in Sydney next September and last a week, but I doubt whether it is likely to be as successful as the previous congresses held in Adelaide and Melbourne. A meeting of the profession was held recently in Sydney, to which the press was not admitted. An official report has been published, however, which, seems to show that great dissatisfaction exists. As a leading Sydney doctor puts it, "the constitution of the officials and the executive committee is one-sided and injudicious, and appears to be the outcome of favouritism combined with the old cliquism, which is a lamentable blot on medical professional life in Sydney."

April 30th.

NEW ZEALAND.

(FROM OUR OWN CORRESPONDENT.)

Annual Meeting of the New Zealand Medical Association.

THE seventh annual conference of the New Zealand Medical Association was held at Wellington on March 15th and following days. Delegates from the various cities of the colony were present, and members of the several local branches also put in an appearance. The Congress was, from every point of view, a decided success, chiefly owing to the tact, promptness, and business capacity of the president, Dr. Grace of Wellington, who made an ideal master of the ceremonies. The president, in an eloquent speech, drew the attention of the members to the fact that we are educating at the Dunedin School of Medicine a great many general practitioners, and it becomes important to consider what is the character of the education imparted, and to search out the most effective means by which we can strengthen the hands of the professors and clinical teachers. The law which regulates the general management of hospitals is unfortunately of such a nature that the election of medical officers and teachers is entirely vested in trustees, a body of gentlemen elected by the ratepayers. It is hardly necessary to state that such a body may easily err in the election of really competent teachers. (As a matter of fact, Dr. Brown of Dunedin, later on in the Congress, and speaking on this point, stated that the present trustees at Dunedin always acted on advice given regarding the elections, and that fortunately no trouble had arisen in this way in Dunedin.) It would be too absurd to allow such a law to remain in existence when it becomes known that such a state of things might possibly mean the letting loose of a band of practitioners who had not been taught to "observe" correctly. The New Zealand University alone grants degrees in medicine, which by Imperial statute is recognised all over the empire; but at the same time the colony, by its laws, deprives the University of even a voice in the selection of its clinical teachers. There is no doubt that this subject requires immediate and serious consideration to prevent any difficulty in the future. The president also threw out the suggestion that the Association should petition the Senate of the New Zealand University to frame a statute enacting "that no student shall take an M.B. degree in the New Zealand University without first passing the B.A. examination." The Congress subsequently passed a motion embodying Dr. Grace's views, and introduced by Dr. Mackenzie, to this effect after a brief discussion. The president drew attention also to the existing system of medical registration, which is essentially faulty, in the following words: "That wholesome patriotism which teaches men to think of their fellows in preference to strangers should teach this colony to take steps rigidly to exact proof from each candidate for registration of a standard of proficiency equal to that required by the New Zealand University from colonists. I know that the present system fails to afford sufficient safeguards, and I think such instances will be in the knowledge of each one of you as will justify you in supporting my contention." Several valuable contributions were read on various subjects by the following medical gentlemen: Mr. Garland on "The Creasote Treatment of Tuberculosis;" Dr. Fell on "Intestinal Obstruction." Dr. Collins, of Wellington, gave some very interesting notes on cases under his care for the radical cure of hernia, after the method of Mr. Bennett, of London, all of which turned out eminently successful. Dr. Gillon, on "Supra-pubic Lithotomy," too, has to be congratulated on the successful issue of his cases. These papers elicited considerable discussion. They are, with the exception of Dr. Collins' notes, published in the April number of the *New Zealand Medical Journal*. Altogether the meeting has been, perhaps, the most practical and useful that has yet been held, for rules and regulations as to procedure have been adopted which have cancelled many difficulties. The visiting members were entertained right royally by their Wellington brethren, and their thanks are due for a delightful visit coupled with good companionship and hearty hospitality. Mr. Knight, on behalf of the Auckland Branch, invited the Association to meet at Auckland next year, which invitation was unanimously accepted.

The Sanitary Condition of Wellington.

It is no wonder that Lord and Lady Onslow shunned Wellington, or that the new Governor should have stipulated for special sanitary provisions being undertaken in respect of the residence set apart for him and his family, for dirt, disease, and death have given this city an unenviable notoriety among the cities of the colony. From its natural formation and surroundings generally, Wellington should present no difficulties in the way of proper sanitation, and it is a great pity that typhoid fever, which has raged in this city from time to time, has never been really efficiently attacked from a sanitary aspect. Dr. Chapple, who, by request of the City Council, has made a special investigation into the causes of the prevailing epidemic, has presented details which reflect disgrace upon the authorities and upon the residents of the special localities to which his remarks apply. For years past slaughter-yards and dairies have been attacked as the origin of this disease; but the report proves that the disease has arisen from preventable causes at the very doors of the inhabitants themselves. Dr. Chapple "found no connexion between the milk-supply and typhoid, for members of individual families who constantly drank milk escaped infection, whilst those who seldom or never took milk were laid low with fever." The yearly outbreaks of fever have been confined to a small area in the Te Aro end of the city. In Holland-street Dr. Chapple "found the traps foul from the accumulation of filth at the bottom. The grating top is movable, and in one case the people had been in the habit of lifting it and putting down anything that would go, including bedroom slops. In an adjoining house a gully, half under the scullery wall, received everything

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from the sink inside the house. This gully was completely stopped by accumulation, chiefly fæcal, and was abominably foul, and the semi-liquid overflow could be traced far under the house." The above is but a mild description of the general condition of affairs in this particular locality, for Dr. Chapple has in no measured terms brought before the public gaze the horrible condition of sewage contaminations. Dr. Chapple states that he has found that there is a pretty constant relationship between sudden heavy rainfall and the prevalence of typhoid fever. Dr. Ewart, resident surgeon to the Wellington Hospital, also bears out the fact "that after heavy rainfalls typhoid cases crowd into the hospital, and the nurses fully anticipate this influx, which is always invariably realised in from ten to fourteen days after rainfall." For the last two years typhoid fever has been largely confined to the part of the city mentioned. As there is no system of safe disposal of typhoid fever excreta, most of which find their way to the drains, it is quite to be expected, Dr. Chapple thinks, that a displacement of sewer gases in this district would be followed by an epidemic, while the other parts of the city enjoyed comparative immunity. As the outfall into the harbour is unprotected, prevailing winds blowing up the sewer increase enormously the gas tension. I recently visited the Wellington Hospital, and was most courteously shown over the wards by Dr. Ewart. Fifty-two cases of typhoid fever were located in the hospital at that time, and the number has, I understand, increased in the meantime. Surely the city authorities must now bestir themselves—in at least so far as the drainage of the Te Aro end of the city is concerned. If this report is only half true, it is simply horrifying. The marvel is, not that in each case two or three members of the householder's family have been attacked, but that any one escaped. I think it is high time that a law is passed which will throw the expense of making houses fit for habitation on the owners of the property. Too frequently now it falls upon the unhappy tenant, who, to save his life, has to spend money upon another man's property. And, further, I consider that it should be made illegal for any landlord to sell or let any house without first receiving a certificate from some responsible body that it is in a proper sanitary condition, and not a mere death-trap.

April 21st.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AN ordinary meeting of the Council was held on June 9th.

The Minutes of the Quarterly Council on May 7th were read and confirmed.

The report, dated May 23rd, from the "Committee on Advantages to Fellows" was approved, adopted, and entered on the minutes.

The following are the principal points which the Committee have had under their consideration, viz.:—(1) Meetings of Fellows; (2) Common Room for Fellows; (3) Admission of Fellows as visitors to meetings of the Council. With regard to the first point, viz., Meeting of Fellows, the Committee recommend: "That Meetings of Fellows, apart from the Members, at which the President or other Member of the Council acting for him shall preside, be summoned by the President and Council for consultative purposes at such times and for such objects as may by the Council be thought desirable, either with or without a requisition from the Fellows." In making this recommendation the Committee think it desirable to state that, in the event of its adoption by the Council, it would not in their opinion be reasonable to refuse to summon a similar meeting of Members upon the same conditions. With regard to the second point—viz., Common Room for Fellows—the Committee find that, legally, there might be some difficulty in permanently assigning any part of the corporate premises to the exclusive use of any section of the Corporation, and are not therefore prepared to recommend the provision of a Common Room for the exclusive use of the Fellows as suggested to the Council by certain Fellows of the College, but would recommend: "That the room adjoining the Secretary's office, now forming a part of the Library not used by readers, be furnished as a Common Room for the use of Fellows and Members of the College." With regard to the third point—viz, admission of Fellows as visitors to the meetings of the Council—the Committee are not prepared to make any recommendation in favour thereof.

An addendum to the following effect was also received and entered on the Minutes:

The following members of the Committee—viz., Mr. Macnamara, Mr. Willett, and Mr. Rivington—consider that in the preamble of the report, after the words "have held three meetings," should be inserted the words "at which they have only considered proposals not involving changes in the Charter and By-laws."

A report, dated May 30th, 1892, of the "Committee on Advantages to Fellows," was likewise approved, adopted, and entered on the Minutes.

The report stated that the Committee have, in pursuance of the instructions of the Council, also taken into consideration the best means of giving effect to the proposal adopted by the Council, "That it is desirable to celebrate in some suitable manner the fiftieth anniversary of the institution of the Fellowship of this College (the Charter creating this order being dated Sept. 14th, 1843)," and the Committee recommend the Council to adopt the following suggestions, viz.:—That the jubilee of the Fellowship be celebrated on Thursday, July 6th, 1893, the date of the annual meeting of Fellows for the election of members of the Council. That a conversazione be held at the College on the previous evening, Wednesday, July 5th, 1893. Cards of invitation, admitting ladies, to be sent to the Fellows of the College; Members to be invited on applying for cards of invitation. That an address be given by the President in the theatre of the College at 1 o'clock P.M. on the Thursday before the opening of the ballot for the election of members of the Council. That a Fellows' dinner be held on the Thursday evening at some convenient place.

The Council recommended Dr. Luff as a candidate for the post of Official Analyst to the Home Office.

A letter of the 4th inst. from the President was read, reporting the proceedings of the General Medical Council at their late session. The letter was received and entered on the Minutes, and the best thanks of the Council were given to the President for his services as the representative of the College on the General Medical Council.

The President stated that he had accepted, on behalf of the Council, a plaster bust of Mr. T. H. Huxley, presented to the College by Mr. W. H. Flower, late Conservator of the museum. Mr. Flower was thanked for his gift.

Messrs. Hulke and Howse were appointed to confer with delegates of the Royal College of Physicians as to the Gresham University Royal Commission, and to give evidence if they thought it advisable.

A motion was carried to the effect that the Fellows of the College be invited to meet the President and Council on July 7th, at 5 o'clock.

Medical News.

THE Government of India have decided that as officers of the Indian Medical Service of less than three years' full-pay service have now the rank of subaltern only, they are entitled, under the provisions of para. 282, Army Regulations, Vol. X., Part I., to a free passage by sea when proceeding to England on leave on medical certificate.

GENERAL HOSPITAL, CHELTENHAM.—At the recent quarterly meeting of the governors it was recommended that a special wing should be erected for the accommodation of additional trained nurses. The scheme includes the formation of a staff of twenty-four nurses available for private nursing, and the estimated outlay is about £2000. The board favourably entertained the proposal in consequence of the increasing demand for skilled nurses.

BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.—The annual meeting of this Society was held at the Grand Hotel, Birmingham, on Friday, May 27th, when the director's report and the financial account were presented and the officers for the ensuing year elected. Founded in 1821, the Society has been doing good work, and affording relief to those of its members or the widows of late members who have been urgently in need of assistance. The inducements to join are such as should secure a much larger number of members than are at present on the list; indeed, when appealed to on the twofold ground of providence and benevolence, it is difficult to understand why all within the area of its operation do not join. There must be a large number of men, at any rate, during their earlier years of practice to whom, from the nominal subscription, the Society offers great advantages for making provision against a possible breakdown, while to those few whose position is apparently secure the opportunity of helping others less fortunate should not be neglected. Any registered practitioner "regularly practising his profession," and residing within fifty miles of Birmingham, is eligible for membership; members do not lose their privileges by subsequent removal beyond the area prescribed for their admission. It is to be hoped that the Society may receive a more general support from medical men in the Midlands, so that its good work may be increased. The honorary secretary, Mr. W. F. Haslam, will gladly give any information to applicants for membership.

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HAYDOCK COTTAGE HOSPITAL.—This hospital was erected six years ago to meet the requirements of this large mining centre. Additional accommodation being necessary, the committee have decided to build a ward to provide for four more patients, and to add several small rooms. At present there are two wards and ten beds.

METROPOLITAN OPEN SPACES.—Last week Avondale Park, Notting-hill, was formally dedicated to the public as an open space. The land was purchased at a cost of £9200. On Monday the ceremony of declaring Brockwell Park open as a public recreation ground was performed by Lord Rosebery. It contains seventy-eight acres of land well situated between Brixton, Tulse-hill, Herne hill, and Norwood.

NORTH-EASTERN HOSPITAL FOR CHILDREN, HACKNEY-ROAD.—The twenty-fourth annual report shows that the number of in-patients treated during the past year was 508, and of out-patients 13,722, the latter showing 48,909 attendances. In the twelve months, 36 patients had been sent to the Convalescent Homes at Northwold and Cardington. The Samaritan Fund had provided 102 trusses and 68 other instruments. Alterations and improvements had involved an outlay of £741 14*s.* 3*d.*

LINCOLN COUNTY HOSPITAL.—On Tuesday, in the presence of an influential assembly, Mrs. Joseph Ruston formally opened the children's ward and the new building given by Mr. J. Ruston, D L., to this hospital. The Earl of Yarborough presided on the occasion. The cost, upwards of £4000, of the new building has been entirely provided by the generous donor. The old out-patients department has been converted into a ward for the children, and a new pavilion erected for the out-patients, with a board room and other needed additions.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a meeting of the Fellows held on June 6th the following office-bearers were elected for the ensuing year:—President: E. Hamilton. Vice-President: W. Thornley Stoker. Secretary: Sir Charles Cameron. Council (in order of Fellowship seniority): Sir George Porter, Bart., G. H. Kidd, Rawdon Macnamara, J. Kellock Barton, Edward Hallaran Bennett, Henry Gray Croly, Philip Crampton Smyly, Henry R. Swanzy, W. Ireland Wheeler, Austin Meldon, William Carte, Sir Charles A. Cameron, F. Alcock Nixon, Kendal Franks, Charles Bent Ball, J. B. Story, Henry FitzGibbon, A. H. Benson, and Thomas Myles.

BEQUESTS AND DONATIONS TO HOSPITALS.—The Duke of Rutland has sent a donation of 300 guineas to the Derby Infirmary.—The late Mrs. Anna A. Salisbury, of West Brighton, bequeathed £500 to the British Home for Incurables and £1000 to the Royal London Ophthalmic Hospital.—Mr. J. G. Barclay has forwarded a donation of £200 to the treasurer of the North-Eastern Hospital for Children, Hackney-road.—The treasurer of the Beckett Hospital, Barnsley, has received £200 bequeathed by the late Mrs. A. M. Smith, Sheffield, to that institution.—Mr. Frederick W. Bigge, late of Knightsbridge, bequeathed £100 to the St. George's Hospital, Hyde-park-corner.—The Leathersellers' Livery Company has voted 50 guineas to the Poplar Hospital for Accidents.—The Clothworkers' Livery Company has made a grant of £50 to the Grosvenor Hospital for Women and Children, Vincent-square, S.W.—The London Court of Common Council has voted 50 guineas towards the building fund for the extension of the Richmond Hospital.—The Grocers' Livery Company has granted £500 to the rebuilding fund of the Poplar Hospital for Accidents.—The committee of the Yorkshire Rugby Football Union has made grants amounting to £1700 to the Yorkshire charitable institutions, of which £350 was apportioned to the Leeds Infirmary, £150 to the Bradford Infirmary, £120 to the Huddersfield Infirmary, and £100 to the Clayton Hospital, Wakefield.—It was announced at the meeting last week of the Rural Hospital Committee, Tewkesbury, that the late Mrs. Elizabeth Surman had bequeathed to the hospital £1000, reducible to £500 in the event of the residuary trusts' fund not being adequate to pay other legacies contained in her will.—Mr. J. P. Cairnes has given £100, Mr. C. Martin £50, Mr. S. Adair £25, and Mr. R. Boyd £20, to the building fund of the Rotunda Auxiliary Hospital.

CHILDREN'S HOSPITAL, PADDINGTON-GREEN.—Mr. George Hanbury, the treasurer, presided at the annual meeting, held on the 25th ult. The report submitted showed a decrease in the subscriptions and donations, amounting to £252 compared with the previous year, which was much to be regretted in view of the extension, which, for sanitary reasons, must be proceeded with without delay. The site had been purchased, and it only remained to raise funds to commence building. For this object £3062 had been collected, and the sum still required was £5000, for which the chairman made an earnest appeal.

GENERAL PRACTITIONERS' ALLIANCE.—A meeting of this Society was held at the offices, 11, Adam-street, Strand, W.C., on Wednesday, June 1st, Mr. George Brown (president) in the chair. The subject of the proposed Midwives' Registration Bill having been discussed, it was moved by Mr. J. B. Cook, seconded by Mr. W. E. Dawson, and resolved: "That Messrs. Campbell Boyd, George Brown, F. H. Corbyn, and Hugh Woods, M.D., be requested to give evidence before the Commission on the subject of registration of midwives." The annual general meeting of the General Practitioners' Alliance will be held on Wednesday, June 29th.

NORTH SHIELDS AND TYNEMOUTH DISPENSARY.—The annual report for the past year (the ninetieth) showed that the year's total income from all sources was £301 4*s.* 3*d.*, and the expenditure £278 14*s.* After investing £100, a surplus of £94 0*s.* 3*d.* remained in hand. The admissions by ticket show an increase of 351 on 1891. The casual patients relieved at the dispensary were 6758, an addition of 2663, attributable chiefly to the influenza epidemic in the district. A more commodious and central dispensary is necessary for the increasing wants of the borough, and the committee recommended that the present building be sold and more central premises purchased or rented.

POPLAR HOSPITAL FOR ACCIDENTS.—The thirty-seventh annual festival of this institution took place last week at the Holborn Restaurant, Mr. John Coles presiding. The chairman, in proposing the toast, "Success to the Poplar Hospital and the Medical Staff," remarked that the institution was doing an excellent work under great difficulties, the present building being wholly unfitted for the purposes to which it was devoted. In consequence, since 1881 the committee had endeavoured to set aside a reserve fund, which now amounted to £12,000, and it was intended to erect a new wing to enable the staff to carry on the work more efficiently. A large sum was still required to complete the necessary extensions, and he made an urgent appeal for funds. The subscriptions and donations amounted to upwards of £5000.

THE BRITISH INSTITUTE OF PUBLIC HEALTH.—The first general meeting of the British Institute of Public Health was held on Friday, June 3rd, at King's College, London, Sir Charles A. Cameron in the chair. The Provisional Council presented a report, in which they detailed the work undertaken since the incorporation of the Public Health Medical Society. The Institute is receiving the hearty support of medical officers of health and other gentlemen holding public health qualifications. After payment of expenses, the Institute has a balance of £140 to its credit at the Bank of England. The scheme for the examination of candidates for certificates of their efficiency to act as sanitary inspectors is now complete, and the first examination will be held in October. The first number of the Journal of the Institute will appear in July. The following gentlemen were elected as officers for the ensuing year:—President: Sir Charles A. Cameron, M.R.C.P.I., F.R.C.S.I., D.P.H.Camb., Medical Officer of Health for Dublin. President-elect: Henry Duncan Littlejohn, M.D., F.R.C.S. Edin., Medical Officer of Health, Edinburgh. Treasurer: Francis J. Allan, M.D., D.P.H. Camb. Hon. Secretary: Charles A. James, L.R.C.P., D.P.H. R.C.P.Lond. The annual meeting of the Institute will take place in Dublin at the end of August, under the auspices of the Irish branch, when an address will be delivered by the President. The following subjects have been chosen for special discussion—viz., the Etiology of Typhoid Fever and the Notification of Infectious Diseases. Papers on other subjects have been promised.

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METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on June 7th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	300*	75	..	14	..	389	482
North-Western Hospital	274	53	..	6	2	334	411
Western ,,	109*	29	..	9	3	150	224
South-Western ,,	239	34	..	4	3	280	360
South-Eastern ,,	301	8	1	13	1	324	424
Northern ,,	533	19	..	..	....	552	732
Totals	1754	218	1	46	10	2029	2633

* One infant with mother.

SMALL-POX. *Atlas* hospital ship, 54; *Castalia*, 32. Total, 86.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ANDREW, J. GRANT, M.B., C.M. Glasg., has been appointed Surgeon to the Victoria Infirmary Dispensary, Glasgow.

ARNISON, W. C., M.D. Durh., M.R.C.S., has been appointed Professor of Surgery to the University of Durham, vice G. Y. Heath, deceased.

BIERNACKI, J., M.B., C.M., L.R.C.S., L.R.C.P. Edin., has been appointed Assistant House Surgeon to the Bootle Borough Hospital.

BRADBURY, J. A., M.R.C.S., has been appointed Medical Officer to the Workhouse, Wigan Union.

BURDWOOD, JAS. W., L.F.P.S., L.M. Glasg., has been reappointed Medical Officer of Health for the Bourne Rural Sanitary District of the Bourne Union.

BUTLIN, HENRY TRENTHAM, F.R.C.S., has been appointed Surgeon to St. Bartholomew's Hospital, vice W. Morrant Baker, F.R.C.S., resigned.

CLEMMEY, W. N., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to the Bootle Borough Hospital, vice T. Gilcriest, resigned.

COLLUM, ARCHIE T., L.R.C.P., M.R.C.S., has been appointed Surgical Registrar to Charing-cross Hospital.

COLWELL, J. K., has been appointed Public Analyst, Board of Works District of the Holborn Union, vice Redwood, deceased.

COONEY, JOHN E., L.R.C.P. Edin., L.F.P.S. Glasg., D.P.H. Camb., has been reappointed Medical Officer of Health for Fulham.

COUPER, DAVID, M.D., C.M. Glasg., has been appointed Surgeon for Diseases of the Skin to the Victoria Infirmary Dispensary, Glasgow.

FOSTER, M. B., M.R.C.S., L.R.C.P., has been appointed House Surgeon to Charing-cross Hospital.

GARLAND, E. C., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer of Health for Yeovil.

GOWING, B. C., M.R.C.S., has been reappointed Medical Officer of Health for the Penistone Urban Sanitary District of the Penistone Union.

GRACE, HENRY, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health to the Kingswood Local Board.

HAMILTON, JAMES, M.B., C.M. Glasg., has been appointed Physician to the Victoria Infirmary Dispensary, Glasgow.

HARPER, JOHN W., M.R.C.S., has been reappointed Medical Officer of Health for Stowmarket.

HASWELL, J. F., M.B., C.M. Edin., M.R.C.S., has been reappointed Medical Officer for the First Sanitary District of the Penrith Union.

HIRST, WALTER, L.R.C.P., L.R.C.S. Edin., has been appointed Resident Assistant Medical Officer to the Leeds Union Infirmary.

HUNTER, GEO., L.F.P.S. Glasg., has been appointed Surgeon for Diseases of the Eye to the Victoria Infirmary Dispensary, Glasgow.

JENKINS, T. W., M.D., C.M. Glasg., has been appointed Physician to the Victoria Infirmary Dispensary, Glasgow.

JOHNSTON, EDWD. C., M.R.C.S., has been reappointed Medical Officer of Health for Leckhampton.

KELLY, A. BROWN, B.Sc., M.B., C.M. Glasg., has been appointed Surgeon for Diseases of the Throat, Nose, and Ear to the Victoria Infirmary Dispensary, Glasgow.

KENNEDY, ROBT., M.B., C.M. Glasg., B.Sc., has been appointed Surgeon to the Victoria Infirmary Dispensary, Glasgow.

LIMRICK, WM. S., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer of Health for Great Crosby.

MACKAY, W. J., M.B., C.M., Sydney, has been appointed Resident Medical Officer to the Hospital for Women, Soho-square, London.

PALMER, W. M., L.S.A., L.R.C.P., M.R.C.S., has been appointed Resident Obstetrical Officer to Charing-cross Hospital.

PRIESTLEY, JOSEPH, M.D., C.M. Edin., M.R.C.S., D.P.H. Camb., has been appointed Assistant Medical Officer for Camberwell.

SAMUELSON, GERALD S., M.B. Edin., Surgeon Gundagai Hospital, N.S.W., has been appointed Government Medical Officer and Public Vaccinator for the District of Gundagai.

SENIOR, H. D., M.R.C.S., L.R.C.P., has been appointed House Physician to Charing-cross Hospital.

SHANNON, R. A., L.R.C.P., L.R.C.S Edin., has been appointed Medical Officer for the Second Sanitary District of the Bromley Union.

SMITH, PERCY, M.R.C.S., L.R.C.P. Lond., L.D.S. Eng., has been appointed Dental Surgeon to the Victoria Hospital for Children, Queen's-road, S.W.

SWAIN, JAMES, M.D. Lond., F.R.C.S., has been appointed Honorary Assistant Surgeon to the Royal Infirmary, Bristol.

WALDO, F. T., M.A., M.D. Camb., M.R.C.S., D.P.H., has been appointed Medical Officer of Health to the Parish of St. George the Martyr, Southwark.

WATSON, WM. T., M.D. Oxon., M.R.C.S., has been reappointed Medical Officer of Health for Tottenham.

WILLS, CHARLES, M.R.C.S., has been reappointed Medical Officer of Health for Mansfield.

YOUNG, EDWD. H., M.D. Durh., L.R.C.P. Lond., M.R.C.S., D.P.H., has been reappointed Medical Officer of Health for Okehampton.

YUNGE-BATEMAN, M. G., M.R.C.S., has been appointed Medical Officer of Health for Folkestone.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BRADFORD EYE AND EAR HOSPITAL.—Special Assistant Surgeon. Honorarium 100 guineas per annum.

BRIGHTON AND HOVE LYING-IN INSTITUTION AND HOSPITAL FOR WOMEN, West-street, Brighton.—House Surgeon. Salary £150 per annum, with rooms and gas.

CHORLTON-UPON-MEDLOCK DISPENSARY, Manchester.—Resident House Surgeon. Salary £100 a year, with furnished rooms and attendance.

CLAYTON HOSPITAL AND WAKEFIELD DISPENSARY, Wakefield.—Junior House Surgeon. Honorarium £40 per annum, with board, lodging, and washing.

COUNTY BOROUGH OF SOUTH SHIELDS.—Medical Officer of Health for one year. Salary £300. (Apply to the Town Clerk, 35, Market-place, South Shields.)

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Physician. No salary, but board and lodging provided.

EAST LONDON HOSPITAL FOR CHILDREN, Glamis-road, Shadwell, E.—House Surgeon. No salary, but board and lodging provided.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge-road, S.E.—Physician to Out-patients.

GENERAL HOSPITAL, Birmingham.—Resident Surgical Officer for one year. Salary £130 per annum, with residence, board, and washing.

GENERAL HOSPITAL, Birmingham.—Assistant House Surgeon for six months. Residence, board, and washing provided.

GLOUCESTER FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Qualified Medical Practitioner.

HARWOOD, E. T., 18, Ely-place, London, E.C.—Medical Officer for a Club. Salary for first year £100.

LIVERPOOL DISPENSARIES, Leith Offices, Moorfields, Liverpool.—Two Assistant Surgeons. Salary £80 per annum each, with apartments, board, and attendance.

M. D. S., THE LANCET Office, 423, Strand, W.C.—Assistant Medical Officer in a Private Metropolitan Asylum. Salary commencing at £100 per annum.

NORTH STAFFORDSHIRE INFIRMARY AND EYE HOSPITAL, Hartshill, Stoke-on-Trent.—Assistant House Surgeon. Board, apartments, and washing provided.

PARISH OF ST. MARY, Islington.—Medical Officer of Health. Salary commences at £600 per annum, with an annual increase of £25 to £800 per annum. (Apply to the Vestry Clerk, Vestry Hall, Upper-street, Islington.)

PUBLIC HOSPITAL AND DISPENSARY, Sheffield.—Assistant House Surgeon. Salary £50 per annum, with board, lodging, and washing.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon. Board and rooms provided. No salary.

ROYAL UNITED HOSPITAL, Bath.—Resident Medical Officer. Salary £100 per annum, with board and lodging.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL, King William-street, West Strand.—Clinical Assistants for six months.

ST. MARYLEBONE GENERAL DISPENSARY, 77, Welbeck-street, W.—Honorary Physician.

SWANSEA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with board, furnished apartments, coals, gas, laundress, and attendance.

WARNEFORD HOSPITAL, Leamington.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

WESTMINSTER GENERAL DISPENSARY, 9, Gerrard-street, Soho, W.—Honorary Physician.

WESTMINSTER HOSPITAL, Broad Sanctuary, S.W.—Assistant Ophthalmic Surgeon.

WOLVERHAMPTON AND DISTRICT HOSPITAL FOR WOMEN, Wolverhampton.—Two Honorary Acting Gynæcological Surgeons.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House Physician. Salary £100 per annum, with board, lodging, and washing.

Births, Marriages, and Deaths.

BIRTHS.

ADENEY.—On June 3rd, at 3, Mount Sion, Tunbridge Wells, the wife of E. Leonard Adeney, M.D. Lond., of a daughter (Armorel).

GORDON.—On June 5th, at Witheridge, N. Devon, the wife of H. Laing Gordon, M.B., C.M. Edin., of a son.

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GREENFIELD.—On May 31st, at Heriot-row, Edinburgh, the wife of W. S. Greenfield, M.D., F.R.C.P., of a daughter.
HANDCOCK.—On June 2nd, at Girlington, Bradford, the wife of George Handcock, M.R.C.S., of a daughter.
LANGRAN.—On June 7th, at Belle Vue, Axminster, Devon, the wife of W. Langran, L.R.C.P. Edin., of a daughter.
MOLSON.—On June 1st at Montreal, Canada, the wife of J. Elsdale Molson, M.B., B.C. Cantab., M.R.C.S., of a son.
PATTERSON.—On June 2nd at 353, City road, E.C., the wife of Charles S. Patterson, M.B., M.R.C.S., of a son.
ROBERTSON.—On June 3rd, at Mayfield, Western Parade, Southsea, the wife of Dr. J. R. S. Robertson (late A.M.S.), of a son.
SHACKLETON.—On May 16th, at Georgetown, Demerara, the wife of T. F. Shackleton, M.R.C.S., of a daughter.
SINCLAIR.—On May 30th, at Osborne-road, Clifton, Bristol, the wife of Surgeon-Lt.-Col. D. Sinclair, H.M.I.A., of a daughter.
TAIT.—On June 7th, at Lincluden, Sunnyside-road, Hornsey-lane, the wife of Henry Brewer Tait, F.R.C.S., of a son.
THORESBY-JONES.—On June 1st, at Sutherland-avenue, W., the wife of Dr. James Thoresby-Jones, of a daughter.
WICKS.—On June 4th, at Newcastle-on-Tyne, the wife of Charles Wicks, L.R.C.P. Edin., L.R.C.S., of a son.
WILLAN.—On June 1st, at Albert House, Esher, the wife of Leonard James Willan, M.R.C.S. Eng., L.S.A., of a son.
WRIGHT.—On June 6th at Coltishall, Norfolk, the wife of Bernard Zorapore Wright, M.R.C.S., L.R.C.P., of a son.

MARRIAGES.

BOURNE—ALLEN.—On June 1st, at Leamington Parish Church, Edmund Kemp Bourne, M.D., only son of the late William Kemp Bourne, M.D., of Fisherwick, Lichfield, to Nina Maud, daughter of the late Barton Fletcher Allen, Esq., Liverpool.
BROWN—JONES.—On June 1st, at Stoke Parish Church, Coventry, F. Lenox Harman Brown, M.B., C.M. Edin., eldest son of Major Harman Brown, of Norwich, to Dora Annie, eldest daughter of Vickers H. Jones, Esq., of Stoke, Coventry.
CADDY—CLATER.—On June 1st, at St. Cuthbert's Church, Earl's-court, London, Duncan James Caddy, M.B., second son of James Caddy, Esq. (late of H.M. Civil Service), to Florence, youngest daughter of William Clater, Esq., J.P., of The Laurels, Retford, Notts.
CARTER—BLAKISTON.—On June 1st, at St. James's Church, Brighton, H. F. Carter, M.D., to Miss Clara Blakiston.
HOWELL—HART.—On June 4th, at St. Leonard's Church, Streatham, Thos. Arthur Ivest Howell, L.R.C.P. Lond., M.R.C.S. Eng., of Cleeve House, Wandsworth, eldest son of Thos. Symonds Howell, of the Old Vicarage, Wandsworth, to Frances Elizabeth Margaret, widow of Wm. Hamilton Hart, M.R.C.S. Eng., and elder daughter of E. P. Berthon, of Portswood, Southampton.
MCCAUSLAND—HELSHAM.—On June 1st, at the Parish Church of Wiggenhall St. Mary the Virgin, Norfolk, Albert Stanley McCausland, M.D., of Swanage, Dorset, son of the late Rev. R. McCausland, of Gloucester-place, Hyde-park, to Miss Emily Blunt Helsham, only daughter of Gustavus Helsham, Esq., J.P., of St. Mary's Hall, Norfolk.
MCNEAL—VIVIAN.—On June 1st. at the Wesleyan Church, South Norwood, James McNeal, L.R.C.P. Lond., M.R.C.S., of South Norwood-hill, to Ada Louisa, daughter of the late C. T. Vivian, of South Norwood.
NASH—RUSSELL.—On June 1st, at Holy Trinity, Milton-next-Gravesend, Charles Nash, L.R.C.P., of Horndean, Hants, to Constance, eldest daughter of J. Russell, Esq., J.P., Glenthorne, Gravesend.
OSBURN—CLARKSON.—On June 2nd. at St. Andrew's, Ashley-place, Harold Burgess Osburn, M.R.C.S., D.P.H., of Bagshot, Surrey, second son of Commander Francis Osburn R.N., to Mabel, sixth daughter of Captain Clarkson, of Ashley-gardens, S.W.
ROSS—MILLBOURN.—On June 1st, at the Parish Church, Sutton-at-Hone, Alfred John Ross, M.D., Scarborough, to Isabel Millbourn, eldest daughter of J. T. Millbourn, Esq., Hawley, Kent.
WILSON—SANDERSON.—On June 2nd, at Holy Trinity Church, Hastings, Archibald Scarlyn Wilson, M.A., M.B., D.P.H. Cantab., St. Leonards-on-Sea, to Sybil Mary, youngest daughter of the Rev. R. E. Sanderson, D.D., Canon Residentiary of Chichester, and Vicar of Holy Trinity, Hastings.

DEATHS.

COOKE.—On June 2nd, at Warrior-square, St. Leonards-on-Sea, John Cooke, Esq., M.D., aged 55.
DAVIES-COLLEY.—On June 3rd, at Newton, Chester, Thos. Davies-Colley, M.D., J.P., in his 81st year.
DYMOCK.—On April 20th, at his residence, at Malabar-hill, Bombay, William Dymock, Brigade Surgeon, Retired, late Principal Medical Storekeeper to the Government, eldest son of the late Rev. T. F. Dymock, Rector of Hatch Beauchamp, Somerset, aged 59.
EDWARDS.—On May 31st, at his residence, 98, Gloucester-crescent, Hyde-park, W., Thos. Edwin Edwards, L.R.C.P. Lond., M.R.C.S. Eng., aged 64.
GOODRIDGE.—On May 7th, on his homeward voyage from Australia, Edward William Gostwyck Goodridge, Surgeon-Superintendent in the Queensland Government Emigration Service, second son of the late John Octavius Goodridge, Surgeon R.N., of Child Okeford Dorset, aged 37.
KERSHAW.—On June 2nd, at Eastfield, Farnworth, Bolton-le-Moors, aged 10 years, Margaret Alice (Daisy), youngest child of Alfred Kershaw, L.R.C.P.I., and M.R.C.S., and the late Mary Alice Kershaw. Friends will kindly accept this intimation.
STORY.—On June 2nd, at his residence, Westbourne-terrace-road, John Story, M.R.C.S., in his 84th year.
TEMPLETON.—On June 2nd, at Boscombe-road, Shepherd's-bush, W., at an advanced age, Robert Templeton, M.D., F.R.C.S.I., Deputy Inspector-General, late Royal Artillery.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, June 13.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.
LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. A. Stanford Morton: Ocular Injuries.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Cardio-Vascular System.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. A. Wynter Blyth: Isolation Hospitals.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. W. Watson Cheyne: The Treatment of Surgical Tubercular Diseases.
NATIONAL ORTHOPÆDIC HOSPITAL (Great Portland-street, W.).—5 P.M. Mr. F. R. Fisher: Paralytic Deformities, Club-foot, &c.
ODONTOLOGICAL SOCIETY OF GREAT BRITAIN (40, Leicester-sq., W.C.).—8 P.M. Dr. F. W. Hewitt: The Anæsthetic Effects of Nitrous Oxide administered with Oxygen at ordinary atmospheric pressures, with Remarks on 750 cases. Casual Communications by Mr. A. Pearce Gould, Mr. J. Newland-Pedley, Mr. J. Smith Turner, Mr. David Hepburn, Mr. S. J. Hutchinson, and Mr. F. Canton.

Tuesday, June 14.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.
LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Varieties of Alopecia.—Bethlem Hospital 2 P.M., Dr. Percy Smith: Insanity with Syphilis.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—Mr. A. W. Mayo Robson: Two cases of Pylorectomy and one of Jejunostomy.—Mr. Lawson Tait: On the alleged occurrence of Ovarian Pregnancy, being an explanation of some cases which have been published as belonging to this variety of Ectopic Gestation.—Mr. W. G. Spencer: Amputation in Diabetes Mellitus.

Wednesday, June 15.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.
CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Hector Mackenzie: Pulmonary Phthisis in Children. Royal London Ophthalmic Hospital: 8 P.M., Mr. J. B. Lawford: Intra-ocular Tumours.
ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. W. Watson Cheyne: The Treatment of Surgical Tubercular Diseases.
ROYAL METEOROLOGICAL SOCIETY (22, Great George-street, Westminster).—7 P.M. Mr. F. C. Bayard: English Climatology, 1881-1890. Mr. William Ellis: The mean temperature of the Air on each day of the year at the Royal Observatory, Greenwich, on the average of the fifty years, 1841 to 1890.
ROYAL MICROSCOPICAL SOCIETY.—Meeting at 8 P.M.

Thursday, June 16.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.
LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-street: 4 P.M., Mr. Bernard Pitts: Hernia in Children.—National Hospital for the Paralysed and Epileptic.: 2 P.M., Dr. Tooth: Muscular Atrophies.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Dr. Woakes: Vertigo.
NEUROLOGICAL SOCIETY OF LONDON (National Hospital, Queen-square, W.C.).—8.30 P.M. Dr. Savile: Hysterical Rachialgia and Vaso-motor Disturbance in a Man aged sixty Cured by Massage and Isolation.—Dr. Bastian: Case of Unilateral Disseminated Sclerosis; Dr. Buzzard: Multiple Neuritis following Influenza.—Dr. Hale White: Case of Lead Poisoning, with a peculiar form of Unilateral Paralysis of the Palate. And other cases.

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Friday, June 17.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Hector Mackenzie: Pulmonary Phthisis in late Adult Life.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: Erysipelas and Suppuration (Streptococci)—Charing-cross Medical School: 8 P.M., Dr. Amand Routh: Uterine Hæmorrhage.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. W. Watson Cheyne: The Treatment of Surgical Tubercular Diseases.

Saturday, June 18.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr Percy Smith: Insanity with Organic Brain Disease

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 9th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
June 3	29·92	S.W.	59	52	121	70	52	10	Cloudy
,, 4	30·09	S.W.	58	55	118	67	49	..	Bright
,, 5	29·78	S.W.	60	56	116	69	53	·10	Cloudy
,, 6	30·17	N.W.	64	58	124	77	52	·22	Cloudy
,, 7	30·38	E.	56	54	112	72	54	—	Overcast
,, 8	30·41	E.	56	52	113	74	50	—	Hazy
,, 9	30·27	S.E.	67	60	120	77	55	..	Hazy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

We cannot undertake to return MSS. not used.

ASSAULT ON A MEDICAL MAN BY A RECTOR.

ON Mr. Tronson taking out a summons against his rector, the Rev. John Charter Blackmore, for an assault, which resulted in the defendant having to pay a fine of 40*s.* and costs, the rev. defendant is alleged to have threatened, after the hearing of the case, to punish Mr. Tronson with the most severe "boycotting" in the parish of which he is not only rector but lord of the manor. It is unusual to see in rectorial minds such high tempers; but we must not judge them too seriously, or take the threats they lead to too literally. We trust that by this time the feelings which generally dominate Christian ministers have reasserted themselves in the rev. gentleman's mind.

Anxious.—Our correspondent must judge for himself in the light of the case he refers to and the rules and reports of the General Medical Council which we published last week.

Sinapis.—Our correspondent should apply to the Registrar of the General Medical Council.

Mr. Gustav Ernest.—In THE LANCET of May 7th, 1892.

MEDICAL AID ASSOCIATIONS.

To the Editors of THE LANCET.

SIRS,—As a medical officer connected with a Medical Aid Association, permit me to ask a question arising out of the report of a case heard before the Medical Council, as reported in THE LANCET of June 4th. Is it lawful for me to accept a salary in lieu of services rendered to one of these associations, and at the same time be cognisant of the fact that the said association converts a portion of the income received owing to my services to its own private use? This is a serious question, affecting the interests of very many like myself, and it is well that a clear understanding should exist. There is not the slightest shadow of doubt that many of these associations are carried on for profit, and the system seems to be daily increasing, one of the evils, I presume, of the overcrowding of the profession, because if there were not very many ready to accept these appointments, the abuse could not very well flourish. Medical officers, as in my own case, are generally men without capital, and accept these appointments in many cases "as a means to an end." The question arises, Is there any risk by so doing? In looking through the annual reports of these associations, there are many striking things to be observed. I shall take one or two, which may be regarded as typically illustrative of many. In that of the —— Association for 1892, a copy of which I enclose, I find that the committee of management pay themselves an annual stipend of £30, although it is generally understood that all committees are of an honorary character. The secretary's, treasurer's, trustees', and auditors' annual salaries and expenses amount to £70. There is for purchase of land £550 &c. Where does the money come from for all these items? Simply from the money earned through the services of the medical officers, and which, I contend, ought legally to belong to them after the working expenses of the Association are defrayed. Although the income of this particular Association exceeds £1800 per annum, how much do the medical officers receive? The former medical officer, who resigned last September, had, after five years and a half's service, an annual salary of £250. His successor only receives £200. The former, in addition, was allowed 10*s.* 6*d.* for each midwifery case attended. His successor has to submit to the humiliating indignity of having 5*s.* of his midwifery fee for every case attended collared and turned into the general fund of this flourishing Association. In —— I find from the annual report the committees help themselves in like manner. In some of the associations they claim all the midwifery fees earned by the medical officers. In —— and a few others they seize half. Now, I wish to know, Do medical officers to these associations, who in many instances (like my own case) are victims to circumstances, and cannot very well help themselves, run any risk in holding these appointments, which enables unqualified persons to convert money earned by medical practitioners into other channels of profit? As regards the class of members who join these associations, I am well aware that the system is much abused.

I am, Sirs, yours truly,

June 6th, 1892. A MEDICAL OFFICER.

TREATMENT OF CONVULSIONS IN CHILDREN.

To the Editors of THE LANCET.

SIRS,—I wish to call the attention of the readers of THE LANCET to a method of treating convulsions which I devised some fifteen years ago, and which has been employed by me since that time with most satisfactory results. It is the administration of enemata of chloral hydrate. When summoned to one of these cases, I take with me a 1½-oz bottle containing sixty grains of chloral hydrate dissolved in water, and a small glass male syringe, which holds two drachms; I prefer that the nozzle of this shall have been shortened and rounded by heating in the gas or spirit lamp. As the child lies on the nurse's lap, it is turned on one side, the syringe introduced into the rectum, and one, two, or three drachms of solution injected, according to age A child between one and two years old will take one drachm, one three or four years old will take two drachms. When withdrawing the syringe, press the buttocks firmly together to prevent the solution escaping, and keep up this pressure for about five or seven minutes, by which time the convulsions will have greatly moderated—they generally cease altogether within ten minutes. I find that a solution of this strength causes no irritation. I have tried the same hypodermically, but with less success, and parents object to the repeated punctures which are necessary for injecting the required quantity. In no case has any evil result happened in my experience.

It has always appeared to me that the ordinary treatment is very feeble in these cases, for it is impossible to get the child to swallow any medicine while the convulsions are going on, and warm baths are of very doubtful service, besides being tardy in their action, while the treatment described above is simple, rapid, and certain. While the enema is being retained various necessary particulars can be ascertained with a view to future treatment, but it appears to me that in these cases the first thing to do is to stop the convulsions.

I am, Sirs, yours faithfully,

Gateshead, June, 1892. A. WOOLSEY BLACKLOCK, M.D.

"THE USUAL BOND AND FRIENDLY SOCIETIES' AGREEMENTS."

To the Editors of THE LANCET.

SIRS,—In reply to "Assistant Medical Officer," allow me to say I think it would be interesting to the profession at large were this subject of bonds finally settled, as there seems to be so much doubt in the matter. I am of opinion that no bond can be enforced without the prohibited time is in proportion to the amount paid over and above the ordinary salary. Simply, salary is no "consideration" (which is one of the essentials to the validity of a bond). THE LANCET would be conferring a great favour on the profession were it to set this vexed question at rest. If a penalty is enforced (say, £500), can that be claimed for every offence against the bond or only once? Bonds seem to destroy the liberty of a subject. Surely a man cannot be prevented from practising his profession if he is qualified so to do, unless he has been paid very handsomely by another man not to do so. Hoping others will take this subject up,

I am, Sirs, yours truly,

June 8th, 1892. ASSISTANT.

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BENZONAPHTHOL.

F. W. N.—Dr. Le Gendre, according to the *Gazzetta degli Ospedali*, has frequently applied benzonaphthol in typhlitis, in appendicitis, in colitis (simple and dysentiform), and, generally speaking, in conditions of the lower tract of the intestine in which excessive or abnormal fermentations have been set up. In the adult he has found good results from the exhibition of doses gradually increased from three to five grammes—the antisepsis obtained being equivalent to that induced by a considerable dose of naphthol and benzoine given separately.

R. H.—No person may, under a penalty of £5, act as assistant to an apothecary in compounding and dispensing medicines without first passing an examination and obtaining a certificate from the Apothecaries' Company.

Mr. J. Mars—We think our correspondent can claim. The institution of which he is a surgeon is not one of those the officers of which are excluded from receiving fees for inquests.

"THE USE OF PESSARIES."

To the Editors of THE LANCET.

SIRS,—The letter of Mr. R. J. Kennedy in THE LANCET of June 4th reminds me of two cases of "retained pessary"—if I may use such a term—which have occurred in my practice during recent years.

The first case was that of an aged woman, who suffered from a most horribly fetid vaginal discharge; so much so that it affected her general constitutional condition. Upon making a vaginal examination I discovered a spherical boxwood pessary, of antiquated construction, encrusted with the products of secretion, and hardly recognisable; it was removed with some difficulty. According to the patient's statement it had been in position for a considerable number of years.

The second case, which also occurred in an aged woman, was if anything more remarkable. A foreign body was found in the vagina, which eventually proved to be a wire pessary covered with indiarubber. At first all attempts at removal failed. I then discovered that it had at some period of its retention ulcerated its way through the mucous membrane of the vaginal wall, which had healed over the pessary, thus effectually fixing it by a membranous band. Removal was effected by tearing through the band with the thumb nail. Owing to the vascularity of the parts, and the probability of hæmorrhage, I deemed the knife less suitable for the operation.

I am, Sirs, yours faithfully,

Clare, Suffolk, June 6th, 1892. EDWARD A. PIGGOTT.

To the Editors of THE LANCET.

SIRS,—The letter of your correspondent, Mr. R. J. Kennedy, in THE LANCET of the 4th inst., reminds me of a case I admitted some years ago into the Richmond Hospital, S.W., under the care of Mr. Bateman. In this instance the patient, an elderly and cachectic-looking woman, came to the hospital complaining of a very offensive discharge and complete inability to retain her urine. Before making a vaginal examination I thought it was a case of cancer which had caused by ulceration a utero- or vagino-vesical fistula, but a digital examination at once revealed the stem end of a Zwancke's pessary completely encrusted with lithates. The winged end, also similarly encrusted, had ulcerated through into the bladder and was removed by Mr. Bateman under an anæsthetic. This patient stated that something had been placed there also fourteen years previously, and no directions had been given as to the necessity of its ever being removed.

I am, Sirs, yours faithfully,

Ilfracombe, June 8th, 1892. ARTHUR L. COPNER.

CORONERS' JURIES.

To the Editors of THE LANCET.

SIRS,—The following case, in which I had to give evidence at an inquest, appears to me to be instructive from many points of view.

A baby had been ill with measles, the rash having been out for three days before its death. I was sent for to see it about half an hour before the child died. In the evidence the mother stated that she had given the child saffron tea and brandy, and had not thought it necessary to call in a doctor; that she had noticed the child to have gone "blind" the day before its death; and that on the day it died the child had been breathing heavily and quickly. After hearing her evidence, one of the jury remarked that he considered the mother had done everything that could be expected of her, and the rest concurred, and expressed themselves as "perfectly satisfied." No further questions were asked.

In the light of such cases one cannot be surprised at the high mortality there is from measles; and when coroners' juries take upon themselves to stamp with approval the "brandy and saffron" treatment of the complaint, what chance is there that a medical man will ever be called in to see such cases in the poorer districts, excepting when a certificate of death becomes inevitable? Coroners' juries have been very energetic of late in censuring medical men and their unqualified assistants; but surely the harm done by the latter is infinitesimal compared with the incalculable harm inflicted on helpless babes and children by such verdicts.

I am, Sirs, yours faithfully,

Mile-end-road, E., June 7th, 1892. W. F. GRANT, M.D.

"BONONIA DOCET."

OUR columns have recently indicated the advance effected by the Bologna school on the Pasteurian prevention of rabies; and it may be useful to recapitulate the pathological researches by which the experiments that led up to that advance were suggested if not inspired. For some time the Italian medical schools, principally those of Turin and Bologna, had been on the track of the "tetanigenous bacillus," with distinctly positive results. The therapeutic application of these, however, attracted most attention at Bologna, where Professor Tizzoni, assisted by a lady pathologist, "la dottoressa Cattani," set himself to render animals proof against the virus of tetanus. They began by isolating the liquid produced by the tetanic bacilli; they then examined the effects it caused in the animals in which it had been inoculated; and, finally, ascertained that in consequence of these injections the said animals acquired a resisting power against repeated inoculations of the tetanigenous virus. The substance to which this immunity was attributable they then separated from the serum of the blood, and found it to be endowed with characteristic properties. In fact, after inoculation with this matter, it was no longer possible to transmit the infection to animals by means of the blood or the urine of another animal that had died of tetanus, while the infection in an animal which had not been thus inoculated never failed to be followed by marked tetanic spasms, resulting fatally. In other words, the "antitoxine," when introduced into a tetanigenous circulation, deprived the latter of its toxic power. These experiments, verified and confirmed over and over again, Drs. Tizzoni and Cattani felt justified in repeating on the human subject; and they can now point to a *catena* of cases of tetanus—one of them a case in which amputation had already been performed—all of which, thanks to the injection of the "antitoxine," were completely cured. Further experiments made still more recently by the Bolognese pathologists have demonstrated how the immunity thus imparted to animals, rabbits and rats, becomes hereditary, and may be transmitted to their young, the latter, when born of parents rendered proof against tetanus, having been found to resist without evil effects of any kind tetanigenous inoculations to which the young of parents who had not been thus made virus-proof succumbed invariably. These results, we learn from Professor Tizzoni, led up to the advance on the Pasteurian treatment of rabies already described, and form a necessary link in a pathological and therapeutic chain reflecting the highest credit on Bologna, and fraught with developments of which it is hard to foretell the limit.

Mr. F. W. Langston Day (Reedham, Norfolk) should consult our Students' Number (Sept. 5th, 1891, page 581), where he will find very full particulars on the subject with regard to which he requires information.

PAROCHIAL AND COUNTY MEDICAL OFFICERS IN SCOTLAND.

To the Editors of THE LANCET.

SIRS,—I should be greatly obliged if you can answer the following queries in an early number of THE LANCET. Both apply to Scotland.

1. Is a parochial medical officer in Scotland entitled to extra fees for surgical operations on paupers—e.g., reducing a fracture of the radius? In the case in point no reference is made in his agreement with the parochial board to such cases. 2. A medical officer of health was appointed for a county (by the County Council), who does not hold a registrable qualification in sanitary science. He agreed to obtain such a diploma within a reasonable time, and was appointed on this understanding. Will he have to be reappointed by the new Council after its election in December next? And, if so, is he eligible in the event of his not having obtained a diploma in public health prior to that date?

I am, Sirs, your obedient servant,

May 24th, 1892. DELTA.

*** 1. In parishes which participate in the medical grant the salary covers attendance on paupers in every form. Fees in lunacy are, of course, additional. In parishes which do not participate the Board may make with their medical officer any contract they please as to special fees. The cost of medicines and medical appliances is usually kept separate, though not invariably.—2. The election of the new County Council in December cannot affect the legal tenure of office of the officials. Our correspondent does not state whether the "understanding" formed part of the written agreement, or whether the "reasonable time" was defined. If a conditional appointment were made by the County Council and sanctioned by the Board of Supervision, then, in the event of the conditions not being fulfilled, it would be open to the Council to approach the Board for removal of the officer under Section 54 (4) of the Local Government (Scotland) Act; and it would also be open to the Board to call the Council's attention to the matter, and to refuse, if it thought fit, to allocate to the Council part of the sum placed by Parliament at the disposal of the Board to aid in payment of such officers.—ED. L.

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"AN APPEAL."

DR. JOHN LOWE asks to be allowed to acknowledge through THE LANCET the receipt of a subscription of £5 from "Anon.," and also of £3 3s. from Mr. T. Smith, F.R.C.S., in response to his letter under the above heading in our issue of May 14th (p. 1116).

Dr. M.—We are not prepared to condemn the use of the titles as mentioned by our correspondent, and he is not likely to be challenged for so using them in any court of law.

R. O. W.—The details given are not sufficient to form a basis of censure on a medical man.

A QUESTION OF FEE.

To the Editors of THE LANCET.

SIRS,—I should be obliged if you would give your opinion as to whether a fee is due to me from the guardians or not in the following case.

Yesterday I was called to see a man whom I found suffering from fracture of fibula (Potts' fracture). The man had no fixed abode, and the person with whom he was living applied to the relieving officer. The relieving officer sent me an order to treat the case, and at the same time got a certificate from me stating that the patient was able to be removed to the workhouse. I then went down, after getting the relieving officer's order, put on a splint &c., and the man was shortly afterwards removed to the workhouse. Now, the fee for treating such a case is £3. Am I entitled to this? Of course, if the man had had any fixed residence, I should have had to treat the case all through, and then there could be no question about the matter. If I am not entitled to the fee, it seems hard that I should have to diagnose the case, fix it up ("set it")—these two things being the essence of the treatment,—and then have nothing for it, not even the splint and bandages returned. It will, of course, be understood from the foregoing that I am district medical officer.

I am, Sirs, yours faithfully,

June 7th, 1892. CONSTANT READER.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. A. G. Auld, Glasgow; Mr. Branthwaite, Twickenham; Messrs. Bishop and Sons, London; M. Berthier, Paris; Mr. C. F. Beadles; Mr. Lennox Browne, London; Mr. Burrows, London; Messrs. Bates, Hendy, and Co., London; Dr. Sidney Butor, Gt. Berkhamsted; Surgeon J. Milford Basnett, M.D.; Mr. Broadrup, Charlesville; Mr. Cave, Worcester; Mr. E. A. Culpeck, London; Mr. Collins, Birmingham; Messrs. J. and A. Churchill; Mr. J. Coutts; Mr. Thornton Clowes, Reading; Mr. Percy Dunn, London; Messrs. Dowsett and Co., London; Mr. F. W. Langston Day, Norfolk; Mr. Dunston, Cornwall; Dr. Drewitt, London; Dr. Evans, Beaufort; Mr. Ewart, Chapel Ash; Dr. Felkin; Mr. Forbes, Tunbridge Wells; Mr. Greenish, London; Mr. Gurner, London; Messrs. J. and H. Grace, Bristol; Mr. A. W. Gerrard, London; Mrs. Gann, Hayling Island; Dr. G. M. Gould; Mr. R. Harrison Gilpin Evesham; Dr. J. B. Harris, West Norwood; Mr. Harmer, Tunbridge; Messrs. Johnson and Co., London; Rev. Mr. Jennings, Cheshire; Messrs. Knight and Co., London; Mr. Kapardaki, Greece; Mr. Lane, London; Dr. J. S. Lynch, Walsall; Messrs. Livingstone, Edinburgh; Messrs. Laidlaw and Sandemann, Galashiels; Dr. Lowson, London; Mr. Lintock, Church Stretton; Dr. K. MacLeod, Edinburgh; Mr. H. W. Maunsell, South Kensington; Mr. Moore, South Shields; Messrs. Merryweather and Co.; Mr. Moore, Liverpool; Mr. Morris, Swansea; Dr. E. Addison Marsh; Mr. Marks, New York; Messrs. Maclay and Co., Glasgow; M. Alcan, Paris; Dr. C. Oakes; Mr. R. O'Callaghan, Dublin; Mr. E. T. Piggott, Clare; Mr. Provand, Westminster; Mr. Pollard, Wakefield; Messrs. Root and Co.; Mr. R. R. Rentoul, Liverpool; Dr. R. Lawton Roberts, Ruabon; Messrs. Robinson and Sons, Chesterfield; Mr. H. B. Rowell, Houghton-le-Spring; Mr. Swan, Batley; Messrs. Steel and Jones, London; Mr. E. O. T. Steell; Dr. Standke, Bremen; Dr. J. C. Steele, London; Dr. S. M. Sternberg, U.S.A.; Mr. Stenhouse, Glasgow; Mr. Stockwell, Bath; Messrs. Shanks and Co., London; Colonel Tully, London; Dr. W. Williams, Dolgelly; Mr. W. Roger Williams, London; Mr. White, London; Messrs. Wyleys; Dr. Hugh Woods, London; Dr. Williams, London; Mr. Walker, Stenhousemuir; Mr. Whitley, Truro; Alpha, Chesterfield; Secretary, Wolverhampton and Staffs General Hospital; Veritas, London; Secretary, Brighton Hospital for Women; General Hospital, Birmingham; Old World Advertising Co, London; Coedmor, London; Maltine Manufacturing Co., London; Dr. L., London; M. C., London; A. W. H.; Surgeon R.N.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Wicks, Newcastle-on-Tyne; Dr. Potter, Kensington; Messrs. Habgood and MacQueen, Eastbourne; Mr. Willan, Esher; Mr. J. K. James, Port Talbot; Mr. Breach, Newbury; Mr. Ward, Cork; Messrs. Baelz and Co., London; Mr. Carmichael, Barrow-in-Furness: Mr. Conden, Old Swindon; Mr. Oliver, Lincoln; Mr. Irving, Burslem; Messrs. Smith and Co, Bow; Mr. Montgomery, Birmingham; Mr. David, Rhondda Valley; Dr. Griffith, Ruthin; Mr. Barr, Liverpool; Mr. Gibson, Hebden Bridge; Mr. Tyte, Minchinhampton; Messrs. Chalmers, Wade, and Co., Liverpool; Mr. Fitzgerald, Queenstown; Dr. Adeney, Tunbridge Wells; Mr. Dixey, Caldicot; Dr. Stewart, Clifton; Mr. Thomas, Hebden Bridge; Mr. McDonald, Skye; Mr. Griffin, Reading; Dr. MacMunn, Chelsea; Mr. Potter, Liverpool; Mr. Thin, Edinburgh; Mr. Withers, Shrewsbury; Mr. White, Eythorne; Mr. Mossop; Mr. Buller, Stowmarket; Mr. Patterson, London; Mr. Kershaw, Bolton; Mr. Norman, Ashburton; Mr. Fitzpatrick, Liverpool; Mr. Johnstone, Edinburgh; Mr. Cormack, Kilnhurst; Mr. Burcombe, Lincoln; Mr. Hughes, Aberystwyth; Mr. Davies, Penygroes; Mr. White, Nottingham; Mr. De Fraine, Aylesbury; Mr. Bryden, Shipley; Messrs. Ledger, Smith, and Co., London; Mr. Richards, Pembrokeshire; Mr. Stone, Newport, Mon.; Mr. Heywood, Manchester; Dr. Griffith, Carmarthen; Mr. L. Browne, London; Mr. Bonas, Cornwall; Mr. Fiske, Aylesford; Lady Superintendent, Bexhill; Tibia, Hull; Status, London; Portsmouth Royal Hospital; M.R.C.S., London; J. M. W., Shropshire; Ancoats Hospital, Manchester; Gerald, Cheshire; Royal Medical Benevolent College; Rex, London; Lex, London; Secretary, East Suffolk and Ipswich Hospital; P., Leeds; Justice, London; Racquet, Shepherd's Bush; Clerk, London; Surgeon, Gainsborough; St. John Ambulance Association, London; F. M. W., London; Alpha, Birmingham; Bona Fides, London; Scalpel, London; Ceylon, London; Duffield, Birmingham; R., London; Thorax, London; Wilts, London; Medicus, Liverpool; W. W., London; Devon, London; Surgeon, London; J. H. J., Bridgend; Assistant, co. Durham.

NEWSPAPERS.—*Liverpool Daily Post, Bristol Mercury, Rangoon Times, Dundee Advertiser, Leeds Mercury, Scottish Leader, Glasgow Herald, Law Journal, Yorkshire Post, Morning Call (San Francisco), North British Daily Mail, Scotsman, Freeman's Journal, Sussex Daily News, Manchester Courier, Irish Times, Newcastle Journal, Local Government Chronicle, Manchester Guardian, City Press, Surrey Advertiser, Hertfordshire Mercury, Builder, Windsor and Eton Express, Reading Mercury, Architect, Insurance Record, Weekly Free Press and Aberdeen Herald, Windsor and Eton Gazette, Mining Journal, Eastern Morning News (Hull), Jewish Chronicle, Cape Argus, Montreal Daily Herald, Oban Times, Morning News (Belfast), Pullen's Kent Argus, Phonetic Journal, English Mechanic and World of Science, Hastings and St. Leonards Observer, Sunday Times, Local Government Journal, Le Temps (Paris), Barbadoes Herald, Loughborough Herald, People, Sunderland Herald, Hastings News, Daily News, Leicester Post, &c.*, have been received.

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METROPOLITAN HOSPITAL SUNDAY FUND.

"THE LANCET" SPECIAL SUPPLEMENT.

Published in aid of the Appeal to be made on Sunday, June 19th, 1892.

THE GROWTH OF HOSPITAL WORK IN LONDON.

ONCE more the return of the season at which the Hospital Sunday Fund collection is annually made in the various places of worship throughout the metropolis demands from us a restatement of the case which we have now for many years past submitted under various aspects to the charitable public. If the work in question were less extensive or less multifarious than it is there might be a difficulty in avoiding mere repetition in an appeal so frequently renewed, but in fact the topic is not easily exhausted, and the particular phase of it to which we propose on the present occasion to draw attention is one that has been suggested by the circumstance that the publication in part of the census returns for 1891 enables us to make an instructive comparison between the London of to-day and that of twenty years ago, when the Hospital Sunday movement took its rise. It would be difficult in any other way to give so striking a view of the great work actually accomplished by means of the Fund, and of the still greater work which awaits accomplishment by the same means.

POPULATION IN 1871.



ADDITION DURING TWENTY YEARS.



POPULATION IN 1891.



PRIVATE CONTRIBUTIONS AND THE FUND.

It may be well before proceeding to the more statistical part of our subject to deal with a criticism frequently passed upon the Sunday Fund collection, and usually received with an acquiescence which it ought not to command. The criticism is that an organised effort like that in question has a tendency to diminish the income received by the hospitals from private subscriptions and donations, and thus to take away with one hand what it gives with the other. This is so plausible a proposition that few people have any disposition even to call it in question, and it passes current on the strength of being almost self-evident. But as it is not quite self-evident it may be called in question, and we have, with the object of putting it to proof, obtained from such of our hospital correspondents as have been able to supply them copies of their several accounts for the year 1872 or some date thereabout. A comparison of these statements with the corresponding figures for last year does not confirm the dictum. It will be easily understood that the materials with which we have been supplied are very meagre, since reports twenty years old are naturally rare even in the offices from which they were originally issued. But in almost every instance in which the comparison can be made it turns out that the income from annual subscriptions and from donations is greater now than it was at the earlier date, and that these sources of income, instead of being strangled by the Sunday Fund collection, have continued to thrive side by side with it; so that public interest in particular institutions, as manifested by subscription lists, is stronger and more widespread now than ever. We do not wish to generalise too widely from the comparatively small basis of comparison, which is all that we have been able to secure; but we are at least entitled to say that, so far as the ascertainable facts are concerned, it seems to be a sounder conclusion that this annual appeal has stimulated public charity than that it has diverted the benefactions of the charitable into a new channel. The old streams flow in their old beds and with increased volume, and the new is so much additional power brought to bear upon the problems to which in our vast city sickness and accident give rise.

TWENTY YEARS' GROWTH OF LONDON.

The establishment of a fund which produces upwards of £40,000 a year has undoubtedly made a magnificent addition to the charitable resources of the metropolis, and if it were—as it certainly is not—the only useful outcome of the Hospital Sunday movement, it would abundantly justify the foresight of the promoters and the zeal of those who have supported the annual collection. But great as this achievement is, it is but small in comparison with that overwhelming phenomenon—the growth of London. In 1871 the metropolis had 419,642 occupied houses and a population of 3,266,987 inhabitants. In 1891 the houses had become 557,134 and the inhabitants 4,231,431. Such

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figures convey but little information, because by reason of their magnitude they produce no definite impression. A better apprehension of the fact may be arrived at by establishing comparisons with smaller places. Thus the mere addition to the population of the metropolis within the period covered is equal to the aggregate population of Manchester, Leeds and Norwich taken together.

In order to present this astonishing phenomenon of the growth of London in a more intelligible form to our readers we have caused a series of small maps of the London County to be prepared which make manifest to the eye the proportions between the London population as it was in 1871 and as it is at the present time. These maps have been carefully drawn to scale, the scale of every map being such that its area is proportioned to the population which it represents. Thus the first map is drawn to a scale which gives a little less than eight miles and a quarter to the inch, and it has an area of slightly more than one and three-quarters square inches. The second is on the scale of just under fifteen miles and a sixth to the inch, with an area, therefore, slightly exceeding one-half of a square inch. The third is on the scale of seven and a quarter miles to the inch, and it has an area of two and a quarter square inches. The areas, therefore, are proportional to the populations represented, and enable the reader to judge at a glance of the relative magnitudes in question. It thus becomes much easier than by a mere perusal of provinces, and to settle according to their business or other requirements, but chiefly in the less crowded districts. Both these tendencies carry people to the suburbs, and hence a rapidly growing region lying about the margin of the map, where the vast development already considered is chiefly concentrated. In a word, London may be said to grow like the trunk of a tree. If the centre represents the heart wood, and the circumference the bark, it will be found that between the two there is a region of great functional activity, where a rapid deposit of new material is continually taking place. The analogy must not, however, be pressed too hard for it soon breaks down. Thus the region of new formation is by no means a narrow belt evenly distributed all around the central core. On the contrary, its distribution is exceedingly irregular. At one place, for example, it comes much nearer to the centre than elsewhere; at another place it will be carried much farther afield. To enable our readers to judge for themselves of the complexity of these movements, we have prepared a fourth map, showing the way in which the growth of population, represented by the smallest map in the above series, has been distributed over the ground.

In this map the outline of No. 3 is filled in by tracing the boundaries of the various parishes—or rather groups of parishes,—the grouping being that adopted in the census reports. They are divided under four heads, as follows:

LIST NO. I.—GENERAL HOSPITALS.

Name of hospital.	Charitable income.	Hospital Sunday Fund.	Proprietary income.	Legacies.	Loans, balances, &c.	Total income.	Ordinary expenditure.	Balances, capital, expenditure, &c.	Total expenditure.
	£	£	£	£	£	£	£	£	£
Charing-cross	6,112	1,083	3,043	3,432	7,508	21,178	15,041	6,137	21,178
French	—	—	—	—	—	—	—	—	—
German	6,512	694	1,992	733	161	10,092	8,702	1,390	10,092
Great Northern Central	3,026	322	413	1 319	1,764	6,844	5,887	957	6,844
Guy's	—	—	—	—	—	—	—	—	—
Italian	1,205	98	2,016	—	325	3,644	858	2,786	3,644
King's College	7,808	1,463	1,394	6,408	8,481	25,554	19,145	6,409	25,554
London	15,924	3,250	23,850	6,679	25,142	74,845	57,755	17,090	74,845
Metropolitan	3,778	433	654	795	3,651	9,311	7,712	1,599	9,311
Miller Hospital and Royal Kent Dispensary	1,902	281	704	4,645	616	8,148	3,728	4,420	8,148
North-West London	1,690	313	1,995	20	495	4,513	3,325	1,188	4,513
Poplar	—	—	—	—	—	—	—	—	—
Royal Free	3,115	975	1,603	2,058	3,281	11,032	11,032	—	11,032
St. George's	8,679	1,625	15,157	27,229	4,656	57,346	31,755	25,591	57,346
SS. John and Elizabeth	1,019	130	766	184	359	2,458	2,271	187	2,458
St. Mary's	7,799	2,220	2,785	5,256	4,846	22,906	22,650	256	22,906
Seamen's	—	—	—	—	—	—	—	—	—
Middlesex	—	—	—	—	—	—	—	—	—
Tottenham	—	—	—	—	—	—	—	—	—
University College	7,503	—	4,776	7,320	3,745	23,344	20,192	3,152	23,344
West London	4,472	607	1,357	—	1,966	8,402	7,408	994	8,402
Westminster	3,802	1,083	2,497	3,120	3,726	14,228	13,435	793	14,228
	84,346	14,577	65,002	69,198	70,722	303,845	230,896	72,949	303,845
Estimated to supply omissions	34,000	5,980	38,800	7,720	21,800	108,300	87,600	20,700	108,300
Total	118,346	20,557	103,802	76,918	92,522	412,145	318,496	93,649	412,145

numbers to realise the astonishing growth which has taken place and is still going forward within the metropolis, and, by inference, to judge how rapidly—though without consciousness of the fact on our part—the problem of providing for the sick poor grows and accumulates upon our hands.

DISTRIBUTION OF THE POPULATION.

It is not only the great increase of population within the metropolis which gives rise to an ever-growing demand for new hospital accommodation. The problem is aggravated by the exceptional growth of particular places within the metropolitan area. The space represented in our map is of pretty wide extent, including something like 120 square miles. There is therefore room for a considerable movement of population within these limits, and such movements necessitate corresponding movements and developments on the part of the hospitals; for it is only, for example, to a very limited extent that a hospital in Poplar can serve the needs of Fulham, or one in Hampstead supply medical aid to the residents in Woolwich. Now, broadly speaking, two movements may be traced in the population of London. First, there is a tendency to leave the central districts and settle for residence in the outskirts; and next, there is a tendency on the part of new comers to crowd in from the (1) Parishes that have suffered loss of resident population; (2) parishes that have remained stationary; (3) parishes that have increased in a less proportion than the whole of London; (4) parishes that have increased in a greater proportion than the whole of London.

The second of these heads has been taken to cover all cases in which the loss or gain, whichever it happened to be, during the twenty years did not exceed 10 per cent. Losses, therefore, have only been reckoned when the falling-off exceeds this proportion, and gains upon a corresponding rule.

To portray this classification the engraver has employed four tints. Parishes of the first group are left white, parishes of the second group are lightly shaded. Those of the third group are of an intermediate tone, while the fourth class is represented by his strongest colour. With this explanation in mind, the reader will gather more information upon this important topic from a glance at the map than from a column of mere disquisition. But even the map gives a very inadequate impression of the vast diversity of facts. Thus we have Lambeth and Battersea both represented by the same depth of tone, because both experienced large increases of population during the period in question. In Lambeth, however, the increase fell short of 50 per

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cent., whereas the population of Battersea was very nearly trebled. Other instances of enormous growth are Wandsworth, Camberwell, and Hampstead, in all of which places the population was more than doubled, and Fulham, where, as in Battersea, the increase alone was equal to nearly twice the original population. It will easily be understood how greatly the problem of providing medical relief is complicated by such vast sporadic growths of population.

DISTRIBUTION OF THE ADDED POPULATION.



CHARACTER OF POPULATION.

The instances just cited serve to bring into view another condition of the problem not less important or less worthy of consideration than those already referred to, for it is plain, without discussion, that the necessities of the various new localities—if we may so describe the principal seats of this remarkable urban growth—in respect of hospital accommodation, will vary greatly; hardly less, indeed, than do the several quarters of the town among themselves. Hampstead and Camberwell may be compared by way of illustration. The northern suburb is almost entirely residential; the southern is largely industrial. The necessities of the one are not to be compared with those of the other; and for a just estimate of the requirements of a district, it is, therefore, as clearly necessary that the occupations and social position of its residents should be taken into account as that the residents themselves should be numbered, and their numbers compared from time to time. We gave our readers last year some account of the way in which the hospitals of the metropolis adapt their resources to the par-

LIST NO. II.—SPECIAL HOSPITALS.

Name of hospital.	Charitable income.	Hospital Sunday Fund.	Proprietary income.	Legacies.	Loans, balances, &c.	Total income.	Ordinary expenditure.	Balances, capital, expenditure, &c.	Total expenditure.
	£	£	£	£	£	£	£	£	£
City of London Hosp. for Dis. of the Chest	5,041	975	1,836	1,106	1,942	10,900	10,442	458	10,900
Hospital for Consumption	14,127	1,562	10,250	9,594	5,709	41,242	24,962	16,280	41,242
St. Peter's	1,624	—	2,331	—	—	3,955	3,194	761	3,955
North London Consumption	—	—	—	—	—	—	—	—	—
Royal for Dis. of the Chest	4,608	379	103	2,790	859	8,739	7,375	1,364	8,739
Royal National for Consumption	3,593	260	4,485	2,050	1,336	11,724	11,349	380	11,724
Alexandra for Children	1,661	217	134	600	1,336	2,612	2,270	342	2,612
Belgrave ,,	998	152	32	210	202	1,594	1,420	174	1,594
Cheyne ,,	2,134	115	640	5,010	2,133	10,032	2,269	7,763	10,032
East London ,,	7,091	574	234	1,339	1,543	10,781	7,395	3,386	10,781
Evelina ,,	3,354	520	2,290	90	338	6,592	6,218	374	6,592
Home for ,,	—	—	—	—	—	—	—	—	—
Home and Infirmary for Sick Children	707	152	670	—	358	1,887	1,694	193	1,887
Home for Incurable	484	81	1,046	—	73	1,684	1,221	463	1,684
Home for Sick Children & S. Lon. Dis. for Women	—	—	—	—	—	—	—	—	—
Hosp. for ,,	8,338	823	2,288	4,335	1,953	17,737	12,377	5,360	17,737
North-Eastern Hospital for Children	4,591	368	874	—	3,600	9,433	6,059	3,374	9,433
Paddingtn.-gr. ,, ,, ,,	3,152	170	294	360	399	4,375	2,574	1,801	4,375
Victoria ,, ,, ,,	4,479	410	509	277	202	5,877	5,844	33	5,877
"The Vine" ,, ,, ,,	554	38	305	—	108	1,005	983	22	1,005
British Lying-in ,,	—	—	—	—	—	—	—	—	—
City of London ,,	475	76	2,782	—	293	3,626	3,626	—	3,626
General ,,	575	76	2,354	—	3	3,008	3,008	—	3,008
Qn. Charlotte's ,,	—	—	—	—	—	—	—	—	—
Chelsea, for Women	4,413	217	618	—	285	5,533	4,379	1,154	5,533
Hospital ,, (Wolverhampton)	532	—	10	—	352	894	426	468	894
,, ,,	2,494	455	1,141	8,088	9,308	21,486	6,701	14,785	21,486
Grosvenor ,, and Children	738	65	416	—	334	1,553	1,553	—	1,553
New ,,	1,688	141	932	—	116	2,877	2,875	2	2,877
Royal Hosp. for Children and Women	—	—	—	—	—	—	—	—	—
Samaritan Free	5,288	515	92	2,000	198	8,093	6,913	1,180	8,093
Cancer	3,946	542	16,953	9,655	3,194	34,290	9,890	24,400	34,290
London Fever	6,071	433	4,123	2,483	1,167	14,277	8,422	5,855	14,277
Gordon Hospital for Fistula	—	—	—	—	—	—	—	—	—
St. Mark's ,, ,, ,,	927	119	1,061	652	263	3,022	2,651	371	3,022
National ,, ,, Dis. of Heart	1,550	108	430	686	396	3,170	2,076	1,094	3,170
Female Lock	—	—	—	—	—	—	—	—	—
Male Lock	—	—	—	—	—	—	—	—	—
Hosp. for Epilepsy &c.	877	87	748	220	620	2,552	1,850	702	2,552
National, for the Paralysed	—	—	—	—	—	—	—	—	—
West-end	—	—	—	—	—	—	—	—	—
Central London Ophthal.	1,442	54	214	—	164	1,874	841	1,033	1,874
Royal London ,,	2,603	—	9,138	1,300	419	13,460	6,333	7,127	13,460
Royal South London ,,	685	81	81	—	395	1,242	880	362	1,242
Royal Westminster ,,	1,642	87	410	516	229	2,884	2,235	649	2,884
Western ,,	401	—	291	—	109	801	540	261	801
City Orthopædic	1,341	65	397	—	2,914	4,717	1,328	3,389	4,717
National ,,	678	43	4,562	—	5,549	10,832	1,174	9,658	10,832
Royal ,,	1,252	—	670	100	183	2,205	2,205	—	2,205
Hosp. for Dis. of Skin	214	22	706	950	1,542	3,434	953	2,481	3,434
Cent. Lond. Throat and Ear	719	57	1,439	20	—	2,235	2,070	165	2,235
London Throat	349	—	619	—	52	1,020	944	76	1,020
Royal Ear	676	4	—	—	73	753	753	—	753
Hosp. for Dis. of Throat	3,287	—	117	125	3,730	7,259	2,525	4,734	7,259
London Homœopathic	—	—	—	—	—	—	—	—	—
London Temperance	5,669	492	860	680	539	8,249	8,170	79	8,249
The Dental	2,979	114	566	—	70	3,729	1,920	1,809	3,729
National Dental	—	—	—	—	—	—	—	—	—
	120,047	10,649	80,060	55,236	53,252	319,244	194,882	124,362	319,244
Estimated to supply omissions	12,600	3,069	8,000	2,431	1,200	27,300	24,700	2,600	27,300
Total	132,647	13,718	88,060	57,667	54,452	346,544	219,582	126,962	346,544

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ticular needs of their several localities; it is, therefore, the less necessary to expatiate now upon the theme. Suffice it here to remark that what holds of the old localities holds also of the new. Every district has its local needs, and these local needs can only be supplied by local institutions, which are not only readily accessible by reason of their being local, but also adaptable for the same reason to the purposes which best subserve the interests of their neighbourhood.

THE CASE OF THE LONDON HOSPITAL.

These conditions are well illustrated in the history of what is now the largest hospital in the metropolis—that is to say, the London Hospital in Whitechapel. The parish of Whitechapel is one of those (lightly tinted in the map) in which the population has remained practically stationary, the numbers having, in fact, suffered a slight diminution from 76,500 in 1871 to 74,400 in 1891. But the hospital no less markedly out of proportion to those which are recorded in the immediately following years. At the present time the work of a normal year brings into the wards of the institution three-fifths as many again, and to the out-patient department nearly twice the number of patients who at the earlier date flocked to the doors of the hospital in a period of plague.

GREATER LONDON.

There is yet another fact which should be borne in mind in this connexion—that Greater London is really a larger area than the London County represented in our maps and our statistics. On every side of the municipal boundary there stretches a belt of suburbs not distinguishable save by artificial limits from the suburbs within the official bounds. How great this adjacent population is may be judged from the circumstance that the Metropolitan Police area, which includes the greatest part of this out-

LIST NO. III.—CONVALESCENT AND COTTAGE HOSPITALS.

Name of hospital.	Charitable income.	Hospital Sunday Fund.	Proprietary income.	Legacies.	Loans, balances, &c.	Total income.	Ordinary expenditure.	Balances, capital expenditure, &c.	Total expenditure.
	£	£	£	£	£	£	£	£	£
Metropolitan Conval. Institution	4,613	704	485	950	4	6,756	6,465	291	6,756
Do. do. do., Bexhill-on-Sea	2,827	325	146	—	40	3,338	2,951	387	3,338
Bexhill-on-Sea Convalescent	—	—	—	—	—	—	—	—	—
All Saints ,,	4,950	585	767	1,120	3,038	10,460	6,496	3,964	10,460
Mrs. Gladstone's ,,	773	—	371	—	298	1,442	1,442	—	1,442
Hanwell ,,	—	—	—	—	—	—	—	—	—
Herbert ,,	1,041	43	723	109	43	1,959	1,415	544	1,959
King's College ,,	637	108	853	—	—	1,598	1,590	8	1,598
Mrs. Kitto's ,,	626	87	—	—	—	713	569	144	713
,, Marsham's ,,	—	—	—	—	—	—	—	—	—
Mary Wardell ,,	908	146	909	10	15	1,988	1,959	29	1,988
London & Brighton ,,	955	—	2,723	—	112	3,790	3,523	267	3,790
Morley ,,	—	—	—	—	—	—	—	—	—
Princess Frederica's ,,	525	43	3	—	—	571	450	121	571
Ramsgate ,,	—	—	—	—	—	—	—	—	—
St. Andrew's ,, Clewer	1,570	173	1,376	—	229	3 348	3,275	73	3,348
Do. ,, Folkestone	2,269	184	1,373	—	—	3,826	3,819	7	3,826
St. Barnabas ,,	—	—	—	—	—	—	—	—	—
St. Leonards-on-Sea ,,	1,393	—	276	—	683	2,352	1,581	771	2,352
St. Mary Magdalen ,,	406	—	363	—	105	874	848	26	874
St. Michael's ,,	1,125	49	281	—	16	1,471	829	642	1,471
St. John's ,,	798	—	434	—	255	1,487	990	497	1,487
Seaside ,,	3,581	—	124	—	382	4,087	3,250	837	4,087
Beckenham Cottage	—	—	—	—	—	—	—	—	—
Blackheath and Charlton Cottage	707	65	26	—	112	910	859	51	910
Burstead ,,	—	—	—	—	—	—	—	—	—
Chislehurst ,,	288	44	81	—	210	623	596	27	623
Eltham ,,	141	29	157	—	138	465	273	192	465
Enfield ,,	406	—	7	—	105	518	448	70	518
Epsom and Ewell ,,	512	—	211	—	235	958	884	74	958
Hatfield Broad Oak ,,	148	—	59	—	29	236	236	—	236
Reigate and Redhill ,,	508	58	161	250	50	1,027	759	268	1,027
Shedfield ,,	115	5	70	—	17	207	196	11	207
Sidcup ,,	305	9	86	—	35	435	398	37	435
Wimbledon ,,	—	—	—	—	—	—	—	—	—
Establishment for Gentlewomen	991	87	958	475	173	2,684	2,249	435	2,684
Hampstead Home Hospital	324	—	1,351	—	661	2,336	2,207	129	2,336
National Sanatorium	1,859	93	780	650	430	3,842	2,772	1,070	3,842
Royal Mineral Water Hospital	1,868	—	3,136	198	530	5,732	4,924	808	5,732
Royal Sea Bathing Infirmary	2,113	628	2,581	1,576	2,147	9,045	9,045	—	9,045
Invalid Asylum	434	78	333	20	213	1,078	1,068	10	1,078
Firs Home	1,578	33	388	343	343	2,685	1,483	1,202	2,685
St. Catherine's Home	877	54	69	—	276	1,276	816	460	1,276
	42,171	3,630	21,661	5,731	10,924	84,117	70,665	13,452	84,117
Estimated to supply omissions	2,000	380	700	620	400	4,100	3,700	400	4,100
Total	44,171	4,010	22,361	6,351	11,324	88,217	74,365	13,852	88,217

draws its patients from a much wider area than the parish in which it is located, and all around it are parishes that have experienced great development. Shut in somewhat by the city on the west and by the river on the south, its territory extends eastward as far as Poplar, and northward well into Hackney. Within this district there has been during the past twenty years an addition of at least 120,000 persons to the population, and of course a correspondingly increased demand upon the resources of the institution. Thus, in 1871 the number of in-patients received was 4781, the number of out-patients treated was 66,448. In 1891 these numbers had grown by gradual increments year by year to 8842 and 112,092 respectively. Carrying the comparison a little further back to the year 1866, which was a cholera year in London, we find a record of 5000 in-patients and 45,000 out-patients, a marked advance upon the numbers of preceding years, and a number lying territory, contains a population larger by a million and a quarter than that of the County of London itself. All these thousands of persons are for the purposes of hospital relief Londoners, and they add their contribution to the problem which the hospital authorities are called upon to solve; for it is manifestly impossible to apply to hospital patients the same strict rules as to local qualification which are applied to the claimants of municipal privileges. Thus on every side the problem grows under examination, and the only practical result of our best attempts to take its measure is to produce a sense that it is a problem of overwhelming proportions, too vast to be capable of presentation in such a form that the mind can adequately realise its magnitude and complexity.

HOW THESE PROBLEMS ARE DEALT WITH.

These are some of the problems of hospital administration

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in the metropolis. How are they, in fact, solved? That is a question very difficult to answer except in a vague manner. Broadly, they may be said to solve themselves, for of course, in a sense, the existence of a hospital is dependent upon local needs. Two great general hospitals, for example, do not grow up next door to one another. Twenty years ago no better answer than this could have been given to the question, for there was no body, public or private, having jurisdiction to entertain questions of this kind; but at the present time a very effective oversight of all that concerns the good administration of the moneys committed to their hands is exercised by the Council of the Hospital Sunday Fund, and the questions now under consideration come, together with numberless other questions of a similar kind, before that tribunal. It is plain that it closely affects the outcome of their distribution that it should result in the allotment of the Fund in accordance with a just estimate of the comparative needs of various institutions. An undiscriminating bounty like the donations and subscriptions of the charitable public is apt to starve one institution while it overdoes the needs of another, in this way squandering resources which a wiser and more painstaking administration would economise, and, by merely economising, turn to greatly improved account. In this way the office of almoner is one of the very greatest practical importance; and although until twenty years ago it was wholly neglected so far as the medical charities of London were concerned, it is now discharged, and discharged with a large measure of success, by the Council over which the Lord Mayor of London presides. In consequence of the care which is taken to examine in the temper of a wise and kindly criticism the claims of applicants for a share of the Fund, it may be confidently affirmed that no part of the public expenditure of the metropolis produces equally happy results at so small an outlay. Not only is a large return in actual relief afforded and positive results secured, but the public scrutiny which has by this means been established into what was formerly the wholly inscrutable subject of hospital management, has reacted upon the whole system, and caused an improved administration to prevail throughout, so that enhanced results are now obtained not less from the means which private charity contributes than from those which the coöperation of the religious communities of the metropolis places at the sick service of the poor. The aggregate income of the metropolitan hospitals and medical charities averages nearly three-quarters of a million pounds a year. Of this great total the £40,000 realised by the Hospital Sunday collection is but a small part. Yet it has produced a marked effect upon the whole, and it is safe to say that the balance of £700,000 is better administered because of the conditions which are attached to the Hospital Sunday gifts. It may easily be supposed that by promoting economy this movement has produced an effect not less influential and not less beneficent upon the condition of the medical charities than its direct effect in augmenting their incomes by £40,000 a year. Unfortunately the materials for a direct comparison upon these lines do not exist. But certain it is that both results—the direct and the consequential—are at the present moment of unquestionable advantage and first-class importance to the institutions benefited. Yet the movement is in its infancy at the present time. The amount of the collection increases from year to year, and when it becomes commensurate with the wealth and charity of London it will be much nearer to £100,000 than to its present figure. The influence of the Council tends to increase in like manner, and, without taking any coercive form, to become more and more an authority which all concerned are glad to recognise. So, little by little, a slow advance is being made towards the solution of problems which have hardly been apprehended until now. A Parliamentary Committee has recently sat and taken evidence bearing on the condition of the hospitals of London, and in due time a report may be expected as the result of its labours upon which legislation may probably be based. But nothing that the Legislature can do will affect the condition and prospects of these institutions in anything like the same degree as that in which they have been affected by the spontaneous action of the religious world. The task is indeed one well worthy of the hands by which it has been undertaken, and one which fittingly unites in a common effort and a common aim those whose oneness in the great effort of seeking after God is too often obscured by the diversity of the paths in which the quest is pursued. Thus does this annual act of mercy vindicate its quality and claim to be "twice blessed." To "him who takes" it brings a benefit in his time of need which no statistics can exhibit, and upon the system itself by which that need is supplied it takes an effect great out of all proportion to the mere munificence of the gift. On "him who gives" it reacts in a way too subtle to be defined, yet too plain to be called in question. With claims like these to the goodwill of the good it is not strange that the Hospital Sunday collection should have commanded a large and growing

TABLE NO. I.—GENERAL HOSPITALS.

Name of hospital.	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
Charing-cross	2291	813	1254	—	154	101	—	332
French	731	287	352	31	47	45	19,274	799
German	1,536	127	925	393	94	128	53,198	2,461
Great Northern Central	1,072	278	626	120	68	116	44,338	6,893
Guy's	5,710	5,189		326	415	532	69,468	22,150
Italian	230	223		4	15	7	12,093	—
King's College	2,281	817	855	237	192	206	31,753	10,845
London	9,458	3,622	3,579	824	661	882	236,619	10,846
Metropolitan	880	226	489	50	37	96	69,196	—
Miller Hospital and Royal Kent Dispensary	242	38	169	—	15	20	7,882	2,435
North-West London	646	195	263	18	40	48	25,705	13,603
Poplar	570	—	—	—	34	34	25,716	550
Royal Free	1,866	1,570		65	127	169	38,541	9,876
St. George's	4,312	2,294	347	1,209	287	443	26,303	18,524
SS. John and Elizabeth	107	—	—	—	—	—	—	—
St. Mary's	3,922	1,033	2,331	133	237	378	29,372	3,156
Seamen's	3,131	705	2,272	42	236	154	31,074	7,502
The Middlesex	3,018	875	1,716	155	269	354	94,363	21,895
Tottenham	796	—	—	—	—	—	—	—
University College	3,275	1,205	1,446	367	190	378	151,028	30,949
West London	1,504	1,262		—	95	147	60,449	20,922
Westminster	2,557	2,157		226	188	212	—	—
Estimated to supply omissions	50,135	12,515	16,724	4,200	3,401	4,540	1,016,372	183,750
	—	4,700	6,800	50	100	100	50,000	5,000
Total	50,135	17,215	23,524	4,250	3,501	4,640	1,066,372	188,750

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measure of support since its establishment in 1873; and although the work has in recent years, and notably in 1891, been done in such a way that a great effort will be required to maintain its rate of progress in the present year, yet we are confident that the great effort will not be wanting, and that while our vast metropolis continues to grow with the amazing rapidity to which the census returns bear witness, the resources not less than the needs of its medical charities will also continue to "grow with its growth and strengthen with its strength."

THE PAST YEAR'S RECORD OF HOSPITAL WORK.

In the foregoing chapters of this article we have directed the attention of our readers to the difficulties that have to be faced and the work that has to be done by the hospitals of the Metropolis. In conclusion, we have to lay before them in a summary statement the broad results of the work actually done during the past year, as shown by the reports issued by the various institutions. It is not possible to ascertain these results with accuracy, because many of the reports are for various reasons imperfect, and some are altogether wanting. In these instances estimates have to supply the defect of returns, and to that extent of course our results are open to criticism; but it is a criticism which does not destroy the value or affect the broad significance of the result. First, then, as to the numbers treated. The total number of in-patients received has been about 99,000; the total number of out-patients' visits nearly two and a quarter millions. The results of treatment, so far as out-patients are concerned, cannot be exactly stated. The out-patients of a hospital come and go in such a way that it is impossible to keep systematic records—such as are usual in the case of in-patients—of their medical history. They exhibit, of course, as a whole the less serious maladies which come under treatment; and of those out-patients who develop serious symptoms, a large proportion are admitted eventually into the wards, and are recorded among in-patients in their turn. Others of course are cases

TABLE NO. II.—SPECIAL HOSPITALS.

Name of hospital.	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
City of London for Diseases of the Chest	1,103	968	53	6	134	81	55,461	—
Hospital for Consumption	1,774	1,196		308	294	282	70,618	—
North London "	375	—	—	—	—	—	—	—
Royal for Diseases of the Chest	456	377	79	—	47	53	23,361	—
Royal National for Consumption	722	580	—	—	126	16	—	—
Alexandra for Children	154	13	50	4	81	3	90	—
Belgrave " "	153	49	69	30	13	5	7,657	—
Cheyne " "	72	4	7	5	50	6	—	—
East Lond. " "	1,107	312	386	90	95	259	44,059	—
Evelina " "	727	405		114	50	158	23,420	—
Home and Infirmary for Sick Children	592	—	—	—	44	—	3,915	—
Home for Children	—	—	—	—	—	—	—	—
Home for Sick Children	221	—	—	—	—	—	—	—
Hospital for Incurable Children	37	—	—	—	29	2	—	—
Hospital for Sick Children	1,248	395	549	323	99	127	80,000	—
North-Eastern for Sick Children	508	107	212	36	51	58	13,722	696
Paddington-green for Sick Children	445	390		—	—	60	27,665	2,955
Victoria " "	885	635		196	64	116	44,408	—
"The Vine" " "	33	3	13	—	14	—	—	—
British Lying-in	170	168	—	—	11	2	508	—
City of London Lying-in	455	—	452	10	15	3	1,555	—
General "	463	—	—	—	—	2	1,248	—
Queen Charlotte's "	942	—	891	6	45	4	8,036	—
Chelsea for Women	494	174	242	—	29	18	12,722	—
Hospital for "	670	360	248	74	54	10	30,502	—
Grosvenor for Women	108	65	45	18	11	5	7,695	—
New "	304	101	169	—	38	8	15,114	—
Royal for Children and Women	586	—	—	—	—	—	—	—
Samaritan Free for Children and Women	572	128	476	32	35	16	22,055	—
Cancer	682	568		9	68	102	7,498	—
London Fever	515	496		—	65	14	—	—
Gordon for Fistula	123	—	—	—	—	—	—	—
St. Mark's "	311	24	254	44	4	4	1,878	—
National for Diseases of the Heart	128	53	50	—	19	6	12,047	—
Female Lock	647	558	96	—	101	5	—	—
Male Lock	264	186	58	—	19	1	22,456	—
Hospital for Epilepsy	103	—	—	6	18	2	9,952	1
St. Peter's for Stone, &c.	351	91	220	—	11	12	39,622	—
National for the Paralysed	839	206	170	139	152	36	25,568	—
West-End	—	—	—	—	—	—	39,785	—
Central London Ophthalmic	157	—	157	—	—	—	17,689	336
Royal " "	1,892	1,892		50	56	—	109,756	2,194
Royal S. " "	—	—	—	—	—	—	28,369	—
Royal Westminster Ophthalmic	419	397	—	—	22	—	56,340	—
Western	33	—	33	—	3	—	6,679	—
City Orthopædic "	150	110	24	—	16	—	9,090	—
National "	127	127		—	36	—	2,681	—
Royal "	154	52	55	—	47	—	7,387	—
Hospital for Diseases of the Skin	12	12	—	—	—	—	18,080	—
Central London Throat and Ear	228	48	146	5	13	6	33,233	—
Royal Ear	158	80	65	10	3	—	8,297	—
Hospital for Diseases of the Throat	526	—	—	12	26	6	37,018	—
London Throat Hospital	55	—	—	—	2	1	10,627	—
London Homœopathic	752	—	426	—	42	—	—	31
London Temperance	751	230	786	84	84	51	14,712	2,211
The Dental	—	—	—	—	—	—	54,177	—
National Dental	—	—	—	—	—	—	33,406	—
Estimated to supply omissions	24,738	5,751	6,481	1,577	2,236	1,650	1,090,200	8,474
Total	—	3,300	4,400	—	130	300	—	—
	24,738	9,051	10,881	1,577	2,366	1,950	1,090,200	8,474

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of chronic and intractable disorders, which can be relieved, but not radically cured. The great bulk of out-patients, however, are effectively treated, and discharge themselves from further attendance because they are cured. Upon the whole, therefore, these large total figures may be taken to represent a very successful part of hospital work.

The in-patient totals can be dealt with in a somewhat more exhaustive manner. The whole number discharged cured was 44,000; the number of those relieved but not cured, 39,000. This latter total includes a considerable number of patients whose cases are beyond the power of medical skill to cure, and who can only be assisted by treatment which affords relief to the more distressing symptoms. Among these partially successful cases are some which, if they could be adequately explained to the general reader, would awaken the strongest sympathy of the charitably disposed, for, although the success of a perfect cure is that which patient and physician both chiefly desire, it is in these incomplete cases that the factor of skilful treatment is most important. In the cases of curable disease much is left to natural processes which tend to recuperation; but in a case of incurable disease the exact measure of the relief afforded and the precise limit of the territory to which the enemy is confined are determined almost exclusively by the treatment of the case. It is here therefore that the work of charity is most urgently required, and here accordingly that the triumph of charity is most complete. Paradox though it may seem, it is profoundly true that the greatest successes of hospital work are to be sought amid these partially successful cases. Of those remaining under treatment at the end of the year and of the deaths recorded it is not necessary to say more than merely to give the numbers, since the facts are self-explanatory. The former class numbered 7000; the deaths numbered 7700.

Such then, in meagre outline, is the work in which at this season the religious bodies of the metropolis are called to take part. The experience of twenty years is proof enough that no words are now needed to bring its claims home to the heart and the conscience of all good men, but it is none the less desirable on that account that the truth, in its length and breadth, should be brought to their knowledge, in order that they may appreciate both the greatness of the opportunity that is set before them and the pressing nature of the need which exists for help to be given, with no niggard hand, but in the spirit which finds that the blessedness of giving is his who gives.

TABLE NO. III.—COTTAGE HOSPITALS AND CONVALESCENT HOMES.

Name of hospital.	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
Metropolitan Convalescent	3,661	1,095	2,259	—	99	7	—	—
Bexhill-on-Sea "	1,530	334	1,113	—	43	4	—	—
All Saints "	3,402	1,448	1,820	—	145	2	—	—
Mrs. Gladstone's "	1,047	—	—	—	—	—	—	—
Hanwell "	—	—	—	—	—	—	—	—
Herbert "	371	155	150	—	34	—	—	—
King's College "	463	200	229	—	15	3	—	—
Mrs. Kitto's "	319	—	—	—	—	—	—	—
" Marsham's "	2,664	—	—	—	—	4	—	—
Mary Wardell "	163	—	—	—	—	—	—	—
Morley "	1,265	263	817	—	69	4	—	—
Convalescent Home for Poor Children	864	50	—	—	57	1	—	—
Princess Frederica's Convalescent	135	—	—	—	—	—	—	—
Ramsgate Children's "	32	9	21	—	3	—	—	—
St. Andrew's (Clewer) Convalescent	728	685		—	57	13	—	—
Do. (Folkestone) "	1,768	—	—	—	60	—	—	—
St. Barnabas "	183	180	—	—	2	—	—	—
St. Leonards-on-Sea "	—	—	—	—	—	—	—	—
St. Mary Magdalene "	—	—	—	—	—	—	—	—
St. John's Home for Convalescent Children	173	—	—	—	—	1	—	—
St. Michael's Convalescent	287	—	—	—	—	—	—	—
Seaside "	863	68	768	—	25	2	—	—
Beckenham Cottage "	94	11	68	—	11	4	—	—
Blackheath and Charlton Cottage	131	29	76	—	12	8	3,963	15
Burstead "	—	—	—	—	—	—	—	—
Chislehurst "	—	—	—	—	—	—	—	—
Eltham "	67	10	52	—	4	1	—	—
Enfield "	52	6	34	—	6	6	—	9
Epsom and Ewell "	—	—	—	—	—	—	—	—
Hatfield and Broadoak "	74	19	50	—	5	—	—	—
Reigate and Redhill "	179	26	126	—	18	4	—	30
Shedfield "	54	6	48	—	3	—	660	—
Sidcup "	88	18	58	—	6	1	183	14
Wimbledon "	115	18	83	—	8	6	—	21
Establishment for Gentlewomen	—	—	—	—	—	—	—	—
Hampstead Home	164	22	116	—	12	10	—	8
National Sanatorium	202	38	80	—	52	5	—	—
Royal Sea-bathing Infirmary	667	277	228	—	124	5	200	—
Royal Mineral Water Hospital	1,266	998	169	—	156	6	—	—
Invalid Asylum	216	200		—	—	2	—	—
Firs Home	—	—	—	—	—	—	—	—
St. Catherine's Home	21	14		—	8	5	—	—
Estimated to supply omissions	22,278 1,849	5,280 7,744	8,365 1,330	— —	1,034 100	104 1,006	4,996 1,000	92 8
Total	24,127	13,024	9,695	—	1,134	1,110	5,996	100

Note.—Our scheme of Tables included a fourth Table giving a view of the work of the Dispensaries; but the returns from these Institutions being much less complete than those from the Hospitals, we have thought it expedient to omit this Table, which would have occupied considerable space to the exclusion of other matter that could very ill be spared.

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SUMMARY OF TABLES.

INCOME AND EXPENDITURE.

—	Charitable income.	Hospital Sunday Fund.	Proprietary income.	Legacies.	Loans, balance, &c.	Total income.	Ordinary expenditure.	Balances, capital expenditure, &c.	Total expenditure
	£	£	£	£	£	£	£	£	£
General Hospitals	118,346	20,557	103,802	70,918	9,522	412,145	318,496	93,619	412,145
Special Hospitals	132,647	13,718	88,060	57,667	54,452	346,544	219,582	126,962	346,544
Convalescent Hospitals &c. ..	44,171	4,010	22,361	6,351	11,324	88,217	74,365	13,852	88,217
Dispensaries	17,773	2,442	17,965	2,907	—	41,087	38,770	2,317	41,087
Total	312,937	40,727	232,188	143,843	158,298	887,993	651,213	236,780	887,993

WORK.

—	In-patients.	Relieved.	Cured.	Convalescent homes.	Remaining under treatment.	Died.	Out-patients' visits.	Accidents and emergencies
General Hospitals	50,135	17,215	23,524	4,250	3,501	4,640	1,066,372	188,750
Special Hospitals	24,738	9,051	10,881	1,577	2,366	1,950	1,090,200	8,474
Convalescent Hospitals &c.*	24,127	13,024	9,695	—	1,134	1,110	5,936	100
Total	99,000	39,290	44,100	5,827	7,001	7,700	2,162,568	197,324

* No sufficient returns as to Dispensaries.

Note.—It may be observed by some of our readers that a return covering to some extent the same ground as the foregoing is issued by the Council of the Hospital Sunday Fund, the figures differing slightly from ours. It may therefore be convenient to explain at once that the ground covered by the two returns is not quite the same. The Mansion House return includes only those hospitals and institutions which are actually located within the metropolitan area; our return includes all such as receive grants from the Hospital Sunday Fund. The result is that our figures cover about thirty eight more institutions than do those issued from the Mansion House.

THE METROPOLITAN HOSPITAL SUNDAY FUND.

Amounts received and disbursed in the year 1891.

Dr. RECEIPTS *for the year ending 31st October, 1891.*

1891.	£ s. d.	£ s. d.
To balance at Bank of England, 1st Nov., 1890	2,051 4 10	
,, Balance in hands of Secretary	6 17 0	
		2,058 1 10
,, Collections made at Sundry Places of Worship	36,258 19 10	
,, Collections at Schools	51 17 8	
,, Donations, including £282 16s. 0d. for Surgical Appliances	8,941 10 10	
,, Interest on Investment from 13th June to 27th July	78 5 1	
		45,330 13 5
		£47,388 15 3

Cr. PAYMENTS *for the year ending 31st October, 1891.*

1891.	£ s. d.	£ s. d.
By Awards to 107 Hospitals	37,175 1 7	
,, Awards to 9 Institutions	1,110 8 4	
,, Awards to 56 Dispensaries	2,441 13 5	
,, Surgical Appliances	1,889 17 7	
		42,617 0 11
,, Rent	163 15 0	
,, Fuel, Gas, and Office Cleaning	24 15 8	
,, Printing and Stationery	235 7 1	
,, Stamps and Postage	106 17 5	
,, Advertisements	269 19 5	
,, Salaries and Gratuities	528 9 6	
,, Furniture repairs	1 18 6	
,, Sundries	9 15 5	
		1,696 18 0
,, Balance at Bank of England, including £1,895 available for Surgical Appliances	3,054 6 4	
,, Balance in hands of Secretary	21 10 0	
		3,075 16 4
		£47,388 15 3

Audited and found correct, this 11th day of November, 1891.

(Signed) HART BROTHERS, TIBBETTS, & Co., *Chartered Accountants.*

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IMPORTANT REDUCTION.

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CLINICAL THERMOMETERS.

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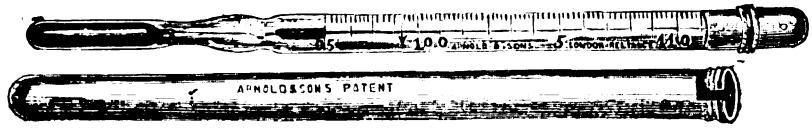
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	s.	d.
"RELIANCE" CLINICAL THERMOMETER, with INDESTRUCTIBLE Index, in metal case	3	0
ditto ditto ditto ditto ditto ditto and MAGNIFYING Index ...	5	0
ditto ditto ditto ditto ditto ditto (HALF-MINUTE) in metal case	7	6
ditto ditto ditto ditto ditto ditto ditto not MAGNIFYING	5	0



POCKET CLINICAL THERMOMETER (A. & Sons' patent), with bayonet joint and INDESTRUCTIBLE Index, in ALUMINIUM case	3	6
ditto ditto ditto ditto ditto ditto in GERMAN SILVER case ...	4	6
ditto ditto ditto ditto ditto ditto in Hall-marked SILVER case...	7	6
ditto ditto ditto with MAGNIFIED & INDESTRUCTIBLE Index in ALUMINIUM case	5	6
ditto ditto ditto ditto ditto ditto in GERMAN SILVER case ...	6	6
ditto ditto ditto ditto ditto ditto in Hall-marked SILVER case...	8	6

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Testimony is not wanting from specialists in diseases of the throat, and dramatic and lyric artists, to show that Coca has a wonderfully invigorating effect upon the voice. The preparation in most common use is the Wine of Coca, which, in order to yield the characteristic effect, must be made "upon honour." To be of any decided value it must be made from the Coca Leaves. Very much of the Coca Wine on the market is merely a solution of cocaine, which cannot be too severely condemned. Hence, those with troublesome throats who desire to use this tonic should be exceedingly careful in purchasing, patronising dealers only of known reliability.

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	Belladonna ...	·007 ,, ·026	,, ,, Alkaloids	·025 ,,
	Conium	·026 ,, ·093	,, ,, Coniine and other alkaloids ...	·060 ,,

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(Vide THE LANCET *Analysis, Oct. 24th, 1891.)*

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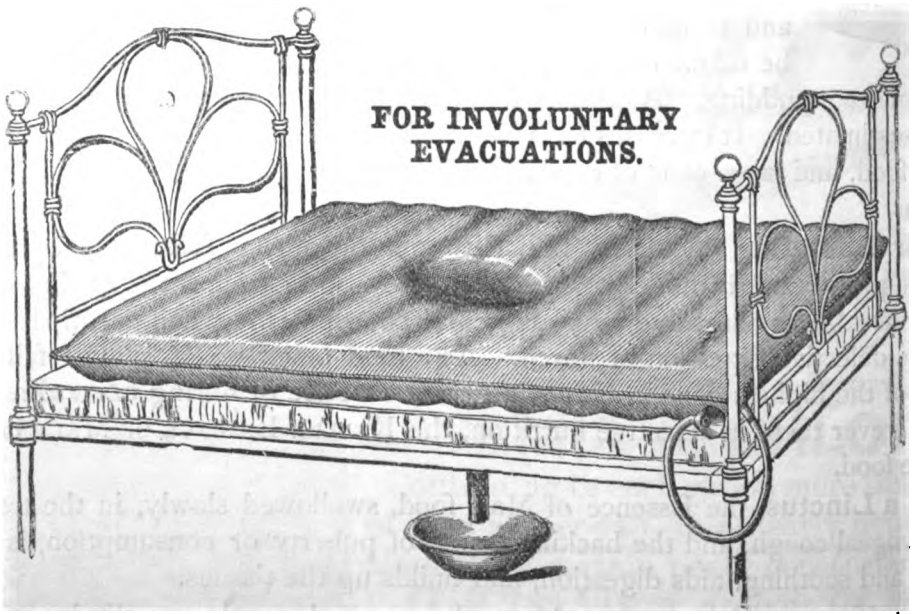


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The Croonian Lectures

ON THE

CHEMISTRY AND THERAPEUTICS OF URIC ACID GRAVEL AND GOUT.

Delivered before the Royal College of Physicians of London,

BY SIR WM. ROBERTS, M.D. LOND., F.R.S.

LECTURE I.

CHEMISTRY OF URIC ACID AND THE URATES.—COMPARATIVE PHYSIOLOGY OF URIC ACID.

MR. PRESIDENT AND GENTLEMEN,—The morbid phenomena associated with uric acid divide themselves naturally into those which have reference to gravel and calculus and those which have reference to gout. In the former uric acid is thrown down in the free state from the urine as concretions in the urinary channels; in the latter uric acid is thrown down in a state of combination, as sodium bi-urate, in the interior tissues of the body. In both conditions the precipitated substance necessarily acts as a foreign body, and tends to cause inflammatory incidents and obstructions in the parts implicated. In regard to gravel and calculus the whole of the morbid sequences are thus accounted for; no suspicion is entertained that uric-acid concretions lodged in the kidneys or bladder produce any disturbances above and beyond those which are due to mechanical injury; but in regard to gout uric acid is supposed to play a double part. It is commonly believed that, besides the irritation consequent on the precipitation of crystals of sodium bi-urate in the joints and elsewhere, uric acid floating in solution in the bodily fluids acts as a true poison; and it is assumed that a large part of the symptoms associated with the gouty state are directly due to this poisonous action. The soundness of this assumption will be hereafter called in question. It will be shown to be more probable that uric acid does not possess any inherent poisonous quality, and that when mischief arises from it that mischief is consequent on the acid being precipitated in the solid form as sodium bi-urate in the fluids or tissues of the body. The substantiation of this view would bring gout and uric-acid gravel into closer parallelism. Gout would then become, like gravel, in so far as its phenomena depend on uric acid, but of course no further, a disease of which the manifestations are proximately due to mechanical injury. On this view it becomes evident that the chemical reactions of uric acid and the urates, and especially those reactions which govern the holding in solution of these substances, have a more direct bearing on clinical and pathological problems than those conditions which have reference to the mode of origin of uric acid. In either case, whether uric acid be poisonous or not, the pathological history of uric acid is intimately bound up with its chemical properties, and a knowledge of these properties is an essential pre-requisite for a scientific apprehension of the problems that arise in connexion with uric-acid gravel and the uratic phenomena of gout.

The amorphous urate deposit of human urine forms a convenient starting-point for the study of the pathological chemistry of uric acid. This is the most familiarly known, and yet, perhaps, the least understood of all the urinary deposits. The amorphous urate is frequently deposited in the urine of perfectly healthy persons, especially during the colder seasons of the year, and at all seasons after sharp exercise and severe sweating. It is also habitually seen in the urine of persons suffering from slight catarrhal conditions or trifling dyspeptic derangements. Lastly, it is a common accompaniment of pyrexia, and of grave organic wasting diseases of all kinds. The amorphous urate deposit coincides with an acid reaction of the urine, and is never thrown down in a neutral or alkaline urine. It is recognised clinically by its disappearance when the urine is warmed. It is always more or less stained with the proper pigments of the urine, and its tint varies accordingly. Under the microscope it presents a granular appearance without any obvious crystalline structure. All this is matter of common knowledge. When we carry our inquiries further and ask, what is the chemical nature of this substance? and what are its physiological analogies and pathological relations? no clear answers are forthcoming. Indeed, such questions are nowadays scarcely asked at all. The amorphous urate deposit has for some time past been relegated almost to the position of a clinical curiosity, devoid of any real bearing on pathological and physiological questions. But if it can be shown that this substance is a representative body; that it typifies the exclusive mode in which nitrogen is eliminated in vast tribes of the animal series; that it represents the chemical combination, and the sole combination, in which uric acid subsists normally in the healthy organism; and that, moreover, the pathological troubles connected with uric acid are due to deviations, in one direction or other, from this normal combination,—then it becomes obvious that the chemical composition and reactions of the amorphous urate possess a very real interest both for the physician and the biologist. Before entering on this inquiry it is necessary to recall to your memories what is already known and established in regard to the chemistry of uric acid and its combination with bases. Uric acid is regarded by chemists as a bi-basic acid—that is to say, as an acid containing two atoms of replaceable hydrogen. It is represented by the formula $H_2(C_5H_2N_4O_3)$, or more simply as $H_2\bar{u}$. It forms, like other bi-basic acids, two regular orders of salts—namely, neutral urates, with the general formula $M_2\bar{u}$, and acid urates, or bi-urates, with the general formula $M\bar{H}\bar{u}$. These two orders of uric-acid salts were elaborately studied in Liebig's laboratory nearly half a century ago by August Bensch, in collaboration with an English student, Dr. James Allan.[1] So reliable and so complete have these researches been regarded that no chemist has, so far as I know, thought it necessary to repeat and verify them; and they still constitute our principal source of information with regard to these two classes of salts.

The *neutral urates*—$M_2\bar{u}$—were prepared by Allan and Bensch by dissolving uric acid in cold dilute solutions of the caustic alkalies, free from carbonates, and then boiling down the solutions in a retort until crystals made their appearance. The neutral urates are very unstable; they are decomposed by carbonates, and even by the carbonic acid of the air. Of late years these neutral urates have been made to figure prominently in certain theories of gout. Such theories, however, are on chemical grounds untenable. The neutral urates can only be produced in the presence of caustic alkalies and in the absence of carbonic acid and the carbonates. Caustic alkalies cannot, however, exist in the living organism, and carbonic acid and the carbonates are everywhere present. It would therefore seem impossible that the neutral urates should ever arise or subsist in the living body, or that they should ever play any part in the physiological or pathological history of uric acid; and until it can be demonstrated that these salts do actually exist in the body, or at least that they can be formed under conditions which are known to be possible in the living body, it is futile to frame theories in which these compounds are made to intervene. With these remarks, the neutral urates may be absolutely dismissed from our consideration, as having neither part nor lot in the vital history of uric acid, whether in health or in disease.

The acid urates, or bi-urates ($M\bar{H}\bar{u}$), are the most stable salts of uric acid, and tend strongly to assume the crystalline form. They are encountered pathologically in gouty concretions, of which the sodium bi-urate forms the distinctive constituent. The bi-urates do not occur in the unchanged urine, neither in health nor in disease; and when bi-urates are artificially introduced into normal urine they fail to maintain their integrity, and at once undergo a change of composition.[2] Nor is there any actual proof that uric acid ever exists as a true bi-urate in the healthy blood and interstitial juices; and it will be hereafter shown that when uric acid is brought into contact with these fluids it is not taken up as a bi-urate. It may therefore be affirmed that the bi-urates, although known to us as pathological products in gouty deposits, are not, strictly speaking, known to us as physiological constituents, neither in the blood nor in the urine. But inasmuch as uric acid, in some form of combination or other, does exist normally in minute quantities in healthy blood, and exists in much larger quantities in healthy urine, the question arises,

[1] Liebig's Annalen d. Chemie u. Pharm., vol. lxv., p. 181.

[2] For proof of this statement see my paper on the History of Uric Acid in the Urine, Medical and Chirurgical Transactions, vol. lxxiii., p. 260.

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What, then, is this other form of combination, this normal and physiological combination, which is neither neutral urate nor bi-urate, in which uric acid exists in the healthy body? This question brings us back to the consideration of the amorphous urate deposit.

REACTIONS OF THE AMORPHOUS URATE DEPOSIT: IDENTITY OF IT WITH THE URINARY EXCRETION OF BIRDS AND SERPENTS.

The amorphous urate deposit, as we find it in the urine, is not a chemically pure article, and not only so, but the urine with which it is mingled entirely masks its most important reactions. In order to study the properties of this substance it is necessary, first of all, to separate it from the urine. This is effected by filtering off the sediment, and washing it thoroughly on the filter with rectified spirit, and then drying it. The deposit is still contaminated with pigment; but it is sufficiently pure for the display of its most striking reaction, and that is its behaviour with pure water. When the amorphous urate, thus purified, is mixed with a considerable volume of distilled water it is speedily disintegrated. A portion passes into solution in combination with the bases, and the remainder falls down as an insoluble precipitate of crystalline uric acid. This remarkable transformation may be witnessed in progress, under the microscope, in the following manner. A speck of the purified deposit is intimately mixed on a glass slide with a drop of distilled water, and protected with a covering glass. To keep the preparation thoroughly moist fresh supplies of water are from time to time insinuated under the covering glass. In the course of five or ten minutes beautiful ovoid crystals of uric acid begin to make their appearance. These grow and multiply until, in the course of half an hour or an hour, the entire field of vision is thickly studded with crystals; and the process goes on, provided the preparation be kept from drying, until the amorphous matter seems to be entirely changed into crystals of uric acid. The reaction here described may, according to my experience, be always demonstrated with every freshly collected sample of amorphous urate deposit. The rate of transformation varies a good deal. With fawn-coloured deposits the change is usually completed in from fifteen to twenty minutes; with the more deeply tinted deposits the time is longer, and extends to half an hour or an hour. The interest attaching to the amorphous urate deposit is greatly enhanced when we learn that the urinary excretion of birds and serpents displays identically the same reactions as the amorphous urate. The white mortar-like substance which constitutes the urinary excretion of birds and serpents is usually described as consisting of bi-urate of ammonia. This view is, however, based on a fallacy. The misapprehension has arisen from the excretion having been examined, not in the unaltered state, but after it had undergone secondary changes subsequent to its emission, either through bacterial decomposition or through contact with water. If the excretion be examined in the fresh and uncontaminated state, it is seen under the microscope to consist of minute spheres about the size of the white corpuscles of the blood. Some are twice this size, and a great many are much smaller. These spheres exhibit a radiated crystalline structure, and display a black cross with polarised light. When tested under the microscope with a drop of distilled water in the manner before described in the case of the amorphous urate, the spheres are seen to gradually melt away with abundant emission of colourless tablets of uric acid. When the excretion is treated with a large volume of water in a beaker, a portion goes into solution as bi urate and the rest falls down as crystals of uric acid. In short, the urine of birds and serpents reacts with water precisely in the same way as the amorphous urate sediment, except that the transformation takes place more rapidly. It can, moreover, be shown that the difference in physical form between the two substances is a mere accident of molecular aggregation. For under certain conditions the amorphous urate deposit can be obtained in regular crystalline spheres scarcely distinguishable from the spheres of the urine of birds and serpents, and, conversely, if the urine of birds or serpents be dissolved in hot normal urine, and the solution be then rapidly cooled, the substance is reprecipitated as an amorphous tinted deposit undistinguishable from the amorphous urate sediment. These observations point to the conclusion that the amorphous urate deposit of human urine and the solid or semi-solid urinary excrement of birds and serpents are essentially one and the same substance. Now the question arises, What is the constitution of this substance Is it merely a mechanical mixture of bi-urate with varying quantities of free uric acid, or is it a definite chemical combination, representative of a new and third order of uric-acid salts, differing essentially from the two regular orders previously recognised? The elucidation of this question involved a difficult and somewhat protracted inquiry, to which I must now ask your patient attention.

CHEMICAL CONSTITUTION OF THE AMORPHOUS URATE DEPOSIT AND OF THE URINARY EXCRETION OF BIRDS AND SERPENTS.—THE EXISTENCE OF A THIRD ORDER OF URIC-ACID SALTS, OR QUADRI-URATES.

We are indebted to a former distinguished Fellow of this College, Dr. Bence Jones, who was, moreover, one of my predecessors in this office of Croonian lecturer, for the first real light on the chemical constitution of the amorphous urate deposit. His researches were published in the *Journal of the Chemical Society* for 1862. He there describes the action of water on the sediment. He shows that the portion of the sediment which is not dissolved by the water is pure uric acid, and that the portion which goes into solution is true bi-urate. He next gives the results of a quantitative analysis of three samples of the amorphous urate sediment, made especially with the object of ascertaining the proportion of uric acid to the quantities of the bases contained in them. He found in each sample that the uric acid was in excess of the quantity required to form bi-urates with the bases present. The proportion of this excess varied greatly in the three samples; but when the three analyses were thrown together, and the average struck, the mean amount of uric acid was found to be almost exactly double that required to form bi-urates with the sum of the bases present. He also calculated the corresponding proportions in four similar analyses previously made by Scherer. Here likewise the separate analyses gave the most discordant proportions; but again it so fell out that the average of the whole four analyses yielded a proportion of uric acid which was very nearly double the amount required to form bi-urates with the sum of the bases. These closely approximating averages, although drawn from numbers so divergent that their agreement could obviously only be due to a fortuitous coincidence, seem to have inspired Dr. Bence Jones with the happy conjecture that there existed a third order of uric-acid salts, of more complex constitution than the two previously known, and in which an atom of bi-urate was loosely combined with an additional atom of uric acid. He drew the inference that the amorphous urate deposit consisted of, or at least often contained, such a combination. In order to test the soundness of this conjecture he sought to form an artificial sediment of urates, which, when treated with water, would, like the amorphous urate deposit, be disintegrated into free uric acid and bi-urate. In this attempt he succeeded both with potash and soda. By dissolving uric acid in potash or soda ley, and then carefully adding acetic acid until the liquid became slightly acid, he obtained a dense white precipitate. This was caught on a filter, washed with alcohol, and dried. This substance was found to possess the characteristic properties of the amorphous urate deposit. It was granular in character, and was decomposed by water with abundant emission of uric-acid crystals. He made a quantitative analysis of two samples of the potash compound thus obtained. He found that the portion that went into solution when the substance was treated with water corresponded exactly with the theoretical formula of potassium bi-urate, and that the uric acid which remained undissolved approximated in amount to that which went into solution as bi-urate. Commenting on these results, he says: "It appears from these experiments that an artificial granular deposit may be formed—which is decomposed by washing with cold water or by boiling—into uric acid and acid urate of potassium. This granular substance may be considered to resemble the quadroxalate of potassa, which differs from the acid oxalate by containing double the amount of oxalic acid; and, following this nomenclature, it may be called "*quadrurate* of potassa." The general formula for the quadrurate—or, as it may be more euphoniously expressed, *quadri-urate*—following the analogy of the quadroxalates, would be $H_2(C_5H_2N_4O_3)$ $MH(C_5H_2N_4O_3)$, or, more simply, $H_2\bar{u}$, $M\bar{H}\bar{u}$. According to this theory the action of water on the amorphous urate deposit and kindred compounds is to split them up into free uric acid, and bi-urates of the bases contained in them. If this theory be correct, the

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quantity of uric acid thrown out by water should of course exactly equal the quantity retained in solution as bi-urate. With regard to this point, however, Dr. Bence Jones's analyses of the potash compound did not come out with the desired exactness. In the first analysis the proportion of uric acid separated by water as compared with that retained in solution as bi-urate was not as 1 to 1, as required by the theory, but as 1·27 to 1, and in the second analysis as 1·12 to 1. This discrepancy is considerably greater than could be accounted for by the necessary limits of error in the methods of analysis adopted; and it was impossible to avoid the impression that the proof adduced by Dr. Bence Jones of the existence of a true and definite chemical combination, corresponding with the hypothetical formula of a quadri-urate, was altogether inadequate. These substances, which were disintegrated by water, might, after all, be only intimate mechanical mixtures of bi-urates with varying quantities of free uric acid, and the action of water upon them might be explained simply as that of a solvent separating a more soluble ingredient from a less soluble ingredient.

Thirty years have elapsed since the publication of Dr. Bence Jones's researches. So far as they have had any influence on current views of the pathology of uric-acid they might as well have never been made. For although these researches have received formal mention in works on urinary chemistry, the deductions and inferences indicated by them have received no recognition, and have been entirely ignored in the numerous inquiries and discussions which have since taken place on the etiology of uric-acid gravel and gout. Until the subject was taken up by myself, no attempt had been made to repeat and verify the observations and experiments. Yet the main suggestion of Dr. Bence Jones's investigations—namely, that there existed a third order of uric-acid salts—is obviously one of high scientific and practical interest. The cause of this surprising neglect lay probably in the halting and even ambiguous terms in which he expressed himself in regard to his results. After giving a clear experimental proof of the disintegrating effects of water on the amorphous urate deposit, he qualifies his statement, without any attempt at explanation, in the following unsatisfactory manner: "In other experiments, the deposit, when frequently washed with cold water, gave no uric-acid crystals at all. Hot water also frequently dissolved only the urates, and caused the whole deposit to pass rapidly through the filter without leaving any uric-acid crystals behind." In the final summary of his "Results" he writes: "In conclusion, then, it appears that the amorphous deposits of urates in the urine has no constant composition. It is a mixture of different acid urates modified in crystalline form by other substances in the urine. ..... Moreover, uric acid is occasionally found in combination with these acid urates, forming quadrurates, and thus rendering the deposit still more liable to vary in its composition." Dr. Bence Jones did not return to the subject, though he continued for some years in active scientific work. I can only explain his abandonment of so promising a vein of inquiry on the supposition that he was deterred by the difficulty of obtaining a due supply of material for his experiments. He had to collect the amorphous urate deposit in small parcels at different times and from different sources, as opportunity offered. A supply of material gathered in this way of a changeable substance could not possess the purity and homogeneity necessary for the purposes of quantitative analyses. In taking up and continuing the investigation thus prematurely dropped by Dr. Bence Jones I was able to reach a point of vantage in regard to these difficulties. I soon learnt that the urinary excretion of the large serpents furnished an abundant source of material which was identical in reactions with the amorphous urate. I also succeeded, by a method to be presently described, in preparing at will from human urine plentiful and fresh supplies of the amorphous urate deposit. The questions I had to decide were these: Is the amorphous urate deposit, together with the urinary excretion of birds and serpents, a true and definite chemical compound? and does there exist a third order of uric-acid salts differing essentially from the two urates already known, and having a composition corresponding to the hypothetical formula of a quadri-urate? As the main argument of these lectures rests on the establishment of an affirmative answer to these questions, it is necessary for me to lay before you the experimental evidence on which I rely as sufficing for the purpose. The materials used in the investigation consisted of: (*a*) the amorphous urate deposit of human urine; (*b*) the urinary excretion of birds and serpents (both of these are natural products); and (*c*) artificially prepared imitations of these natural products, made in the laboratory. Two lines of analysis were pursued in each case. The first was to estimate quantitatively the amounts of the bases and of uric acid in the samples. The second was to proceed by way of what may be termed "water analysis"—that is to say, to decompose the substance with a large volume of water, and then to estimate respectively the amount of uric acid which was thrown out in the free state, and the amount which went into solution as bi-urate. If the quadri urate theory be correct, these two amounts should be exactly equal.

I now proceed to lay before you the results of these analyses.

A.—Analyses of the Amorphous Urate Deposit.

It was found that samples of the amorphous urate deposit obtained from hospital wards or from private patients yielded on analysis results so inconstant that no conclusion with regard to the points under consideration could be drawn from them. In most samples the quantity of uric acid separated by water was larger than that retained in solution, but this excess presented no uniformity of amount. The explanation of this discrepancy lay in the fact, to be more fully noticed in my next lecture, that the amorphous urate, as it is found in the urine, exists under conditions of change, which tend to progressively liberate its uric acid; and as the sediment had to be collected in separate portions from different urines on different days until a sufficient quantity had been gathered for analysis, it is no wonder that gross variations in its composition were observed. It soon became evident that reliable data could not be obtained from materials collected in this way. This difficulty was, however, surmounted; and I succeeded, by the following process, in obtaining and having always at command an adequate supply of the amorphous urate in a fresh and unchanged state. Healthy urine of medium density is treated with successive additions of bicarbonate of potash or soda until it becomes slightly alkaline. It is next heated in a flask to the boiling point, and then shaken up for about a minute with excess of pure uric acid. The mixture is now thrown on a filter and the filtrate is cooled under a running tap of cold water. As cooling proceeds a dense voluminous precipitate forms, which is an exact counterpart of the natural amorphous urate sediment. The precipitate is separated by filtration, thoroughly washed on the filter with rectified spirit, and dried at blood heat. To obtain a product of uniform composition by this process requires a somewhat nice adjustment of the reaction. If the quantity of alkaline carbonate added be too small, and the alkalescence thereby induced be too faint, the precipitate is apt to be contaminated with free uric acid. On the other hand, if the alkaline carbonate be added too freely, and the resulting alkalescence be excessive, the precipitate is apt to be contaminated with bi-urate. These risks are greatly minimised by using the acetate of potash instead of the alkaline carbonate. The commercial acetate of potash has a slightly alkaline reaction, and it possesses a considerable power of conserving the integrity of the amorphous urate. I obtained a very uniform product by employing normal urine charged with acetate of potash to the extent of 3 per cent. The other steps of the process were the same as those above described. It was observed that if the filtrate was cooled rapidly the resulting precipitate had a finely granular character, just like that of the natural amorphous urate; but if the cooling was allowed to proceed slowly at the temperature of the room the precipitate fell in regular spheres with a radiated crystalline structure, resembling closely the spheres of the urinary excretion of birds and serpents. Samples of amorphous urate deposit prepared in these ways yielded to analysis very constant results. The water analysis was carried out in the following manner: The dried deposit, usually about 0·4 grm., was mixed in a beaker with 1000 times its weight of distilled water; the mixture was next slowly heated to about the boiling point, with constant stirring, until the whole went into solution. The beaker was then set aside for forty-eight hours. On cooling, the liberated uric acid fell out in large crystals. The clear supernatant liquor was then nearly all syphoned off, and the remainder, together with the deposited crystals, was thrown on a weighed filter. The crystals were washed very sparingly with cold water, and

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then more freely with rectified spirit. Finally, the filter was dried and weighed. This gave me the weight of the uric acid separated by water.[3] The syphoned-off supernatant liquor, together with the washings from the filter, was then heated to near boiling, and strongly acidulated with hydrochloric acid, and then set aside for forty-eight hours.[4] The precipitated crystals were collected, dried, and weighed, as in the preceding case. When the analyses were conducted in this way, the amount of uric acid separated by water was found to be almost exactly equal to that retained in solution, as is shown in the following two sample experiments:—

TABLE I.—*Showing the Results of Water Analysis of two Samples of Amorphous Urate Sediment prepared by the Acetate of Potash Method.*

	First sample.	Second sample.
Uric acid separated by water ..	0·080 grm.	0·164 grm.
Uric acid dissolved as bi-urate ..	0·077 „	0·159 „

These results agree closely with the requirements of the quadri-urate theory. A complete quantitative analysis of a sample of amorphous urate sediment obtained by the bicarbonate of potash method gave the following results. The substance did not contain any lime or magnesia.

TABLE II.—*Quantitative Analysis of a Sample of Amorphous Urate Deposit prepared by the Bicarbonate of Potassium Process.*

Weight of substance used = 1·328 grm.

Uric acid	1·113 grm.
Potassium	0·065 „
Sodium	0·027 „
Ammonium	0·008 „
Moisture, organic matter, and loss	0·115 „
	1·328 „
Uric acid required to form quadri-urates with the bases present	1·102 „
Total uric acid found	1·113 „

These results agree in the closest manner with the supposition that the deposit was composed entirely and exclusively of quadri-urates of potassium, sodium, and ammonium.

B.—ANALYSES OF THE URINARY EXCRETION OF BIRDS AND SERPENTS.

1. *Urine of Birds.*—During a period of dry summer weather my servant collected for me a quantity of the excreta of a number of fowls kept in a large run. The pieces were gathered freshly day by day, and were at once dried in the sun on a sheet of paper. When quite dry the chalk-like stuff encrusting the fæcal masses was carefully chipped off with the point of a penknife and preserved in a stoppered bottle. In this way, in the course of a week, about four grammes of urinary excrement were obtained in a state of approximate purity. Qualitative testing showed that the substance contained ammonia. On incineration it yielded 8·68 per cent. of a strongly alkaline ash. This ash consisted almost entirely of potash and soda, with a small quantity of iron. There were also found in it minute traces of lime and silica and sulphuric and phosphoric acids. These traces, it was conjectured, were derived from contamination with the sandy materials strewn on the floor of the fowl run. For this reason the substance was not judged to be sufficiently pure for the purpose of a complete quantitative analysis, but it was perfectly suitable for water analysis. A number of the cleanest-looking pieces were picked out and divided into two parcels of about half a gramme each. These were finely powdered, and subjected to water analysis by the method already described. The results are exhibited in the following table.

TABLE III.—*Water Analysis of Fowls' Urine.*

	First sample.	Second sample.
Uric acid separated by water ..	0·160 grm.	0·136 grm.
Uric acid dissolved as bi-urate ..	0·165 „	0·133 „

It is seen that the results come out with great exactness in agreement with the requirements of the quadri-urate theory.

2. *Urine of Serpents.*—The urinary excretion of the large serpents is easily obtained from our Zoological Gardens in massive pieces, quite unmixed with the fæcal discharges and other extraneous impurities. Still it is difficult, or even impossible, to obtain the secretion in an absolutely unaltered state—as eliminated by the kidneys. It is liable after being voided to come into contact with the water used for cleansing the cages in which the creatures are confined; and water, as we have seen, speedily disintegrates it. Again, if the substance be not at once completely dried on the hot-water bath, it undergoes bacterial decomposition, and is thereby transformed into bi-urate of ammonia. This is the condition in which "serpents' urine," as supplied by the dealers, is generally found. Even if both these sources of change are avoided by taking proper precautions, there is yet another which no care can obviate. The large serpents void their urine at long intervals, varying from a week or ten days to six or seven weeks. During this long sojourn in the urinary passages the secretion undergoes slow changes which affect its chemical constitution. I have always found serpents' urine, when examined in the fresh state, to have a sharply acid reaction. Under these conditions a certain amount of decomposition of the urates, with liberation of free uric acid, is inevitable.[5] Accordingly, when samples of serpents' urine were subjected to water analysis, however carefully the samples had been collected and preserved, the amount of uric acid separated by water was always found to be considerably in excess of that which went into solution as bi-urate. The invariable presence in the secretion of free uric acid was thus demonstrated. The subjoined table exhibits some of the results obtained by water analysis of freshly gathered specimens of the urinary excrement of the boa:—

TABLE IV.—*Water Analysis of Four Samples of Serpents' Urine.*

	I.	II.	III.	IV.
Uric acid separated by water	0·128 grm.	0·110 grm.	0·204 grm.	0·215 grm.
Uric acid dissolved as bi-urates	0·117 grm.	0·085 grm.	0·141 grm.	0·140 grm.

It is seen that in each experiment the quantity of uric acid separated by water was in excess of that which went into solution as bi-urate; and that, moreover, the proportion of this excess bore no constant relation in the several samples. The urine of the serpent, when at length voided, would thus appear to consist of quadri-urates contaminated with a variable admixture of free uric acid. The explanation above offered to account for the discrepant results obtained by water analysis of serpents' urine would, however, not apply to a quantitative estimation of the uric acid and the bases found in the excretion. For although the changes indicated as occurring during the lengthened sojourn of the secretion in the urinary passages would produce a partial displacement of the relations between the uric acid and its attached bases, the quantities of these would remain unaltered, and they would still form in their due proportions part and parcel of the semi-solid excrement as finally voided. The following quantitative analysis of a massive and very pure specimen of the urine of the boa justifies the correctness of this explanation. The material used for the analysis was taken exclusively from the interior portions of the mass.

TABLE V.—*Complete Quantitative Analysis of the Urine of the Boa.*

Ten grammes yielded:—

Uric acid	8·280 grm.
Potassium	0·333 „
Sodium	0·106 „
Ammonium	0·192 „
Moisture, organic matter, iron, traces of lime, and loss	1·089 „
	10·000 „
Uric acid required to form quadri-urates with the bases present	8·471 grm.
Free uric acid	0·209 „
Total uric acid found	8·280 „

The results of this analysis came out closely in accordance with the requirements of the quadri-urate hypothesis. The quantity of uric acid over and above that required to form quadri-urates with the bases present, and which might be

[3] To get a true result it was necessary to take account of that small portion of liberated uric acid which was still retained in solution after complete precipitation. This was experimentally determined to be, at the usual temperature of the room, 0·0055 grm. per 100 cc. This amount was added to the quantity actually found on the weighed filter.

[4] The advantage of adding the acid when the solution is hot is that the precipitated crystals are much larger, and therefore more easily and perfectly collected, than when the acid is added in the cold. In the latter case the crystals were sometimes so exceedingly minute that it was impossible to avoid serious loss in the processes of filtration and washing.

[5] Herein no doubt lies the remarkable difference in the results of water analysis of the urine of the fowl and that of the boa. The fowl discharges its urine many times a day. There is no detention of it in the urinary passages, and therefore no time for the occurrence of appreciable secondary changes.

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regarded as existing in the free state, did not exceed 2·5 per cent. of the total uric acid found.

C.—Analyses of Artificially Prepared Quadri-urates.

As already stated, Dr. Bence Jones succeeded in preparing compounds of uric acid with potassium and sodium, which were decomposable by water, by adding acetic acid to cold solutions of uric acid in potash or soda ley until a precipitate was produced. This method was, however, found to give very uncertain results. If the acetic acid was added too freely, the precipitate was contaminated with free uric acid; and, on the contrary, if too little acetic acid was added, the precipitate was contaminated with bi-urate. It was almost impossible to hit the mark with precision. The following process was found to yield much more uniform results: 300 cc. of a 3 per cent. solution of acetate of potash was heated to boiling in a flask, and then shaken up with 2 grammes of uric acid for about a minute. The mixture was filtered hot, and the filtrate rapidly cooled under a running tap of cold water. A dense voluminous precipitate formed. This was thrown on a filter, and washed first with rectified spirit, and then thoroughly with absolute alcohol, and finally dried at blood heat. The substance thus obtained had a coarsely granular appearance under the microscope, and it was rapidly decomposed when treated with water. If the cooling was allowed to take place more slowly in the warm chamber, or even at the temperature of a warm sitting room, the precipitate fell down in regular spheres, possessing a radiated crystalline structure, resembling very closely both in size and appearance the spheres of the birds' and serpents' urine.

The following table exhibits the results of analyses of this compound.

TABLE VI.—*Water Analysis and Quantitative Analysis of a Sample of Potassium Quadri-urate prepared by the Acetate of Potash Method.*

Water Analysis.

Uric acid separated by water	0·84 grm.
Uric acid dissolved as bi-urate	0·85 grm.

Quantitative Analysis.

		Proportions per cent.	
		Found.	Calculated.
Uric acid	0·198 grm.	89·75	89·60
Potassium	0·0226 grm.	10·25	10·40

The numbers in both these analyses of the potassium compound come out with almost perfect exactness in agreement with the quadri-urate theory of its composition.

The corresponding sodium compound was prepared by shaking up 1 grm. of uric acid with 100 cc. of a boiling hot 5 per cent. solution of acetate of soda, filtering hot, cooling the filtrate rapidly on ice, collecting the resultant precipitate at once on a filter, washing with absolute alcohol, and drying at blood heat. The operations have to be carried out as rapidly as possible, otherwise free uric acid is thrown out. Analysis of the sodium compound thus prepared yielded the following results.

TABLE VII.—*Quantitative Analysis of a Sample of Sodium Quadri-urate prepared by the Acetate of Soda Process.*

		Proportions per cent.	
		Found.	Calculated.
Uric acid	0·329 grm.	94·00	93·58
Sodium	0·021 ,, ...	6·00	6·42

Here, again, the quantities of uric acid and sodium found agree closely with the calculated amounts required to form a quadri-urate. The series of analyses just detailed furnish an adequate proof that the compound of uric acid which is decomposable by water is no mere mechanical mixture, but is a true and definite chemical combination, having a centesimal composition corresponding to that of a hypothetical quadriurate with the general formula $H_2\bar{u}$, $M\bar{H}u$. In deference to the authority of Dr. Bence Jones I propose to adhere to the designation quadri-urate, without, however, prejudging the question whether in reality the analogy with quadroxalate be a chemically sound one.

General Characters and Reactions of the Quadri-urates

The quadri-urates present themselves usually as amorphous powders; but the spheres of the birds' and serpents' urine are distinctly crystalline, and display a black cross when examined with polarised light. The quadri-urates are difficult to obtain in a state of chemical purity; they are apt, when produced artificially, to be mixed with traces either of free uric acid or of bi-urates and, when obtained from the urine, to be contaminated with pigment or with traces of extraneous saline matters. They cannot be dissolved unchanged in any simple menstruum. They are insoluble in absolute alcohol, ether, glycerine, chloroform, and the volatile and essential oils. When treated with hot water the quadri-urates first pass into solution in their integrity; but this integrity is only maintained for a brief moment, and they forthwith disintegrate into free uric acid and bi-urate. It is therefore impossible to purify them, as most other substances are purified, by repeated solution and reprecipitation. They are extremely unstable; and they tend to change in two opposite directions. In weak solutions of the alkaline carbonates or of the di-metallic phosphates they slowly take up an additional atom of base and are converted into bi-urates. On the other hand, in water, and in watery solutions of the neutral salts they are split up into free uric acid and bi-urate. These two reactions cover the behaviour of the quadri-urates in the blood and the urine respectively, and furnish a key to the chemical processes which culminate in the formation of gouty deposits and calculous concretions, as will hereafter be more fully explained. The only appropriate solvent for the quadri-urates is healthy urine. In acid urines they dissolve freely with the aid of heat, and are again precipitated unchanged on cooling. Such solutions are, however, not quite stable; after a time their uric acid is slowly, and at length completely, liberated. The quadri-urates are still more freely soluble in hot alkaline urines; and in these media they continue permanently unaltered if guarded against septic changes. When such solutions are made at boiling heat, and are saturated, they throw down on cooling bulky deposits which are identical in appearance and reactions with the natural amorphous urate sediment.

Comparative Physiology of Uric Acid.—The Evolution of Mammalian Urine.

The study of the amorphous urate, and of the urinary excretion of birds and reptiles, suggests some interesting reflections. We have seen that the amorphous urate deposit is substantially the same thing as the solid or semi-solid urine of birds and serpents; all these consist of the quadri-urates of potassium, sodium, and ammonium. But whereas in the urine of man and mammalia the quadri-urates are only an insignificant item amid a host of other ingredients, the quadri-urates constitute practically the whole of the renal excretion of birds and serpents. The urine of these creatures may be said to be exclusively composed of a substance identical with the amorphous urate sediment of human urine; or, to put it in another way, the amorphous urate is the physiological homologue of the entire renal activity of birds and serpents. The kidneys of birds and serpents are anatomically composed of the same structures as the mammalian kidneys; they are provided with the same kinds of secreting tubes and epithelial elements, the same curious Malpighian tufts and capsules—and yet how widely different is the product of their functional activity. It is not merely that there is a substitution of uric acid for urea as the final term of nitrogenous metabolism, but there is also the strongly contrasted simplicity of the urine of birds and serpents with the complexity of mammalian urine. In birds and serpents the renal function is presented to us in its primitive simplicity. In these creatures the kidneys perform one single and simple physiological act—namely, the elimination of nitrogen as uric acid. For, although the uric acid is excreted in union with bases, the quantity of these bases is the absolute minimum requisite to bring uric acid into a state of chemical combination, and thereby to deprive it of that strong crystalline character which otherwise would make its passage along the delicate exit tubules of the kidney a physical impossibility. The chlorides, phosphates, and sulphates, the lime and magnesia, the pigments, the large volume of water—all of which figure as prominent and even essential components of mammalian urine—are either wholly absent from the urine of birds and serpents, or are only present in such minute traces as might be derived from the lubricating mucus and epithelial débris with which the secretion is incidentally admixed. It would be interesting to trace the successive steps along which the evolution of the complex mammalian

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urine took place from this simple beginning. We are familiar with much that has been said and written of mammalian descent from simpler types. The eyes and thoughts of biologists have, however, been chiefly fixed on the anatomical evolution. But there is assuredly also such a thing as a functional evolution. The anatomical evolution of the kidneys seems to have reached its term in the lowest vertebrate forms; the mammalian kidney presents structurally no essential advance on that of birds and serpents; but an immense functional evolution has taken place; and an examination of its progress through the tribes of fishes, amphibia, marsupials, and lower mammals, up to man, would prove an instructive biological study. The results of such a study would probably show that the evolution of mammalian urine turned mainly on the point that the mammalian plan required that the renal excretion should be voided, not in the solid or semi-solid form, but in the liquid form, as a watery solution. This modification would at once necessitate the discarding of uric acid as a vehicle for the elimination of nitrogen. Uric acid and its compounds are strongly characterised by sparing solubility, and on no terms compatible with the conditions prevailing in the animal economy could the requisite quantity of uric acid be got into solution in a watery urine. Urea, on the contrary, is an extremely soluble substance. In regard to the prime function of the kidney, therefore, nature solved the problem easily by substituting urea for uric acid. But why was not the problem solved completely? Why was there left in mammalian urine this small and apparently purposeless, but to man very mischievous, residuum of uric acid? No satisfactory answer can at present be given to this question. It seems not impossible that the explanation lies in the fact that the mammalian type—the most recently evolved of the vertebrate types—has not yet, in this particular, reached its ideal perfection. A good deal may, I think, be said in favour of this conjecture. The occurrence and proportion of uric acid in the urine of the various tribes of mammalia are remarkably inconstant. Meissner states that the urine of the carnivora does not always contain uric acid; in the urine of dogs and cats it was repeatedly found to be altogether absent. According to the same authority uric acid is only found regularly in the urine of these animals when fed on flesh and in the fasting state; it disappears when they are fed on food poor in albuminoid matters. Stadthagen found that in the urine of dogs fed on flesh the proportion of uric acid to urea ranged between 1 to 280 and 1 to 800. In the urine of rabbits uric acid is sometimes present and sometimes absent. Salomon found it always present in the urine of the pig, but only in small quantity; and its proportion to urea was only in the ratio of 1 to 150. In the case of man the quantity of uric acid excreted presents great individual variations both in regard to its absolute quantity and in regard to its proportion to urea. The ratio of uric acid to urea in human urine appears to range between 1 to 30 and 1 to 50, and the ratio, according to Marès, is special for each individual. Dr. Haig estimates this ratio as 1 to 33, and he regards any deviation in the direction of *plus* or *minus* from this ratio as due either to temporary retention of uric acid in the body or to elimination of previously stored uric acid. If we look broadly at the renal function throughout the animal series, we see that in essence it consists in a provision for the elimination of waste nitrogen. This is a function of capital importance and necessity in the nutrition of animals, comparable to the excretion of carbon by the lungs; and, according to all physiological analogies, it must be at bottom one and the same throughout the animal kingdom. Starting from the highly complex albuminoid molecule, and descending by a train of intermediate steps, the histolytic process ends in some comparatively simple crystalline azotised body. The precise nature of the final term in the histolytic transformation is apparently of small significance, and seems to depend on what may be described as the general convenience of the economy. It may be urea, uric acid, hippuric acid, or guanin, or a mixture of all these. And it is reasonable to assume that all these bodies are physiologically homologous, and that their broad physiological relations are identical. What urea is to the mammal, uric acid is to the bird and serpent; what urea is to man, urea with hippuric acid is to the horse and ox. The office of the kidneys is to separate the final term of proteid metabolism, whatever that final term may be. These considerations point to the idea that the residuum of uric acid in mammalian urine may be something in the nature of a vestigial feature, analogous with the vermiform appendix, the ductus arteriosus, or the ear-point. These rudimentary structures are now regarded by biologists as indications of the line of ontological descent. On this view the presence of uric acid in the mammal's urine should be regarded as a "memory" of some ancestral form which eliminated its nitrogen as uric acid. The extreme inconstancy of uric acid, both in regard to its presence and its proportion in the urine of different species and of different individuals of the same species, agrees perfectly with this theory, for all vestigial structures are conspicuous for their inconstancy. Such structures also, like uric acid, although impotent for good, are sometimes powerful for evil.

AN ABSTRACT OF

The Hunterian Lectures

ON

CERTAIN DISEASES OF THE BREAST.

By H. B. ROBINSON, M.S., M.D.LOND., F.R.C.S.ENG.,

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LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—My first duty is to thank you for the honour you have done me in placing me in the position to address you. "Diseases of the Breast," as far as these lectures at the College are concerned, have been quite an untrodden path for many years. For some time my attention and interest have been directed to certain little-known affections of this most important organ and to the difficulty often experienced in their diagnosis. Hence the choice of my subject; and I will endeavour to bring before you some of the more recent observations that have been made to help us to overcome these obstacles. Since the days of Sir Astley Cooper, Sir Benjamin Brodie, and Mr. Birkett, whose names are indelibly bound up with these diseases, pathology has made such strides that their terminology is considerably altered; but the foundations laid by these observers remain unshaken, and we look back with reverence on their work, which remains uneffaced by time.

Chronic mastitis develops usually in relation with lactation, and is of very great interest because of the difficulty in diagnosis. In many cases suppuration takes place, forming the "chronic encysted abscess." About the period of weaning these indurations are usually met with, and they may remain quiescent for a long period, suppurating in a later pregnancy or lactation. Injury may be a cause, and Lucas-Championnière considers that the pressure of stays is responsible for some of these inflammatory thickenings. The evidence is rather against this supposition, as we find that the upper half of the gland is more often affected. The clinical forms vary considerably. The inflammatory swelling may be first manifest as a small, hard, lobulated thickening, occurring towards the periphery of the gland, with a well-defined outline, and the skin quite free over it. It may be a little painful, but there will be deep tenderness on pressure. This may resolve or remain for an indefinite time as an induration, but without any marked tenderness. Many of these swellings are probably the same as Sir Astley Cooper's chronic mammary tumour, where absorption has ensued at a subsequent pregnancy. The usual sequel is for the induration to enlarge, with an increase of tenderness on deep pressure, a symptom laid great stress upon by this observer. If deeply placed towards the periphery, there may be no adhesion of the skin or retraction of the nipple, but, if central, the latter is very commonly present. Castex and Reclus comment upon its well-defined margin, and consider this sign absolutely diagnostic. Should softening become more marked and the swelling more superficial, there may

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be some œdema and adhesion of the skin, but redness is quite the exception; the pus evacuated is thick and creamy. These inflammatory swellings may occur in several lobules, the cavities produced by suppuration inter-communicating and connected with the exterior by sinuses. The axillary glands may enlarge, but this is rare. Lucas-Championnière quotes a case where the axillary glands enlarged with one of these indurations, and suppurated without any change taking place in the breast. If injury is the exciting cause, suppuration is unusual. The interest of this lesion is in its diagnosis, which has to be made—(1) from a localised chronic interstitial mastitis (this has not œdema of the skin or adhesion, and has not the characteristic tenderness; the tendency to be bilateral may be an additional factor in confirmation); (2) from tuberculous mastitis (in tubercle the margin is not so well defined, there is less tenderness on pressure and glandular enlargement is more constant; the pus, instead of being creamy, will contain cheesy masses, and there may be a history of tubercle); and (3) from tumours. Errors in diagnosis have led to the sacrifice of the gland on the supposition that a solid tumour was being removed. It may be perhaps more often confused with a scirrhus, especially if the inflammatory swelling be accompanied by glandular enlargement, as in both we may have a localised hard tumour following a blow, with adhesion of the skin and retraction of the nipple. Sir Astley Cooper describes two such cases sent to him as "scirrhus," but he found deep-seated elasticity, with tenderness on pressure, confirming his opinion by evacuating pus on incision. In making the diagnosis we must take into account (*a*) whether the tumour has formed in relation with lactation; (*b*) the presence of deep tenderness on pressure; (*c*) the age of the patient and the rate of growth; (*d*) the margin of the growth, whether well defined or not; (*e*) the resistance of the tumour, if elastic, or of a wooden hardness. Reclus gives the following to illustrate the difficulty:—"A woman of twenty-nine, in good health, had a lump the size of an egg, with a well-defined margin, but a granular condition of the gland over it. There was no elasticity or fluctuation. The axillary glands were enlarged. The skin and nipple were normal, and there was no pain or tenderness on pressure. The points against carcinoma were the age, absence of adhesion of the skin, and although the tumour was large, it had well-defined limits and the nipple was natural. In favour of carcinoma was its extreme hardness. Pus was obtained on an exploratory tapping. The history was that the patient had been confined six years previously, and the infant had been suckled for nineteen months. After weaning the child a lump was noticed, which had persisted and increased in size recently." If deep seated and well defined, it may be considered a cyst; but here there would be no history of lactation, and other evidence pointing to mastitis would be present. It is possible for the swelling to strongly suggest a cysto-sarcoma.[1] "A. D——, aged thirty-seven, was under the care of Mr. Clutton. Three years before she noticed a small lump in the right breast during lactation, which remained stationary for two years. Then it increased in size, especially in the last three months, but without pain until the last few weeks. The right breast was very prominent and large, and its margins sharply defined; it was lobulated, particularly at the upper and outer part. The skin over it was smooth and glistening, rather dusky in colour, but not at all adherent, and there were large veins coursing over its surface. It moved freely on the deep tissues, was very elastic, but fluctuation was not certain. There were no enlarged glands. On tapping pus was drawn off, and after incision the lump proved to be a large loculated abscess cavity, with creamy, somewhat offensive pus."

As regards treatment, the moral to be drawn from the above facts is that no breast, where there is the possibility of a chronic abscess, should be removed until an exploratory puncture has been made. If pus is obtained, it should be evacuated by incision. Should no pus be got, and yet there is still a likelihood of the mass being inflammatory, an exploratory incision should be performed.

Tuberculous mastitis is not nearly so rare as has been supposed. It has been described by Sir Astley Cooper[2] as "scrofulous tumour"; by Velpeau[3] as "lymphatic or tuberculous tumour"; by Billroth,[4] Ohnacher,[5] Klotz,[6] and especially Dubar.[7] About half the cases occur secondary to other tuberculous lesions, especially pulmonary. If the disease is primary, there is as a rule a strong hereditary taint. Of eight cases, one had suspicious signs at the apices, and another had had a pleurisy eight years before. In six of these there was a strong tuberculous family history, in another the woman's husband died of phthisis, and in the other there was no history. Among other causes, the malady may arise from injury; one case was dated from a squeeze received eighteen months before, and another from a blow six weeks before.[8] Pregnancy and lactation are considered by many (Mandry, Park, Dubar, and Delbet) to be the chief exciting causes. In the cases of Orthmann and Habermass it developed during lactation, and seemed progressive along the ducts. In two cases I have found that the deposit has arisen in relation with indurations, which have persisted through several pregnancies without becoming absorbed. The disease usually affects women. In English literature I cannot find one in a male; but Delbet,[9] out of thirty-seven collected cases, found two in men. Of these cases, he knew the ages in thirty-two, more than half of which were between twenty-five and thirty-five. Of twelve others I have collected, ten were between twenty and forty. Of the whole number (forty-nine), there is not a single instance of the disease occurring under puberty. Eight of my collected cases were married women, and of these three were sterile. A larger proportion of cases have been met with on the left side. Velpeau, in his account of tuberculous tumours, describes "disseminated tubercles" and a "purulent lymphatic tumour." Most modern observers practically endorse this statement, and agree that the lesions are found under two forms—the confluent and the disseminated. The confluent is the more frequent of the two, having the form of a single, ill-defined, bossy tumour, moving with the breast on the chest wall. Its edge, instead of having the well-defined boundary of the last iorm, very often sends off processes into the rest of the gland like a carcinoma. The skin may or may not be adherent. The nipple may be retracted, especially when the disease is centrally placed. The disseminated type is rarer, existing in the form of scattered nodules between which the tissue may or may not be sound. The nodules tend to run together, ultimately becoming the confluent form. Ohnacher considered that this form was secondary to the confluent, and was due to new foci springing up around the primary centre. Mandry[10] describes two forms of primary tubercle: 1. A low inflammation with induration, caseation, softening, &c.—very chronic,—abscesses with retraction of nipple and enlarged glands. This agrees with the confluent type of others. 2. The intra-mammary cold abscess, generally combined with tubercle elsewhere.

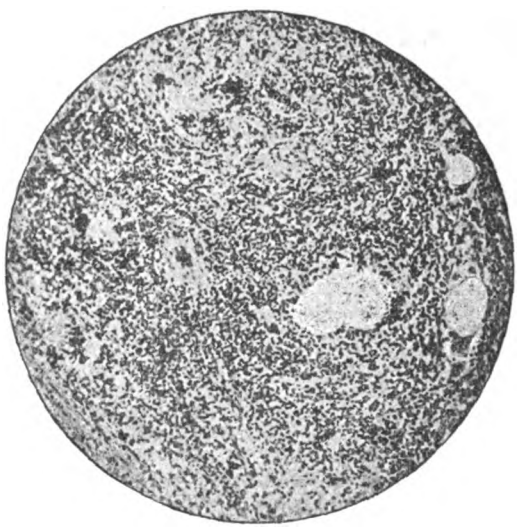
Miliary tubercle of the breast, up to the present date, has not been described. In the confluent form the rate of increase is very variable, in some chronic, in a few running quite an acute course. Before long softening takes place, leading to the formation of curdy pus, which makes its exit, leaving sinuous tracts, which communicate by inter-communicating ragged cavities. No case has so far been recorded of calcification occurring. A general fibroid change may ensue, which I have seen in a case (under the care of Mr. Pitts) in association with a well-marked cheesy nodule. Of course, here it is possible that the tubercle was secondary to the fibroid change, but the fact of the latter being unilateral allows us to think that it was induced by the tubercle. Delbet has shown that the outer segment of the breast is more often affected, and in my small number of observations there is to be noticed about the same proportion. The axillary glands are usually involved, and in some cases softening takes place much more rapidly in them than in the breast. The onset of the disease is generally insidious, and is therefore not noticed. Sir Astley Cooper remarks on this indolence developing without pain and scarcely any tenderness on pressure. Delbet says there is little or no pain, but in all the cases I have noted there has been complaint of pain, one describing it as a stabbing pain, most of them laying

[1] Clin. Chirurg., p. 429.
[2] Illustrations of Diseases of the Breast.
[3] Diseases of the Breast: Transactions of the Sydenham Society.
[4] Deutsche Chirurgie.
[5] Der Tuberculose der Weiblichen Brustdruse: Archiv für Klinische Chirurgie, 1883.
[6] Archiv für Klinische Chirurgie, Band xxv.
[7] Des Tubercules de la Mammelle. Thèse de Paris, 1881.
[8] Hebb: Transactions of the Pathological Society, vol. xli.
[9] Duplay et Reclus: Traité de Chirurgie, vol. vi.
[10] Beiträge zur Klin. Chir., 1891, vol. viii.

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stress upon its intermittence. There may or may not be localised tenderness. Loss of flesh may occur, and other symptoms, as cough or hæmoptysis may be present. If the disease is primary, the virus may be introduced either through some fissure causing tuberculous infection of the connective tissue, or, what is commoner, it enters by the ducts, setting up epithelial changes, these being attended by connective-tissue infiltration. Krammer quotes a case where there was a tuberculous ulceration of the nipple

FIG. 1.



succeeded by disease of the ducts. Histologically we find the acini and small ducts surrounded by small round cells, and the epithelium multiplying with some dilatation of the acini. The peri-acinous infiltration increases in amount, and at the same time there is a gradual breaking up and disappearance of the gland elements; we have now a tuberculous nodule in which giant cells, which vary in number, never being numerous, are to be seen. (Fig. 1.) Degenerative changes soon ensue in the centre, while the

FIG. 2.



infiltration progresses at the margins. The tubercle is not met with in the "miliary" form, but only as an infiltration. Dubar has described changes in the endothelium of the vessels, causing blocking and subsequent necrosis, as in syphilitic gummata. In the walls of some of the larger ducts we may find localised nodules. (Fig. 2.) In a case where the connective tissue is first involved we have almost the same changes as before, without necessarily the epithelial proliferation. Bacilli are rarely to be found, but I do not think their absence prevents us from diagnosing a case as "tuberculous" when there is a marked family history and characteristic caseous pus from the softened mass. The diagnosis has to be made (1) from a simple chronic mastitis, (2) from some cases of chronic interstitial mastitis, and (3) from carcinoma. From the latter it is very difficult in some cases.

"L. B—— (admitted under Sir William MacCormac), aged thirty-eight and married, whose mother was said to have died of phthisis, had an abscess in the left breast ten years before, and as a consequence had not used it since for suckling. Her youngest child up to within a few weeks before had been suckling the other breast. At this time she noticed there was some thickening in the left breast; this was hard and nodular, infiltrating at its margins. It rapidly increased in size, the skin becoming adherent, but there was no enlargement of lymph glands. The nipple was retracted, but this was of no value, as it had been so for years." The acute development and thickening strongly suggested carcinoma, and the gland was amputated; but on section it proved to contain small broken-down cavities which, histologically, were shown to be tuberculous.

Reclus[11] quotes three cases, of which the following is very characteristic:—"A woman aged forty had a bossy tumour about the size of an egg, very hard, and with no definite margin. The skin was involved and puckered, and the glands were enlarged. So certain was the diagnosis here of cancer that the operation had actually been fixed when suddenly hæmoptysis supervened. The tumour later softened and discharged curdy pus." In none of the cases was there any fluctuation. Habermass describes a case showing a mistaken diagnosis in the other direction, where what he considered tubercle proved to be carcinoma, with many spots of softening. If the disease be primary, we may consider that it will progress locally and involve lymphatic glands, or be followed by other lesions, particularly of the lungs. Whether it is succeeded, if left alone, by acute miliary tuberculosis there is no evidence, such a thing not having been recorded. Judging by analogy from what happens in other organs, such a sequel is very unlikely. Knowing that the disease is progressive, we should not hesitate to remove the organ. Of six cases (quoted by Delbet) after operation two remained under observation a long time without recurrence, one recurred after nine months, and another after three years. Two of them died of pulmonary phthisis. I can only speak of one of the cases I have observed. Here recurrence took place in the scar after a few months, but she has since remained for one year quite well. If the breast is secondarily affected, it is useless to operate, except in those cases where the local destruction is hostile to the patient's welfare, the disease elsewhere being quiescent.

Chronic interstitial mastitis may be met with at all ages, but especially between forty and fifty. It is rare in young women; but I have seen two well-marked cases at nineteen and twenty years of age. It is rarely seen in man. One very typical case recently came under my notice in a man of thirty-six, where both breasts were involved. The disease may be due to: (*a*) Injury; (*b*) disorders of menstruation, many of the cases giving a history of dysmenorrhœa, the breasts at the same time being painful and tender; (*c*) celibacy appears to be a potent factor (of seventeen cases twelve were in single women, of the five married three were sterile, one had four children, and the other not known); (*d*) previous inflammatory trouble seems to have little or no relation to this chronic disease.

The course of this disease is very slow: König says that it is rarely acute. One breast becomes affected first, to be followed by the same change in the opposite one. There may be pain in the breasts at the menstrual periods, and tenderness. The skin and nipple are not affected. The axillary glands are not enlarged. The changes in the breasts may be diffuse or circumscribed. Of the diffuse forms we have: (1) Abundant development of soft fibrous tissue uniformly distributed, and at the same time almost complete disappearance of true breast substance; (2) the formation of firm fibrous tissue, the glands being small, cake-like, and very hard, and associated with small cysts scattered through this new formation.

[11] Clin. Chir. de l'Hôtel Dieu, 1888.

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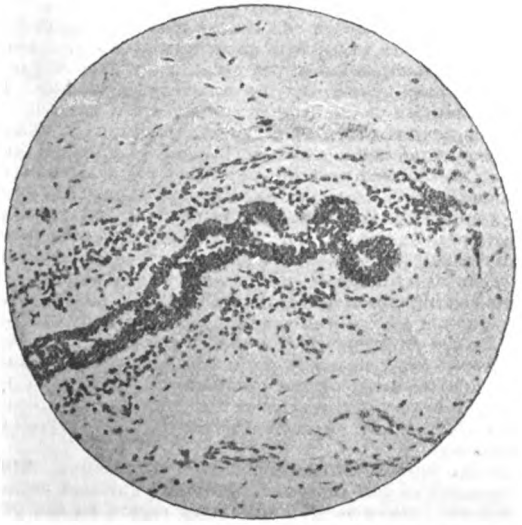
Although the change may be diffuse through the gland, we have localised nodules, up to the size of a walnut, very hard. These have been described by Phocas as "maladie noueuse." If they are of any size, they are probably cystic with thick walls. These hard fibrous nodules resemble the benign tumours, fibromata and adeno-fibromata. König and Kennedy think that the latter are actually due to chronic inflammation, the nodules becoming encapsuled, and so isolated; but such a view is very doubtful.

FIG. 3.



Phocas makes a special form of "diffuse mastitis," which occurs about the climacteric, and resembles "diffuse cancer." Most of the gland is involved, and radiating processes are set into the tissue around. The circumscribed variety is perhaps more frequent, and is known by a number of names: "chronic lobular interstitial mastitis" (Beck), "chronic mammary tumour" (Sir Astley Cooper), "partial hypertrophy" (Velpeau), &c. It has somewhat the form of a wedge, with its apex to the nipple, and

FIG. 4.



may be smooth or nodular. Its edge is usually well defined, and there seems to be a predilection for the outer half of the gland to be affected. The terminations in both the diffuse and circumscribed forms may be: (1) Complete atrophy of the whole gland or part affected from the formation of the fibrous tissue, *sclerosing mastitis;* (2) the production of different forms of *cysts.* Histologically the first change is a multiplication of the epithelium lining the acini and small ducts with some dilatation, particularly of the latter. (Fig. 3.) The acini tend to disappear, as is normal, at involution of the gland. In relation with the epithelial proliferation there is a localised round-celled infiltration in the connective tissue. This epithelial increase is supposed by Nocard to be due to an organism allied to the streptococcus which he has isolated in the infective mammitis of cows. In the soft diffuse form there is to be found only a soft fibrous tissue arranged in a meshwork of bundles of fibres, the gland part

FIG. 5.



almost completely disappearing except for a few dilated ducts. In the firm, diffuse, and the circumscribed forms the tough fibrous tissue compresses the glandular part, so that the cells are contained in quite narrow spaces. The sclerotic changes begin in the situation of the basement membrane (Fig. 4), and it may seem in sections that this new fibrous tissue is arranged in the form of rings with a looser connective tissue between them. (Fig. 5.) By addi-

FIG. 6.



tions to this fibrous tissue distinct nodules may be formed. (Fig. 6.) In other cases this nodulation is not very evident, the whole breast being made up of coarse bundles of fibres with scanty nuclei. The sclerosed tissue may undergo calcification, converting the gland into a stony mass. Gross has seen two cases in elderly women. Bryk, in Langenbeck's *Archives*, records a petrified breast due to the deposit of lime salts in the stroma causing atrophy of the

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ducts and acini. Pillet has described a bony or calcareous formation in relation with a fibrous and cystic tumour in the gland, the cysts being filled by vegetations and the calcareous material in the fibrous tissue round. A case almost like the above came under my care, in a woman of forty-eight, where there was a calcified nodule in the upper part of the right breast, and a symmetrical one in the other breast, the lumps being patches of chronic lobular interstitial mastitis. Specimen 4747 C in the College Museum shows calcareous changes in the connective tissue around small cysts Although described as "scirrhus," its appearance strongly suggests that it is non-cancerous, but due to chronic inflammation.

Lectures

ON THE

OPERATIVE TREATMENT OF ENLARGEMENT OF THE PROSTATE.

BY C. W. MANSELL MOULLIN, F.R.C.S. &c.,
SURGEON TO THE LONDON HOSPITAL.

LECTURE III.[1]

THE earliest record of McGill's operation, or supra-pubic prostatectomy, is in the year 1827, when Amussat excised a valvular median lobe during the performance of lithotomy. As, however, I have not been able to ascertain any particulars with regard to the result, I have merely retained the case for its interest, and have not included it with the rest. Of these, the first two were performed by Dittel in February, 1885, and February, 1886, respectively; Trendelenburg came next in May, 1886, and Belfield in the following month; then Benno Schmidt in August of the same year, and Belfield, Trendelenburg, and Benno Schmidt again. McGill's first case was in March, 1887. After this, and as a result of his communications to the Clinical Society and to the British Medical Association in August, 1889, the operation was performed much more frequently.

Thanks to the kindness of the many surgeons to whom I have written, and to whom I owe a deep debt of gratitude for the trouble they have taken and for the valuable information they have freely given me, I have been able to collect particulars of ninety-four cases. Of these, nineteen have died, upwards of 20 per cent.; but it is worth noting that while twelve deaths occurred in the first forty-seven (in point of time), there were only seven in the second. Moreover, the immediate causes are of some consequence. One of the fatal cases, it is believed, was due to corrosive sublimate poisoning. In a second the operation was of an exceptionally extensive character, involving resection of the pubic symphysis. A third, who was eighty years of age, died suddenly on the fourth day from what is called "acute irritative urinary fever," the temperature rising rapidly to 106° F. without any apparent reason. Three died from pneumonia or purulent bronchitis, one from hæmorrhage, and the rest from exhaustion, or pyelonephritis. With wider experience it is probable the mortality will be much further reduced. The percentage of failure is more difficult to estimate, as many cases, in which complete control over the bladder was never regained, certainly do not deserve to be included in the list. In one, for example, complete recovery followed the perineal operation performed a month or two later, the division of the obstructing bar had not been carried out sufficiently. In another—a man eighty-seven years of age—no attempt was made to close the supra-pubic wound; but at the present time, four years after the operation, he is—so I am informed by Mr. Buckston Browne—going about still, thoroughly enjoying his life. In a third there was already a fistula, consequent on the previous removal of a vesical tumour, and in several others there were reasons for which allowance should be made; but this is better considered with the conditions that render operation advisable.

As regards the technique of the operation there is but little variety. Trendelenburg is in favour of a transverse incision through the soft parts, which may be advisable in the case of a large pendulous abdomen, following the fold that hangs over the pubes, but does not really give more room, and certainly predisposes to hernia. Langenbuch's subpubic incision is much too contracted, and interferes with the prostatic plexus. Helferich, as already mentioned, resected the pubic symphysis, and Watson has written to me saying that in a suitable case he would not hesitate to adopt the same method. According to McGill, enucleation of the growth after the mucous membrane over it has been divided is the most satisfactory method. Others have employed the cautery or an écraseur; and Keyes makes use of what he terms a "rongeur," to cut a channel through the obstruction. Bleeding is rarely serious, although in one case it proved fatal, and in another contributed largely to the result. The amount removed must depend in each case upon what exploration reveals. In two instances McGill removed only a fragment the size of a pea. On the other hand, Buckston Browne in the case already mentioned excised four ounces by weight. Certainly if a satisfactory result is to be ensured the whole vesical portion must be enucleated, a low level channel cut through, and unless the tissues around the neck of the bladder are perfectly soft and flexible (which is practically impossible in such cases), a smooth and straight funnel-shaped route made down the urethra. Belfield lays especial stress upon the thorough exploration of the urethra with the finger. In one of his cases, after removing a tumour the size of a walnut from the left lateral lobe through a supra-pubic incision, he found that there was still some obstruction in the prostatic urethra, preventing the entrance of a catheter. Perineal urethrotomy was performed, an incision made along the floor, and a rounded mass shelled out into the bladder. There is no doubt, too, that one of the earlier cases (Meinhardt Schmidt's) failed from this not having been done, for the bladder recovered completely after perineal *prostatotomy*, and the patient was perfectly well two years and a half afterwards.

Trendelenburg, Helferich, and others have made use of the cautery, instead of a separate perineal opening, sinking it deeply into the tissue of the prostate in the middle line behind; but, as Belfield points out, the addition of the boutonnière increases but slightly the injury to the tissues and the duration of anæsthesia, while it enables the operator to feel much more accurately what he is doing. It may also be pointed out that it is of great assistance afterwards in draining the bladder. It is true that after supra-pubic lithotomy all the urine will come out of its own accord through a tube inserted in the wound; but this only holds good so long as the operation is confined to the bladder. The prostatic portion of the urethra cannot drain itself in this way, and when the operation has extended into it, unless a perineal opening is made as well, it becomes a conical receptacle at the lowest part of the wound filled more or less continuously with decomposing blood and urine. The lateral lobes are quite as important as the median, and require to be dealt with as thoroughly. McGill recommended removing the salient portions with scissors, and then enucleating the rest until a funnel-shaped passage was established. So long as the bladder is of fair capacity, this is not so difficult as it appears to be—the greater the size and the more irregular the enlargement the easier enucleation becomes. Hard fibroid growths rarely project in this way; but unless Helferich's resection of the pubic symphysis (which very seriously increases the gravity of the operation) is performed as well, it is almost impossible if the bladder is small and its walls rigid.

Such are the operations proposed for the radical cure of enlargement of the prostate. Provided suitable methods are selected, there is no doubt with regard to the possibility of removing the obstruction. The first question is whether it will return and render the operation useless? the next, whether the bladder will regain its power of expelling its contents wholly and effectually? and then what is the risk to life? Mercier's operations there is no doubt are failures. If a larger amount is removed, is the prospect much better? Definite recurrence has been noted in one instance (Benno Schmidt's first case), and that within nine months. It is true it has been suggested that the

[1] Delivered at the Royal College of Surgeons of England on June 3rd, 1892.

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growth in this case was of a malignant character, but as the symptoms had already lasted seven years at the least, this is hardly probable. In another (Guyon's case, reported by Vignard), a few days after the operation the introduction of a catheter became as difficult as it was before; but this must have been caused by imperfect removal, for, though there might possibly have been an impediment to the passage of the urine, the growth could not in the time have spread sufficiently to prevent the entrance of an instrument. On the other hand, I have notes of four cases in which, on the bladder being opened and examined at a later period (three months, eighteen months, one year, and two years and a half respectively), the cicatrix was perfectly smooth. The clinical evidence bears this out. A very large proportion of the patients who were operated upon, and regained power over their bladders, retained it as long as they were under observation, and in many it continued to improve. It is noteworthy that in some instances the prostate has undergone an actual diminution in size after operation. Harrison has recorded a remarkable example of this in his Lectures on the Surgical Disorders of the Urinary Organs; Packard of Philadelphia mentions another. I have met with a third in which the shrinkage was proved post mortem, and there are several others on record. The change is much greater than can be accounted for by the subsidence of congestion and the contraction and absorption of thrombi. I incline to the opinion myself that it is the result of the fibroid consolidation which sets in sooner or later in most of these cases, and not, as Harrison suggests, of simple atrophy. But whether this is the case or not, there can be no doubt about its occasional occurrence, and it is certainly encouraging that, although many of the cases operated upon are now four years old, definite recurrence has only been noted in one. The question of the recovery of the bladder depends partly upon the condition of the patient as regards general nutrition, partly upon the extent to which the muscular coat has been ruined by over-distension, cystitis, and the repeated use of catheters. Nineteen cases in all failed; but in four of these either the whole obstruction was not removed, or no attempt was made to close the supra-pubic opening; in two others there was already a fistula owing to the previous removal of a vesical tumour, and another was a very feeble old man who became insane shortly after. These, at least, must be deducted, and in several others there were mitigating circumstances which ought to receive a certain amount of consideration. It cannot, however, be too plainly stated that the real reason why the bladder in some never did regain power was that the operation was performed too late, when the muscular coat was already hopelessly involved. Sir Henry Thompson has written that habitual catheterism for retention in enlarged prostate for two years will destroy permanently the power of the bladder to empty itself; and although McGill has shown that this is by no means so invariable or so positive, and that cases have recovered even after so long as seven years, it is certainly one of the strongest arguments in favour of early operation that the chief palliative measure that replaces it may within two years—will, according to Sir Henry Thompson—so ruin the bladder that it can never recover.

The final question is whether the operation does not involve too great a risk to life, and how far it will compare in this and in the degree of comfort it confers with palliative measures, such as supra-pubic and perineal drainage. For it has been said that nearly the whole of the benefit derived from it is due to the temporary relief from cystitis, or to the extraction of calculi, and not in more than the remotest degree to the removal of the obstructing mass. In answering this the perineal operation must be considered separately from the supra-pubic. It is not a matter of option which of the two should be performed; one may be required, or the other, or both; and fortunately in the majority of instances it is fairly easy to tell beforehand which should be selected. Even, however, if owing to some misleading feature there does happen to be a mistake in the diagnosis, and the perineal operation is performed in a case better suited to the other, exploration with the finger can do no harm, and the presence of the incision, supposing it is not wanted for drainage, adds little or nothing to the gravity of the operation. Of the thirty-eight cases of perineal operation undertaken with this object, and not as an afterthought during lithotomy, three died. One of these was eighty years of age already, and in another the method tried was unsuitable. Simple division is not, I grant, of much value, unless followed up by prolonged drainage; but undoubtedly in suitable cases perineal prostatectomy, without causing an appreciably greater risk, confers upon the patient a degree of relief with which that following mere cystotomy or drainage offers no comparison. The patient in a large proportion of cases recovers complete control over his bladder; and even in the failures, even in those instances in which the sole benefit gained is the easier introduction of a catheter, he is no worse off than if the formation of a permanent fistulous opening and nothing more had been the object in view. The supra-pubic operation stands on different grounds. Taking all the cases together, the mortality is approximately 20 per cent. (if the last half only, it is still 15 per cent.); and although it is highly probable that this will fall lower, especially in the hands of those who are practised in the performance of the operation, it will always remain higher than that of the other. On the other hand, the condition of these patients beforehand must be remembered, that they were practically *in extremis*, suffering from the worst complications of intense cystitis; and it may well be asked if the operation is to be judged by the results of the first hundred cases, taken indiscriminately, before any definite opinion has been formed as to when and under what circumstances it is advisable, what would have been the duration of their lives, and in what condition would they have lived had the operation not been performed. The real issue lies between supra-pubic prostatectomy and palliative measures, such as simple cystotomy with the continuous wearing of a cannula; for those cases in which patients have been able to dispense with this are too rare to deserve consideration. That when the more serious operation does succeed the condition of the patient is infinitely better there can be no question. Wearing a drainage-tube permanently in either situation may be tolerated, but, in spite of the enthusiastic comments of those who were suffering tortures before it was introduced, it is scarcely preferable to micturition by the natural route; and it must always be remembered that it does not always convey even this moderate degree of comfort—a certain number of patients, those especially who suffer from the irritation caused by vesical outgrowths, cannot tolerate it. Each has, I believe, distinctly its own field. Enlargement of the prostate by itself requires neither, and fortunately the majority of patients suffering from this complaint pass through life without its ever becoming necessary to raise the question. In a certain proportion, however, complications set in sooner or later; and to many patients there comes at length a time when their constitutions are still sound, but there are clear indications that the local conditions are surely and rapidly growing worse. The catheter has to be passed more and more often; occasionally there is a little difficulty, and what is still more important, it no longer gives relief. The desire to pass urine is as great after the instrument is withdrawn as it was before; cystitis breaks out every now and then; attacks of congestion causing hæmaturia and retention occur with greater frequency; the urine is becoming offensive; the residuum is growing larger; and the night's rest is seriously broken. For these and such as these prostatectomy by one route or the other, according to the special conditions present, certainly affords a far better prospect than either cystotomy or drainage, and without sensibly greater risk. Permanent cure is possible, and even the failures are as successful as the successes claimed for the other methods.

On the other hand, if this chance is lost; if, as only too often happens, the patient has allowed himself to drift on, using a catheter more and more frequently, without realising what the end must be, until his kidneys are diseased or cystitis has destroyed the muscular power of the bladder, and made it small, hard, and rigid, the conditions are entirely different. When the capacity of the bladder is much reduced and it cannot be distended; when it has lost its power, whether this arises from prolonged retention, repeated inflammation, or the persistent use of catheters; and when under careful treatment and watching it shows no sign of recovery, it is useless attempting to remove the obstacle; cure is impossible, and the risk, if there is the least degree of nephritis, much too great. Palliative measures only can be employed; as much benefit will be derived from drainage as from the most complete enucleation; and no surgeon would undertake a grave operation when one less dangerous to life would answer equally well.

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CLINICAL REMARKS ON FRACTURE OF THE UPPER END OF THE ULNA ASSOCIATED WITH DISLOCATION OF THE HEAD OF THE RADIUS.

ADDRESSED TO THE STUDENTS OF THE CALCUTTA MEDICAL COLLEGE.

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A HEALTHY strong Mahomedan sailor, aged fifty-eight, was admitted to hospital with a compound fracture of the upper fifth of the ulna, which had been sustained in the following manner. He was working on a dredger, and a chain accidentally slipped off a wheel and struck his left forearm violently near the elbow-joint, on its posterior aspect. Compound fracture of the ulna was detected about three inches below the head of the olecranon process. The wound was dressed antiseptically, and the arm put on a rectangular splint. I saw the man next morning, about twenty-four hours after the accident had occurred. Guided by previous experience I considered it necessary to examine the part, and I found that, in addition to the compound fracture of the ulna, the man had sustained a forward dislocation of the radius, the head of which was found lying beneath the skin of the front of the elbow-joint, between the two masses of muscle bounding the triangular hollow in that region, or, to speak more accurately, just within the belly of the supinator longus. The patient was at once put deeply under chloroform. An unsuccessful attempt was made to reduce the dislocation by extension and manipulation. Extreme flexion was then tried, and the head of the bone slipped into its natural position, and remained there on straightening the joint. The fracture was at the same time reduced. Antiseptic dressings were applied, and the limb placed on a rectangular splint. The dressings were changed after a week, and then after a fortnight. The wound has almost healed, the broken ulna is undergoing satisfactory union, and the head of the radius remains on the capitellum. The movements of the elbow-joint are free, and the man will regain perfect use of his left upper extremity.

This case illustrates a combination of fracture and dislocation at the elbow of which I have seen numerous examples, both recent and old, and which present several points of considerable practical interest and importance. My attention was first drawn to this injury in 1879 by two cases which were admitted into the hospital about the same time. A child of six years had fallen from the roof of a house and broken the left ulna at its upper fourth and dislocated the head of the radius forwards. The dislocation was detected and reduced, and the fracture set. The final result was perfect. The other case was that of a young man aged twenty-eight, who had some four months previously to admission been kicked by a horse on the left forearm. On examination an old fracture of the ulna at the upper fourth was detected which had united angularly, and the head of the radius was found in the same position as we found it in the case under consideration—namely, lying in front of the external condyle of the humerus and inside of the supinator longus and flexor carpi radialis longior muscles. The limb had lost in bulk and power, and its movements were considerably impaired. Since then I have seen several old cases of this injury in which the nature of it had not been discovered nor the proper treatment applied. A certain amount of deformity, of permanent lameness, and disability existed in all these cases. By rubbing and passive movements some restoration of function and power can be obtained, but perfect recovery is quite impossible in such cases. In the year 1883 I treated a recent case which I made the subject of a clinical lecture at the time, the facts of which I shall briefly recapitulate. A middle-aged man fell off a stair, and his arm came into violent contact with a brick. A fracture of the ulna was detected and put up. I examined the limb three weeks after the accident, and found that the ulna had been broken at its upper fourth and the head of the radius dislocated forwards. The characteristic deformities were well marked and the movements of the elbow-joint much impaired. I made a careful and prolonged endeavour to reduce the dislocation, but without avail. Passive movements were subsequently resorted to, and the joint and limb were restored to a fair degree of efficiency; but considerable deformity and limitation of movements remained. About the time that I first noticed the injury I performed some experiments on the dead body in order to study its causation and anatomy. I placed the prone forearm on a table with a block under the arm just above the elbow, and brought the edge of a heavy block of wood down with force on the back of the limb so placed and supported. In two instances the block came down on the middle of the forearm and broke both bones; in two others it came down on the upper third of the forearm, fracturing the ulna and neither breaking nor dislocating the radius; and in two more the double injury which I have described was produced—namely, oblique fracture of the upper fourth of the ulna about three inches from the upper end, and dislocation forwards of the head of the radius. In one of these last instances I dissected the parts. I found that the head of the radius had slipped forwards through the anterior ligament of the elbow-joint, the orbicular ligament having slid on to its neck, and lay in the cellular interval between the brachialis anticus and supinator longus and radial extensor muscles. The upper fragment of the broken ulna had been displaced forwards and outwards, and had torn the flexor profundus muscle. The statistics of fractures of the bones of the forearm collected by Hamilton and Agnew show that the radius is seldom broken in its upper third, that the ulna is pretty equally liable to be fractured throughout its whole length, and that when both bones are broken the fracture is much more frequently situated at the middle and lower thirds than at the upper. Hamilton states that eleven out of thirty-three cases of fracture of the ulna were complicated with dislocation forwards or forwards and outwards of the head of the radius, and he mentions that he had seen seven instances in which the radius had not been reduced in an injury of this kind. From these cases, experiments, and statistics the following conclusions may fairly be drawn: 1. That the injury in question is by no means infrequent. 2. That it is generally due to direct violence, the point of application and degree of violence determining whether one or both of the double injuries result. 3. That the deformity is characteristic, the upper fragment of the ulna being pushed or pulled forwards and outwards, causing angularity of the shaft and some bulging at its upper end, and the head of the radius lying in front of the external condyle of the humerus and giving rise to some abnormal fulness there. 4. That the characteristic displacement of the upper fragment of the ulna is due to the effect of the violence and to traction exercised by the oblique and orbicular ligaments and the supinator brevis muscle. 5. That when the displacement of the radius is not detected and remedied, the ulna undergoes union in its distorted state, and the limb loses considerably in efficiency as regards both movement and power. From these considerations I would strongly insist upon the following practical precepts:—1. Whenever we find a fracture of the upper end of the ulna examination should be very carefully made for a dislocation of the head of the radius. 2. Should such a dislocation be found, it must be reduced at once, and endeavours made at the same time to rectify the displacement of the upper ulnar fragment. 3. In view of the clinical fact that it is found sometimes very difficult to retain the head of the radius in position after reduction, examination of the part must be made from time to time in order to be sure that the head of the bone is in its proper place.

Calcutta.

CONVALESCENT HOMES FOR MOTHERS.—The Rev. Canon Palmer presided at a public meeting held at Newington on the 9th inst. in aid of the Mothers' Seaside Convalescent Home at Herne Bay. The report submitted stated that during the twelve months which the home had been opened there were 169 visitors, of whom 39 were infants. The house would accommodate 35 inmates, but it was proposed to increase the accommodation as soon as the necessary funds were forthcoming. A special feature of the institution is the permission for mothers to bring infants under two years of age with them, a nursery being provided for that purpose. A resolution was adopted in favour of establishing a Samaritan Fund to enable poor convalescents to obtain the benefits of the homes.

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INTRAVENOUS INJECTION OF "NORMAL" SALT SOLUTION FOR THE GRAVE HÆMORRHAGES OF MIDWIFERY.

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(*Concluded from page 1291.*)

CASE 4. *Accidental hæmorrhage; transfusion; recovery.*—Mrs. ——, aged twenty-eight, had had five previous pregnancies which terminated at the twelfth week, sixth week, term, sixth month, and sixth month respectively. On the last occasion, in September, 1887, she had severe post-partum hæmorrhage. The obstetric assistant, Mr. E. A. Barton, was called to see her at 10 P.M. on Feb. 24th, 1889, and obtained the following history and notes. On the evening of the 23rd (when six months and a half pregnant) the patient had had "words" with her husband. She slept well that night; but at 3 P.M. on the 24th, without any apparent cause, she was seized with sudden great pain in the abdomen, felt sick, and soon afterwards vomited; she noticed how "hard" she had got in the abdomen. Soon she was obliged to lie down on account of the pain, and she felt faint and "wanted to breathe more." The vomiting and retching continued till 10 P.M. At 10.30 she passed (for the first time) blood to the extent of an ounce. On the obstetric assistant's arrival the woman was in great pain, was retching, and pale even to the lips, and constantly sighing and yawning. The pulse was 90, very weak, but regular. The uterus reached to just below the ensiform cartilage, and was continuously tense and hard; the fœtus could not be felt, nor its heart-sounds heard. The os was high up and far back, of the size of a florin, and soft. No placenta could be felt. A mass, presumed to be the vertex, could just be felt floating in the waters. The membranes were punctured, and a gush of blood occurred, and was followed by a continuous flow. Forty drops of liquid extract of ergot were given, and the os was dilated easily with the fingers and hand sufficiently to apply forceps to the breech. By this time the patient was completely blanched, and breathing deeply and slowly. The forceps slipped, and the child was delivered without any difficulty by traction on the groin, and bringing down a leg. The uterus still felt as if there were another child in it. On expression an enormous clot was passed. The placenta was extracted by the hand. Three grains of ergotin were injected hypodermically, and an intra-uterine injection of iodine solution given. There was no post-partum hæmorrhage. At this time (12.30 midnight) the pulse varied from 120 to 130, was of a very bad character, extremely small, but regular, and all the signs of extreme anæmia were present, and the tendons of the wrist were twitching. At 1.30 she was pulseless at the wrist. She was in a state of apparent stupor, but when the pulse disappeared she roused, tossed her arms over her head, gasped and twitched the facial muscles. She then tried to move about in bed. This lasted half a minute, when the pulse returned, and she "curled up again stupid." From 1.30 to 2.30 the patient continued in the same grave state, several attacks of syncope occurred, and the pulse was often completely absent, and when present lasted only a few seconds, at a rate of 128 to 140 to the minute, and could only just be felt. As she showed no signs of rallying, in spite of brandy and elevation of the limbs, at 3 o'clock I transfused into the median cephalic vein, the patient not feeling the incision. At 3.10 the pulse was fuller. The patient woke up and wanted to know what was going on. She complained of cold. The colour returned to her cheeks. The pulse diminished in frequency and increased in force until, at 3.30, when twenty-five ounces had been injected, she had a good pulse of 102; at 3.50 the pulse was 114; at 4 5, 106. For the next six hours the rate of the pulse, noted every few minutes, was mostly from 100 to 110; it rose once to 130, at 4.25, under an act of vomiting, the only time after the operation. At 10 A.M. the pulse was 100, and the patient was asleep and warm. Since the operation the pulse, though varying a little in strength from time to time, never disappeared or gave rise to anxiety, and the general condition of the patient was markedly improved. She took small doses of beef-tea, milk, and brandy at frequent intervals. In the after progress there was nothing specially to note. On the fourth day the temperature reached the height of 103·2° (no ascertainable cause); on the fifth, 100·6°; after this it kept below 100°. On the eighth day the patient, though weak, was practically well, and was regaining her colour. On the twelfth day the patient got up, and at the end of a month she was in good health, and had almost recovered her usual good colour. The after-history of this case has a melancholy interest. On Feb. 2ad, 1891, the patient, when pregnant at term, was seized with the same train of symptoms of accidental, followed by post-partum, hæmorrhage, and before my assistant could arrive or I could be summoned the patient died.

CASE 5. *Contracted pelvis; old scar in cervix; induction of premature labour; version; laceration of lower segment into broad ligament; transfusion; death.*—Mrs. —— had had three children; the first and third had been delivered by cephalotripsy; the second was born alive after version at the seventh month, but breathed only a few times. On Jan. 30th, 1889, labour was induced by the introduction of a bougie, the pregnancy having advanced to the seventh month. The cervix had a tough scar extending into the lower segment on the right side; on the fourth day the cervix was still very rigid; on the fifth day a Barnes' bag was introduced and left in for two hours and three-quarters; pains feeble. On the sixth day chloroform was administered; three fingers could be passed into the cervix; it was dilated by the fingers till it admitted the half hand and bipolar version performed; but as the cervix was still rigid the case was left to nature for two hours and a half. The patient felt a little faint and thirsty. As the cervix appeared now sufficiently dilated to admit the passage of the small head, slight traction was made, and the body and head easily delivered. The child was stillborn. A little bleeding occurred after the child was born; after the placenta was expressed there was a slight gush of blood and some trickling; under ergotin and hot injections this soon ceased. There was found to be a laceration of the cervix on the left side, but this was not thought to be extensive. The condition of the patient was very grave, although she had lost but a moderate amount of blood. In spite of injections of ether and brandy by the mouth the pulse rose to 140 and was very weak, and the patient was thirsty and faint. The limbs were raised, but the pulse rose to 165, and was extremely small and weak. At 3.15 P.M. (an hour and a half after delivery) the patient was evidently sinking. The uterus kept fairly hard, and there was but little loss of blood. Nearly two pints of saline fluid were injected in about twenty minutes. The general condition of the patient was not improved by the operation. In ten minutes the pulse had fallen to 140, and was rather stronger; but fifteen minutes later it was imperceptible, this in spite of hot bottles, ether injections, raising of the legs, and brandy. She became restless and talked a good deal, saying how queer she felt, and begged to be allowed to sit up and to have her legs put down. At 4.15 P.M. she commenced tossing about, the legs moved convulsively once or twice, and after a few shuffling movements of the body she became unconscious, with half-closed eyes, and died at 4.40 P.M. During the transfusion it was found that the patient had lost nearly half a pint of blood from the vagina. At the post-mortem examination a laceration four inches and a half long was found in the left side of the cervix, and extending up into the lower segment. It had extended into the broad ligament without lacerating the peritoneum, but had severed a large branch of the uterine vein. There was a scar three-quarters of an inch wide, evidently due to a similar laceration in the right side at some previous labour. There were several ounces of blood in the broad ligament.

CASE 6. *Complete placenta prævia; first hæmorrhage (very severe) at term; external version; embryotomy; transfusion; death.*—Mrs. ——, aged thirty-five, had had six children and one miscarriage; her last pregnancy was four years ago. On Oct. 3rd, 1889, being pregnant at term, while attempting to pass a motion into a bucket a terrific flooding suddenly occurred. The patient thought the waters had burst, and sat over the edge of the bucket until she fainted and fell back on the bed. Her husband then

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found "a gallon" of blood in the bucket; the blood was still "squirting from her in all directions," and the petticoat was so heavy from the blood that he thought it must contain the child. When I saw the patient at 10.30 A.M. I found her in an exceedingly dangerous state, colourless in the face, with ashen lips, thirsty, somnolent, with dim vision; pulse 80, extremely small and weak; extremities cold. On abdominal examination the placenta was felt on the left side, and extending to the front and back, the anterior edge passing from the middle of the uterus on the left side to the outer fourth of Poupart's ligament on the right; child in first vertex position. The os admitted two fingers, and was completely occupied by placenta. There were some clots in the vagina. I performed external podalic version, separated the placenta for an inch and a half on the right side, ruptured the membranes, and brought the knee through the cervix with difficulty and with a loss of some blood. Patient felt faint; pulse 100, extremely weak. At 11.15 the pulse began to disappear at times, and the patient felt worse, and became more and more faint; no sickness; extreme pallor, extremities cold, in spite of hot blankets. Her condition appearing desperate, it was decided to perform embryotomy, and to transfuse the patient. There was no post-partum hæmorrhage, except a little trickling from a laceration of the cervix, which was stopped by plugging. The heart was beating 112 to the minute, the pulse either absent or only just perceptible. I injected thirty-five ounces of saline fluid into the right median basilic vein. After ten ounces had been injected the pulse had a fair quality and regular rhythm, and it gradually improved, until, at the end of the transfusion, it was 90 to the minute, the beats being full and constant, and, for the first time, she had a tinge of colour in her lips. At 12.15 I really thought she might recover. A little oozing occurred from the vagina to the extent of two or three ounces. This was stopped by a new plug. The pulse rose to 112, and got gradually weaker. The patient became restless, wanted to sit up, and suffered from air-hunger. I decided to transfuse her again, but before the apparatus could be prepared a tonic contraction of the muscles of the face occurred, and with a few slow, gasping breaths the patient died at 1 P.M. The pupils were moderately contracted till just before death; there was no vomiting throughout; the pulse never rose higher than 112. At the post-mortem examination the placental site was found in the situation diagnosed by abdominal examination, and was covered with thick clots of blood. The anterior lip of the cervix was lacerated up to its insertion into the vagina.

CASE 7. *Adherent placenta; post-partum hæmorrhage; transfusion; relapse; second transfusion; recovery.*—Mrs. ——, aged forty-seven, has had fifteen children, the last in 1885, at which time "the afterbirth grew to her side," and she had a severe flooding, fainted, and "was unconscious on and off for three weeks." On Feb. 13th, 1891, she was delivered before the attendant's arrival (at 1.10 A.M.), who found her lying in a pool of blood, the bedding soaked, a pool of blood on the floor, and about a quart of blood in a vessel by the bedside. It being impossible to express the placenta, the obstetric assistant, Mr. S. H. Bates, was summoned, and, in my unavoidable absence from town, performed the operation and conducted the case throughout. The patient was found to be faint, and complained that she could not see; the skin and mucous membranes were extremely pale; there was delirium, throwing of the arms, and frequent sighing. Pulse 150–160, very feeble. All bleeding had ceased. The patient's head was lowered; ether was injected into the arm, and the placenta, which was firmly attached to the uterus at the upper part, was with difficulty detached by the fingers except at one or two places, where it was impossible to remove the adherent organ, and further manipulations were not carried out owing to the alarming state of the patient, the pulse being 160, and with difficulty felt, in spite of the administration of brandy and ether. At 2 A.M. a pint and a half of hot saline solution was injected into the rectum and the elevated limbs tightly bandaged; but this produced no improvement in the pulse, and the general condition of the patient became worse. At 3 A.M. the pulse could not be counted and was flickering. Thirty ounces of saline fluid were injected into the median [illegible]. The pulse gradually improved. At 3.30 [illegible] full, 140 per minute. The [illegible] at 4 o'clock when the [illegible] irregular, and fifteen ounces of saline fluid were again transfused, and at 4.20 the general condition and the pulse had again improved. From 5 A.M. till 9 A.M. the patient vomited at intervals, and this seemed to depress her, and the pulse was at times imperceptible, but the general condition was better. Not till the afternoon was she in a satisfactory condition. At 3 P.M. the pulse was 120 and the patient warm. At 5 P.M. and at 7 P.M. the pulse was 112. During the puerperium fourteen intra-uterine injections of iodine water were administered. The temperature reached its highest point (101·2°) on the sixth day, and did not return to normal till the 17th. For the first nine days the pulse varied between 124 and 100. The patient remained anæmic for a long while. She was seen by me on Jan. 29th, 1892, and was in good health, had an excellent colour, and had menstruated regularly.

CASE 8. *Severe accidental hæmorrhage; patient moribund one hour and a half after delivery; transfusion of forty ounces of saline fluid; death.*—Mrs. ——, primipara, aged twenty-six, at full term, had a severe hæmorrhage in the early morning of Sept. 11th, 1891. She lost "half a gallon" of blood, and felt faint; the bleeding soon ceased and did not recur; she had no abdominal pain. The blood was cleared away by the patient's mother, and the fact of the hæmorrhage having taken place was carefully concealed from the nurse and from the student in attendance until after the death of the patient. During the labour, which lasted eight hours, the woman was pale, but made no special complaint and was fairly cheerful; unfortunately, the condition of the pulse was not noted. There was no hæmorrhage. The child was stillborn, the perineum only notched. A few minutes afterwards the placenta and a clot as big as a large fist were expelled. There was no other hæmorrhage. Half an hour later the patient had all the symptoms of severe loss of blood, and gradually became pulseless, restless, and unconscious. An hour and a half after delivery I saw her. She was then *in articulo mortis*, completely blanched, unconscious, motionless, pulseless, and no heart sounds could be heard. The only sign of life was a faint flickering pulsation in the neck and an occasional gasping respiration. Nearly forty ounces of saline fluid were transfused without any benefit, the patient having died before the operation was completed. The post-mortem examination showed the uterus to be uninjured, and failed to explain the death. Afterwards the mother mentioned the fact of the accidental hæmorrhage, which she had carefully concealed at her daughter's request from motives of false shame.

Remarks.—Of the eight cases, it will be seen that four recovered and four died. Of those that died, two (cases of accidental hæmorrhage) are of no value in estimating the effects of the treatment, for in one case the patient was in a hopeless condition, and in the other was practically dead; both died when a few ounces had been injected. Of the other two cases, one had an extensive laceration of the lower segment of the uterus and a hæmatoma of the broad ligament, and died rather from shock than loss of blood; the other (a case of central placenta prævia) had also a lacerated cervix, and I think might possibly have recovered if a second injection had been made. Of the cases that recovered, two were examples of adherent placenta, with post-partum hæmorrhage, and two were cases of accidental hæmorrhage; one of these women died in her next labour from a repetition of the accident. In two patients the operation was performed a second time, making six successful operations in all. The eight cases described above bear but a small proportion to the number of cases treated for hæmorrhage. During the last five years I have endeavoured to see all cases of acute ante-partum and all grave cases of post-partum hæmorrhage occurring in the hospital maternity. Of the former alone (excluding miscarriages) I have seen about 100 cases, including forty cases of placenta prævia. Many patients I have seen almost pulseless and in a serious general condition after the loss of large and small quantities of blood; twice I have seen patients recover without transfusion after hæmorrhage so severe as to cause convulsions; all except the above-mentioned have recovered with the ordinary remedies, and in no case has intra-venous injection been resorted to until the ordinary methods of treatment have failed. Before performing the operation the bleeding should be definitely controlled. The apparatus I have employed for the purpose of injecting the fluid is shown in the engraving. It consists of a glass bottle holding two pints, with an india-rubber stopper, through which pass a thermometer, a thistle-

headed tube (for the purpose of replenishing and for the admission of air) filled with antiseptic wool, and a delivery-tube, to which are attached about four feet of india-rubber tubing and a cannula made of vulcanite or glass.[1] The apparatus, having been washed with a 5 per cent. solution of carbolic acid and with boiled water, is filled with hot boiled distilled water containing one drachm of sodic chloride to the pint. Instead of using the solid salt, time and trouble may be saved by employing a preparation of Mr. Gerrard's, the dispenser to the hospital, which consists of sterilised and stoppered glass tubes containing two drachms of pure salt in solution. When the bottle is filled, the solution is maintained at a temperature of 105° by placing the bottle in a vessel, into which hot or cold water is poured from time to time. The solution is made to run by blowing with the mouth through the wool-stoppered tube, and raising the bottle about two feet above the patient's arm. A longitudinal slit is then made in the skin over the median cephalic or basilic vein; if assistance is not at hand, it is better to make a transverse slit through a fold of skin, as the elasticity of the skin then makes the wound gape; the vein is isolated, and three fine silk ligatures are passed under it. The lower of these is tied, the vein picked up with forceps and opened by a scalpel, and, the solution having been set running, the cannula is inserted and tied in with the middle ligature. The solution should be allowed to flow slowly, and the bottle should not be raised too high. Thirty or forty ounces will in nearly all cases be sufficient to inject, and the operation should take from twenty minutes to half an hour. In case of relapse the operation may be repeated on the other side. After the operation the cannula is removed, the vein tied with the upper ligature, and the wound closed and a back splint applied. If necessary stimulants may now be administered with greater benefit than before the operation. In conclusion, I would express my belief that the operation properly performed is neither attended by danger nor followed by evil consequences; that it will afford remarkable relief in cases of severe hæmorrhage, which are not complicated by "shock," after all the ordidary methods of treatment have failed; and that in the gravest cases of ante-partum hæmorrhage it would be well to inject the solution before delivery is effected.



Mansfield-street, W.

NOTE ON THE

FEVERS PREVALENT ON THE SHORES OF THE MEDITERRANEAN AND RED SEAS.

BY G. HUTCHINSON MILNES, M.D. CANTAB.,
FORMERLY SURGEON IN HER MAJESTY'S FLEET.

THE LANCET of May 28th, 1892, contains a review of a work entitled "Studio Etiologico e Clinico delle Malattie Febbrili più Comuni a Massaua," by Dr. Pasquale. This book describes the research officially entrusted to its author on account of the difficulties experienced by the Italian doctors in dealing with fever at Massaua. Dr. Pasquale's conclusions are summarised in THE LANCET as follows:—"1. Massowah is not a seat of palustral infection, though malaria may be evoked in its climate when already existing as a cachexia due to previous attacks. 2. There is no fever infection *sui generis*, such as the 'climatic remittent' which some classifiers have called it. 3. There are febrile maladies which might be confounded with common continued fevers (such as those arising from typhoidal infection), principally of the so-called 'abortive' and minor types." I am not in a position to refer to Dr. Pasquale's work, and am therefore unable to pass an opinion upon the thorough and exhaustive research which he appears to have conducted into the nature of the fevers occurring at Massowah; but the conclusions as stated in THE LANCET seem to me unsatisfactory and lacking in distinctness, especially as no indication is given of the nature of the fevers mentioned in conclusion No. 3. During a turn of service as a naval surgeon in the Mediterranean and Red Sea in 1887, 1888, and 1889, I paid considerable attention to the study of the clinical characters of the fevers prevalent on the shores of those seas, and arrived at certain conclusions, which, though by no means original, represent, I think, fairly and distinctly the views of men who have had most experience of these diseases. The important point in my conclusions is that the same kinds of fever occur in all parts of the basins of these two seas; a case of fever at Sawâkin or Massowah will not present features essentially different from those of a case treated at Malta or Naples. These fevers, excluding the exanthemata, typhus, and influenza, comprise typhoid, malarial fevers, as well as a febrile disease which is called by some local name in nearly every district of the area under consideration, and is regarded by the inhabitants as peculiar to each locality, but which is, I feel convinced, actually the same throughout the whole region. This is the Malta fever of Malta, the Rock fever of Gibraltar, the Cretan fever of Crete, and the local fever of the Red Sea ports, including Massowah. It has been thought by many to be malarial, by some to be closely allied to typhoid fever, or, indeed, typhoid fever itself in a masked form, and by others to be a compound of typhoid fever and malaria which they have called "typho-malaria." It is evidently this disease that has puzzled the doctors at Massowah, and has been made the subject of his research by Dr. Pasquale. In the consideration of this fever it is most important to remember that real typhoid fever is a common disease throughout this region, and that malaria occurs wherever the usual conditions of soil and climate give it an opportunity. Hence, it is necessary to judge every case upon its own merits, and to distinguish carefully the diagnostic features of each disease. It will then be apparent that in a series of cases some show the characters of typhoid fever, and some perhaps those of malaria; but a large proportion present features agreeing with neither one nor the other. Cases of the latter class vary widely in their duration, and to some extent in their symptoms, but the varieties overlap each other at so many points that lines of demarcation can hardly be drawn between them. An attack may begin with flushed face, full bounding pulse, dry burning skin, and other "sthenic" symptoms; or it may start with a slight sense of illness, debility, loss of appetite, clammy skin, quick feeble pulse—in fact, evident "asthenia,"—and in either case the duration may be long or short without reference to symptoms. Cases sthenic at the invasion do not always recover in a few days, and the asthenic cases do not always last for weeks or months; but if the duration be more than about a week every case will assume the asthenic type and retain it to the end. For my own part, I am inclined to call both the short and the long cases—both the sthenic and the asthenic—varieties of the same disease; for I know no distinction between them, except duration, and any attempt to distinguish between them by means of this feature alone must end in the drawing of an arbitrary line at a certain date in the course of an attack. If the date be passed, we have one disease; if recovery occur earlier, we have another. Such an artificial method would be foolish and impracticable.

A very short review of the principal symptoms will serve to show the eminently negative characters of this fever. The invasion is always marked by loss of appetite, often by headache or backache, but seldom by rigor or vomiting. The rise of temperature, sudden or gradual, reaches its highest point early generally in the first three days. There may be some slight pulmonary or pleuritic congestion; slight jaundice occurs in rare cases; rheumatism is not an uncommon complication at a late stage; but, except the sign noted in the next sentence, the disease has no features of its own. The tongue is covered with a dead-white moist fur, which persists throughout the attack, and whose disappearance I regard as the sign of recovery. The bowels are nearly always constipated, and there are no abdominal symptoms like those of typhoid fever. Enlargement of the spleen can very rarely be detected during life. In

[1] The apparatus is supplied by Messrs. Maw, Son, and Thompson at the price of *6s. 6d.*

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forty cases of which I kept careful notes, it was sought for constantly and never found. I never discovered it in many other cases of which no notes were kept, although I made a habit of examining the spleen in every case. Some observers have, however, found it enlarged at post-mortem examinations. If recovery do not occur within a week or ten days the main features of the disease are progressive febrile debility and emaciation, accompanied by irregular temperature without rigors, a condition which may continue for weeks and months, for which return to England seems the only cure, and which may recur on slight provocation even after the return home. I saw cases of this disease in most parts of the Mediterranean, at Malta and Naples, in Sicily and Crete, as well as in the Red Sea ports of Sawàkin, and Massowah. During a stay of about a week at Massowah several cases occurred on board H.M.S. *Starling;* they did not differ in any respect from cases seen at other ports, and in the Italian military hospital at Massowah. I saw typhoid fever in all these places and ague in some, and I have no hesitation in saying that this disease is neither ague nor typhoid fever, nor nearly related to either. It is not typhoid fever, because it neither presents the characteristic spots, abdominal symptoms, and lesions of that disease, nor does it run a definite course like typhoid. I am aware that in certain fatal cases post-mortem examination has revealed ulceration of the ileum, till then unsuspected; but I am also aware that surprises of the same kind have occurred in large metropolitan hospitals, where pneumonia, meningitis, and other diseases have been confused with typhoid fever. I have, however, never heard anyone argue from these mistakes that pneumonia and meningitis are nearly related to typhoid fever. The same may be said of typhoid fever spots, which are said by some to occur occasionally in these cases. I have seen spots in supposed cases of this malady, but the after-progress of the disease satisfied me that it was unquestionably typhoid fever. I have never heard of a fatal case in which real typhoid fever spots were seen and where no intestinal lesions were found on examination after death. Neither is this disease a kind of ague or malarial fever, because it occurs where malarial conditions do not prevail. There are no marshes at Malta, for instance, and real intermittent fevers do not occur there; but Malta is never free from the fever I am discussing. It abounds in towns and thickly inhabited places, such as are notoriously avoided by malarial diseases, while it does not prevail in open deserted districts which are known to be most favourable to ague. Rigors, exacerbations, and remissions take no part among its symptoms, such as they play in malaria. The prolonged attacks are familiarly called remittent, and in them the temperature is often irregular, but rigors are absent, splenic enlargement is absent, and in their other features these cases do not agree with the description of true malarial remittent fevers observed in any part of the world. Finally, all patients suffering from this fever may be dosed with quinine in every way and to any extent without the slightest beneficial result.

With the first of Dr. Pasquale's conclusions, as tabulated in THE LANCET, I am quite prepared to agree—namely, that "palustral infection" does not exist at Massowah; it is certainly absent from Sawàkin and many other places (e.g., Candia in Crete) where this fever abounds. The second and third conclusions are too indistinctly stated to admit of precise argument; if they mean that fevers occur at Massowah that are neither malarial nor typhoid, I agree again; but if they do mean this, why say "there is no fever infection *sui generis* such as the climatic remittent," &c.? My opinion, and I believe that of other observers, is that a fever exists whose prevalence is not confined to Massowah, which always presents the same features, which is endemic in certain places, which differs from the usually recognised forms of continued fever, and which may very well be supposed to result from an "infection *sui generis*," if by that term be understood some poison capable of producing this disease and no other.

It only remains to mention the simple method of treatment I used in all the cases that I treated. Patients were kept in their hammocks and on liquid diet till the tongue became clean. A dose of calomel was given at the start, and a saline mixture containing nitrate and bicarbonate of potash and soda, with or without sulphate of magnesia, according to the state of the bowels, was taken thrice daily throughout the attack. In twenty-three cases out of the forty above mentioned quinine was given in addition, generally in large doses (from twenty-five to forty grains), and in seventeen cases no quinine was given. Out of a ship's company averaging sixty-four more than fifty suffered in the course of two years from fever, some had several attacks. No case was invalided, and only one death occurred from typhoid fever (known and treated as such from the first) on the fifty-first day of the disease. Most of the fever patients returned to duty in a fortnight or three weeks. High temperature lasted on an average a day longer in the cases treated with quinine than in the others, a fact explicable, perhaps, on the grounds that quinine would sometimes be given if the attack seemed unusually severe, and withheld if it seemed slight. The results were particularly good when compared with those of other ships engaged on similar service at the same time, and this in spite of the fact that the men were reckless with regard to health considerations.

Derby.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF SPASMODIC TORTICOLLIS TREATED BY AVULSION OF THE CENTRAL END OF THE SPINAL ACCESSORY NERVE.

BY A. PEARCE GOULD, M.S. LOND., F.R.C.S. ENG.,
SENIOR ASSISTANT SURGEON TO THE MIDDLESEX HOSPITAL.

A LADY aged twenty-eight was brought to me in August, 1885, by the late Dr. Troutbeck, for very troublesome spasm of the left sterno-mastoid muscle. She first experienced trouble in the neck eight years before, soon after the death of a near relative; the jerking of the head had persisted ever since, gradually getting worse. The patient was a tall, thin girl, and delicate looking. There was no history of fits; she had had facial neuralgia, but not severe migraine. The spasm appeared to be entirely limited to the left sterno-mastoid muscle, and was so severe and constant as entirely to preclude the patient from mixing in society, and at night it was some time before she could get to sleep. Dr. Angel Money applied the constant current to the muscle on nine occasions, but with no benefit; indeed, the spasms appeared to be increased in severity. So on Sept. 10th, 1885, with Mr. Hudson's assistance, I exposed the spinal accessory nerve by means of an incision along the anterior border of the upper part of the sternoid-mastoid muscle, intending to stretch it and excise a considerable portion. In stretching it from the central end I felt the nerve gradually give way, and I pulled out a long, slender nerve from the jugular foramen and excised four inches and a half of it. No special symptoms were noticed from the tearing of the nerve roots. The wound healed without complication, and the patient returned home on Sept. 23rd. She called on me on Sept. 8th, 1886. She was then in much better general health, her head was held erect, and was quite steady. She could turn it freely to the left and about half the distance to the right, and she was gaining power in it. The left sterno-mastoid muscle had completely atrophied, and the cervical portion of the left trapezius muscle was markedly smaller than the right. The patient was able to mix again in society, and was very pleased with the result of the operation. A year later (October, 1887) Dr. Troutbeck saw her, and reported to me that she was "quite well, except for occasional fatigue felt in the neck; no jerks."

The satisfactory result of this operation was, in my opinion, chiefly due to the fact that the spasm was limited to the one muscle—the sterno-mastoid. I have on two subsequent occasions intentionally removed the central end of the spinal accessory nerve in the same way for spastic torticollis. The operation is quite a simple one, the delicate roots of the nerve rupture and a long tapering filament is drawn out from the spinal canal. These two cases were treated last year and it is too early to pronounce with certainty upon the result of the operation in them.

Queen Anne-street, W.

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SPASMODIC TORTICOLLIS AND OTHER SPASMODIC MOVEMENTS OF THE HEAD.

BY NOBLE SMITH, F.R.C.S. EDIN., L.R.C.P. LOND.,
SURGEON TO ALL SAINTS CHILDREN'S HOSPITAL.

I AM able to report continued relief from spasm in both the patients whose cases I have previously recorded.

In the first instance the patient had had severe spasms for sixteen years. I removed a piece of the spinal accessory on the left side, and subsequently of the posterior branches of the second, third, and fourth cervical nerves, as well as every branch of nerve that I could find entering the splenius capitis muscle. This patient has remained well now for over two years. The other case was that of a gentleman aged fifty-seven. He had spasmodic movements of the neck, head, and face. This affection had commenced in the right sterno-mastoid, and he was cured by excision of a piece of the right spinal accessory and has remained well. Since this I have had two other cases.

A lady aged about forty-five suffered from spasmodic wryneck to the right, commencing fourteen years ago. It had been most assiduously treated with drugs of all kinds, galvanism, and blisters to the spine. Nothing had given her relief. In this case the external rotators on the right side were acting more strongly than the left sterno-mastoid, therefore I decided to operate upon the posterior branches of the cervical nerves in the first instance. Upon the first occasion I could not complete the operation, because the anæsthetist (Mr. Davis) warned me that the patient was showing signs of faintness. The wound was rather long in healing in consequence (I thought) of the patient's very weak state of health. I advised change of air to recruit her health. Six months later I operated upon the left spinal accessory, removing half an inch of it. The wound healed in a few days by first intention. This removed all the spasm from the sterno-mastoid. Subsequently, on April 23rd, I removed pieces from the second, third, and fourth posterior branches of the cervical nerves on the right side. The wound healed by first intention in a few days. The patient first sat up on the eighth day. On May 2nd I found the spasms had practically ceased from the splenius, and what were left seemed to be confined to the deep rotators supplied by the suboccipital nerve which I had not operated upon. On June 10th the patient was very much better, although not quite free from spasm; but as the improvement is still going on I hope this patient will be cured without further operation.

The second case is that of a lady over fifty years of age, who had suffered for over fourteen years from severe spasms. She was sent to me by Dr. Gowers, who had come to the conclusion that any benefit to be obtained from drugs was only of a very transitory character, and that operation was the only treatment likely to do positive good. Excision of a piece of the left spinal accessory has relieved the patient from the spasms of that muscle, and thereby removed the severe pain from which she was suffering and allowed her to rest at night. Other spasms at the back of the neck are also much relieved, and, if they do not disappear in a little time, can probably be removed by further operation. I defer full report of this case until it is completed.

Queen Anne-street, W.

A CASE OF MALIGNANT REMITTENT FEVER.

BY LOUIS WHEELER, M.B., B.CH.

A PATIENT aged twenty-eight, for ten years resident on the west coast of Africa, with occasional attacks of remittent fever whilst residing there, but exceptionally healthy otherwise, came under my care on the ss. *Niger* on his homeward voyage. He enjoyed capital health along the windward coast up to Sierra Leone, and was perhaps noticeably plethoric for a thin man. At 7.30 A.M. on the morning of May 10th, after having been on shore at Sierra Leone, he had an attack of bilious vomiting, and the thermometer registered 103·8°. An hour later a copious hæmatemesis occurred, which was checked with ice. At 1 P.M. he passed a copious bloody stool. At 4 P.M. his urine became dark claret in colour, with a peculiar musty odour, and very abundant in quantity. His skin was hot and tingling, without perspiration, and his pulse, which through the day had been beating 110 to the minute and very strong, became after the hæmaturia weak, irregular and intermittent. He had twenty grains of antipyrin in the early morning and through the day rice-water, brandy-and-soda and fluid nourishment, amounting in bulk to about four or five quarts, as he appeared to suffer from very distressing thirst. The evening temperature was 104·6°.—May 11th: Continuation of hæmaturia. Temperature 104°; pulse hard and small. Rapid development of jaundice, commencing at 10 A.M. and reaching maximum intensity at 4 P.M. Conjunctivæ almost orange, great thirst and drowsiness. At 5 P.M. a sudden and violent vomiting of bright-yellow bile occurred, which took place again twice within the following two hours, and visibly diminished the existing jaundice. Evening temperature 105°; urine very black and plentiful.—12th: Morning temperature 102·4°; urine clearing; jaundice diminished, but thirst still very intense. Vomiting through the day of material introduced into the stomach. Evening temperature 100·2°; urine dark yellow, and pulse much stronger. Treatment: Stimulants, iron, digitalis, and quinine, of each ten minims for a dose, thrice through the day.—13th: Morning temperature 99°, vomiting ceased, urine dark yellow and diminished in quantity. Great weakness but improved pulse and diminished jaundice. Treatment: Quinine (thirty grains through the day); stimulants, chicken broth, &c.—14th: Convalescent. No fever, urine normal in colour and quantity, and jaundice practically disappeared.

The interesting points of this very unique case of remittent fever were: (1) The very extensive loss of blood from all the excretory channels (stomach, kidneys, and bowel); (2) the virulence and rapid onset of the jaundice, pointing as I imagine to an energetic but obstructed liver; (3) the rapid convalescence and clearing up of the hæmaturia.

Belfast.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib iv. Proœmium.

ST. MARY'S HOSPITAL.

SPASMODIC WRYNECK, TREATED BY RESECTION OF THE SPINAL ACCESSORY NERVE.

(Under the care of Mr. EDMUND OWEN, M.B., F.R.C.S.)

IN THE LANCET of March 26th, p. 713, attention was drawn in an annotation to the advances recently made in the surgical treatment of spasmodic wryneck, to the variations in the site of the lesion, and to the present obscurity of its pathology, which led of necessity to something like empiricism in the application of curative measures. The difficulty of gaining access to the affected nerves was dwelt upon, and the unsatisfactory results of stretching and of simple section were emphasised. A brief record was then given of some of the happier results that had attended free excision of the affected nerves in the hands of M. Petit, and reference was made to the work of Dr. Keen, Mr. Noble Smith, and Dr. Powers in the same direction. In another column of our present issue a further history is given of two of Mr. Smith's cases which have been previously recorded, and brief notes of two further cases are added. Mr. Pearce Gould also sends an account of a case in which he cut down on the nerve and was stretching it when it ruptured, and a considerable length of the proximal part of the trunk was pulled out. The patient made an excellent recovery. In the correspondence that followed the annotation, Dr. Harkin of Belfast, after condemning operative treatment save as an ultimate resource, recalled some interesting instances related by Dr. Morton Prince of Boston, U.S.A., of cure following the application of a blister to the fourth and fifth dorsal vertebræ. In a *brochure* published in 1891

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Mr. Noble Smith, after detailing the unsatisfactory results that have followed other methods of treatment, gives a list of the cases in which excision of a portion of the spinal accessory nerve has been practised, the first being on a patient in the Middlesex Hospital, under Mr. Campbell de Morgan, in 1862. The result in the majority of the cases seems to have been very encouraging. In the present case an inch of the spinal accessory nerve was removed from near the anterior border of the sterno-mastoid muscle, and it was noticed that a greatly enlarged lymphatic gland impinged upon the nerve in this position, and might possibly have acted as a causative factor in inducing the spasm. The result as recorded five months afterwards is, though not absolutely satisfactory, decidedly encouraging. Mr. Owen closes his account with a few thoroughly practical hints as to the details of the operation, insisting especially on the necessity for a sufficiently long incision. For the notes of the case we are indebted to Mr. Walter Broadbent.

The patient was a widow of mature age, who was admitted to St. Mary's Hospital on Nov. 21st, 1891, on account of exhausting spasmodic contractions of the left sterno-mastoid muscle, by which the head was jerked down towards the left shoulder, the face being turned to the right side, and the chin thrown violently upwards. She said that about three years ago she first noticed the involuntary jerkings of the head, since which time the spasms have steadily increased, until at last they made her life positively miserable. After hurrying, and whenever, from one cause or another, the circulation was excited, the spasms were at their worst. Of such severity and so frequent occurrence were the attacks that the left side of the head was permanently drawn down towards that shoulder, the deformity causing considerable disfigurement. (A sister of the patient is said to be afflicted in a similar manner.) General and special medical treatment, together with massage and electricity, had been given a skilful and thorough but unsuccessful trial.

On the day after her admission, the patient, having been duly prepared for operation, Mr. Owen made an incision about three inches long, descending from the apex of the left mastoid process, along the anterior border of the sterno-mastoid, Mr. Page and Mr. Silcock assisting at the operation. The external jugular vein having been tied in two places and divided, and the edge of the sterno-mastoid having been raised, the posterior belly of the digastric was exposed, and close beneath it a greatly enlarged and livid lymphatic gland. It was thought that this gland might possibly be the cause of the trouble on account of its pressing upon the nerve; it was, therefore, removed. After a little more dissection the spinal accessory nerve was exposed and about an inch of it removed. The wound was irrigated with a weak mercuric lotion and closed with a continuous silk suture. There was a little delay in the healing; but there was practically no elevation of temperature, and the patient left the hospital in December apparently on the high road to complete recovery.

Result of operation.—The patient presented herself for examination on May 13th, looking considerably younger than before the operation, having lost her distressed aspect, and having put on weight. The exhausting movements of the head left her from the time of the neurectomy, though, to use her own words, "there is still a little something wrong; but it is improving." She holds her head straight, has perfect control over it, and is apparently well-satisfied with her present condition. Her chief trouble is now with the "weakness in the shoulder," which is probably to be explained by the sterno-mastoid and the trapezius having lost most of their supporting influence upon the clavicle and scapula; but even this is getting better.

As regards the operation, Mr. Owen would venture to call attention to the fact that the spinal accessory nerve enters the sterno-mastoid in so deep a situation that the muscle has to be well slackened and turned out before the nerve can be thoroughly exposed. A surgeon, therefore, who tried to reach it through a small incision might not improbably fail altogether to find it. Indeed, in the present instance, a small artery, descending obliquely over the internal jugular vein to enter the muscle, was at first taken for the nerve. But when pinched in the forceps it did not cause contraction of the muscles, as happened later when the nerve itself was so treated; the spinal accessory nerve, moreover, is, as exposed in the operation, a very large and conspicuous trunk. It enters the substance of the muscle at about the level of the angle of the jaw, but above this level it is deeply hidden beneath the muscle. When the muscle is well pulled outwards the nerve is tightly stretched and is thus readily made out.

The points to be borne in mind are that, as the nerve lies deeply beneath the muscle, a free incision must be made to find it; that it is by no means near the anterior border of the muscle; that it runs almost vertically; and that it enters the deep aspect of the muscle at about the level of the angle of the jaw. The incision should be begun at the tip of the mastoid process, and the hinder border of the posterior belly of the digastric and the conspicuous internal jugular vein afford the best landmarks. The operation, though straightforward, is by no means easy; it is far better than that of seeking the nerve as it emerges from the sterno-mastoid.

BRADFORD INFIRMARY, YORKS.

SPASMODIC TORTICOLLIS; EXCISION OF A PIECE OF RIGHT SPINAL ACCESSORY NERVE.

(Under the care of Dr. MAJOR and Mr. J. APPLEYARD.)

THE following case illustrates the successful result of the excision of a piece of the right spinal accessory nerve for spasmodic torticollis of the right side, after failure to obtain much relief from continuous current, cannabis indica, and hypodermic injections of morphia. The symptoms were of seven months' duration and of very gradual onset. In this, as in Mr. Owen's case above recorded, the nerve was not found immediately; the anterior border of the muscle was exposed, but the nerve entered that structure on its posterior aspect, and in both cases its point of entrance was on a level with the angle of the jaw. Six months later, as will be seen by the note appended to the end of the case, the relief on the side operated on was complete, but a similar spasmodic condition had developed on the opposite side. It is still too early to assign its just position to this operation, but the communications published this week form an interesting continuation of the series. It is only when the after histories of the whole have been ascertained that a fair judgment of this method of treatment will be possible. All that can be said at present is that the results are sufficiently encouraging to induce a further trial of the procedure in these very distressing cases.

M. A. B——, married, two children and one miscarriage, became an out-patient of the Bradford Infirmary on Aug. 18th, 1891, under Dr. Major, having been sent by Mr. Herbert Jones of Shipley. She was a strong, healthy woman, never having had rheumatic fever, scarlet fever, specific disease, chorea, or hysteria. She has no knowledge of any shock or injury; but seven months ago she felt a little sensation of tightness in the head, and under slight exciting conditions—as when in the presence of company—a feeble, sudden twist of the head, with chin towards the left shoulder, would come on at rare intervals. This tendency has gradually increased, and markedly so, about one month ago, when she was nursing a serious case and was much deprived of sleep. On her return home the spasms increased in frequency and in intensity, and she came under the care of Mr. Jones, who advised her to become an out-patient under Dr. Major.

State when seen as out-patient.—At night, and when lying down, the spasms are quiescent. On first rising out of bed they develop slightly, and increase in severity as she begins to move about, coming on about every half-hour. In an attack her face turns towards the left shoulder, and severe pain is complained of at the back of the head and neck. The general health is good, menses regular, and the lungs and heart sound. No disease of the spinal column, no albuminuria, and no tender teeth, although there are carious stumps. During the time she was an out-patient, from Aug. 18th to the 31st, the continuous current was applied three times a week, and arseniate of sodium with bromide of sodium administered internally, with little or no benefit.

On Sept. 1st she became an in-patient under Dr. Major, and from Sept. 1st to the 27th cannabis indica in gradually increasing doses was given; yet no improvement.

Sept. 27th to Oct. 19th.—Hypodermic injections of morphia beginning with one-eighth of a grain twice daily, and gradually increasing to half a grain, with some degree of

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relief. Yet the spasms did recur, and occasionally with severity, as the effects of the morphia passed away. On Oct. 8th it was noticed that pressure on a point two inches below the lobule of the right ear, on the line between the mastoid process and the right sterno-clavicular articulation, would stop the spasm at once, and control it for a time.

Oct. 19th.—Patient discharged, a little relieved, but advised to return and have excision of a portion of the right spinal accessory nerve performed, if the spasm and pain came on again severely.

27th.—The patient returned to-day, and was admitted to the surgical wards under Mr. Appleyard. The spasms and severe pain at the back of the head and neck have recurred, almost as bad as ever, causing her much distress and loss of sleep, so that her health begins to suffer.

30th.—Under chloroform, with the head on its side and face turned to the left, an incision for about three and a half inches was made from the right mastoid process, downwards along the anterior edge of the right sterno-mastoid muscle, the fascial sheath opened, the anterior border of the muscle defined, and the tip of the right forefinger inserted near the mastoid process under the muscle, and gradually but gently worked downwards inside the sheath, each resisting vessel or collection of fibres drawn out with a blunt hook for inspection before division, and ligature when necessary. At last the nerve (spinal accessory), after some delay and difficulty, was felt firmly resisting the progress of the finger, but nearer to the posterior edge of the muscle than was expected, and entering the muscle about the level of the lower border of the angle of the jaw. It was hooked forwards for inspection, found to be a little thicker than a crowquill, and certainly solid and made up of nerve bundles. A piece three-quarters of an inch long was excised; one small artery and one vein were ligatured; there was only slight loss of blood; a rubber drainage-tube was inserted at the lower end of the wound; the edges were brought together by catgut sutures; iodoform and boracic acid were dusted on; a little green protective placed directly over the wound, and sublimate wool with a gauze bandage over the whole.

31st.—Head still takes the position of torticollis (face to left), but there is complete absence of spasm and of pain. Temperature 98·2°.

Nov. 1st.—Dressed; tube shortened; no suppuration. Temperature 98·4°.

2nd.—Primary union of upper two-thirds; drainage-tube removed.

3rd.—Poroplastic collar fitted and applied to the neck.

4th.—No recurrence of spasmodic movements or of pain.

6th.—Wound healed. Temperature natural throughout. No spasms and no pain.

14th.—Discharged completely relieved, having had no recurrence either of pain or of spasm. Face directed straight forwards.

Note.—Mr. H. Jones wrote to-day (April 11th, 1892) saying that he saw the patient ten days ago, and she had had no recurrence of symptoms of any kind.

May 10th.—The patient has returned with the development of a similar condition on the left side of the neck, but the relief on the right side is still perfect and complete.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

Pylorectomy.—Jejunostomy.—Ovarian Pregnancy.—Amputation in Diabetes Mellitus.

THE last ordinary meeting of this Society for the present session was held on June 14th, the President, Sir Andrew Clark, in the chair.

Mr. MAYO ROBSON of Leeds read a paper on two cases of Pylorectomy and one of Jejunostomy. The cases were brought forward—(1) because it was important that all serious and especially new operative procedures should be chronicled for statistical and comparative purposes; (2) because it was not yet clearly established that these operations for cancer could be relied on to produce such an amount of relief as to warrant their continuance. Concerning the operations of gastrostomy for impermeable cancer of the œsophagus, and gastro-enterostomy for pyloric obstruction, there seemed to be sufficient evidence to prove that the relief afforded was amply sufficient to justify their continuance. A sequence of gastro-enterostomy, the regurgitation of the bowel contents into the stomach, was mentioned. The cases detailed were: A case of pylorectomy for pyloric stenosis due to malignant tumour, followed by recovery; there was recurrence of symptoms due to contraction of cicatrix. Gastro enterostomy was performed four months after. Regurgitation of fæcal matter occurred into the stomach without intestinal obstruction; want of assimilation of food and fæcal poisoning resulted. The second case was one of pylorectomy for pyloric stenosis due to malignant tumour. There was apparent loss of power of assimilation, and death occurred from exhaustion on the fifth day. In the third case jejunostomy had been performed for extensive cancer of the stomach, rendering feeding by the month impossible; recovery followed. Alimentation was carried on through the artificial opening for two months. Ultimately death resulted from exhaustion due to the progress of the disease. He advocated the performance of jejunostomy, but only after clear explanation to the friends and the patient that the prolongation of life could only be for a limited time, and that much real comfort from the operation could not otherwise be expected. No single operation for pylorectomy was to be advised; the method of procedure should be varied according to circumstances—e.g., where the disease was very extensive, the tumour being fixed and the glands enlarged, pylorectomy was to be avoided and gastro-enterostomy performed. Where the disease was extensive, but not too far advanced to prevent complete removal, the combined operations of pylorectomy and gastro-enterostomy, as in cases reported by Messrs. Lowson, Greig Smith, Bull, and Jessett, were advocated. Where, however, the disease was in an early stage, simple pylorectomy, with suture of the duodenal and stomach openings, was probably the simplest and safest procedure. In order to shorten and simplify the operation, and to prevent recontraction of the pylorus, a modification was suggested by means of a decalcified bone or gelatine tube shaped like a cotton reel, and in the use of which only two continuous sutures were required. The method was illustrated by diagrams and models. The author believed that this method was applicable to, and had certain advantages in, the performance of gastro-enterostomy, intestinal implantation, lateral intestinal anastomosis, and end-to-end enterectomy.—Mr. JESSETT held that these operations had hitherto met with such success as to warrant their continuance. He said that he had done nine gastro-enterostomies, with five successes. One was done two years ago, a second fifteen months ago, and a third nine months ago; all had gained weight and strength. Two had died: one six months, and one five months after operation. Of the four immediately fatal cases, one died of exhaustion soon after operation, one of septic peritonitis, and another from a leakage. He had only done one case of pylorectomy (last July). She had gained more than two stones in weight since the operation. He had had five cases of jejunostomy, and all recovered. One had lived for nine months after the operation, and another for six. They were all instances of extensive disease of the stomach, not admitting of pylorectomy or of gastro-enterostomy. In suturing he had discarded the use of silk ligature for chromic catgut. The bobbins, which were shown, were much like a tube he had used in conjunction with the bone plates.—Mr. BARKER said that surgeons would feel grateful for this new modification in the operation, which would very materially shorten the procedure in pylorectomy. He held that it was still an open question whether pylorectomy should hold a place in surgical procedures. If the disease were advanced it was undoubtedly unjustifiable; if it were not advanced, the relief gained by gastro-enterostomy was probably as great as that to be obtained by pylorectomy. In a very early case with very slow growth pylorectomy might, perhaps, be admissible, but his impression was that before long it would be entirely abandoned for gastro-enterostomy in cancer cases. He had only done gastro-enterostomy twice successfully, and regurgitation occurred in the first case, the vomit being most offensive. Believing it was due to gravitation, he placed his patient in a semi-recumbent position, and she made a good recovery. He did not think that there could be much danger from stercoraceous poisoning, for the patients were usually much starved

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before the operation. As to the kind of suture to be employed, he was more than ever inclined to use fine sterilised silk, and he had never seen it give rise to unpleasantness. The essence of the author's process was that it brought the mucous surfaces rapidly together and obtained a quick union of their edges. The bobbin was used only as an aid to the suturing.—Sir ANDREW CLARK said that physicians were apt to think that sufficient care was not taken with the feeding after the operation. He inquired what was the nature of the nutrient enemata that were employed? What were the usual materials used for feeding by mouth? in what quantities and at what times? and did the author observe any difference as to nutritive value between fresh foods and preserved foods?—Mr. ROBSON, in reply, said that the sooner feeding was begun by mouth the better. He gave by mouth meat juice, liquid peptonoids, together with a little condensed peptonised milk. He also used nutrient enemata, containing three ounces of ordinary beef tea, half an ounce of the peptonised milk, and a little brandy. He only used opium if the enemata were not retained. He had sometimes used the freshly expressed juice of meat. The great advantage of the bobbin was that it shortened the method. Pylorectomy could only be adopted in very exceptional cases, where the disease was very early. He agreed that gastro-enterostomy was an operation more frequently to be employed, and the more useful of the two. As to regurgitation: in one case it produced the most intense nausea, and appeared to hasten the lethal result, the breath being horrible in odour. He decidedly preferred silk sutures, regarding them as safer. But when Senn's plates were used the bowel had to be perforated, and then it was a disadvantage to use silk. The bobbin enabled one to draw the sutures in the mucous membrane quite tight. It could be introduced through a smaller opening than that required for Senn's plates, and he had used it in situations where the plates were of no use.

Mr. LAWSON TAIT of Birmingham communicated a paper on the Alleged Occurrence of Ovarian Pregnancy, being an explanation of some cases which had been published as belonging to this variety of ectopic gestation. The author published a scheme of ectopic gestation, in which he placed the so-called "ovarian pregnancy" as a first variety, marking it as "possible, but not yet proved." He designated it, even if proved, as a mere pathological curiosity, devoid of all kinds of clinical interest and importance. Since the publication of this scheme several attempts had been made to prove, in recorded instances and preparations, that a real ovarian pregnancy had occurred, the main feature of such cases being the discovery in the wall of the gestation sac of true ovarian tissue, together with the apparent absence of the ovary otherwise than as constituting the sac on the corresponding side. The author advanced another and more recent explanation of the nature of these cases, and he showed by actual preparation and diagrammatic explanation that the broad ligament in its extension over an ordinary parovarian cyst would extend the Fallopian by traction to an abnormal length of as much as fifteen inches, and the same traction acting circularly from the hilum of the ovary could tease out the ovary into a very extensive thin plate of ovarian tissue. Actual specimens exhibited demonstrated this. The traction of the broad ligament in the development of a broad-ligament pregnancy carried on exactly the same process, and, by pulling out the ovary into a thin layer, rendered the discovery of ovarian elements in the wall of the cyst not only possible but inevitable. It was thus perfectly clear that a broad-ligament pregnancy might be—and the author believes that in all these cases had been—mistaken for an ovarian pregnancy.—Mr. ALBAN DORAN brought down a series of specimens to illustrate the lesions that might simulate ovarian pregnancy. The ovary might get jammed between the uterus and the gestation sac as the tube enlarged, and then it became adherent. Freund of Strasburg had based his opinions as to ovarian pregnancy on two operations done at term; but it was quite impossible then to find out the relation of the parts owing to multiple adhesions. When a cyst formed in the broad ligament the tube became stretched in its long axis instead of its short axis, and the same thing happened in a broad-ligament gestation resulting from rupture of the tube. When a tubal cyst burst in this way between the layers of the broad ligament there followed later either direct incorporation of the ovary with the fœtal cyst wall, or the ovary got jammed very tightly between the uterus and the fœtal sac, and then became stretched out over it. In a tubal abortion the ovum, being partly extruded, lay in the fimbriæ, and so might easily become attached to the ovary, and later the tube might retract and become separated. This of course would closely simulate true ovarian pregnancy.—Mr. ROBSON said he had operated on ten tubal gestations, and out of that number he thought that two might have been ovarian, though neither of them turned out to be so on careful subsequent examination. In one case, that of a lady from whom he had already removed a ruptured tube on the right side, he had to operate again on account of a swelling to the left of the uterus, associated with a history like that of ectopic pregnancy. He found and removed a very large apoplectic ovary, but, on careful examination, no trace of membranes could be found in it. The oviduct was apparently quite healthy, and the fimbriæ were normal.—Mr. TAIT, in reply, asked that an addendum might be added to his paper, as he had found that Drs. Hart and Barbour, in the *Edinburgh Medical Journal* for 1888, had predated him; he read some extracts from their paper. His object was to insist on this curious power of movement of the peritoneum which could tease out the ovary into a thin diaphanous lamina. The investigation of these cases required the most extreme care, and he laid so much stress on the importance of this question because his contention, if correct, supported so strongly the views he had already published.

Mr. W. G SPENCER finally read a paper on Amputation in Diabetes Mellitus. The author brought forward evidence to show that the timely adoption of amputation above the knee or elbow for the removal of severe inflammatory complications would prolong life, and very much reduce the amount of sugar excreted before operation. He urged that failures had resulted from amputating through the foot or leg when the vessels had been already narrowed or thrombosed, and that it was useless to attempt the reduction of the sugar by drugs and diet when a severe inflammatory lesion was present. Cases were quoted to show that healing readily took place in diabetics, especially a malignant case of diabetes mellitus attacked with erysipelas and abscess, and which died in diabetic coma three weeks after healing. He then compared two cases: one of suppuration around the femur above the knee with no bone exposed, treated by palliative measures, ending in diabetic coma; the other of suppuration around the elbow with the lower third of the humerus bare, which recovered good general health after amputation through the arm. Urine before operation 1040, 10 gr. to 1 oz. of sugar; after operation 1023, sugar a constant trace. Drugs and diet influenced neither case, except the latter after healing. Reference was made to other cases by Professor Roser, König, Kraske, and Heidenhain. Professor Küster amputated through the thigh in eleven cases of diabetic gangrene: six recoveries—two primary, four after limited ulceration. Sugar before operation—(1) large, (2) 5 per cent., (3) 2 per cent., (4) 3·6 per cent., with one-third albumen, (5) 1 per cent., (6) a trace. Five fatal: (1) In coma at operation; (2) double amputation at seven days' interval; (3), (4), (5) very albuminous urine. Stumps of fatal cases tending to heal without suppuration. Professor Küster's experience in senile and diabetic gangrene was quoted in support of the high amputation advocated by Mr. Hutchinson. Amputation four times of a toe—once through the foot by a Lisfranc, three times through the foot by a Chopart, six times through the leg. All became again gangrenous, and only recovered after secondary amputation through the thigh, except two legs in which the ulceration and necrosis were limited. Three cases of diabetic gangrene under Professor König and Mr. Langton recovered from amputation through the leg after ulceration and necrosis. Primary union had only been obtained after a high operation. Indications for operating in gangrene were mentioned, and cases illustrating the more favourable character of perforating ulcers, including one under Mr. Thomas Smith.

UNDERGROUND DWELLINGS, ST. PANCRAS.—Active steps are being taken by the St. Pancras Health Committee to prevent the occupation of cellar-dwellings in the parish. Legal notices have been served upon all such owners, requiring them either to comply with the Metropolis Public Health Act of 1891, or not to allow these dwellings to be used for human habitation.

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Reviews and Notices of Books.

Surgical Diseases of the Ovaries and Fallopian Tubes, including Tubal Pregnancy. By J. BLAND SUTTON, F.R.C.S. London: Cassell and Company, Limited.

THIS is a book that ought to be studied by all interested in the diseases of women, for it is not only a record of personal experience but credit is given to others for work done in this department of practice. The author, however, has difficulty sometimes in utilising the records of cases of several observers—for instance, in regard to the important subject of extra-uterine or ectopic gestation—owing to the erroneous statements made in order to support preconceived notions of pathology. The book consists of four parts, diseases of the ovaries being treated in the first. As a preliminary investigation the subject of menstruation is discussed, for in ovarian and tubal diseases there is often some interference with the menstrual function. In regard to the question of the alleged exfoliation of the uterine mucous membrane during the period, the author's studies of the endometria obtained from young women dying during menstruation induce him to believe that the loss of tissue described by many writers is the result of post-mortem change. With a view of getting more definite information he relates his systematic observations on Macaque monkeys in which menstruation takes place. He could not find any trace of destructive changes either in the uterus or Fallopian tubes, or even shedding of the epithelium, and his "observations threw no light whatever on the source or cause of the hæmorrhage." The second part, dealing with morbid conditions of the Fallopian tubes, ought to be carefully studied. We share the hope expressed by the author that, as so much attention is now being given to diseases of the uterine appendages, it may be possible to formulate more definitely the symptoms and physical signs of these, so that the treatment followed may be rational and not too heroic, thus avoiding the errors which he admits have been made by several of his friends, as in two cases where pelvic pain existed, inducing "surgeons to remove the ovaries, even in the absence of physical signs." He says: "Such ovaries have been submitted to me for microscopical examination, but I have not succeeded in detecting any evidence of disease in them." The chapter dealing with catarrhal salpingitis in relation to adenoma of the cervix uteri is very instructive. In the third part tubal pregnancy is discussed in an able manner, and the eleven chapters form a valuable contribution to our knowledge of many important points connected with this subject of the causes of which we know little. The concluding part of the work discusses the methods of performing operations for ovarian and tubal diseases and the last chapter is occupied with the consideration of the effects of the removal of the ovaries on the secondary sexual characters of women. The book will help to clear up many difficulties connected with the pathology of the diseases of the ovaries and Fallopian tubes. It contains numerous illustrations, nearly all of which have been produced under the author's personal superintendence.

Diseases of the Nose and its Accessory Cavities. By GRENVILLE MACDONALD, M.D. Lond. Second Edition. Pp. 381. London: Alexander P. Watt. 1892.

THE early appearance of a second edition of this eminently practical manual indicates that the author was meeting a recognised want when a little more than a twelvemonth ago he produced the first edition. The study of rhinology is one which has attracted much attention of late years, and it is distinctly an advantage to have an opportunity of studying the methods of diagnosis and of treatment which are followed by one who has had great facilities of working at this subject, and who is yet sufficiently open-minded to feel that the future will remove "some of the prevalent exaggerations as to the remoter effects of nose disease." Much harm is done to the progress of truly scientific research by running any special subject too closely, until general scepticism results, more particularly when the means of diagnosis are thought to be out of the reach of the general practitioner, and the necessity for treatment therefore seems open to doubt. A careful perusal of this manual indicates that the author is quite aware of these dangers, and that he is writing for the assistance and the guidance of those who desire to follow up the study patiently and hopefully. The book literally bristles with practical hints which can be applied by all who are willing to devote the time to acquire sufficient dexterity with the methods advocated and sufficient knowledge of the sometimes slight deviations from normal conditions which constitute removable causes of discomfort, or even proceed, if unchecked, to more serious conditions.

The first two chapters are devoted to the physiology of nasal respiration and to a description of the methods of examining the nasal passages. The influence of diminished air tension in the nose, where the walls are rigid, in causing hyperæmia and in turn leading to increase in bulk of one or more of the tissues affected, thus laying the foundation for hypertrophy and œdema, forms a section which is full of interest, while it is clearly and convincingly stated. Under the heading of "acute rhinitis" three varieties are described—catarrhal, dry, and croupous. The last, which has only recently attracted attention, is of great interest, as the patch so often resembles the false membrane of diphtheria. The author has, however, seen this condition after the application of the electric cautery and he holds that it is merely the expression of the intensity of the inflammatory action in those peculiarly predisposed. The facts here stated seem to have an important bearing upon the occasional appearance of false membrane in other parts of the respiratory passages.

The varieties of chronic rhinitis are dealt with in considerable detail, the value of cocaine in diagnosis is insisted upon and the amount of benefit that may be anticipated from treatment is also clearly stated. Incidentally the author notes the frequency with which reflex phenomena disappear with the removal of forms of nasal obstruction; his experience certainly does not coincide with that of Dr. Goodhart, as expressed in his Harveian Lectures on Common Neuroses. Dr. MacDonald considers that surgical measures are frequently the only satisfactory methods to adopt in cases of hypertrophy; while Dr. Goodhart, hesitating to use the emphatic "never," substitutes practically the Gilbertian equivalent of "hardly ever." The description of the pathology of the development of osseous cysts is new in the present edition, and forms an interesting section; the author is most probably correct in regarding hypertrophy as the first stage which leads on to the formation of adhesions, resulting in the production of a cavity lined with mucous membrane and continuing its secretion. The dangers of the development of sarcomatous or cancerous tumours after the removal of nasal polypus, as expressed by Mr. Erichsen, do not accord with the author's experience. A great deal of space is necessarily devoted to ozæna, and here, as in so many other parts of the book, the symptomatology receives full consideration. The dependence of the odour upon putrefactive changes and the various explanatory theories and observations are duly noted, though it is held that the important distinction between the secretion found in ozæna and simple pus has been neglected and that putrefactive decomposition of mucus, as well as that of pus, may possibly explain the characteristic odour developed.

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The views expressed upon nasal asthma have become more precise since the issue of the first edition; originally the probable beneficial results of treatment by operation were spoken of hopefully, but with some degree of uncertainty. Further experience has enabled Dr. MacDonald to collect notes of sundry cases illustrative of the benefits which have followed the removal of various forms of obstruction. Still the view is stated, with due reservation, that in any asthmatic patient, whether the disease is spasmodic or bronchitic, any abnormality of the nose should be rectified.

It is impossible within reasonable limits to give further analysis of this interesting book. The section upon post-nasal growths will well repay perusal, and its value is greatly enhanced by the careful illustrations drawn from life by Mr. Proctor Hutchinson. The engravings in the text are admirable and the chromo-lithograph which forms the frontispiece is well executed and free from the usual exaggerations of colour and form which so frequently perplex instead of giving assistance. No pains seem to have been spared in the preparation of the second edition; many subjects have been treated at greater length, and several new illustrations have been added. Having said so much in praise of the volume, and of the clearness and excellence of the original illustrations, it is in no carping spirit that we note the introduction of some few redundant illustrations of instruments, to which evidently but little importance is attached by the author himself, as they are barely mentioned in the text.

ROYAL SOCIETY CONVERSAZIONE.

THE exhibits at the conversazione of the Royal Society on Wednesday last were as numerous as they were on the occasion in May, although several of the apparatus and experiments then shown were, doubtless on account of their interest, to be witnessed again. Lord Kelvin, who was accompanied by Lady Kelvin, received a goodly number of Fellows, but the greater number of those present were visitors. In the reception-room the attention of the company was at once attracted to the extremely interesting water-colour drawings of Greek temples at Athens as they appeared in 1847, illustrative of current investigations by the exhibitor, Mr. F. C. Penrose, on the orientation of ancient Greek temples. These have been recently examined for the purpose of obtaining astronomically their exact orientation as a means of discovering the dates of their foundation. Probably no better specimens of mammoth remains have ever been found in Britain than those fortunately secured and exhibited by Dr. H. Hicks. The remains were discovered in Endsleigh-street, N.W., in March, 1892, in an excavation for the purpose of deepening the sewer at a depth of twenty-two feet from the present surface of the street. When discovered the epiphyses of the bones of the young mammoth shown were detached, but were found close to the shafts. The tusk, which must have been about 12ft. in length, belonged to an adult and much larger animal. Close by this exhibit was a remarkable specimen of a new Theriodont reptile contributed by Professor H. G. Seeley. The back of the head closely resembles Dicynodon, but in other characters it shows remarkable resemblances to a mammal. The molar teeth resemble those of a dog; the articulation of the ribs is mammalian; the dorsal ribs interlock in a way previously unknown; the scapula is also exceptionally mammalian, showing the origin of its spine. The damage to plants caused by London fogs was admirably illustrated in the water-colour sketches shown by Professor F. W. Oliver. The effects are noted at considerable distances from the metropolis, as at Cooper's Hill and Dorking. The injury is most probably due to the direct action of the sulphurous acid of the fog on the living substance of the foliage and flowers, and in others to the cumulative action of deposits of sulphuric acid. The reason, explained Professor Crookes, that, when once nitrogen is set on fire, the flame does not spread throughout the whole atmosphere and deluge the world in a sea of nitric acid is that the igniting point of nitrogen is higher than the temperature produced by its combustion. Nitrogen, however, as he easily demonstrated by means of a powerful coil, is a combustible gas—that is to say, a mixture of nitrogen and oxygen (air) will, under certain conditions, burn with a flame and produce nitrous and nitric acids. An electric current of sixty-five volts and fifteen ampères, alternating 130 times a second, is passed through the primary of a large induction-coil, when an arching flame, consisting chiefly of burning nitrogen, issues from each of the secondary poles meeting at the centre. The flame is easily blown out, but it can be relighted by a taper. The hot gases rising from the flame have a strong odour of nitrous acid, and when it is produced in a closed globe the interior rapidly fills with dense red fumes. Professor Crookes repeated some of the wondrous experiments with electric currents of high potential and extreme frequency which proved such a striking feature of the May exhibition. Mr. Wimshurst, with a powerful machine, gave illustrations of electrical discharges over certain prepared surfaces, the effects vying in splendour with the previous exhibit. As it was shown, when electrical discharges are passed over imperfectly conducting surfaces of considerable area the flashes display branch-like forms resembling lightning. The colour of the flashes can be varied by suitably selecting the conducting medium. With the highest difference of potential the discharge sparks are of great density, and even attain seven feet in length. Mr. G. J. Romanes exhibited some interesting results of experimental breeding, especially with reference to heredity. He holds briefly that the experiments prove the error of those writers who assume that an act of fertilisation consists in the male and female elements intimately blending together after the manner of a merely mechanical mixture, so that the offspring always presents characters more or less intermediate between those of its parents. In many cases this does happen, but in many other cases the admixture of hereditary elements is by no means intimate—those derived from the father and mother appearing to remain respectively grouped together, with the interesting results shown in the exhibit. A very ingenious instrument for measuring the thermal expansion of minute solid bodies up to high temperatures, and even tracing the volume change of the silicates up to and over the interval of plasticity, formed the subject of Mr. J. Joly's exhibit. We may soon expect to handle in everyday use articles made of that light and beautiful metal, aluminium. Stethoscopes, theodolites, telescopes, microscopes, camera fittings, and mounted lenses were amongst the pretty articles of aluminium exhibited by the Phœnix Engineering Company, to show the applicability of the metal to the construction of scientific instruments. Dr. F. W. Edridge Green showed a capital series of coloured pictures executed by colour-blind persons, the pictures showing the mistakes made by the colour-blind in matching colours, the different degrees of colour-blindness being thus represented. Demonstrations by means of the electric lantern fell to the lot of Mr. Savile Kent, Mr. E. B. Poulton, Professor Norman Lockyer, and Professor C. V. Boys. Professor Lockyer exhibited his remarkably fine series of celestial photographs of recent production, while Professor Boys showed his extraordinary photographs of flying bullets. Finally, the visitors were favoured with a mellow but distinct rendering of the opera "Salammbo," as it was being performed in Paris on Wednesday night. The apparatus was exhibited by the Postmaster-General, and a number of telephones were provided to enable ten persons to listen simultaneously.

INFECTIOUS DISEASES HOSPITAL AT CLIFTON.—This hospital, which has been erected by a joint committee representing the Brighouse and Rastrick Local Boards and the Halifax Rural Sanitary Committee, was formally opened on the 10th inst. It is situated at Thornhills, Clifton. The main buildings are of wood, covered with galvanised metal. There are four wards, each having twelve beds, a convalescent ward, matron's and nurses' apartments, domestic offices, and other necessary conveniences for an infectious hospital.

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THE LANCET.

LONDON: SATURDAY, JUNE 18, 1892.

AT the meeting of the Council of the Royal College of Surgeons of England held on Thursday, June 9th, the report of the committee appointed by the Council in April, to consider "whether any, and if so what, further advantages can be extended to the Fellows," was received and adopted. When the committee was appointed we were under the impression that it was open to the committee to consider any subject affecting the interest of the Fellows, whether provided for or not in the Charters and By-laws of the College. It would appear, however, from the addendum to the report, drawn up at the instance of three members of the committee—Mr. MACNAMARA, Mr. WILLETT, and Mr. RIVINGTON—and ordered by the Council to be entered on the minutes, that the deliberations of the committee were, for some reason or other, confined to matters not regulated by the Charters and By-laws. That this fact should be placed on record for future guidance and for the purpose of showing that they were not responsible for the limitation of the inquiry was evidently advocated by the three members of the committee already mentioned and opposed as evidently by others; otherwise there would have been no reason for not inserting the words in their proper place in the text of the report. Why the insertion of the words should have been objected to at all in committee it is very difficult for anyone outside the Council to understand; but as they were it is probable that they were objected to equally at the Council meetings, and that the Council decided by a majority that they should stand and be entered on the minutes. Be this as it may, the deliberations of the committee were confined to three principal points—viz.: (1) meetings of Fellows, (2) common room for Fellows, and (3) admission of Fellows as visitors to meetings of the Council. On the third point the committee were not prepared to make any recommendation. With regard to the second point—viz., common room for Fellows,—the committee found that legally there might be some difficulty in permanently assigning any part of the corporate premises to the exclusive use of any section of the corporation, and were not therefore prepared to recommend the provision of a common room for the exclusive use of the Fellows as suggested to the Council by certain Fellows of the College, but recommended "that the room adjoining the secretary's office now forming a part of the library not used by readers be furnished as a common room for the use of Fellows and Members of the College." With regard to the first point—viz., meetings of Fellows,—the committee recommended "that meetings of Fellows apart from the Members, at which the President or other member of the Council acting for him shall preside, be summoned by the President and Council for consultative purposes at such times and for such objects as may by the Council be thought desirable, either with or without a requisition from the Fellows." In making this recommendation, however, the committee thought it desirable to state that in the event of its adoption by the Council it would not, in their opinion, be reasonable to refuse to summon a similar meeting of Members upon the same conditions. The conclusions of the committee confirm the opinion which we expressed last week, that it is not possible for the Council to grant privileges to one section of the Members of the College—viz., the Fellows—without granting similar privileges to the Members at large. The Association of Fellows requested the Council to grant to the Fellows a common room at the College. A committee of Council takes the opinion of the legal advisers of the Council, and recommends the Council to grant a common room for the use of the Fellows and Members. The Association of Fellows pressed upon the Council of the College the advisability of consulting the Fellows apart from the Members. The committee of Council, acting again, we presume, under legal advice, recommends the Council to adopt this course, but at the same time intimates that if a meeting of the Fellows is summoned by the Council to consider any special topic, the Council could not reasonably refuse to call a similar meeting of Members if the Members wished for it. This result ought materially to strengthen the hands of the Association of Members of the College in their efforts to raise the constitutional position of the Members, and should be an incentive to increased exertion and final success. It also suggests the question, What, after all, have the Fellows gained from the goodwill of the Council and the inquiries of the committee? They have gained one point, and one only, and that is the privilege of being consulted by the Council separately from the Members. This is a privilege of considerable importance, but it is only a privilege to be enjoyed at such times and on such occasions as the Council think desirable, and is revocable at the pleasure of the Council. To be of real value the privilege should be converted into a right by the sanction of a Charter. Moreover, the proceedings of an assembly of Fellows should be regulated according to the rules governing similar assemblies at other institutions. The meetings at the College of Surgeons are distinguished by an utter absence of proper organisation and rules of procedure, and the Council of the College appears to entertain a special predilection for casual assemblies summoned at random and without any special purpose. Such is to be the meeting of Fellows which the Council proposes to hold after the election at the College on July 7th. The Fellows are to be invited to meet the Council, but whether for convivial purposes, for admonition, for instruction, or for any other end, the Council does not specify. This method is peculiar to the Council of the Royal College of Surgeons of England, which will not submit to any kind of restriction on the free exercise of its good pleasure and authority. It certainly wears the aspect, and is open to the interpretation, of elaborate trifling; but probably it is the result of a determination to prevent the Council from advancing in accordance with opinion outside the Council except at a snail's pace. The promoters of the meeting must have had some object in view in summoning it; but why the object should not be stated is beyond the reach of any ordinary intellect outside the Council chamber, and we must wait for the meeting itself before the veil can be withdrawn. It is of little use to waste time in specula-

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tion upon the subject, and probably the oracle would only return an ambiguous answer if directly interrogated. The practical point is for all Fellows who are interested in the constitutional reform of the College to attend the meeting and to be prepared to move resolutions in favour of those principles which must commend themselves to a large majority of the constituency of the College.

WE are only at the beginning of the system of notification, and there will be much need for patience, in the case both of those who notify and of magistrates who have to act upon the certificates of medical men. A case has just been heard before Mr. CURTIS BENNETT at the West London Police-court which thoughtless people will say illustrates nothing but the differences of doctors, but in which sensible people will see a striking illustration of the difficulties of medical practice. It was the case of the child of a Mrs. WILLIAMS, who keeps a mangle, and the patient was thought by Mr. COONEY, the district medical officer and also medical officer of health, to be suffering from scarlet fever on May 19th. The child was in a room with three women and two other children. Nothing could be more anxious than the right diagnosis and disposal of such a case by a gentleman officially representing the medical interests of the district as Mr. COONEY did. Nothing could be more urgent than the duty of having the child removed from such apartments, in the interest of the public and the remaining children, if the case were really one of scarlet fever. On the other hand, if it were not so, its removal would be an intolerable grief to its mother, who had already lost many children, and a grave risk of infection to the child itself. The mother did not accept Mr. COONEY'S diagnosis, which he followed up by sending the ambulance. The mother meantime sought other opinions, including that of Dr. W. F. CLARKE, as undoubtedly a poor person is entitled to do as much as her richer neighbours. Mrs. WILLIAMS had sent for Mr. JOSEPH HENRY BUTLER before sending for Dr. CLARKE, but he declined to take charge of the case, as Mr. COONEY had seen it. Dr. CLARKE was quite unaware all the time that any other medical man was attending. He could see no symptom of scarlet fever, but observed a little bronchitis with slight fever and enlarged tonsils. Such is the simple case out of which has arisen a remarkable difference of medical opinion, and in which the bench itself has not shown to the best possible advantage. Mr. COONEY and Dr. CLARKE acted independently of each other. They each fortified themselves with other medical opinions, and in the long run no less than nine gentlemen were involved in the diagnosis of this poor little child's case, including such experts as Dr. CAYLEY, Dr. SIDNEY PHILLIPS, Mr. BRUCE, medical superintendent of the Western Fever Hospital, and others. Of the nine, three were in favour of the diagnosis of scarlet fever, including Mr. BRUCE. Five were decidedly against it, including Dr. CAYLEY and Dr. PHILLIPS. Mr. WOODHOUSE was uncertain. He thought the child should be isolated, but did not like definitely to say that it was infectious. Dr. CAYLEY recommended the child for admission to the Middlesex Hospital, showing how absolute was his conviction of the absence of scarlet fever or any other infectious disease. The magistrate, after the order for the child's removal to an infectious hospital had been given, was very angry with Dr. CAYLEY for having recommended this. It is to be regretted that he would not hear Dr. CAYLEY'S explanation, and even declined to accept his statement that when he visited the child he was not aware of the controversy that was raging round its case. Whether Dr. CAYLEY was right or wrong, no one who knows him will for a moment hesitate to accept with implicit confidence his disclaimer of any intention to act disrespectfully to a magistrate placed in the difficult circumstances in which Mr. CURTIS BENNETT was placed here. The case is a very striking illustration of the difficulties of diagnosis. So few details are given that we cannot pretend to form an independent opinion. As to the question of peeling, there is the greatest variety of statement, Dr. CLARKE, perhaps, letting in a little light in a sentence, "There was a small rough patch on the chest, and if that spot was looked at it might have misled anyone."

Mr. CURTIS BENNETT—when finally trying the mother for disobedience to his order for removal—inclined to the opinion of the minority, and, believing that there were some substantial friends behind the poor woman with the mangle, inflicted a penalty of £10, and £2 2s. costs. Notice was, however, given of appeal. Mr. CURTIS BENNETT intimated his intention hereafter of acting on the certificate of the person in attendance. He should be the best judge of the law in this matter; but we venture to suggest that the very use of a magistrate is in cases where there is a conflict of testimony. It is for him to hear and weigh the testimony of both sides and then decide independently. As to the medical lessons of this case, they are on the surface. Where there is the least doubt, even in the case of a pauper, there should be delay and consultation; and if doubt still remains, the patient should have the benefit of the doubt, and not be sent into an infectious hospital. We cannot assign exact blame for so much independent and contrary action in this case; but it is to be regretted that Mr. COONEY and Dr. CLARKE did not, at an early stage, confer together to prevent so remarkable an instance as this case affords of professional difference. We have long foreseen the difficulties of the legislation that exposes the medical facts of homes and invades the liberty of families; but with a little patience and conference with medical brethren these difficulties can generally be overcome. It will be necessary for the law to provide means in doubtful cases of obtaining decisive testimony.

THE advent of Hospital Sunday brings us a publication of deep, not to say romantic, interest entitled "Fifty-two Years' Medical Work in Jerusalem." It reminds us that the parent city of Christianity itself witnessed the first attempt to establish medical missions in the world. This was made in 1824—a year of pestilence, destitution, and misery, such as even Jerusalem in its long and tragic history has rarely experienced. The success of the solitary medical missionary, Dr. DALTON, who then came to its relief, was such that the erection of a hospital for

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the continuance of his work on a more extended scale approved itself to many in England. So in 1842, after much difficulty, a beginning was made with the present building. Its twelve beds were, four years later, supplemented by another twelve, and the hospital has since then undergone many internal improvements. Situated as it is in the Jewish quarter, within the city walls, in a locality which we would call decidedly insanitary, and surrounded by dirty, ill-drained streets, it required every favourable adjunct possible to minimise these grave disadvantages. The publication above referred to presents us with a series of illustrations from photographs of its outside aspect and its internal economy, and from these a vivid impression can be formed of the conditions under which the medical mission has prosecuted its fifty-two years of work. Representations of the *personnel* of the hospital and of its characteristic patients, male and female, are included in these pictures, and add an intensely human interest to the statistical report. A few facts culled from this will attest the widespread usefulness of the hospital. All sects and classes of the Jewish people, from far and near, many of them slaves to the darkest superstitions, find their way into it—Egypt and Syria, India in the far East and Morocco in the far West, sending their contingents; while immigrants from Russia, Poland, Austria, and Germany are from time to time represented. The Jews from these latter countries have more vigour of character than their eastern and southern co-religionists, and the missionaries find them more bitter opponents of Christianity; but all of the race, without distinction of locality or tradition, leave the hospital with gratitude for the benefits they have received, and favourably impressed with the civilisation to which they owe them. From 1860 to 1891, inclusive, there have been treated in the out-patient rooms 256,937 cases of disease and accident, 19,018 in-patients have been admitted, more than a quarter of a million visits have been paid to sick Jews in their own homes, and 884,132 prescriptions have been dispensed. The care and skill of the medical officers have been equal to the more difficult cases of confinement, wounds, fractures, and lesions or malformations requiring surgical intervention, so that the report can with justice put it on record that "the reputation of the hospital for the successful treatment of such cases is spread far and wide amongst the Jewish race." Our readers must turn to the report itself for the personal history—often romantically interesting—of the poor beneficiaries of the hospital. Its details will also convey some idea of the difficulties, religious and racial, with which the medico-missionary staff has had to struggle. For one remark, however, we must find room: "No forced proselytising is allowed." This is very reassuring and cannot fail to produce for the hospital a sympathy and support which are too often alienated by the paladins of aggressive Christianity. When conversions are made they are all the more sincere and permanent from having been unsolicited—from having been, in fact, brought about by free and unconstrained access to the teaching, by example as well as by precept—enjoyed by the inmates. In these circumstances, is it surprising that the resources of the hospital are annually becoming less equal to the demands made upon them, occasionally "fifteen individuals asking for one bed?" Jews, moreover, are now returning in great numbers to their own land; more than 40,000 are already in and around Jerusalem, the majority of them (according to the report), especially those from Russia and Yemen, being poor, friendless, and sickly. A new building is, therefore, urgently needed, and a site is available on the Society's sanatorium grounds, which, we learn, are very healthily situated, outside the city, in the midst of the new Jewish settlements. The plans, on the pavilion or detached-ward principle, have been designed by an able and accomplished architect, and are adapted to fulfil every sanitary condition required by a clinical institution; £8000 will cover the cost of it, and of that sum rather more than £5000 are already in hand. An appeal from the chief medical officer, following as it does upon such a record of noble work as we have been able to indicate, ought surely to find an effective response, at this season especially, on the recurrence of the new festival added to the Christian year. Civilisation owes incalculable benefits, even on the testimony of agnostics, to the movement that started and radiated from Jerusalem. Is it asking too much for some practical recognition of the fact by opportune support of a charity whose site is Jerusalem itself, and whose objects are the least favoured of the Jewish race?

Annotations.

"Ne quid nimis."

THE JUBILEE OF THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

BEFORE the end of the year 1893 the Fellowship of the Royal College of Surgeons of England will have been in existence for fifty years. This circumstance would probably have escaped the attention of the Fellows generally, and it was a happy thought on the part of Mr. Willett, who remembered it, to have proposed at the Council meeting on March 10th last: "That it is desirable to celebrate in some suitable manner the fiftieth anniversary of the institution of the Fellowship of this College (the Charter creating this order being dated Sept. 14th, 1843), and that a committee be appointed to report on the best means of giving effect to this resolution." The proposal was seconded by Mr. Rivington, carried unanimously by the Council, and referred to the Committee on Advantages to Fellows. At the last meeting of the Council a report, dated May 30th, 1892, was received on this subject from the committee and adopted. The suggestions of the committee thus adopted by the Council were: "1. That the jubilee of the Fellowship be celebrated on Thursday, July 6th, 1893, the date of the annual meeting of Fellows for the election of members of the Council. 2. That a conversazione be held at the College on the previous evening, Wednesday, July 5th, 1893. Cards of invitation, admitting ladies, to be sent to the Fellows of the College. Members to be invited on applying for cards of invitation. 3. That an address be given by the President in the theatre of the College, at 1 P.M., on the Thursday before the opening of the ballot for the election of members of the Council. 4. That a Fellows' dinner be held on the Thursday evening at some convenient place." These arrangements must be carefully distinguished from the concessions granted by the Council to the Fellows which we have discussed in a

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separate article, for they have no necessary connexion with bestowing any permanent privileges, and are merely of the nature of social amenities which might or might not be followed or accompanied by any constitutional *rapprochement* between the Council and the Fellows. It is the more necessary to make this distinction, because, whilst it has been determined by the Council that meetings of Fellows shall be summoned for consultative purposes separately from the Members, and that the Council shall invite the Fellows to meet it on July 7th next at 5 P.M., in the theatre of the College, or, in other words, that the separate meetings of Fellows shall be inaugurated on the day of the ensuing election, no mention whatever is made of any *bonâ fide* meeting of Fellows in July, 1893. On that day the Fellows present at the College at 1 P.M. will be addressed by the President, but apparently they are not expected, or to be permitted, to address the President in reply, or to move any kind of resolution other than, it may be presumed, a vote of thanks for his congratulatory remarks. This appears to us to be a decided omission on the part of the committee, for the most convenient day in the whole year for a meeting of Fellows in the theatre of the College would be the day of the annual election, and it would be a substantial concession to the Fellows if such a meeting were to be held every year, other meetings of Fellows being called by the Council when necessary, or in pursuance of a requisition signed by a sufficient number of Fellows. Of course the Council can at any time between the present date and July, 1893, rectify the omission, and perhaps it was thought desirable to hold the first meeting of Fellows experimentally on July 7th next, and to await the issue of events before finally committing the Council to a course which, to observers outside the Council, seems to be the most convenient and reasonable course that can possibly be adopted. We fancy that some members of the Council are strongly impressed with the idea that among the Fellows as well as the Members there are, politically, two classes, the sheep and the goats—the former timorous, deferential, subservient, and blindly following the official lead; the latter bold, self-contained, independent, and not amenable to disciplinary influence—and that it is absolutely necessary to adopt the most rigid precautions to repress their natural aggressiveness, as it cannot be expected that the goats will ever be converted into sheep. Another leading idea in the same minds seems to be an instinctive horror of the organisation known as the Association of Fellows. Probably the mention of the Association in the Council chamber has the same effect as waving a red flag before a bull; and the idea that the Association may derive some credit or advantage from the adoption of any particular step may be sufficient to induce these members of the Council to support measures which will prove least acceptable and advantageous to this particular organisation. If this is the keynote to any of the least comprehensible decisions of the Council it is to be regretted, for we fancy the Association will be content if the policy which it has been advocating is adopted by the Council, even though the credit for this result should be ascribed to the very members of the Council who have been the most active in opposing the concessions urged by the Association, with perseverance and success, upon the Council of the College.

THE VENICE SANITARY CONFERENCE.

THE renewal of the Venice Conference between representatives of Great Britain, France, and Austria at Paris has resulted in the signature of an amended Convention dealing with vessels arriving at Suez on board which cases of cholera have occurred within the preceding seven days. The new Convention has not yet been published, but it is generally understood that it embodies very considerable modifications of the conclusions arrived at in Venice, these modifications being in the direction of the views which have all along been entertained in this country. The changes are especially favourable to the better class of passenger vessels, which carry a medical man and means of disinfection; indeed, instead of a general disembarkation of passengers which was formerly held to be necessary should a case of cholera occur on board, the persons who are to be regarded as suspect are now limited to the actual attendants on the sick, and even these can remain on board for the limited term of observation unless it is desired that the vessel should proceed through the canal in quarantine as soon as the disinfection is completed. Compulsory landing is now confined to actual cholera patients, and it is explained that any real hindrance to commerce is hardly ever likely to occur under the new regulations; indeed, during the past seven years only two vessels out of many thousands would have been subjected to any of these restrictions on the ground that they were contaminated. In the event of cholera actually appearing at Suez the regulations are more stringent; but this will hardly be objected to, for Suez is an Egyptian port, and the Government of Egypt have the same right as any other Government to protect their ports from any actually prevailing disease that is brought into them. A strong hope is expressed that the European Powers who assented to the Venice Convention will agree to the modifications arrived at in Paris, so that discussions of many years' duration may at last come to a satisfactory termination.

LEPROSY.

IN the *Daily News* of June 13th appeared a communication from the Berlin correspondent of that paper, giving an account of an interview he had recently had with the English Red Cross nurse, Miss Kate Marsden. This lady had not long since returned from Siberia, where she had been engaged in gathering information concerning leprosy in that part of Russia. The Queen and the Princess of Wales had actively interested themselves in the object of Miss Marsden's journey, and had furnished her with letters of introduction to the Czarina. At St. Petersburg the nurse was very well received. The Czarina and Czarewitch between them subscribed a large sum of money to help to meet the cost of the nurse's journey and the Czarewitch "provided her with a letter to the various governors of the provinces through which she must pass, requesting them to grant her all the assistance in their power." Miss Marsden travelled to further Siberia and there, in the district of Yakutsk, began her inquiries and personal examination concerning leprosy. The disease is said to affect in that part of the Russian empire a tract of country which extends to some thousands of *versts*. "No provision whatever is made for the care of the sufferers." Whenever a person is ascertained to be a leper, he is "driven into the forests and never allowed to come again into contact with his fellow creatures." The lepers herd together in huts, "half built, half excavated from the ground." There these poor creatures exist with a few old sheepskins for their only clothing; and for food they have "small quantities of rotten fish, and the bark of trees,"—and that is all! The rotten fish is left near the leper huts by the relatives of these miserable outcasts. From this fact we may perhaps see reason to doubt the accuracy of the statement quoted above to the effect that these Siberian lepers are not allowed to come into contact with the non-leprous population. Miss Marsden is reported by our contemporary to have said that these lepers were "of all ages and in all stages of disease, but in many instances their condition was such that they had lost all semblance of humanity." These leper colonies are subject

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to no kind of supervision; and their inhabitants live in a condition of indescribable filth and vice. Miss Marsden has succeeded in forming a committee at Yakutsk, consisting of the governor of the district, two priests, and some of the leading inhabitants of the neighbourhood. This committee proposes to take steps to obtain all that is needed to ensure the establishing of a leper colony in the district and to place the lepers there under proper and kind supervision. Miss Marsden proposes to return to Yakutsk, to help in this good work. On her return from Siberia her report created so much interest in Moscow that a "Russian princess, in one of the convents there, with five Russian Red Cross sisters, volunteered for service in the leprosy-stricken district." It may not be out of place to remark that we have our own lepers in India and elsewhere. His Royal Highness the Prince of Wales did excellent service a few years ago in directing public attention to England's responsibilities in this direction. As a consequence of the Prince's action, Commissioners (three of their number were sent from England) have examined and reported upon leprosy and lepers, as the disease and its victims are seen in British India. This report, not quite complete, but very nearly so, was brought to London last January, and, we understand, has itself been reported upon by a select committee appointed for that purpose by the National Leprosy Fund Committee and by the two Royal Colleges of Physicians and Surgeons. We venture to express a hope that this good work, so energetically commenced by the Prince of Wales, will be as vigorously pushed on in the direction of some practical outcome. From America, from many of our own colonies, and from very many other parts of the world, we hear of attention being turned to the subject of leprosy, because, rightly or wrongly, people begin to fear that this dreadful disease is spreading—no doubt slowly—among people who were previously free from leprosy. It is very certain that if the disease is to be stamped out at all, it is now, and not in the uncertain future, that a determined effort in this direction should be promptly made. England has hitherto been often the first among the nations to lead the way in sanitary progress. We think it would be well worthy of her were she to take prompt and decided measures for ensuring the proper and kind treatment and control of the leper populations, which are only too numerous among the many races who are the subjects of the Queen.

LORD WANTAGE'S COMMITTEE.

THE debate on the report of Lord Wantage's Committee took place on the 10th inst., on the return of Mr. Stanhope to parliamentary work. We congratulate the War Minister on his recovery and reappearance in the House. The result of the debate was exactly such as might have been anticipated. The report of the committee, the voluminous evidence on which it was founded, and the conflicting opinions of the various speakers who took part in the debate, all served to indicate that the subject was beset with difficulties; and that if there was any general agreement as to the necessity of something being done, there was practically none as to what should be done. There is complete unanimity as to the excellent quality of the British army in India and abroad. All the contention is about our battalions at home and the quality and sufficiency of the recruits by which our army at home and abroad has to be maintained. Even had there been a strongly expressed general agreement as to the nature of the measures required, the fact of our being upon the eve of a general election would have been a sufficient reason for a War Minister's refusal to do anything at the present time. It must be confessed that Mr. Stanhope had no great difficulty in making out a case for delay and further consideration. He is absolutely sceptical as to the probability of improving the quality of our recruits by an increased pay. We get youths now, and men of over twenty years of age would not be attracted to the army in any large numbers by a small increase of pay to the individual, which would, however, in the aggregate amount to a very large sum. It must be borne in mind, too, that there is no going back. Once any increase of pay has been introduced, whether it succeed or fails of its object, it can never be decreased again. We think, however, that sooner or later it will have to be done as an act of equitable and fair dealing with the soldier; meanwhile, there is one source of unpopularity and irritation which should be removed, and that is the stoppages now imposed upon the soldier. It is contended that instead of men we are getting boy soldiers and maintaining nursery battalions. If so, why do we not go a step further, and imitate the navy in training up boys for subsequent service as soldiers? It has been recommended by the Duke of Cambridge and Lord Roberts is strongly in favour of that measure. There are a number of small reforms which might be effected. We are glad to see that the lot of non-commissioned officers is to be made more attractive—a highly desirable measure. If the nation cannot pay in one way it should in another, and we are of opinion, although many may not agree with us in this, that the day has come for increasing the number of commissions to be given to intelligent and steady men for gallantry and good work as soldiers. There should be a sufficient stimulus in this direction for a young fellow of ambition to feel that all was open and possible to him in a military career. While we consider that there are still many small and irksome regulations and customs in the army, as affecting the rank and file, which might be done away with and the removal of which would tend to lessen the differences between civil and military life without any injury to discipline, no one can shut his eyes to the fact that the soldier's condition has been enormously improved of late years, and it is but justice to Mr. Stanhope to declare that he has been second to none in his efforts in this respect during his turn of duty as War Minister. With regard to Lord Roberts and the Wantage Committee, we think it is to be much regretted that the views expressed by the Commander-in-Chief in India, as set forth in *The Times*, were not embodied with the published evidence in the form of an appendix. The position and rank of Lord Roberts, as well as his experience and reputation, give him every title to be heard; and the evident care and thoughtfulness with which his views have been formulated, required that they should be put on record and thoroughly considered, as they will surely have to be when the subject again comes up for deliberation and debate in a new Parliament.

HORRORS OF THE HIGHWAY.

"THE nineteenth century omelette," says Mr. Frederic Harrison, "entails a terrible smashing of eggs," as the shortened lives of our beasts of burden in great cities too painfully testify. The omnibus traffic, in London especially, is becoming more and more of a harrowing sight, its sacrifice of horseflesh adding another to the many trials which the humanely minded among us have to undergo as we daily thread the streets. The strain imposed on these poor animals is sometimes appalling to witness, and hardly a week passes without numbers of them sinking under their load and dying where they fall. Twice last week, between Sloane-street and Piccadilly, a horse might have been seen to succumb on the incline and after a few convulsive heart-heaves to breathe its last. In each instance it was a case of the *cor ruptum* of Boerhaave, not to be wondered at when the severe and continuous effort that preceded it is considered. The animals are as powerful as can be procured; they come mostly from France, specially imported for their strength and endurance. But the omnibus which

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they are made to drag in pairs is at least a ton in weight before a single passenger enters it, and when it is full—fourteen outside and twelve inside, often with heavy packages in addition, the driver and conductor bringing the total up to twenty-eight—some notion of the exertion required to pull it at a brisk pace uphill may be imagined. Nor is this all. The incessant stoppages imposed by passengers who get up or down along the route, when half a minute more might bring them to a point where the vehicle pauses by regulation, add enormously to the strain exacted from the long-suffering animals. At the briefest of intervals they have to put on a fresh spurt, often on a slippery wood pavement, simply because some thoughtless "fare"—possibly on his or her way to an anti-vivisection meeting—will not take the trouble to wait till the 'bus "stops by nature." True, the hours during which the horses are made to do this work are few and far between; but that, even with this provision, the work itself is cruelly in excess of their powers is evident from the fact that the strongest of them rarely last more than two years. They are well fed and comfortably stalled; but not even such favourable conditions can prolong their lives to the normal term. The Society for the Prevention of Cruelty to Animals has just held its sixty-eighth meeting, but amid much good work it has effected for our "dumb servants" we miss in its report an adequate appreciation of the sacrifice of horse-life to the omnibus Juggernaut. It might surely spare a little of the time and energy it expends on painless vivisection to intervene in favour of our over-wrought draught cattle, and contribute in some degree to minimise the "horrors of the highway."

THE TREATMENT OF HILL DIARRHŒA.

THE May number of the *Indian Medical Gazette* contains a valuable paper on this subject by Surgeon Lieut.-Colonel A. Crombie, M.D., the surgeon superintendent of the General Hospital, Calcutta. He says that every cold winter he sees a number of patients who give the history of having suffered from hill diarrhœa during the previous summer; but who, in detailing the treatment which they have received, do not mention the remedies which have been found to be very efficacious in his own experience and in that of others. Without going minutely into the causes of hill diarrhœa it may suffice to say that it is a disease liable to occur at hill stations where the elevation is 6000 feet or more above the sea level. One of its peculiarities is that, in recent cases, the diarrhœa is confined to one particular portion of the day, beginning between 3 and 5 o'clock in the morning and lasting until 9 A.M. It is a disease of adults; children under twelve years of age being very rarely affected. Many persons going from the plains of India on reaching an elevation of 6000 feet immediately begin to suffer from symptoms of dyspepsia and flatulent distension of the stomach and intestinal canal. These symptoms may exist with or without diarrhœa. In the former case the motions are very light in colour, like whitewash, liquid, and frothy. On the approach of monsoon influences the hill diarrhœa becomes an epidemic. In July, 1880, at least one-third of the population of Simla suffered from it; and had the epidemic been one of cholera instead, with its attendant mortality, it is questionable whether the survivors would have been sufficiently numerous to have buried the dead. Dr. Cromble considers that it is not a true diarrhœa, but an indigestion due to an imperfect secretion of the digestive ferments generally, including those of the bowel. The treatment consequently consists in supplying the deficiency in the secretion of these ferments and in the administration of intestinal antiseptics to check the abnormal fermentation set up by the absence of bile and other secretions in the small intestine. The line of treatment indicated is threefold. Living at high altitudes being the principal cause of the disease, all that is necessary for its cure is a return to a lower level. In early cases this alone is sufficient to put a stop to the symptoms in twenty-four hours. In the second place, the epidemic being closely related to the monsoon influences, those liable to hill diarrhœa should leave the hills at the beginning of the rains, as is now done at Darjeeling every year. The third measure consists in the administration of pepsine, the extreme usefulness of which was accidentally discovered by Dr. John Anderson and Dr. Crombie in 1881, and in the use of perchloride of mercury, the value of which in tropical diarrhœa was recognised and pointed out by Surgeons Macpherson and Barry. Peptonised milk, or ten or twelve grains of pepsine or ingluvin two hours after food, is generally sufficient to relieve the symptoms. The solution of the perchloride of mercury is best administered ten or fifteen minutes before each meal. Dr. Crombie appends the notes of various cases in illustration of the foregoing statements.

SCARLET FEVER AT WATFORD AND BUSHEY.

A CONSIDERABLE prevalence of scarlet fever is in progress in and about Watford, and the isolation hospitals being full, the rural sanitary authority have taken some cottages at Bushey to serve as a hospital. This action has evoked strong condemnation on the part of some residents in Bushey, and this the more because the cottages are alleged to be without any open space in which patients can take exercise, and because they are in consequence without any needed space between the infected buildings and neighbouring property and roads. The truth is that the time has passed for suddenly improvised hospitals, and it is to be hoped that the Watford urban and rural authorities will seek a proper site and erect on it a proper hospital, which shall serve ordinary purposes and admit of temporary extension in case of sudden emergencies.

COPPERED GREEN PEAS.

ANOTHER attempt to prosecute a vendor for having sold preserved peas to which copper sulphate had been added has failed. The peas were certified by the analyst of Liverpool city to contain copper equivalent to one grain of copper sulphate per pound. The stipendiary magistrate decided that the Act of Parliament did not prohibit anyone from using a substance of this kind to preserve the natural colours of a product if it could be done harmlessly. He did not think it was a case of fraud; and though copper had evidently been used, it was in such a form as not to be injurious. He therefore dismissed the case; but he wished not to be considered to be laying down any general maxim on the question at large. As happened in the recent Glasgow case, the opinions of professional experts as to the innocuousness of copper compounds in the form and quantity present in peas so preserved differed widely. Some held that the copper salt being converted into an albuminate was non-injurious, because insoluble. The research of Drs. Charteris and Snodgrass[1] would indicate, however, the contrary to be the case, for in their experiments they showed that albuminate of copper was rendered distinctly soluble by the digestive process. It is quite evident that until it has been decided that copper salts used in this manner are really injurious to health, no case under the present wording of the act can be established. The greening of peas by this means is of course an unnatural process, and copper is not a normal ingredient of vegetables. Copper compounds are unquestionably irritant poisons, and it is a significant fact, as we have pointed out before, that though the sulphate is used merely to impart a fresh appearance

[1] THE LANCET, Jan. 23rd, 1892, p. 190.

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to the peas, the French Government have prohibited its use in this way so far as home trade is concerned, although they permit the adoption of the *reverdissage* process where the peas are intended for export purposes only. Surely it is high time that the question as to whether copper in peas is injurious or not should be once for all decided. Then taking proceedings will not be a farce, and much of the valuable time and labour which are at present lost by the magistrate, the analyst, and others engaged in such cases will be saved.

EFFECTS OF AN OVERDOSE OF CODEINE.

AN overdose of codeine is not a common occurrence, and therefore Dr. Mettenheimer, who has met with such a case, has reported it. An elderly lady consulted him for a slight catarrhal, non-febrile affection which, however, gave rise to a troublesome, spasmodic form of cough. For this he prescribed 0·03 gramme (about half a grain) of phosphate of codeine, in the form of a pill, to be taken every three hours. The patient, however, swallowed four of these pills, or about a grain and a half of the codeine salt, at once. Shortly afterwards she vomited twice and suffered from abdominal pain. There was, too, suppression of urine and she felt very ill, being sleepy but unable to go to sleep. The next day she was still drowsy and had no appetite but there was no return of the sickness. She was then seen by Dr. Mettenheimer, who found the pupils contracted, the pulse hard and quick, and the respiration accelerated. The cough had entirely disappeared. The contracted state of the pupils, the loss of appetite, and the abdominal pain persisted for several days. No urine was passed until thirty-six hours after the pills were taken. On the third day the drowsiness had passed away. The cough did not return for a week and when it did it was comparatively slight. This case seems to show that codeine in large doses has a very similar effect to opium and that it may prove a most efficient remedy for some kinds of cough. As the tongue remained clean it would appear that the vomiting was due to cerebral, rather than to gastric, irritation.

CONGENITAL DILATATION OF THE COLON.

A REMARKABLE case of defective formation of the colon, leading to habitual constipation and an enormous accumulation of the contents of the bowel, is described by Dr. Formad in the June issue of the *University Medical Magazine* (Philadelphia). The condition is one of great rarity, and is the converse of that described in these columns last week by Mr. Dodd (p. 1299). The subject of this malformation was a male twenty-nine years of age, who died suddenly when at stool. From his infancy his abdomen had been of large size, and he was subject to attacks of constipation often lasting for some days. Although from the age of sixteen he was engaged in work (first at a foundry and then as a labourer at an oil refinery), he continued to be subject to constipation, sometimes lasting for a month at a time, and his abdomen increased in size, so that at twenty years of age he was exhibited in a "museum" as a "freak," and was known as the "Wind-bag" or "Balloon-man." "It is said," writes Dr. Formad, "that the circumference of his body at this time was equal to his height, and that he was able to diminish or increase the circumference of his abdomen and chest at will to the extent of fourteen inches." He was a great eater and occasionally intemperate. For a short time he became an inmate of a hospital, where, after an examination under ether, it was concluded that the case was one of simple enlargement of the colon. Shortly after leaving the hospital he died suddenly as stated. After death the circumference of the abdomen measured 7 ft. 2½ in., and that of the chest below the nipple 5 ft. from the eversion and straightening of the ribs; whilst the height of the body was 5 ft. 7½ in. There was general emaciation. The diaphragm was pushed up by the distended abdominal viscera to the level of the third intercostal space anteriorly and the fifth dorsal vertebra posteriorly. The heart occupied a horizontal position to the axis of the body, its apex being about the second left interspace. The colon was of enormous dimensions, appearing to be about ten times wider than normal. Its total length was about 8 ft. 4 in., and the circumference of its several portions was as follows: Cæcum, 10 in.; ascending colon, 15 in.; transverse, 15 in. to 30 in.; descending, 24 in. to 25 in.; sigmoid, 25 in. to 27 in.; thus gradually increasing in width from the cæcum onwards, its widest part being in the transverse colon. There was no kinking or mechanical obstruction of any sort. The contents of this enormously overgrown gut consisted of semi-fluid fæcal matter of dark brown tint, weighing 40 lb. and presenting no abnormality either on microscopical or chemical examination. The rectum as well as the whole of the small intestines were perfectly normal in size. The coats of the colon were not unduly thick, but there was a marked absence of sacculation and of epiploic appendages. There was some thickening of the coats of the stomach, but no notable changes in the other viscera. Dr. Formad enters into the literature of the subject and concludes that in such cases there is primarily a congenital defect in the formation of the muscular coat of the bowel which favours fæcal accumulation; and he thinks it very probable that the innervation of the colon is also at fault. One remarkable feature about the case is the tolerance established by the long-lasting constipation. The man does not appear to have suffered from symptoms attributable to fæcal absorption, nor was there any of that ulceration of the mucous membrane so common in cases of accumulation from chronic obstructive disease.

THE WATER-SUPPLY OF BUDA-PESTH.

A FEW days ago his Majesty the Emperor Francis Joseph proclaimed the town of Buda-Pesth the second capital of the Austro-Hungarian empire. Henceforth Buda-Pesth will rank side by side with Vienna. This completes the full recognition of the autonomy of the Hungarian kingdom within the Austrian empire. To the sanitary reformer the town of Buda-Pesth is of especial interest, because it is in the capital of Hungary where the next International Congress of Hygiene will meet. It is to be hoped, however, that between this and then a proper water-supply will have been obtained. The insufficient quantity of pure water at the disposal of the inhabitants of Buda-Pesth is an old and yet urgent grievance. The difficulty would probably have been already overcome but for the divided opinion of the local authorities. Temporary waterworks were constructed on the borders of the Danube in 1867 and have since been enlarged; but they do not suffice, and in many parts of the town the unfiltered water of the Danube is consumed. This water receives not only the contents of the sewers of the town but also the drainage of several hospitals. A project was started for obtaining water from the subterranean water shed of the Kaposztasmegyer district which is only about seven or eight miles distant from the capital. The soil there is composed of gravel, some thirty feet deep, resting between two layers of clay. This constitutes a natural filtering bed. The engineer of the town, however, doubts whether the supply from this source will always be sufficiently abundant. Herr Salback, engineer, from Dresden, was called upon to arbitrate in the dispute, and gave a verdict in favour of the project. The water from this source is described as varying in temperature from 10° to 17° C., and as containing from 232 to 304 inoffensive bacteria per cubic

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centimetre. It was proposed to dig some thirty wells at about 200 yards from each other, and a yield of 235,000 cubic metres of water per day, it is thought, could be obtained. For Pesth half this amount would suffice, while Buda, the other half of the town, being on the other side of the Danube, has a separate supply. The intake seems somewhat nearer to Pesth, which is the more modern part of these joint towns, and it is here that an extraordinary increase of population is taking place. Strict precautions will be necessary to protect these wells.

THE SPREAD OF CHOLERA TOWARDS EUROPE.

THERE can be but little doubt that cholera is spreading in Persia in a direction and on a scale that is likely to constitute a grave danger to Europe. In the district of Meshed the deaths are estimated at from 150 to several hundreds a day, and the approach of the disease to the Russian frontier is looked upon with serious apprehension. The Russian Government have appointed a Commission, and places of observation have now been established at Baku and Astara for the Black Sea and Caspian Sea, besides a number of stations along the frontier; and by these routes alone will passengers and goods be allowed to enter Russia. This is the old route by which cholera has travelled from east to west in former years, and there is no reason to doubt that the sanitary state of many places in Southern Russia is but little different from that which prevailed in former years when cholera and the so-called Astrakan plague were so rife amongst the inhabitants. The trade routes from Persia into Europe in the neighbourhood of the Caspian and the Black Seas are especially dangerous in the case of a disease which is now shown on incontestable evidence to spread, in Europe at least, along the lines of human traffic and intercommunication. Hence other countries in Europe besides Russia should be prepared for any emergency that may arise, and our own sanitary authorities will not fail for work if they seek to remove in advance all conditions in their districts which are favourable to the diffusion of imported cholera.

THE COUNCIL OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY AND THE ASSOCIATION OF FELLOWS.

OUR attention has been called by the honorary secretary of the Association of Fellows, Mr. H. Percy Dunn, to a decision of the Council of the Royal Medical and Chirurgical Society. The Association of Fellows of the College of Surgeons of England, which was formed to advance the social, professional, academical, and constitutional interests of the Fellows of the College, which numbers in its ranks about one-fourth of the constituency of the Fellows of the College, and comprises several present and past members of the Council of the Royal College of Surgeons of England, has been in the habit of holding its general meetings sometimes at the rooms of the Royal Medical and Chirurgical Society, 20, Hanover-square, sometimes at those of the Medical Society in Chandos-street, and sometimes elsewhere. As several members of the committee belong to the Royal Medical and Chirurgical Society, and have held high positions in that Society, the committee has given a preference to the rooms of the Society, deeming that it would be an advantage to the Society in its new quarters to pay for the hire of one of its rooms. In the ordinary course, the committee instructed the honorary secretary this year to apply to the Council for a room in which to hold its annual meeting on June 23rd. To the surprise of the committee the Council has sent a letter to the honorary secretary of the Association informing him that the use of the room cannot be afforded to the Association on the ground that the Association is a political organisation, as if the combination of Fellows of the College for the purpose of securing due professional consideration for the order of Fellows, the most cultivated section of the College constituency, were a high crime and misdemeanour, and not in every way a constitutional and proper organisation. If it be alleged that the Society's premises should only be used by associations whose primary object is the advancement of science, it may be answered that to draw closely the bonds of professional union between the Fellows of the College and its Council—the fundamental object of the Association of Fellows—must be conducive in every way to the prosperity of the College of Surgeons, not merely as a so-called political but as a scientific body; and all influences which tend to dissociate the Council from the Fellows of the College must also tend to bring down the College from its high position as a scientific institution.

A FATAL FLY STING.

THE sad accident which has deprived Mr. Balfour of his secretary, Mr. Frank J. Woods, is happily one of rare occurrence, although the conditions for it are only too prevalent. Mr. Woods died, after about ten days' illness, from erysipelas and septicæmia supervening on a sting on the lip inflicted by a gadfly. It was conjectured, and doubtless with truth, that the insect must have been in contact with a diseased animal; but the transference of putrescent material from any source may have been made by the gadfly to the wound it inflicted on a highly vascular part. The only thing to be done under such circumstances is to subject the wounded part to powerful suction; and in the case of a bite on the lip this may be done fairly effectively by the individual himself, for only in this way is it at all possible to extract the poisonous material. Yet this measure may fail to effect its object, since the facilities for rapid absorption are so great and the point of entrance of the poison so minute.

"CURES" FOR INEBRIETY.

THE gold treatment for alcoholism and the morphine habit, which has been so largely advertised in America, is now about to be introduced into this country. To-day (Friday) a meeting is to be held at the Westminster Town Hall, under the auspices of the Church of England Temperance Society and the chairmanship of the Right Rev. Bishop Barry, at which information will be given respecting this treatment and its results in 60,000 cases. We hope that this information will go further than a mere reference to so many alleged cures. The drug used by Dr. Keeley is stated to be a double chloride of gold, but beyond this nothing is known. The formula, method of use, and dosage are kept quite secret. For twelve years Dr. Keeley is reported as having pursued this treatment at Dwight, Illinois, U.S.A., and in that time 60,000 persons are said to have been treated at the parent home and at the branches established in various American States, with only 5 per cent. of relapses. In one month more than 1000 persons were treated at Dwight alone. We are informed that "the treatment is tonic and healthy tissue making, and no individual has ever received injury from its use. It does not supplant moral influences, but uses them to develop, educate, and strengthen the moral sense when the physical causes of disease have been removed." These are "good worts," and we expect to see them soon in a prospectus issued by some company-promoting syndicate. Truly the methods adopted by some American physicians astound us. The running of a secret cure for one's personal profit would in this country ensure the erasure

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of the inventor's name from the roll of any college of physicians or surgeons, university or medical society with which he might be connected. Professional usage and etiquette demand that any method of treatment deemed useful in any class of diseases should be made the common property of the profession, should be as available for the welfare of the poor as of the rich, and should be openly and without reserve tested and proved at some of our numerous public institutions. This modern American plan, which must give so great offence to the vast majority of medical men in the United States, whom we know to be as scrupulously tenacious of the laws of professional etiquette as our own physicians and surgeons, puts a method of treatment—good, bad, or indifferent, we know not, for we have nothing to do with secret remedies and cures—on the same line with the latest patent pill. Professional decency, honour, and etiquette are alike passed by as unimportant. We need say no more, except to warn physicians and patients against making use of a treatment of the detail of which nothing is known and which apparently there is no intention of submitting to the critical and open judgment of the profession. We hope that a society like the Church of England Temperance Society will not lend the weight of its influence to such unprofessional methods. Its zeal for temperance should not overrun discretion, and tempt it into a false position in regard to the right and proper methods of professional procedure. There are other American physicians who claim results equal to Dr. Keeley's (whether rightly or wrongly we know not), and we have seen a letter from one who offers to come to England and "operate" side by side with Dr. Keeley; so that we may soon expect to have other aspirants to the fame and fortune which are sure to attend, for a slight period at least, the introduction of the latest American medical "boom."

THE HOSPITAL SUNDAY COLLECTION.

THE collection which is to be made to-morrow in the various places of worship throughout the metropolis will, without a doubt, result in a munificent tribute, to be dedicated to the service of the sick poor; but although we entertain no anxiety upon that point, we do strongly feel the necessity for a great effort on the part of all who are interested in this good work, if the present year is not to suffer by comparison with some that are past. Last year the collection reached an aggregate considerably in excess of any that had been realised before that date, but this eminently satisfactory result was attained by the aid of some very large gifts, such as cannot be counted upon for renewal on the present occasion. Under this point of view, therefore, the success of 1891 argues rather that it will be difficult than that it will be easy in the present year to secure a collection with which the contributors and the Council of the Fund may be content. Indeed, were it not for the continual growth of the metropolis—a subject which we have sufficiently illustrated in our Special Supplement published last week—it would be unreasonable to expect that the collection should continue from year to year to increase. Still, while London continues to expand and thicken on the ground at the rate of growth which at present obtains within the metropolitan area, it would be supine, indeed, on the part of those who are charged with the conduct of this undertaking if they were content to allow any year to mark a culminating point in the history of the collection. Year by year the wealth and magnitude of our vast city are augmented in a measure which the imagination fails to apprehend, and if the charity of the metropolis does not expand in a commensurate proportion some one must be seriously to blame. The meeting which assembles at the Mansion House to-day (Friday), and which will be reported in our second edition, will, we hope, have the effect of quickening the widespread interest which already exists among a large number of supporters of the Fund beyond those who will actually assemble to listen to the address of Mr. Egmont Hake and the appeals of other well-known speakers. Important as are such methods of evoking enthusiasm, the main reliance of the hospitals and dispensaries must be placed upon the spontaneous efforts of those ministers of religion and others whose advocacy of their cause in public and in private has effected so large a result in the past. Among these advocates of the charity we are glad to know that we may reckon the great body of our professional brethren in London and its neighbourhood. Their influence has always been cast in this scale, and it will not now be withheld. We trust they will on this occasion be not less successful than in the past.

POISONING BY STRYCHNINE.

WITHIN the last few years strychnine has been used somewhat frequently for the purposes both of suicide and of homicide; while within the last few weeks what would appear to be a series of cases of poisoning by this alkaloid has occurred. As this matter is still *sub judice*, we withhold further comment, and pass on to the general consideration of the subject, which deserves the very gravest consideration of the Legislature, the medical profession, vendors of poison, and the general public. In the first place, strychnine is much too easily procurable in the shape of vermin killer powders. These have been distinguished by different names, but all are equally dangerous, a threepenny packet containing more than a grain of this deadly alkaloid. It is true that these powders are sold according to the regulations of the Act of Parliament, names and addresses being required, as well as entry and signing in the book kept for that purpose. It is equally true that all these may be false. Again, while it is required that the poison must be mixed with some colouring matter, this latter has in the case of some powders been found to have the dangerous faculty of being destroyed by the gastric juice. The sale of strychnine or any of its compounds under these circumstances ought to be absolutely forbidden. Rats and mice, cockroaches, and beetles can be caught in traps and destroyed without danger to anyone. Whether the sale of these powders be profitable or not we do not know; but until some additional restriction has been placed upon their sale, we would urge upon all respectable chemists and druggists the great desirability of not selling these powders except to customers whom they know well, and who are not likely to make an improper use of them. Passing on to members of the medical profession, we would remark that while the symptoms of strychnine poisoning are well known, they vary very much according to the surrounding circumstances. When the dose has been large the tetanic spasms will be well marked, but when a minimum fatal dose has been given these will be modified into a species of convulsions which may be regarded as unconnected with poison. Hence the importance of not only observing the symptoms of any sudden attack of convulsions very carefully, but also of duly weighing all the surrounding circumstances, the previous taking of food or medicine, the absence of any former similar attack, and the appearance and manner of those around. Some years ago a man who went in the morning to his work in his usual health, who had never had a day's illness, came home to his dinner and died suddenly in convulsions. A surgeon called in did not see him until after his death, and gave a certificate of death from sunstroke. It was the third death in the same family within a very short period under very similar circumstances, and all three, father and two children, had been secretly insured. There can be no doubt that strychnine had been given and had

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caused death, but it could not be detected in the exhumed bodies. Moreover, the post mortem appearances will vary much according to the dose given. When this is large and the body is seen soon after death, the opisthotonus, the rapid access of what resembles rigor mortis, but which is really the action of the poison, will be evident to the eye. But when the dose has been small and decomposition has commenced, the same appearances, though not absent, will be very much modified. Again, in a more recent case, the "mouse powder" used by the poisoner contained both arsenic and strychnine, which circumstance tended to mask both the symptoms and the post-mortem appearances. These points are all well worthy of consideration. In the perusal of former cases of poisoning nothing can be more unfortunate than the frequency with which circumstances, obviously suspicious when viewed in the light thrown upon them by subsequent events, have been passed over by the medical attendant, who has been too apt to ignore the possibility of criminal poisoning. Nothing is more calculated to excite public distrust than the burial of bodies with certificates of deaths from natural causes, to be followed by their exhumation shortly afterwards, and the discovery of poison in the viscera. Medical jurisprudence and toxicology are not branches of the profession to be studied at the medical school when a student, and to be dropped after the examinations have been passed. They should be studied carefully all through a medical practitioner's life whenever and wherever opportunity affords, and should be regarded as an important item of medical practice, which may be encountered at any time and under any circumstances.

THE PROGRESS OF SMALL-POX.

SMALL-POX is still an element of considerable danger to the public health of England. During the four weeks ending June 4th last there were 125 attacks in the metropolis, 11 in Liverpool, between 20 and 30 in Dewsbury, 12 in Wakefield, 5 in Sheffield, 8 in Halifax, and 15 in the neighbourhood of Dartford, which is not far from the small-pox establishment of the Metropolitan Asylums Board, besides a number of other more isolated groups of attacks. Never before, in the sanitary history of this country, have early isolation, vaccination, and disinfection been so practicable as they have become since the passing of the Act for the compulsory notification of infectious diseases; otherwise we should look with much concern to a recrudescence during the ensuing winter of an infection which has established itself in so many centres of population.

HOURS OF RAILWAY SERVANTS.

THE report of the Select Committee of the House of Commons appointed to inquire into the hours of labour worked by railway servants deals in a manner which will, we hope, secure general approval with the very difficult questions brought under discussion. The reality of the grievance from which some classes of railway servants suffer in this respect has long been quite beyond dispute; and it is, moreover, one from which the public suffer hardly less than the immediately aggrieved parties. The frightful risk which the travelling public incur through the entrusting of the safety of trains to the hands of engine-drivers and signalmen exhausted by overwork needs no demonstration. And on this ground alone it may well be legitimate enough that the Legislature should intervene and put a restriction upon the conditions of railway labour even when such restrictions may not be demanded or even desired by either the masters or the men. But legislation of this kind is not to be desired upon its own account, and recourse to it should only be had for the purpose of attaining very definite and very sufficient objects. The object, and the only proper object in this case, is the public security, liable to be seriously imperilled by the employment of inefficient workmen in the working of the railways. The committee have very properly, as we think, refused to consider collateral objects, and directed their endeavours to the securing of this one alone. It was natural that some witnesses should make the occasion one for advocating a legally restricted day with the ulterior purpose of securing legally defined overtime and overtime pay. But their views did not impress the committee, and the only legislation which is recommended by the report is such as would leave both parties free to make any terms as to wages upon which they could agree. It is furthermore satisfactory to find that the committee have arrived at a conclusion that very little in the way of legislation is necessary to secure the object which they have had in view. They point out that great improvements have already been effected under the pressure of public opinion merely, and infer that much more, and probably all that can be desired, might be effected if full publicity were secured by means of returns, and, in case of accident, by formal inquiries. In this way they think that the companies might be coerced effectively, but at the same time in such a way as would leave their responsibility for the due administration of their business wholly unimpaired. Should the event falsify their expectations, they would be prepared to give to the Board of Trade or the Railway Commissioners power to call upon any company shown to be in default to formulate and enforce a time-table which should be approved as satisfactory by the public authority exercising the proposed jurisdiction, observance of the regulations being enforced by suitable penalties. The report appears to us to be eminently judicious and impartial, and one which, in much of the legislation respecting industrial pursuits which it is only reasonable to expect in the near future, may safely and usefully be accepted as a model and a repertory of sound sense.

THE PANCREAS AND DIABETES.

PROFESSOR SEEGEN, one of the chief authorities upon diabetes in its physiological as well as its clinical aspects, recently read a paper before the Medical Society of Vienna, in reference more particularly to the recent researches upon extirpation of the pancreas and diabetes, and having regard to Lépine's explanation that the pancreas produces a glycolytic ferment, the lack of which causes an accumulation of sugar in the blood. Professor Seegen says that, granting that the blood of a diabetic patient has less glycolytic action than that of a healthy subject, it is assuming a great deal to hold that this proves the presence in health of a special glycolytic ferment manufactured by the pancreas. By careful experiments he finds that the normal sugar disappears most rapidly from freshly drawn blood when the latter is maintained at a high temperature (39° C.), whilst a current of air is being passed through it. That this is not due to the action of living protoplasm he shows by the addition of chloroform (to kill the protoplasm), which makes hardly any difference in the glycolytic action. Moreover, since the glycolysis goes on more actively after blood has been drawn for some time than at first, Professor Seegen infers that the ferment is produced by some change in the blood outside the body rather than by the pancreas. He does not discuss the question of the diminution of this ferment in the blood of diabetics (men or animals), but refers to Minkowski, who found the sugar rapidly diminish in blood from a diabetic dog. Professor Seegen suggests that diabetic blood may contain something antagonistic to glycolysis, so that even if

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Lépine's experiments are correct, they do not necessarily point to a diminution of the ferment in that disease. He holds, therefore, that the explanation of "pancreatic diabetes" has still to be found. Minkowski showed that if a portion of the pancreas (in animals from which it had been extirpated) were transplanted beneath the peritoneum, the diabetic condition is averted, only to appear when the transplanted organ is removed by a further operation. This, as Professor Seegen points out, is comparable with the effect of experiments in thyroid grafting by Eiselsberg, who found that tetany did not occur until the transplanted organ had been excised by a second operation. Morbid anatomy has, however, abundantly shown that in cases of diabetes the pancreas may be quite normal, so that, in fine, upon this question Professor Seegen agrees—and, indeed, has always maintained—that in cases of diabetes there is diminished glycolytic action in the body; but he denies that Lépine has proved this to be due to disease of the pancreas causing a diminished production of a hypothetical ferment.

TUBERCULOUS CATTLE IN LONDON.

THERE is some satisfaction in learning from the daily papers that the prevalence of tuberculosis among cattle in and around London is causing serious anxiety to the Government authorities, and that special inquiry is being made as to the abnormally large number of cases reported during the past few weeks. For more than half a century the disease has been causing great havoc not only in and around London, but throughout the United Kingdom, and the loss it has occasioned is incalculable; but we are not aware that it is much more prevalent now than at any time during the last twenty years. It is certainly attracting more attention, however, thanks to the persistent efforts of sanitarians and others, who understand what it is and the dangers that attend it, to awaken the authorities to their duty. Agricultural interests, no less than the public health, demand that the malady be dealt with energetically, and that special measures be devised to limit its extension and safeguard consumers of the flesh and milk of cattle from any dangers that may be incurred through subsisting on such aliment. Now that the officials who are responsible for the suppression of contagious diseases among animals are at length beginning to feel anxious there is some hope that something may be attempted towards getting rid of a scourge which is more serious than any other affecting bovine animals.

THE FUNGUS OF CHALAZION.

DR. M. F. WEYMAN, in the *Journal of the American Medical Association* of April 9th, 1892, publishes a paper read before one of the medical societies on researches made by him on the nature of the tumour which occasionally develops in the Meibomian glands of the eyelids, and is known by the name of "chalazion" Although Professor Virchow showed many years ago that it is a cystoplastoma, it still figures in many of our modern text-books as an ordinary cyst. Professor Virchow's nomenclature with reference to this little neoplasm is undoubtedly well chosen, but the term "granuloma," at first proposed by Dr. Thomas of Tours, seems preferable. Dr. Weyman attempted to ascertain the etiology of these growths, and has discovered a fungus which he considers explains the whole subject. The first thing he noticed were numerous spores which appeared in his sections. They were situated in the capsule and the tissue adjoining it. Towards the centre they became fewer in number. Many were seen floating free in the field; also mycelial branches seemed to penetrate through the capsule. Dr. Weyman at first thought that the spores might have developed in the staining fluids, or that thin fibrous tissue might simulate the appearance of hyphæ; but, after several trials, he succeeded in demonstrating small fragments of the fungus. They looked like very long and thick bacilli, and required strong illumination before they could be seen. Careful focussing showed that these little rods were not only on the surface of the section, but they could be traced successively through its whole thickness. Dr. Weyman employed the following method in his researches: The sections were immersed in a solution of caustic potash (one part of the hydrate to two of water). They were then placed under the microscope after gently warming the reagent. The sections readily dissolved and disappeared, leaving the fungus behind. Gentle washing removed the detritus, while a slightly acidulated current cleansed away the last tissue fragments, and also the potash. The fungus stained readily with magenta. The sporangia were represented by irregular terminal masses on the filaments, showing numerous spores embedded in its substance. The filaments were of two kinds, the thin and the thick, the latter greatly predominating. Of some fifty sections taken from different tumours, every one showed the parasite without fail. The conclusions at which Dr. Weyman arrived were:—1. Chalazia are not retention cysts, but true granulomata. 2. Their appearance in large numbers in successive periods suggests a parasitic etiology. 3. Their ready reproduction after removal also points in that direction. 4. The growth of granulation tissue presupposes a long continued irritation of a low grade. 5. A fungus can be demonstrated. 6. The "fungus chalazicus" fully explains the etiology of the neoplasm.

THE VALUE OF CRICKET, EDUCATIONAL AND HYGIENIC.

IN the *Educational Review* the national game finds an ardent vindicator in the headmaster of Haileybury, the Hon. and Rev. E. Lyttleton. For him it has a distinct, not to say unique, "educational value." It teaches the young player bodily pluck, sufficient at least to inure him to stand up to fast bowling on a good wicket. Diffidence among boys of the present day is a very common source of weakness; but no one who has learnt to face a swift ball in presence of hundreds or even thousands of critics need be long despondent. The controlling of temper is another virtue acquired in the cricket-field. "The man," says Mr. Lyttleton, "who can walk away from the wicket, having been badly run out by his partner after getting twenty runs without a mistake"—to cite one vexation out of many—"has learnt an amount of self-discipline which no other frequent experience during his youth can possibly give him." The charge of an eleven, even of a school eleven, is also an admirable training in the management of men; and here Mr. Lyttleton becomes quite eloquent on the merits of the boy captain who has his team well in hand, whether for defence or attack, and has learnt to keep his head alike in unlooked-for success and in undeserved failure. All this, and a great deal more, he pronounces, and justly, "education"—education which has its proper place alongside, not in substitution, of the work for which schools are organised and maintained. The moral, if not the intellectual, powers receive in the cricket-field a development and a bracing which to the majority of youths could be imparted in no other way. Head-masters—the late Mr. Freeman notwithstanding—are quite justified, therefore, in choosing for some, not all, of their assistants men who can direct the operations of the cricket-field, so as to retain and enhance its undoubted "educational value." Mr. Lyttleton might have extended his approval to other pastimes besides cricket for their educational advan-

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tages, and in so doing he might have admitted, if not pointed out, certain drawbacks which make "the national game" a doubtful, in some cases a dangerous, indulgence for growing youth. Cricket exacts, not only a violent, but what is worse, an irregular expenditure of effort, thereby incurring the just censure of those who find muscular exertion salutary and profitable in proportion to its being graduated and equable. A boy will stand at the wicket for several overs and have hardly any call made upon his strength or his running powers, or he may be playing a brisk game and putting on runs at the top of his speed for an hour or more. He may lose a partner who has aided him in this violent exercise, and, bathed in perspiration, he may have to stand quiescent in rain or in cutting wind while his next partner does nothing but block balls. The same irregularity of exercise, the same sudden alternation of high-pressure exertion with nearly absolute inactivity, characterises the fielding, to the manifest overstrain of heart and lungs, particularly of the former. Football is open to much the same kind of objection, and competitive rowing has its drawbacks. In the case of adults, and especially of those who are somewhat past their prime, not one of these pastimes can cope with golf as a means of gently, systematically, and effectively evoking muscular energy and maintaining the whole body, for a stated time, in equable exercise. Here there is no alternation of fierce exertion and semi-dormant quiescence; no sudden "spurts" or violent efforts of energy; no heats succeeded by chills; no "sharp curves" in muscular action when the limbs, stiffened by hours of disuse, are called upon for prompt and intense practice. Golf, moreover, requires in the good player quite as much exercise of judgment, of self-control, of pluck, of steadiness, and patience under adverse circumstances as any game followed out in the open. The fact, too, that old men and young can join in a match, with manifold advantage to both, is a further point in its favour not scored by cricket, or rowing, or football. The wider area over which it is played, involving more continuous and extended movement, explains the popularity it enjoys with robust youth and valetudinarian middle age alike. Mr. Lyttleton might add to his vindication of school sports an "Apologia" for golf, which could not fail to react for good, educationally and hygienically, on the rising generation. Certainly in grace, not to say dignity, and in the postures and sway of person it calls forth, it is more in harmony with the classical palestra than either of its more violent congeners—cricket or football.

MALIGNANT SMALL-POX AT NEWCASTLE: A DANGEROUS "CASUAL."

OUR Northern Counties correspondent, in his letter this week, notes that a case of malignant small-pox occurred at Newcastle last week. The circumstances of the case are somewhat unusual. A sailor came from North Shields from the Sailors' Home, where he had been staying, and presented himself for treatment amongst the casual patients waiting at the Royal Infirmary. As the case on being seen did not appear very clear, he was taken in and placed in a ward. Examination showed that the man was suffering from hæmorrhagic small-pox, and he was at once removed to the proper hospital, where he died the next day. It appears that the unfortunate sailor had come home from a foreign port and had stayed a few days at the North Shields Sailors' Home, where probably he passed through the stage of incubation. We know that the malignant or hæmorrhagic form of small-pox is by no means easy to diagnose at first, as often there are no characteristic eruptions; still the whole system is as it were saturated with the variolous poison, and death follows in from three to five days. We are glad to know that so far there has been no dissemination of the disease in Newcastle, and that every care has been taken to prevent its spread. Revaccination has been resorted to very freely by all students and nurses and others of the staff who may have been exposed to risk. The case, moreover, points to the necessity for increased vigilance and for efficient vaccination and revaccination. Sea-ports like Newcastle must of necessity be open to risks of this nature from time to time.

INCREASED DRUNKENNESS IN WOMEN.

IT is a matter of common belief that drunkenness in women is increasing very much. This view received confirmation at an inquest a few days ago touching the death of Mary Zeig, aged sixty-seven, an habitual drunkard. Dr. Norman Kerr testified that death was due to apoplexy consequent on habits of intemperance. She had been drinking three weeks continuously, and on the Friday had gone to a public-house and taken a quantity of rum. Dr. Kerr said he had never seen such a number of drunken women as in the Whitsuntide holidays. He had frequently seen groups of four or five—some quite young—in a state more or less intoxicated. He could only attribute it to the hot weather. We are afraid the cause lies deeper than in the weather. Dr. Danford Thomas stated that he had held lately an increased number of inquests upon women, many comparatively young, whose death was clearly due to alcoholic excess. This kind of evidence is very serious, and emphasises an evil which is about to be inquired into by a Departmental Committee. The jury were affected by the representations of the coroner and Dr. Kerr, and urged on the Committee the urgent necessity of compulsion in the treatment of chronic inebriates. The existing law is entirely inadequate. It is of use only to the wealthy, who can afford to go to retreats, and to those who have self-respect enough left to go voluntarily. Dr. Kerr suggested the creation of a special prison for the compulsory treatment of such cases. It might be called by some other name. But the suggestion is in the right direction and should be seriously considered by the committee. The condition of our chronic inebriates, and of the laws relating to them, are disgraceful to us, and deserve the anxious attention of statesmen of all parties.

THE ORGANISATION OF SCIENCE.

SPECIALISM with centralisation forms the sum and substance of a short paper bearing the above title, and issued with the object of introducing a new method into scientific publication. A society of investigation, says the author, should concern itself with some one particular field of research. Such institutions as the Royal Society, with its many and varied interests, are overgrown monstrosities. Their function, if they are allowed to exist at all in their present form, should be that of arranging for presentation to the general scientific intellect, the discoveries of smaller but more active pioneer societies. The formation of a scientific literature we are told is the chief purpose of a society. Lectures and discussions are little accounted of. There is truth in this, no doubt, but it is not the whole truth, and the author adds rather inconsistently a word in warm approval of what he calls informal personal discussions. He has a firm belief in London as the only possible headquarters of any society, though he also advocates the formation of local sections for country members. All independent—i.e., non-metropolitan—associations are expected to obliterate their separate identity and become branches of a central organisation. Any preference for an individual existence is mere *esprit de ville* and antagonistic to the principles of scientific order. The author's pet society is evidently the Linnean. He resents

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anything that looks like poaching upon its preserves. Singularly enough, he recognises no breach of the law of specialism in the fact that this body cultivates the study of zoology as well as that of botany. Even the Zoological Society, he considers, has no right to the fauna, which he claims for the Linnean. This illogical attitude in a rigid specialist is hardly calculated to support his primary argument, which fails to convince us either that a science can be divested of its general relations, or that intellectual enterprise can be limited by the rules of a central bureau.

THE INSPECTION OF SEAMEN'S FOOD.

THE discussion of this subject still continues, and it is well that it should continue. It is clearly right that the food of seamen should be good, and that every effort to improve their hygienic condition should be made. This is not to be done by inspecting it perfunctorily on the day of sailing or after it is partly packed away. Rather is it to be done by fixing responsibility on someone for any defect in its nature or in its cooking. This is a responsibility that good shipowners should not hesitate to undertake even if it involves trouble and some slight diminution of dividend. A writer in *The Times*, Mr. George Herbert Little, says it should be made illegal for the shipowner to contract with the master for feeding the crew. We are inclined to agree with this. The captain is apt to try to make profit out of such an arrangement. The owner wants to make not profit but credit out of the food arrangements of his crew. Nothing would more conciliate and benefit the seamen, and there is everything in their peculiar life and their uninfluential position to make it the duty of the State to see that their wants are met, and that elements of fresh and succulent food are introduced as far as possible.

THE CONGRESS OF HYGIENE AND DEMOGRAPHY.

A WORK of art, which will vividly recall the interesting events of the Congress of Hygiene to the minds of those whose privilege it was to take part in its proceedings, has been published with no little pains and with remarkable skill and success by Barrauds, Limited, 263, Oxford-street, W. This memento of such an important meeting is presented to us in the form of a permanent photograph, containing the well-delineated faces of over a thousand of the members who took part in the various sections of the Congress. Each of the photographs has been taken separately, and the grouping subsequently arranged. Notwithstanding the vast sea of countenances, the eye is readily arrested by the forms and faces with which it is familiar. It were an invidious task even to name a few of the many illustrious men present at the Congress. The photograph will be treasured as a work of art, and as a means of revivifying the memories of acquaintances struck on that memorable occasion.

ALBUMINURIA AND OPIUM.

IT is difficult to feel any satisfaction with the verdict which was lately returned at a coroner's inquest in Carmarthen, or to endorse the remarks made by the coroner in the course of his summing up. From the evidence it appeared that the deceased, a man aged thirty, after exposure late one night complained of shortness of breath. His mother, two days later, went to a local druggist, told him how her son was suffering, and, after careful inquiry into the symptoms, a bottle of mixture and a box of pills were given to her with directions. The following day the man was so much worse that a medical man was called in, when he found the patient in a hopeless condition, with swollen limbs and albuminuria. In addition there were marked indications that opium had been administered, and it was admitted that both the pills and the mixture contained opium. The practitioner stated in evidence that he attributed death primarily to the condition of the kidneys and heart, accelerated by the action of opium. The coroner, while telling the jury that opium was the very worst remedy for the disease described, thought there was an error of judgment on the part of the druggist, who could not be blamed at all, since what he had done had been with the best intention, as his desire was to relieve the deceased, and, under direction, a verdict of "Death from misadventure" was returned. The druggist stated that he had been informed that the deceased, who was an educated man, had been doctoring himself with "castor oil and other things." The whole trouble seems to have arisen from the meddlesome desire to prescribe, and in this case the position is not improved by the fact that all details of the illness were given in the absence of the patient. Doubtless the druggist merely did what he was asked to do with the best intentions; but this case ought to serve as a most serious warning against counter-prescribing, as well as against the administration of opium in cases of albuminuria. The patient's own treatment of himself with castor oil would, as the sequel shows, have been attended by less danger.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.

A MOVEMENT is on foot for the extension of the above Society to East Anglia, and the counties of Hertford, Huntingdon, Lincoln, Yorkshire, and Cambridge. The central Society has its headquarters at 13, Royal-avenue, Sloane-square. The President is Mr. Hutchinson. The Vice Presidents include Dr. Broadbent, Dr. F. H. Alderson, Mr. Balding, F.R.C.S., J.P., Royston, Herts, and many well-known London and provincial names. The treasurer is Dr. George Heron, M.D., F.R.C.P., and the secretaries are Dr. George B. Mead of Newmarket and Dr. Hugh Woods of Highgate. There can be no doubt about the need for such a society. The only question is whether there is room for two. We have one already in very active and efficient working order with a large membership. The creation of another may give one of two bad impressions to the public—either that we need very much protection, or that we are a very disunited body. We commend this view to the best consideration of the promoters, with whose main object we, of course, sympathise.

CRUELTY AND VIVISECTION.

THE sixty-eighth annual meeting of the Royal Society for the Prevention of Cruelty to Animals held last week. From the report of the committee on that occasion we learn that the past year was one of greater vigilance, effort, and accomplishment than that which preceded it—6404 persons having been convicted in the former, 5890 in the latter. Among other matters discussed at the meeting was that of vivisection. It was indeed hardly to be expected that no speaker of those present should touch upon this topic, notwithstanding that, as the president, Lord Aberdare, observed, it hardly comes within the ordinary scope of the Society's work. His lordship, in replying to some remarks on this subject, reminded his hearers that by assuming the functions of anti-vivisection agitators they would seriously compromise the harmony of their own association and the success of its endeavours. The proper work of the Society was the repression of cruelty—that is, of the needless infliction of pain. Beyond the performance of this duty it had no power. He believed that the great majority of experiments upon living animals were painless. With any distinct case of cruelty thus

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caused, however, he would be ready to deal. It is worth noting that the Society's agents have not thus far been required to act in such a case, nor, we may add, is there any reason to anticipate their interference. The question at issue, it should be remembered, does not concern the suffering animal only. It affects also the vital interests of man, and we are confident that a means of research which alone brings us to approximate certainty in the treatment of disease, even though it employ the pain of the lower to relieve that of the higher creature, will command the support of public opinion.

ALLEGED CHOLERA IN PARIS.

CASES of cholera are alleged to have occurred in and about Paris for several weeks past, and some of them have proved fatal. They have occurred during exceptionally hot weather, and at a time when water from the Seine has been distributed to the population. The use of this water is always found to be associated with risk, especially during summer weather, when, owing to drought, it is most resorted to. The alleged cases now occurring in Paris are regarded as sporadic only.

EXTIRPATION OF THE LARYNX.

THE number of cases in which the operation of removal of the entire larynx has been successfully performed is gradually increasing. The latest of these was recorded by Professor Wolff at the recent session of the Surgical Congress at Berlin, where the patient was exhibited eight months after the operation. The interest of the case is enhanced by the fact that by means of an artificial larynx, invented by Professor Bruns, the patient is able to speak and sing, as illustrated before the Congress by his recitation of a monologue from Schiller's "William Tell" and his singing of "Gaudeamus igitur."

MEDICAL HEROISM.

ALTHOUGH daily there are members of our profession who perform deeds well entitled to the epithet "heroic," it is only now and then that some action more striking in the circumstances that surround it gains for it public notice. Such an act was performed a few days since at Sunderland, where three men were rendered insensible by carbonic fumes whilst cleaning out a stove connected with a blast furnace. Dr. Glen, who was sent for, at once ascended to the top of the stove, a height of 60 ft., and, lashing himself with a rope to prevent his falling, he successfully applied artificial respiration to each of the three victims, the time taken in this perilous task being fully an hour.

KILLED BY AN EMETIC?

A CASE of toxicological interest recently occurred at Macclesfield. J. B——, aged sixty-six years, went into a publichouse, and, after having some rum, told the landlord he had taken a pennyworth of sulphate of zinc. He does not seem to have vomited, but next morning he was found dead. It does not appear that a post-mortem examination was made, but a medical witness deposed that inasmuch as some common salt was administered to deceased to provoke emesis, the result would be that chloride of zinc would be formed, which would act as an irritant and cause perforation of the stomach. It is not safe to argue, from our knowledge of chemical decompositions out of the body, that exactly the same results would happen in the stomach. The fluids of the body contain chlorides in solution. Moreover, there is free hydrochloric acid in the gastric solution, and yet sulphate of zinc is considered a safe and proper emetic. We imagine that the death was due to the absorption of alcohol and zinc rather than to the irritation of the stomach, which, to say the least, was not sufficient in this case to provoke vomiting.

THE WORKING CLASSES AND HOSPITAL SUNDAY.

WE are glad to see hospitals (e.g., St. Mary's in *The Times*) disclaiming responsibility for encouraging street collections for hospitals. In one of these a poor child with spinal complaint has been carried round for mere sensational effect, regardless of *his* sensations. We feel convinced that noisy street demonstrations, especially on Sundays, are a mistake, and bring the cause into disfavour rather than otherwise. We have one good suggestion to make most respectfully to the working classes, and that is that they and their families should go, with all the money they can spare, to the various churches of London on Sunday, and so swell the hospital collection by £10,000. This will not diminish their own special collection. Apart from all dogmatic theology, the working-men of England are good Christians, and they cannot better show it than by joining the rest of the community in one of the highest Christian acts which blends all creeds and should blend all classes.

THE SUSPENSION OF A DISTRICT MEDICAL OFFICER.

WE await with much interest the reply of the Local Government Board to the letter of the solicitors of Mr. Walters. Since our last comments upon this case, Mr. Walters' suspension has been again considered by the guardians of the poor of his district, several of whom considered he had been too hardly and illegally dealt with; but on a vote being taken for the adoption of the report (recommending his suspension), it was carried by seventeen to six. We trust, therefore, that this division in the opinions of the guardians will not be lost sight of by the central authority, and that a Poor-law medical officer of thirty-eight years' standing will be honourably acquitted of having acted contrary to the law as laid down in the Consolidated Orders.

THE EXPOSURE OF INFECTION.

IT is not often that successful proceedings are taken for the exposure of infected persons or things, it being necessary to successful action to prove that the exposure was wilful. But a few days ago Dr. F. J. Allan, medical officer of health for Shoreditch, secured the conviction of a woman who, whilst her children were kept away from school in consequence of their suffering from scarlet fever, sent them about to do her shopping. The magistrate rightly stated that the practice was a most mischievous one, and he fined the woman ten shillings, with costs. It is to be hoped that, notwithstanding the comparative leniency of the fine, the lesson will be taken to heart by parents and others who often commit a like offence against the public health.

FOREIGN UNIVERSITY INTELLIGENCE.

Basle.—A chair of Hygiene is to be established.

Berlin.—The chair of Chemistry vacant by the death of Professor Hoffmann, has been offered to Professor Emil Fischer of Wurzburg, where he was appointed to succeed Wislicenus, on the latter's migration to Leipsic.

Buda-Pesth.—Drs. Haberern, Dirner, Bársony, and Roth mann have been recognised as *privat-docenten* of Surgery, Gynæcology, Midwifery, and Odontology respectively.

Erlangen.—Dr. Emil Graser has been appointed Extraordinary Professor of Surgery. He was for many years first assistant to Professor Heinecke.

Freiburg (Baden).—Dr. Rose has been appointed to the charge of the new dental out-patient department.

Gratz.—Dr. Borysiekiewicz has been appointed to the chair of Ophthalmology, and Dr. Jarisch of Innsbruck to that of Dermatology.

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Rostock.—A new Eye Clinic, which is perhaps the best in Germany, has just been erected. It is fitted with electric light and electric bells, and the operation room is furnished exclusively with stone, metal, and glass materials.

St. Petersburg (*Medical Academy*)—Dr. Ballin of Kharkoff has been appointed to the chair of Medical Jurisprudence and Toxicology in succession to Dr. Sczukin.

Valladolid.—Señor Don Dr. Mariano Sancho Martin of Valencia has been appointed to the chair of Clinical Midwifery.

Vienna—Dr. Otto Zuckerkandl has been appointed *docent* in Surgery. Dr. Bernheimer has been recognised as *privat docent* in Ophthalmology.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Dr. Jacob Fischl, Professor of Mental Diseases and Physician in charge of the Lunatic Asylum in Prague.—Dr. Freudentheil, Sanitary Councillor of Wiesbaden.—Dr. Bernardo Figueroa, Vice-President of the Society of Clinical Studies, Havana.

THOSE of our readers whose autumnal holiday will find them in Italy in October next are reminded that the Fifth Italian Congress of Internal Medicine will meet in Rome on the 25th, 26th, 27th, and 28th of that month, when papers will be read on several subjects of present interest—pathological and therapeutic. All who wish to take part in the discussions must announce their intention of so doing to the secretary on or before Sept. 15th. The Italian railways allow a liberal reduction of fares to those of the profession who are inscribed as participants in the Congress.

A MEMORIAL TABLET has just been unveiled in his native Vasto, on the Adriatic, to the great Abruzzese anatomist, Giuseppe Pietrocola, for many years one of the chief lights of the Neapolitan school, where, in addition to professorships in anatomy and clinical surgery, he held for some time the post of Rector in the University. As a man of science and teacher he was in advance of his time, while it may interest English readers to know that he was a near relation of our illustrious painter and poet Dante Gabriel Rossetti.

WE understand that Dr. Edward Liveing (registrar of the Royal College of Physicians), Dr. Norman Moore, and Dr. Allchin will give evidence on behalf of the Royal College of Physicians before the Gresham University Commission.

AT the meeting of the Council of the Pharmaceutical Society of Great Britain on the 8th inst., Mr. Michael Carteighe was again elected President, an office held by him for the previous ten years.

THE vacancy in the surgical staff at St. Bartholomew's Hospital created by the resignation of Mr. Morrant Baker, F.R.C.S., has been filled by the election of Mr. Henry Trentham Butlin, F.R.C.S.

DR. B. W. RICHARDSON, F.R.S., will be a candidate for the Parliamentary representation of the Walton division of Liverpool at the coming general election.

OPEN SPACES.—A Local Government inquiry was held last week at Accrington upon an application by the town council to borrow £12,048 for the construction of a new park at Oakhill. There was no opposition. The ground is well situated and comprises thirteen acres.

THE ANNUAL DINNER OF THE ARMY MEDICAL STAFF.

THE annual dinner of the Army Medical Staff was held at the Hôtel Métropole on Monday last. Sir Wm. Mackinnon, K.C.B., Director-General, was in the chair. Brevity in the speeches was the order of the day; but Sir Joseph Fayrer, in proposing the toast of the evening, dwelt at some length upon the great improvement that had taken place in the position of the army medical officer. The company numbered about 150.

The officers of the Army Medical Staff present at the dinner were:—

Director Generals (Surgeon-Major-Generals): Sir T. Crawford, K.C.B., and Sir W. A. Mackinnon, K.C.B. (in the chair). Surgeon-Major-Generals: J. G. Faught, D. A. C. Fraser, J. Irvine, S. A. Lithgow, C.B., D.S.O., W. H. Muschamp, and J. B. C. Reade, C.B. Surgeon-Colonels: O. Codrington, Professor H. Cayley, W. G. Don, A. G. Elkington, A. A. Gore, Professor C. H. Y. Godwin, J. B. Hamilton, H. C. Herbert, J. H. Jeffcoat, C. M. Jessop, E. McGrath, T. Maunsell, A. F. Preston, E. H. Roberts, P. B. Smith, W. Sly, F. E. Scanlan, and H. R. L. Veale. Brigade-Surgeon-Lieutenant-Colonels: J. Adcock, J. F. Beattie, C. Cuffe, C.B., G. A. Gribbon, J. Hector, J. G. Leask, C. Mackinnon, W. T. Martin, W. Nash, T. Mould, Professor J. L. Notter, W. F. Rutledge, W. B. Ramsbotham, D. Renton, F. B. Scott, C.M.G., E. D. Tomlinson, W. W. Tomlinson, T. Wright, and T. W. Wright. Surgeon-Lieutenant-Colonels: D. B. Brown, W. P. Bridges, J. Coates, M. M. Galliwey, F. Johnson, J. McNamara, and W. F. Stevenson. Surgeon-Majors: J. R. A. Clark, E. A. Croly, S. H. Carter, J. J. Crean, W. A. Carte, P. J. Dempsey, W. E. Gubbins, H. Grier, T. Ligertwood, W. H. Macnamara, N. McCreery, T. Murtagh, E. North, E. R. Power, E. A. H. Roe, and R. Smith. Surgeon Captains: E. A. Burnside, W. Babtie, W. H. Bean, W. G. Bedford, T. H. F. Clarkson, A. M. Davies, R. H. Firth, R. S. F. Henderson, J. W. Jerome, A. G. Kay, J. D. Moir, W. W. Pope, J. M. Reid, S. O. Stuart, T. B. A. Tuckey, C. R. Tywell, and T. P. Woodhouse. Guests present: The President of the Royal College of Surgeons (T. Bryant, Esq., F.R.C.S.), Sir Joseph Fayrer, K.C.S.I., Sir W. MacCormac, C. N. Macnamara, Esq., F.R.C.S., Vesey Holt, Esq., E. Hart, Esq., and H. Power, Esq.

INTERCOLONIAL MEDICAL CONGRESS OF AUSTRALASIA.

THIRD SESSION, SYDNEY, NEW SOUTH WALES, 1892.

THE first session was in Adelaide, the second in Melbourne, and, following the line of the colonial capitals eastwards, the third session will commence in Sydney on Sept. 29th of this year. The chairman is Dr. P. Sydney Jones, the treasurer Dr. Thomas Chambers, and the joint general secretaries Professor Anderson Stuart and Dr. S. T. Knaggs. Influential general and executive committees have been formed and a guarantee fund of over £800 established. Special low rates are usually levied by the different intercolonial steamship companies and by the railways upon such occasions, for many members have to travel a whole week in order to be present at the meetings, so great are the distances. The P. and O. and Orient Companies have granted special concessions to visitors from Europe should any member of the profession in Europe think of combining a little work with the *grand tour*; they would see Australasia under the most favourable conditions, and would meet their medical brethren from all parts of the colonies. The meetings will be held within the palatial buildings now completed for the medical school of the University of Sydney, so that all the sections may meet under one roof—a very great convenience, especially in an almost semi-tropical place like Sydney, although the month of September has been chosen as most likely to have good weather. The posts of honour have been conferred only upon members residing in other colonies than New South Wales, the colony in which the meeting is held this time, and in this way the earnest and useful work done by the past presidents and local secretaries has been recognised. The arrangements which have just been briefly noticed were made by a provisional executive committee, but were ratified at a meeting and adjourned meetings of the profession and of the New South Wales section of the Congress, held in Sydney on March 25th and April 7th and 22nd, after a thorough and at times warm discussion. The apparent ground of difference was the manner in which the Provisional Executive Committee, the treasurer, and

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the joint general secretaries had been appointed in Melbourne. In the end, however, though not without a protest from the minority, the work done was ratified by the majority, and, with a few trivial changes, the report of the provisional executive committee was adopted. From the marked interest now being taken in the work of the Congress in all the colonies, it is anticipated that the session will be a great success. To such a result the fact that the session will be in Sydney will largely contribute, for the picturesque surroundings of the city and the hospitality of the people are proverbial, while the splendid accommodation for the meetings of the Congress and its sections provided by the medical school and other University buildings is unequalled in the colonies, and perhaps not excelled in any part of the world.

THE RAILWAY COLLISION AT BISHOPSGATE.

WE are indebted to Mr. Charles Rolfe, house surgeon to the London Hospital, for an account of the nature of the injuries inflicted in the railway collision which occurred at Bishopsgate Station on Tuesday morning, the 14th inst. It appears that fourteen cases of injury were received into the wards of the London Hospital, and were placed under the care of Mr. Treves. Of those patients two died immediately after admission to the wards from the severity of their injuries, making in all six deaths from the accident. The other patients are doing well, and the injuries may be briefly described as follows:—

1. Fracture of femur, tibia, and fibula simple on same limb; fracture of radius, with dislocation of wrist outwards; fracture of several ribs and contusions. 2. Compound fracture of tibia and fibula, with severe scalp wounds and concussion. 3. Fracture of femur on left side; fracture of clavicle on right side, contusion, &c. 4. Fracture of several ribs, injury to chest, and severe shock. 5. Fracture of pelvis and sternum and contusions. 6. Fracture of pelvis and shock. 7. Fracture of tibia and fibula, dislocation of shoulder, and contusions. 8. Contused legs and severe scalp wound. 9. Shock and contusion. 10. Severe sprain of knee and ankle, with contused chest and shock. 11. Sprained ankle and shock.

Besides the cases admitted to the hospital as in-patients, about thirty other cases were treated at the hospital and sent away. We have not been favoured with any reply to our inquiries regarding the cases which were treated in St. Bartholomew's Hospital. But most of those admitted were suffering from injuries of a severe character. In all, besides those who lost their lives, some fifty persons were more or less severely injured in the collision.

HOSPITAL SUNDAY SERMONS.

John-street Chapel, Theobald's-road, W.C., Rev. J. Shephard, F.G.S.—Morning, "But he was a leper"; Evening, "How far is faith healing consistent with the Scriptures?"

Parish Church, Lewisham, S.E., Rev. Samuel Bickersteth, M.A.—Morning, "As poor, yet making many rich"; Evening, Rev. T. B. Charlesworth, M.A., "Partakes of the sufferings."

St. John, Horsleydown, Rev. W. J. Batchelor.—"The Rewards of Kindness" (St. Mark ix., 41).

Swiss Church, Rev. Alb. H. Roerich.

Lewisham-road Chapel, Rev. A. C. Gray.—Morning, "The Healing Power of Christianity" (Matt. x., 1 and 8); Evening, "The Balm of Gilead" (Jeremiah viii., 22)

Corpus Christi College Mission, 32, New Cross-road, Rev. W. W. Hough.—Morning, "The Work of the London Hospital"; Evening, "Bearing one another's Burdens."

St. Joseph's Church, Roehampton, S.W., Rev. M. King, S.J.—"Christ's Legacy to the Suffering Poor."

St. Luke's, West Holloway, Rev. R. Glover, M.A.—"A Divine Prescription for Bodily Health" (Prov. iii., 7 and 8).

St. Augustine, Kilburn, Rev. G. Greenwood, Chaplain to the Medical Guild of St. Luke.—"The danger of our losing sight, in contending for the faith &c., and of the great duty of Christian benevolence &c." (Ep. to St. Titus, iii., 8); Evening, Rev. R. C. Kirkpatrick, "The dignity and destiny of the human body, and the Church's duty of ministering to its sufferings from our Lord's example" (St. Mark vi., 56).

All Saints', Hatcham Park, S.E.—Morning, Rev. J. Seaver, M.A., vicar of St. Mary's, Peckham; Evening, Rev. Evelyn J. Hone, M.A., vicar of St. John's, Deptford, and rural dean of Greenwich.

Waldegrave-road New Church, Anerley, Rev. William Heald.—Morning, "Healer of Diseases" (Psalm ciii., 3); Evening, "Healing by Touch" (St. Mark i., 41, 42)

St. Marylebone Parish Church (the Old Parish Church), Rev. E. Thomas, M.A., B.C.L. Oxon., Incumbent.—"The Mystery of Pain" (Romans viii., 22).

Forest-hill Congregational Church, Rev. R. Alex. Johnson, B.A.—Morning, "The Infallible Lawgiver and Teacher"; Evening, "Life and Immortality" (Job ii, 4).

St. Phillip's, Queen's-road, Battersea, S.W.—Morning, Rev. E. H. Jones, Vicar; Evening, Rev. C. P. Greene, Rector of Clapham.

St. Luke's, Uxbridge-road, Rev. W. St. Hill Bowme, Vicar.—Morning, "Hôtels-Dieu"; Evening, Rev. C. M. Mivre, Vicar of St. Peter's, Bayswater.

Christ Church, Harrow-road, W. (late Lock Chapel), Rev. H. C. Thwaites, Incumbent.—"Jesus as Physician and Friend."

Federation of Synagogues, 66, Mansell-street, Rev. Henry Harris.—"That ye may see and remember all the Commandments of the Eternal and do them" (Num. xv., 39).

The Old Grand Chapel, Hackney, Rev. J. De Kewer Williams.—"A rare Case of Fever" (Matt. viii., 14, 15); Evening, "A Common Disease of the Ear."

St. Anne's, Soho.—Morning, Rev. J. H. Cardwell, "Lazarus in London"; Evening, Rev. H. B. Freeman, "The Conquest of Pain."

St. John the Evangelist, Brownswood Park, Finsbury Park, N., Rev. G. Birkett Latreille.—"Practical Benevolence."

Baptist Church, Ilford, E., Rev. J. Parker, M.A.—Morning, "Suffering London" (Luke xix., 41); Evening, "The Divine Healer" (John v., 5, 6).

St. Bartholomew Parish Church, Gray's-inn-road, Rev. R. J. Golding-Bird.—Morning, "The Eleventh Commandment"; Evening, "The True Neighbour."

St. Botolph, Bishopsgate.—Morning, Rev. Walter Crick, M.A., "The Martyrdom of Man"; Evening, Rev. G. O'Donoghue, "The Work of the London Hospitals."

St. Barnabas, Addison-road, Rev. G. R. Thomson.—"A Fresh Incentive to Work and Sympathy" (St. John x., 3, 4).

Hillingdon Church, Uxbridge, Rev. H. F. de Convey-Benwell.—"Christ Present in Suffering Humanity."

All Saints', Wandsworth, Rev. J. W. James.—"The Saviour's Sympathetic Sorrow."

Dartford Parish Church.—Morning, Rev. Allan H. Watts, "Light on a Dark Cloud"; Evening, Rev. A. T. Polhill-Turner, "The Great Physician."

THE DEATH OF CAPTAIN STAIRS.

CAPTAIN WILLIAM GRANT STAIRS, whose death has been reported, had just completed his thirtieth year. He was one of six children. His father, the late Mr. John Stairs, was an influential member of one of the oldest and most respected families in Halifax, Nova Scotia. His mother still survives, and one of his sisters married Surgeon-Major Burke, A.M.S., now serving in India. Captain Stairs was educated at Merchiston Castle School, Edinburgh, and entered Kingston Military College, Ontario, where he qualified for admission to the Royal Engineers, but was not selected owing to the limited number of vacancies. He then spent some time surveying in New Zealand and returned to Halifax, where he was offered and accepted a commission in the Royal Engineers corps. Previously to his joining the Emin Pasha Relief Expedition he had not seen any foreign or active service. For three years—1887, 1888, and 1889—he served under Mr. Stanley while crossing Africa from west to east, and was present during the principal events which resulted in the rescue of Emin Pasha and his followers. During this period of difficulty and danger he gained the admiration and love of his chief, his comrades, and his men. At the commencement of the expedition he suffered from an attack of typho-malarial fever, but was able to leave the base at Yambuya and accompany Mr. Stanley in search of Emin. At the action of Avisiba he received a wound from a poisoned arrow one inch below the heart, and for fifteen months he carried over an inch of arrow-point in his breast, performing heavy duties all the time. The wound was immediately sucked by Surgeon Parke, and no ill effects supervened. All the remaining men who were wounded by poisoned arrows at this fight died of tetanus.

On returning from the Albert Nyanza, Stairs was selected to march from Fort Bodo to the Ipoto, a distance of eighty miles, to rescue Surgeon-Captain Parke and Captain Nelson from the savage Manquema, which task he performed skilfully. He was then sent to escort couriers with letters to Major Bartellot, and bring back convalescents from Ugarrowwa's to Fort Bodo, covering 368 miles through dense forest, and returning in sixty-nine days with fourteen out of the total fifty-six invalids who had been left to recruit at that place.

During Mr. Stanley's absence in search of the rear column Captain Stairs was left at Fort Bodo with Parke and Nelson for 188 days, and performed his duty with "courage, care, watchfulness, diligence, and fidelity."

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While he was commandant at Kandékore Camp everything was in perfect order; and the gallantry he displayed when he assaulted and rushed a cane-brake of Mazamboni's indirectly led to subsequent peace and friendship with this powerful and important chief. On June 6th Stairs was the only one "fit" to ascend "Ruwenzori," or the Mountains of the Moon. After two days he reached a height of over 10,000 feet, and discovered several interesting plants. A few days later he explored the south end of the Semliki Valley, and made his report. These are a few of the valuable and difficult duties he performed between June, 1887, and December, 1889. When Stairs returned to this country both his chief and his comrades acknowledged his superior intelligence, zeal, and good fellowship. The military authorities, as a reward for his good work, offered him either a troop in a cavalry regiment or a company in infantry; he accepted the latter, and thus became a captain, as he had been a lieutenant in the Royal Engineers when he started.

After a short stay in England he undertook the command of a Belgian expedition to Katanga, on the west of the Tanganyka lake. He was returning with his expedition down the Zambesi river after having successfully accomplished his mission in the interior of Africa, and just as he reached the sea on his way home he died. One of his first acts on returning from Africa in 1890 was to write a letter to the Director-General of the Army Medical Service, asking that it might be placed on record that his life had been saved by Surgeon Parke having sucked his poisoned wound. His letter to THE LANCET of May 23rd, 1891, also gives an index to his generous and grateful character.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 5710 births and 3490 deaths were registered during the week ending June 11th. The annual rate of mortality in these towns, which had been 19·4 and 17·9 per 1000 in the preceding two weeks, was last week again 17·9. In London the rate was 17·5 per 1000, while it averaged 18·1 in the thirty-two provincial towns. The lowest rates in these towns were 11·8 in Croydon, 11·9 in Cardiff, 12·5 in Derby, and 12·8 in Nottingham; the highest rates were 23·7 in Manchester, 24·1 in Oldham, 25·8 in Preston, and 26·5 in Swansea. The 3490 deaths included 466 which were referred to the principal zymotic diseases, against 478 and 455 in the preceding two weeks; of these, 205 resulted from measles, 85 from whooping-cough, 63 from diarrhœa, 51 from diphtheria, 42 from scarlet fever, 19 from "fever" (principally enteric), and 1 from small-pox. No fatal case of any of these diseases occurred last week in Norwich or in Hull; in the other towns they caused the lowest death-rates in Bradford, Huddersfield, and Brighton, and the highest rates in London, Oldham, West Ham, and Swansea. The greatest mortality from measles occurred in Birmingham, Manchester, London, Oldham, Birkenhead, West Ham, and Halifax; from scarlet fever in Preston and Oldham; from whooping-cough in Preston, Swansea, and Sunderland; from "fever" in Swansea; and from diarrhœa in Derby and Burnley. The 51 deaths from diphtheria included 37 in London, 3 in Salford, 2 in West Ham, 2 in Birmingham, and 2 in Nottingham. A fatal case of small-pox was registered in Newcastle-upon-Tyne, but not one in London or in any other of the thirty-three large towns; 73 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 12 in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1878, against numbers increasing from 1226 to 1820 in the preceding eleven Saturdays; 207 cases were admitted during the week, against 202 and 215 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined from 304 to 240 in the preceding four weeks, further fell to 208 last week, and were 53 below the corrected average. The causes of 85, or 2·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Croydon, Norwich, Bolton, Blackburn, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Leicester, Liverpool, Preston, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·1 and 20·2 per 1000 in the preceding two weeks, rose again to 20·8 during the week ending June 11th, and exceeded by 2·9 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 11·9 in Leith and 15·8 in Dundee to 26·4 in Greenock and 26·8 in Paisley. The 578 deaths in these towns included 30 which were referred to whooping-cough, 27 to measles, 13 to diarrhœa, 6 to scarlet fever, 4 to "fever," 2 to diphtheria, and not one to small-pox. In all, 82 deaths resulted from these principal zymotic diseases, against 80 and 70 in the preceding two weeks. These 82 deaths were equal to an annual rate of 2·9 per 1000, which exceeded by 0·5 the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had declined from 26 to 20 in the preceding three weeks, rose again to 30 last week, of which 20 occurred in Glasgow, 4 in Aberdeen, and 3 in Edinburgh. The deaths referred to measles, which had been 32 and 34 in the previous two weeks, declined to 27 last week, all of which were recorded in Glasgow. The 13 fatal cases of diarrhœa showed a further increase upon recent weekly numbers. The 6 deaths from scarlet fever were within one of the number in the preceding week, and included 2 in Glasgow and 2 in Edinburgh. Of the 4 fatal cases of "fever," 2 were recorded in Dundee. The deaths referred to diseases of the respiratory organs in these towns, which had been 120 and 123 in the preceding two weeks, were 124 last week, and were 15 below the number in the corresponding week of last year. The causes of 48, or more than 8 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the preceding three weeks from 34·6 to 28·6 per 1000, further fell to 24·0 during the week ending June 11th. During the first ten weeks of the current quarter the death-rate in the city averaged 32·4 per 1000, against 19·4 in London and 18·7 in Edinburgh. The 161 deaths in Dublin during the week under notice showed a decline of 31 from the number in the preceding week, and included 25 which were referred to measles, 1 to whooping-cough, 1 to diarrhœa, and not one either to small-pox, scarlet fever, diphtheria, or "fever." In all, 27 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·8 per 1000, the zymotic death-rate during the same period being 3·1 in London and 2·0 in Edinburgh. The fatal cases of measles, which had declined from 28 to 21 in the preceding three weeks, rose again to 25 last week. The deaths referred to "fever," which had been 6 and 3 in the preceding two weeks, declined to 1 last week. The 161 deaths registered in Dublin last week included 38 of infants under one year of age, and 23 of persons aged upwards of sixty years; the deaths of infants showed a slight further increase upon recent weekly numbers, while those of elderly persons showed a marked decline. Five inquest cases and 5 deaths from violence were registered; and 34, or more than 20 per cent., of the deaths occurred in public institutions. The causes of 22, or nearly 14 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

Brigade-Surgeon W. Dymock, Retired List, Indian Medical Service, died at his residence, Malabar Hill, Bombay, on April 29th, aged fifty-nine. He was eldest son of the Rev. T. F. Dymock, rector of Hatch Beauchamp, Somerset.

Colonel H. A. Bushman, C.B., half-pay, late 9th Lancers, has been selected to succeed Colonel W. H. Lee as Assistant Adjutant-General at Netley on the 25th proximo.

The Government of India has decided that, as Officers of

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the Indian Medical Service of less than three years' full-pay service have now the rank of subaltern only, they are entitled under the provisions of paragraph 282, Army Regulations, vol. x, part 1, to a free passage by sea when proceeding to England on leave on medical certificate.

Surgeon-Colonel J. B. Hamilton, Principal Medical Officer of the Western District, has been appointed to a similar post on the staff of Major General Lord Methuen, commanding the Home District.

Surgeon-Colonel R. Lewer proceeds to Gibraltar, as Principal Medical Officer in succession to Surgeon-Major-General R. W. Meadows.

A NEW ARMY REGULATION.

A new Queen's regulation for the Army has been promulgated from the War Office by the Commander-in-Chief as to reports which general officers commanding at home and abroad are to send in as to the state of their commands as soon as possible after Jan. 1st in each year. The reports are to *deal with the health of the troops* generally, showing whether there has been any unusual increase or decrease of sickness, with the explanation thereof, if possible; the general condition of defences, barracks, &c., and the progress of military works; the general condition of mobilisation equipment, stores, storehouses, &c.; the working of any new regulation or system, or the utility of any new arm or equipment, and any other matter which may be of importance and interest.

SURGEON-CAPTAIN H. C. GORDON.

By the arrival of the steamer *Oil Rivers* in the Mersey on Saturday last news was received of the death of Surgeon-Captain H. C. Gordon, M.D., who recently took part in the operations against Tambi, near Sierra Leone. Surgeon-Captain Gordon was stationed at Sierra Leone when the news was received of the British defeat at Tambi, and the killing of Captain Robinson. He went up the river with the avenging party of West Indian troops, who captured the place and killed numbers of the enemy. He suffered from heart disease, and was on that account coming home in the steamer *Oil Rivers*, on which he embarked at Sierra Leone on the 27th ult., but died three days later, and was buried at sea. He was about thirty-five years of age, and belonged to Aberdeen.

DEPUTY-INSPECTOR-GENERAL R. TEMPLETON.

The announcement of the death of Deputy-Inspector-General R. Templeton, M.D., will be a subject of regret to the few contemporary medical officers that survive him, as well as to the larger number of those who knew him. Dr. Templeton was a member of the Ordnance Medical Department, and it is of interest to recall the fact that the organisation of the present Army Medical Staff is on very similar lines to those that existed in the old Ordnance Medical Department. Dr. Templeton after serving at home went to Ceylon, and was for a long time Surgeon of the Royal Artillery at Malta, and later on went to the Crimea. On his retirement he was appointed medical officer in charge of the Royal Hibernian School, Dublin. As a medical officer he was highly respected in his time, and was one of the first to apply operative treatment in cases of real and supposed abscess of the liver, of which his service in Ceylon gave him much experience. He had the reputation of being an excellent mathematician. Deputy-Inspector-General of Hospitals R. Templeton, M.D., Surgeon-Major Retired List, died at 42, Bayscombe-road, Shepherd's-bush, W., on the 2nd inst. He joined the Army, May 6th, 1833; became surgeon, April 5th, 1847; surgeon-major, Dec. 7th, 1855; and retired Jan. 31st, 1860, with the honorary rank of deputy-inspector-general.

AMBULANCE WORK AND MATERIAL IN PEACE AND WAR

Mr. John Furley, J.P., read an interesting paper on the above subject at the Royal United Service Institution on the 10th inst., Sir Thomas Crawford, M.D., K.C.B., in the chair. The object of the lecture was to show that the Army Medical Service could be supplemented in time of war, and that much could be gained by coöperation between military and civil organisations, together with the methods by which this might be accomplished. Probably no one possesses a larger amount of experience in connexion with this subject than Mr. John Furley, and, as might have been anticipated, he had much to say that was both practical and useful, especially in connexion with ambulance transport and material, and the utilisation of corps of civilians trained by the St. John Ambulance Association. Among other points he ventured an opinion that the British Army possessed the best and strongest built waggons but about the worst ambulance carriages for the conveyance of sick and wounded. After having discussed the subject of his lecture in detail he summed up the conclusions to be deduced from it. Sir Vincent Kennett Barrington, Inspector-General Lawson, Surgeon-Major Pratt, and Mr. Archibald Forbes took part in the subsequent debate on the paper.

ARMY MEDICAL STAFF.

Surgeon-Major-General J. B. C. Reade, C.B., who attains the limit of age on the 7th proximo, is to be retained until March 31st, 1893, to permit of his putting in the period of five years as professional assistant to the Director-General. It is presumed that this officer will be Supernumerary of his rank in order that his retention may not interfere with promotion.

INDIAN MEDICAL SERVICE.

Bombay.—Surgeon-Captain M. A. T. Collie, M.B., C.M., acting Resident Surgeon, European General Hospital, Bombay, is allowed furlough on medical certificate for one year.—H.E. the Governor in Council is pleased to make the following appointment: Surgeon-Major D. C. Davidson to relieve Surgeon-Captain H. W. Stevenson of his duties as Superintendent, Mahableshwar.—H.E. the Governor in Council is pleased to appoint Surgeon-Captain T. E. Dyson, M.B., C.M., to be Deputy Sanitary Commissioner, Gujarat Registration District, vice Dr. M. B. Kola, M.D., retiring.—H.E. the Governor in Council is pleased to appoint Surgeon-Captain T. D. C. Barry to be Chemical Analyser to the Government, vice Brigade-Surgeon-Lieutenant-Colonel I. B. Lyon, C.I.E., retired.—Surgeon-Captain J. Crimmin, V.C., and Surgeon-Major F. F. MacCartie, M.B., respectively delivered over and received charge of the office of the Health Officer of the Port of Bombay on May 17th, 1892.

Bengal.—The services of the undermentioned Officers of the Bengal Establishment are placed temporarily at the disposal of the Government of Bengal: Surgeon-Captains T. Grainger, M.D., and J. G. Jordan, M.B., C.M.—Surgeon-Captain H. E. Banatvala, Bengal Establishment, whose services have been placed temporarily at the disposal of the Chief Commissioner, Central Provinces, is posted to the Bilaspur District as Civil Surgeon and Superintendent of the Gaol.

Hyderabad.—On the application of the Nizam's Government the Government of India have sanctioned a five years' extension of the service of Surgeon-Captain Hehir, who is the head medical officer of the regular troops and health officer to the Chadarghat Municipality.

Madras.—Surgeon-Captain J. A. Burton, Madras Establishment, is appointed to officiate as Civil Surgeon of Amraoti during the absence on furlough of Surgeon Captain R. B. Roe.—Surgeon-Major H. Allison, M.D., Fort Surgeon, Madras, is appointed to act as Chemical Examiner, Madras, without prejudice to his own duties, during the absence of Surgeon-Captain J. L. Van Geyzel, M.D., on furlough.—Surgeon-Major G. L. Walker, M.D., is appointed to act as District Surgeon, Malabar, and Superintendent of Gaol, Calicut, during the employment of Surgeon-Major A. H. Leapingwell on other duty.—Surgeon-Major S. C. Sarkies is appointed to act as District Surgeon and Superintendent of Gaol, Nellore, during the employment of Surgeon-Major G. L. Walker on other duty.—Surgeon-Major W. F. Thomas is appointed to act as District Surgeon, Chingleput, during the employment of Surgeon-Major H. A. F. Nailer on other duty.—Surgeon-Major W. F. Thomas is appointed to act as Superintendent, Reformatory School, Chingleput, during the employment of Surgeon-Major H. A. F. Nailer on other duty.—Surgeon-Lieutenant R. K. Mitter, Indian Medical Service, doing duty in the Madras District, to do duty in the Secunderabad District.

Oudh.—Surgeon-Captain G. H. Fink, Civil Surgeon, Bijnor, is granted privilege leave for forty-two days, from May 15th, 1892.

Surgeon-Major P. J. Freyer, Civil Surgeon, Moradabad, is appointed to hold visiting medical charge of the Bijnor District, in addition to his other duties, during the absence on privilege leave of Surgeon-Captain G. H. Fink.

Surgeon-Captain G. C. Hall, Indian Medical Department, is granted leave to proceed out of India on medical certificate for six months' Pension service, sixth year, commenced Nov. 11th, 1891.

Brigade-Surgeon-Lieutenant-Colonel J. Smith, Medical Officer, 25th Regiment Madras Infantry, for six months, from April 17th, 1892, on medical certificate.

The undermentioned officer is granted furlough out of India:—Surgeon-Lieutenant-Colonel H. Johnstone, M.D., Civil Surgeon, Rangoon, medical certificate for one year.

Brigade-Surgeon-Lieutenant-Colonel P. Cullen, M.D. Civil Surgeon Nursingpore, Central Provinces, is permitted to retire from the Service, from June 1st, 1892, subject to Her Majesty's approval.

MILITIA MEDICAL STAFF.—Surgeon-Lieutenant-Colonel W. Malcomson, 4th Battalion, Princess Victoria's (Royal Irish Fusiliers), resigns his commission; also is permitted to retain his rank and to wear the prescribed uniform on his retirement.

NAVAL MEDICAL SERVICE.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon Henry Nanton Murray Sedgwick has been placed on the Retired List at his own request, with permission to assume the rank of Deputy-Inspector-General of Hospitals and Fleets; Fleet Surgeon Ralph Westropp Brereton has been placed on the Retired List at his own request.—The following appointments have been made at the Admiralty:—Fleet Surgeons Isaac H. Anderson to

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Plymouth Hospital (dated June 11th, 1892). Staff Surgeons: Henry A. W. Richardson to Plymouth Hospital (dated June 11th, 1892); H. W. D. Walsh to the *Hecla*, Robt. Bentham, to the *Neptune*, to join July 2nd, and Alex. L. Christie, M.B., to the *Serapis* (all dated June 15th, 1892). Surgeons; Joseph C. Wood to the *Alecto*, Hugh W. Macnamara and Hamilton E L. Earle to the *Pembroke*, additional (all dated June 11th, 1892); Deputy-Inspector-General Thos. S. Burnett to Jamaica Hospital.—Surgeons and Agents: George B. Elliott to Brixham and Thomas Shonhan to Bonmahon (both dated May 14th, 1892); John F. Newland to Kingstown and Dalkey (dated May 26th, 1892).

VOLUNTEER MEDICAL STAFF CORPS. — The Norwich Company: Charles Hyde Champion Cousins, Gent., to be Surgeon-Lieutenant—*Infantry:* Aberdeen Brigade: Surgeon-Lieutenant-Colonel A. Fraser, M.D., 1st Volunteer Battalion, the Gordon Highlanders, to be Brigade-Surgeon-Lieutenant-Colonel.

VOLUNTEER CORPS. — *Artillery:* The Tynemouth (Western Division, Royal Artillery): Surgeon-Captain J. F. Haswell, M.B., resigns his commission (dated June 11th, 1892).—*Royal Engineers* (Fortress and Railway Forces): 1st Durham: Surgeon-Lieutenant J. D. Leigh resigns his commission (dated June 11th, 1892). — 1st Gloucestershire: George Herbert Ward-Humphreys, Gent., to be Surgeon-Lieutenant (dated June 11th, 1892).—*Rifles:* 3rd Volunteer Battalion, the Welsh Regiment: Surgeon-Captain J. L. Leckie to be Surgeon-Major (dated June 11th, 1892).

Correspondence.

"Audi alteram partem."

DISPUTED CASE OF SCARLET FEVER.

To the Editors of THE LANCET.

SIRS,—As the magistrate criticised severely my conduct in this case, I shall be glad if you will allow me space to explain how it was I acted as I did.

On May 19th I was called to see Emily Williams by the mother, and I was informed by no one that there was anything peculiar about the case. I continued to attend her almost daily through a mild but well-marked attack of right-sided pleurisy, with pain, rapid breathing, and well-marked pleuritic rub. The child was never seriously ill, and was convalescent on the 28th, when my visits ceased. About the 25th a member of the Fulham Vestry called upon me and told me I was attending a case of scarlet fever. This I denied. He mentioned the number of the house at which I was attending, but still I told him he was mistaken; there must be two children ill in the house. However, he made it clear to me that my case was the one the medical officer of health had certified as scarlet fever. When I discovered this, knowing that this member of the vestry would soon be seeing the medical officer of health, I asked him if he would kindly make it clear to him that I attended the case in ignorance, and gave my diagnosis before I knew he had ever seen it, as I had no wish to quarrel with the medical officer of health. The case then came before the guardians, and my diagnosis was made public. As I have always worked amicably with the medical officer of health in his official capacity, and as I received no communication from him, I concluded he had decided to let the case drop. On Saturday, June 4th, I was told in the street that the medical officer of health had gone to the court for an order to arrest my patient. I arrived at the court too late to give evidence. In the evening Mr. Butler called upon me. I had never spoken to or had any communication with him on this or any other matter before.

I should like to take this opportunity for apologising to Dr. Cayley for all the worry the case has been to him. It was too late on Saturday to write, so I simply wired to him asking him to see a case with me; but before the case was brought in to him, Mr. Butler and I explained to him that the magistrate had issued an order for the arrest of the child, on the evidence of medical men who had seen the child on two or three occasions only.

I am, Sirs, your obedient servant,
W. F. CLARKE, M.D., B.S. Lond.

P.S.—A bill has been circulated in the district, on which my name appears. I had no knowledge of or share in the publication of the document before copies were delivered at my door, and I have taken steps to stop its circulation.

Fulham, June 14th, 1892.

THE HOLY PLACES OF ARABIA.

To the Editors of THE LANCET.

SIRS,—The paper on the above subject, in your issue of the 14th ult., by my friend, Dr. John Wortabet of Beyrout, contains much information, both curious and uncommon. By a printer's error the town of Jidda (Jedda) appears as Tidda throughout the article. Several travellers besides those mentioned by Dr. Wortabet have visited and described the Arabian coastlands—e.g., Irwin, Niebuhr, Seetzen, and Wellsted; and Didier in 1856 reported a journey inland to Taïf; but Mecca and Medina remain to be among the least known of the world's cities. Dr. Wortabet quotes Burckhardt's narrative. This intrepid man suffered severely at Mecca from dysentery, and at Medina from fever, which nearly proved fatal, and his death from the former disease in 1817, two years after his return to Egypt, must probably be ascribed to the Arabian visit. A member of our own profession, Robert Richardson, M.D., L.R.C.P. Lond., himself a traveller of no mean rank, happened to be at Cairo, and attended poor Burckhardt in his last illness.[1] When lately in Egypt I sought out Burckhardt's tomb. "The Turks will take my body, I know it," he had said when dying, for as a Mussulman he had lived, and he lies in a Moslem grave. Above is sculptured the full white turban, and below, in Arabic, are the words: "Sheikh Ibrahim, the Moslem, the English Traveller." Dying at thirty-three years of age, when on the eve of entering on his intended life work in Central Africa, Burckhardt left so rich a store of records from the mere preparatory journeys he had taken as to place him in the very first rank of Eastern explorers. As regards the number of pilgrims who visit Mecca, Mr. Wilfrid Blunt computed the "Haj" of 1880 at 93,000. Mr. John Ray, in 1693, quotes an author who speaks of 200,000. The Christian pilgrimage to Jerusalem towards Easter-time is not wholly unlike the Mohammedan in its sanitary aspects, as I can testify; but the numbers are much smaller, and the mortality is far less.

I am, Sirs, yours faithfully,
Finsbury-square, June 2nd, 1892. R. HINGSTON FOX.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—I note in your columns of to day's issue, at p. 1330, that a report was approved and adopted by the Council containing a clause to the effect that it is impossible to grant even the mildest of the requests of the Association of Fellows—that for a common room—because the Council regard the Fellows as only a section of the Corporation. Surely this is an admission of what I have always contended, that the Membership gives the corporate existence, whilst the Fellowship is a mere academic distinction. Now comes the question: How is it that seats on the Council are confined "to the exclusive use of any section of the Corporation"? Permit me, in conclusion, to say that the action of the Committee of the Members' Association which I deprecate has nothing to do with the question of appeal. The abandonment of that policy was my own action, based on an opinion which I obtained, and which the Committee generously left me to pay for. My refusal to have anything more to do with them was partly explained by Mr. Ashton Ellis's reply, and is due partly to other matters which are slightly indicated by the nonsense written by Mr. W. G. Dickinson. I am, Sirs, yours faithfully,
Birmingham, June 11th, 1892. LAWSON TAIT.

ANÆSTHETICS.

To the Editors of THE LANCET.

SIRS,—After the discussions at the Gynæcological Society last week on anæsthetics, perhaps an account of the after-effects of nitrous oxide and ether on the patients operated on at the Chelsea Hospital for Women during this year may not be uninteresting. The results in 89 cases show no

[1] Richardson's Travels, vol. i., p. 161.

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deaths attributable to anæsthetics. Apart from abdominal sections there have been 68 operations, averaging twenty-three minutes each, on patients averaging thirty-five years, gas and ether or ether alone being the anæsthetic used; 21 had no retching or vomiting, and the remaining 47 had each on an average not more than 3 attacks of vomiting, with a little retching. There have been 21 abdominal sections, averaging forty-five minutes each, patients' ages thirty-one years; of these, 18 have the exact number of times they vomited noted, being 4¼ or 2½ times for each patient; the remaining 3 were described as "a little," "very slight," and "not violent at intervals for three hours"; 11 had no retching; and, dividing the remainder into slight and severe, only 2 were noted as having severe retching. About 20 had ether alone, all becoming insensible without coughing, struggling, feeling suffocated, or showing distressing symptoms, the majority being unconscious in three or four minutes. Clover's inhaler, with Hooper's anæsthetic ether, is used, and as little gas and ether given as possible, the relaxation being satisfactory, and the operation can be commenced in two minutes; but I find it better to let them get more slowly under, and take five minutes for abdominal sections. Bronchitis was not set up by ether *de novo*, and a few patients who had coughs before operation were not much worse afterwards. All complained much for twelve to twenty-four hours of the smell and taste of ether, but not often of headache.

I am, Sirs, your obedient servant,

Belgrave-rd., S.W., June 13th, 1892. ANDREW FAUSSET.

RECTAL INJECTIONS OF SALT SOLUTION FOR HÆMORRHAGES.

To the Editors of THE LANCET.

SIRS,—Dr. Spencer's account in your last week's issue of cases treated by intravenous injections of salt solution in cases of grave hæmorrhage has induced me to again bring before the profession what I believe to be a very good substitute for it in an emergency—viz., simple injection per rectum. I published in THE LANCET of 1888 an account of a patient who was apparently dying from post-partum hæmorrhage, but whom I firmly believed owed her life to the rectal injections, the immediate effects of which were striking. Since the publication of that letter I have heard of a number of cases treated similarly. One of the obstetric assistants at University College Hospital told me he had saved two patients, and was much struck with its efficiency. In another case of excision of the jaw, where the patient was in a state of collapse, the treatment was very effectual, as also in a case of collapse from hæmatemesis. Personally, I have seen it repeatedly used in cases of large losses of blood at University College Hospital, where, instead of injecting only from four to six ounces of saline solution, from twelve to fourteen ounces of warm water were thrown into the rectum. Its value in such operations as amputation at the hip or excision of the upper jaw is unquestionable, but I have never seen any reference made to it either in the text-books or periodicals. Its value, however, is more particularly to the medical man attending midwifery cases, as how few practitioners carry the necessary apparatus for venous transfusion, and how difficult it is when the patient is throwing herself about (and perhaps losing blood all the time), and one is single-handed, to perform what is really a delicate operation, whereas by carrying the "salt" made up in powders ready for dissolving one can control the uterus while the nurse prepares the solution, and inject it without relaxing our attention to the *fons et origo* of the mischief. Whether simple water is as readily taken up by the emptied vessels of the rectum as saline solution I have no means of determining, but at all events the stimulating effects of the salts on the heart are by no means to be neglected. The smaller injections seem to me to be preferable, inasmuch as no risk is run of exciting the bowel to expel its contents, and the injection can be repeated every fifteen minutes until such time as the patient can retain liquids given by the mouth, when both means can be continued as long as necessary. Every practitioner and nurse being provided with a syringe, this plan has at least one good point—it can do no harm, and I am firmly convinced that in the majority of cases it will be markedly beneficial.

I am, Sirs, yours faithfully,

RAINSFORD F. GILL, M D. Lond.

Adelaide-road, S. Hampstead, June 14th, 1892.

"STEELE *v.* SAVORY" FUND.

To the Editors of THE LANCET.

SIRS,—We beg to forward herewith a second list of subscriptions to the "Steele *v.* Savory" Fund, which includes several amounts previously omitted.

We desire to explain in answer to inquiries that the subscriptions now being acknowledged are those only which have been sent to the Treasurer of the Special Committee appointed in February last after the termination of the action. A "Guarantee Fund" was established on the commencement of the proceedings three years ago, towards which about £250 was received (some further contributions to this fund promised, but not then paid, have since been sent to the Special Committee and included in their first list). This amount was all expended during the progress of the action, but is allowed for in the bill of costs now delivered, from which it will be deducted. It will be seen that there is still a balance of about £1000 required, which would be easily obtained if every member who has hitherto taken an interest in College reform were to send a few shillings. We should like to take this opportunity of reminding our numerous local secretaries of the letter which we recently sent them, and we trust that they are acting upon it. We shall also be glad if those members of our association who have not yet paid their arrears of subscriptions will do so forthwith. We hope that these gentlemen will not put us to unnecessary trouble by delaying their remittances.

We remain, Sirs, faithfully yours,

JABEZ HOGG, } Joint
W. G. DICKINSON, } Hon. Secs.

June 14th, 1892.

SECOND LIST OF SUBSCRIPTIONS.

John Tweedy, F.R.C.S. (second donation)	£5	5	0	Surg.-Major Lyons	0	10	6
Dr. A. F. Holdsworth	4	4	0	C. E. Abbott	0	10	6
Dr. G. H. Batterbury (Local Secretary)	3	3	0	Wm. Grove, M.D.	0	10	6
Collected by Mr. H. A. Latimer (Local Secretary, Swansea)	2	16	0	J. A. Rigby, M.D.	0	10	6
W. J. Seward, M.B.	2	2	0	Sexton Pattison	0	10	6
Dr. T. Curtis Denby	2	2	0	J. H. Crisp	0	10	6
Dr. Chas. Taylor (second donation)	1	11	6	G. H. Case	0	10	6
Jas. Somer	1	1	0	Alfred Freer (second donation)	0	10	6
C. G. Woodd	1	1	0	Henry Stear	0	10	6
M. J. Sturges, M.D.	1	1	0	Anon	0	10	6
Thos. Taylor	1	1	0	F. W. Fry	0	10	6
Clement Godson, M.D.	1	1	0	Chas. Snape, M.D.	0	10	6
Thos. Wright	1	1	0	R. Alford, F.R.C.S.	0	10	6
Thos. Walker	1	1	0	T. B. Luscombe	0	10	6
W. Bevan Lewis	1	1	0	A. Gibbings	0	10	6
Nath. P. Blaker	1	1	0	S. Wyborn	0	10	6
W. P. Lipscombe	1	1	0	Fred. Hunter	0	10	6
Gordon Jones	1	1	0	Colin G. Campbell	0	10	6
Mrs. E. Garrett Anderson, M.D.	1	1	0	Chas. Andrews	0	10	6
C. G. Brown	1	1	0	A. H. Sandland	0	10	6
L. A. Barrow	1	1	0	Chas. Taylor, M.D.	0	10	6
Alf. T. Brett, M.D.	1	1	0	E. G. Whittle, M.D.	0	10	6
G. H. Broadbent	1	1	0	J. Earp Burton	0	10	6
Alfred Harvey, M.B.	1	1	0	W. R. Rogers, M.D.	0	10	6
J. D. Harris	1	1	0	Joseph Harper	0	10	6
Jas. Coram	1	1	0	Mark Jackson, M.D.	0	10	6
Francis Goolden	1	1	0	J. R. Plant	0	10	6
John Jackson	1	1	0	J. R. Leeson, M.D.	0	10	6
Collected by Mr. Robert Hicks, Ramsgate Local Secretary:—				J. H. Sherrwood	0	10	0
Dr. T. G. Styan	1	1	0	L. C. E. Calthrop	0	10	0
Dr. R. T. Bowden	1	1	0	Surg.-Col. C. H. Godwin	0	10	0
Dr. J. B. Berry	1	1	0	Jas. Haworth	0	10	0
Mr. C. Cotton	1	1	0	Wm. Powell	0	10	0
Mr. T. F. Raven	1	1	0	C. A. Lee, M.D.	0	10	0
Dr. F. Brightman	1	1	0	G. F. Rossiter, M.B.	0	10	0
Robert Hicks	1	1	0	G. Winter Rhodes	0	10	0
J. R. Kingston	1	1	0	Rev. H. B. Wilder, M.R.C.S.	0	10	0
E. F. Neve	1	1	0	R. Burdett Sellers	0	10	0
Dr. Royle	1	1	0	J. Hall Redwood, M.D.	0	10	0
T. Smailes	1	1	0	F. W. Collingwood	0	10	0
P. H. Williams	1	1	0	Jas. Robinson	0	10	0
Thos. Wright	1	1	0	H. A. Lawton, M.D.	0	10	0
Lennox Browne	1	1	0	Clement Dukes, M.D.	0	10	0
H. D. Brook	1	1	0	W. A. E. Waller	0	10	0
Surg.-Lieut.-Col. J. B. Beamish	1	0	0	Surg.-Capt. R. P. Bond	0	10	0
D. M. Williams	1	0	0	Surg.-Capt. G. M. H. Colman	0	10	0
G. F. Jones	1	0	0	G. W. Tait	0	10	0
W. A. W.	1	0	0	S. H. Steel, M.B.	0	10	0
Dr. Goldsmith	0	15	0	Surg.-Gen. R. Cockburn	0	10	0
				Smaller sums	2	15	0
				Errata in First List:—			
				For "T. S. Grenson," read *T. S. Gimson*	1	10	0
				For "Edwin H. Roe," read *Surg.-Major Roe*	2	2	0

BRITISH MEDICAL TEMPERANCE ASSOCIATION.

To the Editors of THE LANCET.

SIRS,—The twenty-sixth consecutive comparison between the Temperance and General sections of the United King-

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dom Provident Institution has just been published, and many of your readers will desire to know whether it tallies with the rest. There is even a greater difference than in any previous year:—

	Expected.	Actual.	
Temperance	321	240	= 70·7%
General	386	425	= 110·1%

The totals of the twenty-six years are:—

	Expected.	Annual.	
Temperance	5177	3663	= 70·7%
General	7663	7459	= 97·5%

This result is consoling to abstainers, and gathers force with each successive year.—I am, Sirs, yours faithfully,

J. J. RIDGE,
Enfield. Hon. Sec., Brit. Med. Temperance Assoc.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Death under Chloroform.

AN inquest was held last week by the city coroner upon the body of a man who died at the Royal Infirmary during the administration of chloroform. The operation which it was intended to perform, though painful, was a comparatively minor one. Three of the house surgeons were present, one of whom was the administrator. Every precaution appears to have been taken, and every effort made to avert the fatal result; but without effect. The jury returned a verdict freeing all concerned from any blame. Deaths from chloroform in this city have been of late as rare as they were unfortunately frequent during 1891 and 1890. So far as can be ascertained, there have been no deaths this year or during the last two months of 1891, the last death having occurred on Oct. 15th, 1891.

Grant of Land for a Crematorium.

The Burial Board for the parish of Liverpool passed a resolution in favour of permitting the crematorium, which the new Cremation Society of Liverpool purpose erecting, to be placed upon a portion of the cemetery space at Anfield, which has not yet been used for burials. The parish of Liverpool, as represented by the rector, churchwardens, and members of the select vestry, have confirmed this resolution by a substantial majority. Thus, as suggested in THE LANCET some months ago, the two systems of disposal of the dead will be tried side by side, and opportunities will be afforded of comparing the two, each with the other. Without expressing any preference for either, the example thus set is worthy of being followed by other Burial Boards. Cemeteries exist for the disposal of the dead, primarily it is true by burial; but now that so many influential persons have shown themselves in favour of the disposal of their bodies by burning, it is only right that the opportunity for this should be afforded, subject to every needful safeguard. The recent cases of poisoning and the discovery by Dr. Stevenson of strychnine after burial and exhumation show how very necessary it is that some change should be made in our present system of death certification and registration. Before any body is destroyed by fire such inquiry should be made as would deter any from attempting to conceal foul play by this means.

Anonymous Correspondents and Coroners.

A Liverpool provision merchant, highly respected, died at his residence in Birkenhead rather suddenly on the morning of the 9th inst. The cause of death was apoplexy. This was certified to by the medical attendant who saw the deceased shortly after the attack and remained with him until his death. Mr. Henry Churton, the coroner, received a postcard from someone who preferred to be anonymous, informing him of the death, hinting that it was not a natural one, and that steps were being taken to hush it up. Mr. Churton caused full inquiries to be made by his officer and the local police, and, satisfied by them that the death was as it had been certified, declined to hold an inquest. It is to be hoped that the perpetrator of so cowardly an attempt to wound the feelings of surviving relatives and to bring discredit upon inquests by an attempt to hoax a coroner may be brought to justice.

St. James's Cemetery.

Dr. Hoffman, of the Burial Acts Department of the Home Office, attended at St. James's Cemetery on the 11th inst. and held an inquiry in the chapel, hearing various speakers in favour of closing the cemetery partially or completely. There were present Dr. Stopford Taylor (medical officer of health), Dr. Davidson, Dr. Bradshaw, Mr. Bickerton, and Mr. Lowndes. Mr. R. D. Holt, Mr. F. Smith, and Mr. Williamson (three members of the Corporation) were present, as well as the newly appointed chaplain, the Rev. R. F. Winter, and Mr. Charles Bird, the clerk to the cemetery, who has resided there for fifty years. Dr. Hoffman at the commencement of the proceedings explained that the inquiry, so far as he was concerned, was on sanitary grounds, and on sanitary grounds only. He had visited the cemetery that morning and had seen some open graves (which were being prepared for expected interments that or the next day) which he observed were very dry, though it had been raining that morning and more or less all the previous night. The clerk stated that the regulations and rules made with reference to burials in this cemetery were strictly enforced. The ground was dry, and water would not stay, though the cemetery was not drained. The graves were all either private or leased; the lowest price for any single grave was £5, including the first interment. The leased graves were sold for seven years, but no one was allowed to be buried in them, except the relatives of the person during that period. They were not leased again until fourteen years had expired. The depth was twelve feet, and coffins placed in vaults were always hermetically sealed either in lead or with stone slabs cemented together. The interments in 1891 numbered 451; 19 in vaults, 44 in new graves, and 318 in existing graves. The total number of interments in the cemetery since its opening in 1829 is 47,091. These are comprised in a space of 44,000 square yards of land, the greater portion of which is many feet below the level of the adjacent streets. The cemetery, in fact, though intramural, is, so to speak, sub-mural, being at the same time perfectly open. There is a very strong feeling among members of the profession, and some of the general public, against the breaking of any virgin soil in this cemetery (of which there remains a sufficiency to make many new graves), though it is generally admitted that to close the cemetery absolutely would be unreasonable and unjustifiable. Dr. Hoffman will, as usual, make his report later on.

Honours to Local Professors.

Professors Herdman and Gotch, having been elected Fellows of the Royal Society, were entertained at dinner at the Art Club on the 11th inst. by the Senate and members of the Liverpool University College.

June 14th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Weather and Health in the North.

WHIT-WEEK has been remarkable this year for its sudden change of temperature. Much as we are used to climatic variations, we rarely have such a record as we experienced this week. Up to Thursday we had a steady rise of temperature with bright sunshine. The heat was so great as to cause lassitude and depression, and, indeed, sunstroke, two fatal cases being recorded—one at Barnard Castle and the other at Penrith. But between Thursday night and Friday morning all was changed by a thunderstorm, north-east wind and rain, with a fall of temperature of about twenty degrees. This rapid change has given rise to much illness; susceptible people have been caught, and now there is a pretty general epidemic of tonsillitis astir in Newcastle and district. I have, however, a much graver matter to note—namely, a fatal case of small-pox in Newcastle, the particulars of which are as follows:—A sailor from North Shields presented himself amongst the casuals one day last week at the Royal Infirmary. As there appeared some doubt about the nature of his affection, he was taken into the house, and ultimately the case was diagnosed as hæmorrhagic small-pox, upon which he was removed to the special hospital set apart for such cases, where he died the next day. I believe that the sailor had come from some foreign port, but that

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he had been for a short time a resident at the Sailors' Home at North Shields; but of course this will be investigated in due time, and no doubt every means will be taken to prevent the spread of the disease.

The Proposed New Infirmary for Newcastle.

A requisition has been presented to the Mayor of Newcastle asking him to call a public meeting of the inhabitants to consider the question of building a new infirmary to perpetuate the memory of the late Dr. Bruce, and his worship has consented to hold a meeting in the Guildhall on the 29th inst.

Carlisle: a New Sanitary Association.

An Association, called the North-Western Sanitary Association, has been formed in Cumberland to ensure the proper sanitary condition of dwellings, and to give the best practical advice as to the best means of remedying defects in the houses of the poorer classes. The Association is not formed for the purpose of profit, and any surplus after the payment of the officers will be set apart for the advancement of sanitary science, as may be decided at a general meeting of the subscribers.

Opening of the Bowes Museum and Park at Barnard Castle.

On Friday last the Bowes Museum and Park were formally opened and handed over to the public. The museum and park were founded by the Countess of Montalbo, a French lady, and wife of the late Mr. John Bowes, of Streatham Castle, whose family have been connected with the district for centuries, and whose present representative (the Earl of Strathmore) presided at the inaugural banquet. The Countess and her husband, who mostly resided in France, were enthusiastic art patrons and collectors, and about twenty-two years ago they decided to remove their collection to England, and fixed upon Barnard Castle for that purpose. She first purchased the land at a cost of about £100,000, and she lived to lay the foundation stone, but the building was carried on by Mr. Bowes, and endowed by him to the extent of £135,000. Certain legal obstacles prevented this bequest being fully carried into effect; but his estate being administered in Chancery, and a scheme being assented to by the Charity Commissioners, the intentions of the founders will be, it is expected, fully carried out in time. The building has cost about £200,000, is very handsome in itself, commanding fine views of the Yorkshire moors. The value of the contents of the museum is not known, but they have been insured against fire for £54,000. It was the foundation of the Bowes Museum which led to the alteration of the law of mortmain in 1871, which enabled any person to bequeath by will for public parks, schools, and museums (subject to restrictions) land not exceeding twenty acres to any one park, two acres for any public museum, and one acre for any one schoolhouse.

Sunderland.

At a meeting held at the Sunderland Infirmary last Friday to make arrangements for the forthcoming Hospital Saturday collection, the secretary stated that, during the twelve weeks that the miners' strike had lasted, the infirmary had lost £420 in working men's subscriptions alone, and the losses from other sources owing to the strike (added to the above) amounted to about £700. The foundation stone of the new Eye Infirmary at Sunderland is to be laid on July 2nd by Mrs. Backhouse.

Berwick: the late Dr. Maclagan.

A movement is on foot at Berwick to establish some memorial of the late Dr. P. W. Maclagan in recognition of the prominent position he so long occupied in the border town as a physician, philanthropist, and as a man of science. Meantime, a ward in the Berwick Infirmary has been called the "Maclagan Ward," in recognition of his long and faithful services to the institution.

Darlington.

At a late meeting of the Darlington sanitary authority it was decided that the Infectious Diseases (Notification) Act, 1889, should be put into force, and that it was to apply permanently to measles.

Lord Barnard has sent a gift of £100 to the Mayor of Darlington towards the relief of the distress in the town. Lady Grisell Baillie bequeathed £3000 to the Baillie Memorial Institute at St. Boswell's.

Newcastle-on-Tyne, June 15th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

The Extension of Aberdeen University Buildings: Rearrangement of the Classes.

A MEETING of the Senatus of the Aberdeen University was held on June 11th, when the question of the rearrangement of the classes, rendered necessary by the University extension, was under consideration. Notices of motion had been given by Professor Stephenson, Principal Sir William Geddes, Professors Minto, Nicholson, Fyfe, and Milligan, anent the rearrangement. After discussion, the motion of Professor Minto, in an amended form, was carried by nine votes to six. The adopted motion runs:—"That since it is desirable, in order to provide proper facilities for study, that the classes included in the medical curriculum should be located together, and since it is desirable, for similar reasons, that all the classes included in the scheme of options for an arts curriculum should be located together, and since the science classes which are common to both cannot be divided between King's College and Marischal College without serious disadvantage, and ought to be all close to the other classes of any curriculum of which they form a part, it is, in the opinion of the Senatus, desirable for the full efficiency of the University, under the new ordinances, that authority should be obtained for having all the classes of arts, science, and medicine on the same site." The following motion also became the finding of the meeting:—By Professor Hay: "That the Senatus now resolve to recommend to the University Court that the proposed extension at Marischal College should be carried out on such lines as to permit of the object of the motion now carried being ultimately attained."

The Health of Aberdeen.

The death-rate for May was 17·87, as against 19·43 in May and 19·47 in June, 1891. The rate for May is, in fact, the lowest recorded for the last ten years at least. There were thirty-eight cases of scarlet fever, a decrease of eleven since April; and six cases of measles with one death, as against one case last month. Thirteen cases of measles from an adjoining parish were removed to the city hospital. Diphtheria shows a diminished record—seven cases with two deaths, as against ten cases with three deaths. Whooping-cough is also on the wane, 100 cases, as compared with 191 cases in April, being recorded.

Professor Struthers on the New Medical Education.

Dr. Struthers has written two very interesting articles on the new medical education, which are published in the *Aberdeen Daily Free Press*. He advocates less lecturing; especially he denounces the system of taking out a course more than once. He strongly recommends the further use of laboratories, and he deprecates the introduction of anatomy, except in its very elementary forms, before the first professional examination is passed.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Surgeons.

A MEETING of Fellows will be held on Monday next, the 20th inst., to witness the election of examiners for the ensuing year. The rule that no candidate should be eligible for an examinership after a three years' tenure of office without a twelvemonth's interval has been repealed by the Council, who will elect examiners irrespectively of the time they may have served.

Mercer's Hospital, Dublin.

The expenditure last year exceeded the income of the same period by £791 9*s.* 3*d.*, the amount obtained by legacies coming to the paltry total of £33 12*s.* 11*d.* The institution is situated in one of the poorest parts of the city, and receives yearly a very considerable number of accidents of a serious nature.

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Royal Medical Benevolent Fund Society of Ireland.

The annual meeting was held last week at the Royal College of Physicians. The committee in their report refer to the scanty support given by their professional brethren in the country, and point out that last year no less than five important counties did not contribute a single shilling to the fund. Thirteen *ad interim* applications for relief were considered since the last annual meeting, two of which were from medical men and eleven from the widows of medical men. This year grants to the amount of £995 have been distributed. The expenses of management amounted to £125, or about 9·8 per cent. of the income, which appears somewhat higher than it might be considering the number of honorary officers.

Royal Hospital for Incurables.

At a meeting of the board of governors held last Saturday J. J. Cranny, M.D Dub., was elected honorary consulting physician, and John V. Lentaigne, F.R.C S I, honorary consulting surgeon, to the hospital.

Children's Hospital, Temple street.

The committee intend to hold the annual garden fête and fancy fair on the 23rd inst. and following day.

The proposed Consumption Hospital at Ballynafeigh.

At the last meeting of the Belfast City Council, held on June 1st, the report of the public health committee was brought forward, with an appendix submitted by the medical superintendent officer of health and the executive sanitary officer, who had been instructed to report on the plans of the new consumption hospital. In this document these gentlemen say they have inspected the plans and the suggested site, and, while there is no objection to the former, they do not think it is advisable to build any hospital for the treatment of disease in a populous locality. They say the infectious nature of tubercle is now generally admitted, and, though in other large cities hospitals for the treatment of that disease exist in populous districts, they do not think it would be wise or expedient to follow this example. They point out that, while the death-rate in Belfast during the past year amounted to 2·6 per 1000 from all zymotic disease, that from phthisis amounted to 4 per 1000. They recommend that a site should be chosen outside the city boundary, in a locality not likely to be largely built upon for some time to come. This report was adopted by the public health committee. On the same day an extremely influential deputation of the citizens of Belfast waited on the Council, urging them to allow the building of the new hospital to be proceeded with at once. One of the deputation, a well-known clergyman in Belfast, stated that before they acquired the site they carefully informed themselves as to whether any danger was likely to accrue to the inhabitants of the neighbourhood from the erection and maintenance there of such a hospital. They had visited the Brompton Hospital, London, the largest institution of the kind in the world, containing beds for 420 patients, and the authorities there simply laughed at the views expressed by the Belfast Health Committee as to the danger of the hospital to the surrounding population. When the matter was considered by the Council, on the motion of Mr. Stewart, the report of the public health committee was passed, with the excision of a paragraph and the whole of the appendix referring to the Consumption Hospital. This was thought to mean that the plans had passed; but I understand the subject was again before the public health committee, and is not yet finally settled. On June 13th a public meeting of the inhabitants of Ballynafeigh was held to protest against the proposed site as unsuitable, and the following, amongst other resolutions, was passed:—"That many of the most eminent medical men confidently assert that consumption is infectious, and although some still hold a different view, it is the decided opinion of this meeting that all risk of infection should be avoided." A deputation from the meeting was to appear on Wednesday, June 15th, before the City Council Improvement Committee. The question of the location of the new consumption hospital is exciting considerable discussion in Belfast, and the local papers are full of letters on the subject, especially on the point, "Is consumption infectious or not?"

The statue of Lord Ardilaun in St Stephen's-green Park, Dublin, will be unveiled next Saturday by the Lord Mayor.

June 15th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Prophylaxis of Tuberculosis.

I HAVE on more than one occasion communicated the results of the experiments conducted by MM. Hédicourt and Richet on the protective properties of cultures of avian tuberculosis on dogs. On Dec. 5th, 1891, four dogs were inoculated with human tuberculous matter, two of these animals having previously been inoculated with avian tubercle. The first group of dogs died on Dec. 27th, each having survived exactly twenty-two days. Of the second group, one was destroyed on April 19th, 1892. This dog, which, despite an appearance of good health, had developed fungous periarthritis of both wrists, and arthritis of the hip-joint, was found post mortem to be affected with pulmonary tuberculosis lesions in which a sclerogenic process had made considerable progress. The other "vaccinated" dog is to-day alive and well, having in the six months since its inoculation gained flesh to the extent of three kilogrammes. This fairly conclusive experiment has since been repeated on a larger scale. On April 14th, 1892, four "unvaccinated" and four "vaccinated" (with avian tubercle) dogs were subjected to inoculations with equal quantities of human tubercle. The culture, forty-five days old, was injected into the saphenous vein, one cubic centimetre being the dose employed. The inoculation was repeated on two subsequent occasions. On the same day three other dogs, already "vaccinated," received a single dose of human tubercle, either in the peritoneal cavity or in the saphenous vein. The results are most striking, for the four "unvaccinated" animals succumbed on the eighteenth, twenty-first, thirtieth, and forty-fifth days respectively, whilst all their "vaccinated" comrades are still living, and apparently enjoying perfect health. May not these laboratory experiments be extended to the wards, and to our homes, and is it too bold a flight of imagination to picture children receiving at the hands of the family medical man one or more injections of avian tubercle as a prophylactic against that fell malady, tuberculosis, just as the onslaughts of variola are guarded against by the routine practice of "vaccination"? Time alone can teach us the value of such protective methods.

Election at the Académie des Sciences.

The vacancy in the ranks of the foreign associates of this body, caused by the death of Dom Pedro, ex-Emperor of Brazil, was at the last meeting, at which Carl Vogt, the eminent naturalist of Geneva, was present, filled up by the election of von Helmholtz of Berlin, the great physicist being awarded twenty-eight votes, as against nineteen recorded for M. van Beneden of Louvain. The other names submitted for selection were those of Newcomb of Washington, Nordenskjold of Stockholm, Weierstrass of Berlin, and last, but not least, our own Lister.

A Small-pox Epidemic at Nîmes.

It is reported that small-pox has been rife at this town since July, 1891, and that no less than 150 persons have succumbed to the disease, 130 of these fatal cases having occurred during the five first months of this present year. It is pointed out that the town, which boasts a population of 70,000, possesses nothing in the shape of a system of disinfection, and that the sanitary board and their single inspector are not endowed with sufficient powers. Vaccination is so neglected that it is only owing to strong representations made by a local journal that the opening of a vaccination bureau thrice weekly was procured. It appears that a large proportion of the population is unvaccinated. The efficacy of revaccination is once more proved by the absolute immunity enjoyed by soldiers, the *employés* of the Paris-Lyon-Méditerranée Railway Company, and of such private firms who exact the observance of this precautionary measure by their workmen.

Paris, June 15th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Inauguration of the Langenbeck House.

THE Langenbeck House was formally inaugurated on the 8th inst. The Emperor, who was at Kiel, was represented by his cousin, Prince Frederick Leopold. The large hall

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was filled to the roof with the invited guests and the members of the German Surgical Society. The Empress was represented by a chamberlain. The Commandant of Berlin and other officers of rank, ex-Minister Delbrück, the officials of the Berlin Medical Society, the members of the Imperial Office of Health, and many eminent men of science, including Esmarch, Thiersch, König, Schönbarn, Bardenheuer, Mikulicz, Braun, Helferich, Küster, Lauenstein, Schade, Wagner, Bruns, Wölfler, Bramann, and Trendelenburg, were present. Langenbeck's family was represented by his son, Major-General von Langenbeck, his son-in-law, Major-General von Plessen, and his grandson, Lieutenant von Roon. After Prince Frederick Leopold had taken the seat of honour in front of the platform, Professor Bardeleben, as president of this year's Surgical Congress, addressed the assembly. He gave a history of the Langenbeck House, drawing special attention to the powerful aid of the late Empress Augusta. Prof. von Bergmann then spoke in terms of high praise of the building. He referred to the valuable gifts that had been bestowed on the house, especially the splendid Black Forest clock presented by the Empress Augusta's daughter, the Grand Duchess of Baden, and a portrait of Langenbeck presented by his daughter, the Countess Hardenberg. The band then played Beethoven's "The heavens are telling the glory of God," and the members of the Surgical Society and their guests inspected the house in all its parts.

The Twenty-first German Surgical Congress.

The twenty-first German Surgical Congress was opened at 1 P.M. on the 8th instant in the large hall of the Langenbeck House by the president, Professor Bardeleben. After some official preliminaries, Bruns of Tübingen spoke on the surgical importance of the new firearms. Especially at shorter distances an explosive effect takes place, not so bad, indeed, as that produced by the old rifles, when soft lead bullets were used, but still bad enough. Close shots produce extensive lacerations of the soft parts, and seriously splinter the bones. Often, however, this destruction is not externally visible—at least where the bullet has entered. The bullet never remained in the body at distances of less than 1200 metres, but fragments of the clothing were sometimes carried into the wound, and then, if bones were injured, generally remained at the place where the shot entered a bone. An important difference between the old lead bullet and the new steel-mantled projectile is that the latter does not at once change its form on entering the body. Such changes take place only when it has first passed through walls or rebounded from hard objects, and then the wounds are much more dangerous. Bruns showed pieces of wood penetrated by old and new projectiles. The channels produced by the old ones are short, and widen out conically immediately after the entry of the projectile, whereas those made by the new ones are longer, and uniform from beginning to end. Owing to the great penetrative power of the new projectiles, the death zone coincides with the range of the rifle. It is doubtful, however, whether the number of fatal wounds in war will be greater than hitherto. The fighting will be done at much greater distances, except where troops can avail themselves of very safe cover. Things which used to afford such cover no longer do so. At a hundred metres the projectile goes through four or five ranks of soldiers in close order, at 400 three or four, at 800 two or three. The psychical effect on the men will be different too. The experience that all the improvements of weapons have failed to increase the losses in war justifies the hope that this will continue to be the case. The surgeon's task will be in some respects lighter than before. The use of the probe and the extraction of bullets will be far rarer, and asepsis will be much more frequently attainable than it used to be. Even when the long bones are splintered, the slighter injury caused to the skin and the soft parts will render aseptic treatment easier. The experience of Russian and American surgeons in the recent Chilian war confirms this, and shows that the small bore rifle is a gain to humanity. The danger of fatal hæmorrhage is diminished, and the fact that the bullet's path through the body is in a perfectly straight line enables the surgeon to determine with certainty what parts are injured. On the other hand, it cannot be denied that the long range of the new rifle makes the removal of the wounded very difficult. The best immediate application is an absorbent aseptic bandage. The next speaker, Reger of Hanover, spoke of the effect of hydraulic pressure on the injured organs. The splintering of the long bones, he said, is due to the medullary substance being compressed by the impact of the projectile on the bone. He thought Bruns' description of the terrible effect of near shots exaggerated. Bruns' experiments proved nothing, for they were made on dead animals—i.e., on lax muscles and bones without fluid marrow. Reger believes that the percentage of fatal wounds must diminish with the calibre of the rifle. Messner dealt with the question whether the heat of the projectile suffices to kill all the germs attaching to it or caught up by it on its course, and answered it in the negative. Lauenstein of Hamburg recommended cleanliness on the part of the soldiers as the most important condition of asepsis, but many of his hearers were of opinion that in the filthy work of war cleanliness is impossible. Haase of Berlin combated the opinion that, as the range of the new rifle is four kilometres, the bandaging places must be four kilometres distant from the line of fire. The range of the chassepôt was three kilometres, but the bandaging places in the French war were only 1700 to 1800 metres from the line of fire. The distance will now have to be from 2250 to 2400 metres, or at most 2500. At 1000 metres soldiers fire only at bodies of troops; at 2000 not at all. The carriages to which the wounded are borne must stand from 700 to 1100 metres from the line of fire of one's own troops, 1500 to 1600 from that of the enemy. This is the point at which the zone of less danger begins. The bearers, of course, work in the zone of greater danger, but they did so in 1870 too—indeed, their work was specially dangerous in that campaign, because the range of the needle-gun was much shorter than that of the chassepôt. Their loss was 6·6 per 1000. But, even supposing that the losses in the next war exceed those of the bloodiest battle in 1870 by 50 per cent., only 1158 bearers per army corps would be needed, for there were 772 then. In reality each corps now has 1168, including 200 musicians trained as bearers. The introduction of portable electric search-lights for use in the night is desirable. Bloodhounds might also be of use both at night and on covered ground by day. The total number of the lower ambulance officials in the German army is 45,000. Towards the close of the discussion a question arose as to the advisability of the preliminary closing of shot wounds by the bearers by suture or plaster. Langenbuch advocated this on the ground that most of the wounds will be aseptic, and that therefore primary healing will be attainable in most cases, while, in the contrary case, it will be easy to reopen them. König, Esmarch, Trendelenburg, and Thiersch opposed this view, maintaining that, owing to the entry of particles of clothing with the bullet, and to the uncleanliness of the sewing material and of the sewer's hands, the wounds will very often be by no means aseptic. Thiersch put an end to this debate by the dry remark, "We will keep the wounds open and close the discussion." The chairman took the hint and closed the meeting.

Berlin, June 13th.

Obituary.

THOMAS DAVIES-COLLEY, M.D., J.P.

WE regret to have to announce the death of Dr. Davies-Colley of Chester. So long ago as 1834 he took the M.R.C.S. Eng., and in 1835 the L.S.A., and then began practice in Foregate-street, Chester, in which city his father had been for some time a general practitioner. In a short time, however, he went to study in Edinburgh, where, in 1839, he obtained the M.D. degree. He was elected in 1854 honorary physician to the Chester General Infirmary, which position he held until the beginning of 1890, when he resigned and was appointed consulting physician. During the whole of this time he was most constant in his attendance at the hospital. Everything gave way to what he considered his first duty, attention to the patients under his care at the infirmary. Everything connected with the interests of the institution claimed his warm sympathy and intelligent support. In addition to his professional work he took an active part in the various philanthropic movements of his native city. He took much interest in the management of the Blue Coat Hospital, and was one of the trustees of the Blue Girls' School. He always manifested

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much interest in archæological matters, and was part and parcel of the local Historical and Archæological Society, and was intimately connected with other scientific societies. Dr. Davies-Colley was one of the most modest and unassuming of men: he went quietly on his way, doing his duty consistently and doing good by stealth. He was on the Commission of the Peace for the city of Chester for more than twenty years. His wife's death preceded his own by only a few months. He, full of years, and having finished his work, passed quietly away on the 3rd inst., at his residence, Newton Cottage, near Chester, in his eighty-first year. He leaves behind him one daughter and four sons, one of whom is one of the surgeons at Guy's Hospital.

MEDICAL TRIAL.

A DISPUTED CASE OF SCARLET FEVER.

MEDICAL MEN AND THE NEW PUBLIC HEALTH ACT.

ON Saturday, the 4th inst., Mr. Cooney, the medical officer of health for the district of Fulham, applied to Mr. Curtis Bennett, sitting at the West London Police-court, for an order for the removal of a child, aged five years, named Emily Williams, from her parents' abode at 19, Protheroe-road, Fulham. He certified that the child was suffering from scarlet fever, and produced a certificate from Mr. Robert Bruce, the Medical Superintendent of the Western Fever Hospital, who had seen the child that day, and who certified that it was suffering from scarlet fever, in addition to stating that there was room for it in the Fever Hospital. Mr. Haynes, solicitor, said he was instructed to oppose the granting of the application. After some hesitation the magistrate decided to hear evidence for and against the application; but when the case came again before him on the following Wednesday, he remarked that after a careful study of the Act he had come to the conclusion that he should not have allowed evidence to be given, but ought to have made an order for the removal of the patient on the certificate of the medical officer of health for the district, supported by the certificate of the Superintendent of the Fever Hospital to the effect that there was room for its reception. However, on Saturday evidence was given.

Mr. Cooney said that he was called to attend the child in his capacity as district medical officer to the Fulham Board of Guardians on the order of a relieving officer on May 19th. He then declared that it was suffering from scarlet fever, and sent for the ambulance from the Fever Hospital in order that it might be removed. When the ambulance came the mother of the child refused to allow it to be taken away, giving as the reason that another doctor had seen it and had said that it was not suffering from scarlet fever. When he saw the child it was in bed in a room where there was a mangle, the mother occupying two rooms only, and taking in laundry work, which was left for the purpose of being mangled. There were three women and two other children in the same room, and the upper part of the house was occupied by another family. He had seen the child again that day (June 4th) and the skin was peeling. Replying to Mr. Haynes, Mr. Cooney said that he did not make the application for an order for the removal of the child before, because he had been informed that two other medical men had seen the child and said it was not suffering from scarlet fever. He had waited for the first day when desquamation had set in before applying for the order. Dr. Clarke and Mr. Butler were the two medical men he had referred to as having seen the child. He was, however, convinced on May 19th that it was a case of scarlet fever.

Mr. Alfred George Wells was next called, and said that he went to see the child at Mr. Cooney's request on May 20th, and it was then suffering from bronchitis in addition to a doubtful case of scarlet fever. He had seen the child again on June 3rd, and it then showed unmistakable signs of scarlet fever.

Mr. Henry Joseph Butler was called by Mr. Haynes in opposition to the granting of the application. He said that he had seen the child, and in his opinion it was suffering from bronchitis, pleurisy, and a slight enlargement of the tonsils. He had seen the child on May 19th, on several occasions since, and finally on June 3rd (the day previously). He had not seen any symptoms of scarlet fever. There was no peeling and no dropsy. In reply to the magistrate, he said that one reason for saying that the case was not one of scarlet fever was that there was no rash. It was, however, possible to be scarlet fever without rash.

Mr. Curtis Bennett said he should make the order for the removal of the child, and in answer to Mr. Haynes's request, that he would grant an adjournment in order that other medical evidence might be called, he said that it would not be right to allow an adjournment for forty-eight hours, and thus give an opportunity for the child to infect the neighbourhood. The sanitary inspector, who went with a police officer to carry out the order the same afternoon, was informed when he reached the house that the child was not there, and the mother declared that she would rather "lose the last drop of blood" in her body than give up the child. Accordingly an application was made on Tuesday for a summons against the mother for penalties for disobedience of the order, and this was made returnable on the following day. When the case came before the Court on Wednesday, evidence was given to the effect that the mother at first told the officers that the child was out for a walk, that she then went with one of them to the house of Dr. Clarke, promising that if he said it was a case of scarlet fever she would give up the child; finding he was out she absolutely refused to give up the child, and finally declared that she did not know where the child was. Mr. Curtis Bennett at this stage expressed regret that he had allowed a discussion of the case when the application for an order was made on Saturday. No further evidence was at that stage called in support of the statement that the child was suffering from scarlet fever, but Mr. Haynes said that Dr. Cayley had been called in to see the child on Sunday morning, and had given an order for its removal to the Middlesex Hospital, of which he was physician, and to which no infectious cases were admitted. He also said that Mr. Butler and Dr. Clarke had seen the child constantly during the period elapsing from May 19th to June 3rd, but had never spoken to each other until five o'clock on Saturday, June 4th, after the magistrate had made the order for the removal of the child. He called

Dr. Berkeley, the house physician at the Middlesex Hospital, who said that the child Emily Williams was admitted by direction of Dr. William Cayley, the physician to the hospital, at two o'clock on Sunday afternoon, June 5th. The hospital was one for non-contagious cases only. He had examined the child, and found that it appeared to be in very good health. There were no signs or symptoms that it was suffering from scarlet fever, and there was nothing infectious about it. Replying to the magistrate, this witness said that he had been three months house physician at the Middlesex Hospital, and previously had been for six months house physician at the Brompton Hospital for Consumption. He had had no experience in attending scarlet fever cases. The child was in the general female ward, with fourteen other patients.

Dr. William Frederick Clarke said he first saw Emily Williams on May 19th. At that time he did not know that any other medical man was attending the child, and he had no knowledge that the medical officer of health for the district had seen the case. He did not find that out until he was stopped in the street and told that he was attending a case of scarlet fever that the medical officer had seen. He then denied that he was attending any case of scarlet fever. He attended the case up to May 28th. When he saw the child on May 19th it was suffering from a little bronchitis, enlarged tonsils, and a slight fever; beyond that there was nothing at all wrong with the child. He was not aware that it had at any time suffered from scarlet fever. It had not a single sign of scarlet fever except the fever common to all diseases of children. He had seen the child on June 4th, again on the 5th, and on the 7th. On the 4th the skin was perfectly normal; there was no sign whatever of peeling. There was a small rough patch on the chest, and if that spot was looked at it might have misled anyone. Asked as to the child's temperature, he said he had made no notes of the case, because he did not know it was important until it was brought into Court on Saturday, the 4th inst. He had had considerable experience in scarlet fever cases.

Mr. Butler was called again into the witness-box, and said he examined the child on Sunday with Dr. Cayley and Dr. Clarke. He did not find any trace of scarlet fever.

The case was then again adjourned until Friday. On this occasion Mr. Blanco White, the solicitor to the Fulham Vestry, appeared to support the summons, and Mr. A. J. David watched the case, as on Wednesday, for Mr. Butler and Dr. Clarke. Mr. Haynes defended Mrs. Williams.

Dr. William Cayley was the first witness called. He said he was consulting physician to the London Fever Hospital, of which he was until recently physician. At present he held the appointment of physician to the Middlesex Hospital, was lecturer there, and held other appointments, besides having qualifications. He first saw the child on Sunday at Dr. Clarke's house. He had been telegraphed to by Dr. Clarke, who asked him to meet him in consultation. He made a careful examination of the child, and was informed that it was a doubtful case of scarlet fever, but he did not discover any signs of the after-effects of scarlet fever at that time. There was no trace of peeling. Beyond enlargement of the tonsils he found nothing wrong with the child. It was a rickety child. He had the urine examined, and it was tested in his presence a few hours later. It was perfectly normal. He did not test the child's temperature at the time, but it was subsequently tested. He could not discover any trace of infectious disease. He recommended the admission of the child to the Middlesex Hospital. He had had considerable experience in fever cases, having been for twenty years physician to the Fever Hospital, but he could not trace anything in the child that would lead anyone to suppose that it had had scarlet fever. Asked as to the present condition of the child, he said that, beyond chronic enlargement of the tonsils and a little cough, there was nothing the matter with the child. He thought there was no necessity for the child to be sent to a fever hospital. Mr. Butler and Dr. Clarke were present when he examined the child on Sunday, and he was informed that an order had been made by the Court for its removal to the Fever Hospital, but he did not mention that in the letter he wrote to the medical officer of the Middlesex Hospital concerning the child's admission. He did not receive any fee for consultation. It would be contrary to the etiquette of the profession.

Dr. Sidney Phillips said he had been in the habit of seeing scarlet fever cases for twenty years, and at times as visiting physician to the London Fever Hospital as many as a hundred cases a day. He first saw this child on June 9th, and then found that it had rickets of some standing, chronic enlargements of the tonsils, one or two glands slightly enlarged, but it was in perfect health. He endeavoured in every way to find a trace of anything to denote that the child had had scarlet fever, but could not find anything. There was no peeling, but in cases where there was scarlet fever without rash there would be little or no peeling. In that particular case there was said to have been rash.

Mrs. Williams, the defendant, was then called to give evidence. She said that after Mr. Cooney had told her the child was suffering from scarlet fever she went to Mr. Butler, who saw the child within half an hour. He examined the child and said it was not a case of scarlet fever, but he declined to take it up as Mr. Cooney had seen the case. He told her, however, that she could call in any other medical gentleman if she liked. She went for Dr. Clarke, who saw the child the same day and continued to attend almost daily until May 28th, when he gave the child up as being well. It was because of what Dr. Clarke told her that she refused to obey the magistrate's order. It was true that she had a mangle in the same room that the child was. On the day after that on which Mr. Cooney first saw the child Mr. Wells called and saw the child. As he was going out he said that it was suffering from bronchitis and a feverish cold. She did not inform Dr. Clarke that Mr. Butler had seen the case; indeed she did not inform him of anything. Mr. Butler called several times afterwards to see how the child was getting on, but he had nothing to do with curing it. She told him that Dr. Clarke was attending the child.

Some friends and neighbours of the defendant were called to testify that they had seen the child and had not discovered any signs of scarlet fever. This concluded the case for the defence

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Mr. Robert Marston Bruce, the Medical Superintendent of the Western Fever Hospital, was then called by Mr. Blanco White. He said he saw the child on the 4th of June, and found that it had some infection of the throat, enlarged tonsils, papillated tongue, slightly enlarged gland of the neck, some punctation on the leg, and indifferent branny peeling on the legs. He formed the conclusion that the child had recently had scarlet fever from these signs, and from the history of the case which he obtained from the medical officer of health. He had no doubt about the case, and considered it a proper case for isolation. There was at the hospital a child named Reuben Merrett, which when sent in was said to be suffering from diphtheria. On examination he found no positive evidence of diphtheria. It had sore-throat and enlarged tonsils. The certificate on which it was admitted was signed by Dr. Clarke. In cross-examination he said he did not remember a child being admitted to the hospital from Harwood-road on the certificate of Mr. Cooney. It was not any of the signs taken individually, but taking them collectively, that led him to certify that the child was suffering from scarlet fever.

Mr. Francis Woodhouse, the assistant medical officer at the Western Fever Hospital, said he visited the child at the Middlesex Hospital on June 9th and examined it. He also tested the urine, and it showed evidence of albumen. He could not come to any definite conclusion as to the case without knowing its previous history, but he should say that the child had had scarlet fever. He should not like to say that the child was definitely infectious, but he thought she ought to be isolated. Cross-examined, he said he would not swear that the child had had scarlet fever. He admitted the case of Merrett, to which reference had been made, and which was certified to be one of diphtheria. He found on examination that it was not suffering from diphtheria, but from tonsillitis; that would not, he thought, justify its admission to the hospital.

At the conclusion of the case Mr. Curtis Bennett delivered a long summing up from the bench. He said: "This is one of the early cases under the new Act of Parliament, which was passed by the Legislature after very great consideration, for which there was, I may say, a great amount of absolute necessity, in order to check if possible what has been rife—the spread and contagion of infectious diseases amongst the community, especially of large cities such as London. That Act was passed to give the medical officer of health, who finds a case in his district which, in his opinion, is of an infectious character, power to give a certificate to that effect. That certificate is to be backed up by a certificate showing his preparedness to receive the patient from the officer of one of the hospitals provided at the public expense for the reception of patients suffering from infectious diseases, such patients as this little child, where, as is admitted in this case by the solicitor for the defence, it is impossible to provide isolation. Now we come to a most extraordinary statement of facts, quite apart from the case itself. On Sunday last Dr. Cayley, without any knowledge of the previous history of this case, comes down from Wimpole-street to Fulham, and although he knows that an order for the removal of the child to a fever hospital has been made by this court and by myself, sitting here as one of the magistrates of the metropolitan districts, not only upon the certificate of Dr. Cooney, not only upon the certificate of Dr. Bruce, which went further than was necessary, because, in addition to stating that he had room for the reception of the patient, he certified that she was suffering from scarlet fever; but after a public inquiry held in this court, in the course of which Dr. Cooney, who was supported in his evidence by Dr. Wells, had been examined and cross-examined, yet notwithstanding all this that doctor sets the Act of Parliament at defiance, because he, forsooth, in his own individuality and in his own infallibility, chooses to say that this child is not suffering from an infectious complaint. What did he do? It was he who gave the order for the admission of the child—we have it in his own words—to the Middlesex Hospital. What examination had he made? He had not even taken the ordinary course of examining the urine at the time that the admission was given. You have that child sent to one of the institutions maintained by the subscriptions of the charitable public—an institution not set apart for infectious cases, but set apart by the public purse for the treatment of ordinary cases of illness amongst mankind. It had been, as he knew, certified by the medical officer of health for the district, by the doctor of the fever hospital of the district, sworn to in evidence by another medical man that this child was suffering from scarlet fever. He knew, too, that an order had been made for the removal of the child to the only place it could properly be removed to. Yet you have that man giving an order for the admission of that child into the Middlesex Hospital. I do not know what the authorities of the Middlesex Hospital will consider to be the proper course in regard to that. I do not know what the public who subscribe to maintain that institution will say with regard to it. Well, now, let us come to the facts in this case. This case Dr. Cooney saw for the first time on May 19th, and blame was attached to Dr. Cooney by the solicitor who appears for the woman who is the defendant in this case for not having taken steps after that examination earlier than June 4th. I agree with the observations that were made that Dr. Cooney ought to have gone on at once to have had that child removed to a proper place, if there was not a proper place at home. But that child was seen also on May 20th by Dr. Wells, who said he found it suffering from bronchitis and feverishness which he believed to be scarlet fever, but at that time it was not clear. I think, upon that, Dr. Cooney would have been justified in taking—and I think he ought to have taken—further action, and an order for that child to be removed should have been applied for. The mother sends for a doctor named Butler. He attends, but when he finds that the child has been certified by Dr. Cooney he says he will not attend at all. He was the only witness called here on Saturday to say that the child had not got scarlet fever. Dr. Clarke was called in, and he says: 'I did not know the child was being attended by Dr. Butler. I attended it *de die in diem*, and I had no notion it was being attended by any other doctor. I say, after having had it under my care, that I do not think it was suffering from scarlet fever.' Well, I do not know; one has heard something about medical etiquette; I was told that this was an honourable profession, and that these were men of honour. One has heard something about medical etiquette, that when one medical man attends a patient, no other medical man attends except in consultation. Let us take the evidence. Dr. Cooney says: 'I say distinctly on May 19th it is scarlet fever; I have no hesitation in saying it is scarlet fever.' Dr. Wells says: 'I examined it on May 20th, and there were many symptoms pointing to scarlet fever; on June 3rd it certainly had symptoms.' Dr. Butler swears that the child is not suffering from scarlet fever because it had not a rash. He shakes his head, but that is his evidence. When I put it to him in cross-examination, 'Can't you have scarlet fever without a rash?' he was bound to admit that it could be so. Dr. Phillips is called to-day. He gives evidence very fairly. He says: 'I was told that the child had had a rash.' I put it to him, 'Supposing there was a small rash, would not the peeling be almost imperceptible?' He says, 'Yes; but in this case I was told that the child had had a rash.' Dr. Clarke says: 'No rash, no scarlet fever.' Dr. Clarke says: 'The symptoms which I found were these: I found a patch, and that patch might indicate scarlet fever, but I do not *think* the child suffered from scarlet fever.' Dr. Clarke may shake his head, but that is the evidence. I will have it read if necessary. And no further would he go. There was no fear, no hesitation about Dr. Cooney. There is no doubt about Dr. Cooney. He is straightforward and honest. 'If I am wrong I am wrong, but there is my opinion: the child is suffering from scarlet fever.' That is straightforward, English, and honest; no backstair business, running in and out and hiding things from one another. Now, take Dr. Clarke. The furthest Mr. Haynes could get him to go, with all the coaching and all the persuasion, was, 'I do not think the child had scarlet fever.' Well, now, Dr. Clarke and Dr. Butler, until this case was in this Court, never took the slightest trouble about the case to examine whether it was scarlet fever or not. They never once, till after the case had been in Court two days, took a test of the urine. That is admitted by their evidence, from which they cannot get away. That is the state of facts about this case up till last Friday. Now, was this child suffering from scarlet fever? Mr. Bruce was not called to give evidence at this Court till to-day. I had his certificate, and although it was not necessary for him to go so far, and it was not evidence, I could not help seeing what he gave as the reason why this child should be admitted to the fever hospital. I said I would have here Mr. Bruce, the head of the fever hospital for the district couprising this large portion of West London. Mr. Bruce comes and says: 'I believe, I say, to the best of my opinion, notwithstanding all that I have heard from other people, that the child is suffering from scarlet fever, and I am of opinion that it is a fit case to be received into the institution for those cases.' Then we have another gentleman, introduced upon the scene with great pomp, and he was assistant to Dr. Cayley at the hospital. He gave his opinion that this was not a case of scarlet fever. What was it worth? Nothing! He said in cross-examination. 'I am a doctor at the Middlesex Hospital, where I have been three months.' I asked him. 'Have you had scarlet fever cases there?' His answer was 'No.' 'Have you ever attended a case of scarlet fever since you have been there?' 'No' 'Have you ever seen a case of scarlet fever there?' 'Well, I may have seen one when a man came who thought he had got it and who went somewhere else." (Laughter.) 'Where were you before that?' 'I was six months'—'At a fever hospital?'—'No, at the Hospital for Consumption.' I asked him, this gentleman who was called as an expert, 'Have you ever attended a case of scarlet fever in your life?' 'No,' he answered. That is that man's evidence. I am of opinion, and it is perfectly clear, that it is not this poor woman who is fighting this case. If it were, far be it from me to add other troubles by inflicting a fine. (Applause, promptly suppressed.) But there are those behind this case who are doing this, but who have not the honesty to come forward and have not the honourableness to let their names transpire; but they do it in the dark, and upon these people must the pecuniary penalty fall. I have no doubt whatever that the order I made on Saturday was the only possible order which could be made by anybody occupying the position I hold, and which I have had the honour of holding for a number of years. This child was in a house where laundry work is taken in, where laundry work is brought to be mangled and is left there. That child is suffering from scarlet fever, and even if I should be wrong upon that, will any man dare to say that upon the evidence given in this court there is not reasonable ground for the belief that the child had scarlet fever? Then if there is that reasonable belief, where should the child be? As the assistant doctor says, isolation is the proper thing. Of course it is! And this Act of Parliament was passed to meet cases which are doubtful as well as those which are absolutely defined. One is surprised to find that a doctor of the age and experience of Dr. Cayley should, of his own motion, and when he knows that his brethren differ from him, have the child removed and sent away to a hospital where it is taken on a note of admission from Dr Cayley, where it is not isolated, but is placed in a public ward with women and people who are suffering from common complaints. If Dr. Cayley was so satisfied, and his sympathies went out, as with honesty and honour they might, to the poor, why did he not take the child to his own house? Or why, if he wished to show philanthropy, did he not, out of his own purse, provide a place where the child might have been isolated for a time, and not send it to a hospital at the expense of the public? No doctor has ever been guilty of more monstrous conduct. I impose a fine of £10, with two guineas costs."

Dr. Cayley: As you have censured me so severely I wish to say I did not ——

Mr. Curtis Bennett: I have your evidence you did. I cannot listen to you now.

Mr. Haynes gave notice of appeal against both the order and the conviction.

ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.—The following office-bearers have been elected for the ensuing year:—Presidents of the Royal Colleges of Physicians and Surgeons (*ex officio*), Central Committee: L. Atthill, Sir J. T. Banks, J. K. Barton, E. H. Bennett, A. H. Benson, J. H. Benson, Sir Charles Cameron, H. Gray Croly, F. Cruise, J. F. Duncan, T. Fitzpatrick, S. Gordon, T. Grimshaw, W. J. Hepburn, C. Joynt, G. Kidd, Henry King, J. Little, A. H. Marks, W. J. Martin, J. Moore, William Moore, G. Morrogh, J. Pollock, Sir George Porter, Bart., P. C. Smyly, Sir W. Stokes, and H. P. Truell. Hon. Secretaries: J. Moore, J. Finny. Hon. Treasurer Henry King. Acting Secretary: A. H. Benson.

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Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen, having passed the necessary examinations, and having conformed to the by-laws and regulations, were at the ordinary meeting of the Council on Thursday, the 9th inst., admitted Fellows of the College:—

Hartley, John, L.R.C.P. Lond., Dunmow, Essex. Diploma of Member dated Jan. 22nd, 1879.
Anderson, G. R., L.R.C.P.Lond., Lambeth Palace-rd., Nov. 10th, 1887.
Pringle, James Hogarth, M.B. Edin., Glasgow, Aug. 2nd, 1888.
White, Edgar Ramsay, L.R.C.P. Lond., St. Albans, Aug. 2nd, 1888.
Cheatle, A. H., L.R.C.P. Lond., Carlisle Mansions, W., Nov. 8th, 1888.
Roberts, Charles Hubert, L.R.C.P. Lond., The College, St. Bartholomew's Hospital, Feb. 12th, 1889.
Stephens, Daniel Robert Porritt, M.B. Cantab., The College, St. Bartholomew's Hospital, July 11th, 1889.
Jordan, Henry M., L.R.C.P. Lond., Newport, Mon., Aug. 1st, 1889.
Elliott, Robert Henry, M.B. Lond., Girdlers-road, W., Nov. 14th, 1889.
Stevens, Cecil Robert, M.B. Lond., Honiton, Feb. 13th, 1890.
Cargill, Lionel Vernon, L.R.C.P. Lond., Savile-row, W., May 8th, 1890.
Fawcett, J., M.D. Lond., London Fever Hosp., Islington, May 8th, 1890.
Sandifer, Henry Stephen, L.R.C.P. Lond., Canonbury, May 8th, 1890.
Griffiths, Joseph, M.B. Edin., Cambridge, July 30th, 1891.
Rawlinson, Frederick Juland, L.R.C.P. Lond., Barnes, Nov. 12th, 1891.
Shearer, Donald F., M.B. Oxon., Lambeth Palace-rd., May 12th, 1892.
Ash, E. O., M.D. Lond., Donington-on-Bain, Lincoln. (Not a Member.)
Laws, William George, M.B. Edin., Newcastle. (Not a Member.)
Welsford, A. G., M.B. Cantab., Hampstead Heath. (Not a Member.)

Seven other gentlemen passed, but, not having attained the legal age of twenty-five years, will receive their diplomas at future meetings of the Council. Ten gentlemen were referred.

The following gentlemen, having previously passed the necessary examinations, and having now attained the legal age, were also admitted Fellows of the College:—

Abbott, Francis Charles, M.B. Lond., St. Thomas's Hospital. Diploma of Member dated Aug. 2nd, 1888.
Pickard, Ransom, M.B. Lond., Bishop's-road, N.E., Feb. 12th, 1889.

The following gentlemen, having passed the necessary examinations, were at the same meeting admitted Licentiates in Dental Surgery:—

Barnes, Arthur, Charing-cross and Dental Hospitals, Chester.
Barrett, Fredk. Walter, London and Dental Hospitals, Finsbury-sq.
Bascombe, R. E., Middlesex and National Dental Hospitals, Ealing.
Canton, H., M.R.C.S.E., Middlesex and Dental Hosps., Portland-ter.
Castellote, B. Alfred, Middlesex and Dental Hospitals, Clapham.
Clarence, Thomas Herbert, Charing-cross and Dental Hospitals, Southampton-row, W.C.
Curtis, E. A., Middlesex and Dental Hospitals, Blandford, Dorset.
Dodd, Fredk. L., Middlesex and Dental Hospitals, Tunbridge Wells.
Gilmour, William Henry, Liverpool and Dental Hospitals, Liverpool.
Goodridge, Alan, Charing-cross and Dental Hospitals, Dartmouth.
Harwood, E. W., Charing-cross and Dental Hospitals, Mortimer-st.
Hayward, Savill Henry, Charing-cross and Dental Hospitals, St. Ann's-terrace, N.W.
Herschell, Ridley, Middlesex and Dental Hospitals, St. Charles-sq.
Hughes, Geoffrey, Middlesex and Dental Hospitals, Worthing.
Lingford, John Charles, Manchester, Brunswick-terrace, Leeds.
Miller, Ernest Arthur, Middlesex and Dental Hospitals, Westminster.
Owen, William Gladstone, Birmingham, Edgbaston.
Pearse, A. S., Charing-cross and Dental Hospitals, Tunbridge Wells.
Phillips, Howard, Charing-cross and Dental Hospitals, Worcester-park, Surrey.
Sewill, J. S., M.R.C.S.E., Liverpool and Guy's Hospitals, Wimpole-st.
Smith, Edward F., Charing-cross and Dental Hospitals, Brixton-road.
Spokes, Peter Sidney, M.R.C.S.E., University College and National Dental Hospitals, Queen Anne-street.
Stoner, Harold B., Guy's Hospital, The College, Guy's Hospital.
Sykes, James Hall, Manchester, Dardsley, Lancs.
Tanner, Frank Leopold, Manchester, Oxford-road, Manchester.
Trott, Frederick Thos., Charing-cross and Dental Hospitals, Exeter.

Sixteen candidates were referred.

At an ordinary meeting of the Council of the College on June 9th, the following gentlemen were elected Examiners:

First Examination.

Elementary Anatomy.—J. Stanley Boyd, M.B. Lond., F.R.C.S. Eng., Charing-cross Hospital; William Frederick Hasham, F.R.C.S. Eng., Queen's College, Birmingham; Bilton Pollard, M.D. Lond., F.R.C.S. Eng., University College Hospital; James Ernest Lane, F.R.C.S. Eng., St. Mary's Hospital; Louis Albert Dunn, M.B. Lond., F.R.C.S. Eng., Guy's Hospital.

Elementary Physiology.—W. G. Spencer, M.B. Lond., F.R.C.S. Eng., Westminster Hospital; John Rose Bradford, M.D. Lond., M.R.C.S., University College Hospital.

Elementary Biology.—Frank E. Beddard, M.A. Oxon., Guy's Hospital; T. W. Shore, M.D. Lond., M.R.C.S., St. Bartholomew's Hospital.

Second Examination.

Anatomy.—J. N. C. Davies-Colley, M.B. Cantab., F.R.C.S. Eng., Guy's Hospital; William Anderson, F.R.C.S. Eng., St. Thomas's Hospital; George Danser Thane, M.R.C.S., University College Hospital; Alfred Henry Young, F.R.C.S. Eng., Owens College.

Physiology.—Vincent Dormer Harris, M.D. Lond., F.R.C.P. Lond., M.R.C.S., St. Bartholomew's Hospital; William D. Halliburton, M.D. Lond., M.R.C.P. Lond., M.R.C.S., King's College Hospital; D'Arcy Power, M.B. Oxon., F.R.C.S. Eng., St. Bartholomew's Hospital.

Third Examination.

Midwifery.—Walter S. Griffith, M.D. Cantab., F.R.C.S. Eng., M.R.C.P. Lond., St. Bartholomew's Hospital; Peter Horrocks, M.D. Lond., F.R.C.P. Lond., M.R.C.S., Guy's Hospital; George Ernest Herman, M.B. Lond., F.R.C.P. Lond., F.R.C.S. Eng., London Hospital; William Duncan, M.D. Brux., F.R.C.S. Eng., M.R.C.P. Lond., Middlesex Hospital.

First Professional Examination for the Fellowship.

Anatomy.—William Henry Bennett, F.R.C.S. Eng., St. George's Hospital; Frederick Treves, F.R.C.S. Eng., London Hospital; A. Pearce Gould, M.B. Lond., F.R.C.S. Eng., Middlesex Hospital; George Henry Makins, F.R.C.S. Eng., St. Thomas's Hospital; W. Bruce Clarke, M.B. Oxon., F.R.C.S. Eng., St. Bartholomew's Hospital.

Physiology.—John Barlow, M.D. Ed., F.R.C.S. Eng., St. Mungo's College, Glasgow; Benjamin Thompson Lowne, F.R.C.S. Eng., Middlesex Hospital; Cuthbert H. Golding-Bird, M.D. Lond., F.R.C.S. Eng., Guy's Hospital; William Stirling, M.D. Edin., Owens College.

Public Health.—Sir George Buchanan, M.D. Lond., F.R.C.P. Lond., University College Hospital; George Turner, M.B. Cantab., L.R.C.P. Lond., M.R.C.S., Guy's Hospital.

UNIVERSITY OF DUBLIN.—(The Tercentenary Honorary Degrees.)—On Tuesday there was a meeting of the Senate to consider graces proposed to be conferred in connexion with the approaching tercentenary celebration. When Professor Burdon Sanderson's name was mentioned some objection was made because it was alleged he was a vivisectionist, but after a short discussion the grace was passed. The following is a list of those who will receive the degree of Doctor of Medicine and the degree of Doctor of Sciences on July 6th:—

Doctor of Medicine.—H.R.H. Duke Charles of Bavaria; John Shaw Billings, Washington; Thomas Byrant, President, R.C.S. Eng.; Sir Andrew Clark, Bart., President, R.C.P. Lond.; Adolf Gusserow, Berlin; Jonathan Hutchinson, London; Prof. Grainger Stewart, Edinburgh.

Doctor of Sciences.—Prof. Burdon Sanderson, Oxford; Prof. Michael Foster, Cambridge; Prof. Ludimar Hermann, Königsberg; Sir G. M. Humphry, Cambridge; Prof. Julius Kellman, Basel; Prof. Macalister, Cambridge; Prof. Richet, Paris; Sir Wm. Turner, Edinburgh; Wilhelm Waldeyer, Berlin; Rev. Prof. Benney, Cambridge; Othniel Caleb Marsh, Yale College; Rev. W. Dollinger, London; Sir A. Guikie, London; Baron Adolf Nordensjold, Sweden; Abbé Renard, Belgium; J. Hall Gladstone, London; G. D. Liveing, Cambridge; Lord Rayleigh, Cambridge and London; Prof. Thompson, Cambridge; Prof. Thomas Thorpe, London; Prof. W. Tilden, Birmingham; Francesco Brioschi, Milan; Paul Gorden, Erlangen; Prof. Luigi Cremona, Rome; James Whitbread Glaisher, Cambridge; Ed. Routh, Cambridge; G. H. Darwin, Cambridge; Simon Newcomb, Washington; Isaac Roberts, Sussex; and F. Tisserand, Paris.

FISH SEIZED IN LONDON MARKETS.—During the past month fifty-one tons of fish were seized at Billingsgate as unfit for human food. The weight of fish delivered there in the month was 12,610 tons. At the Shadwell market 2 tons 13 cwt. were seized out of a delivery of 1481 tons.

LYTHAM COTTAGE HOSPITAL AND CONVALESCENT HOME.—The twenty-sixth annual report for the past year testifies to the increasing usefulness of the institution. Twenty-six more patients were admitted than in 1891. The year's receipts from patients were £171 15*s.*, and the total expenditure £415 12*s.* Local patients are admitted at a nominal charge, and the committee rely almost entirely upon the annual subscriptions and donations to maintain the work of the institution.

LITERARY INTELLIGENCE.—In commemoration of the opening of the Langenbeck House at Berlin last week, our enterprising contemporary the *Deutsche Medicinische Wochenschrift* (No. 23, June 8th) fills its columns with articles of surgical interest. First of all Dr. E. v. Bergmann gives an account of the foundation and objects of the new institution, Professor Czerny writes on the Surgery of the Gall-bladder, Dr. F. Trendelenburg on Vesico-vaginal Fistula, Dr. M. Schede on the Surgical Treatment of Perityphlitis, Dr. H. Kümnell on the Operative Treatment of Epilepsy, Dr. A. Barth on Nephrectomy, Dr. Roth on the occurrence and recognition of Vesical Hernia, Dr. A. Bier relates five cases of Abdominal Surgery, including a case of excision of an intussuscepted bowel, which, however, terminated fatally, Dr. K. A. von Bardeleben speaks strongly in favour of Bismuth as an application in the treatment of Burns, Dr. O. v. Büngner discusses the treatment of Fracture of the Clavicle, describing a new and simple form of bandage, Dr. E. Busch relates a case of Complicated Fracture of the Femur. There is also a *feuilleton* on the History of Military Surgery (15th to 17th centuries) contributed by Dr. Wolrendorff; whilst the reviews, reports &c., all have a surgical bearing.

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WE regret to learn that M. Pasteur, who is at present resting at Villeneuve l'Etang, is very unwell.

MEDICAL MAGISTRATE. — Mr. Charles William Browne, M.R.C.S., L.S.A., of Middlebury, South Africa, has been appointed a justice of the peace for the districts of Rouxville and Wepener.

THE CORBETT HOSPITAL, STOURBRIDGE.—It is stated that Mr. W. O Foster of Apley has promised £1000 to the endowment fund of the hospital Mr. John Corbett, M.P., is founding for the Stourbridge and Brierley-hill district.

EDINBURGH MEDICAL MISSION.—The late Mrs. Sanson of Hawthorn Brae bequeathed the villa and grounds of Hawthorn Brae at Duddington to the Edinburgh Medical Missionary Society, for a convalescent home, to be known as "The Hawthorn Brae Convalescent Home." Mrs. Sanson endows the home with the residue of her estate, estimated at £8000.

ST. VINCENT'S HOSPITAL, DUBLIN.—The following prizes have been awarded at the termination of the Sessional Examinations recently held:—Senior Class: Bellingham Medal in Clinical Medicine—James P. Marnell. O'Ferrall Medal in Clinical Surgery—James P. Barrett. Third year's Class: Prize—John R. O'Brian. Junior Class: Clinical Prizes—John H. Davys and Patrick F. Morrissey (equal).

EAST LONDON HOSPITAL FOR CHILDREN, SHADWELL.—On Saturday, the Duchess of Portland opened a new wing for out-patients of the East London Hospital for Children and Dispensary for Women, Glamis-road. The need of this addition has been long felt. Besides the extra accommodation for out-patients, there is now a new dispensary, and over it ample sleeping accommodation is provided for the nurses. The outlay has been about £8000.

NEW EUROPEAN GENERAL HOSPITAL, ADEN.—This hospital, at Steamer Point, Aden, was opened on May 2nd by Brigadier-General J. Jopp, the political resident. The new buildings comprise the men's hospital, a pavilion for women and children, a pavilion for mental cases, an observation hospital, a native hospital, and quarters for the staff and servants, each in a separate building. The total outlay has been 120,000Rs., of which 20,000Rs had been contributed by the Aden Port Trust, representing the shipping interest, and 20,000Rs. by the admiralty, on account of naval patients. The yearly expenditure is 15 000Rs. Against this is to be placed a sum, approximately, of 3500Rs. received from in-patients.

THE GENERAL PRACTITIONERS' ALLIANCE. — A meeting of the Council of the above Society was held at the offices, 11, Adam-street, Strand, on Monday last, Mr. George Brown, president, in the chair. It was resolved that the annual general meeting of the Alliance be held at the Council Chamber, Exeter Hall, Strand, on the 29th inst, at 3 30 P.M. Dr J. W. J. Oswald, of Kennington-road, S.E., was nominated for election as president of the Alliance for the ensuing twelve months. It was also unanimously resolved that the best thanks of the Council be given to Sir Albert Rollit, M.P., for his support to the application made on behalf of the Council for the appointment of a general practitioner to serve on the Royal Commission on the proposed Gresham University.

PRESENTATIONS. — At a recent meeting of the "John Hervey" Lodge of Freemasons, No. 1260, a silver salver was presented to Mr. Jabez Hogg, M.R.C.S., who had been for over twenty years Treasurer of the Lodge. The salver bore the following inscription:—"Presented to P. M. Bro. Jabez Hogg, P.G.D., and one of the founders of the John Hervey Lodge of Freemasons, No. 1260, by the Members of the Lodge as a mark of their affectionate esteem for him and to testify their appreciation of the services rendered by him for so many years as Treasurer of the Lodge. June 1892"—A valuable "Carved Oak English Chime Clock" and carved Bracket to match, bearing an inscription, together with a set of massive Entrée Dishes, were presented to Dr. Worthington on Saturday, the 11th inst., by many of his patients upon the occasion of his leaving Sidcup for Bournemouth. Dr. Worthington had been in practice at Sidcup for many years and had enjoyed the confidence of a wide circle of friends.—Dr. James Hitchcock, of Macduff, has been presented with a case of laryngoscopic instruments and a purse of sovereigns by the members of the Macduff Ambulance Class.

MEDICAL NOTES IN PARLIAMENT.

Army Medical Staff.

IN the House of Commons on Monday, on the vote of £290,100 for medical establishments, Dr. Farquhar on referred to the use of titles by medical officers in the army, and asked whether the Secretary for War could not see his way to grant the use of compound titles to army medical officers who were practically on the Reserve list. He also asked the right hon. gentleman to consider the grievance felt by those officers in having their term of foreign service lengthened from five to six years, a circumstance which was found to be detrimental to health. He should also like to see the medical officers in the army granted certain periods of leave for study purposes.—Dr. Tanner had no sympathy with the cry of army medical officers for titles. He thought that those officers ought to be proud to be known as doctors, without any other military title attaching to them. He called attention to what he described as the disreputable condition of the army hospitals at Aldershot, where there was no hospital for infectious diseases.—Mr. Brodrick said that very considerable alterations were going on at Aldershot at present, and that the brick buildings were being completed as quickly as the contractors could proceed with the work. The authorities would welcome the moment when the wooden huts were discontinued and the hospital removed to the new buildings. No general officer commanding the troops had ever pressed on the work with such energy and zeal as Sir Evelyn Wood had displayed. With regard to the attendance of officers at medical schools on their return from foreign service, the authorities were quite prepared to consider whether arrangements could not be made to that effect. He could not enter into the subject of compound titles at present. The object of these titles was to give medical officers proper authority and status in the regiments to which they might be attached, or in a position in which they might be placed, and there was, he thought, no precedent for giving to officers subsequent to their retirement the same advantages as were given to officers on the active list. Sir F. Fitzwygram thought that some arrangement might be made by which medical officers could be given six months' leave on full pay to attend some medical school. The vote was agreed to.

Recruiting in London.

On Tuesday, Dr. Farquharson asked whether it was true, as stated in the *Irish Times* of May 30th and the *Army and Navy Gazette* of June 4th, 1892, that recruits rejected at other stations had proceeded to a large London recruiting station and been immediately accepted there, and that a medical officer had been recently removed from his post, as examiner of recruits, for not working in harmony with his superior officers by declining to pass into the ranks recruits who, in his opinion, were quite unfit for the service; and if so, whether this officer's removal was carried out with the approval of the Secretary of State.—Mr. Brodrick: The statement that recruits refused at some stations have in some cases gone to others and have been admitted is true in the case of London, and of other stations also, because medical officers, like other people, sometimes differ in opinion. The medical officer in question has not been relieved of his duties for the reason stated in the question; but the Secretary of State is, at the present time, personally looking into all the facts of the case which had not previously been examined by him.

Insurance Companies and Prison Records.

In the House of Commons on Thursday, Mr. Patrick O'Brien asked the Home Secretary whether it had come to his knowledge that a man lately discharged from Portland Prison applied to the governor for certain information from the medical record at Portland concerning his health during the last two years of his imprisonment there; whether he was aware that the information asked for was required by an insurance company before the man could have his life insured for the benefit of his family; and whether, under the circumstances, and as the information could only be supplied by the prison doctor under whose care the man was, he would cause the governor to give it.—Mr. Matthews replied that he was aware of the case. He had given directions to the medical officers to give any information in their possession to any insurance company that might apply for it.

The Yeomanry Committee.

In answer to Viscount Ebrington, Mr. Brodrick said that the recommendations of this committee had been under the consideration of the Treasury. Speaking generally, the Secretary of State for War was prepared to carry out the recommendations of the committee.

Queen's College, Belfast.

In answer to Dr. Tanner, the Attorney-General for Ireland stated that no application for a summer session in anatomy at this College had been made, nor was there any necessity for such a session.

Emanuel Hospital, Westminster.

The Attorney-General (Sir Richard Webster), in reply to Mr. William Lowther, said that after most carefully considering the whole of the evidence brought before him and given at the local inquiry, and personally inspecting Emanuel Hospital, he had come to the conclusion that, in the interest of the charity, it was not possible to maintain the whole of the existing buildings.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ALLARDICE, WM. C., M.B., C.M. Glasg., has been appointed Junior House Surgeon to the Macclesfield General Infirmary, vice Macleod, resigned.

BINDLOSS, E. F., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Wimpole Sanitary District of the Caxton and Arrington Union.

CHEYNE, W. S., M.D. Aberd., C.M., has been appointed to the Medical Charge of the Royal Artillery at Aberdeen.

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COLMAN, WALTER S., M.B., M.R.C.P., has been appointed Registrar and Pathologist to the Hospital for Sick Children, Great Ormond-street, vice C. J. Arkle, M.D., resigned.

CUPPAGE, W. B., M.D., M.Ch. Irel., has been appointed Medical Officer for the Shawbury District of the Wem Union, Salop.

DE MONTMORENCY, H. F. W., L.R.C.P., L.R.C.S.Edin., L.F.P.S Glasg., has been appointed Medical Officer for the Appleby Sanitary District of the East Ward Union.

DEVEREUX, W. C., L.R.C.P. Lond., M.R.C.S., has been appointed Acting Honorary Surgeon to the Rural Hospital, Tewkesbury.

GILL, J. W., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Eighth Sanitary District of the Liskeard Union.

GILLIES, P. H., M.B., C.M. Edin., has been appointed Surgeon to the Easdale Quarries, Oban, N.B.

IRONSIDE, J., M.B., C.M. Aberd., has been reappointed Parochial Medical Officer for Garvock.

MACDIARMID, R. C., M.B., C.M., D.P.H Glasg., has been appointed Medical Officer to Messrs. Barclay, Curle, and Company's Workmen, Whitelnch.

MACLEAN, EWEN J., M.D., C.M. Edin., has been appointed Resident Medical Officer to the Chelsea Hospital for Women, vice Dr. Drummond Robinson.

MACLEOD, A. L., M.A., M.B., C.M. Glasg., has been appointed Senior House Surgeon to the Macclesfield General Infirmary, vice Rees, resigned.

OPIE, E. A., M.B. Durh., M.R.C.S., has been appointed Medical Officer for the Second (B) Sanitary District of the East Preston Union.

O'SULLIVAN, PATRICK T., M.B., B.Ch., B.A.O. (Roy. Univ. Irel.) L.A.H. Dub., F.C.S., has been appointed House Surgeon and Apothecary to the South Charitable Infirmary and County Hospital, Cork.

RIDDELL, J. S., M.B., C.M. Aberd., has been appointed, *pro tem.*, Medical Officer, Oldmachar Parochial Board, vice R. J. Garden, resigned.

ROWLEY, C. O., M.R.C.S., has been reappointed Medical Officer for the Second Sanitary District of the Barnsley Union.

SLATER, H., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Northern Sanitary District of the Bideford Union.

SMITH, JAS. S., L.R.C.P., L.M. Edin., M.R.C.S., has been appointed Medical Officer for the Tavistock Sanitary District and the Workhouse of the Tavistock Union.

TAWSE, G. W. H., M.B., C.M. Aberd., late House Surgeon to the Royal Infirmary, Aberdeen, has been appointed Junior Assistant Medical Officer to the Garlands Asylum, Carlisle, vice P. H. Gillies, M.B., C.M. Edin.

WALFORD, R. M., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Shirland and Higham Sanitary District of the Chesterfield Union.

WILLEY, C. H., M.D., D.Sc. (Public Health) Edin., M.R.C.S., has been appointed Honorary Medical Officer to the Sheffield Children's Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester-street, S.W.—House Surgeon.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester-street, S.W.—Dental Surgeon.

BRADFORD EYE AND EAR HOSPITAL.—Special Assistant Surgeon. Honorarium 100 guineas per annum.

BRIDGNORTH AND SOUTH SHROPSHIRE INFIRMARY.—House Surgeon. Salary £80 per annum, rising £10 per annum to £100, with board and lodging in the Infirmary. (Apply to the Honorary Secretary, 22, St. Mary's-street, Bridgnorth.)

CHILDREN'S HOSPITAL, Birmingham.—Resident Medical Officer. Salary £80 per annum, with board, washing, and attendance in the institution.

CHILDREN'S HOSPITAL, Birmingham.—Assistant Resident Medical Officer. Salary £40 per annum, with board, washing, and attendance in the institution.

DERBY BOROUGH ASYLUM.—Assistant Medical Officer. Salary £100 per annum, with board and washing.

DENTAL HOSPITAL OF LONDON, Leicester-square, W.C.—Assistant Dental Surgeon.

EVELINA HOSPITAL FOR SICK CHILDREN, Southwark Bridge-road, S.E.—Physician to Out-patients.

GUEST HOSPITAL, Dudley.—Locum Tenens for Resident Medical Officer. Terms two guineas a week and railway fare.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians.

LEICESTER UNITED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION, 114, High Cross street, Leicester.—Second Medical Officer. Salary £200 per annum, with midwifery fees.

LIVERPOOL DISPENSARIES, Leith Offices, Moorfields, Liverpool.—Two Assistant Surgeons. Salary £80 per annum each, with apartments, board, and attendance.

MALLING UNION, West Malling.—Medical Officer and Public Vaccinator for the Second District of the Union. Salary £140 per annum, with extra fees as allowed by Orders of the Local Government Board.

PUBLIC HOSPITAL AND DISPENSARY, Sheffield.—Assistant House Surgeon. Salary £50 per annum, with board, lodging, and washing.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—Professors and Lecturers.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon. No salary. Board and rooms provided.

ROYAL UNITED HOSPITAL, Bath.—Resident Medical Officer. Salary £100 per annum, with board and lodging.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL, London.—Obstetric Tutor. Salary £50 per annum.

SWANSEA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with board, furnished apartments, coals, gas, laundress, and attendance.

VICTORIA HOSPITAL FOR CHILDREN, Hull.—Resident Medical Officer. Salary £50 a year, with board, rooms, and washing.

WARNEFORD HOSPITAL, Leamington.—House Surgeon. Salary £100 per annum, with board, lodging, and washing.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House Physician. Salary £100 per annum, with board, lodging, and washing.

YORK DISPENSARY.—Resident Medical Officer. Salary £150 a year, with furnished apartments, coals, and gas.

Births, Marriages, and Deaths.

BIRTHS.

BRIGHT.—On May 29th, at Alvaston, Park-hill, Forest-hill, the wife of John M. Bright, M.D., of a daughter.

FARR.—On June 6th, at St. Heliers, Ealing, the wife of Ernest Farr, M.R.C.S., L.S.A., of a son.

GRAY.—On June 9th, at Holsworthy, North Devon, the wife of Walter G. Gray, M.R.C.S., L.R.C.P., of a son.

HUGHES.—On June 5th, at Queen's-road, Wimbledon, the wife of Dr. R. Jaffray Hughes, of a daughter.

JACKSON.—On June 10th, at Hedon-in-Holderness, the wife of John Lowthian Jackson, M.B., C.M. Edin., of a daughter.

MURDOCH.—On June 14th, at 12, St. John's-road, Annan, Dumfriesshire, the wife of William Murdoch, M.D., of twin sons.

THORNTON.—On June 9th, at 14, Cecil-square, Margate, the wife of Mr. Bertram Thornton, of a daughter.

WILLIAMS.—On June 12th, at London-road, St. Leonards-on-Sea, the wife of Arthur Williams, M.A., M.B., of a son.

WILLOUGHBY.—On June 15th, at 1, Queen Anne-terrace, Plymouth, the wife of W. G. Willoughby, M.D. Lond., of a daughter.

MARRIAGES.

BLAIR—LONGWORTH.—On June 9th, at St. Thomas's, Preston, Lancashire, by the Rev. W. J. Lake, M.A., Vicar, assisted by the Rev. W. Hugh Blair and the Rev. A. R. Blair, M.A., brothers of the bridegroom, Charles S. Blair, M.D., M.R.C.S., second son of the late Rev. J. T. Blair, M.A., Vicar of Killingworth, Newcastle-on-Tyne, to Mary Alice, only daughter of J. H. Longworth, of Willow House, Fulwood-park, Preston.

COLLINS—PADMORE.—On June 9th, at St. John the Baptist, Knighton, Leicester, by the Rev. J. Parker, Vicar, assisted by the Rev. J. W. G. Loder-Cother, Vicar of Yapton and Rector of Fora, Dr. E. Collins, eldest son of Dr. J. B. Collins, of Hawthorn Lodge, Yapton, Sussex, to Mabel Stepherson, eldest daughter of J. M. Padmore, Esq., of The Limes, Stoneygate, Leicester.

CROSSLEY—WILLEY.—On June 15th, at St. Mary's, Sheffield, by the Rev. George Crossley, M.A., Vicar of Breedon, Leicestershire, brother of the bridegroom, assisted by the Rev. J. W. Goodall, M.A., Vicar of Dalton, Arthur Crossley, M.R.C.S., L.R.C.P., of Leicester, youngest son of the late C. R. Crossley, J.P., to Lavinia Eilen (Lily), daughter of C. J. Willey, of Edinburgh.

DEATHS.

HARRISON.—On June 6th, at Berkeley-square, Clifton, John Harrison, Surgeon.

HILLIARD.—On June 10th, at Shefford, Bedfordshire, William Henry Hilliard, M.R.C.S., L.S.A., aged 79.

MATTHEWS.—On June 2nd, at Victoria, Vancouver Island, B.C., Joseph Beauchamp Matthews, M.R.C.S., son of the Rev. Andrew Hughes Matthews, Vicar of Weston-on-the-Green, Oxon.

MCCAULLEY.—On June 11th, at Dublin, Francis Waldron McCaulley, late Surgeon on board Allan Line steamer *Mongolian*.

SKUES.—On June 10th, at Shrublands, Linden-grove, Nunhead, William Mackenzie Skues, M.D., Brigade-Surgeon, A.M.D., Retired, aged 64.

SPRIGGE.—On June 8th, at 1, The Mansions, Earl's Court, S.W., the residence of her brother, S. Squire Sprigge, M.B., Elizabeth Cecil Sprigge, aged 20.

N.B.—A fee of 5s is charged for the Insertion of Notices of Births, Marriages and Deaths.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at Midnight on June 14th, 1892.

Hospital.	Beds occupied.						Total accommodation.
	Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total	
Eastern Hospital	316*	81	..	15	..	412	482
North-Western Hospital	286	64	..	5	1	356	411
Western ,,	116*	30	..	10	2	158	224
South-Western ,,	234	36	..	4	4	278	360
South-Eastern ,,	300	10	1	8	..	319	424
Northern ,,	572	14	..	..	..	586	732
Totals	1824	235	1	42	7	2109	2633

* One infant with mother.

SMALL-POX. *Atlas* hospital ship, 46; *Castalia*, 30. Total, 76.

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Medical Diary for the ensuing Week.

Monday, June 20.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M.; Thursday, 9 A.M.

LONDON POST-GRADUATE COURSE.—Royal London Ophthalmic Hospital: 1 P.M., Mr. Wm. Lang: Diseases of the Iris.—Great Northern Central Hospital: 8 P.M., Dr. Galloway: Malignant Growths.—Parkes Museum (Margaret-st., W.): 4 P.M., Dr. A. Wynter Blyth: Disposal of the Dead.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. H. T. Butlin: Cancer of the Scrotum in Chimney Sweeps and others.

NATIONAL ORTHOPÆDIC HOSPITAL (Great Portland-street, W.).—5 P.M. Mr. F. R. Fisher: Paralytic Deformities, Club-foot, &c.

Tuesday, June 21.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electro-therapeutics, same day, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars: 4 P.M., Dr. Payne: Ringworm and its Allies.—Bethlem Hospital: 2 P.M., Dr. Theo. Hyslop: Moral Insanity.

Wednesday, June 22.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1.30 P.M.; Saturdays, 2 P.M. Obstetrical Operations, Thursdays, 2 P.M.

CHARING-CROSS HOSTITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.

CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M. Surgical Visits on Wednesday and Saturday at 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Hector Mackenzie: Cases of Mitral Stenosis.—Royal London Ophthalmic Hospital: 8 P.M., Mr. A. Stanford Morton: Ocular Paralyses.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. H. T. Butlin: Cancer of the Scrotum in Chimney Sweeps and others.

Thursday, June 23.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

LONDON POST-GRADUATE COURSE.—Hospital for Sick Children, Great Ormond-street: 4 P.M., Dr. Abercrombie: Congenital Syphilis.—National Hospital for the Paralysed and Epileptic: 2 P.M., Mr. Victor Horsley: Surgical Treatment of Nervous Diseases.—London Throat Hospital, Gt. Portland-st.: 8 P.M., Mr. G. Stoker: Syphilis of the Throat.

Friday, June 24.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

LONDON POST-GRADUATE COURSE.—Hospital for Consumption, Brompton: 4 P.M., Dr. Hector Mackenzie: Demonstrations of Miscellaneous Cases of Interest.—Bacteriological Laboratory, King's College: 11 A.M. to 1 P.M., Prof. Crookshank: Typhoid Fever, Diphtheria, Rabies, and Tetanus (Sections and Specimens).—Charing-cross Medical School: 8 P.M., Dr. Dakin: Diseases of New-born Child.

ROYAL COLLEGE OF SURGEONS.—4 P.M. Prof. H. T. Butlin: Cancer of the Scrotum in Chimney Sweeps and others.

Saturday, June 25.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

LONDON POST-GRADUATE COURSE.—Bethlem Hospital: 11 A.M., Dr. Theo. Hyslop: Lunacy Law.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 16th, 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
June 10	29·99	E.	75	65	124	84	58	—	Hazy
,, 11	29·80	S.W.	62	57	113	72	57	—	Cloudy
,, 12	29·90	E.	53	50	62	54	45	..	Overcast
,, 13	30·06	N.E.	58	45	108	61	44	12	Cloudy
,, 14	30·11	N.E.	50	45	81	57	44	..	Cloudy
,, 15	30·05	N.E.	53	46	110	64	42	..	Bright
,, 16	29·93	S.W.	56	54	88	60	51	..	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and address of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

PUBLISHER'S NOTICE.

A SECOND EDITION of THE LANCET, containing a special report of the meeting at the Mansion House which is to be held to-day (Friday) at 3 P.M., in support of the collection to be made on behalf of the Hospital Sunday Fund on Sunday next, will be issued early on Saturday morning.

CENTRAL AFRICAN THERAPEUTICS.

AMONG the adverse agencies with which the medical missionary has to struggle, witchcraft, as a means of prevention or cure, is one of the most formidable. We lately described the inveterate belief of the Spanish Jew in his greater and lesser "indulca"—a charm seen at its best (or worst) in Palestine. We have now to treat of another, the so-called Mwai rite, as practised in British Central Africa. Of this a graphic account has been given by the Rev. Adam Currie, M.A., missionary of the Church of Scotland, stationed at Mount Milanji in the region referred to. Mr. Currie, writing to his father under date April 10th, 1892, says he used to wonder why so few old people were to be seen in the village, till he found the cause of it in the Mwai rite. Death is popularly supposed to be caused by witchcraft. Wizards and witches are believed to charm the life out of human beings in order that, after the victims are laid under the shadow of the thick trees which serve as a cemetery, they may feast on their bodies. When a death has occurred the neighbours call in the witchfinder, who arrives with a bagful "of things horrible and absurd," such as Burns imagined "in Alloway's auld haunted kirk." He then dances himself into a frenzy, rushes to the woods, and there finds the name of the witch. The person he pitches on as thus indicated to him is generally an old, decrepit villager, or someone who is unpopular in the place. The man picked out is then seized upon and forced to drink a poison called "mwai." If he brings up this poison by vomiting, he is held to be innocent and his life is spared; but if the poison stays on his stomach, he is guilty and dies. Small-pox, says Mr. Currie, epidemic in the next village, had caused the death of several children Recourse, as usual, was had to a witchfinder, who pitched upon a picturesque old worthy, Che Chagula by name, whose grizzled head, white beard, long staff and monkey-skin bag which he always carried were a familiar sight in the mission courtyard. "One morning," proceeds Mr. Currie, "while Dr. Robertson and I were at

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breakfast, my boy Gordon came and told me that he had heard the people were going to give "mwai" to Che Chagula that day." They started off at once to save the poor old man. But evidently the people had got wind of their approach and they were repeatedly put off the scent. Not till they were fairly exhausted in the pursuit, under a scorching sun, did they desist from their attempt to interpose between the victim and his murderers, among whom were his own brothers, with their wives and children. In the evening they heard guns firing in Che Chagula's village, "in token of joy that the wizard was dead." The whole narrative, as given by Mr. Currie in a letter which appears in the *Scotsman*, is most touching and brings vividly before the reader the gravity and complexity of the medical missionary's work, in which the healing art has to be practised in spite of the darkest and most sanguinary superstitions, all of which must be removed by moral and religious enlightenment before physician or surgeon can intervene with effect to his patient or with safety to himself.

Vox.—Our correspondent had better apply to Dr. Munk, the librarian. We should suppose that there has been some oversight in the matter.

FRIENDLY SOCIETIES' MEDICAL OFFICERS.

To the Editors of THE LANCET.

SIRS,—By publishing the enclosed circular, a copy of which has been forwarded to the various surgeons connected with these institutions, in your next issue, you will confer a great obligation on a large number of our medical brethren.

I am, Sirs, faithfully yours,

JAS. H. RODGERS, L.R.C.P. & L.R.C.S. Edin.

Lincoln, June 10th, 1892.

"8, Monks-road, Lincoln, 8th June, 1892.

"DEAR SIR,—In course of correspondence we have found that medical officers holding friendly society appointments have grievances. Being obliged to hold such appointments, can we not devise to meet at some central place for the purpose of forming an alliance to mutually benefit ourselves? We are writing to each medical officer for his view on this matter; and, if the majority are favourable, a meeting will be called at some future date, in July or August. The case of Dr. Martin of Stourport should incite us the more in this movement. An early reply will oblige yours faithfully,

"S. WHITWELL, M.B., 8, Monks-road, Lincoln.
J. H. RODGERS, L.R.C.P. & L.R.C.S., 5, Unity-square, Lincoln.
R. ROBERTS, M.R.C.S., L.S.A., Lincoln.
J. PEARSON, L.R.C.P., M.R.C.S., Lincoln.
T. KENNEDY, L.R.C.P., L.R.C.S., Northampton.
J. FRANCIS, M.B., M.R.C.S., L.R.C.P., Luton.
F. F. LYNCH, M.D., Walsall.
E. WATKINS, L.R.C.P., L.F.P.S.G., Nottingham.
W. GIBSON, M.D., Kidderminster.
S. FIRTH, L.R.C.P., L.F.P.S.G., Grantham."

To the Editors of THE LANCET.

SIRS,—Perhaps one of the most flourishing provincial towns at the present time is Reading with its 60,000 inhabitants. Flourishing, also, in its medical aspect. The hospital, with 150 beds and a large number of out-patients (seen three times a week), will bear comparison with any other similar institution, thanks to the influence of THE LANCET in furthering this end. There is a large and flourishing provident dispensary. Also, in addition to this, there is an amalgamated friendly society, which is managed by a committee, who admit members after a medical examination, and appoint the medical officers. At present there is a qualified medical officer receiving £300 a year, house rent free, horse and carriage provided, and all drugs found. There are over 5000 members. As it is impossible for one man to attend to all, there is an assistant appointed by the committee, who is unqualified. He receives £120 a year. I should like you to kindly answer the following questions: 1. How far is the qualified man responsible for the duties performed by the unqualified one appointed, not by himself, but by the committee? 2. Are the committee fulfilling their contract to provide medical aid in sickness if they provide an unqualified man? 3. If this arrangement is unjustifiable, what steps should be taken to remedy it? Thanking you in anticipation of your help,

I am, Sirs, yours faithfully,

Reading, June 13th, 1892. A HOSPITAL SURGEON.

ADMINISTRATION OF ANÆSTHETICS BY DENTISTS.

To the Editors of THE LANCET.

SIRS,—In the case of a fatal accident arising from the administration of chloroform, ether, or gas by a dentist holding a dental licence only, or registered as a dentist, what would be the position of the said dentist?

I am, Sirs, yours faithfully,

June 10th, 1892. CHLOROFORM & Co.

*** The practice of administering ether, chloroform, or any of the more dangerous anæsthetics by dentists, whether possessing the L.D.S. or merely registered, is, we believe, uncommon, and where undertaken to be strongly deprecated. The question as to the dentist's legal position should a fatal accident occur under such circumstances duly comes within our province.—ED. L.

A relative Lieut.-Colonel is referred to our Notes in Parliament for this week.

AN APPEAL.

MR. T. CLARK, L.R.C.P. & S. Edin., of Blair, Minehead, and formerly of Dunster, died very suddenly on March 25th, leaving a wife and several children very scantily provided for. A fund is being raised in the neighbourhood for the education of the two youngest children, and any contributions from members of the profession will be thankfully acknowledged by Mr. Ollerhead, Minehead, or the Rev. Y. U. Todd, Minehead, secretary of the fund.

Dr. William Liddon	..	£21	0	0	Mr. F. Hayes	..	..	£3	3	0
Dr. Edward Liddon	..	21	0	0	Dr. Kelly	..	..	2	0	0
Per Medical Brother	..	5	0	0	Mr. Ollerhead	..	..	2	0	0

"THE USUAL BOND."

To the Editors of THE LANCET.

SIRS,—Will you kindly put me right in this matter? In 1879 I went into a practice as unqualified assistant, worked hard in it for ten years, and then was obliged to give up owing to want of rest. This I did at Christmas, 1889. I signed some agreement when I entered on duties which was described to me as the usual bond, but I took it for granted that it was usual. I am now told by my late principal that I can come back to him again, but that he will not allow me to in any way practice or assist anyone else in any way within a radius of ten miles. Last summer, when I did three days' duty for another surgeon in the town whilst he was at the seaside, my late principal threatened to prosecute and obtain an injunction. It seems to me such an unfair thing that an unqualified man can be prevented from acting as assistant to another, that I have asked a young legal friend, and he tells me that it is a gross interference with the liberty of the subject, and that many if not all these so-called bonds are useless. I do not want to do anything wrong; but should I be doing so in engaging myself solely as in-door assistant to another surgeon in the town in which my late principal resides, and from whom I have been separated now two years and a half?

I am, Sirs, yours faithfully,

June, 1892. J. R. WHITE.

*** Our correspondent should procure a copy of the agreement, and then consult a solicitor.—ED. L.

FRIENDLY SOCIETIES' AGREEMENTS.

To the Editors of THE LANCET.

SIRS,—I would strongly advise all qualified men, whether as assistants or as medical officers to friendly societies, to refuse to sign bonds of the above nature, unless for a very handsome consideration. As an assistant recently in entire charge of a branch practice, which I in a great measure built up, I was shamefully treated under circumstances which, although too long to relate in this letter, exposed me to the expense of defending a possible action did I disobey an agreement I had signed, and which would, under all the circumstances, have, I feel confident, been disallowed in a court of law. Want of capital and the fact of being married, with a family dependent on me, prevented me submitting my fate to the glorious uncertainty of the law. I had to vacate my position from no fault of my own, and start to make a fresh living elsewhere—always difficult even with capital at command, but much more so *minus* capital and *plus* family. Hence I end this letter as I commenced, by advising a strenuous opposition to all bonds, unless a proper consideration is given. Certainly, the inadequate salary offered an assistant with the chance of finding oneself out of a living in three months is not such a consideration in the opinion of,

Yours faithfully,

June, 1892. ONE OF THE VICTIMS TO PROFESSIONAL GREED.

THE DANGERS OF SELF-TREATMENT.

To the Editors of THE LANCET.

SIRS,—I happened to be in a chemist's shop the other day when a well-dressed, elderly gentleman came in and asked for an ounce of chlorate of potash. The chemist had the curiosity to look at the paper which the gentleman held in his hand and saw written upon it citrate of potash. After an explanation this drug was supplied. Had he been given the chlorate of potash the results might have been serious. Several cases of poisoning have been reported. (Landerer in *Deutsch. Arch. f. Klin. Med.*, Bd. xlvii.; Wohlgemuth in *Therap. Monatsch.*, 1890; Vierordt in *Fortsch. für Med.*, No. 4, 1892.)

I am, Sirs, yours faithfully,

Hampstead, N.W., June, 1892. GEORGE PERNET.

INFECTIOUS DISEASES NOTIFICATION ACT, 1889.

To the Editors of THE LANCET.

SIRS,—Is it compulsory under the above Act for both medical attendant and householder to notify presence of an infectious disease? In a discussion on the subject at the local board meeting here it was stated that both must notify. When the medical attendant has done so, it seems unnecessary to compel the householder to do so likewise. By wrongly advising our patients on this point we may expose them to the enforcement of the Act against them, involving the money penalty. I fancy there are other practitioners in the same doubt on this matter as,

Yours faithfully,

Colchester, June 7th, 1892. ENQUIRENS.

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PROFESSIONAL ETHICS AND THE MEDICAL COUNCIL.

AN extraordinary handbill, made up of various extracts from THE LANCET and other journals, Mr. Gunn's application for an assistant, &c., with comments, in which the findings of the Council are traversed, has been forwarded to us. We cannot approve of this treatment of a professional man whose case has been considered and adjudicated on by the Medical Council.

Mr. Chas. J. Stocker (Forest Gate).—Our correspondent should take such steps as a solicitor conversant with the facts may advise.

THE CARPENTER AND DUKES FUND.

To the Editors of THE LANCET.

SIRS,—It is proposed to close the above fund on June 30th. Many thanks for your kind and generous assistance in this matter. I regret to say there is a considerable deficiency. Thanking those who have so liberally subscribed to the fund, I shall be pleased to add the names of any who may wish to assist us. Allow me to acknowledge the receipt of £10 10*s.* from the Council of the South-Eastern Branch of the British Medical Association.—I am, Sirs, yours faithfully,

Croydon, June 13th, 1892. WM. F. COLES.

MEDICAL OFFICERS TO INDIAN RAILWAYS.

To the Editors of THE LANCET.

SIRS,—Will some of your readers kindly inform me how appointments as surgeon or medical officer to the Indian railways are obtained, what the starting salary is, and whether there is any restriction as to age? Any information will greatly oblige, Yours truly,

June 11th, 1892. CANARESE.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—The Lord Mayor of London; Rev. J. Anderson, Harlesden; Mr. Acklin, Edinburgh; Mr. Bagley, Basingstoke; Mr. C. W. Browne, Orange Free States; Mr. Bailis, China; Mr. Buck, Leicester; Sir James Crichton-Browne, London; Mr. Barton, Clapham; Mr. Baker; Dr. Craig, Bedford; Mr. Challand, Matlock; Rev. D. G. Cowan, Isle of Dogs; Mr. Cole, London; Dr. Cullingworth; Messrs. Carpmael and Co., London; Mr. Cross, Liverpool; Mr. Crossley, Leicester; Mr. E. A. Culpeck, London; Mr Clark, Wolverhampton; Dr. J. W. L. Cartin, Leith; Messrs. Churchill, London; Mr. H. P. Dunn, London; Mr. A. Faussett, London; Dr. R. Hingston Fox, London; Mr. Freer, Llandudno; Rev. Mr. Griffiths, London; Dr. Ramsford F. Gill, South Hampstead; Dr. Guttmann, Berlin; Dr. Goldsmith, Stone Mountain, U.S.A.; Dr. Headley, Brighton; Dr. Hime, Bradford; Dr. Haviland, Inverness; Messrs. Hopkinson and Co., Notts; Messrs. Hewlett and Son, London; Dr. Harrison, London; Messrs. Krohne and Sesemann; Mr. Edgar Lee, Fleet-street; Mr. Emil H. Lebert, London; Mr. J. J. Marsh, Ormskirk; Mr. C. A. Morton, Bristol; Messrs. Mitchell and Co., London; Dr. Macphail, Derby; Mr. Makins, London; Dr. G. G. Morrice, Homerton; Messrs. Oppenheimer Bros and Co., London; Messrs. Orridge and Co., London; Sir James Paget; Mr. George Pernet, London; Mr. F. G. Prenge, London; Mr. Richardson, Herne Bay; Mr. Root, Kingston-on-Thames; Messrs. Richardson Bros. and Co., Liverpool; Mr. J. H. Rogers, Lincoln; Mr. Rolph, Shepherd's Bush; Dr. R. R. Rentoul, Liverpool; Mr. Chas. Rolfe, London Hospital; Messrs. Robertson and Scott, Edinburgh; Mr. Munro Scott, London; Mr. Stilliard; Mr. A. Q. Silcock; Dr. Stocker, Forest Gate; Mr. Lawson Tait, Birmingham; Mr. Tredennick, Shropshire; Mr. J. Spencer Todd, London; Dr. Welch, Brighton; Messrs. Walker Bros., London; Messrs. Wyleys, Coventry; Messrs. Whitworth and Stuart, Manchester; Mr. Arthur H. Ward, London; Mr. Wilde, Malling Union; Mr. Wilkinson, Dudley; Mr. White, Eythorne; Dr. W. Spence Watson, London; Mr. J. R. Withecombe, Surbiton; Mr. Wells, New Romney; Mr. G. Wherry, Cambridge; Medicus, Mitcham; Sister F., Truro; T. D. A., London; X., London; Manager, Great-Eastern Railway Co.; Urban, London; B., Highgate-road; Secretary, Cardiff Infirmary; Z. S., London; Iota, London; Scalpel, London; Sanitas Co., Bethnal-green; Medical Student, London; C., London; Nurse Monk, Buxton; Lex, London; Doctor, South Woodford.

LETTERS, *each with enclosure*, are also acknowledged from—Messrs. Read and Co., Bristol; Mr. Thompson, Macclesfield; Messrs. Reynolds and Branson, Leeds; Mr. Wheatley, Blackburn; Mr. Hilliard, Caterham Valley; Mr. Irving, Bursiem; Mr. Jenkins, Barry; Messrs. Blondeau et Cie., London; Mr. Lyman, Brooklyn, N.Y.; Messrs. Hughes and Lancaster, Westminster; Mr. Russell, Suffolk; Messrs. Mertens and Co., London; Dr. Skrimshire, Blaenavon; Mr. Murray-Aynsley, New Zealand; Dr. Snow, London; Mr. Wills, Bexhill; Dr. Macnaughton Jones, London; Dr. Aitchison, Wallsend-on-Tyne; Messrs. Squire and Sons, London; Dr. Moore, Colorado, U.S.A.; Mr. Nicholls, Bury St. Edmunds; Mr. Nield, Clifton; Dr. E. Woakes; Mrs. Connop, Aix-les-Bains; Dr. Collins, Sussex; Mr. Breach, Newbury; Mr. Bruce, Dingwall. Dr. MacMunn, Chelsea; Dr. Evans, Beaufort; Mr. Tisley, Wombwell; Mr. Sargent, Sussex; Dr. Thomas, Llanelly; Mr. Potter, Liverpool; Mr. Osburne, Hythe; Mr. Thomas, Bridgend; Dr. Palmer, Sherborne; Mr. Birkenhead, Colville; Mr. Taylor, Airdrie, N.B.; Mr. Norman, Ashburton; Mr. Knowles, Barnsley; Mr. McEwen, Ross-shire; Mr Carpmael, London; Mr. Sampson, York; Mr. Hornibrook, London; Mrs. Frith, Epsom; Mr. McLaurin, Glasgow; Mr. Bryden, Shipley; Mr. Buck, Leicester; Mr. Edwards, London; Dr. O'Meara, Southampton; Mr. Johnson, Edinburgh; Mr. Heywood, Manchester; Mr. Cormack, Rotherham; Mr. Cuthbertson, Annan; Dr. Willoughby, Plymouth; J. H. J., London; M.B., Highbury; Secretary, Children's Hospital, Pendlebury; D. H., Deal; X., London; Secretary, South Devon Hospital; H., London; Vase, London; Doctor, Hastings; The Coppice, Notts; Locum, Wilts; Constans, London; Secretary, London Temperance Hospital; Felix, London; Medicus, Nottingham; Lady Superintendent, Hulme District Nurses' Home; Hackney Furnishing Co, London; Gerald, Bowdon; B. C. N., London; Secretary, Notts General Hospital; D. K. S, London; Galen, London; Grove House Private Asylum; Secretary, General Hospital, Bristol; A. W., Herne Hill; Mrs. X., Somerset; Surgeon, London; Smedley's Hydropathic Co., Matlock; P., Liverpool; Delta, London; Secretary, Glamorgan &c. Infirmary; Matron, Dorchester; Secretary, Weston-super-Mare Hospital; X Y. Z., London; Digitalis, London; Amica, London; M., London; Surgeon, Derby; Secretary, Hull Sanatorium; Medicus S., London; Steward, Carlisle; Omega, London; Alpha, Birmingham; Rusticus, London; Mrs. M., London; B. A. L., London.

NEWSPAPERS.—*Sunderland Times, Health, Manchester Examiner, Liverpool Courier, Devon Gazette, Galignani's Messenger, Leicester Post, Law Journal, Manchester Courier, Observer (Adelaide), Melbourne Leader, Leeds Mercury, City Press, Bristol Mercury, Liverpool Daily Post, New Zealand Mail, Yorkshire Post, Northern Daily News, Westmoreland Gazette, Scotsman, Scottish Leader, Belfast News Letter, Glasgow Herald, Local Government Chronicle, Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, Insurance Record, Mining Journal, West Middlesex Standard, Reading Mercury, Windsor and Eton Gazette, Surrey Advertiser, West London Observer, Sunday Times, Dundee Advertiser, Fulham Chronicle, Bloemfontein Gazette, Local Government Journal, Halifax Guardian, Windsor and Eton Express, Le Temps (Paris), West Middlesex Advertiser, The Million, Times of India, Argus (Melbourne) Pioneer Mail, Cork Examiner, Hong Kong Daily Press, Manchester Evening News, Orkney Herald, South Wales Daily News, Leeds Mercury, Radical Review, &c.*, have been received.

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An original and novel feature of "THE LANCET General Advertiser" is a special Index to Advertisements on pages 2 and 4, which not only affords a ready means of finding any notice, but is in itself an *additional* advertisement.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday, accompanied by a remittance.

Answers are now received at this Office, by special arrangement, to Advertisements appearing in THE LANCET.

Terms for Serial Insertions may be obtained of the Publisher, to whom all letters relating to Advertisements or Subscriptions should be addressed.

THE LANCET can be obtained at all Messrs. W. H. Smith and Son's Railway Bookstalls throughout the United Kingdom. Advertisements are also received by them and all other Advertising Agents.

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The Croonian Lectures

ON THE

CHEMISTRY AND THERAPEUTICS OF URIC-ACID GRAVEL AND GOUT.

Delivered before the Royal College of Physicians of London,

BY SIR WM. ROBERTS, M.D. LOND., F.R.S.

LECTURE II.

CHEMISTRY OF URIC-ACID GRAVEL. — PROPHYLACTIC TREATMENT.

MR. PRESIDENT AND GENTLEMEN,—In the preceding lecture I laid before you an account of those points in the chemistry of uric acid and the urates which seemed to have a bearing on the subject matter of these lectures. I showed that there were three orders of uric-acid salts, that in addition to the neutral urates and bi-urates, which had long been recognised, there existed a third order—namely, the quadri-urates, which in reactions and chemical constitution differed widely from the other two. It was pointed out that the neutral urates, from their mode of origin and reactions, could not, with our present knowledge, be regarded as having any possible concern in the vital history of uric acid. It was also pointed out that the bi-urates, although known to us pathologically as constituents of gouty concretions, were not really known to us with certainty as physiological constituents—neither of the blood nor of the urine. On the other hand, it was shown that the quadri-urates existed normally in human urine, and in the urine of birds and serpents; and it will be demonstrated later on that when uric acid is brought into relation with the bodily fluids—with the blood, lymph, and synovia—it enters into solution in the first instance, not as neutral urate nor as bi-urate, but as quadri-urate. From all these considerations it would appear that whenever and wherever uric acid exists in the healthy organism it exists exclusively as a quadri-urate. The quadri-urates may therefore be regarded as being in a special sense the physiological salts of uric acid, and as constituting the only form in which uric acid subsists in the living body in the normal state. It may, moreover, be further inferred that when uric acid gives trouble and originates morbid phenomena, the mischief arises proximately from the uric acid departing, in one direction or other, from this normal state of combination.

I now proceed to consider more particularly the state of uric acid in human urine—the conditions which surround it, and the factors which tend to determine its precipitation or to prevent its precipitation in that fluid.

Inherent Tendency of Urine to the Spontaneous Liberation and Precipitation of its Uric Acid.—The chemical reactions and physical conditions which are concerned in the production of uric-acid concretions are both varied and complex. Uric acid exists in the urine in combination with the alkaline bases. In perfect health these combinations maintain their integrity, not only while the urine is detained in the urinary channels, but even for some considerable time after it has been discharged. This, however, is not always the case. In certain contingencies these combinations are prematurely decomposed; their uric acid is set free and is precipitated from the urine in the crystalline form. In calculous subjects this event takes place in the kidneys or bladder, and gives rise to the incidents of gravel. In less urgent instances the precipitation takes place soon after the urine is voided, in the form of copious urinary deposits. But apart from these pathological cases, and cases which hover on the pathological borderland, it may be shown that perfectly normal urines betray the same tendency. A considerable series of observations were made on this point with the urines of persons who were entirely free from any proclivity to calculous disorders. It was found that all acid urines, provided they were guarded against septic changes, invariably deposited their uric acid sooner or later. The time of the occurrence of the precipitation varied greatly. It usually began within twenty-four hours after the urine was voided, sometimes in a day or two, and sometimes it was delayed for a week or even longer. When the process was at length completed—whether that was early or late—all the uric acid had disappeared from solution; the filtered supernatant urine gave not the slightest precipitate with hydrochloric acid, nor could there be detected in it, on evaporation to a small bulk and with careful search, any trace of uric acid. We must therefore recognise in normal acid urines an inherent tendency to the liberation and precipitation of their uric acid. This tendency only assumes a morbid significance when the event occurs prematurely, while the urine is still sojourning in the kidneys or bladder. Viewed in this light pathological gravel may be regarded as due to an exaggeration of conditions which prevail, in a less pronounced degree, in the normal state; and an elucidation of these conditions may be reasonably expected to throw a light on the etiology of gravel and calculus, and perhaps furnish hints which may be turned to therapeutical uses.

Chemical Explanation of the Spontaneous Precipitation of Uric Acid in Urine.—The chemical reactions which are concerned in the spontaneous precipitation of uric acid in acid urines are very interesting to trace out. It may be proved that uric acid always subsists in the unchanged urine as a quadri-urate. The urine in which this substance is dissolved is a watery solution, which contains a number of mineral salts. Among the salts the most important, in regard to the point under consideration, are the alkaline phosphates. These regulate, in the main at least, the reaction of the urine. The phosphates easily oscillate between the monometallic forms or superphosphates which have an acid reaction, and the dimetallic forms which have an alkaline reaction. When the former preponderate, as is usually the case, the urine is acid; when the latter preponderate the urine is alkaline. We have therefore in an acid urine the quadri-urate existing in the presence of water and of superphosphates. These conditions ensure the ultimate complete liberation of the uric acid. The first step in the process is the splitting up of the quadri-urate by the action of the water of the urine into free uric acid and bi-urate. By this reaction half the uric acid is set free. But the bi-urate resulting from this reaction is immediately retransformed in the presence of superphosphate, by a double decomposition, into quadri-urate. Two atoms of bi-urate with one atom of superphosphate (mono-metallic phosphate) change into one atom of quadri-urate and one atom of dimetallic phosphate, according to the subjoined equation:

$$2(MH\bar{u}) + (MH_2PO_4) = (H_2\bar{u}, MH\bar{u}) + (M_2HPO_4)$$

Bi-urate ... Mono-metallic phosphate ... Quadri-urate ... Di-metallic phosphate.

These alternating reactions—breaking up of quadri-urate by water into bi-urate and free uric acid, and recomposition of quadri-urate by double decomposition of bi-urate with mono-metallic phosphate—go on progressively until all the uric acid is set free.[1]

THE INGREDIENTS WHICH RETARD THE DECOMPOSITION OF THE QUADRI-URATES IN NORMAL URINE.

It has just been shown that uric acid exists in the urine in the form of quadri-urate, and that when the urine is secreted with an acid reaction—that is to say, for some sixteen or twenty hours out of the twenty-four—this compound exists amid conditions which, if they stood alone and uncontrolled, would lead to speedy precipitation of uric acid in the free state. But in the normal course no such speedy precipitation occurs; it only occurs as a remote and postponed event after the urine has been voided. It is obvious, therefore, that the urine contains certain ingredients which inhibit or greatly retard the water of it from breaking up the quadri-urates. Were it not for the presence of these inhibitory ingredients uric acid would be thrown out daily in the urinary passages, and everyone would be subject to gravel. Hence an inquiry into the nature of these inhibitory agents has a pathological as well as a physiological interest, and bears directly on the etiology of calculous disorders. The inquiry is not a simple one. The urine is a very complex fluid. It contains, besides urea, a number of saline constituents, together with pigmentary and other extractives. Where among all these are

[1] For full proof of this reaction I must refer the reader to my paper on the History of Uric Acid in the Urine, Med. Chir. Trans., vol. lxxiii. p. 258.

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the inhibitory agents to be found? Attention was first directed to the *saline constituents*. It was found that when urine was dialysed, whereby its crystalline ingredients were for the most part removed, it lost to a considerable extent its power of retarding the decomposition of the quadri-urates. This observation indicated that the inhibitory power resided, partly at least, in the crystalloids of the urine. The chief crystalloids of the urine are urea, and the chlorides, phosphates, and sulphates of potash, soda, ammonia, lime, and magnesia. Solutions of these several substances in distilled water were prepared, and their effect on the quadri-urate was tested in the following manner. A speck of a purified specimen of the amorphous urate deposit was placed on a glass slide and intimately mixed with a drop of the solution to be tested. The covering glass was then applied and the result watched under the microscope. The time at which crystals of uric acid began to make their appearance was taken as a measure of the activity of the tested solution in decomposing the quadri-urate. The standard of comparison was distilled water, which usually caused crystals to appear in five minutes. Solutions of urea of various strengths acted precisely with the same speed as distilled water. It was obvious that urea had no share in the power resident in urine of retarding the decomposition of the quadri-urate. The chlorides and sulphates, in the proportion of 1 per cent. and upwards, imparted to water a considerable power of delaying the appearance of crystals. The potash salts were found to have more effect in this respect than the corresponding salts of ammonia and soda. The common di-sodic phosphate (rendered perfectly neutral to test-paper by the addition of phosphoric acid) showed about the same inhibitory power as sodium chloride. None of these solutions, nor any admixture of them, approached the natural urine in power of postponing the decomposition of the amorphous urate. More pronounced effects were obtained with the di-potassic phosphate. A solution of this salt, containing only 0·2 per cent. and perfectly neutralised, appeared to act almost as slowly on the deposit as a normal acid urine. Urines which were alkaline from fixed alkali had absolutely no decomposing effect on the amorphous urate. Attention was next turned to the *colouring matters* of the urine. The amorphous urates have an intense affinity for urinary pigment; the pigment cannot be removed from them by any solvent which does not at the same time destroy their integrity. I had noticed that deeply tinted urates were more slowly decomposed by water than pale-coloured urates. It had also been noticed that artificially prepared quadri-urates and the quadri-urates which constitute the urinary secretion of birds and serpents, all of which are devoid of colouring matters, are much more quickly broken up by water than the natural amorphous urate, which is always more or less tinted. Moreover, it was found that a urine which had been filtered through animal charcoal and thus deprived of its pigment acted very much more rapidly on the amorphous urate deposit than the same urine before it had been filtered through charcoal. It can, therefore, scarcely be doubted that the pigments of the urine play an important part among the ingredients which impart to normal urine its remarkable power of retarding the decomposition of the amorphous urate. In the febrile state and in other wasting disorders the urine is sharply acid and rich in urates, and yet such urines are not prone to deposit free uric acid, though very prone to deposit amorphous urates. In these cases the urine is always deeply coloured; and the pigments are probably the chief agents which prevent the precipitation of free uric acid under these circumstances.

CHEMICAL ETIOLOGY OF URIC-ACID GRAVEL.

The more remote and predisposing causes of gravel do not come within the scope of the present inquiry. Whatever these causes may be, they must be translated into changes in the composition of the urine before they can determine the occurrence of calculous accidents. No amount of morbid proclivity to uric-acid gravel can take effect if the urine be alkaline, nor if the proportion of uric acid in it fall below a certain point. The causes which will be here considered are those which lie exclusively in the chemical constitution of the urine itself. I have just given proof that the salines and pigments of the urine exercise a protective influence against premature precipitation of uric acid; and it may hence be inferred that a diminution of these salines and pigments may sometimes act, in a negative manner, as a determining factor in the production of gravel and stone.

Poverty of the urine in saline matters. — This is probably an influential factor in the disproportionate frequency of stone among the children of the poor as compared with the children of the well-to-do classes. The prevalence of stone among the natives of India is also probably to be explained in the same way. The children of the poor are fed largely on farinaceous articles—bread, gruel, oatmeal, and potatoes, with but a scanty allowance of milk, meat, and fish. Wheat-flour contains only 0·51 per cent. of mineral matter in proportion to the totality of the dry substance; oatmeal only 2·50 per cent.; potatoes only 2·50 per cent.; whereas milk contains 5·50 per cent., and the various forms of meat and fish 5 to 5·50 per cent. Rice, which forms so large a part of the diet of the natives of India, only contains 0·39 per cent. of mineral matter in proportion to the totality of the dry substance of the grain. These enormous differences in the amount of saline ingredients in the articles of food must of course make a corresponding difference in the proportion of the saline constituents of the urine, because saline matters pass out of the body almost exclusively through the kidneys. On the other hand, the well-known immunity enjoyed by sailors from stone and gravel depends, no doubt, as Mr. Plowright has shown, on the prodigious quantity of salt which seafaring men habitually consume with their food. The same observer has pointed out that the dwellers in a district of Norfolk called Marshland, where the drinking water is brackish, are singularly free from stone, as compared with their less fortunate neighbours in the adjacent districts of that county.[2]

Deficiency of Pigment in the Urine.—In chronic Bright's disease, with contracting kidneys, the urine is conspicuously pale, and is often indeed almost entirely devoid of pigment. There is no excess, but rather a diminution of the uric acid in the urine in these cases; nevertheless, deposits of uric acid are by no means uncommon, and sometimes actual renal gravel occurs. The percentage of salines is also low, and this doubtless contributes to the result; but probably the prepotent factor in the precipitation of uric acid in these cases is the deficiency of pigment in the urine.

Poverty of the urine in salines and pigments, however, only accounts for certain limited groups of calculous cases. There are other and larger groups in which the urine is neither defective in salts nor in colouring matters. The subjects of calculous disorders among the well-to-do classes—especially those of a gouty type—usually void a urine which is full coloured and abundantly rich in salts, and we must seek in some other direction for the cause of the morbid tendency. In these cases the chief determining factors are, I believe, to be found in the proportion of uric acid in the urine and in the degree of acidity of the urine. The influence of these two factors was investigated by a method which approximates pretty closely to the conditions of the actual clinical problem. In the earlier part of the lecture I showed that normal acid urines tended to deposit uric acid sooner or later; and the inference was drawn that this inherent tendency was the same in kind, though not so pronounced in degree, as the tendency existing in pathological gravel. If this inference be well founded, it follows that the controlling factors in the two cases are similar, and that the conditions which hasten or retard the precipitation of uric acid in a sample of urine preserved in a test-tube would, if they could be made applicable, hasten or retard the precipitation of uric acid in the urinary passages. The mode of experimentation was as follows: A series of test-tubes were each charged with 10 cc. of a normal acid urine. One of them was a control tube and had no addition made to it. To the others additions were made of known quantities of various substances, of which it was desired to know the effects on the time of onset of uric-acid precipitation. The contents of the tubes were protected against decomposing changes by the inclusion of a few drops of chloroform. The tubes were then corked and placed in the warm chamber at blood heat. The tubes were frequently examined, and the time when uric acid began to be deposited was noted. When the experiment was finished the acceleration or postponement of precipitation in the several tubes, as compared with the control tube, was computed.

Proportion of Uric Acid in the Urine.—A sharp distinction must be drawn between the proportion or per-

[2] See a paper by Mr. C. Plowright of King's Lynn, in the *Medical Times* for Oct. 10th, 1885.

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centage of uric acid in the urine and its rate of secretion—that is, the total quantity excreted per hour or per day. The proportion of uric acid in the urine bears no constant relation to the rate of its excretion by the kidneys. During the digestion and absorption of food the hourly discharge of uric acid reaches its highest level, but its percentage in the urine is not at its highest, owing to the fuller volume of the urine at this time. On the other hand, after prolonged fasting and during sleep the hourly discharge of uric-acid sinks to its lowest point, but its percentage in the urine touches its highest pitch. Again, the occurrence of uric-acid gravel is not a reliable proof of an excessive output of uric acid; and it is certain that individuals may habitually discharge a daily amount of uric acid considerably beyond the average and yet be quite free from the symptoms of gravel. Nor is such an occurrence even a sure indication that the urine contains an undue percentage of uric acid. Cases are sometimes encountered in which the urine is caught, as it were, in the very act of depositing uric-acid gravel, cases in which the urine, as it is voided, sparkles with crystals of uric acid. On four occasions I have been able to estimate the uric acid in such urines. The results are shown in the following table:—

TABLE VIII.—*Showing the Percentage of Uric Acid in Four Urines which were in the act of depositing Uric Acid at the moment of Emission.*

No. 1 contained	0·084	per cent.	of uric acid.	
,, 2	,,	0·076	,,	,,
,, 3	,,	0·032	,,	,,
,, 4	,,	0·022	,,	,,

In the first and second cases the percentage of uric acid greatly exceeded the average, in the third case it was slightly below the average, and in the fourth case it was very much below the average. Notwithstanding all this, it would be an error to suppose that the quantum of uric acid excreted per day and its proportion in the urine are without influence on the formation of urinary concretions. It stands to reason that persons who daily void an excessive amount of uric acid must be more liable than those who only void the normal quantity to crises in which the percentage of that substance rises above the average, and it is susceptible of proof that, other conditions being favourable, a high percentage of uric acid in the urine becomes a potent factor in the determination of uric-acid precipitation. The following observations may be taken as evidence on this point. A healthy urine which had deposited a copious sediment of amorphous urates in a urine-glass was divided into two equal portions, A and B. A consisted of the lower portion which contained the deposit; B consisted of the upper or supernatant portion. Both portions were warmed to blood heat, and became thereby perfectly transparent. Both portions were identical save in one respect—namely, that A contained a much larger percentage of uric acid, in the form of quadri-urates, than B. The specimens were then tested by the method above described. Four test-tubes were charged each with 10 cc. of urine, composed as follows:—Test-tube No. 1 contained A alone, No. 2 contained equal volumes of A and B, No. 3 contained three volumes of A and seven volumes of B, and No. 4 contained B alone. The four test-tubes were then corked and placed in the warm chamber at blood heat. The following table exhibits the times at which uric acid began to precipitate in the several test-tubes.

TABLE IX.—*Showing the Influence of the Percentage of Uric Acid on the Time of Onset of Uric-acid Precipitation.*

Contents of the Test-tubes.	Time when uric acid began to be precipitated.
No. 1 contained A alone	2 hours.
No. 2 contained equal volumes of A and B	4 ,,
No. 3 contained three volumes of A and seven volumes of B	8 ,,
No. 4 contained B alone	20 ,,

Grade of Acidity of the Urine.—The degree of acidity of the urine exercises, as might have been expected, a powerful influence on the time of precipitation of uric acid. In some cases of gravel I found the acidity of the urine fully twice as high as the normal average; in two such cases the urine was found to decompose the purified amorphous urate as rapidly as distilled water; but when its acidity was reduced to the normal level by the addition of sodium carbonate, it had then no more power in this respect than healthy urine, showing clearly that in these cases the determining factor in the disorder was solely excess of acidity. It was also found, experimenting on normal acid urines, that the addition of an exceedingly minute quantity of an alkaline carbonate postponed the time of precipitation of uric acid very notably. The following table displays some of the results obtained by this mode of testing.

TABLE X.—*Showing Postponement of Precipitation of Uric Acid by the Addition of Minute Quantities of Alkaline Carbonates to the Urine.*

Additions made to the urine.	Time when uric acid began to be precipitated.	Postponement of precipitation.
No. 1.—Urine alone—control tube ..	2 hours.	—
No. 2.—Urine + 0·04% pot. bicarb. ..	4 ,, ...	2 hours.
No. 3.—Urine + 0·04% sod. bicarb. ..	5 ,, ...	3 ,,
No. 4.—Urine + 0·04% lith. carb. ..	10 ,, ...	8 ,,

The quantities of the alkaline carbonates added in this experiment were so small that the reaction of the urine, as tested by litmus paper, was not sensibly affected; and yet the postponement of precipitation was very considerable—considerable enough, had the events occurred in the urinary passages, to make the difference between the occurrence and non-occurrence of gravel. It will be observed that the sodium carbonate acted more powerfully as a retarder than the potassium carbonate, and that the lithium salt acted more powerfully than either. This, however, was solely due to the difference in their atomic weights. When these salts were used in quantities proportionate to their saturating power no difference could be detected between them. It need scarcely be said that if the carbonates were added in sufficient quantity to render the urine neutral or alkaline no precipitation of uric acid took place. The general results of the above inquiry into the factors which control the precipitation of uric acid in urine, and which operate to determine or to prevent the occurrence of pathological gravel, may be summed up in the following two propositions. The conditions of the urine which tend to accelerate the precipitation of uric acid are high acidity, poverty in salines, low pigmentation and high percentage of uric acid. And, conversely, the conditions which tend to postpone precipitation are depressed acidity, richness in salines, richness in pigments, and low percentage of uric acid. On the interaction of these factors the occurrence or non-occurrence of uric-acid gravel appears to depend; and probably the most important of these factors is the grade of acidity.

THERAPEUTICS OF URIC-ACID GRAVEL.

The treatment of calculous disorders at the hands of the physician must always in the main be of a preventive character. When concretions are once formed in the kidneys or bladder, and these are too large or too awkwardly lodged to be washed out by the flush of the urinary stream, there is little prospect that they can be dissolved away by imparting solvent qualities to the urine. In such circumstances we are constrained to have resort to surgical means; and it is a matter for congratulation that the brilliant advances in the surgery of the kidneys and bladder—advances largely due to the enterprise and skill of British surgeons—enable us now to face this alternative with greatly diminished anxiety. In the domain of prophylaxis, however, there remains to the physician a fruitful field of activity. Nowhere, perhaps, is the aphorism that "prevention is better than cure" more pertinent than in the case of calculous concretions. The force—the chemical force—which is requisite to prevent the precipitation of uric acid in the urinary channels is almost infinitely small as compared with the force which is requisite to redissolve a concretion already formed. In considering the medical treatment of uric-acid gravel it is important to fix our eyes on the urine itself. There is, perhaps, too ready a disposition to look for the determining causes of gravel elsewhere than in the urinary function—in the stomach or in the liver or in some general constitutional vice. It should be borne in mind that uric-acid gravel is constantly seen as an independent disorder, existing *per se* in persons who are in all other respects perfectly healthy. And if gravel be, not unfrequently, complicated, or associated with other morbid conditions, it only conforms in this respect to the common rule applicable to most other disorders. There is, however, no doubt that there exists a special relation between uric-acid gravel and gout; and the circumstance that uric acid figures as a common factor in both

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has led certain persons to the opinion that the two complaints are substantially one and the same. This notion is certainly not correct, and from a therapeutic point of view it is, I believe, a mischievous notion. It is a matter of common experience that many gouty people are never troubled with gravel; and, conversely, that many subjects of gravel are never troubled with gout. In both complaints there is an aberration of uric acid; but the error is essentially different in the two cases, both in regard to its site and in regard to its nature. In gout the error occurs on *this* side of the kidneys, in the blood and tissues, and the uric acid is precipitated in a state of combination as a bi-urate. In gravel the error occurs on *that* side of the kidneys, and the uric acid is precipitated in the urine and in the free state. In the former the deposition takes place in the true interior of the economy; in the latter the deposition takes place in what is, strictly speaking, the exterior of the economy—that is to say, on the surface of a doubling of the external integument. These differences are, I believe, radical, and involve important distinctions both in regard to pathology and in regard to treatment. The fact that gout and gravel sometimes exhibit a kind of vicarious correspondence—that the one complaint alternates with the other at different periods in the lifetime of the same individual, or in successive generations of the same family, while indicating an undoubted relation, indicates also at the same time an essential distinction. Speaking from a somewhat long and large experience of these ailments, I cannot recall a single instance in which a paroxysm of gout and a paroxysm of uric-acid gravel broke out synchronously. And Sir Alfred Garrod, with a longer and still larger experience, gives me his testimony to the same effect. Some pertinent evidence on the point we are debating has been brought forward by Mr. Plowright of King's Lynn.[3] He remarks that, residing as he does in Norfolk, the chief stone district in England, he has been struck by the comparatively small number of cases of gout which have come under his notice as compared with the number of stone cases. He further shows, by reference to the Registrar-General's Reports, that there is no correspondence between the prevalence of gout and of stone in the several counties of England and Wales. Some of the counties which have a high death-rate from gout have a low death-rate from stone; and, conversely, counties with a high death-rate from stone have a low death-rate from gout. In Scotland, where gout is rare, stone is comparatively common.

These considerations lead to the conclusion that gravel should be regarded as a primary vice of the urinary function, that it requires to be studied by and for itself, and that the urine is the proper and natural field for the investigation of its etiology and therapeutics. We have just seen that the factors which chiefly control the precipitation of uric acid in the urine are: the degree of pigmentation, the proportion of salines, the percentage of uric acid, and, above all, the grade of acidity of the urine; and I shall consider the treatment solely with reference to the operation of these four factors.

With regard to the *deficiency of pigments* as a contributory factor in the promotion of uric-acid gravel, I have no facts or suggestions to offer which have a bearing on the therapeutical problem; and I doubt whether any help is to be got from further inquiry in this direction. The subjects of gravel among the well-fed population of this country, as far as my experience goes, present no deficiency of pigment in their urine.

With respect to the *proportion of saline matters* in the urine, it is worth bearing in mind that the evidence gathered by Mr. Plowright, as well as the experimental indications previously adduced by myself, point strongly to the suggestion that the subjects of gravel should be advised to take habitually with their meals as much culinary salt as their palates will tolerate. I may also remind those whose lot it is to practise among the children of the poor or among the rice-eating populations of tropical and subtropical countries, that it would be well, in cases of gravel, to see that the patient's food should contain an adequate proportion of articles rich in saline materials—that is to say, of milk, meat, fish, eggs, and salads.

The *proportion of uric acid* in the urine, as a controlling factor in uric precipitation, demands somewhat more notice. It is a common notion that the occurrence of uric-acid gravel depends simply on an excess of this substance in the urine (so-called uric-acid diathesis). This assumption pervades the entire argument of many writers on gravel, and dominates all their plans or treatment. I have already shown that the assumption is only partially true, and that the percentage of uric acid is only a subordinate factor in the determination of uric-acid precipitation. During the alkaline tide after meals the percentage of uric acid in the urine reaches often a high level, and yet there is less risk of precipitation at this time than at any other period of the day. It has, moreover, been demonstrated (see Table VIII.) that uric acid is sometimes thrown down in the urinary channels when its proportion in the urine does not exceed the normal average, or even when it falls considerably below the average. At the same time, it is true that when other favouring conditions coincide, a high level of uric-acid excretion, with a high percentage of it in the urine, is a valid factor in the production of gravel, and that a lowering of that level, if by any means attainable, is an important therapeutical indication. Attempts have been made in this direction by modifications of the diet and regimen. The advice given on this head by various writers is, however, very contradictory. Some recommend that the subjects of uric-acid gravel should avoid sugar and fruit and fat; others that they should take fat in abundance and avoid starchy matters. Some advise a vegetarian diet, others a mixed diet. The most reliable investigations indicate that fat, sugar, and starchy matters have not the slightest direct influence on the production and excretion of uric acid, nor has any proof been given that albuminoid substances of vegetable origin differ in this respect from albuminoid substances of animal origin. The only point that has really been made out is this—that the excretion of uric acid is diminished by lessening the albuminoid ingredients of the food, and that it is heightened by increasing these ingredients. But this class of aliments is absolutely essential to nutrition, and you cannot diminish them to any serious extent without injuriously affecting the nutritive equilibrium. After a careful examination of all the evidence on this point it appeared to me that the practical outcome was only this—that persons who are subject to uric-acid gravel and who are also troubled with a large appetite should seek to allay their cravings and to lessen the intake of nitrogenous material by the free use of farinaceous articles of food, with salads, fruit, and garden vegetables, all of which are comparatively poor in albuminoid constituents. I shall again revert to this subject in my fourth lecture when speaking of the dietetic treatment of gout.

I am satisfied from repeated observations that in the immense majority of cases of uric-acid gravel in this country the immediate determining cause of the precipitation is *excessive acidity of the urine*, and that the paramount indication of preventive treatment is to diminish this acidity. All other schemes of treatment sink into insignificance in comparison with this. The use of alkalising agents for the prevention of uric-acid gravel stands on a perfectly rational basis. It is chemically impossible for uric acid to be deposited from an alkaline urine; it may even be said that it is impossible for uric acid to be deposited prematurely—that is to say, within the urinary channels—from a neutral or feebly acid urine. And as we possess the means of harmlessly reducing the acidity of the urine at pleasure, we have in our hands, in principle at least, the absolute power of preventing uric-acid gravel. There are, however, some practical difficulties to be overcome. The disposition to uric-acid gravel has a certain persistency. It may last intermittently for months or years, and it would obviously be too great a strain on a treatment which is purely protective to require that a patient should take antacid medicines in sufficient doses and at sufficiently short intervals to maintain the urine continuously alkaline or neutral over so long a period of time. Nor is any such effort necessary. A study of the normal oscillations of the urine at different periods of the day and night leads to the inference that the liability to uric-acid gravel rises to a dangerous intensity only during certain limited portions of the twenty-four hours. The risk in gravel is almost confined to precipitations which take place within the precincts of the kidneys. Precipitations which take place in the bladder are harmlessly swept out at the next act of micturition. These latter probably only do harm when there is already a stone in the bladder to which the crystals

[3] On the Cause and Distribution of Calculous Disease. By Charles B. Plowright. London, 1886. Page 14.

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can accrete, or when a pouch exists in the viscus to receive and detain the deposit. What most concerns us, therefore, is the state of the urine as secreted by the kidneys rather than the state of the product accumulated in the bladder. For the sake of brevity and by way of distinction, we may be allowed to speak of *renal urine* and *vesical urine*. These two products no doubt usually correspond sufficiently closely to enable us to judge from the urine of micturition what the character is of the urine secreted by the kidneys; but this is not always the case. Vesical urine represents the aggregate work of the kidneys for several consecutive hours. During this interval the renal urine may have undergone sharp oscillations, from acid to alkaline, from dilute to concentrated, from richness to poverty in uric acid, but the vesical accumulation which is at length discharged by micturition will have a mean or average composition which entirely masks these oscillations. To arrive at a correct knowledge of the state of the urine as it flows from the kidneys it is necessary to obtain the secretion and to examine it at short intervals. Some years ago I made an extended series of observations on these lines. The subject of experiment was a healthy man of twenty-eight. The urine was collected at hourly, or at most two-hourly, intervals throughout the twenty-four hours—except during the period of sleep, which was taken at a single interval. The inquiry embraced observations on thirty-two complete days, besides a good many more on portions of days. The results of the investigation were incorporated in two papers published in the Memoirs of the Manchester Literary and Philosophical Society[4] and in the *Edinburgh Medical Journal*.[5] Some of the conclusions arrived at have a direct bearing on the preventive treatment of urinary gravel. The character of the urine was shown to be most affected by the digestion of food, by prolonged fasting, and by sleep. It was found that a meal, whether it was composed of ordinary mixed food or of purely animal or purely vegetable substances, produced two constant effects—it depressed the acidity of the urine and increased its volume. And, conversely, prolonged fasting raised the acidity and diminished the flow of the urine. During the hours of sleep, which are also of course hours of fasting, the acidity of the urine reached its highest point and the flow of the urine reached its lowest point. The proportion of uric acid in the urine—that is to say, its percentage—was found highest during the time of sleep, but the hourly excretion was highest during the hours following a meal. Now, if we apply these facts in the light of the evidence previously adduced in regard to the factors which determine the precipitation of uric acid in the urine, we arrive at the conclusion that the period when there is most risk of precipitation in the kidneys is during the time of sleep, and especially in the early morning during the two or three hours preceding breakfast. The deposition of uric acid is most imminent when there is a conjunction of the several conditions—that is to say, when the flow of urine is very scanty, when the secretion is hyperacid, and when it is rich in urates. Such a conjunction is most fully developed during the period of sleep. Sleep is a time of fasting, and therefore a time of hyperacidity of the urine—a time of recumbency and bodily immobility, and therefore a time when the renal stream approaches nearest to stagnation, and loiters longest about the purlieus of the kidneys. On the other hand, during the day and the waking hours the recurrence of the meals keeps the urine at a low degree of acidity, or even renders it for a time neutral or alkaline, the renal stream is comparatively full and rapid, and its descent from the kidneys is favoured by the force of gravity. During these hours, therefore, the risk of uric-acid precipitation is reduced to a minimum, even in persons who have a distinct tendency that way. For, as I have repeatedly had occasion to observe, the urine of calculous subjects exhibits precisely the same cyclical diurnal variations as that of healthy persons, though not always in so marked a degree.

A study of these facts indicates that if we safeguard the night the day may be generally left to take care of itself. This theoretical deduction is fully in accordance with experience in the treatment of uric-acid gravel. In the milder cases a single full dose of the alkalising agent taken at bedtime suffices to prevent the recurrence of the colicky pains and the discharge of uric-acid concretions. For this purpose the citrates and bicarbonates of potash and soda are the most effective. The citrate of potash is, perhaps, on the whole, the best preparation to employ; it has very little taste, and it sits comfortably on the stomach. The dose for an adult should not be less than forty to sixty grains, dissolved in three or four ounces of water. In severer cases a single dose is insufficient, and the early morning urine will still exhibit a morbid disposition to precipitate uric acid. In such cases a second but smaller dose should be taken about the middle period of the hours of sleep. This is less difficult to manage with the subjects of gravel than in healthy persons. There is commonly in calculous subjects a certain restlessness and a certain irritability of the urinary organs which leads to an increased frequency of micturition, and such persons rarely pass the night without a call to empty the bladder. Advantage should therefore be taken of this break in the continuity of sleep to take the second antacid dose. In this way the entire night and early morning may be effectually guarded.

Cases of uric-acid gravel, however, are not always to be got rid of on these easy terms. Now and then instances are met with in which the perversion is so great that the urine is disposed to deposit almost the day through and in which the normal alkaline tide after meals seems to be well-nigh abrogated. Under these circumstances, additional doses of the antacid are required to afford the requisite protection; and the right times for these doses are two or three hours after breakfast and two or three hours before dinner. But, so far as I have seen, these extreme conditions only last a short time—a few days at most—and there is then a return to a less urgent state of things. It is, indeed, a marked character of uric-acid gravel that it oscillates in intensity—it comes and goes in paroxysms—reminding one of the waviness of gouty phenomena. For this reason it is desirable to frequently note the state of the urine and to ascertain its greater or less proneness to deposit uric acid, so that the administration of the antacid may be adjusted to the actual needs of the patient. There is no great difficulty about this. If a freshly voided specimen of the urine of fasting—say the urine of the early morning or the urine secreted just before dinner—be set aside in a glass vessel in a warm place (so as to prevent the deposition of the amorphous urates) the imminence of precipitation can be easily observed. If precipitation be morbidly imminent crystals of uric acid will appear perhaps at once, perhaps in an hour or a couple of hours. If precipitation be not morbidly imminent crystals will not appear for several hours, perhaps not for two or three days. It is possible in this way to gauge pretty accurately the intensity of the morbid tendency, and to regulate thereby the amount and frequency of the antacid dose, or to decide on its discontinuance.

There are still some points in regard to the use of alkalies in gravel on which additional information is needed. We want to know more exactly the length of time over which a dose of alkali extends its influence on the urine, the amount of dose required to reach an effective result, and the relative alkalising value of the different preparations in use. Dr. Luff has, at my suggestion, undertaken an inquiry with a view of clearing up these points. His investigation is not yet complete, but he has already arrived at some results of interest, which he permits me to mention. He finds that a dose of forty grains of citrate of potash taken at 11 P.M. extends its influence through the night and up to eight o'clock the next morning. The effect on the morning urine, however, was very slight. A dose of sixty grains had a more considerable effect, and often rendered the morning urine actually alkaline. Bicarbonate of potash acted in an exactly equivalent degree with the citrate. A corresponding dose of the acetate of potash appeared to act more rapidly, and its effect was less enduring than that of the citrate. The carbonates of lime and magnesia were found to be quite ineffective as alkalising agents on the urine.

A matter of some importance in the management of cases of uric-acid gravel is the *arrangement of meal times*. Each meal acts on the urine as a dose of alkali, and also as a diluent, and in both these ways operates as a protective against uric-acid precipitation. After the meal is absorbed and assimilated the urine becomes again increasingly acid and concentrated, and, as a consequence, increasingly prone to precipitate uric acid. Subjects of gravel should therefore be warned not to allow too long an interval to elapse between their meals. This precaution is especially needed as regards the interval between breakfast and the midday meal. The first meal of the day is with most persons very quickly

[4] A Contribution to Urology: Memoirs of the Literary and Philosophical Society of Manchester, vol. xv.
[5] On Some of the Daily Changes of the Urine: Edinburgh Medical Journal, 1860.

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digested, and its effects on the urine correspondingly transient. At no time during the waking hours does the acidity of the urine tend to rise so high and the volume of the urine to fall so low as during the later portion of the interval between the first and second meal of the day. This interval should therefore be abridged. In this connexion the pleasant institution of afternoon tea may come in for a word of commendation, as serving to break the sometimes too long interval between luncheon and a late dinner. Some people interpose an unconscionable interval of twelve or fourteen hours between their last meal at night and their breakfast next morning. This is a very risky proceeding on the part of calculous subjects.

The essential thing in the prophylactic treatment of uric-acid gravel is to guard the urine from precipitating within the precincts of the kidney. And we shall practically have attained our object if we succeed not in altogether preventing precipitation, but in postponing it until the urine has quitted the kidneys. A postponement for a short time—even half an hour—may make all the difference between a precipitation which is fraught with pain and peril and a precipitation which is perfectly harmless. Now, the protective effect of an antacid dose extends a good deal beyond the point at which the urine is rendered actually alkaline. For, although all acid urines of medium density precipitate uric acid sooner or later, the time of the occurrence of that precipitation is immensely influenced by the degree of acidity of the urine. Other things being equal, the more acid the urine the earlier is the precipitation, and the less acid the urine the longer is the precipitation postponed. An antacid effect, therefore, which is too feeble to render the urine actually alkaline may be quite sufficient to depress its acidity to such a degree as shall postpone the time of precipitation until the urine has escaped from the kidneys and even from the bladder.

The use of mineral springs in the treatment of uric-acid gravel demands a word of comment. A sharp distinction must be drawn between alkaline springs and non-alkaline springs. Alkaline waters, such as those of Vichy, which are largely impregnated with carbonate of soda, have the power of alkalising the urine, and therefore absolutely protect against uric-acid gravel during the period of their use. But the non-alkaline waters have no such power, and their beneficial action is due to the fact that they greatly increase the flush of the urinary stream and thereby promote the carrying down of concretions already lodged in the precincts of the kidneys. Their efficacy in this direction is quite undoubted; but it is, I think, equally undoubted that the drinking of equivalent quantities of distilled water would be just as efficacious. A glance at the composition of the several non-alkaline springs which have acquired renown in the treatment of gravel supports this view and indicates that the neutral salts contained in them have little or nothing to do with their efficacy. Some of these waters are impregnated with sulphate or chloride of sodium; others with salts of magnesia; others, again, only contain minute quantities of sulphate of lime, and are scarcely distinguishable, except for their warm temperature, from ordinary drinking water. Yet all these most diverse springs claim equal powers in cases of gravel. Is it not plain that what alone gives them efficacy is that which they all contain in common—namely, their watery constituent? Subjects of urinary gravel who pay, as many of them do, an annual visit to one or other of these springs imagine that such a visit clears them from their calculous tendency for the rest of the year. This, I believe, is a delusion. Such persons, on their return home, stand, in regard to their morbid proclivity, precisely where they stood before their visit.

It is obvious that a preventive treatment of uric-acid gravel to be completely effective should be available all the year round, and be capable of timely application whenever the emergency arises. An adequate choice of substances which alkalise the urine is always at our disposal; their power of preventing uric-acid precipitation amounts to a chemical certainty; and in even moderately prudent hands no harm can follow from their use. I see no reason, provided vigilant watch be kept on the imminence of uric-acid precipitation in the fasting urine, in the manner before described, why sufferers from this kind of gravel should not, by a prompt resort to antacid remedies, be able at all times to protect themselves effectually against fresh formation of uric-acid concretions, and thereby save themselves from a world of pain and danger.

AN ABSTRACT OF

Lectures

ON THE

TREATMENT OF SURGICAL TUBERCULAR DISEASES.

Delivered at the Royal College of Surgeons of England, in June, 1892,

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LECTURE I.

THE question of the possibility and the mode of recovery from tuberculosis was considered in the first instance, and it was pointed out that in man there is a great tendency towards recovery. Mr. Cheyne then continued:

"Recovery may take place either after or before the formation of a communication with the exterior. Where a tubercular deposit has opened externally a considerable portion is evacuated, and when healing occurs only a fibrous induration, with sometimes a little caseous material in it, is left to mark the seat of the original disease. Where no communication has formed externally, the retrogressive changes are of various kinds, depending on the extent and character of the lesion, more especially on whether the tubercles are discrete or agglomerated into masses, or on whether caseation has occurred or not. Where the tubercles are discrete and not caseous at the time that the bacilli cease to act the probability is that the tubercle will disappear and leave practically no trace behind, the amount of resulting fibrous tissue being too small to be noticeable. How this takes place is not quite clear. In specimens from cases of synovial disease treated by tuberculin in which retrogression was occurring I found apparently two sets of changes. In the one the epithelioid cells of tubercle disappeared, their place being taken by smaller cells, which apparently developed into fibrous tissue (the most common appearance); in the other the epithelioid cells themselves became spindle-shaped and developed directly into fibrous tissue. Similar appearances may also be seen apart from the use of tuberculin, and under these circumstances a true cure results. Where the tubercular masses are larger or where caseation has occurred complete cure seldom occurs, though the disease may become quiescent. In that case a large amount of fibrous tissue is formed around the mass, and no doubt a good deal of the tubercular tissue disappears, or is converted into fibrous tissue or absorbed; but where the tubercular mass is large, remains of tubercles or portions of caseous material, often infiltrated with calcareous salts, are generally found towards the centre of the new fibrous tissue. Calcareo-caseous masses are more common in these deposits than tissue showing a recognisable tubercular structure, and in both the presence of tubercle bacilli has been frequently demonstrated, both microscopically and by inoculation into animals. Hence we can only speak of cure in cases where the result of the healing process is fibroid induration with complete disappearance of the tubercular material. Encapsulation of a deposit is not true cure, but its occurrence, nevertheless, illustrates the fact that the bacillus often has a hard struggle for existence in the human body, and often fails to make headway or even to hold its ground. These changes have been most carefully studied in the lungs, and reference was made to various statistics as regards their frequency, especially those of Heitler, Fowler, Sidney Martin, Coats, and Harris. The relative frequency of complete fibroid change—i.e., cure—and of encapsulation of tubercular deposits is given by Martin as 1 to 4, and his percentage of true cures in post-mortem examinations of patients dying of non-tuberculous diseases is 2·7 per cent. It is not, however, certain that all of these fibroid indurations have resulted from tubercle.

"With regard to surgical tuberculoses, healing or encapsulation of tubercular deposits is not at all infrequent.

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should think that encapsulation of calcareo-caseous tubercular deposits occurs very frequently in glands, more often probably than anywhere else. In the case of tubercular glands, we frequently see that while some suppurate, others remain enlarged without suppurating, and as years pass gradually diminish in size; while we know, as the result of operations for the removal of tubercular glands, that these contain caseous material.

"As regards diseases of bones and joints, I should say that in the case of pure synovial disease we have in a good many cases a true recovery, though in others there often remains somewhere or other an encapsuled tubercular mass. Where recovery takes place at an early stage, while the tubercles are still discrete or only in small masses, it may be complete, and the amount of resulting fibrous tissue may be so small as not to interfere with the movement of the joint to any material extent. I have had two or three cases where expectant treatment was begun early and continued for a long time which have recovered completely as regards appearance and function, and with no apparent tendency to relapse. As a rule, however, the tubercular tissue is somewhere or other massed together, and in these cases there is always a considerable or even complete degree of stiffness left behind owing to the large amount of fibrous tissue formed; and not unfrequently, as I have said, there is encapsulation of tubercular material. In the case of deposits in the ends of bones encapsulation is the rule in the cases which recover without operation or abscess. In fact, although I have examined a considerable number of bones microscopically with old-standing quiescent tubercular deposits I have only once found appearances which justified the view that cure had really occurred; in all the other cases encapsulation and calcareous deposition had occurred, and the deposit remained as a constant source of danger. Where ankylosis has occurred in joints, although in the case of bony ankylosis I have seldom found distinct traces of tubercular tissue except where deposits were present, I have in most of the cases of fibrous ankylosis found remains of tubercular tissue somewhere or other. This is a point of great importance in connexion with the practical question of breaking down these joints with the view of obtaining better position or possibly movement. Experience has taught the great danger of such procedures, and the explanation is furnished by the fact which I have just stated."

The causes which oppose recovery were next considered under the heads of General and Local Causes. Among the general causes is the inheritance of a predisposition to tuberculosis either from the body being a better soil for the growth of the organism, or from the defensive arrangements of the body, the cells and fluids, being less efficient as antiparasitic and antitoxic agents. Reference was also made to the fact that the members of a tubercular family are in addition exposed to a much greater risk of infection and to a much larger dose of the virus from the dried secretions of the patient, in kissing, the use of the same food utensils, &c. A somewhat similar receptive condition of the body may be produced by confinement in close and badly ventilated localities, bad food, &c.; indeed, the predisposition of those already predisposed is often increased by the fact that if sickly they are kept in the house and taken care of to an unnecessary extent. The climate is also of importance, more especially if cold and damp, by setting up catarrhal inflammations of various mucous membranes, sore-throats, &c., thus causing local predisposition and opening up a point of entrance for the bacilli; and further, the same occurrences often lead to aggravation of the disease if it already exists. Such a climate may also lead to rheumatic affections which, especially when affecting joints, may again pass into tubercular disease. As regards food, of course if insufficient or poor in quality, the general nutrition of the patient is interfered with; and further, it is conceivable that too great consumption of certain substances may render the body a better soil. This view has been supported by Bidder as regards too much vegetable diet leading to an excess of potash in the tissues. Again, attacks of certain diseases, such as measles or scarlatina, predispose to tubercular infection, and also often aggravate an existing one. Even in the case of a mild disease like chicken-pox the lecturer had seen marked recrudescence of disease which had up to that time been improving.

"Of the local causes which interfere with the action of the tissues in repelling the parasite the most important are those which tend to set up and keep up a state of chronic inflammation in the part. I pointed out in my former lectures that the tubercular disease when spreading is always surrounded by a greater or less extent of tissue in a state of chronic inflammation, and that the disease tended to spread in the direction in which this tissue was greatest. Of the causes which increase the chronic inflammation, apart from the presence of the tubercle, movement of the affected parts and in the case of joints pressure of the joint surfaces against each other are the most important, and the improvement in the part when these two causes are removed is often very striking.

"Injury is also not only a potent factor in the production of these tubercular diseases, as I pointed out last year, but, as we all know, it is very apt to aggravate an existing lesion or to light up a disease which may have been quiescent for a long time. In the lighting up of a quiescent lesion the effect of the injury is either to rupture the fibrous capsule around the tubercular deposit, or, where this fibrous tissue is only small in amount, to lead to passage of fluid into the deposit, thus providing fresh pabulum for the growth of the bacilli. Its action in aggravating an existing disease may be partly due to the increase in the inflammation and partly to the accompanying swelling interfering with the lymph flow and producing a stasis of lymph in the part, a condition of matters which is favourable to the growth of the bacilli. Disturbances in the circulation of the blood must also be of importance; for example, where the disease affects the lower extremity, if the limb is allowed to hang, the free circulation of blood in the part and the removal of the waste products are interfered with, and, as we know, under such circumstances wounds do not heal, or only with great difficulty. Apart from these various factors on the part of the body, the conditions on the part of the tubercle bacillus itself may exercise a considerable influence on the spread of the disease; and although these conditions are not under the control of the surgeon, it is well to bear them in mind. I have formerly pointed out that the severity of an infective disease depends to a great extent on the initial dose, and this also holds good in tuberculosis. As cases of bone and joint disease no doubt arise not merely from individual bacilli carried to the part by the blood, but also, and, I think, most commonly, by actual emboli of tubercular material containing bacilli, and coming from some central focus, generally, I think, from the bronchial glands, the severity and acuteness of the disease will depend to some extent on the number of bacilli present in the original embolus. The virulence of these bacilli also varies to some extent, and it is found that if the virulence is diminished by artificial means these attenuated bacilli tend to set up local lesions resembling scrofulous diseases in man rather than the more acute general disease which is the usual result in the lower animals. On the other hand, it has been found that the virulence of certain organisms is increased by passage through highly susceptible animals, and it may be that in the case of tuberculosis in highly predisposed individuals the bacilli may gain in virulence, and thus the children, apart from their hereditary predisposition, are apt to get a more acute form of the disease as the result of the greater virulence of the bacilli and the large initial dose. Another thing which favours the growth of the tubercle bacilli is the concurrent growth of other organisms. In the case of the lung, the presence of other organisms, more especially of the micrococcus tetragenus, seems to have a great deal to do with the rapid breaking down of the tissue, and in open tubercular deposits elsewhere there is no doubt that the presence of the ordinary pyogenic organisms leads to extension and persistence of the disease to a very marked degree. This is a point to which I shall subsequently return."

Modes of combating tubercular disease.—Reference was in the first instance made to the question of prophylaxis, in so far as the other members of the household are concerned. This chiefly has reference to phthisis, but it also may be well to take some precautions where there are open wounds. The chief points in the prophylaxis are to disinfect the sputum, to prevent it from drying up, not to wipe the mouth with a handkerchief, no kissing, separate food utensils, disinfection of pillows, bed clothes, and sleeping room from time to time, &c. The treatment of the tubercular diseases must be considered under two separate headings—(1) Methods which aim at strengthening the body as

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a whole or the affected part in particular, thus enabling the tissues to overcome the bacillus—methods, in fact, which do not act directly on the tubercular disease, but only indirectly through the tissues of the body; and (2) methods of which the essential feature is the removal or destruction of the tubercular tissue, and with it of the tubercular virus.

METHODS WHICH ACT ON THE BODY, AND NOT DIRECTLY ON THE TUBERCULAR DISEASE.

1. *General treatment.*—Allusion was first made to good hygiene and fresh air. In this connexion the question of climate naturally arises, and various points have to be considered in connexion with it. In the first place, the period of the disease at which the patient should be sent away. In surgical tuberculosis, in contrast to phthisis, a great deal can often be done by local treatment, operative or otherwise, and it is always a question whether the local or the climatic treatment is for the time being of most urgent importance. It is of course mainly in the early stage, while there is as yet no question of operative interference, that the change of climate is of greatest importance; or, again, after the necessary operative interference has been carried out. Where an operation is impending, or where such methods of treatment as extension are necessary, change of climate is for the time being inadvisable. The determination as to the place to which to send the patient will depend to a considerable extent on the view which one takes as to the action of climate in the treatment of tuberculosis. Two views are held with regard to this matter: the one that in the air of certain localities substances are present which possess an anti-tubercular action, and the other that the usefulness of climate depends on its effect in improving the general condition of the body, thus acting only secondarily on the tubercular disease. The first view is that which is generally held by the laity, more especially with regard to the seaside and sea voyages, and which is no doubt the mainspring of the remarkable pilgrimage to Margate, which seems to be the first and most essential part of the treatment in their minds—a pilgrimage undertaken without the slightest consideration as to whether that is the climate which suits the patient best or not. Indeed, the lecturer had known patients persist in staying at the east coast health resorts although they were never well there, on the idea that, though their bodily health was suffering, their tubercular disease was being cured by the specific substances—iodine, ozone, or what not—contained in the air. This is an erroneous and hurtful view, and the lecturer advocated the second view—viz., that the efficacy of climate depends solely on its action in re-establishing the vigour of the body, and enabling it to oppose successfully the tubercular invasion. From this point of view there is no one place which will suit all cases, and the decision must depend on a knowledge of the peculiarities of the patient and on the stage and situation of the disease. A point of great importance is to ascertain the temperature which suits the patient best, some preferring hot weather, others being well only in a cool place. The question of temperature must also be considered in connexion with the possibility of the patient taking active exercise in the open air. Where a patient is unable to walk the place chosen must be warm and dry, and it must also be sheltered from winds, because he ought to be out in the open air as much as possible. Many patients undoubtedly do best at the seaside, but there are others, and these by no means few, for whom high inland situations are the most suitable. In these cases it is best to send them to a cottage or farmhouse in a suitable inland place, such as Yorkshire in summer, or Devonshire in winter. Of seaside places, the South coast is probably the best in the early stage of the disease, and the east coast when convalescence is thoroughly established. The question of exercise is also important—the avoidance of pursuits which expose the patient to injury in an unusual degree, remembering the tendency of injury to lead to fresh outbreaks of the disease. Where the lower extremity is affected, it is best that the patient should be kept recumbent and not allowed to get about with crutches, as is so often done. He should be wheeled out into the open all day and exercise given him in the form of general massage. We know from the clinical history of ulcers and inflammations of the leg that the dependent position of the limb is a very great obstacle to healing, and the same must hold good with regard to a diseased joint, even though it be kept at absolute rest.

2. *Local treatment with the view of improving the resisting power of the tissues.*—One of the chief obstacles to recovery is the presence of chronic inflammation in the tissues around the tubercular area, which is kept up more especially by the various causes of unrest, such as movement or sepsis, and, in the case of joints, pressure of the diseased surfaces against each other. In combating this condition the first requisite is as far as possible to give absolute rest to the part—rest both from mechanical and chemical agencies, such as sepsis. Most surgeons are agreed as to the value of mechanical rest, but some, and notably Schede, do not share this view entirely. Schede thinks that too complete rest may do harm in joint cases, leading to atrophy of the capsule, diminution of synovial secretion, &c., and he allows his hip-joint cases to move and sit up in bed with an extension apparatus on. It is unnecessary to take up space in combating this view, but the value of rest in an organ, the urinary bladder, which is never at rest under ordinary circumstances, is indisputable. Quite recently Mr. Cheyne had had two cases of primary tuberculosis of the bladder, an exceedingly rare affection, which had been treated with great benefit by placing the organ completely at rest.

"CASE 1.—A man aged thirty-six had a week or two before consulting me in February, 1891, begun to suffer from frequency of micturition, accompanied by pain towards the end of the act. This had been getting worse for the last two days, and at the end of micturition pure blood was passed, with intense pain in the bladder and penis. The bladder was found to be very tender both above the pubis and per rectum. There was no tenderness or enlargement of the prostate or vesiculæ seminales; testicles normal; no kidney tenderness or swelling. Nothing felt on sounding, but the instrument caused great pain. Urine acid, containing blood and pus. Temperature 99°. The patient was pale and thin, and thought that he had been losing flesh lately. Some five or six years ago he had pleurisy, and at that time lost flesh greatly. No tubercular family history, but his only child has enlarged cervical glands, large tonsils, adenoids, &c. I sent him to bed and ordered the usual remedies for acute cystitis. For a few days he improved considerably, but about ten days later he had recurrence of the bleeding and strangury without any apparent cause. I watched him for about six weeks, during which time he had two attacks of pain and strangury and the prostate became somewhat larger than it was at first. By that time I had come to the conclusion that the case was one of tuberculosis of the bladder, although no other tubercular lesion could be detected; but before opening the bladder I had a consultation with an eminent man, who, having had large experience in the use of the cystoscope, examined him with that instrument at my request. He diagnosed a simple polypoid tumour close to the right ureteral orifice, and I believe a clay model was made of the tumour afterwards. Though I could not accept the diagnosis, it gave me the excuse for supra-pubic cystotomy, which I had been desirous to do. On opening the bladder above the pubis at the beginning of April I examined it most carefully, but there was no trace of a tumour. In the trigone, however, there were four or five spots about the size of peas, with slight ulceration on the surface, and in the surrounding mucous membrane a number of minute miliary tubercles could be readily seen. The spots were carefully scraped, iodoform powder rubbed in, and a drainage-tube inserted. For the first day or two he had a good deal of spasm of the bladder, but this soon passed off, and I kept up the drainage for six weeks. At the end of that time the tube was left out and the bladder closed during June, when he went to the seaside. He spent the summer lying in the open air, and he steadily gained in weight, but still passed pus in the urine. In September I allowed him to begin walking about, and since then he has steadily improved, though up to Christmas he had had two very slight attacks of pain and bleeding. Since Christmas he has had no further trouble, his urine has become free from pus, and he only passes urine about four times in twenty-four hours.

"CASE 2.—A man aged twenty-one, doubtful family history; uneasiness about bladder for more than a year; for last three months has had frequency of micturition; pain and blood on one or two occasions; losing flesh; other organs healthy; much pain towards end of micturition, which is fre-

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quent; pus in urine; nodule felt in bladder wall just in front of right vesicula seminalis; very tender; no stone. Cystoscope showed ulcer in trigone; tubercle bacilli in urine. On Nov. 24th I performed supra-pubic cystotomy, found ulcer in trigone, and by exerting pressure on the nodule from rectum squeezed out a little curdy pus; ulcer scraped, bladder drained, albumoses from tuberculin injected; drainage continued for six months; now much improved, gained flesh, and lost old pain."

In the case of tubercular joint disease surgeons, with very few exceptions, are unanimous in recommending rest, and it is sometimes very striking how much improvement results, even in very bad cases, from absolute fixation of the affected joints. In many cases of joint disease, however, the unrest is not only due to movement, but also to a large extent to the tonic contraction of the muscles surrounding the diseased part, and causing pressure of the joint surfaces against each other. Where the bone has become affected, the joint is always found to be more or less completely fixed, the fixation being due in the early stage almost entirely to reflex contraction of the muscles surrounding it. The result is that the joint surfaces are kept constantly and firmly pressed against each other, and as a consequence the chronic inflammation in the bone is kept up, and rapid destruction of the part of the bone which is subject to the pressure takes place. This is seen in the hip-joint, for example, in the flattening of the upper surface of the head of the bone, and in the enlargement of the acetabulum in the upward and backward direction. This muscular contraction, especially in the early stage, may be looked on as symptomatic of bone disease; in pure synovial disease there may be marked thickening with comparatively little interference with movement within certain limits, certainly without complete rigidity. Hence, when the bone is inflamed mere rest of the joint as obtained by apparatus will not be sufficient; the muscles would still be able to contract and keep up the pressure and inflammation. It is therefore necessary in these cases to combine with the rest a moderate amount of extension sufficient to tire out the muscles and prevent this violent pressure of the joint surfaces against each other. Many surgeons object strongly to extension, under the impression that its object is to separate the joint surfaces from each other, and have pointed out that to effect this purpose very heavy weights must be employed, and that such weights would do injury to the joint by stretching the ligaments. All this is perfectly true; but separation of the joint surfaces ought not to be the object of the extension, and, even if it were readily possible, is not at all desirable. The object of extension is not to separate the joint surfaces, but to prevent them from being pressed together, two totally different things. Hence extension is chiefly of use in bone disease; where the case is one of pure synovial disease and where there is no marked rigidity of the muscles there is no object in applying extension unless deformity is present; indeed, it will probably do harm. And further, from this point of view it must be borne in mind that a weight which relieves the patient in the first instance may, if continued after the tonic contraction of the muscles has been overcome, cause a great deal of pain and mischief from stretching of the inflamed ligaments. To take a case under my care this winter: the patient, a man of about twenty-two years of age, was admitted with hip-joint disease of nine months' standing, complete rigidity and great pain, especially in the knee, and starting of the limb at night. The employment of a weight of 5 lb. along with a long splint at once relieved his pain. Thirteen days later he began to complain of pain about his hip joint, especially in front, and this was relieved by reducing the weight to 3 lb. Ten days later there was return of this pain, which at once disappeared on leaving off the extension and employing the long splint alone. In this case the muscular rigidity gave way more quickly than usual, and the fresh pain was the result of undue stretching of the inflamed capsule. It is therefore important in these cases to watch the extension and to diminish the weight as soon as it is evident that the muscular resistance has been overcome.

HOSPITAL FOR WEST FIFE.—It was resolved at a meeting at Dunfermline, held on the 15th inst., to erect an infectious diseases hospital at Milesmark, at a cost, with furnishings, of about £6000.

AN ABSTRACT OF

The Hunterian Lectures

ON

CERTAIN DISEASES OF THE BREAST.

BY H. B. ROBINSON, M.S., M.D. LOND., F.R.C.S. ENG.,

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LECTURE II.

IN this lecture certain cystic diseases were first described, those occurring independently of any true tumour formation. Involution cysts are to be met with in the majority of fairly nourished women between fifty and sixty. They are small, not much exceeding a mustard seed, and contain a brown mucoid fluid. The question to solve is whether this change is a true atrophy or of inflammatory origin. Histologically there may be difficulty in deciding, but if the lesion is inflammatory, which seems unlikely, then inflammation must be almost universally distributed.

The following clinical forms of cysts are without doubt in relation with chronic interstitial mastitis:—

1. It is not by any means rare to have *small multiple cysts* distributed through the sclerosed tissue. In the softer forms of the diffuse disease they are very scanty, but in the firmer variety, where the breasts are typically cake-like and in the circumscribed lobular form, it is almost the rule to meet with them; they vary in size, but are yet so small as to give no marked nodulation over the surface of the breast. The signs associated clinically with chronic interstitial mastitis will be present. They are more numerous towards the periphery of the gland, and may be arranged in radiating lines from the nipple. The cysts contain fluid, the colour of which varies from yellow to a dirty brown, and in some cases there may be intra-cystic growths. Sir Astley Cooper's specimens in the College Museum (4744–4747) illustrate these cysts. (Fig. 1.) As to the age when they are found, this agrees

FIG. 1.



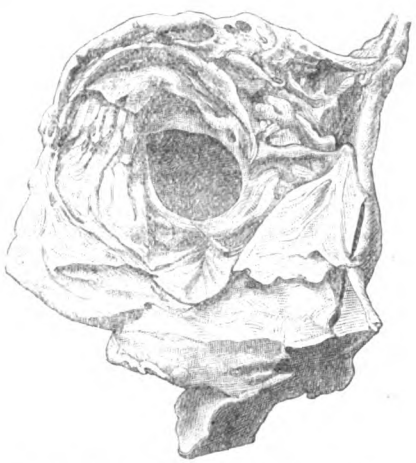
with that of chronic interstitial mastitis. Cases are not common under thirty-five, but in some instances these cysts may be met with in quite young women.[1] There is some difference of opinion as to the origin of these cysts. Gross states that both small ducts and acini give rise to them, but Broca says the acini alone. The former is undoubtedly correct, but it appears that probably the larger number arise from the small ducts. Age, however, is responsible for the relative proportion between the two, more cysts arising from the ducts in elderly subjects. The dilated ducts are usually lined by a single layer of a short columnar epithelium, the cell nuclei staining deeply, the dilated acini have a lining of flattened or sphenoidal cells, in some cases multiplying, which take the stain poorly. The cysts enlarge by the dilatation due to increased secretion, and also by the solution of the connective-tissue partitions between adjacent cysts.

[1] Robinson, Trans. Path. Soc., 1891.

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2. The *single cyst* has been described under many names: "serous cyst," "lymphatic or muco-serous cyst" (Velpeau). It may be situated in any part of the breast, but is very rarely central, and may range in size from a small nut to an orange. If large there may be distinct prominence, and, perhaps, fluctuation, but when small and embedded in the breast substance, the cyst may give the impression of a solid tumour causing difficulty in diagnosis. This cyst is single in most cases in only a clinical sense, as we generally find small microscopical cysts in the tissue around, the latter being in a condition of sclerosis establishing its relation with chronic inflammatory change. Why one cyst should alone reach a large size is difficult to explain. Although the breast tissue shows the changes of chronic interstitial mastitis, it is remarkable that in a very small proportion of cases is there any thickening to be detected in the opposite breast. The cyst wall is smooth and shining without intra-cystic growths, and the fluid is clear and straw coloured. The cavity may consist of several loculi; between these septa project into the cavity. These features are well shown in Specimen 4752, Hunterian Museum, R.C.S., and in a case of Benjamin Travers (St. Thomas's Hospital, II. 7). (Fig. 2.) These cysts are rare under thirty-five, and more than half of the cases are in unmarried women; of those married many are sterile. The growth of the cyst is slow, very few cases giving a shorter history than six months. In 80 per cent. of cases the breast tissue outside the cyst gave distinct evidence of chronic interstitial

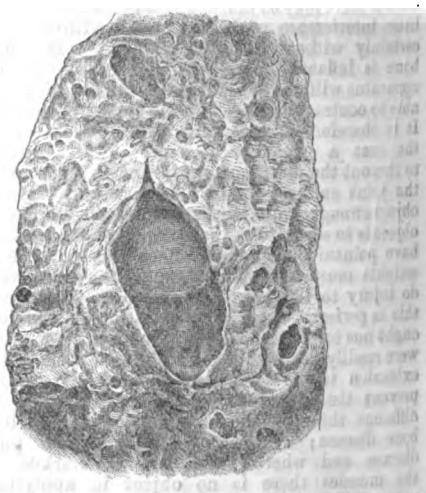
FIG. 2.



mastitis. The lining of the cyst is a cubical epithelium if small, and, if large, it may be flattened or absent. The diagnosis is very difficult in cases where the cyst is small, tense, and embedded in the breast. Its hardness may give the sensation of a solid tumour, especially a scirrhus, and, acting on such a supposition, amputation has in many cases been needlessly performed. In the following instance this was done after several surgeons had pronounced it an undoubted scirrhus:—A woman of forty had a very hard lump in the breast, with circumscribed outline and no fluctuation. The axillary glands were not enlarged, but the nipple was retracted. The tissue around was very indurated. After removal the tumour proved to be a very tense cyst about the size of a tangerine orange, with smooth walls and no intra-cystic growths. The surrounding tissue was white and fibrous with numerous small cysts in it. In treating these cases the moral is pointed that in any case of doubt aspiration should be first done. Should clear fluid be drawn off, the cyst may be laid open, wiped out with strong chloride of zinc solution and then allowed to heal up by granulation; or, what is better, it should be dissected out and the freshened surfaces brought in apposition by deep stitches; by this means recovery is undoubtedly accelerated.

3. *True cystic disease* is distinguished by the presence of multiple cysts varying in size. It has been described under many names. Sir A. Cooper,[2] speaking of "cellulous hydatids," says: "It is an enlargement growing for months or years, the swelling at first feeling solid, 'like simple chronic enlargement,' developing after a time fluctuating centres. These contain a mucilaginous serous fluid and the glands are not enlarged. On dissection the breast has chronic inflammation of the connective tissue with a large number of cysts of varying size distributed through it with tendency to grouping. The condition may be quite localised. Never seen the condition present in both breasts at the same time." Brodie[3] includes this and the "duct-cysts" under the term *sero-cystic disease*. Phocas,[4] as "maladie noueuse," has described nodular swellings of different sizes scattered through the breasts which he supposed from their hardness to be composed of fibrous tissue. He made no microscopical examination to ascertain the correctness of his conclusions and their fibrous nature was very doubtful. This disease is known in France as "maladie de Reclus,"[5] the latter considering that his cases were identical with those described by Phocas. These nodular swellings are usually situated more towards the periphery of the gland and König says especially on the posterior surface. (Fig. 3.) If small they are very hard, hence Phocas's conclusions; as they enlarge and if they come more to the surface fluctuation may be detected. They never attain a very large size, the average being about that of a walnut. Both breasts are as a rule involved, and the cysts develop progressively. The nodules are circumscribed, but the breast around is fibrous, and feels granular from the smaller cysts in it. They occur mostly between forty and fifty, and about half are found in single women. In only a small

FIG. 3.



proportion is pain complained of, but tenderness on pressure is more constant, and this is increased at the menstrual periods. There is no discharge from the nipple in over 80 per cent. of the cases; when this does occur it is usually clear, but rarely it may be blood-stained, due to some damage to the cyst wall or to the presence of intra-cystic growths. To meet with the latter in the larger cysts is unusual, in fourteen cases such a development being only met with once. The axillary glands are not enlarged. Histologically, as in chronic interstitial mastitis described before, the primary change is in the glandular structures, causing epithelial multiplication. This is attended by increased formation of connective tissue; but instead of the gland elements disappearing before this, we find that dilatation of both ducts and acini occurs, especially of the former. As the cysts increase in size, adjacent cysts become confluent by the solution of their party walls, their remains projecting into the cavity as septa. (Figs. 4 and 5.) The diagnosis must be made (*a*), if small, from fibrous nodules, Cruveilhier's fibrous bodies; (*b*) from carcinoma, with multiple spots of softening; (*c*) from duct-cysts.

The *duct cysts* have been so named by Birkett. Brodie and Reclus have included some cases in the descriptions of their diseases. Velpeau has a group, "muco-serous cysts," which are the exact analogues of Birkett's disease.

[2] Illustrations of Diseases of the Breast.

[3] Lectures on Surgery and Pathology.

[4] Thèse de Paris, 1881.

[5] Reclus: Revue de Chirurgie, Oct. 1883.

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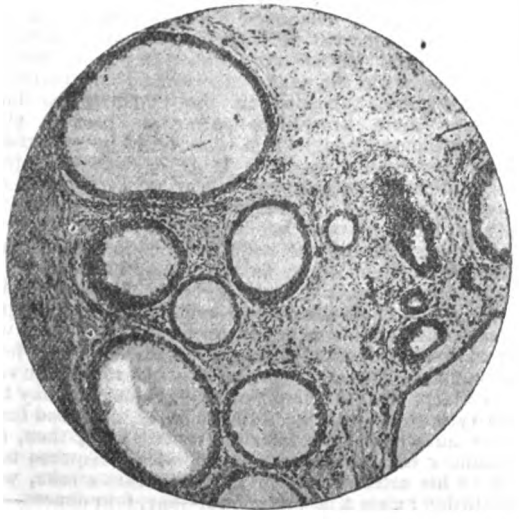
These cysts, which may be single or multiple, are situated centrally beneath the nipple, and they attain a much larger size than those in the preceding group. They arise beneath the areola by dilatation of the large ducts or sinuses, and are accompanied usually by nipple discharge. This is of a yellowish or brown colour, thin or gummy in consistency; often cholesterin is to be obtained from it. If the fluid is blood-stained it is an indication that probably a growth is developing inside

FIG. 4.



the cyst. The discharge may be the first symptom complained of, but soon the swelling beneath the areola appears, and then often the discharge stops. As the cyst enlarges the skin becomes thin and almost transparent, but is not adherent. One breast is alone affected, and the axillary glands are not enlarged. There may be tenderness on pressure, but pain is unusual. The cysts develop in the middle period of life, and the single and married are affected in about equal proportions. There is often

FIG. 5.



a history of menstrual irregularity, and in some cases a blow is stated to be the direct antecedent cause. The connective tissue may be sclerosed. On section, the cysts are globular, with thin walls, and lined by a single layer of short columnar epithelium; if multiple, they may be semilunar or flattened. The presence of these cysts in such a simple form is not at all a common occurrence. They are generally associated before long with the development of adenomatous growths, which we shall consider in the next lecture. The diagnosis has to be made from the true cystic disease. The latter is bilateral, with multiple cysts occurring with chronic interstitial mastitis, and with nipple discharge not a marked feature, whereas these duct cysts are unilateral, the cysts not invariably multiple, and nipple discharge almost a constant accompaniment.

The true *lymphatic or serous* cysts occupy a very doubtful position. For their development anywhere in the

FIG. 6.



body pressure seems a necessary factor; but here in the breast they do not solely develop in a part where such a cause may come into play. That they have a lining of flattened cells is quite true; but this is due to the pressure of the contained fluid, and not to their being endothelial, which would be the case if derived from connective tissue. In all the cases I have examined, the connective tissue showed distinct evidence of chronic interstitial mastitis, with small microscopic cysts. Now the latter are evidently

FIG. 7.



not derived from connective tissue, and I would hold that the same cause is in relation with the formation of the large cyst, and that the position of the true serous cyst is not proven.

The *blood cyst* has been described by many as a specific form. Its correct interpretation probably is that the blood is due to injury to an intra-cystic growth in a cyst, and that this soft growth becomes embedded in clot and so obscured.

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In many sections from cases of chronic interstitial mastitis very marked changes in the epithelium lining the dilated ducts and acini may be noted. They are of importance pathologically from the fact that histologists are at variance as to their interpretation. This condition is on the border line between simple inflammatory and neoplastic formation, and from the point of view of prognosis it is desirable that we should have a fixed opinion one way or the other. We find that some of the cystic spaces, apparently derived from acini, are filled by a proliferating sphenoidal epithelium (Fig. 6), while others, which seem to be formed from ducts, have papillary vegetations which may fill up the cavity. (Fig. 7.) On these vegetations the columnar cells are arranged quite regularly, and the connective tissue does not show any signs of round-celled infiltration. Have we any reason to suppose or any evidence to offer that these changes are antecedent to carcinoma, either causally or as a stage in its development? We will, firstly, consider those cases of true cystic disease (maladie de Reclus) formed undoubtedly in relation with chronic interstitial mastitis, where at times these intra-cystic growths may be met with. French writers have particularly devoted themselves to the consideration of the subject. Brissaud and Malassez have called these changes intra-acinous cystic epitheliomas. Quénu describes them as an epithelial cirrhosis, and says it is a case of chronic interstitial mastitis, the lesions in the connective tissue being secondary to the irritation in the glandular part. Delbet[6] considers the changes are comparable to the contagious mammitis of cows and to the changes in psorospermosis as seen in the rabbit's liver. Both of these are due to irritants within the gland, the former to the streptococcus described by Nocard, and the latter to the psorospermiæ. Although no microbe has been isolated as a cause of this chronic mastitis, we might infer by analogy that one possibly exists, and that the changes it produces are only the analogues of those seen in psorospermosis, and that the epithelial overgrowth is no more malignant than in that disease. Billroth considers these epithelial changes undoubtedly benignant. At a meeting of the Anatomical Society of Paris in 1891, Pilliet brought up the subject, "whether this cystic disease of Réclus with growths, called intra-acinous cystic epithelioma, could behave like a malignant epithelioma and have secondary growths elsewhere." He brought forward two cases, but from their descriptions they seem to prove nothing. Many typical examples of cystic disease strongly suggest the evolution of carcinoma as a sequel, which fact may guide us in our prognosis and treatment. Valude quotes a case where a chronic mastitis was succeeded by secondary cancerous growths two years later. The following case was in St. Thomas's Hospital: "A woman, aged thirty-six, was admitted under Sir William Mac Cormac in 1887. Her mother died of carcinoma of the bowel. Five years before she had pain in both breasts, and two years later a lump was noticed in the left. This was treated by ointments, but did not disappear. A little later some circumscribed nodules were noticed in the right breast, but a few months after there was slight blood-stained discharge from the nipple, and the glands in the right axilla became enlarged. The nodules in the right breast became confluent, to form a hard nodulated mass, over which the skin was free and the nipple not retracted. She had lost flesh." If there is a relation between the cystic disease and carcinoma, how should this guide us with regard to treatment? Should there be any hesitation as to the nature of the nodules, then aspiration should be performed to ascertain their character. If they are proved cystic, how should we act? As the disease occurs in women towards the climacteric, where the breast is functionally inactive, and recognising that cancerous changes are not impossible in such a diseased organ, extirpation of the gland may be advocated, particularly where the cysts are multiple. This may be done without mutilation by leaving the skin and nipple. If one cyst has markedly enlarged, and the rest of the breast seems very little affected, we may temporise and employ local treatment, as incision; should growth be present in the cyst, the cyst must be removed, with a very wide margin. In cases of a doubtful nature, the surgeon is justified in removing the gland.

We now consider the relations of carcinoma to those cases of chronic interstitial mastitis where the connective-tissue changes are marked and the cysts only small and pea-like. That the two are often in association is a well-known fact. In many carcinomatous growths we get evidence at the margin of chronic inflammatory change, and the latter is possibly a stage in the evolution of the carcinoma. Raymond Johnson and Beadles at the Pathological Society in April last read papers on these changes, and were inclined to think that carcinoma has a distinct relation to chronic interstitial mastitis. This view has its strenuous opponent, who urge that such a condition is only an accidental association of two pathological lesions, and that there is no causal relation between the two. However, the greater the number of examples, the stronger the evidence in its favour, and I must own that previous mastitis seems to have some very definite relation to the subsequent carcinoma. Two rare cases of scirrhus have come under my notice, which form strong links in the chain, where scirrhous nodules were disseminated in breasts, showing the most marked signs of chronic interstitial mastitis. If we allow, then, that this chronic inflammatory change has some relation to the subsequent neoplasm, what bearing has this on prognosis and treatment? We must remember that in giving a prognosis other factors, as age and hereditary tendency, have to be reckoned with. After observing many cases of chronic interstitial mastitis, we see that the majority often remain stationary. With this knowledge the most advanced surgeon could not press strongly the claims for a more frequent removal; but, at the same time, with this knowledge certainly we are more on our guard, and any marked development of pain or increasing thickening or skin adhesion may be signs warning us that the time for hesitation is past and action must be taken.

[6] Duplay et Reclus: Traité de Chirurgie, tome vi.

ARTERIAL HIGH TENSION.[1]

BY A. FOXWELL, M.A., M.D. CANTAB., F.R.C.P.,
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ARTERIAL high tension may be divided into three kinds: cardiac, degenerative, and vaso-motor. Cardiac high tension is that variety which results from an abnormal contracting force in the left ventricle, either owing to some temporary disturbance—as excitement, exertion; or to some permanent cardiac defect, which prevents this force being used so economically as usual—as in aortic regurgitation. Degenerative high tension is that resulting from a degeneration of the arteries, which makes their walls thicker and more rigid; therefore it requires greater force to drive the normal amount of blood through them than would be the case with healthy vessels having normally expansile walls. Vaso-motor high tension is brought about by increase in the contracting force of the peripheral arterioles, which thus, as in the degenerative form, necessitates more propelling power to pass a given quantity of blood through them than would be required by normally contracting vessels. It is evident that there is one condition necessary for the production of any form of high tension: there must be extra contracting force put forth by the left ventricle. Now, excessive use of any portion of the body is to be avoided; more especially of such an organ as the heart, which knows no rest. In so far, therefore, high tension is always objectionable, and unless there are counter-balancing reasons of great moment, it should be our endeavour always to do away with it. Speaking generally, there *are* such reasons in the forms I have called cardiac and degenerative, but not in the vaso-motor variety. In aortic regurgitation, which we may take as the type of the cardiac form, some of the blood forced into the aorta flows back into the ventricle; if, then, say, three ounces be the amount the individual requires to be sent into his arterial system at each heart stroke, when regurgitation exists a larger amount—say, four ounces—will have to be similarly propelled to allow of the reflux into the ventricle of one ounce. Four ounces will distend the aorta more than three, and the more an elastic tube is distended the greater is the tension of its walls—that is, the tension in the aorta will be increased, and therefore there will be high tension throughout the arterial system. But as there is no excess of resistance this

[1] A paper read before the Birmingham and Midland Branch of the British Medical Association, March, 1892.

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high tension will force the blood through the arteries at a greater rate, so that the increase in fulness of the arteries will be of shorter duration than normal—that is, the pulse wave will be short, and the period of emptiness between the waves will be long. This is why the aortic regurgitant pulse is called the pulse of unfilled arteries—a condition due to the force of the heart being greater than is required by the peripheral resistance. So that, apart from the regurgitation of blood, the aortic pulse would still be one of high tension of short duration, followed by an unusually long period of very low tension in the arteries, the reflux of blood merely intensifying this latter condition. The high tension which occurs with the increased cardiac action during muscular exertion is of the same nature; but here the period of low tension—that is, the collapse of the pulse—is not so marked, as there is no reflux of blood into the ventricle. In the healthy subject this form of high tension is very transient, as nature quickly provides a corrective by making the peripheral resistance subnormal and so allowing the same cardiac force to keep up a more rapid circulation. Similar to this is the high tension due to palpitation, but the condition is a more serious one, and its mode of ending uncertain. We are dealing with a pathological state, and not a physiological one, as in the high tension of exercise. It is unlikely that the peripheral system will accommodate itself to the new condition and diminish its resistance: very probably the same causes which induced the palpitation will also have increased the peripheral resistance. Hence the heart fails to empty itself during its shortened systole against the increased pressure, and dyspnœa, oppression, or even faintness follows.

It is given to but few mortals to die altogether—from a universal failure of function. Unfortunately for man, as a chain's strength is that of its weakest link, so is the strength of his life dependent upon his weakest function. Death comes to most men through the failure of one function. To some it happens, either through inheritance or the character of the life led, that the arterial system is the first to decay; arteries thicken with the rigidity of fibrous tissue or calcareous deposit and their gentle, ever-varying elasticity is a thing of the past. The heart has to force the blood through a system of comparatively unyielding tubes and we know that this requires greater exertion. Hence, with too quickly decaying arteries the blood tension must be increased if a normal circulation is to be maintained. Health in its true sense is out of the question; at best there is but a pathological equilibrium. One of the hardest things a physician can have to determine is what tension is requisite for this. If he allow it to remain too high, cerebral hæmorrhage stares him in the face; while if it remain too low, then symmetrical gangrene, benumbed extremities, and all the woes of vascular debility make wretched the life of the patient. The character of this degenerative tension differs greatly from that which is primarily due to cardiac action. It is no question of forcing a larger amount of blood through pleasantly accommodating tubes, but one of pressing the same amount through tubes which will not enlarge. This necessitates that the tension throughout the *whole* of the period occupied by the passage of blood must be increased. There will be no period of subnormal or even normal tension. Moreover, as the system is rigid, the increase of tension conveyed by the ventricle to the aorta will be felt almost simultaneously throughout the system; hence the onset of tension will be sudden, as in the high tension due to cardiac action.

In high tension due to increased contraction of the arterioles while their elasticity remains normal, we again find the need to force a normal amount of blood through abnormally small tubes. The tension wave will thus, as in the degenerative form, be a long one, persisting through the whole of the diastole; but, as the tubes are not rigid, its onset will not be sudden. This increased contraction of the arterioles arises from undue excitement of the vaso-motor centre owing to some morbid element in the blood circulating through the medulla. This morbid element may have a very transient existence, or may continuously act for several days, as is exemplified in the varying duration of megrim from a mere headache of an hour to an utterly prostrating bilious attack of a week. It may frequently recur throughout life, as in chronic renal disease, and so lead to the deposit of fibrous tissue in the arterial coat with its consequent thickening; but even in chronic renal disease it is never always present. The tension may be constantly high, it is true, but this will be owing to the vascular degeneration; and however high this mean tension may be, there will be exacerbations of it when impure blood excites unduly the vaso-motor centre, just as megrim causes exacerbation of the normal tension; and, unfortunately, there will be depressions of it below this mean whenever the heart flags and fails to be equal to its perennial increase of toil, as nearly always happens in the later stages of renal cirrhosis.

From what has been stated it is manifest that the treatment of high tension is not always one and the same. Sometimes it is to be left as it is, sometimes it should be encouraged, and, perhaps oftenest, it is to be diminished. I say perhaps oftenest, not because it is necessarily this form which exists most commonly, but because it is the one which most frequently produces symptoms, and therefore is the one for which our aid will be oftenest sought. That we should most carefully differentiate these varieties need not be insisted upon, for the treatment required for one patient may be of an exactly opposite character to that required for another. The three forms I have described may be separated from one another by examination of the pulse. The pulse of cardiac high tension is felt beneath the finger as a wave of great size, but very short duration. It comes suddenly, strikes forcibly, and vanishes as quickly, leaving apparently nothing behind it to mark its passage. The wave of the degenerative pulse comes almost as suddenly, but is much smaller, and is so loth to go that much seems still to remain, even up to the time when its successor takes its place. The wave of vaso-motor high tension feels smaller than either of the others, and, unlike them, comes laboriously and slow. Its duration is long, but it appears to have vanished, or nearly so, before its successor arrives. So long as only one of these forms exists and remains quite distinct its diagnosis is easy; but generally two, or even the three, are all acting as components in the resultant high tension. Then the apportioning its correct value to each component is often a most delicate and difficult task, but one which it is of great importance to accurately perform. I always set about it in this way. First, I attend only to the shock of the impulse: is it large, small; compressible, incompressible; sudden, or slow-coming? This will tell me the condition of the cardiac action. Next, I feel for the state of the pulse after this shock is over: does it remain full or nearly so, or empty slowly, or vanish quickly? Does the tube feel large or small, compressible or incompressible? and so I learn whether the peripheral resistance, the vaso-motor contraction, is great or slight. Finally, I shut off the cardiac impulse with the other hand, and still feel for the comparatively empty vessel. Can it be felt, and if so how plainly? Is it nearly as evident as before, rounded and firm, or are its walls soft and flaccid? If it stand out firmly, does it feel tough, like a round leather bootlace, or ribbed, like whipcord? Then, having made these three distinct observations, I compare them together, and estimate how far one should correct the conclusion drawn from another. For instance, if I find the vessel is degenerated, then the incompressibility and suddenness of the impulse will have their significance lessened; and its smallness, if such exist, need not mean that the ventricle is acting feebly. Again, should the impulse be slow in coming and small, a sluggish and feeble circulation is indicated if the tension be normal or subnormal; but should this be high, then this slowness of onset is owing to the extra fight the heart has to make against the tightly distended aorta, and the length of its duration will make up for its smallness.

What I have more to say will be told best in connexion with some illustrative cases, to the relation of which I will now address myself.

A widow aged fifty-seven, of apparently robust physique, came to my out-patient clinic at the Queen's Hospital last October complaining of a stiff neck, an indefinite but painful swelling below the left ear, cramps in the calves, sleep disturbed, flatulence, alternate shiverings and flushings. Her tongue was thinly coated with a white fur, but her bowels were regular. Her aortic second sound was much accented, the tension in her radial was high, and the impulse was forcible. All her symptoms were no doubt due to a gastro-intestinal catarrh probably resulting from a chill, which, interfering with assimilation, had allowed morbid elements to circulate in the blood, some of which had irritated the vaso-motor centre, and so produced high tension. Here was a simple, uncomplicated case

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of vaso-motor high tension, and treatment must be directed to the removal of the morbidity in the blood which had induced this. We must be careful not to look upon the high tension itself as the evil; it is, as we know, a preservative measure, to protect the tissues from the impure blood. But we naturally conclude that if we lower the tension we shall have removed the impurities in the blood which raised it. It is true that the malassimilation of gastric catarrh may have produced impurities other than those which raise tension; but they all appeared together, and we act in the hope that the drug which is capable of removing some will be efficacious in eliminating all. Now mercury, especially as the subchloride, is the drug *par excellence* for correcting high tension due to digestive derangement. It does not do this by virtue of its aperient action, for it is a slow acting aperient, while a single dose will often do away with high tension within two hours. Moreover, a small amount—a quarter of a grain—may be quite sufficient to lower tension, though entirely inadequate to open the bowels. I therefore gave this woman an eighth of a grain of calomel twice a day. She came to me again in a week with all her symptoms gone, or nearly so; practically well. Her tongue was clean and moist and the tension in her radial decidedly less, her pulse being correspondingly shorter and more sudden.

Mr. ——, aged fifty, a well-to-do tradesman, came to me in February, 1887, complaining of sleeplessness, from which he had suffered for three years—ever since he had lost his partner in the business; also of dyspnœa on even slight exertion, of occasional giddiness and swooning, and of much diffidence and depression. His history was very good, except that he had had two very slight rheumatic attacks, lasting two or three days each, four years ago, and that from a child he was always nervous, the least unusual thing making him turn pale—i.e., his cardiac government was unstable. His heart I found increased in size, with a diffused pulsation in the fifth and sixth spaces near the sternum. The sounds were slapping in character and the second aortic was unduly accented. His arteries were thickened and his pulse was 80; irregular, sudden, and incompressible. Here the condition was a complicated one. He had degenerated vessels. These I could not alter. His tension was high, but whether too high, considering the difficulty there must be in passing a due amount of blood through his diseased vessels, I could not determine at a first visit. But there was one condition I knew wanted something done for it; his heart was falling. With high tension his pulse should have been slow, but it beat 80 times in the minute; moreover, it was irregular both in size and rhythm; his heart was increased in size, and this increase was probably due to dilatation, as the sounds were not those of hypertrophy, and there was a diffused impulse over the right ventricle. I therefore prescribed the following heart tonic three times a day:—one drachm of the infusion of digitalis, one grain of nitrite of sodium, five minims of liquor strychniæ, five grains of bicarbonate of soda, compound gentian infusion to one ounce. I added the nitrite of sodium to counteract the action of the digitalis in raising vaso-motor tension, as I was not certain that this might not already be too high. I also gave him a drachm of paraldehyde to take at night should sleep refuse to come to him. He came again in a fortnight feeling much better, with a franker, brighter expression. His pulse was 67, not incompressible, of fair size and regular, except that it had eight intermissions in the minute, which were represented by abortive heart beats. The heart sounds were no longer slapping, but the second aortic was still increased. During eleven of the fourteen nights he had slept six hours without the paraldehyde, and on the other three he had slept four hours with it. He was ordered to continue the same treatment with the exception of the digitalis, which I withdrew, thinking it might account for the intermissions. Fourteen days later I saw him once more. His expression was now quite frank and open. His face had filled out, and his complexion become ruddy. He felt quite equal to his work, and took pleasure in it. He had had six hours' sleep on twelve of the nights. His aortic second sound was no longer increased; the pulse was 80, with four intermissions; but the abortive heart-beats corresponding to these were stronger than formerly. I was rather surprised at this result; with his thickened arteries I should have expected his machinery to work best with a tension above normal, but it is evident that a normal tension was most suited to him. Still this normal tension could not have allowed him to have a normal circulation; this must have been an enfeebled one and, consequently, he could never be equal to the work his constitution might have performed if there had been no thickened vessels, nor to that work he might have done if his heart had been strong enough to cope with thickened vessels. What happened was this: he found his circulation was most active when his tension was normal; if it rose above normal his heart failed, and if it became subnormal the thickened vessels too greatly cut off the supply.

It is in such cases as these that the medical attendant who has experience of his patient has such an immense advantage over the chance consultant. If I see this man again, I shall bear in mind that he works most easily with a tension which is the normal tension of the healthy individual.

Mr. ——, aged thirty-six, consulted me in May of last year, complaining of a chronic cough, with thick mucoid expectoration and attacks of præcordial oppression and faintness. Three years ago he had congestion of the lungs and, a week before I saw him, spat up a teaspoonful of bright blood just after he had assisted in getting a boat over a weir. There was a little crepitation at the base of the right lung, but no sign of phthisis. His heart's apex beat in the sixth space and left nipple line; the area of dulness being otherwise normal. The impulse was excited, but the first sound was fairly long and firm. His radial was thickened. Whilst he was standing up for me to examine his chest he was seized with one of these attacks of oppression, his heart's action becoming slow and laboured. He was quite calm, refused any stimulant, but said he must lie down on the floor and then the attack would soon pass off. He did so, and I kept my fingers on his pulse and my stethoscope on his heart. I noted that as the symptoms passed away the heart beat more quickly and with less strenuousness, while the pulse became full and soft. He told me that though he occasionally got palpitation on exertion, yet by far its more frequent cause was digestion. And so it seemed; for I told him at once to go and do what business he had in the City and then return to me. In about an hour he came back. He had been bustling about, and walking quickly, yet his heart was acting much better than when he left me. This then was an instance where impure blood raised the peripheral resistance to such a degree that his somewhat feeble heart was unable to cope with it. This is a condition very common amongst sedentary folk and brain workers. Their vascular nerves become very sensitive, whilst their heart muscle is not of the strongest. As a result, reflex action is too easily excited and the heart is too easily upset by the shock thus created. Especially are those people liable whose vessels are unduly rigid and who therefore already give their heart excessive work to do; in such subjects a small increase in the vaso-motor contraction may produce a result as great as a far larger increase in a subject with normal vessels. But to return to my patient. My prescription was: 1st. To lead an even, quiet life, with as much fresh air as possible, but no severe exercise of any kind. 2nd. Rhubarb powder, bicarbonate of soda, ginger powder, two grains of each; to be taken daily before dinner. 3rd. A quarter of a grain of subchloride of mercury to be taken twice or thrice a day during the dyspeptic attacks. 4th. Powdered Carlsbad Sprudel salt, a drachm to be taken before breakfast in hot water when required, and a tumblerful of hot water to be taken regularly night and morning. 5th. Five grains of antipyrin every half hour for three doses during the attacks of palpitation. He lived some distance off, and I did not see him again, but he kindly wrote, in answer to my inquiry, that he had received considerable benefit from the treatment, except from the antipyrin, a second dose of which several times made him feel faint. This action of antipyrin is, I think, a thing to be mindful of. It is a drug we should very charily prescribe in high tension (megrim, for example), unless we are sure of the heart's stability. I believe that its depressing effect on the heart occurs sooner than its action on the vaso-motor centre. But in every case where we use antipyrin we must remember it merely removes an effect, it does not touch the cause. Its action in depressing the vaso-motor centre is stronger than that of the impure blood in stimulating this centre. Another drug, such as calomel or rhubarb, which will prevent the formation of the impurity, must be given as well.

The effect of high tension upon sleep is a very important one; it is also a complex one, acting in different ways.

Mr. ——, aged fifty-six, suffering from syphilitic

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phthisis of long duration, was sent to me on account of persistent insomnia, from which he had suffered for nine months, ever since the death of his wife. He told me that his average amount of sleep was less rather than above two hours, that during the rest of the night his brain was incoherently, yet pertinaciously active, and he spent the dark hours in tossing restlessly to and fro. But in the day things were very different with him; he was ever languid and drowsy, often dropping to sleep in his chair, and incapable of applying himself to business. His heart's apex was ill felt in the nipple line and sixth space; its dulness reached up to the third cartilage, and the second aortic sound was strongly accented. His pulse was 64, and though it appeared of fair size this was no doubt owing in a great measure to the thickened vessel, as the tension was very high. The urine was uratic. The explanation was simple. His grief had depressed his vital powers, including his digestive functions; malassimilation and high tension resulted. During the day his feeble heart was unable sufficiently to cope with this; on account of gravity the brain was the first to suffer from the consequent anæmia; hence the drowsiness &c. by day. But at night things were quite different: the heart had no longer to pump blood up to the brain or bring it up from the dependent legs, nor had it to spend its strength in exercise and the processes of digestion; the impurity of the blood would also lessen every hour since the last ingestion of food; hence the tension would relax. The brain would now be on a level with the rest of the body and hence gravity would no longer injuriously affect it. For all these reasons its blood supply would be much greater than by day, and hence sleeplessness. He had taken in vain many soporifics, including opium, with no good result. He was already on a tonic regimen, so I merely prescribed a quarter of a grain of calomel to be taken three times a day in addition. In a week he came again. He had slept from eleven to four every night, and on two nights had dozed after four. His urine was clear, his pulse 68, and its tension very slightly above normal.

Sudden exposure to cold often seriously embarrasses the heart by the superficial high tension it causes. To come out of a warm house on a frosty morning and run to catch a train is more likely to produce palpitation and breathlessness than the same proceeding on a warm day in summer. A fruiterer's assistant, with a double aortic murmur and a dilated aorta, came to me at the Queen's Hospital complaining of anginous attacks, which he said often occurred on his leaving breakfast to come out into the cold of the open shop to serve a customer, or when he drove out in his cart, if the wind blew coldly against him at starting. I gave him strychnia to strengthen his much broken-down heart, hydrochloric acid and hop to improve his digestion and soothe his nerves, with glonoin to take when his attacks came on. These attacks he had been having two or three times daily, and each lasted over an hour. During the next three months he only had four; and at the end of this time, though it was midwinter, he found himself able to face the cold with impunity. The great relief he got from the glonoin when he used it during the attacks showed that they were due to the injurious effect of suddenly occurring high tension upon an enfeebled heart; but when this organ was strengthened by the tonic regimen it was able to cope satisfactorily with this.

High tension may produce general œdema if the heart be weak.

J. R——, thirty-three, was admitted into the Queen's Hospital, under my care, on March 19th, 1891, on account of orthopnœa and dropsy. He had double aortic disease; his heart was acting in a banging, troubled manner, though regular; its apex beat one inch without the left nipple line in the sixth space, and dulness reached up to the second cartilage, though it was not increased to the right. His pulse was 100, collapsing; there was considerable tension between the impulses. Urine a cloud of albumen, but urea 2 to 2·8 per cent. On the 19th, the day of admission, he was given the following mixture three times a day: three minims of the tincture of strophanthus, one drachm of the spirit of nitrous ether, to one ounce of camphor water. On the 21st, when I first saw him, a grain of sodium nitrite was added to this, and he was also given a third of a grain of calomel every two hours; and on the 23rd the calomel was reduced to three doses a day. The effect on the urine, dropsy, and heart was remarkable. The urine passed during the first twenty-four hours after admission was 16 oz; on the 21st—i.e., the day the calomel was first given—the amount was only 22 oz; but, on the succeeding days, 108, 118, 119, 97, 96, 64, 54 oz. respectively. On April 1st the œdema was quite gone, and also the dyspnœa. The pulse was much more collapsing, though less forcible, the tension between the impulses being subnormal, and the heart was acting with comparative quiet, and comfortably. I think this result is instructive, for we usually raise tension to get rid of œdema. I should have done so in this case had it not been already high, and I feared the dangers of a too excessive tension on the damaged heart. I thought the heart was working up to its limit, and that any increase in tension would only weaken it and still further depress the circulation.

Many people complain of breathlessness after meals. This is usually put down to mechanical causes, such as flatulence, or a full stomach pressing up the diaphragm. But often there is no flatulence, or evidence of overladen stomach; the subjects of it are not seldom most careful in their dietary. In several instances I have found it to be due to high tension, resulting, no doubt, from imperfect metabolism. Often, I expect, when flatulence *does* exist, high tension also plays an important part.

Grief kills; but so, they say, does sudden joy. Joy quickens and stimulates cardiac action. "My heart leaps up when I behold a rainbow in the sky," sang Wordsworth. But suppose there is no field on which this joyful heart can display itself; suppose the blood canals are blocked with high tension! What then? The bounding heart is unable to suffuse with joy the peripheries of the body; its glowing warmth recoils discomfited upon itself. It cannot leap up. A great nervous revulsion occurs, and death comes. This is how it is that to some a great joy brings a ruddy glow and a feeling of the fulness of life, but to others death-like pallor and a sense of dread oppression.

Birmingham.

ON THE ADVISABILITY OF ADOPTING THE TERM "TROPICAL MEASLES."[1]

BY JAMES CANTLIE, M.B. ABERD., F.R.C.S. ENG.

A DISEASE of an unclassed type was prevalent amongst the foreign residents of Hong Kong during the months of September and October, 1888. Practitioners baptised the mild cases as a form of "German measles," and the severe cases as a form of "dengue." It is my intention to show that we are dealing with a distinct disease—neither German measles nor dengue fever, a disease running a distinct and definite course and presenting varieties of severity usual in all epidemic forms of illness. It is a tradition, built no doubt on sufficient experience, that measles in the tropics is a very slight ailment, and mothers of families rather welcome the disease before they take their children to Europe to be exposed to the more serious form met with there. Up to date it has been usual to call most cases met with "German measles," but on talking with my fellow practitioners they invariably say it is "what is called German measles," or "we call it German measles." The uncertainty of ascribing a definite name to the disease is extremely unsatisfactory, and implies a confession of ignorance to the laity which, although no doubt scientifically honest, is practically useless. The past history shows also an uncertainty in the minds of many, mild cases of the disease being stamped as a variety of German measles, severe cases being assigned to the category of "dengue." No one seems to have been bold enough to ascribe a separate designation to the disease, although all are convinced that it is not typical in any one instance of either its name or ancestry. In the present epidemic the same doubt holds good, as out of the few practitioners in the colony some designate certain of the cases "dengue," others "German measles," and others "a variety of German measles," and the opinion of any one man varies according to the case in hand. My purpose is to show that we are dealing with a separate disease, possibly a separate genus, but certainly a distinct species. The upholders of the theory that the disease is a variety

[1] Read before the Medical Society of Hong Kong.

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of German measles state that there are exceptional cases in which the disease assumes a more virulent type and exceeds the limit of feverishness met with in German measles. They uphold their belief by quoting instances of variety in measles as met with in Europe, and also in scarlet fever. All the variations quoted, however, of, say, scarlet fever, point to variations in which a community of symptoms holds good: stating how that in scarlet fever epidemics some escape with a slight sore-throat, a coryza, feverishness without a rash, and so on, just as in the disease in question some escape with mere febrile disturbance without a rash, and so on. To these it is answered that the quotations are variations of a recognised type of a more severe trouble, a stereotyped disease which during its prevalence has mild expositions; but the disease is named not from its mild varieties, but from its typical course, its signs and symptoms as met with in the form we know. In the same way there are in the disease in question, as in all diseases, however typical, varieties of severity; but it is the cases that run a typical course, not the mild varieties, that establish the character of the ailment. It is arguing in the wrong direction to take a few mild types as *the* disease, and to regard the majority, although pursuing a definite course, and those behaving in a consistent fashion, as a mere freak. There is no doubt that the account of the disease reads, to begin, very like German measles; but many ailments read alike to begin with. It will be seen that the history of tropical measles is quite peculiar after the third day, and it would be more in keeping with logical form to regard German measles as a variety of tropical measles than *vice versâ*. With no wish to dethrone German measles, it is but continuing in darkness to allow the present vagueness to remain tacked on to a disease which seems to belong to a perfectly distinct species. During the months of September and October, 1888, the disease had been talked about very freely, owing to the fact of so many adults suffering from the complaint; and we have been able to observe more closely the exact course of the disease because of the fact that adults chiefly, and not children only, have been attacked.

Definition.—Rubeola tropica is a specific eruptive fever, the primary rose-red rash appearing on the face and neck on the second day of the illness; the second rash, miliary and papular, on the body, face, and occasionally on the limbs, on the fourth day. The third rash—of small, coalescent wheals—appears on the arms and legs, or legs only, on the sixth day, when the fever subsides. The more severe form of the disease chiefly attacks adults. It is epidemic, contagious, but seldom associated with catarrh or desquamation, and characterised by the intensity of the pains in the back, head and orbit, on the third and fourth days of the illness.

Exposure.—The period of exposure, as is usual with all zymotic diseases, cannot be definitely ascertained. In the majority, however, a distinct history of infection by contagion can be made out. In no case have I ascertained that the disease is communicable by a third person.

Incubation.—The period of incubation is, in ascertained cases, under seven days. This statement is made from carefully inquiring into many cases, the most distinct being that of a man who came to the colony from Australia, and who, on the seventh day after his arrival, developed the disease. How long, of course, he had been in the colony before exposure I could not find out, but from my inquiries into other cases it would appear as if six days were the extent of the period of incubation. Therefore, I conclude he had been not more than twenty-hours in the colony before exposure. Six days I would affirm to be the period of incubation.

The period of incubation passes with a growing feeling of discomfort and lassitude, loss of appetite and sleeplessness, until towards the sixth day, when the patient, unable to understand his condition, seeks advice as regards his illness. When seen on the sixth day the patient is pale, with a muddy complexion, headache affecting a line drawn across from one temple to the other, along the junction of the vault with the forehead; backache extending from the loins up between the shoulders. Tongue lightly coated, no hypertrophy of papillæ, no coryza, although very occasionally sneezing has been recorded. Pulse accelerated to 90 or 100; temperature 99·4°, one degree above the normal. The impression left on the doctor is that the patient is "in for something," and that that something is not ordinary fever; by that I mean any of the climatic fevers we are accustomed to in this colony (the tropics).

Invasion.—The temperature rises on the evening of the sixth day of incubation, and after a restless night the patient when seen next morning—i.e., second day of invasion—presents the following symptoms: headache and backache severe, intense pains at the back of the orbits. The face is red, amounting almost to rosy redness, the redness extending downwards over the sides of the neck, until, becoming more diffuse, it assumes a mottled appearance. The skin of the body and limbs feels hot and dry, and is injected to the extent that the impression of the fingers can be seen for a few seconds after pressure. The tongue is dry, but normal in colour and coating; the slight fur of the previous day has disappeared. At times, however, in very severe forms of the complaint, the tongue remains coated with a fine thick fur for days. Average temperature 102·5°; highest observed 103·4°. Pulse excited, 100 to 110. The patient feels very ill even when the temperature is as low as 101°, altogether out of proportion to the feverishness. Vomiting is present in one-seventh, and diarrhœa in one-tenth, of the cases observed. Nothing is more marked at this stage of the disease than the extreme discomfort and pain present with even a slight increase in temperature as ascertained by the thermometer.

The rash.—The redness of the face and neck, with the mottling at the lower part of the neck, more especially in the neighbourhood of the collar bones, must be regarded as the first evidence of the rash; it is distinct and characteristic—without it the disease could not be pronounced; by it the diagnosis is conclusive. It is not, then, a question of the disease threatening, but the symptoms are sufficiently pronounced to definitely state that the patient has the disease already. During this, the first day of the illness, the patient is very drowsy, sleeps a good deal, and takes nourishment. The temperature varies but little during the first twenty-four hours, is not affected by quinine, but can be reduced a degree or so by fifteen-grain doses of antipyrin. On the second day of the illness an exanthematous mottling of the back is apparent. The patient is now more restless, less drowsy, complains of having passed a bad night, and of the pains in the forehead, eyes, and back being greater. Average temperature 102°; pulse 100 to 110. On the third day the patient's chest, abdomen, back, and sides are covered with a profuse compound rash; the exanthem seen on the back is apparent in all these regions, and in addition and obscuring the exanthem is a miliary and papular rash in great abundance. The forehead shows papules, the chin likewise; but the limbs, in one-third of the cases only, are involved, the lower limbs much less frequently than the upper. The patient's face is still red. Temperature morning and evening average 101·5°; pulse 100 to 110. The pain in the back becomes very great, at times agonising, the patient groaning and calling out wildly. Headache and orbital pain severe. Tongue remains clean. Bowels throughout the disease may remain natural, but diarrhœa is present during the second and third days if it appears at all. The fourth day is spent in complaints of pain in the back and head, and orbit, and may be as severe as on the previous day. Temperature averages, morning and evening, 100·8°. The patient's face is less red. The rash remains, but with less redness. Appetite completely gone; taste of everything perverted. On the morning of the fifth day the rash is found to have almost subsided: here and there an angry papule exists, or even a small boil may develop in places. Temperature 100·1° (average morning and evening). On the evening of the fifth day or the morning of the sixth, crops of small coalescent wheals appear, and itching involves the hands and forearms, legs, and feet. The redness of the face and the body rash have faded. Temperature 98·8° (average); pulse 80 to 90. The patient is now almost free of pain; only soreness complained of. The only disturbing symptoms are itching of hands and feet, want of appetite and taste, and great weakness. The patient feels "over it," and talks of his illness as a thing of the past.

Sequelæ.—1. For three days the patient can eat but little and is so weak that he feels disinclined to attempt to walk. Soreness is experienced in the back and sides, but the aching of the head and orbit is gone, although giddiness is complained of. A marked symptom in all is complete absence of taste; champagne, vinegar, tea, and bread being sent away with an expression of disgust. This cannot be

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put down to the state of the tongue, as is usual, but to a specific disturbance of the glosso-pharyngeal nerve. 2. A further sequela is a subcutaneous hæmorrhage from the capillaries of the legs; in severe cases so constant is this that it might be classified as a fourth rash, appearing on the sixth or seventh day. The mottling continues for a week, when it gradually begins to fade. 3. A recrudescence of the rash is observed in about half the cases, the reappearance being marked after a bath for three or four days. When it appears, however, it goes off in an hour or so. 4. A peculiar elevation of temperature took place in seven—i.e., one-seventh of the cases observed. Once a week for three or four weeks an elevation of temperature, headache, and restlessness disturbed the patient for about twelve hours. Temperature rose no higher than 100° in any of the cases. 5. In a few cases boils of a most painful nature, in crops lasting for about fourteen days, followed immediately upon the subsidence of the fever. 6. Well-marked desquamation took place three weeks after convalescence in three cases.

Diagnosis.—Is this a rubeola at all? Should it be classed with the genus measles? If it is measles, is it to be placed in a separate group, or with ordinary measles, or with German measles? The only other existing disease for which it may be mistaken is dengue fever. In the few cases with foul tongues and diarrhœa the suspicion of typhoid fever crosses one's mind, but the illusion is speedily dispelled. As regards the diagnosis from dengue fever, there is no doubt the reason why this term crept in is on account of the great pain experienced on the third and fourth days. The pain as described was in many cases agonising, and it seemed as though dengue alone could be associated with such. We have many prominent differences: 1. That the pain in dengue lasts for a long time, weeks or months, whereas in the disease we are concerned with it is only a question of a couple of days. The pain subsides with the fever, and is therefore dependent on a vascular fulness of muscle. Dengue fever, again, is extremely infectious when it gets into a family or school; the exception is for anyone to escape the epidemic. The exception in the disease we are dealing with is for a second person in the household to catch it. In only three families have I known it infect more than two of the inmates, and in most cases one adult only was attacked. In many instances the mother was laid up, whilst the children escaped, even although they had never had measles of any sort. From these the major considerations, as it were, of the differences between dengue and the disease in hand, we may rid ourselves of the belief that it is dengue fever. 2. From ordinary measles: (*a*) Measles attacks almost invariably children, while this disease attacks adults; (*b*) coryza, bronchial, and pneumonic complications are frequent in measles; they are almost unknown, except, perhaps, a little sneezing, with slight catarrh of throat, in this affection. In one case feverishness, with an intense watering at the eyes continuing for forty-eight hours, with headache and backache, left no doubt that the patient had the disease. These symptoms are important as showing some alliance to measles. (*c*) The dates of the eruption do not correspond with the time of the appearance of the rash in measles. One cannot positively say that it is measles the patient has until the fourth day, when the redness shows itself in crescents. On the first day of invasion of this disease, however, the diagnosis is convincing: the redness of face, mottling of neck, pain in the back, temperature 102·5°, character of headache and orbital ache, are perfectly distinct. (*d*) The character of the rash—a mixture of exanthem, miliary spots, and papules—is totally unlike ordinary measles. (*e*) Deaths are common in children from measles: in tropical measles it is unknown. (*f*) Pain in measles is but slight: pain in marked cases of tropical measles in adults is agonising. (*g*) Measles seldom occur a second time, and still more rarely a third time. A fourth time I have never heard of; yet there is one case I know of in which measles had occurred three times, and yet this person caught the disease. Taken altogether, there can be no confusion between ordinary measles and this disease to the professional eye; and mothers of families whose children have had measles in England are well aware that this is a different disease. Without further details as regards the sequelæ of measles, I will dismiss measles as a distinct species (if not genus) of disease. 3. The third disease from which it is necessary to separate tropical measles is German measles—Rötheln. That in the minds of most of us a difference does exist is plain, from the doubt there exists as to the name to be given. "What we call German measles" is an admission that we are not sure of our ground that some differences exist, and the newly arrived practitioner to China is told that measles is a different disease here. So different has the present epidemic as attacking adults been that, as mentioned before, some of us have gone the length of calling it "dengue fever." Now the definition of rubella or German measles—Rötheln—will suffice to bring the differences prominently before us.

Rötheln is a specific eruptive fever, the rash appearing during the first day of the illness, beginning on the face in rose-red spots, extending next day to the body and limbs, subsiding with the fever on the third day, and not preceded by catarrh or followed by desquamation (see Quain's Dictionary). In the disease under consideration we have no "spots" on the first day; the body rash appears on the third day, not the second, and looks like a profuse prickly heat. The limbs are not attacked until the fifth or sixth day, and the rash is like a nettle rash. Catarrh is sometimes present with tropical measles, and desquamation sometimes follows. Tropical measles lasts twice as long as German measles; there is some resemblance in many of the minor symptoms, but in the majority dissimilarity.

Varieties.—1. The first case of a measly nature I saw was in the month of August, 1888, when a girl six years of age was in bed with a temperature of 105°. She had been perfectly well the day before. On the day following my first seeing her she was covered with a prickly-heat-looking rash, and the temperature was 99°. The rash looked exanthematous, but both miliary and papular spots were present in abundance. The following day—that is, the third day—the temperature was 98·4° and the rash well-nigh gone. This was entered in my case-book as an example of fever with a short-lived rash. I did not venture on a name for it. 2. In some seven cases patients have been in bed with the exact symptoms of tropical measles, but with nothing more than a redness of the face and skin to mark the eruption. In all these cases a catarrh of the throat was present to some extent. The reason for believing this to be the same disease *sine eruptione* was that tropical measles was in the house at that time, or immediately before or after. That they were ill six days, that the headache and backache were characteristic, and the low temperature without intermissions or remissions—102° to 102·5°—was sufficient to separate it from malarial fever. 3. A third variety, occurring in three cases, was that all the symptoms were complained of, but for the first five days there was only redness of the face. On the sixth day, however, the characteristic wheals—like nettle rash with much itching—appeared on the hands and feet, when the temperature immediately fell. As an indication of the possibility of exact diagnosis in this disease, I relate the following: Two sisters—twins, in fact—were in the same bed with fever. On first seeing them I diagnosed that one of them was to have tropical measles, but that the other had remittent fever. I was bold enough to make this statement to the mother. The patient with the remittent fever lost her remittent type, and it became in two days a well-marked quotidian ague. The other continued day after day with only a red face, backache, headache; temperature between 101° and 102·5°; and it was not until the sixth day that the characteristic rash appeared on the hands and feet, when the temperature immediately fell and she was out of danger. I mention this to show that I have a firm conviction that the disease can be diagnosed from the first day of the illness. 4. A variety of a measly disease occurred in myself. I felt dyspeptic and low, with general malaise, for a day or two; all at once the cloud lifted, and so convinced was I that something had happened that I stopped at a lamp post in the street, and found by the light of the lamp that my hands, wrists, and forearms were covered with a fine pink exanthematous rash. This, with a slight prickling, extended in twelve hours over face, body, and lower limbs, and disappeared. In children under seven the disease, measles, as we meet with it in Hong Kong, is a much milder disease, than we know it at home. That real measles and German measles do exist I have not the least doubt; but that we have a distinct disease travelling, it may be, with them and occurring in different individuals there seems little doubt. Just as chicken-pox is epidemic at the same time as small-pox, so may tropical measles coexist with rubeola or rubella. Chicken-pox, however, gives no protection from small-pox, nor *vice versâ*;

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so neither rubeola nor rubella gives protection from rubeola tropica.

The prognosis of this disease is fortunately favourable. No death has been recorded, and not only so, but, beyond a weakness and discomfort for five or six days after getting out of bed, no sequelæ of importance ensue. Shortly, the disease might be put as six days' incubation, six days' invasion and rash, and six days' convalescence.

Pathology.—One thing that struck me in this epidemic was the mild beginning, the growing severity, and the gradual diminution in severity as the end of the epidemic was reached. The first few cases lasted a day or two, with, in some cases, a temperature of even 105°. As time wore on and fresh cases were attacked, the intensity of the disease grew to a crisis, and after that the subsequent cases were mild. At first there was irregularity in the symptoms, but as the disease advanced they settled down into a groove and followed a marked type. Towards the end of the epidemic the mildness of the type was more marked than its irregularity. I have no hesitation in saying that this disease is dependent on a ferment, from the nature of its spread and behaviour, as in a cholera epidemic the irregularity of the commencement is marked by diarrhœa, colic, enteritis, cramp, and spasms. As the disease advances, the severity of the epidemic is marked by fatal cases; but towards the end of the epidemic, the severity being spent, colics, spasms, cramps, and severe purging fade away into slight diarrhœa and loose bowels. So with calf vaccine, its intensity increases as it passes from arm to arm for a time, and then its power fades as its ferment gets played out. In this, then, tropical measles follows the example of many other diseases, and the term "ferment" may be safely applied to the means by which it is spread and developed.

Questions.—1. Is this disease of the nature of measles? 2. Is it confined to the tropics, or met with in the tropics generally? 3. Is it distinct from dengue fever? 4. Is it German measles? 5. Is it a variety of ordinary measles or of German measles? 6. Would rubeola tropica or rubella tropica be the better term?

The treatment is simple, the only special requirement being a hypodermic injection of morphia during the third and fourth days of the illness in adults. Antipyrin did not relieve the headache or markedly reduce the temperature.

CONGENITAL DISLOCATION OF BOTH THUMBS ASSOCIATED WITH SPINAL DEFORMITY.

BY W. L. WOOLLCOMBE, F.R.C.S. EDIN.

CONGENITAL DISLOCATIONS have been observed and described from the time of Hippocrates, but it is only in the present century that any great amount of attention has been bestowed upon them. Since the time of Dupuytren, however, there has been a large amount of energy expended on the subject, and the observations of that great surgeon have been followed up by Breschet, Sédillot, Pravaz, Guérin, Robert Smith, and a number of others. In spite, however, of the searching investigations of these surgeons, we are left in considerable doubt as to the etiology of congenital dislocations, as is evident by the number and surprising variety of causes assigned by various observers, from some original defect in the ovum up to traumatisms inflicted on the pregnant uterus, and intra-uterine convulsions. Another class of cases, too, has been included by some in their descriptions and statistics, thereby still further complicating the question. I allude to those cases in which the disarticulated bone and its socket are both healthy and fully developed, as are the surrounding muscular and ligamentous structures, and in which the displacement almost certainly took place during forcible delivery. These cases should of course be included in ordinary traumatic dislocations, although often the practitioner is not conscious of the injury inflicted. It is because of its bearing on the etiology of congenital dislocations, as well as the fact of the joints implicated not being amongst those usually described, that I have thought the following case worthy of publication. In describing cases of this deformity, almost all writers have taken as their type congenital dislocation of the hip, whilst a similar affection of the fingers is only alluded to in a very cursory fashion, and by some authors is said to occur only in monstrosities, where almost all resemblance to the human form is lost.

M——, aged forty-six, a married man with no family, a tailor by trade, came for advice on account of loss of power in the first, second, and third fingers of the right hand, so that he was quite unable to use his needle. This was only of two weeks' duration. He came of a healthy family, having eight brothers and sisters, four older and four younger than himself, all particularly healthy and well-developed individuals. He had never heard that there was anything unusual in regard to his birth, and believed that he was born at the full time. His thumbs, however, had always been in their present condition. On examination the fingers mentioned were found well developed and healthy, and the cutaneous sensation perfect. On attempting to use his needle, however, they became useless. He was suffering, in fact, from an affection analogous to "writer's cramp." The thumbs of both hands presented the following appearance. The first phalanges were displaced forwards as their proximal ends, which lay in front of the corresponding metacarpals, and formed a well-marked projection in the thenar eminence, while the head of the metacarpal formed a still larger prominence on the dorsal aspect. The phalanges of both thumbs were much wasted or under developed, those of the right hand more so than those of the left, and thus the left thumb measured from the base of the phalanx to the tip of the nail 2⅜ in., while the right only reached 1¾ in. The thenar eminence on both sides was quite wanting, making the deformity appear much more striking than it would otherwise have done. The spine presented the following condition: In the neighbourhood of the upper sacral and two lower lumbar vertebræ was a prominence, consisting of a heaped-up mass of bone, forming a well-marked projection and covered with a tuft of *long* and dark but not particularly fine hairs. Above this, involving the lower half of the dorsal region, was an equally well-marked depression, so that the inner border of my hand could be sunk deeply in between the long spinal muscles on each side, giving the impression that the spines and laminæ of this part were absent, although the hollow was so arched over by the muscles of each side that a thorough examination was very difficult. The lower extremities were fairly developed, and there was no deformity of the feet; in fact, the only other abnormality was a deep depression in the mastoid process of the left side, which he says has always been there, and is not the result of an abscess or blow.

This case certainly lends colour to the theory of an error in development, dependent on an original defect in the ovum. The question of treatment does not arise, owing to the man's age. With regard to the loss of power in other fingers, for which he presented himself, a cure was soon effected by massage and electricity.

Plymouth.

THE ABSENCE OF ORTHOPNŒA IN (FATAL) CARDIAC DILATATION, ESPECIALLY WHEN AFFECTING THE RIGHT SIDE.

BY HENRY HANDFORD, M.D. EDIN., M.R.C.P. LOND.,
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THE absence of orthopnœa in many cases of severe and even fatal cardiac disease is an old observation, but its proper significance has not yet been established. It has been suggested by the late Dr. Hilton Fagge that the absence of orthopnœa is characteristic of right-sided affections. It is certain that in the most severe cases of anæmia, even where there is some œdema of the extremities and the dilatation of the right heart is most marked, all tendency to orthopnœa is absent, and the patient is able to lie quite flat, although respiration is persistently quickened, and on exertion dyspnœa is extreme. Dr. Wm. Russell has suggested that the upright position, besides enabling the diaphragm to contract to better advantage and the muscles of extraordinary respiration to be brought more fully into play, facilitates the passage of the blood from the left

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auricle into the left ventricle by the action of gravity, and diminishes the freedom of regurgitation from the ventricle back into the left auricle. The right auricle is placed too much to the right for the force of gravity in the upright position to be of much advantage in furthering the onward flow of blood. However much or little truth there may be in this explanation, it does not seem sufficient alone to account for such an important difference. The fact of the occasional absence of orthopnœa in the most severe cardiac cases is undoubted. A completely satisfactory explanation is still wanting.

The following cases were seen in private, and consequently were not completed by a necropsy. The first two had in common also the absence of all trace of dropsy and of any material quickening of the heart's action. This again is no new observation, but we are not yet able to say what forms of heart disease will proceed to their fatal termination without dropsy and without materially quickened action. The increase in the speed of the pulse and of the heart beats can usually be taken as an accurate measure of the heart's weakness; but not always, even apart from "the slow pulse of fatty degeneration" and of chronic myocarditis. Simple dilatation to a slight degree is very common and is readily compensated for many years, producing few or no symptoms except on exertion. Sometimes it leads to regurgitation through one or other of the auriculo-ventricular openings, sometimes not; but there is almost always incomplete emptying of the ventricle during systole. Serious dilatation is produced suddenly more frequently than is generally supposed, especially when the heart has previously been damaged by over-exertion, acute disease, anæmia, debilitating habits, or chronic non-progressive valvular defect. The disorders of cardiac innervation have received much attention of recent years, and the field is ever widening; but the influence of mental distress[1] and worry in enfeebling the heart has been too much neglected since the rapid advances of experimental physiology have enabled the mechanical theories of cardiac pathology to hold the field so exclusively. We may hope that in the near future the discovery of cerebral centres for the viscera (and among them for the heart) will render clearer many problems which at present neither physics nor morbid anatomy elucidate.

Cardiac dilatation in its severer forms, and especially when the right side is affected, is extremely fatal, and the only chance of successful treatment depends on the recognition of the earliest symptoms. In acute dilatation of slight or moderate extent, affecting young people, the heart may probably be completely restored by suitable treatment if sufficiently prolonged; but it remains unduly susceptible to fresh dilatation, which, if once or twice repeated, is likely to remain permanent. In a considerable number of instances, however, where restoration is assumed, it is in reality compensatory hypertrophy which leads to the disappearance of symptoms, and the cavities remain enlarged; but with healthy tissues, and no repetition of the increased strain, the heart may continue for many years in a state of perfect compensation. Where the dilatation is considerable, it is very doubtful whether any material contraction of the cavities can be brought about by treatment.[2] Digitalis and strychnine, cautiously employed, with iron if the condition of the gastric and hepatic circulation permit, are the most promising direct medicinal remedies. Theoretically strophanthus, by not contracting the small arteries, and so raising the peripheral resistance, should be more successful than digitalis; but practically it is found to be inferior, though at times a useful alternative. In acute cases the main principle is absolute rest for a short period: not long enough to lead to degeneration of the cardiac muscle, but giving sufficient time for compensatory hypertrophy; and afterwards a total absence of violent exertion for a very prolonged period. It is difficult to draw any sharp distinction between a temporary distension of the cavities, which subsides in a few minutes or hours when the cause is removed, and is physiological; and a more prolonged (or permanent) dilatation which is pathological. In chronic cases the aim must be to diminish the work of the heart by reducing vascular tension, if necessary by aperients &c., and by the strict regulation of diet and exercise. In fact, failing compensation, in so far as it is due to increased resistance, which can be diminished, or to depressing influences (tobacco, mental distress, worry, &c.), which can be removed, is very amenable to treatment; but so far as it is caused by degeneration of the cardiac muscle it can only be slightly benefited by cardiac tonics and general improved hygiene. Alcohol, even in quite small quantities, seems generally to be prejudicial in these cases. Without sleep very little progress is made. Sulphonal, though almost entirely free from danger, is in such cases often useless. Chloral causes more depression and entails greater risk. It gives only short periods of rest followed by increasing weakness and prostration, and leaves the patient drowsy next day. The preparations of opium, besides giving sleep, increase the force and volume of the pulse, and produce a feeling of well-being which may last until the next night. The use of opium undoubtedly involves more risk than in the case of sulphonal or chloral. Smaller doses than usual should be given, especially when used hypodermically ($\frac{1}{15}$ to $\frac{1}{12}$ gr. or less), and the patient should not be allowed to sleep too long (i.e., more than four or five hours) without being roused. The mere presence of albumen does not absolutely contraindicate the use of opium so long as the vascular tension is good and the quantity of urine normal or above normal.

CASE 1. *Chronic dilatation without valvular lesion; rapid failure of compensation; death without orthopnœa, dropsy, or materially quickened action.*—A tall, well-built, athletic man, forty-seven years of age, formerly had done a good deal of mountaineering, but had not, so far as he knew, damaged his heart by that violent form of exercise. About twenty years ago, after a throat affection which was suspected to be diphtheritic, his pulse was noticed to be very slow, and attention was directed to his heart, but nothing wrong was discovered. His pulse remained slow (40–50 to the minute), but it is not known whether it was so before his throat affection. He was shortly afterwards examined for life assurance, and passed as a first-class life. He had never suffered from rheumatism or gout, was very abstemious, and lived a regular life. He was accustomed to take a good deal of exercise, hunting and shooting, and felt no undue fatigue after a walk of twenty miles. For several years he had much anxiety and worry, which told upon him a good deal. In May he began to feel out of sorts, lost his appetite, became sleepless, but was still able to take long walks without any immediate ill results. From about this time he began to suffer from a feeling of tightness in the chest and dyspnœa on exertion. There appeared to be no cause for this except a new source of mental distress. His regular medical attendant had hitherto no ground to suspect any cardiac affection. In July he consulted a leading London physician, who told him that his heart was dilated, that he had better go in the country, and take three weeks' complete rest. He told the patient's wife her husband's life would probably not be a long one, but gave no indication of immediate danger. The man grew rapidly worse, and became unable to walk more than a few steps without great dyspnœa and alarming prostration. I saw him in the middle of August, from which date he first kept his bed entirely. The apex beat was feeble and diffused in the fifth interspace, an inch outside the nipple, and the heart's action was very irregular. There was no murmur, but the first sound at the base was very weak. The liver was engorged and tender, and the jugulars full and pulsating. The radial pulse was beating 70 to the minute. The tension was exceedingly low; but the vessel was full between the beats, and felt to the finger more like a tense and distended vein than an artery, giving the impression of there being little onward propulsion of the blood. There was a slight cough; but the bases of the lungs were quite clear, and remained free from râles, certainly until within forty-eight hours of his death. The urine was scanty, high coloured, and free from albumen at first, though later a cloud appeared, but no casts could be found. For the first three weeks that he was confined to bed he improved considerably, had less distress, and to some extent regained his appetite. But after that, without discoverable reason, he rapidly failed, and died in a few days, at the end of September. During the whole of his illness there was not the slightest trace of dropsy. He was able to lie flat and sleep with only one pillow under his head. As regards treatment, digitalis soon reduced the speed of the heart to 40—50, raised the tension of the pulse, and produced temporary amelioration. Aperients, especially a pill containing half a grain of calomel, caused alarming prostration. In the earlier stages,

[1] Fraentzel: Krankheiten des Herzens, vol. i., p. 244; Leyden: Zeitschrift für klinische Medicin, Bd. vii., S. 570.

[2] Dr. Solis Cohen (Therapeutic Gazette, Feb. 16th, 1891), in an article on Simple Dilatation, points out that we cannot restore the heart to its normal size.

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before he was confined to one floor, he experienced the benefit of the old but insufficiently known device of going upstairs *backwards*, by which means much less breathlessness and fatigue were caused.

CASE 2. *Acute cardiac dilatation supervening upon an old non-progressive lesion; death in fifteen days, without dropsy, orthopnœa, or quickened pulse.*—The patient was a railway inspector, aged about forty, who three years ago had been told that one of the valves of his heart leaked; but he never experienced any cardiac symptoms until fourteen days before his death. Nine months ago he had influenza, and recovered rather slowly, but, as he considered, completely, and no heart murmur was then detected. During the frequent fogs of the late winter he had been anxious and overworked, as well as much exposed to the severe weather. An attack of bronchitis laid him up, and I was asked to see him in consultation on the thirteenth day after he had taken to bed. I found him pale and anxious, with an extremely small thready pulse, beating regularly 84 to the minute. He had a troublesome cough and copious blood-stained sputum, evidently due to pulmonary apoplexy. He was able to lie perfectly flat in bed, with only one small pillow, and there was not the slightest trace of œdema or dropsy. His urine had been free from albumen until the last few days, when a slight cloud appeared. The jugulars were not only full and pulsating (systolic), but were tense to the finger, and showed evident positive pressure. There was a heaving expansile pulsation over the liver, and on applying the stethoscope to it a systolic murmur was audible. The heart's apex beat was weak and diffused, and could not be defined. There was a mitral murmur propagated into the axilla, a weak systolic and a loud diastolic aortic murmur, and at the lower part of the sternum a systolic murmur quite startling in its loudness and undoubtedly of tricuspid origin. He was evidently moribund, and died within twenty-four hours.

I may add incidentally that in both these cases alcoholic stimulants increased the distress. From the history it is probable that there was an old aortic lesion; but from the absence of symptoms, and the fact that no cardiac disease was noticed nine months before his death, it is evident that compensation was well established, and that his fatal illness was not due to progressive heart disease—one cavity dilating after another,—but rather to an acute dilatation, in which the right side was chiefly affected, caused by fatigue, worry, exposure, and finally by an attack of bronchitis affecting a heart already damaged, and occurring in a man of feeble recuperative power.

In the first case there was almost certainly no valvular lesion, and the slowness of the heart in early life without any previous heart affection renders it very unlikely that there was at that time either sclerosis of the coronary arteries or myocarditis. It is probable that the exertion of mountain climbing caused a dilatation which was compensated by hypertrophy, but never disappeared. Dilatation so caused affects, I believe, chiefly the right side of the heart. During exertion the skin becomes warm, the systemic arteries and capillaries dilate, and so the great increase of the peripheral resistance is lessened; but the blood is returned more and more rapidly to the right side of the heart, which becomes overloaded. The area of the small arteries and capillaries of the lungs is smaller than that of the systemic circulation, so that an equal degree of dilatation does not to the same extent relieve the pressure, and meet the needs of the increased rapidity of circulation. The pulmonary capillaries become engorged, and there is great breathlessness. The thin walled right ventricle is not so capable of bearing strain as the thick-walled left, and consequently it dilates, and during systole does not completely empty itself. Dr. Clifford Allbutt's description of his own experience of dilatation of the right heart while mountain climbing is very graphic. If the dilatation is oft repeated or becomes permanent the left ventricle shares in it more and more. The left ventricle, by increasing the pressure in the capillaries, can hasten the venous circulation and help the right heart. Hence post mortem considerable dilatation of the right heart without involvement of the left is scarcely ever found. A younger brother of the first patient has since damaged his heart in the same way by excessive mountaineering, and now has to lead a more careful life; and the family tendency to cardiac weakness is further shown by some deranged action of the heart in a daughter. The pulse in the first case was peculiar, and between the beats closely resembled to the touch the external jugular of the second case. The size of the radial was no doubt due to the athletic life the patient had led, the low tension to the feebleness of the left ventricle, and the fulness between the beats to peripheral resistance. This latter might be owing to a slight degree of renal sclerosis, of which, however, there was but little evidence, but more to the backward pressure in the venous circulation blocking the capillaries. This makes it all the more surprising that there should be no œdema, even in the extremities. It would appear as if dropsy depended quite as much upon the state of nutrition of the tissues as upon the central organ of the circulation.

The next two cases, very shortly narrated, further illustrate the absence of orthopnœa in fatal cardiac affections. In both there was probably fatty overloading, with some dilatation. I agree with Fraentzel, who is of opinion that "fatty heart" alone as an independent morbid entity cannot be diagnosed. Both the most extreme fatty overloading and fatty degeneration may be found post mortem when there have been no cardiac symptoms.

CASE 3. *Acute dilatation partly due to mental distress, probably fatty overloading; rapid death without orthopnœa or dropsy.*—In August, 1890, I was asked to see Mrs. G—— in consultation, on account of great breathlessness, of about a week's duration. She was very stout, aged forty-six, had had eleven children, and had come over from America only a month previously. She had suffered severely from seasickness on the voyage, but otherwise considered herself quite well. She was much disappointed in the object of her journey, and had become very depressed, often crying for hours together. Her appetite failed, she lost strength, but she had been for a drive two days before and had slept well the previous night. There was no cough, headache, sickness, or œdema, but the urine was scanty and contained a trace of albumen, though no casts. The pulse was small, regular, and 120 to the minute. She was so exceedingly stout that it was impossible to ascertain by percussion or palpation the existence of any enlargement of the heart. The heart sounds were loud, distinct, and free from murmur or other abnormality except an accentuated aortic second sound. The extremities felt cold. She had no pain anywhere, and had had no anginal attacks. There was no orthopnœa, but she lay flat, most comfortably on the right side. She could not sit up or lie long on the back without a great increase of the breathlessness, which was her chief complaint. Any exertion caused alarming symptoms. She remained much the same during the night, in spite of the use of stimulants, digitalis, and aperients. The following morning, about eight o'clock, she became cyanotic, and died at nine. The emotional state had led to a diagnosis of hysteria, and the breathlessness was supposed to be neurotic, but the alarming increase of the dyspnœa on the slightest exertion decided its cardiac origin.

CASE 4. *Rapid cardiac failure due to excitement (anger): absence of orthopnœa.*—In 1888 I was sent for to go some distance into the country to see in consultation an old gentleman aged seventy, rather stout, but hitherto in fair health and active. He had been a little out of sorts for a few days, but going about as usual until that morning. I saw him a little after midnight, and found him lying quite flat and on his right side. His pulse was "running," of low tension, and uncountable. The heart's sounds were very feeble, and not distinctly audible. The cause of this sudden collapse was very obscure until we learned that he had had a violent quarrel that morning. He was very much upset, became quite prostrate, and died next day. The cause of death was evidently the failure of a weakened heart from mental shock. Orthopnœa was quite absent. It would appear that the upright position gives relief chiefly in failing compensation in valvular disease and in the failing heart of renal disease; but that in dilatation, especially when the right side is affected, and in degenerations of the cardiac muscle, as in anæmia, after fevers, diphtheria, septic poisoning &c., the tendency to faintness produced by the upright position more than counterbalances any other advantages.

Nottingham.

NEW INFIRMARY AT TOXTETH.—Mr. James Pratt, senior member of the Toxteth board of guardians, will, on Monday next, lay the foundation stone of this new infirmary, which is to be erected as an adjunct of the Toxteth workhouse, Smithdown-road.

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ASPIRATION IN PNEUMOTHORAX.

BY G. A. SUTHERLAND, M.B. EDIN., M.R.C.P. LOND.,
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AMONGST the many complications of phthisis none causes greater anxiety than pneumothorax, the mortality of which, according to Dr. Samuel West's statistics, is 66 per cent.[1] The line of treatment usually adopted is expectant, but that some more active interference may be carried out with advantage is illustrated in the following case.

H. V——, aged thirty-two years, was seen for the first time on Dec. 15th, 1890. He had been in India for several years, and had suffered from ague and dysentery. He had had rheumatism occasionally, and when a boy had brought on a "strain of the heart" by running races. There was a family history of phthisis. He stated that he had had sickness and vomiting after dinner for a few days, accompanied by the old malarial symptoms. On the previous night he had coughed up blood seven or eight times. There had been no sweating or loss of flesh. He was poorly nourished, and looked very much pulled down. The chest was well formed, and no evidence of disease of the lungs was detected on physical examination. As regards the other organs, the only point noted was a reduplicated second sound at the base of the heart. There was a slight attack of hæmoptysis next day, and the temperature in the evening was about 101° for a week, after which all symptoms disappeared, and he resumed his work in the following month. Two months later there was a recurrence of the hæmoptysis, with cough and profuse mucoid expectoration, which was found to contain tubercle bacilli. The only sign of pulmonary disease detected was slight crepitation near the root of the left lung posteriorly. He was sent to Ventnor in March, preparatory to leaving England for the Cape at the end of the summer. In May, 1891, he returned to town very much worse. He had lost flesh and was troubled with violent cough, followed by sickness and great depression. There was slight pyrexia in the afternoon and sweating at night. The left lung showed dulness at the apex anteriorly, and over the upper third posteriorly, with blowing breathing and crepitation, and friction sounds were heard over the left scapula. No evidence of disease was detected in the right lung. On June 22nd, after severe and prolonged coughing, he was seized with acute pain in the lower part of the left chest, passing from the front to the back, and accompanied by headache, sickness, sweating, and great prostration. The temperature was 104°, pulse 120, and respiration 32. The decubitus was right sided. The cardiac sounds were inaudible to the left of the sternum, but louder than normal to the right of it. Expansion was very slight on the left side of the chest, and vocal fremitus was entirely absent. The percussion note over the front of the left lung, from the clavicle downwards, and including the cardiac area, was hyper-resonant, and this condition existed also in the axilla, and posteriorly from the middle of the scapula to the base. Over this area the breath sounds were almost inaudible, and the vocal resonance was very much diminished. The breath sounds were more audible along the left side of the spine. The expectoration was mucopurulent, blood stained, and contained many tubercle bacilli. The treatment adopted was nourishing fluid diet, alcohol, and morphia in full doses, both hypodermically and by the mouth, which soon checked the troublesome cough and retching, and the severe chest pain which these caused. He had occasional attacks of dyspnœa with cyanosis. The decubitus became left-sided, any other position causing him acute pain. The strength was well maintained until the third day, when the temperature again rose to 104°, and there seemed to be an increase of pressure in the chest, followed by progressive weakness. On the eighth day of the attack he became much weaker, and at midnight his condition was critical. There was muttering delirium, the respiration was 36 per minute and very laboured, and the pulse was so weak and irregular that it could not be counted. There was a uniform distension of the left side of the chest, with complete absence of expansion, and vocal fremitus. The area of hyper-resonance extended one inch and a half to the right of the sternum, and the cardiac apex was felt one inch internal to the right nipple. The breathing over the hyper-resonant area was distant amphoric, with occasional tinkling râles, and the "coin sound" was well marked. The heart sounds were faintly audible to the left of the sternum. It was resolved to puncture the chest for relief of pressure. The needle of an aspirator was inserted into the left pleura in the axillary region, but no air passed out. The aspirator was then attached, and the air in the receiving bottle was partially exhausted. On opening the connexion, air was at once heard to pass into the bottle, and by means of slow and interrupted aspiration a considerable quantity of air was removed from the pleural cavity. The process occupied about an hour, and the patient's condition was manifestly improved. The respiration fell to 24, and the pulse to 108, becoming at the same time fuller and stronger, while the heart sounds could be heard much more distinctly to the left of the sternum. On the following evening there was a recurrence of the cardiac weakness, and an area of dulness at the base of the left lung posteriorly was noted. Aspiration was again performed. At first air only was withdrawn, then air mixed with fluid, and finally nine ounces of clear fluid were evacuated. A friend who was present noted the change in the position of the cardiac apex during the process, and found that it moved three-quarters of an inch to the left, while the pulse again showed marked improvement. There was no cough on either occasion. A few days later expansion became evident on the left side, with sinking in of the intercostal spaces during inspiration, and the breath sounds became louder, blowing in character, and in parts amphoric, with tinkling accompaniments. At the end of a month, progress being delayed by a slow formation of fluid in the left pleura, with displacement of the heart to the right, the chest was again aspirated and thirty-four ounces of clear fluid were withdrawn. He then improved rapidly, and in September he was found to have gained eleven pounds and a half in weight, and could walk four miles without fatigue. There remained impaired resonance over the left side of the chest, but the expansion was fairly good, and the breath sounds, although weak, were audible all over. He sailed for the Cape on Oct. 8th, 1891, and has continued in good health.

Treatment by aspiration is not advised by the leading authorities in cases of pneumothorax. Dr. Douglas Powell[2] speaks of the timely introduction of a fine trocar, when there are signs of increasing pressure within the chest, but says nothing about aspirating the pleura for air. Dr. Wilson Fox[3] refers to the treatment by a simple trocar, but says that "aspiration is best avoided; it brings with it the danger of renewing the fistulous opening, and this effect has actually been observed in a secondary effusion following pneumothorax." Dr. Hilton Fagge[4] says an aspirator should never be used, on account of the danger of reopening the original aperture. It is evident that the use of a trocar will only be of service when the pressure of air in the pleura is greater than that of the atmosphere, which, according to Dr. Hilton Fagge, is by no means generally the case. On the other hand, Dr. Douglas Powell has shown that lateral displacement of the heart occurs in pneumothorax, owing to the normal elastic retraction of the sound lung, which drags over the mediastinum, even when the pressure of air is not greater than that of the atmosphere. If, then, the use of a simple trocar be accepted as the final treatment in the cardiac asthenia of pneumothorax, we cannot expect very great relief in cases in which the intra-thoracic pressure is not greater than that of the atmosphere. The dangers of slow aspiration in suitable cases have, perhaps, been exaggerated, and the above case shows that the benefit may be very marked. In considering the question of aspiration one point must not be lost sight of—namely, that an attack of pneumothorax, by giving rest to the affected lung, may be a most effective therapeutic agent in phthisis. This patient's phthisical condition at the onset of pneumothorax was very serious, and was rapidly getting worse, while two months later no evidence of active phthisical mischief could be detected, nor has any since appeared. It is probable that the compression of the lung, at first by air and later by fluid, had brought this about, and that a repetition of the aspiration, except when urgently called for, might

[1] THE LANCET, vol. i. 1884, p. 791.

[2] Diseases of the Lungs, p. 142.
[3] Diseases of the Lungs and Pleura, p. 1118.
[4] Principles and Practice of Medicine, vol. ii., pp. 192, 199.

have prevented this good result. In the management of the above case I had the benefit of several consultations with Dr. Cheadle, to whom my best thanks are due for much valuable assistance and advice.

[NOTE.—Writing on May 2nd, patient states that a large amount of fluid was withdrawn from the left pleura in January, that no signs of phthisis are present, and that he is well and strong.]

Carlton-hill, N.W.

A CASE OF CERVICAL DISLOCATION.

BY DONALD MACPHAIL, M.D. GLAS.

THE following case is worth recording from the severity of the effect produced by a trivial cause.

Late on a Saturday night in April I was hurriedly called to see a man "in a fit" at a barber's shop in the village here. When I arrived at the place I found, extended on the floor, the dead body of a man whom I had known by sight for the last ten years. He was a collier, a strong healthy man, aged forty-three, about 5 ft. 9 in. in height, and weighed probably between 11½ and 12 st. He had always been a heavy drinker, but had otherwise been healthy. Those present told me that he had been lying on the floor for some time, supposed to be in a drunken sleep. It was evident that he had been dead for some time. The face was pale, with some faint, livid blotches, and there was a slight bruise on the left temple, the eyes were closed, and the pupils normal in size; the lips were blue, but the mouth was closed, and there was no froth about it; the tongue was not protruded or between the teeth; the moustache was saturated with colourless fluid, which had apparently flowed from the nostrils. There was no evidence of the man having vomited. My first thought was that he had been suffocated, and I tried to examine his throat. I found it very difficult to get my finger down between the back of the tongue and the back of the pharynx, and impossible to reach the glottis. There was no foreign matter to be felt. This state of affairs was very puzzling for a moment, but on turning the body on its face and palpating the back of the neck it was at once evident that there was displacement of the fourth cervical vertebra forwards to a very considerable extent. The body was at once removed, and attempt made to get a clear history of the accident. That was difficult to do in the midst of an excited crowd, some of whom were inclined to raise the question of foul play. I obtained an outline of the history at the time, however; and the police, by visiting a considerable number of persons during the night, were able to get details, all the different witnesses giving almost exactly the same story. The man had come into the shop very drunk, but able to talk, and had been shaved. He then made for the door, but some acquaintance waiting in the shop advised him to stay there, lest he might be apprehended as "drunk and incapable," for it was evident to them that he was getting more and more drunk every minute. He was led to "the waiters' bench," a long form, about fifteen inches high and nine inches wide, which was set close against a wall, and sat there for a short time till he fell off. He was helped up, apparently none the worse for that fall, and set upon the bench again with his legs stretched out straight in front of him, and his head hanging limply on his breast. In a few minutes he slipped forwards, without making any effort to save himself, and came down heavily in a sitting posture on the floor, his head being jerked back violently by the fall. He sat for a moment and then rolled over on his left side on the floor, "drawing his legs and arms up like one suffering from cramp" as he did so. He was allowed to lie, as those present thought there was no use setting him up so often, and he lay there for nearly two hours, till someone, coming in at the door and stumbling over his feet, drew attention to his stillness and pallor. I saw him a few minutes after that. No one had seen him move after the second fall. He had not vomited, and no one had noticed whether he was breathing or not while he lay on the floor. Next evening, with the aid of my assistant, Dr. James Muir, I made a post-mortem examination, which was a very imperfect one, for it had to be done in a small room, by dim lamplight, and in the presence of the dead man's brother. We made a longitudinal incision along the spine, and dissected away the soft parts on both sides. We found the fourth cervical vertebra displaced so far forwards as to allow my finger to freely enter the spinal canal in the fifth vertebra, the spinous process of the fourth resting upon the upper surface of the body of the fifth. The cord seemed to be completely divided. We felt the bones all round, but could find no evidence of fracture or of disease in the spines, transverse processes, or bodies of the vertebræ. No external marks of violence could be found on careful examination, except the slight bruise on the left temple and a doubtful one on the left side of the nose.

Whether this man died directly from the injury or from suffocation as he lay is would be difficult to say positively. It is well known that dislocation of the spine at this level is not necessarily immediately fatal, but the completeness of the displacement and of the rupture of the spinal cord may have caused death by shock. The "spasm" in which he rolled over on the floor suggests that he died at that time. I once saw an infant die instantaneously from an injury to the medulla oblongata or cervical cord, and it died with just such a spasm of the flexor muscles of the limbs. At all events, the appearance of this man's body did not suggest rapid suffocation as the cause of death. This case of fatal injury from a slight cause was made the more impressive to us from our having to examine next day a woman who had tried to commit suicide by jumping from a railway bridge, over 30 ft. high, on to the rails, but had fortunately sustained only a slight scalp wound and a thorough shaking.

Whifflet, Lanarkshire.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

SEAMEN'S HOSPITAL, GREENWICH.

ANEURYSM OF COMMON CAROTID ARTERY; LIGATURE OF ARTERY; RECOVERY.—EPITHELIOMA OF LIP AND OF PENIS IN A MAN AGED TWENTY-FOUR.

(Under the care of Mr. G. R. TURNER.)

THIS was a very large carotid aneurysm, probably from its rapid growth traumatic in origin; and although on the right side of the neck, the internal jugular vein lay slightly to the inner side and in front of the carotid artery at the point where the ligature was applied to the vessel. It is difficult to see how this anatomical abnormality could have been caused by the aneurysm, as the sac had by its inward pressure caused considerable displacement of the larynx. For more than three weeks after the operation the size of the aneurysm remained nearly the same. This inactivity was then followed by a most rapid shrinkage and hardening of the sac, and consequent return of the larynx to the middle line; so that six weeks after the operation the man's neck was quite normal in appearance. Mr. Turner intended to have used a kangaroo tendon ligature, but not being able to get one exactly suited he substituted a stout catgut one. For the notes of the cases we are indebted to Mr. Jervis.

CASE 1.—B. B——, aged twenty-nine (?), boatswain, a native of Manilla, was admitted to hospital on Dec. 11th, 1891. The history of the case is imperfect and the details doubtful, as no competent interpreter could be found. Previous history: There was a doubtful history of syphilis but no signs could be found. For about two months the man had had a rather rapidly growing swelling in the right side of the neck, which had lately caused cough, some difficulty in breathing, and very severe shooting pains over the right side of the head and face. An officer of the ship who brought the man up remarked, "The abscess is ready to be cut, as we have kept poultices on it for a week."

On admission a tumour about the size of a clenched fist was found occupying the right side of the neck. It

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extended upwards to the angle of the jaw, and pushed the larynx about three-quarters of an inch to the left side of the middle line of the neck. Downwards it reached to within an inch and a half of the clavicle. Its maximum breadth was opposite the thyroid cartilage. The tumour was fluctuating externally but rather hard internally. There was well marked expansile pulsation and thrill, with a loud and harsh systolic bruit. Voice hoarse and cough brassy. He evidently had very considerable pain in the head. The pulse in the right temporal and facial arteries was distinctly smaller than on the left side. The tongue was protruded with its tip to the right. The pupils were equal, and reacted well to light. The laryngoscope showed redness and thickening of the right vocal cord, but movement was only slightly impaired. The heart sounds were normal.

On Dec. 12th Mr. Turner made an incision in the usual direction but reaching right down to the sterno-clavicular joint. The fasciæ were divided and the omohyoid was seen at the extreme upper angle of the incision. The internal jugular vein presented, lying directly in front and to the inner side of the common carotid artery, which lay very deep. The needle was passed from within outwards and the vessel tied with a No. 6 catgut ligature. The wound was dressed antiseptically and was completely healed on Dec. 15th, no rise of temperature or discomfort occurring. Pulsation and bruit in the tumour ceased at once, as did the pulse in the right temporal and facial arteries. The retina (right side) was examined as the artery was being tied, but no alteration in the vessels was perceived. The pain in the head and the face was at once relieved and did not return. No cerebral symptoms ensued or lung complications. The tumour became slightly harder and but very little smaller till about between Jan. 4th and the 9th, when, without obvious cause, most rapid and perceptible shrinking and hardening began, until, on Jan. 31st, there was only slight hardness to be felt and no swelling to be seen. The larynx had returned to the middle line of the neck, and the cough, dyspnœa, and pain had all disappeared.

CASE 2. *Epithelioma of the lip and of the penis.*—C. F——, aged twenty-four, a French sailor, was admitted to hospital on Sept. 22nd, 1890. Parents living and healthy, also all his brothers and sisters. No history of malignant disease in the family. He was suffering from harelip and a warty growth on his lower lip, which had first appeared in April, 1890, and had been gradually getting larger. He had been accustomed to smoke clay pipes. The harelip was operated on and the epithelioma of the lip removed on Oct. 1st. Mr. Ritson, who has kindly furnished these notes, made a microscopical examination of the growth, and reported it to be distinctly epitheliomatous in character. It was now discovered that he had a similar growth on the penis, the existence of which he had hitherto concealed, and of which he gave the following history. He had first noticed in July, 1889, a small pimple about the centre of the sheath of the penis, which soon became ulcerated. He was in a hospital at Calcutta from October, 1889, to January, 1890, and was there treated by various caustics but without marked effect on the growth. In the following May (1890) he entered a New York hospital, where the growth was at once pronounced to be cancer, and removal of the penis recommended. He had refused to have the operation performed. There was no history of chancre or secondary syphilis. The sore on the penis was large and ragged, with hard, somewhat everted edges, chiefly on the dorsum and nearly surrounding the whole penis, commencing about half an inch from the end and extending to about the same distance from the root. There was no marked enlargement of the inguinal glands. He was treated by local calomel fumigation and general antisyphilitic treatment, but without deriving any benefit. Although he would not give his consent to amputation of the penis, he was willing to have the growth itself removed. This was done on Oct. 28th, and involved the removal of a considerable part of the penile coverings. The corpus spongiosum and corpora cavernosa were luckily not invaded. The operation wound healed rapidly, with healthy granulation. The man left the hospital apparently well on Dec. 31st, 1890. He was told to report himself at once on any recurrence either on the lip or penis, but has not been seen since his discharge.

Remarks by Mr. TURNER.—It is rare, I think, to find epithelioma in two places so remote from each other as the lip and penis, in a man, too, as young as twenty-four. Both clinically and microscopically there could be no doubt as to the nature of the growths. The negative result, too, of syphilitic treatment further corroborated the diagnosis.

DEVON AND EXETER HOSPITAL.

A RAPIDLY FATAL CASE OF ULCERATIVE ENDOCARDITIS.

(Under the care of Mr. ARTHUR GOULSTON and Dr. ARTHUR G. BLOMFIELD.)

THE case of ulcerative endocarditis related by Mr. Goulston and Dr. Blomfield is a further useful contribution to the already abundant literature of this obscure and fatal affection. The symptoms of which the patient complained were severe and general, the cardiac phenomena, as is often the case, being subordinate to those of systemic infection. The hyperpyrexia, combined with the characters of the urine, were suggestive of a septicæmic process, which was confirmed next day by the appearance of a universal dusky rash. The presence of an apical cardiac bruit, together with a past rheumatic history, served to indicate its possible origin. The rapid onset of hemiplegia was no doubt due to lodgment in the cerebral vessels of portions of the disintegrating necrotic vegetations. It was no doubt difficult to distinguish the case at first from rheumatic hyperpyrexia, but the limited necropsy quite bears out the diagnosis of ulcerative endocarditis. As has been observed in some instances previously, the acute process in the heart involved the auricular endocardium rather than the mitral valve-cusps themselves, the auricle exhibiting three ulcerating surfaces covered with typical exuberant necrotic granulations. The exciting cause of the acute and fatal attack remains obscure. Dr. Coupland[1] has published an interesting series of these cases, in which he drew attention to the irregular and pyæmic type of the pyrexia, which in one instance was so strikingly periodic as to nearly simulate intermittent fever. In 1885 Dr. Osler of Philadelphia delivered his classical Gulstonian Lectures on this subject; he collected a large mass of facts and divided the various classes of cases into clinical groups. As to terminology, there has been, and is still, great difference of opinion. Dr. Coupland, in the communication before referred to, uses and defends the term "malignant" as applied by Virchow to the graver form, and he shows that a case of ulcerative endocarditis must have another element superadded to it to produce the peculiar malignant clinical type. Dr. Sansom, in discussing this subject later,[2] preferred to apply to those aberrant forms which presented grave clinical symptoms the term "severe" endocarditis; while Dr. Stephen Mackenzie, on the same occasion, thought the term "essential endocarditis," while taking no cognisance of its etiology or pathology, would meet the clinical requirements of the case. In Dr. Sansom's paper will be found, not only a *résumé* of the bacteriology of the subject, but also some very valuable considerations as to treatment. He advocated strongly the plan of administering the sulpho-carbolate of sodium, or other suitable antiseptic, in sufficient doses in these cases, and Dr. Mackenzie also thought he was able to report a favourable result after the administration of benzoate of sodium. Cerebral embolism often occurs in these cases, contributing to the rapidity of a fatal result. An interesting case in this connexion has been placed on record by Dr. Ormerod,[3] in which the hemiplegia was not absolutely sudden in its onset. This, as he there suggests, was probably because the obstruction from the embolus was incomplete, and secondary thrombosis was necessary to seal the vessel absolutely.

R. S——, aged twenty-one, single, has had rheumatic fever twice, the last attack being four years ago. It was quite a mild one, but since then she has never been able to go upstairs without attacks of breathlessness. For about a week before May 5th she had felt unwell, having to give up her work as a domestic servant, and on May 9th Mr. Goulston was sent for. At his visit he found her complaining of general malaise and weakness, with pain

[1] Medical Times and Gazette, Feb. 25th, March 18th, April 1st, and April 29th, 1882.
[2] Medical Society of London, Feb. 22nd, 1886.
[3] St. Bartholomew's Hospital Reports, vol. xxvii., p. 41

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down the middle of the back, and stiffness and pain on movement in the muscles at the back of the neck. Much headache, a furred tongue, constipation, scanty high-coloured urine, sp. gr. 1020, acid, with distinct trace of albumen. The skin was dry and burning; the temperature was 105° F.; the pulse 140, soft and compressible, and respiration 25. The liver was somewhat tender on pressure, but the spleen was not apparently enlarged. A loud systolic murmur was heard at the apex of the heart. The heart was enlarged, and there was also a thrill to be felt over the apex. On May 10th the face was flushed, and there were dark rings round the eyes, a general dusky erythema of the whole body, and severe pains in the back of the neck, and there was some delirium. Temperature 105°. The same evening she became worse, delirious, and very talkative. Temperature 104°; pulse 120; urine scanty. On May 11th the temperature rose to 105°; pulse 140; increasing delirium, and trying to get out of bed; sweating profusely. On this day Dr. Blomfield saw her with Mr. Goulston, and it was agreed that with the history of previous rheumatic attacks her condition was one of hyperpyrexia, and Mr. Goulston suggested ulcerative endocarditis. On the same day she was removed to the Devon and Exeter Hospital and treated without success by the wet pack; but she became worse, and at 10 P.M. had an attack of left hemiplegia with tonic spasm in the right arm and leg. From this condition she did not rally, but died the same night.

For the post-mortem notes we are indebted to Mr. Martyn and Mr. Andrew, house surgeon and assistant house surgeon, Exeter Hospital. Permission only was granted to examine the heart, which was enlarged. With the exception of the mitral valve, which was thickened by old endocarditis, the valves were healthy. Just inside the left auricle, and close to the mitral valve, were three soft ulcerating surfaces covered by prominent granulations. The body was decomposing rapidly, although death had only occurred twenty-four hours previously.

Remarks by Mr. COULSTON and Dr. BLOMFIELD.—We venture to report this case because the diagnosis of ulcerative endocarditis is by no means certain. The collective symptoms are often vague and liable to be mistaken for those of tuberculosis, typhoid fever, chronic pyæmia, ague; and, with the late epidemic of influenza fresh in our minds, possibly also with that disease. The patient had had two attacks of rheumatic fever before her fatal illness, and therefore in this case the ulcerative condition was secondary to chronic valvular disease; the why and wherefore remain a mystery.

Medical Societies.

OBSTETRICAL SOCIETY OF LONDON.

Ectopic Pregnancy.—Hysterectomy.—Growth of the Placenta after death of the Fœtus in Ectopic Gestation.

A MEETING was held at 20, Hanover-square on the 1st inst., Dr. J. Watt Black, President, in the chair.

Mr. LAWSON TAIT read a paper on a case of Ectopic Pregnancy in which the fœtus seems to have been developed to the full time in the peritoneal cavity, still retaining its amniotic covering. The patient, aged thirty-six, had two children, the last three years ago; no miscarriages. Her last period was in the middle of July, 1890; then she saw nothing till May 20th, 1891, and during that period has been getting larger, has had morning sickness, and milk appeared in the breasts in February, 1891. In September, 1890, she is said to have had "inflammation of the covering of the bowels," and was in bed a month. She first felt the child move about Christmas, and in January she fainted whilst dressing, and had to be carried to bed. She then had pains like labour. These gradually passed away, and at the end of a week she got up. All fœtal movement ceased suddenly on May 8th, and from then till October she noticed she got considerably smaller round the waist. On examination, the uterus was only slightly enlarged, but filling up the pelvis was a large globular, tender, boggy mass. On abdominal palpation a large movable mass was felt, in which distinct parts of the fœtus were detected. Abdominal section was performed on Oct. 12th; the umbilical cord ran down to the pelvis, and was inserted into the boggy mass felt there. The child was lying loose in the abdomen, except that all its upper surface had become adherent to the omentum and to the anterior parietal peritoneum. The child was enclosed in its membranes, but the liquor amnii had disappeared. The placenta peeled out of the pelvis easily, and was found to come from the right Fallopian tube. The patient made an uninterrupted recovery. From the history and specimen removed, Mr. Tait thought the patient became pregnant in July, and then in September, at about the tenth week of gestation, the tube ruptured, giving rise to what was called by her medical man "peritonitis"; the fœtus in the amnion was extruded entire through a rupture in the Fallopian tube, and the entirety of the placenta retained in the tube. The case proves that a living fœtus at ten weeks of age can resist the digestive powers of the peritoneal cavity if the amnion be unbroken. The case explains one of the varieties of so-called "abdominal pregnancies," and probably indicates the true solution of all the cases of this variety.—Dr. HORROCKS asked whether Mr. Tait advised operation as soon as the diagnosis of extra-uterine gestation was established, or whether he recommended waiting until the child was dead or until the full period of gestation had passed. His own experience was in favour of operating as soon as the diagnosis was made, whether the child was viable or not.—Dr. GRIFFITH inquired how Mr. Tait explained the direct adhesions of the omentum and abdominal wall to the fœtus itself, with the amnion sac remaining intact, and pointed out the great difficulty in defining the limits of the tubal wall from other constituents of the wall of the sac, even at so early a period as the fourth month. He did not think the evidence given that the placenta was entirely in the tube at all conclusive; it certainly was most improbable.

Mr. LAWSON TAIT also contributed notes of two cases of Hysterectomy. The first patient was fifty-two years of age, had ceased to menstruate two years ago, and during the two months before Mr. Tait saw her the tumour had grown more rapidly. It reached up to the sternum, and pseudo-fluctuation was distinctly present. When the abdomen was opened the tumour was seen to be a myoma, and fluctuation was so distinct that a trocar was plunged in and six pints of fluid removed. The tumour (which weighed about 5lb.) was clamped and removed. The patient made an uninterrupted recovery. The second case was that of a woman aged forty-two, who had had three children, all the labours being normal. When thirty-seven years old she began to lose profusely and then noticed a substance in the lower abdomen. A large multi-nodular myoma reaching above the umbilicus was found on admission, and the appendages were removed on May 13th, 1888. She reported herself on July 26th, 1890. Menstruation had not recurred, and she felt perfectly well. The tumour was found to have nearly disappeared. Later on metrorrhagia recurred, the uterus was explored for polypi, but none were found, and the endometrium was curetted, with temporary relief. The discharge came on again, and the tumour had again increased in size; so on Oct. 12th, 1891, hysterectomy was performed. The old multi-nodular myoma was hardly to be seen, but a large independent growth of a soft œdematous character had grown to the size of the original tumour. The patient made an uninterrupted recovery. The case was a unique example of a soft myoma springing up after a multi-nodular one had been removed, and Mr. Tait considered that whilst the latter variety of myoma is a disease of menstrual life, the former is not so.—Mr. ALBAN DORAN believed that the œdematous fibroid of women who had reached the menopause or passed that epoch was a special form of tumour. Œdematous fibroid in the sense of œdema of an ordinary fibroid from definite causes was quite another kind of disease. Thus a partly impacted tumour was sometimes removed by operation. A few hours after its removal it would be found shrunken to half its size; the impacted tumour had caused true œdema, which of necessity disappeared for mechanical reasons after the knife had passed through the tissues of the tumour. The "œdematous fibroid" of the menopause was often unaccompanied by any visible cause of œdema; its vessels might be seen passing between its surface and its capsule free from any sign of pressure without or plugging within, whilst its entire mass lay free from any severe pressure in the abdominal cavity above the pelvic brim. These tumours did not lose much by draining off their fluid after removal, though, like all soft tumours, they shrank when immersed in spirit.—Dr. DUNCAN asked

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whether the fluid removed had been examined chemically, also whether the lining membrane of the cyst had been microscoped, as it was known that some of these œdematous fibroids owed their condition (as Virchow had shown) to dilated lymphatics.—Dr. HORROCKS said that in all probability the word "fibroid" included a group of different tumours. We already knew of differences in the clinical histories of these tumours, and no doubt there was a difference in their pathology. In his own experience he found the ordinary hard fibroid a non-malignant tumour, which but rarely caused death, and then only by accident as it were. These tumours might become œdematous, as Mr. Doran had observed, but the œdema was different from that of the so-called soft œdematous myoma.—Dr. HAYES could not accept the conclusion arrived at from the report of the second case. Precise details were wanting. Abdominal tumours had an odd habit sometimes of disappearing and reappearing under the ken even of competent observers. Mr. Tait's teaching for a long time back was clear—viz., removal of the uterine appendages in the case of the hard myoma was frequently followed by its shrinking or disappearing, but in the case of the soft fibroid the operation was valueless. He would now have us believe that not only will the hard myoma shrink, but the soft myoma will originate and grow after the removal of the uterine appendages. He (Dr. Hayes) thought Mr. Tait was mistaken in that the softer fibroid was present when the first operation was performed.—Dr. LEITH NAPIER remarked on the different degrees of hardness found in myomata. Doubtless imbibition of fluid and inflammatory changes in the capsule accounted for conditions differing widely from the degree of hardness generally met with; but if we regarded certain of these soft œdematous fibroids as examples of myxo-fibromata, and recognised that degenerative cystic changes in these might originate general softening in some cases, and in others cause larger cysts to form, it would be a nearer approach to what seemed the true pathology. It was extremely difficult to draw clear distinctions between a soft œdematous fibroma and a true myxo-fibroma. He mentioned a case in which abdominal section was performed in order to remove the uterine appendages, but when the abdomen was opened the central portion of the tumour was found soft and fluctuating, having undergone mucoid degeneration, so that hysterectomy was considered advisable.—Dr. GRIFFITH said there were three well-recognised conditions which may cause enlargement of fibroids after the climacteric—first, simple œdema; second, liquefaction of the constituent muscle cells and connective tissue leading to the formation of large and small irregular, cyst-like cavities, with ragged walls, and generally associated with calcification of other parts of the tumour; and third, the development of true cysts with a smooth glistening wall, but usually without an epithelium. There is a comparatively rare form of soft fibroids which grows much more rapidly than the usual kind, and which contains a large amount of what appears to be lymphoid tissue. All these forms he had exhibited at meetings of this Society, with microscopical sections.—Dr. LEWERS thought that some tumours were included under the name of "fibroid" that had an entirely different clinical history and pathology from the common variety. He had seen two cases in point, where there were large uterine tumours composed of a large number of small cysts separated by fibrous tissue. In neither was there menorrhagia, nor was the length of the uterine cavity increased, though in one of the cases the tumour reached up to the epigastrium. In this case the menopause had occurred a year previously; in the other the patient was a young woman about twenty.

A paper on the Growth of the Placenta after Death of the Fœtus in Ectopic Gestation was next contributed by Mr. LAWSON TAIT and Dr. C. MARTIN. A patient was sent to Mr. Tait with this history: She was twenty-eight years of age, and had had one child two years before. Two months before being seen by Mr. Tait, after having seen nothing for seven weeks, she was suddenly seized with acute pain in the left lower abdomen. Protracted syncope set in, and then the temperature went up, and for some days the abdomen became extremely tender. A fortnight later she was again seized with acute pain, followed by syncope, pyrexia, and general abdominal tenderness, which was most severe in the left iliac region. On examination the uterus was large, irregular, and somewhat fixed, and a firm, tender mass was to be felt to the left of it. There was no history of the passing of decidua, and the patient had no idea she was pregnant. When the abdomen was opened it was found to contain a quantity of old and recent blood-clot. The right appendages were adherent, but otherwise normal. The left Fallopian tube was the seat of an ectopic gestation, and when removed was the size of a large orange. There was a considerable rent in one side of the tube, and on splitting open the gestation sac there was seen to be a small cavity lined with amnion, and containing a very little liquor amnii. Sessile on this amniotic cavity, there being no umbilical cord, was a small fœtus less than an inch in length, much flattened, shrunken, and macerated. The greater part of the gestation mass was composed of placental tissue, infiltrated to a very slight extent with blood-clot. Microscopical sections by Dr. Martin proved that this mass was placenta, and not blood-clot. The authors thought the interesting point of the case was that the placenta had gone on growing after rupture of the tube and death of the fœtus, for it far exceeded in amount that which is normally present with a fœtus in so early a stage of development. The placenta was that of a four months' pregnancy, while the fœtus was only seven weeks old. They thought the case proved conclusively that the placenta, after the death of the fœtus, may in some cases go on growing and be a source of disaster to the patient; for had the pregnancy not been removed by operation, the patient would no doubt have been subject to a third attack of rupture and syncope, and possibly would have succumbed from internal hæmorrhage, and this in consequence not of the continued growth of the fœtus, but of the placenta.—Dr. GRIFFITH first inquired if Mr. Tait, in describing growth of the placenta, referred to the fœtal or maternal, or both portions. [Mr. Tait replied fœtal only.] Dr. Griffith then stated what a difficult task was attempted by those who held similar views—namely, to satisfy themselves at least that the fœtal placenta a part of the fœtus continued to grow after the fœtus itself was dead. It must be remembered that there is greater variety in size in extra-uterine even than in intra-uterine placentæ, and very large ones were well known in cases in which post-mortem growth was impossible. Again, we ought to have undoubted proof of intra-uterine post-mortem growth in cases where the chorion remains attached to the uterus for some weeks; but all the evidence on this point is certainly against the occurrence of any such growth. The cystic degeneration referred to as evidence cannot be accepted in the face of this fact; besides enlargement of villi due to such degeneration is not growth.—Dr. HORROCKS believed it possible for the chorionic villi or placenta to grow after the death of the fœtus. He thought it would be difficult to account for the relative smallness of the fœtus in certain cases of both intra- and extra-uterine gestation on any other hypothesis. When the fœtus was dead it could get no nutrition for itself, owing to the cessation of the circulation, but the chorionic villi were in a different position. They were embedded in maternal structures, and it was not very conceivable that they might derive nutrition from the vessels of these structures, but it was quite certain that they did so in the case of hydatidiform degeneration, where there was great increase in growth, the nutrition for which must come from the maternal vessels, inasmuch as the fœtus was in most cases dead from quite an early period of gestation. He mentioned a case in which he had operated where the fœtus had died so early as to be undiscoverable, and yet where the tumour had continued to increase in size apparently by growth of the chorionic villi.

The following specimens were shown:—

Dr. MALINS: (*a*) Ruptured Extra-uterine Gestation; (*b*) Hæmato-salpinx.

Dr. CULLINGWORTH: Unruptured Tubal Gestation.

Dr. WHEATON: Microscopical Sections of (1) Polypoid Growth from an Infant's Umbilicus; (2) Fibroid Tumour; (3) Endometrium of an Eight-month Fœtus.

Mr. J. R. RADCLIFFE: Uterus Bicornis.

EPIDEMIOLOGICAL SOCIETY.

MAY 18TH.

Dr. JOSEPH EWART, President, in the chair.

The Seasonal Prevalence of Enteric Fever in London.

A PAPER contributed by Dr. Louis Parkes, under the above title, was read by the Secretary in the absence of the writer. He began by saying that the reduction in the death-rate from enteric fever in London from 337 per

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100,000 in the earlier to 150 or 160 in the later years of the period 1870 to 1890—i.e., since it had been officially distinguished from other forms of "fever" observed throughout the country—was doubtless due no less to better domestic sanitation, especially in the dwellings of the poor, than to the improved water-supply and sewerage, which had been for some years previously practically the same as since. But he would confine his observations to London, the enormous population of which minimised the disturbing effects of local outbreaks due to accidental causes, and where the largest aggregation of persons living under nearly identical conditions was to be found, his purpose being to inquire into the relations, if any, between the greater or less prevalence of the fever and the special meteorological conditions and rainfalls of the different years. More exact information would in the future be available through the notification of cases, but the death-rate of enteric fever showed so constant a curve that it was easy to determine the average number each week over a long series of years, and drawing a base line for the mean to represent the percentage of weekly excess or defect; while the duration of the disease and of the incubation period being known one could infer the season of greatest activity. The curve, as drawn by Buchan and Mitchell, showed a rise from its lowest point at the end of June, crossing the mean in August, suddenly rising in October to its maximum, falling slowly in November, rapidly in December, recrossing the mean line in January, and, with the exception of short rises in February and March, sinking continuously till the end of June; the highest point being 40 per cent. above, and the lowest 30 per cent. below, the mean. A temperature above 60° F. being as a rule necessary for the development of the highest degree of virulence in the enteric bacillus, whether in the soil or water, it was but natural to expect that, as Dr. Murchison had maintained, the hottest seasons would be the years of greatest, and the coldest of least, prevalence. Hot seasons were mostly dry, and wet ones cold, but heavy rains, the weather being warm, might pollute wells in rural districts or flush the sewers in towns, which would explain the discrepancies between the actual prevalence in London and the provinces and the temperature in certain years. Giving three weeks for the incubation and the same for the duration of fatal cases, its greatest activity would be in September. The highest temperature of the soil was indeed reached some three weeks earlier, but the interval represented the period of development and general diffusion of the bacilli, which retained their activity for some months after the temperature had begun to fall, the effect of cold being far less marked on enteric fever than on diarrhœa. He showed a series of tables in which the years were arranged in order of the temperature, the rainfall, and the prevalence of fever in the last twenty weeks of each; and another in which they were grouped as A, years conforming well to the rule which asserted a relation between the prevalence of enteric fever in the autumn and the temperature and rainfall of the preceding summer; B those conforming approximately to this rule; and C those not conforming thereto either (1) of low summer temperature, but much autumnal fever, and (2) of high temperature and little fever. Under A were included 1887, 1873, and 1888. Under B 1877, 1886, 1874, 1880, 1875, 1882, 1876, and 1885. C (1) included 1881, 1889, 1883, 1871, and 1879; and C (2) 1870, 1878, 1884, and 1872. The ascending curve crossed the mean line in July in three years—viz, 1870, 1884, and 1886, so that the autumnal excess of deaths was really greater than shown by the last twenty weeks only, and 1870 and 1884 were more conformable to the rule than they appeared to be; but the temperature of these summers was not exceptionally high. In eight years it crossed in August, in eight in September, and in one early in October. No positive conclusions could be drawn from a series in which the exceptions were nine and the examples of the rule eleven; but this was probably explained by the equability of our climate, the mean summer temperature of the hottest, 1887, having been only 5° F. above that of the coldest, 1879, and its maximum 8·6° above the mean of the maxima. Even 1881, with the enormous mortality of 74 per cent. above the mean of the twenty weeks, was a year of average temperature, and with a rainfall for that period of only one inch in excess. The differences in the rainfalls were much greater, but did not seem to exert any marked effect on the mortality. There were, therfore, he believed, other influences to be investigated, some favourable and others antagonistic, which in this country served to conceal the influence, however real, of temperature and rainfall on the seasonal prevalence of enteric fever.—Dr. LONGSTAFF, criticising the paper, said that Dr. Parkes had not taken the best means for arriving at a sound conclusion in assuming that all other conditions were alike throughout the period of twenty years, for the maximum mortality from nearly all fevers was in 1869, and there had been a general decline to a minimum within the last few years. Dividing the period in question into three—viz., the ten years 1869–1878, the six 1879–1884, and the seven 1885–1891,—the mean annual deaths in each were: from typhus fever, 293, 63, and 15; from scarlatina, 347, 117, and 50; and from enteric fever, 903, 898, and 602 per 100,000. During the first of these periods enteric fever was nearly stationary, while the others were declining as rapidly as in those that followed. The maxima were: for typhus fever, 716 in 1869; for scarlatina, 615 in the same year; and for enteric fever, 1069 in that and 1033 in 1878, or the last of the first decennium; while the minima were: for typhus fever, 8 in 1891; scarlatina, 35 in 1888; and enteric fever, 538 in 1889. The identity of the curves, irrespectively of the actual number of cases in any year, showed that season had a positive and real influence; while the decline in all fevers, though extending over different periods, proved that factors other than meteorological—perhaps social conditions no less than sanitary improvements—were also at work. These were facts that could not be gainsaid, however unable we might be to explain them. The "mean temperature" of the year or season was worthless; far better would it be to take the number of "hot" and "cold" days in any period, understanding by "hot" days those in which the mean temperature was over 60°, or preferably 62°, and by "cold" under 34°.—In reply to Dr. Pringle, Mr. MURPHY admitted that there was more enteric fever among the populations supplied with Thames water than in the district of the Kent Company, but that water was not the only factor, and the social conditions of Whitechapel and of Blackheath were very different.—Dr. WILLOUGHBY remarked that Dr. Parkes had discussed the factors of temperature and rainfall in the current and preceding years, but had wholly ignored their resultant, the level and fluctuations of the ground water, the influence of which on the soil poisons of enteric fever, cholera, and diarrhœa was undoubted; and which, as Pettenkofer had shown, explained the prevalence of the same disease at different seasons in different places, especially of cholera in Europe in the warm, and in India—for example, Calcutta—in the cool season. The connexion between meteorological conditions and the spread of scarlatina was far more difficult of explanation, yet its seasonal prevalence was at least as clearly marked, and what was most remarkable, the curves of mortality from scarlatina in London and in New York, though equally constant, were the converse of each other. These were problems that were capable of solution if we could but discover the factors, since they were evidently the result of laws and not of chance.

Notices of Books.

Essentials of Bacteriology: being a Concise and Systematic Introduction to the Study of Micro-organisms for the Use of Students and Practitioners. By M. V. BALL, M.D., late Resident Physician, German Hospital, Philadelphia; Assistant in Microscopy, Niagara University, Buffalo, New York. With Seventy-seven Illustrations, some in Colours. Philadelphia: W. B Saunders. 1891.—This little book contains in a very condensed form much of the information that is required by the student of bacteriology. It gives the more recent methods, keeping very well up to date in this respect, but does not always give them sufficiently definitely or fully to enable one who is ignorant of bacteriology to make use of them, though it must be said that in most instances this is not the case. A short and accurate account is given of the more important pathogenic and non-pathogenic organisms. Yeasts and moulds are treated of, the hæmatozoa of malaria are considered along with the bacilli that are described in that disease, and then a short account of the examination of air, soil, and water is given. Altogether this is a useful

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little book for the student of bacteriology who has not much time to devote to the more elaborate descriptions given in the larger text-books. We are sorry for Dr. Dixon's sake that the author again puts forward a claim to priority as regards Koch's method of treating tuberculosis, as anything published by Dr. Dixon previously to Koch's published statements was so exceedingly sketchy, so general and theoretical, and in some cases manifested such a very crude knowledge of certain bacteriological facts, and contained so little definite information, that we should have thought that this matter had been better left in the background. We should also like to draw attention to the fact that the source of some of the drawings contained in this book is acknowledged, but in many instances no such acknowledgment is made, at least five drawings being taken from one source without that source being mentioned, although two others taken from the same book are acknowledged. This holds good in several other cases, though we have taken the trouble to look up one book only for the complete set. It would be far better to allow students to refer to the original sources in all cases, and would certainly not detract in any way from the merit of the work.

THE March number of the *Journal of Comparative Pathology and Therapeutics* contains several very interesting pathological papers. One on Pyæmic Umbilical Infection in Foals by W. Gmelin is of considerable importance. It is pointed out that foals succumb to pyæmia at an average age of about twenty-six days, that the disease becomes apparent about the seventeenth day, and that the peritoneum is very frequently not affected. The essentials for treating this condition are cleanliness immediately after birth and the continued use of antiseptic methods. An important paper by Professor M'Fadyean on the Virulence of the Blood and Muscles in Tuberculosis would lead us to conclude that both blood and muscles of tuberculous animals, except where the tuberculosis is very extensive, are innocuous. Of eighty-four experiments recorded, Professor M'Fadyean thinks that only fifty-five can be accepted as unobjectionable, and of these fifty-one gave negative results; in the remaining four only was there any evidence that tuberculosis followed inoculation with meat juice; and Professor M'Fadyean points out that some even of these positive results may be due to experimental error. Dr. Hunter's contribution to the discussion on Phagocytosis and Immunity is here published; an account of an Interesting Abnormality in a Fœtal Lamb is given; and Messrs. George R. Murray, B.A., M.B., and Clement Stephenson, F.R.C.V.S., contribute a paper on Swine Erysipelas, which is supplementary to Professor M'Fadyean's paper on a similar subject published in the December number of this journal. Other interesting items are "the prevalence of tuberculosis amongst cattle in Great Britain," "on an anthrax [illegible] sold for human food," and "on tuberculosis in [illegible] and goat"; whilst the abstracts and reports [illegible] of considerable interest to both the clinician [illegible] number is certainly one [illegible] read for some time.

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THE LANCET.

LONDON: SATURDAY, JUNE 25, 1892.

AS medical journalists, we hold aloof from the strife of parties, reserving our sympathies for whatever political organisation is truest, for the time being, to that best of all programmes, "Salus populi, suprema lex." As citizens, we exercise our right of private judgment and give our "vote and interest" accordingly. In this latter sense the profession takes as keen and as intelligent a part in public affairs as any body of men in the community. "Every man," said COLERIDGE, "is by nature a Parliamentarian or a Royalist, a Whig or a Tory, a Liberal or a Conservative," and the remark has its justification in medical annals no less than in those of parallel callings. THOMAS SYDENHAM, "the English HIPPOCRATES," was all for Puritan and Parliament; WILLIAM HARVEY, "the COLUMBUS of physiology," ranged himself with King and Cavalier; JOHN ARBUTHNOT, who, SWIFT sarcastically observed, "knew his art but not his trade," according to SAMUEL JOHNSON was an ideal Jacobite and High Churchman; RICHARD MEADE, "the great and good," would have died for the Hanoverian dynasty and the Protestant succession. Late in last century, medicine gave to Whig politics the vindicator of the French Revolution, Sir JAMES MACINTOSH, and in the first half of the nineteenth it gave to Toryism Sir ASTLEY COOPER and Sir ROBERT CHRISTISON, and to advanced Liberalism, long before such Liberalism was fashionable or even safe, THOMAS WAKLEY. Equally with every other vocation in life that of the healing art is divided in politics, and, if it has hitherto contributed comparatively few representatives to Parliament or office, the explanation is to be sought in a sense of duty honourable to itself and to its professional ideal, certainly in no incapacity for dealing with affairs or for enlightened and philanthropic legislation. Of late years the medical profession, more than any other, has undergone profound and far-reaching developments. It is enrolling in its ranks an ever-increasing number of votaries who adopt its education as the most humanising the age can offer—men who assume its qualifications with no fixed intention to practise, but simply as a guarantee of culture and of humanistic knowledge available in careers hitherto not opened up. The vast domain of public health—the hygiene of the social organism—affords one of those outlets for medically trained ability and enterprise, whether in sanitary engineering, in hospital extension and administration, in food protection, or in the wide and eminently debatable field of preventive or prophylactic medicine. Add to this the number of duly qualified practioners who retire at an age still compatible with sound and active headwork not only in municipal and social, but even in Imperial departments, who have much valuable knowledge, experience, and capacity to put at the disposal of the State, and who only require the opportunity to give direction and practical force to national legislation, and we have established a case for the accession to Parliament of a medical representation hitherto—if not entirely excluded—at least unduly denied its proper numbers and weight. Long before the appearance in contemporary civilisation of this ever-multiplying contingent of non-practising medical men, or of emeritus-practitioners still in the prime of their mental energies, we have had evidence, mainly, it is true, from abroad, of the value of such representation in national Legislatures. Continental Parliaments can point to medical statesmen not inferior to those sent forth from the traditional sources of political supply. A VIRCHOW in Berlin, a LANZA and a BACCELLI in Rome, a RIBERO in Madrid, have added to the deliberations of the Lower Chambers of Germany, Italy, and Spain a capacity for affairs, a power of conceiving and carrying out salutary innovations, to which these countries owe much of whatever prosperity or advancement they can boast; while in their Upper Chambers or Senates the infusion of distinguished physicians and surgeons is still larger and more effective, so as to give outline and colour, body and direction to legislation which, but for such an element, would be proportionately less sound, less practical, and less complete.

In all Parliaments there has too long been a plethora of the legal or forensic calling. In days when the gift of public speech or of dealing with private or public interests was supposed to be a peculiar possession of the barrister or practising lawyer, there was some reason for such a preponderance of that profession in the Legislature. But these days are past, and the "gift" in question is shared in due proportion and effectiveness by other professions—not least by the medical. Practice gives proficiency; and we are sure that to many a retired professional brother or medically trained man of means and leisure the opportunity only is wanting to evoke from him an amount of useful Parliamentary work hitherto looked for in vain from the traditional member of Parliament. We hope, therefore, to see in the general election now imminent a strong contingent of such candidates; and we know that all parties in the State can point in their ranks to men of the type we mean—men able, willing, and ready to put themselves in nomination for constituencies of their own political colour. But there is no time to be lost. Seats where the sitting members or adopted candidates are unopposed are daily becoming fewer and fewer. The ambitious barrister or the monied aspirant to social position are already in great force at the front, and the less pushing and more truly public-spirited candidate is in danger of being elbowed aside or relegated to a "back seat." The constituencies themselves are deeply interested in the quality of their representatives; but in many cases they are driven to put up with what they can get. Let it be from no fault of the profession, abounding as it does in eligible candidates, if the area of choice is too restricted and if representatives of the notoriously familiar type are returned, to the exclusion of men whose culture, whose experience, whose sympathies, and whose capacities have led them to the adoption of such watchwords as "Sanitas sanitatum, omnia sanitas," or its practical culmination, "Salus populi, suprema lex."

A PAMPHLET which has recently been issued, entitled "The Bird that laid the Vaccination Egg,"[1] well exemplifies

[1] P. S. King and Co., 5, King-street, Westminster.

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the present phase of so-called "scientific" opposition to vaccination; indeed, its author, Mr. J. H. LEVY, gives to his paper the alternative title, "An Excursus on Scientific Authority." The burden of the story is a curious one, relating as it does to a point in the natural history of the cuckoo. Assailing, in the first instance, the "brutally enforced doctrine" which is based on JENNER'S discovery, and quoting Dr. CREIGHTON on what the latter terms this "nonsensical" doctrine, together with his sarcastic reference to "the standard of logic in the medical profession," the author proceeds to show that the success of JENNER'S theory rested on his scientific reputation. This reputation, in turn, rested on JENNER being an F.R.S., and this distinction was due to a paper which JENNER had read before the Royal Society in March, 1788. On the truth or otherwise of the points adduced in this paper the value or worthlessness of vaccination would, according to the author, consequently appear to depend; hence the paper is discussed and largely quoted in detail.

Briefly summarised, JENNER'S paper announced the discovery on his part of the circumstance that after the hatching of the cuckoo's egg in the hedge sparrow's nest, the newly hatched cuckoo proceeds to dislodge from the nest both the young hedge sparrows, as soon as they are hatched, as well as the unhatched hedge sparrow's eggs. The mode of accomplishing this was explained by JENNER to be very curious. The little animal, he says, "with the aid of its rump and wings contrived to get the young bird upon its back," the process being facilitated by the existence of a hollow in the middle of the back; and the bird or egg being thus safely deposited, the cuckoo clambered to the edge of the nest, and by means of a jerk cast its burden overboard. More than a century has elapsed since this more than "Irish landlord power of eviction" was, according to Mr. LEVY, first discovered, and though its truth has been generally accepted, yet Mr. LEVY finds himself able to dispose of it and by implication to dispose therefore at the same time of the theory of vaccination as a protection against small-pox. Other authorities, including DARWIN himself, have quoted or adopted JENNER'S view as to the ejection of the young hedge sparrow, but at last "the scientific pet of a century ..... is gathered to the category of extinct animals," and Dr. CREIGHTON, who has found out JENNER in so many other enormities, has "the chief honour of the execution ..... of cock-robin."

JENNER had declared that his statement was based on actual observation. He had announced that he could "distinctly see" what was going forward in the nest; but Dr. CREIGHTON, who is quoted by the author, is stated to have shown that what JENNER "said he saw" is "incredible"; that, having discovered "the untrustworthiness of JENNER on the vaccination question," he was led, apparently in a similar spirit of inquiry to that displayed in his previous work on JENNER, to examine the credentials of the "cuckoo story," and, according to Mr. LEVY, he found out, as the result, that this story, with its explanation founded on scientific authority for a century, had been based upon the imagination of a boy whom JENNER had employed to see what he had declared that he had seen himself, and that it is, in fact, nothing but "an urchin's hoax and a charlatan's lie." Then follows a triumphal peroration on Dorsetshire milkmaids, superstition, vulgar imposture, absurd credulity, and bias, and vaccination has evidently received the deathblow which everyone had hitherto imagined had been the lot of the unfortunate hedge sparrow in its fall from the nest to the cruel earth below. *Sic transit gloria mundi.*

We had reached this stage in Mr. LEVY'S singularly conclusive pamphlet, when we took up "The Zoologist" of May, 1886, which is edited by Mr. J. E. HARTING, F.L.S., F.Z.S.,[2] and which, oddly enough, contains a paper by Mr. JOHN HANCOCK, entitled "Facts in the Life History of the Cuckoo." Mr. HANCOCK tells in great detail a series of his own observations as to a hedge-accentor's (hedge-sparrow) nest in which he found, besides four eggs of the hedge accentor, one cuckoo's egg, the nest being in a bramble-bush near the bottom of a sloping terrace at Oatlands. These observations were continued from June 17th to July 5th, 1884; they record the hatching of the cuckoo's egg on June 27th, followed next day by the hatching of two young accentors. With a precision, that is somewhat aggravating after reading Mr. LEVY and Dr. CREIGHTON, the author proceeds to explain that at a few minutes after 5 A.M. on June 28th the young cuckoo succeeded in getting one of the accentor's eggs "on its back in the most clumsy manner," and after a series of efforts the egg "was put on the edge of the nest by the young cuckoo in my presence," and ultimately cast out into the bush below. A young hedge sparrow was next tackled, the cuckoo "moving its wings like hands;" and, after several unsuccessful struggles, the young hedge sparrow was "about 11 o'clock ..... put over the edge of the nest" by the young cuckoo. But, unfortunately for the disposal of the vaccination theory, Mr. HANCOCK'S observations were shared by others, for he explains that the second egg was pushed out of the nest by the young cuckoo "at 1 P.M., in the presence of myself, Miss ABBS, and my sister, whom I had specially invited to come and see the proceedings of the young cuckoo." Summarising his account, Mr. HANCOCK explains that the eggs of the cuckoo and the accentor "were found in the nest of the accentor on June 17th. On Friday, June 27th, the cuckoo's egg and two eggs of the accentor were hatched. On Saturday, June 28th, one attempt to put out accentor's egg did not succeed. At 10.30 A.M. first egg was put out of nest. About 11 A.M. the first young accentor was pushed out. At 1 P.M. the second egg was pushed out in the presence of three witnesses. The last of the lot, the second young accentor, was removed between 1 and 3 o'clock P.M., during the time I was away or absent."

We ought, in justice to Mr. LEVY, to say that in issuing his pamphlet he does not profess to be either a student of natural history or of medicine, but introduces himself as a "lecturer on logic."

THROUGH the courtesy of the Agent-General for the Cape of Good Hope we have received a copy of a *Gazette Extraordinary*, dated May 18th, 1892, issued by the Government of that colony. This *Gazette* contains the official promulga-

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tion of "The Leprosy Repression Act, 1884," and a statement of regulations made under the Act. The object of the Act is thus stated: "To check the spread of the disease known as leprosy." In the first paragraph of the Act there is a very important statement; and its importance is not lessened, but is rather increased, by the fact that it has recently been asserted that leprosy tends to diminish with the spread of civilisation and, consequently, of sanitation in countries prone to this disease. This is the statement: "Whereas the disease of leprosy is prevalent in this colony, and has lately been spreading and continues to spread ....." Here, then, is an official announcement of the fact that leprosy "continues to spread" at the Cape of Good Hope. The Act provides that when it is certified by any "duly qualified medical practitioner" and by a "field cornet," or justice of the peace that any person is a leper, "and that the fact of such person being at large is likely to spread such disease, the Governor (of the colony) may, by warrant under the hand of the Colonial Secretary or Under Colonial Secretary, order that such person shall be removed to such asylum or hospital as he shall appoint, to be there detained during the Governor's pleasure, and kept apart from contact with all other inmates of such asylum or hospital who are not afflicted with the same disease. Provided always that every such person, while so detained, shall have the liberty and privilege of seeing his friends and legal advisers at all reasonable times under such regulations in force for the time being as the Governor may approve in that behalf." The Act also gives power to compel the keeping of male and female lepers in separate asylums; provides for the maintenance out of the colonial revenues of all pauper lepers and the making by the "superintendent or keeper" of the hospital or asylum of a special agreement with any well-to-do leper which would require such a leper to pay his own expenses while he is detained in the asylum; prescribes the payment of fees to medical men employed by the proper authorities under this Act; and the giving to the local authority, or to any resident magistrate, by all district surgeons and medical officers," when they are requested so to do, of "any information which may be required in regard to the disease referred to in this Act. ..... Power is given to the Governor to at any time make, alter, and amend such regulations as he may deem to be advisable for the better and more effectually carrying out the provisions of this Act."

The Governor, with the advice of the Executive Council, has made, within the last five weeks or so, some important "General Regulations" under the provisions of the "Leprosy Repression Act." It now is the duty of "every field cornet and police-constable forthwith to report to the resident magistrate of the district the existence of any case of leprosy which may come to his knowledge." Europeans who are lepers are to be kept in wards into which "native or coloured" lepers are not allowed to go; the sufferers are to be classified "as far as possible" according to their condition of disease; notice of the serious illness or death of a leper is to be at once sent to his nearest relative by the medical officer in charge of the case. Visitors are not to be allowed "to enter any ward set apart for lepers or to visit a leper" without a permit from the medical officer in charge. The only person who has right of private access to a leper is his legal adviser.

To the very stringent legislation here set forth the leper in the colony of the Cape of Good Hope must now submit. As we read the Act, it is still legal in the Cape Colony for a leper to remain in his own home, provided the local authorities do not take action in his case and remove him to an asylum or to a hospital. It seems, however, very unlikely, judging from the tone of the Act, that the local authorities will allow lepers to remain in their own homes unless the authorities are convinced that while in his own home the leper will be carefully isolated and properly attended to in everything necessary to his own well-being and to the protection of his neighbours against the infection of leprosy. Here, we suspect, the authorities at the Cape will find some difficulty in carrying out the Act, both as to its letter and its spirit. But we must not forget that the colony is a community strong in the belief that leprosy, whether aided by insanitary surroundings or not, can only make new victims by virtue of the fact of its own infectiveness. Granted that the people have clearly apprehended the meaning of the inevitable consequences of such a belief as this, and have determined to carry their belief into action, then, in this event, it would be indeed venturesome to attempt to measure the amount of success which may crown their efforts. Much—practically everything—will depend upon how this Act is enforced at the Cape. In the interests of the healthy community, and of the lepers themselves, we hope the Act will be strictly carried out now that the people of the colony have decided to try the effect of compulsory segregation in their heretofore unsuccessful attempt to check the spread of leprosy among themselves.

We do not gather from the wording of the Act that the authorities at the Cape have reserved to themselves under it any power of inflicting definite penalties in the case of persons who break the law which it enacts, or even when its provisions are openly set at defiance. Perhaps the authorities have at command some means, which, however, do not seem to be mentioned in the Act itself, wherewith to enforce obedience to its requirements. Should this prove to be a weak point in the working of the Act, we would recommend the authorities at Cape Town to peruse the Act touching the question of the prevention of leprosy which is now in force in the colony of New South Wales. This Act is given in full in Dr. THIN'S excellent work on "Leprosy." The New South Wales' Act seems admirably suited to the purpose which its authors had in view—namely, to enforce, in the most thorough way, the segregation of lepers, and to punish promptly all persons attempting to evade or to thwart the working of the Act.

In the Cape of Good Hope and in New South Wales we see the principle of the segregation of lepers being rigidly enforced. Among our fellow subjects who follow this line of treatment in dealing with leprosy there is no evidence of any tendency on their part to lose faith in what they are doing in that direction. They believe that leprosy spreads among healthy people because it is an infective disease, and they decline to postpone to an indefinite future the possible eradication of the disease by trusting to obtain this end by gradually improving their personal hygienic surroundings. The inhabitants of the Cape Colony have leprosy at their doors. We are told there are

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not wanting there certain sad examples of the truth that no person, in any grade of society, in a country where lepers are free to go about as they please, is safe from attack by this most horrible disease. It is not for us in England to judge harshly of people circumstanced as are the Cape colonists with regard to leprosy or lightly to blame them for enacting severe laws against the leper. Many people are always eager to show with what calm, philosophical resignation they can regard the dangers and sorrows which, leaving them untouched, fall heavily upon their neighbours. Shall we be reproached for such an expression of opinion as this when to-day in British India lepers are allowed to act as salesmen in the bazaars and to move about just as they please in the crowded thoroughfares of Indian cities?

IT is the experience of the Council of the Metropolitan Hospital Sunday Fund that the amounts collected throughout the metropolis at its various places of worship are not all gathered in at the Mansion House for some week or two after the appointed day. Many causes contribute to this delay, among others the desire on the part of some of the authorities to afford an opportunity of contributing to such members of their various congregations as may have been prevented from taking part in the good work at the appointed time. Such delays it is quite impossible to regret, but it is none the less a consequence that not for some considerable time after the taking of the collection—not, indeed, until the public interest has begun somewhat to wane—can the result be ascertained. We are, however, very glad to learn from the Mansion House and from those gentlemen who have kindly furnished us with particulars of their Hospital Sunday collections that so far as it is at present possible to forecast the result which the next few weeks will bring to light it promises to be a favourable one, and it is possible to be sanguine that the collection of the present year, if it does not realise all that has been asked for or even all that has perhaps been hoped for, will compare very favourably with the past. It is, however, a matter worth the consideration of all whom it concerns whether something more cannot be done to bring home the claims of this fund to the minds and consciences of Londoners than is done at the present time. At the meeting which was held at the Mansion House on the Friday in last week great stress was laid—and very properly—upon the responsibilities of the press in regard to this matter. The pulpit has proved itself to be a most efficient organ for the diffusion of information concerning the needs of the metropolitan hospitals and the presentation of their annual appeal to the congregations of the metropolis. But the success of the pulpit cannot absolve the press; on the contrary, it rather tends to show how great is the opportunity which, for the most part, our contemporaries systematically neglect. But though too often overlooked, the opportunity is not wholly neglected, and we have noted with singular pleasure that several of our more influential contemporaries have this year used their influence in the promotion of this most worthy object. This was notably the case with the *Daily News*, which, on the Thursday preceding Hospital Sunday, published a leading article that cannot well have failed to produce an effect upon the Sunday's offertory. We trust that another year may witness a large development in this direction, and that the press of the metropolis will acquit itself of the responsibilities of its position in a way that will leave little, if anything, to be desired. The fact that a matter of so great importance should have awakened only an inadequate amount of public interest is partly, no doubt, to be accounted for by the circumstance that London is so vast as to be hardly conscious of its essential unity, and that, being the metropolis, it is apt to be so much occupied with matters of imperial concern as to relegate its own local matters, even though matters of the greatest importance, to a subordinate position. These causes have conspired to affect—and prejudicially to affect—every department of the municipal life of London, and perhaps no surprise ought to be felt that its hospitals should suffer in common with practically all the institutions in which municipal life finds expression and organisation. But, on the other hand, there has in recent years been a very remarkable growth of the sense of corporate unity throughout the metropolis, and improvements in its municipal government realised and promised bear testimony to the reality and importance of this awakening. It would be a strange and a hard case if the hospitals alone should profit nothing by the higher organisation and better government of London, and we refuse to believe that the quickened sentiment and the awakened interest which have done so much in other directions are not capable of being turned to good account in this direction also. The value and efficiency of forces of this kind when directed to a good end have been demonstrated over and over again, and seldom demonstrated in any more striking way than by the very movement now under discussion. Twenty years ago it was a distinctly unusual thing to have a collection in a place of worship for the benefit of any hospital, and in the metropolis a thing not yet heard of that a collection should be made for the benefit of hospitals in general. To-day such a collection is not only an established institution, but it is one that yields a definite revenue that can be calculated with some nicety and relied upon with ample confidence. This great result has been brought about by organising the clergy for the purpose. More recently THE LANCET has been instrumental in securing for this movement a large measure of interest and support among our professional brethren in the metropolis, and we trust that the effort which it has been both our privilege and our pleasure to put forth on behalf of the movement has assisted in some measure to enlist the sympathy and aid of not a few beyond the circle of our ordinary readers. By means like these a great result has been brought about and one which we can all contemplate with a large measure of satisfaction. It is, however, impossible not to perceive that if the people of London could be really awakened to an adequate sense of what are the needs and what the services of the hospitals established in their midst, we should see a development of the Hospital Sunday movement that would place their work on a new and very different footing from that upon which it is at present carried on. There is one, and only one, voice which can effectively supplement for this purpose the

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agencies at present engaged in urging the case for the sick poor and that is the voice of the metropolitan Press. This view is one to which it will be our duty to recur at a future time. We indicate it at the present moment because it may well be supposed that on the morrow of Hospital Sunday everybody—not excluding the journalist—is in the humour to consider, and consider favourably, any suggestion which relates to the success of a movement to which London is so deeply committed, alike by interest and profession, as the adequate maintenance of its hospitals and, as a means thereto, the liberal support of the Mansion House Fund.

Annotations.

"Ne quid nimis."

THE REGISTRATION OF MIDWIVES.

THE following is the report of the Select Committee of the House of Commons appointed to consider the question of the compulsory registration of midwives:—"Your committee have sat six times, and have taken most valuable and important evidence from medical men and practitioners in various spheres of practice both in favour of and opposed to the registration of midwives, and also from trained and experienced midwives. This evidence has shown that there is at present serious and unnecessary loss of life and health and permanent injury to both mother and child in the treatment of childbirth, and that some legislative provision for improvement and regulation is desirable. They have also had evidence showing that there is a wide field for training in midwifery now unused connected with parish infirmaries and home practice in populous places. Their inquiries have been cut short by the approaching early dissolution of Parliament, and they therefore report the evidence and recommend a continuation of the inquiry in the next session of Parliament." In the draft report which was submitted by Mr. Rathbone there was a paragraph to the effect that "the evidence taken so far is strongly in favour of some sort of certificate, register, or licence." The committee, however, decided to strike out this paragraph. We hope to be able shortly to place before our readers an exhaustive analysis of the evidence given before the committee by the various witnesses.

THE ELECTION TO THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THERE are no less than ten candidates for four seats on the Council of the Royal College of Surgeons. Two—Mr. Thomas Smith and Mr. A. E. Durham—are seeking re-election, and the remaining eight—Mr. George Cowell, Mr. Howard Marsh, Mr. J. McCarthy, Mr. A. O. MacKellar, Mr. Henry Morris, Mr. Warrington Haward, Mr. John Tweedy, and Mr. William Anderson—are contesting the two vacant seats. Both Mr. Thomas Smith and Mr. Durham belong to large hospitals, where they are deservedly popular, and can command a considerable personal following. Mr. Thomas Smith is also well known as a liberal-minded and progressive member of the Council, where he has done good service in counteracting influences which have not tended to unite the constituency of Fellows or to bring them into harmonious relations with the Council of the College. There is, therefore, every prospect that Mr. Thomas Smith will be returned—and deservedly returned—at the head of the poll, and if so perhaps he may be induced to reconsider the decision at which he is known to have arrived not to accept the office of President of the College. Mr. George Cowell's supporters on a previous occasion were not sufficiently numerous to make us sanguine that he will be successful now; but his views are substantially in accordance with those of the more enlightened section of the Fellows, and we should be glad if he secured a seat upon the Council of the College. Mr. MacKellar and Mr. William Anderson seem to be standing rather as champions of the interests of St. Thomas's Hospital than of the Fellows. Mr. Howard Marsh, Mr. Warrington Haward, and Mr. J. McCarthy are to some extent "dark horses," but as two of them are members of the Court of Examiners, which has already six of its members on the Council of the College and the other has been mentioned as the nominee of the conservative element in the Council, we must regard them as sympathising at all events with official views of College politics. The two remaining candidates are Mr. Henry Morris and Mr. John Tweedy. Mr. Henry Morris formerly belonged to the Association of Fellows, and his views are generally in harmony with those advocated by the Association at the present time. The main point of difference concerns the election of the President of the College, which he in common with many others would wish to see retained in the hands of the Council; but the election of the President by the Fellows can scarcely be regarded as within the immediate range of practical politics. The cardinal point of all reform so far as the Fellows are concerned is consultation of the Fellows by the Council on all important matters, and, as Mr. Morris is strongly in favour of this course, he ought to be supported by the members of the Association of Fellows and all who desire to see the Fellows acquire their proper influence in collegiate affairs. Of Mr. John Tweedy it is impossible to speak too highly. No one is better acquainted with the past history of the College and with all the details of its constitution. No one possesses a warmer sympathy with the legitimate aspirations of the Fellows of the College or is more capable of giving expression to his views effectually in the Council. The Fellows are largely indebted to Mr. Tweedy for the advantages which they have recently gained from the Council of the College and it would only be an act of justice and gratitude if the electors returned him to the Council in close proximity to Mr. Thomas Smith. The influences which are at work in a College election are very various and it is impossible to exclude secondary and even tertiary considerations. There is a school vote, a personal vote, a provincial vote, a sentimental vote, a professional vote, a canvassed vote, often promised without due consideration, and a party vote, and of these several take precedence of the vote that is given to a candidate because his views of College politics are in accordance with those of the elector. It is this which renders the result of any election at the College uncertain and which prevents the election from being a real test of the opinions of the electors on the collegiate questions of the hour. It is this which gives an advantage to official candidates, for, generally speaking, they belong to the schools which are numerically the strongest. Nevertheless, we have faith in the ultimate triumph of the principles which we have upheld for so many years and, if the electors at the College desire to see those principles prevail, they will return Mr. Thomas Smith, Mr. John Tweedy, Mr. Henry Morris, and Mr. George Cowell to the Council by very substantial majorities over candidates whose opinions have never been expressed or ascertained.

HOME: RURAL, URBAN, OR SUBURBAN?

A VARIETY of excellent reasons have contributed to the formation of the common opinion that it is good for persons engaged in city business houses during the *day* to spend their hours of rest amid the healthier surroundings of a

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rural home. Adults are, in some ways, gainers by the exchange, and, in a much greater degree, so are their children. The smiling cottages and villas which are springing up round every large town possess evident advantages over many older street dwellings. In and around them there is greater cubic air space, they are better lighted and ventilated, even the less pretentious have their baths with an ample water-supply, and domestic sanitary arrangements, if often imperfect, are usually much more in accord with scientific rule. Last, and far from least, in importance are the benefits conferred by freer and purer air and out-door recreation. There is little wonder, then, that children especially thrive among such favourable circumstances. The picture is a bright one but it would not be real without some shadows. These, though fortunately not such as to overcloud the whole, are still not without a decided influence upon its general tone. One in particular cannot fail to attract notice. We might call it an effect of distance. It is, we must admit, largely remediable, and even self-adjusting. It consists in the frequent inconvenience incurred by railway journeys to and from school or business. It is not altogether easy to recognise at first sight the effect of this little cloud upon the landscape. The children of a family which has migrated are not much affected by it, nor are the majority of men and women while still in the vigour of their youth. The case of the parental breadwinner of middle age is different. For him the change implies the addition of various small worries to those which form his daily environment. There is the morning bustle, with its hastily swallowed meal, and its rush to catch an early train; and again the push to finish work in time to begin, perhaps at a late hour, the return journey. These may seem to be mere trifles, as they are if taken severally, but they are such as tell decisively against health and temper during years of repetition. We have often questioned whether the grey hairs thus prematurely added are fully compensated by the freshness of sleep and of Sunday rest in a relatively pure atmosphere, and we would say that the privilege is often too dearly purchased at its cost. Doubtless it is also often preferable, though not in every case, to life on a city flat. Health and comfort in our opinion, however, are more wisely sought by those who follow amiddle course. Life in some suburb near the scene of business activity affords a better solution of the difficulty as to atmosphere and sanitary convenience. Under no ordinary conditions of rural amenity would we exchange for this the rush and rattle of a tedious and often repeated railway journey between town and country.

THE BRITISH MEDICAL ASSOCIATION.

THE sixtieth annual meeting of the British Medical Association will take place at Nottingham from July 26th to 29th. The President-elect is Mr. Joseph White, F.R.C.S. Edin., consulting surgeon to the Nottingham General Hospital. Dr. James Cuming of Belfast will deliver an address in Medicine; Dr. W. H. Hingston of Montreal one on Surgery; and Dr. Sims Woodhead of London one on Bacteriology. In the Section of Medicine (Dr. W. H. Ransom, President) there will be special debates on Peripheral Neuritis, and on the Treatment and Prognosis of Ascites. In the Section of Surgery (Mr. J. Croft, F.R.C.S., President) there will be debates on the Surgery of the Thorax, the Surgery of the Liver and Gall-bladder, and the Treatment of Spinal Abscess. In the Section of Obstetric Medicine (Dr. A. L. Galabin, President) the special subjects for discussion are: (*a*) The Treatment of Uterine Fibroids and (*b*) Post-partum Hæmorrhage. In the Section of Public Medicine (Sir Walter Foster, President) a list of no fewer than seventeen subjects has been put forward as suitable for discussion, including the Legal Restraint upon the Employment of Women in Factories before and after Childbirth, Infantile Insurance, Coroners' Inquests, the Disposal of the Dead, Isolation Hospitals, Measles, Small-pox, Scarlet Fever, Offensive Trades, Tuberculous Meat, Epidemic Influenza, and the Disposal of Town Refuse. Dr. Rentoul has given notice of a resolution to the effect that all stillbirths after the fourth month of intra-uterine life should be registered. In the Psychology Section (Mr. Bevan Lewis, President) the special subjects are Psychoses after Influenza, Insanity as a plea for Divorce, and Neural Action corresponding to the Mental Function of the Brain. In the Ophthalmology Section (Mr. Priestley Smith, President) a discussion on the Diseases of the Lacrymal Apparatus will take place. In the Section of Diseases of Children (Dr. Lewis W. Marshall, President) the Diagnosis and Treatment of Croupous Pneumonia in Children and the Treatment of Severe Club-foot will be discussed. In the Section of Pharmacology and Therapeutics (Dr. J. O. Brookhouse, President) the special subjects are (*a*) Cardiac Tonics and the Indications for their Use, and (*b*) Dyspnœa and its Treatment by Drugs. In the Laryngology Section (Dr. R. A. Hayes, President) the Etiology, Pathology, and Treatment of Nasal Neurosis, Catarrh of the Nose and Throat, and Granular Pharyngitis are the three topics selected for consideration. The social arrangements of the meeting comprise a Conversazione at the Castle, given by the Mayor of Nottingham; one at the University College, given by the President and the Midland Branch; the public dinner of the Association, to be held in the Mechanics' Institute; garden-parties; and a series of attractive excursions to Belvoir Castle, to Sherwood Forest and the Dukeries, to Haddon Hall and Chatsworth, and to Lincoln.

MEDICAL CHARITY IN FLORENCE.

THE Tuscan capital has long signalised itself by the public spirit, professional as well as lay, which it devotes to the rescue or relief of the sick poor. Its organisation of the Misericordia, which so deeply interested Queen Victoria during Her Majesty's sojourn in the city four years ago, includes members of every grade of society, peer and peasant, artist and shopkeeper, scholar and mechanic; and as its detachments thread the streets on their way to or from the houses of the ailing, the dying, or the dead—its members indistinguishable from each other in their black or white stoles, which cover the whole person, all except the eyes—they offer a spectacle unique, it is said, in the civilised world as an embodiment of a philanthropy which ignores all claims but those of afflicted humanity. "Res sacra, miseria"—a sacred thing is suffering. Such is the watchword to which it marches, while the lesson it conveys is fraught with fruit of charity in every sympathetic eye-witness throughout every hour of the passing day. That the spirit which inspires it has lost nothing of its honourable contagion is manifest from the association recently established in Florence under the title of "Guardia Medico-Chirurgica Permanente"—or permanent medico-surgical guard—to the constitution and work of which we have from time to time drawn our readers' attention. The report of the first "quadrimestre" of 1892 is now before us, and its record of illness relieved and recoveries completed attests the skill and assiduity with which the association works. Its *personnel* is composed chiefly of young physicians and surgeons recently graduated or still in the undergraduate stage, and its honorary president is the well-known public-spirited layman, the Commendatore Egisto Fabbri, to whom Florence in general, and her medical men in particular, are under such deep obligations. Its moving agent was primarily a young physician, Dr. Roster, and its actual director, ably reinforced by the judgment and, on occasion, by the purse, of the Commendatore Fabbri, is Count Carlo degli

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Alessandri. The circumspection with which its operations are planned is only second to the enthusiasm with which they are carried out, as is evident in the increasing confidence they inspire among a poor, uneducated, superstitious, and therefore irrationally jealous proletariat. Of this absolutely penniless *clientèle*, whose wants used to encroach on the valuable time of the working practitioner, 176 urgent cases were relieved in the month of January last, 131 in February, 93 in March, and 102 in April. The consultations in the *locales* of the "Guardia" reached in those four months the high number of 6843. Vaccinations and revaccinations were also vigilantly practised, so that, all told, the work of the "Guardia" for the "quadrimestre" ending April 30th, 1892, may in the language of the report be called not only "importante" but "completo." Already the well-to-do classes have begun to take a warm and effective interest in the Association, and the report dwells with reasonable satisfaction on the support the work now receives in quarters supposed to stand aloof from popular sympathy. From Florence we hope the example will spread to other Italian cities so as not only to bring comfort, relief, and rescue to the suffering poor, but also to set free the hands of large numbers of the profession hitherto prevented by such unremunerative practice from adding to those achievements in pathology and therapeutics in which Italy is beginning to resuscitate her long-past fame.

LARGE "TRANSACTION OF BUSINESS" IN PROVIDENT DISPENSARIES.

THE Leicester Provident Dispensary claims to be the largest in the kingdom. At the Council meeting, presided over by the mayor (Alderman Wright), satisfaction was expressed at the largeness of the membership—36,000. The rush to the dispensary had been increased by the influenza last year. The death of one member of the medical staff, DR. Oliphant, was much regretted. The illness of another had compelled his resignation. The work of the medical men and their remuneration are not given in the newspaper report which we have before us. But we can easily imagine what the work must have been. The dispensary is governed by a board of independent gentlemen, from whom the mayor says the doctors always get justice. We are glad to hear it. But in few of these institutions is the reward of the medical man what it should be. The subscription list is about £300 a year. To meet the expenses £500 would be necessary. There is a deficit in last year's account of £150. Too great an air of "business" pervades the reports.

CHOLERA INTELLIGENCE.

IN addition to the stations for observation and detention appointed by the Russian Government in the Caspian Sea, somewhat similar stations have been appointed near the Perso-Russian frontier at Beliasovar, Julfa, and Jebrail, with a view of preventing the extension of cholera into the Russian empire. In the meantime no change is reported as regards the epidemic at Meshed, which place has been abandoned by Europeans, the mortality there from cholera last week having reached 250 a day. Nishapur and Sabzevar have also suffered to some extent. These two towns are both to the westward of Meshed and on the main road to Astrabad. As far as possible the movement of pilgrims has been stopped and a quarantine of six days has been imposed on the Russo-Khorassan frontier. Great alarm is felt at Tashkand at the extension of cholera both in Persia and in Afghanistan. Ten days' quarantine has been imposed in Cyprus on arrivals from Bassorah; but as yet we have no intelligence as to the existence of cholera in Southern Mesopotamia, or indeed in South-western Persia. An alleged occurrence of cholera on board the *Crofton Hall*, which sailed from Calcutta to Hull on June 3rd, probably calls for some different explanation from that assigned to it in the public press. After leaving with all hands well, the vessel returned on the 13th "stricken with cholera," and out of twenty-nine persons on board twenty-four were seized with illness, and six died. The disease is stated to have been associated with the use of pickled beef which was offensive when served out, and those only who ate the beef suffered from illness. So, also, those who ate most heartily suffered most severely and fatally. This, according to Dr. Simpson, was the cause of the disease; if so, it is more likely to have been one of those cases of meat-poisoning such as have been reported in this country during recent years than an outbreak of cholera as that disease is commonly understood.

EYE-STRAIN AS A CAUSE OF NERVOUS DERANGEMENTS.

DR. AMBROSE RANNEY, in the *New York Medical Journal*, draws attention to the view that "eye-strain" may be a frequent and extremely important factor in causing many forms of nervous derangements—even in such as are commonly regarded as organic diseases—as, for example, epilepsy, chorea, and insanity. Among the cases reported by Dr. Ranney which were cured by the use of spherical, cylindrical, and prismatic glasses, combined occasionally by tenotomy of certain of the ocular muscles, may be mentioned the following: Four of epilepsy; several of nervous prostration of so severe a form as to justify the most serious doubts of a perfect recovery being possible; one case of mental collapse to an extent which rendered the patient unable to dress himself until told which article of apparel first to put on; one case of melancholia with morbid impulses, the patient walking about the streets touching every tree and lamp-post he met; one case of epileptic mania in a patient who required a padded room; several in which confirmed inability to sleep, severe neuralgic paroxysms, constant headache, &c., formed an important feature in the clinical histories; one case of very severe neuralgic paroxysms of the face which drugs would not control; and other cases of various conditions that were equally distressing to the patients, and that had withstood all therapeutical measures.

THE TREASURERSHIP OF ST. BARTHOLOMEW'S HOSPITAL.

THE resignation of the treasurership of St. Bartholomew's Hospital by Sir Sydney Waterlow is an event of importance. His administration of the affairs of the hospital has been characterised by great ability and efficiency, with much personal trouble and supervision. One proof of this is that during the eighteen years he has held the office the income of the hospital has increased from £45,551 to £71,833, in spite of a falling-off of nearly 50 per cent. in agricultural rentals. The medical school has been enlarged, and the medical and surgical staff of the hospital has been increased from thirty (with nine residents) in 1874 to fifty-seven (with thirteen residents) in 1891. Special departments for the better teaching of ophthalmic and other groups of disease have been established. Isolation rooms have been provided. The nursing department has been entirely reorganised by the establishment of a training school for nurses. The female nursing staff of the hospital has been increased from 120 in 1874 to 232 in 1891. Hydraulic lifts have been established in each of the four wings of the hospital for the use of patients and of the staff. The entire system of main drainage has been reconstructed and the sanitary arrangements of each ward remodelled at a cost exceeding £25,000. The hospital has secured a convalescent home with seventy beds at Swanley in Kent. No doubt the changes thus epitomised were called for either in the

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course of the natural development of the hospital, with its unequalled wealth, or more urgently on sanitary grounds; but it is to the credit of Sir Sydney Waterlow that he perceived the necessity and so husbanded the resources that they could be easily executed. It is gratifying to know that he does not retire on the ground of ill-health, but in deference to the advice of his friends and of his physician who advises him to winter in the Riviera. It is understood that Sir Trevor Lawrence will be asked to accept the honourable post so well held and now vacated by Sir Sydney Waterlow.

THE CASUAL WARDS BILL.

THE Casual Wards Bill for London, which is about to be brought up before the Lords, requires that the Metropolitan Asylums Board shall establish a central system of communication with casual wards in the metropolis, and, when necessary, provide for the conveyance of any person in need of accommodation to the ward where that accommodation can be most conveniently obtained. This no doubt is a step in the right direction, and the disgraceful delays which have so frequently shocked the public conscience in the removal of sick and dying casuals to a place of shelter will, it is to be hoped, cease to occur. At the same time it is a pity that the Bill has, owing to the exigencies of the dissolution, to be hurried through Parliament without more discussion. In fact we should have been better pleased to have seen the whole management of the "casual ward system," not only of the metropolis but of the whole country, transferred from the board of guardians to a central authority. The present Bill we are convinced is only an instalment of that wider measure which will some day regulate our vagrant population, which will afford proper shelter and accommodation for the honest labouring man in search of work and help him on his way, whilst the lazy and habitual tramp should be dealt with more sternly. Above all, special assistance for those taken sick upon the road should be bountifully provided. We have repeatedly pointed out the means by which such measures can be effected, and they are neither cumbersome nor expensive. In the meantime we shall view with pleasure anything that diminishes the power of the boards of guardians over the vagrant poor.

ADVANTAGES OF FOGS.

No less an authority than the president of the Institute of Civil Engineers has declared that the sulphurous vapour produced during the combustion of coal is most beneficial to the health of the inhabitants of London, disagreeable though it undoubtedly is. As many as 350 tons of sulphur are thrown into the air in one winter's day, and the enormous quantity of sulphurous acid generated from it deodorises and disinfects the air, destroying disagreeable smells emanating from refuse heaps and sewers and killing the disease germs which find their way into the atmosphere. There may be a good deal of truth in this view, but there is undoubtedly another side to the question. It is an old comparison that a doctor and his drugs bear a relationship to the patient and the disease like that of a policeman towards a householder attacked by a garotter. The policeman lays about with his truncheon, sometimes he hits the householder, sometimes the garotter, and the good or ill which results from his interference will depend upon which party happens to get the most and the heaviest blows. This simile is admirably suited to sulphurous acid in London fogs, for although it may be beneficial to the London householders by destroying microbes, it certainly frequently does them harm by attacking their lungs and bringing on bronchitis and asthma which sometimes prove rapidly fatal, to say nothing of the minor discomforts of a disagreeable taste, filthy smell, stuffed nose, husky throat, smarting eyes, and headache. We think that, healthy though the London fogs may be, the discomforts they cause are so great that Londoners would be really better without them, and that less disagreeable and equally efficient means might be found to clear the air of microbes, while at the same time these other remedies would be enormously cheaper, for they would not entail the almost complete stoppage of traffic or the enormous expenditure of gas and electric light which a bad fog occasions.

THE SCARLET FEVER CASE AT FULHAM.

THE Fulham case of disputed diagnosis of scarlet fever continues to be the principal topic of interest in the local papers. The Board of Guardians have passed a resolution directing the attention of the Local Government Board to Mr. Cooney holding the two offices of district medical officer and medical officer of health, with an expression of opinion that the two offices should not be held by one person. Another question on which the Local Government Board and the vestry seem to hold opposite opinions is that of the medical officer of health being required to give his whole time to the duties of his office. The Local Government Board think he should be so required. It seems but reasonable that a population of 92,000 should have the entire time of a medical officer. The appeal on the case as decided by the magistrate is to be heard on July 9th. It really bristles with fine questions of duty in magistrates, parents, and medical men. It is well worthy of a very deliberate re-hearing in the most judicial frame of mind that can be commanded.—At a public meeting held at the Walham Green Hall, Effie-road, Walham Green, on Tuesday evening, June 21st, it was moved by Mr. Barry, and seconded by Mr. Spencer Lawrence, "That this meeting of the inhabitants of Fulham beg to tender their sincere gratitude to William Cayley, M.D., and Sidney Phillips, M.D., for their valuable opinion in the correct diagnosis of the illness of Emily Williams, given without fee, and wish to express their unabated confidence in the aforesaid gentlemen and in the management of the Middlesex Hospital, notwithstanding the uncharitable and uncalled-for strictures passed by Mr. Curtis Bennett lately at the West London Police Court." It will be seen from our Parliamentary column that the matter was before the House of Lords on Thursday night. A meeting will be held on the 30th inst. at 8 P.M. in the Fulham Town Hall in connexion with the case.

RIVER TRAFFIC AND ITS REGULATION.

THE sadness of what in itself may seem to be an unqualified evil—such, for example, as preventable death—is often brightened by the reflection of a prospective good which comes of it. Every shipwreck, every railway and roadway disaster, shows this, and teaches us—as if in compensation for the tribute of life which it exacts—a lesson of caution for future guidance. Thus viewing the matter we can even extract some grains of consolation from the history of two fatal and avoidable boat accidents which lately occurred on the river Lea. Both resulted from collisions and in each instance a young man lost his life. At the subsequent inquest it transpired that at present the traffic on this river is subject to no recognised system of regulation, that boat-hirers are equally free from any effective means of control, and that the supervision exercised by the Lea Conservancy officials is of the most imperfect kind. The coroner's jury therefore added to their verdict a rider which it will readily be allowed was entirely consistent with the evidence brought before them This was to the effect that a register should be kept of the names and addresses of persons hiring boats, that the regulation of traffic should be ensured by published

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instructions, and that the execution of these provisions should be enforced by the river police. The first suggestion is evidently a useful one. It is true that it would impose a restraint not hitherto considered necessary upon boat-hirers, and that after all its practical efficiency must depend upon the personal honour of the latter. Still we cannot see how a system of mere boat registration could serve the same purpose with an equal prospect of success. The necessity of the two other recommendations above mentioned is too obvious for discussion. We trust that the needful rules of the river will be posted at every boat-house and landing-stage. We would also add a hope that the lessons learnt from these accidents on the Lea will not be allowed to pass unheeded by those who have to do with the management of other equally neglected water-ways.

DEATH CERTIFICATION BY UNQUALIFIED PRACTITIONERS.

AT Liverpool an unqualified assistant has been fined £5 and costs for filling up a medical certificate of the death of a child whom he had attended and signing the name of his principal without the principal's knowledge or consent. The excuse was that he did it out of pity for the parents and to avert an inquest. His principal, Dr. McCormick, spoke apologetically for him on the ground that he had completed his curriculum and was prevented from passing by want of fees rather than want of ability. But the magistrate said truly that this constituted no mitigation of the offence. It is amazing that men are still found to put themselves into this false position in spite of repeated warnings.—Mr. Michael Anthony De Quadros, on the 20th inst., at the Lambeth Court, was fined £5 and £2 2*s.* costs for granting a certificate of death in the case of a child he was alleged to have never seen.

UNITED STATES MARINE HOSPITAL SERVICE.

WE have received a copy of the annual report of the Supervising Surgeon-General of the Marine Hospital Service for the United States for the fiscal year 1891. On account of the number of applications, and because of the necessity of maintaining the professional excellence of the medical corps, it is stated that the standard to be attained on examination for admission into this service has been placed at 80 per cent., while the physical examination is also exacting. The medical corps of the service now consists of the supervising surgeon-general, fifteen surgeons, twenty passed assistant surgeons, eighteen assistant surgeons, and seventy-nine acting assistant surgeons. The force of medical officers in the bureau at Washington as assistants to the Surgeon-General consists of one surgeon in charge of the quarantine division, one in charge of the purveying division, one passed assistant surgeon in charge of the laboratory of the service, and another as bureau executive and acting chief clerk. During the year ending June 30th, 1891, the total number of patients treated by the service was 52,992, of which number 15,349 were treated in the hospitals and 37,643 in the dispensaries connected therewith. There are eighteen United States marines hospitals, not including the quarantine hospitals belonging to the service, and one hospital at the port of New York occupied under lease, the purchase of which by the Government is recommended. The Supervising Surgeon-General's report embraces a good deal of information arranged under the heads of Public Health Division, Purveying Division, and those of Quarantine Service, Inspection Service, Immigration, Laboratories, Sanitary Reports, and Statistics, with a number of special papers, medical and surgical, and reports of fatal cases, with necropsies. Many of the papers are distinctly interesting, such, for example, as "studies in service statistics dealing with diseases of the circulatory system and the frequency of heart clot"; "ten years' personal experience of enteric fever," and "influenza or 'grippe,'" together with other papers and clinical reports of cases too numerous to mention.

"CURES" FOR INEBRIETY.

IT is satisfactory to observe that the words of caution which we published last week have not passed by unheeded, and that in consequence the meeting which was announced to be held on Friday, the 17th inst., under the auspices of the Church of England Temperance Society and the chairmanship of Bishop Barry, has been postponed—we trust *sine die*. We respect and fully sympathise with the laudable and earnest efforts of these gentlemen to further the great cause of temperance, and we are for that very reason well pleased that they have not permitted their zeal to outrun their discretion. The interests of that sad, but alas, numerous class of the community, habitual drunkards, are not likely to be served by a hasty and ill-considered attempt to advertise a method of treatment secret in its nature, commercial apparently in its bearings, and not duly submitted for trial and judgment to members of the medical profession who alone are capable of estimating its value or its worthlessness.

HOSPITAL ABUSE AND ITS CRITICS.

THE *Rock*, disclaiming all sympathy with charity reformers, asks for one very drastic measure—*pace* Sir Andrew Clark—the abolition of the out-patient department and of free dispensaries, and would substitute graded provident dispensaries, so as to meet the requirements of every section of society, from the artisan to the small tradesman: the poor to have free cards given them by the benevolent, who would be required to pay a guinea for four cards. These benevolent persons are to be warned by the medical man in attendance of any imposition or unfitness in the recipient. Such conditions involve a large number of benevolent persons and assign an unpleasant duty to medical men. The *City Press* has some sensible observations on the abuse of hospitals and dispensaries by those who can afford to pay. It thinks that the Council of the Hospital Sunday Fund should mark its sense of this evil by withholding grants from institutions which make no attempt at eliminating unfit persons.

POISONING BY HEMLOCK.

IN the *Newcastle Journal* of June 16th is an account of an inquest held on two children, aged respectively nine and four years, who were believed to have died from the effects of eating hemlock. It appears that the children had been playing in a field where their mother was at work. In the evening they complained of fatigue, but this was attributed to the heat. The younger of the two children died the same night and the elder the following night. We have no account of the symptoms or intimation that a post-mortem examination was made. That the deaths were due to some toxic agent is more than probable, and that this agent was the alkaloid of one of the hemlock family not unlikely. At the same time the evidence before us does not warrant us in accepting the explanation embodied in the finding of the jury—viz., that the children were poisoned by hemlock. Was there vomiting, and if so, was the vomit examined for portions of the plant? Was there muscular paralysis proceeding from the legs upwards? What was the condition of the pupils? In most of the recorded cases death from hemlock poisoning has ensued more quickly than happened in the above instances. A man died in three hours and a quarter after eating hemlock (Conium maculatum) in mistake for parsley. A child died in an hour after drinking a decoction of the same plant,

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Water hemlock, or cowbane (Cicuta virosa), has proved fatal. Hemlock water drop wort (Œnanthe crocata) is another deadly poison of the same order. Two men died in an hour and a half after eating the roots. Three boys partook of the roots and stems, and two of them died within a short distance of the place where the hemlock grew. In all cases of suspected poisoning, and especially where the poison is of vegetable origin, it is advisable that every precaution should be adopted to obtain all available information both before and after death.

THE PROGRESS OF SMALL-POX.

THE outbreak of small-pox at Pembroke Dock does not appear to have ceased, and eight fresh cases were announced in the last report of the medical officer of health. Amongst other provincial towns to which the disease still clings are Plymouth, Liverpool, Dewsbury, Heckmondwike, Liversedge, Bradford, Wakefield, North Shields, and Halifax, six fresh cases having been recently reported from the latter place. There are also isolated attacks in other towns, and it is probable that similiar attacks are occurring in districts whence the disease is not reported. In the metropolis small-pox is abating; and, having regard to the season of the year, it may be assumed that the special danger of extension in epidemic form is postponed until next winter and spring.

POLLUTION OF THE RIVER AIRE.

A LIVELY conference of the sanitary authorities of the West Riding was held at Leeds on the 16th inst. to discuss the great evil of the pollution of the river Aire. The Marquis of Ripon presided as chairman of the County Council of the West Riding. It required all the suavity and firmness of the Marquis to preserve the order of the meeting, many speakers being disposed to question the jurisdiction of the County Council in the matter. An amendment favouring the creation of a conservancy board to carry out the objects and to enforce more care against pollution on the part of the various authorities on the river was lost by a large majority. In the end resolutions were passed calling on the authorities to make good any defects of drainage or of sewage purification and to take steps to exclude from the river and streams all domestic sewage and trade effluents till they were sufficiently purified, also to exclude from the streams solid refuse and rubbish.

WOOLWICH COMMON.

A CERTAIN amount of dissatisfaction is felt in Woolwich in consequence of a recent notice by the military authorities that football and cricket would henceforth be restricted to a somewhat rough and at times damp piece of ground at the back of the Royal Military Academy, which it seems cannot very easily be drained. There was no difficulty about games on the common until within the last year or two, during which the popularity of football has very largely increased, and this game has attracted numbers of young men and boys belonging to the artisan and labouring classes during the hours when they were not at work. It is, however, impossible to play football constantly on any piece of grass without entirely spoiling it, and the consequence was that part of the ground which is ordinarily used for military manœuvres was so much damaged that the games of the civilian inhabitants were restricted to a small portion of the common, which is not generally used for military purposes, close to the houses where many of the officers reside. The incessant playing—often from six in the morning till late at night—and the somewhat rough behaviour and language of some of the players, naturally brought a crop of protests from the residents, and the military authorities have felt obliged to issue the order complained of. Letters and deputations have been sent to the commanding officer asking that a better piece of ground might be granted for games, and that an exception to the rule might be made in the case of young boys, but the reply has been a *non possumus*. The only thing that remains, therefore, is for the local authorities to do their best to drain and level the piece of ground which has been granted, otherwise there will be but little football during the coming winter for the thousands of Arsenal and Board School lads in Woolwich.

THE ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

OWING to unavoidable delay in issuing the report of the Committee of the Association of Fellows, the annual general meeting and the dinner of the Association have been postponed till Thursday next, the 30th inst. The meeting will be held at 5 P.M. at the rooms of the Zoological Society, and the dinner will take place at the Criterion, Piccadilly-circus, at 7.30 P.M. Mr. George Pollock, the President, will occupy the chair both at the meeting and at the dinner.

THE NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC

THE inaugural address on the occasion of the opening of a new clinical theatre at the National Hospital for the Paralysed and Epileptic, Queen's-square, was on Thursday, the 23rd inst., delivered by Sir James Paget, Bart. The chair was occupied by the Right Hon. the Earl of Stratford. Sir James Paget, in the course of his remarks, made allusion to the vast progress made in neurological science during the past twenty or thirty years, when surgeons only undertook operations upon the brain with the greatest trepidation, and when trephining was only performed as a last resort in cases that were likely to die. "The mortality from that procedure," said Sir James Paget, "could not be accurately ascertained, but it must have been enormous." At the present time these operations had, by the coöperation of scientific experiment with scientific observation, so advanced that they were undertaken now with a feeling of security. He referred to the localisation of the faculties of the brain as a direct outcome of researches made in connexion with hospitals of this kind. Sir James Paget said that in the profession there was an understanding, rather erroneous, that the licence or diploma of a medical man was a thing which not only conferred a legal right but a sort of moral right to practise. Sir James Paget maintained that it declared nothing more than that on the day on which it was conferred the person receiving was fit to practise. Whether he would be fit ten years afterwards must depend upon himself entirely. So rapidly did medical knowledge progress that no man was fit to practise twenty years after he had gained his qualification unless he had been constantly a student. The chairman proposed, and Mr. Victor Horsley seconded, a vote of thanks to Sir James Paget, and Dr. Buzzard proposed and the Hon. H. D. Ryder seconded, a vote of thanks to the chairman, both of which were warmly accorded. We propose in our next issue to give a fuller account of Sir James Paget's speech.

FOREIGN UNIVERSITY INTELLIGENCE.

Breslau.—An ear out-patient and in-patient department, erected by means of the legacy of the late Dr. L. Jacoby, has just been opened under the direction of Dr. Oscar Brieger.

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Strassburg.—Professor Eduard Schär of Zurich has been offered the chair of Pharmacognosis in succession to Dr. Flückiger.

Vienna.—Dr. Moritz Schustler has been recognised as *privat-docent* in Surgery, and Dr. Foltanek as *privat-docent* in Children's Diseases.

DEATHS OF EMINENT FOREIGN MEDICAL MEN.

THE deaths of the following distinguished members of the medical profession abroad have been announced:—Surgeon-General Roth of Dresden.—Dr. Roussel, Honorary Professor in the Nancy Medical Faculty.—Dr. Rudolf Thiry, *privat-docent* in Ear Diseases in Freiburg.—Dr. Rudolf Demme, Professor of Children's Diseases and Pharmacology in the University of Berne, after a long illness.—Dr. D. P. Skalozuboff, Professor of Nervous Diseases in the University of Kazan.—Dr. Amancio de Andrade, Professor of Medical Botany and Zoology in the Faculty of Medicine, Bahia.

ITALY'S wealth in natural mineral waters is just beginning to be adequately appreciated, even by her own sons. Piedmont especially abounds in these, and on the 16th inst. there was added another to her many "Stabilimenti" for the use of such waters at the Santuario di Mondovì. Dr. Guido Baccelli, who was hindered by professional engagements from presiding at the opening ceremony, telegraphed from Rome his congratulations to the promoters of the "Stabilimento" on their having at last made available for therapeutic purposes a mineral water well-nigh unique for its alterative and depurative properties.

"A FURTHER ACCOUNT of the Proceedings of the Association of Fellows of the Royal College of Surgeons of England from March, 1890, to June, 1892," has just been issued to the members of the Association.

THE annual exhibition of specimens added to the Hunterian Museum of the Royal College of Surgeons of England during the past year will be open for inspection on July 5th, 6th, 7th, and 8th.

THE report of the Committee of the House of Lords on Metropolitan Hospitals is completed, but will not be published for several days.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY.—A meeting of the Hammersmith and West Kensington Branch of the above Society was held at Southerton House, Hammersmith, on June 15th, Dr. Alderson in the chair. The meeting was very well attended. The minutes of the last meeting having been read and confirmed, the chairman explained that the objects of the Society were—(1) Medical Protection; (2) A Central Council, permanently situated in London; (3) Establishment of local branches with officers. Dr. Winslow during the discussion remarked on the benefit the Lunacy Amendment Act conferred on medical men. By this clause if it could be shown before a master in chambers that proper precautions had been used by the signer and that he had acted *bonâ-fide*, the action then and there came to an end. He submitted to the meeting that if it could be shown that the medical man had not exercised due precaution and had not acted *bonâ-fide* and that the master declined to annul the action, then the responsibility of the Society should cease and should not be responsible for further legal claims beyond the preliminary hearing. It was resolved that the central committee be asked to confirm the following appointments:—Vice-Presidents: C. B. Keetley, F.R.C.S.; J. Savage, L.R.C.P.; Forbes Winslow, M.B., D.C.L.; F. C. Dodsworth, L.R.C.P.; F. Lawrence, M.R.C.S., and E. O. Fountain, M.D., B.A. Council: Chas. Andrews, M.R.C.S.; A. H. Clemow, M.D., and S. D. Clippingdale, M.D., F.R.C.S. Hon. Sec.: Herbert Alderson, M.B.

METROPOLITAN HOSPITAL SUNDAY FUND.

APPEALS MADE ON BEHALF OF THE FUND.

IN accordance with custom, we give below some reports of appeals which have been made in support of the Hospital Sunday Collection. The Mansion House meeting was reported in a second edition of THE LANCET, which was published on Saturday last; but as this edition would not reach the hands of many of our readers, we reprint the report to-day. For the reports of sermons we are indebted to many correspondents, to whom we offer our best thanks for the assistance which has enabled us to place their pulpit appeals on record.

MEETING AT THE MANSION HOUSE.

(The following report appeared in our Second Edition last week.)

THE usual public meeting in connexion with the Hospital Sunday Fund was held to-day (Friday afternoon) at the Mansion House. There was a very large gathering of ladies and gentlemen. The Lord Mayor presided, and among those present were—Sir Sydney H. Waterlow, Bart., Vice-President; Sir Andrew Clark, Bart., M.D.; The Rev. Prebendary E. A. Eardley-Wilmot, Rev. Canon Ingram, Mr. A. Egmont Hake, Rev. T. G. Garten, Rev. John Kennedy, D.D.; Rev. Dr. Marks; Rev. Wm. Hunt, M.A.; Rev. Prebendary Whittington, Lieut.-Col. Nevill, Rev. J. H. Wilson, D.D.; Rev. J. D. Wyatt, Rev. Dr. Löwy, Rev. The Hon. Canon Leigh, Rev. Canon Nisbet, Admiral Trollope, Rev. E. J. Beck, Rev. H. Curtis, Mr. Wakley, Rev. S. A. Barnett, Rev. G. A. Ormsby, Dr. J. G. Glover, Rev. W. T. Du Boulay, and Rev. W. P. Barlow.

The LORD MAYOR, who was received with applause, said: Ladies and Gentlemen,—It is by no means unusual for the Lord Mayor to be addressing a gathering such as I see before me for the special object of aiding the Hospital Sunday Fund; for I may remind you that ever since the foundation of the Fund the Lord Mayor for the time being has always taken the chair, and endeavoured to his utmost to further so good and excellent a movement. Well, now, we are on the eve of Hospital Sunday, and of course our object is to make that day of collection a very substantial and great success. Last year, I believe, there was collected the sum of £45,000. That may strike you as being a substantial amount; but, substantial as it may be, it falls short of the actual requirements of this great movement of ours. Naturally, £45,000 suggests at once that this year, at all events, the sum should be made up to round figures. It was so near £50,000 that naturally we look this time to secure at least that amount. But assuming that we do, we are still very far short of the actual requirements. We want £100,000, and we hope to get it in time. We are all agreed of course that the hospitals, both within the metropolis and without it, are necessary to poor suffering humanity. If we actually endeavour to gauge what the total cost is each year in keeping our hospitals going, we shall find the sum required reaches the enormous amount of at least £800,000. So that what we desire to do by this movement is to contribute towards that amount one-eighth—namely, £100,000. Well, I hope we may succeed in getting it. Let us try. The object is a good one; and I am sure that there are many present to-day who in the past have done a great deal to further and aid this movement. I am sure the inclination to help is strong. Let us see, one and all, whether we cannot add to the amount we have hitherto contributed. Those who have in the past given £10 may possibly see their way now to add £5, or perhaps even to double their subscription. If we can reasonably afford to do so, pray let us do it. Let us not, in appealing to others, forget our own contribution. I am not one to [illegible] that any individual should address [illegible] appeal unless he has set the example [illegible] place, set the example, so that [illegible] friends, and be able to say: "Can [illegible]

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movement? According to my best power, and my means, I myself have subscribed." You will have learned from the notice convening the meeting that we are to be favoured with an address from Mr. A. Egmont Hake, and I am sure we shall all have much pleasure in listening to it.

Mr. A. EGMONT HAKE then addressed the meeting. He said—

My Lord Mayor, my Lords, Ladies, and Gentlemen,—My purpose in coming before you to-day is threefold: first, to remind you of the sufferings of our fellow-citizens; secondly, to clear away certain misconceptions which have arisen concerning those institutions whose mission it is to succour the suffering poor; and, thirdly, to consider how we may best join hands in support of our hospitals in their courageous battle with disease. The universal interest which is now manifested throughout this great city in the general condition, the fierce struggle, the poignant sufferings of the destitute bears witness to a mighty awakening, to a free and frank recognition of the claims which the unfortunate many must ever have upon the fortunate few. For I think we must all agree that the privations of the people have for some time been a subject of genuine and widespread lamentation. The presence of fabulous wealth side by side with ghastliest poverty; the long-continued depression in industry and trade; the bitter complaints against the severity of competition; the constant recurrence of strikes; the exposure of that vile and disgraceful form of slavery, the Sweating System; the constant and contradictory cry of over-population and over-production; the devices for depriving this country of its best blood by the agency of emigration; the anxiety to banish the destitute foreigner from our shores,—all these circumstances serve to show that the condition of the poorer classes is the foremost question of the day.

The sufferings of the poor are great and bitter, and the outlook is dark enough to call for large-minded patriotism and wise philanthropy. But, amid the comedy and tragedy of our own lives, amid the ponderous erudition of the controversialists, amid the passionate ardour of the politicians, amid the aggressive clamour of the agitators, one of the greatest and most immediate causes of social misery is in danger of being clouded, lost, or forgotten. Still, in the confusion of tongues, in the war of the remedies, in the conflict of clashing opinions, let us remember that if we cannot forthwith bring about the amelioration of the people's condition, we can and must strive to lessen those sufferings which arise from bodily ailments, and which are made doubly poignant by the presence of poverty and privation. Besides the responsibility which rests with the leading classes, with what may be called the flower of the nation, there is another motive which should induce the wealthy to maintain our voluntary hospitals in a state of prosperity—namely, the motive of self-interest. For the advance of medical science, the thorough practice of surgery, the training of nurses, the arrest of epidemics, the development of hygiene — all these advantages, conferred by well-managed hospitals on society, are of as vital importance to the rich as to the poor. And all of us here present, save those who may be suddenly stricken down, must by personal experience one day come to realise these facts.

But, my lord, it is my conviction that there is no need to appeal to the self-interest of those who are in the happy position of being able to come to the rescue of our hospitals. The magnificent charity of wealthy London is universally recognised, for during recent generations it has compassed the world. And if charity with us Londoners does not always begin at home; if the rich are apt to lavish their bounty upon alien races and in foreign climes; if, in the meantime, deserving Englishmen, struggling Englishwomen, and hosts of tiny children representing England's future, are left untended and alone, it is because to many of us squalor and indigence are unfamiliar sights, because suffering is courageously endured and often hidden in the homes, and because the sore needs of the sufferers in this city are seldom so vividly flashed before our eyes as are the appalling needs of the victims of devastating catastrophes abroad. Nothing, however, is further from my intention than to deprecate by a single word that grand and truly Christian charity towards sufferers in distant lands which places our nationality so high in the estimation of the world, and which is such a fit appendage to England's power.

That this vast city is opulent enough to adequately support its voluntary hospitals without interruption to its international charity is a fact of which you, my lord, are well aware; for not long ago you gracefully presided over a meeting convened to assist the victims of the hurricane at Mauritius, and leading Londoners will, I am confident, justify the high opinion of their generosity which you now evince by presiding over us to-day. And never was there a movement that called for deeper sympathy than the hospital movement, for the hospitals combat one of the most potent causes of poverty and misery—namely, sickness. We are disposed to judge calamities by their effect upon ourselves and upon our particular circle. But let us not forget that circumstances may enormously augment the poignancy of misfortune. For example, the loss of sight or hearing is a sore affliction to anyone; but when the light fails the far-famed artist his loss seems unfathomable, and a Beethoven stricken with deafness is a tragedy that must for all time move the world. To us all sickness and disease are terrible enough, but when they fall upon the struggling poor they should evoke the sympathies of every human heart. For what are the London poor? A huge population of workers fighting bravely, but often vainly, for their lives; shelter or no shelter, a mere lottery; their worldly goods week by week in pawn, and, in their struggle to beat back the demons of penury and starvation, risking existence to win a day. And when sickness comes, and lack of charity has shut the hospital door, a new terror has crept into their lives. And the families that can trace their ruin to a case of illness may be counted by the thousand. For how is it possible for the poor to tend their sick when one-third of the population of this city have barely a pound a week with which to support a whole family. Who, then, among us dare say that the suffering poor have not a powerful claim upon the charity dispensed by the voluntary hospitals?

Now I hold that our voluntary hospitals would be in a more flourishing condition were it not for certain misconceptions concerning them. For there are certain people who suppose that the hospitals are Government institutions upon which an unlimited demand may be made, and not voluntary institutions supported by charity; there are certain people who forget that hospital management should not be criticised without technical knowledge, and who seem unaware that rash and irresponsible criticism of them hampers those citizens who bear the burden of their administration; there are certain people under the impression that the hospitals have a sufficient number of hands, while the fact is that personal services are almost as sorely needed as funds; and there are certain people who make no distinction between voluntary hospitals and rate-supported hospitals, and are apt to condemn the former for the shortcomings of the latter. But, in addition to all this, there is a prevailing prejudice which most seriously militates against contributions to the voluntary hospitals. I mean the prejudice in favour of their socialisation. That our hospitals should be taken over by the Government or the municipality and be supported by the rates is an oft-repeated parrot-cry, the full meaning of which is seldom understood.

We all know how such cries become popular. And who are the people who boldly recommend socialisation, and would fain convey the impression that they have mastered the question and have found the solution? I am afraid a large number take up the cry simply from a fear that they may be suspected of want of apprehension. It is Hans Andersen's story of the king's clothes over again. You may remember that only the clever ones were supposed to see the king's clothes, and so everybody pretended to see them, and lavished their praises upon them, save and except one crazy man, who had no hesitation in shouting out in the market-place that the king was—well, what shall I say?—bare-footed up to the neck! For my part, I have no hesitation in following the example of that crazy man, and I declare that there is not a single argument in favour of the socialisation of our hospitals. But of objections to their socialisation there is a formidable array, of which I will mention a few. To place the hospitals upon the rates would be to subject them to bureaucratic management, would be to drag them down to the low level of State hospitals abroad, would result in a better accommodation for the rich than for the poor, would raise up prejudices against hospital treatment, would degrade hospital patients as

the workhouse degrades its inmates now, would bring extra taxation upon employers of labour, and thus increase the number of the unemployed and reduce wages, would deprive the wealthy classes of the high privilege and opportunity of exercising brotherly charity towards their fellow men, would widen the gulf between the classes, and would pave the way for complete State tyranny.

And so, there is only one way of remedying the present state of things. And what is that? Charity—liberal, brotherly, open-handed charity. All that is needed is to remember, and to make our friends remember, that there is this great national humanitarian work waiting for us. No matter to what class we may belong, no matter what our means, no matter what our age, we can all easily find a way of taking a part in this glorious work, and of thus enriching our lives.

Sir ANDREW CLARK proposed the first resolution, thanking Mr. Hake for his address, and pledging the meeting to use every endeavour to arouse the inhabitants of London to the importance of maintaining the hospitals and medical charities in complete efficiency, and calling upon the editors of the daily press and upon the clergy to make an earnest appeal to the people to increase their contributions in order to secure not less than the sum of £100,000. He said:—

My Lord Mayor, Ladies, and Gentlemen,—But a few days ago a very sad accident happened at Bishopsgate station. A few of the passengers were killed, some have been crippled for life, many have been injured, and more than fifty households have been invaded with anxiety, with alarm, or with sorrow. Now, ask yourselves for a moment what would have happened if there had been no general hospitals. Suppose these fifty injured sufferers had been taken each to his own home, and suppose—it is no great demand upon your faith—that each of these homes had the common characteristics of the poorest of dwelling-places. Fancy one of these sufferers with what is called a "compound fracture of the leg" taken to his own room, ill lit, badly ventilated, with noisy but affectionate children, a care-stricken wife, bad food, and only occasionally visited by the local doctor. Imagine what the probable course of that man's sufferings would be! The probable issue would be death. If you will cast your eyes for a moment beyond the sufferer himself, and ask what would be the probable future of his family—— Ah! if I were to forecast that future from the facts with which I am familiar from a knowledge of the sick poor, it would be so terrible a one, that I dare not present it before such an audience as this. What did happen to these sufferers? The general hospitals were there; their doors were opened; no delays were interposed. The sufferers were taken at once into bright, airy, comfortable wards; they were put into easy beds; the highest surgical skill was immediately put at their service; trained nurses carried out the doctors' instructions, and everything was done that could be done for a sick man if he were the greatest in all the land. But there is more to be told about our hospitals. What would London be if there were not hospitals for infectious diseases? Imagine what a pest-house of disease it would become. But, furthermore, imagine that there were no general hospitals. Well, London is one of the greatest, if not the greatest industrial centre in the world; and London—with its docks and its shipping, its railways and their stations; its level crossings and its unparalleled traffic—is continually exposing the dwellers therein to accidents which are at once very numerous and quite inevitable. Imagine if, with the many accidents which happen daily in this great city, there were no general hospitals to which to take the sufferers. I need not tell you—you know as well as I can tell you—that innumerable lives would be lost which might be saved; and that the State and the family would be burdened with burdens almost unbearable, and that life itself in a great city like this might at last become impossible. Such would be our fate in all probability if there were no general hospitals. Now I have said a word in praise of the character of the work done in the hospitals of London. Let us advert for a moment to the amount of the work, and for these details, and for many of the admirable details which my memory will not enable me to give, I refer you to THE LANCET of June 18th, and therein in the Supplement to the ordinary number of THE LANCET you will find particulars concerning this great work which will carry more strongly home to your heads as well as your hearts the importance of this work than anything that I can say. I cannot mention THE LANCET without casting my thoughts back for a moment to 1869, when—I will not say solely, because I am not sure—when, mainly in consequence of the earnest advocacy of that good man, Dr. James Wakley—in consequence of his untiring advocacy, of his unfailing enthusiasm, and of his munificent benefactions—he, assisted by Sir Sydney Waterlow, by Canon Miller, by Sir Edmund Hay Currie, and by Mr. Martin, set upon sure foundations that Hospital Sunday Fund which we are present to-day to advocate. I feel, and I do not think I am boasting, when I say that but for these men whom I have named, it is infinitely probable that this great work would have broken down with its own weight. Last year there were 99,000 in-patients, and of these there were cured 44,000, and relieved 39,000, and 7000 remained in the hospital at the close of the year. Furthermore, there were visits of over 2,000,000 of out-patients. I must pause for a moment in alluding to out-patients. There is a very strong and I think a very mistaken desire to shut up the out-patient departments of the hospitals. I hope it will have some influence with others who have influence in this room, when I say that but for the out-patient department I do not know how any doctor would ever come to acquire a full knowledge of the early aspects of disease. What does that mean? It means everything that is highest in the doctor's work, for if he is thoroughly acquainted with the early aspects of disease and knows its approach, he is ready to grapple with it; and it is then, and then only, that he is sure of having the victory over it. Pray do not sacrifice your out-patient work, for it is the mainspring of all the work that takes place in the hospital. Now, the cost of this work—I think the Lord Mayor did allude to that, I am not sure if it made that impression upon those assembled that it ought to have done. The cost of that work is nearer £900,000 than the £800,000 which my Lord Mayor gave to it. Now, there are three methods in which we strive to collect this. One is by the voluntary contributions of benevolent people. The second method is by receiving sums of money which from time to time have been left for the hospitals by right-minded people. Lastly, by means of the Hospital Sunday Fund. Now, I will say about this Fund that it has not, so far as we can ascertain from returns, injured the amount received from the voluntary contributions of benevolent people by the hospitals, and that is a good thing to be able to say. I will say also that it places upon us to-day a sort of responsibility for raising the sum of £100,000. These hospitals and dispensaries are under responsibilities in carrying on their work to the extent of £100,000. Well, I will not detain you longer, having to move the first resolution. I earnestly request that you will yourselves give, and use all the influence you possess to make others give also. There are many reasons for giving to this Fund and, what is of more importance, I regard the reasons as unanswerable. First, this Fund offers an opportunity of collecting in the cheapest way small sums of money that probably would never reach the hospitals at all. Then it gives—not a light thing—a personal interest to all those who contribute on the Sunday to this great work, and it establishes a feeling which I hope will be a growing feeling, a sort of brotherhood in charity in the sustentation of these hospitals. There is another reason for making small contributions express large sympathies. The small contribution that the widow may give on Sunday enables her to open her heart to those charities for which she feels without the humiliation of giving a penny here and a halfpenny there. Then there are two other big reasons indeed, and I am afraid some of my hearers will not like to hear them. The first of these greater reasons is that the Council is keeping a vigilant eye upon the working and the spending of all the hospitals, for it controls its disbursements, and this accordingly enables it to exercise not only a salutary but a very powerful influence on the management of these hospitals. Surely, in supporting this you are supporting all that is best, and enabling the highest work to be done in the most economical manner. Now I am aware of the objections with which the appeal will be met with. "Times are hard, business is bad, claims are multiplying, expenses are increasing, and I do not see how I am to give more than I am giving." That is the position of the Lord Mayor. He said most considerately and much more charitably than I would: "We are to give if we are able, we are to give reasonably." Now I

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venture to say, admitting all this is true—and I am afraid it is too true; business is bad, claims are increasing—I venture to say these are just the very circumstances in which you ought to exercise your charity, just the circumstance which teaches charity—that fire from heaven; it is just the very circumstance which, transfiguring the sacrifice, makes it divine.

The Rev. Prebendary EARDLEY-WILMOT seconded the motion. He said he no doubt owed the honour and privilege of this position to the position which his congregation had maintained with regard to Hospital Sunday collections through the energy and devotion of his predecessor, now the Dean of Worcester. Last year the collection reached upwards of £45,000, and, taking an average of the last nineteen years, the sum would amount to £32,000 per annum, which had been administered at a rate not exceeding 3½ per cent. of the amount collected annually, thereby affording the cheapest method of obtaining large gifts, and also of collecting a vast number of small sums which otherwise would not come to the hospitals at all. It appealed secondly to them as philanthropists. Philanthropists would, he thought, acknowledge the benefit of the system of distribution of funds which secured that the distribution should be carried out in the most complete and careful way, and which, at the same time, allowed a vigilant eye to be kept on the expenditure and work of the various institutions, and introduced a salutary influence on the administration of their funds. Lastly, it appealed to them as Christians. In these ways the Hospital Sunday Fund was one which demanded their most urgent support, and he trusted the appeals made to the public of London from that platform and elsewhere would result in a most substantial and munificent contribution to the Fund.

Mr. H. C. BURDETT, in supporting the resolution, made special reference to that part of it which dealt with the appeal to the metropolitan press. No one, he said, was more grateful than himself for the great services which had been rendered to the Hospital Sunday Fund by the metropolitan press. He could not fail to remember that when the Fund fell off very considerably some ten years ago, and they made an appeal to the editors, these latter responded by giving great space in their columns on each of the six days preceding Hospital Sunday. The hospitals used the advertising columns of the press; and he would like to ask the editors to see whether they could not give a special column or half column for each of the days of the week preceding Hospital Sunday to the subject. If they did, he believed it would result in a contribution of something like £25,000.

The resolution was carried unanimously.

Sir SYDNEY WATERLOW, in proposing a vote of thanks to the Lord Mayor as President, said he felt it to be a great privilege for the twentieth time to stand upon that platform to say a few words in support of a movement with which he had been closely connected ever since it was begun. From that beginning to the present time, with one or two exceptions, the collections for this Fund had been yearly increased, and he hoped and believed that the collection to be made this year would, in spite of many difficulties, exceed that which had been made in previous years. When they began in 1872 there were just about 100 institutions applying for help, and this year there were over 150, and many of the old institutions had larger demands and claims upon their funds because they were doing a much larger portion of this absolutely necessary work. There were over 2000 beds which could not be occupied because the hospital authorities had not the assistance they required. He moved the resolution entrusted to him with the greatest pleasure.

The Rev. Dr. KENNEDY said he had the greatest possible pleasure in seconding the motion.

The resolution, which was put by Dr. Kennedy, was carried with acclamation.

The LORD MAYOR, in response, said:—I thank you, Sir Sydney Waterlow, for the very kind manner in which you have submitted my name, and this company for the cordial and warm manner in which they have received it. It is needless to say that it affords me the very greatest possible pleasure to preside over this numerous gathering. We have had a very great treat this afternoon in listening to so many very able speakers. This is not a new movement. It is an old one, and has been nearly, if not quite, twenty years in existence. Sir Sydney Waterlow originated it during his mayoralty, in the year 1872, and from that time down to the present it has gradually, but nevertheless substantially, grown to the position which it occupies to-day. We do not wish to under-estimate the charity and good support of our friends, but nevertheless the institution is capable of greater support, and we do one and all of us desire to see that the contributions shall reach the amount really required—namely, £100,000. At the risk of repetition, I say that the only practical method in which this can be done is not only by giving what we feel we are ourselves able to give, but by interesting others in the movement. We have not done with our obligations, when we have put our hand in our pocket and taken out a sovereign, or when we have written out a cheque for £5, £10, or £20. It is very easy to write out a cheque, especially if you are so disposed and have a balance at the bank. But there is something more required of a man than that. I know the position very well, and shall I give it to you by way of illustration, for I am a culprit myself? If you wish to bestow something suitable on your friends who are to be married, you go out of your way at some self-sacrifice and some loss of time, to choose something which will be suitable and agreeable to them. So it should be in the way of charity, that when you have written out your cheque of £5 or £10 or £20 you should not think that is enough, though it may be generous, but in addition to that you should also take a more active personal interest in the charity to which that cheque is going, and also get your friends to take an equal interest in it. You would be doing double service and an increased amount of good. Here at this meeting we have the presence of many. I take it you are not here from mere curiosity or without anything better to do. You are here with a desire to further this movement. We are grateful for your presence, but all we desire from this platform, and I from the chair, is to tell you that merely coming here and contributing is not sufficient. We expect more at your hands. With the knowledge here imparted to you, and by the smallest exertion on your part, you will be able to interest some other persons to share your sympathies, and to accord their services to this grand movement. Then the object will be attained, the future of the Metropolitan Hospital Sunday Fund will be assured, and even the amount we look for—namely, £100,000—will be secured.

SERMONS PREACHED IN LONDON IN AID OF THE HOSPITAL SUNDAY FUND.

ST. PAUL'S CATHEDRAL.

THE Rev. Dr. Baker, Head Master of the Merchant Taylors' School, preaching at St. Paul's Cathedral upon "The Law of Love," took for his text 1 St. John iv., 10, 11: "Herein is love," &c. Arguing that Christianity based morality upon religion, the preacher showed how St. John summed up the whole of Christian faith and Christian practice in the one word—love. The revelation of God's love for sinful man in the person of Jesus Christ introduced into the world an entirely new principle and ideal of morality. The ruling idea of the ancient world was selfishness. Christianity first destroyed this ideal, and made brotherly love the law of Christian life. This law is not only constantly insisted on in the New Testament, but has been strikingly illustrated in the history of the Christian Church, which is the history of philanthropic institutions. In the middle ages each priory and monastery had its hospital and dispensary. St. Bartholomew's Hospital, originally founded by Rahere in the earlier part of the twelfth century, was a famous illustration, comprising an infirmary for the sick and aged poor, with a lying-in hospital for women and staff of sisters, under the rule of a prior and canons of the Augustinian Order. The beautiful old Norman church of the priory, now known as St. Bartholomew-the-Great, and in process of restoration just opposite St. Bartholomew's Hospital, was an interesting witness to the historical connexion of the church with works of philanthropy and mercy. The many philanthropic institutions of the present day—hospitals, orphanages, refuges, homes, asylums—were all due to that spirit of brotherly love which Christianity was the first to inculcate. By showing this love to our fellow men we might test, as with a thermometer, of the warmth of the love of God.

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The Hospital Sunday appeal was probably one that needed fewer words to commend it than any other that could be made. If it had been generously responded to in former years, still how little had been done in comparison with the need and in comparison with the ability to help. This year the need was exceptional, and the appeal also came home with exceptional force after a prolonged winter, in which sickness and suffering had visited nearly every family in the land, and sorrow, national and private, and loss of friends had been only too familiar to all. The exercise of Christian charity was the best and surest way of bridging over the gulf that separated class from class and creed from creed. To-day all joined in professing a common creed, "God is love." By self-sacrifice and unfeigned love of the brethren our hearts would be most surely kept in the knowledge and love of God and of His Son Jesus Christ.

ST. JUDE'S, SOUTH KENSINGTON.

At St. Jude's, South Kensington, the sermon at the morning service was preached by the Vicar (the Rev. Prebendary Eardley-Wilmot), who took for his text 2 Cor. v., 14, 15. The first part of the sermon was a vindication of Christianity from the charge of selfishness and individualism, and an assertion of a claim for the Gospel of Jesus Christ of a distinct superiority over the ethical systems of the day as yielding the highest possible motives for conquering human selfishness and relieving human wretchedness. Coming to the special and practical application of the subject he said: "You are asked to-day, brethren, in common with your fellow Christians throughout the metropolis, to make a very special effort of liberality on behalf of the hospitals, infirmaries, and dispensaries which exist for the relief of the sick and suffering poor—a noble cause, a sacred cause, a cause in which the very tinge of sadness that runs through it makes the more powerful its appeal to the Christian heart. There is no need to enlarge upon the necessity for hospitals or dilate upon the sufferings and dangers they are intended to relieve. Sickness and sin, irreparable consequences of our fall from God, still exist in the world, still are found amongst us, the fruitful sources of the misery and suffering we see around us. The love of God, manifested through the love of Christ, has been exercised to remove the one. He calls upon us by the constraining influence of that love to do our utmost to lessen the other. ..... There is not anything, I will venture to say, for which we should be more thankful in this Christian land than for the many hospitals and dispensaries which Christian charity is sustaining for our sick and suffering poor. Speaking as one who knows something of what work among the poor is, I will even add more. I say that, brought into contact as we clergy are with the sufferings and privations of the poor, our position would oftentimes be intolerable and our duties depressing beyond expression if such blessed institutions as these did not exist. They are, as you know, scattered broadcast over our land and everywhere their usefulness is only equalled by the occasions of usefulness that arise. Eighty-eight hospitals, twenty-one convalescent hospitals, fourteen cottage hospitals, and fifty-six dispensaries are asking the Fund for which we appeal to-day to relieve their pecuniary wants—wants which exceed £100,000. It is perfectly clear, therefore, that the Hospital Sunday Fund, large though it is, magnificent as it is, already must be considerably increased if these hospitals and medical charities are to be maintained in complete efficiency and do to the full their beneficent work among the suffering and the needy. It is a sad and humiliating fact that though the population of London, one of the largest manufacturing and industrial centres in the world, is increasing at the rate of 40,000 per annum, and though the work of our hospitals in relieving this great industrial community is proportionately severe, yet in most of our leading London hospitals beds have been closed for want of funds to maintain them. It would be possible, of course, to meet the necessities of the case by compulsory legislation and to make, as in other countries, our hospitals dependent upon the rates. This would be possible. But how far more noble, far more Christlike, is the system which makes their support come mainly from the free will offerings of the people. How many an opportunity for a thank-offering for personal blessing in sickness is thus afforded. How grand the privilege of bearing in a very special manner one another's burdens and so fulfilling the law of Christ. Never may the people of England be found wanting in the fulfilment of this most sacred duty. 'There is nothing,' said the late Sir Morell Mackenzie, 'in our social organisation on which we may more legitimately pride ourselves than on the number and magnificence of our hospitals, which all owe their existence to private charity, or, it may be, enterprize, and fulfil their mission of healing and relieving human suffering without assistance from the State ..... There are few human institutions,' he said again, 'which do more real tangible good than hospitals; they take no account of creed or country or personal worth, but, like heaven, send the rain of their beneficence on the just and the unjust without distinction.' It is the cause of these institutions, the voluntary hospitals, general and special, I am pleading with you to-day, as it has often been pleaded from this pulpit before and not in vain! Nor, I am confident, will it be in vain to-day. I need not say much to commend the Hospital Sunday Fund, which to-day makes its twentieth appeal, as a most valuable and efficient channel through which your liberality may flow. Men of business will recognise the value of a method of collection which, though it amounts now to upwards of £45,000 per annum, has yet been administered at a rate not exceeding 3½ per cent. of the sums collected annually during the past nineteen years, and which thus affords the cheapest possible method of obtaining contributions, not only in large sums, such as some of you will give presently, but also in a vast number of small sums, which would not otherwise find their way to our hospitals at all. Philanthropists will acknowledge the benefit of a distribution of funds by an experienced and diligent council—a means by which not only is the best possible distribution secured, but by which also a vigilant eye is kept on the expenditure and work of the various hospitals, and so a most salutary influence is exercised on their administration. And every Christian will welcome an opportunity of doing valuable work most effectively, and at the same time in that quiet, unostentatious, anonymous way which sinks self for Christ's sake and makes an offering of love for the cause of the Master and of the suffering ones He came to relieve." The sermon closed with an earnest personal appeal.

UNION CHAPEL, ISLINGTON.

The Rev. W. H. Harwood preached from the text, "I was sick, and ye visited me" (Matt. xxv., 36). He said: "The text is suggestive of an even larger subject than its own immediate appeal—the relationship of our religious faith to questions of physical health and physical disease. The purpose of the sermon is to emphasise the fact that within the sphere of that relationship lie some of the first and highest duties of the Christian life. These duties come to us as inheritance from the past. As a matter of history hospitals and kindred movements are largely associated with religious inspirations. Without entering into any discussion of the somewhat superfluous question of the direct causes of movements intended for the relief of the sick, it is undeniable that when Christianity exalted such relief into a duty urgent upon all its disciples it gave to the most humane tendencies a great inspiration and impetus, and anticipated many generations beforehand, the best results of human progress. That the Christian Church has sometimes forgotten this duty has accounted for the supposed opposition which has unhappily grown up between ministries to the spiritual aid, to the physical nature of man. Where all the emphasis has been laid upon the spiritual nature it has sometimes gone so far that neglect of the body has been taken as a sign of greater spiritual intensity. But in the healthier ages of the Church there has been no such separation; men have felt that the two parts of the life are interdependent, and that they have not yet learned in which to look for the causes of many actions. The opposite tendency to exalt ministries to the sick at the expense of movements for man's spiritual advance is largely due to the fact that the results of the former are so much more speedy and palpable. The joy of conquering disease must appeal to every man with a human heart, but to the religious man it is simply one part of a general gospel of health. For these duties are not only an inheritance, they are closely associated with the Christian faith. The Christian principles of obedience to God and love to God and man are the parents of all kinds of health. The Christian man is bound to serve, as he has opportunity, all [illegible] which lead to health. Such matters as the [illegible] buildings, the cleansing of streets, are as sacred [illegible] in their place as are religious rites in theirs. The [illegible]

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gious life is to be towards health in all directions. And the larger duty includes the nearer and more immediate duty to the sick; while seeking to secure a larger health for the coming generation, we are bound by every consideration of Christian teaching and example to help those who in this generation are the victims of disease. If all objections be allowed, there are still left enough of the poor and helpless needing the help of hospitals to make an appeal which no heart of human sympathy can resist. The preacher's own experience in the government of an admirable provincial hospital has profoundly convinced him of the unbounded blessings which such institutions confer, and their appeal comes endorsed by the highest divine authority and the urgency of the deepest human need. They who have known within their own circle during the year one case of illness, with its anxieties, hopes, and joys, must by the aid of a sympathetic imagination endeavour to realise the thousands upon thousands of such cases which have been brought within reach of the great skill and wise patient nursing of our great hospitals."

WEST NORWOOD.

The Rev. H. Cooper preached from Rom. viii., 22, 23: "We know that the whole creation groaneth and travaileth in pain together until now. And not only they, but ..... even we ourselves, groan within ourselves, waiting for the adoption, to wit, the redemption of our body." "A marked change has passed over the material creation since it issued fresh from the hands of its great Creator. All was then in harmony, but sin has introduced an element of discord. This is noticeable even in the physical world; we trace it in the volcano, in the earthquake, in the hurricane—those fierce convulsions of nature which bring ruin and devastation in their train. Again, if we glance at the animal kingdom, see how many animals live only by the death of others weaker than themselves. The bird preys upon the insect, the kingfisher upon the glistening fish, the hawk swoops down upon the dove. Every blade of grass (could we see far enough) swarms with animal life which is maintained by the destruction of others; every bucket of water examined through a microscope reveals to us the tyrant and his victim, the pursuer and the pursued. Such are the echoes in the natural world of the mischief which has been wrought in the spiritual world. For man did not fall alone. The confusion which sin had introduced in his relations towards God is re echoed in the confusion of nature's relations towards him. And if we turn to the higher sphere of human life which affects man himself, we trace still more clearly how 'the whole creation groaneth and travaileth in pain together until now.' It is as true now as it was in St. Paul's days, and will be until the end of time. Manners and customs may change, laws and languages may be modified as the generations succeed each other, but the day will never dawn upon this world of time when men shall be able to say, 'There is no sorrow.' Holy Scripture teaches the same truth. Human tales and poems often paint bright pictures and portray scenes of imaginary perfection, but the Bible dwells much on human misery. It speaks throughout of the vanity and unprofitableness of the world, its pleasures and enjoyments, and sheds a halo of sadness (so to speak) over the things of time. And does not experience teach us that, amid the brightest surroundings of human life, there is a deep under-current of sadness which every now and then comes to the surface. The music of marriage-bells gives place to the funeral knell (as we were reminded in the death of our Prince last winter). The sounds of holiday rejoicing are changed into voice of universal sorrow and lament (as we were so sadly reminded on our Whitsun Monday Festival), and the same truth is being daily experienced in every sphere of life. To this sad condition of things the only antidote is Christianity, which lightens all human ills, for it shows us the rainbow of God's mercy even in the darkest cloud and explains to us the divine meaning which underlies our earthly troubles. We must not take a pessimistic view of things. If it seem to us that suffering and death are out of harmony with the goodness and love of the Creator, let two thoughts bring us comfort: (1) That the strange arrangement by which life is evolved out of death is an 'acted parable,' as it were—a picture in the kingdom of nature of that death of Christ upon the Cross to which we owe our everlasting life. (2) That this present system of discord is only meant to be temporary, as nature suggests and revelation plainly teaches. For a day will come when universal harmony shall be restored, when there will be no wars between nations, no discord in the Church, no strife in the household. Yes, we are waiting, all of us, as the poet says, 'for some far-off divine event,' 'Towards which the whole creation moves.' This 'divine event' is described by the Apostle as the 'adoption, to wit, the redemption of the body.' When Christ came on earth He redeemed our souls; that was the first part of His work. For in this life the body is frail and feeble, liable to sickness, subject to death. But when Christ comes again, *then* will the redemption of the body take place. *Then* the whole of His work of redemption will be accomplished, when our mortal bodies shall be raised, changed, and glorified, 'according to the mighty working whereby He is able to subdue all things unto Himself.' I have chosen the subject of a 'suffering' creation to dwell upon this morning because your alms are asked to-day for the support of the metropolitan hospitals, and the strain of thought the words suggest seems especially suitable to the occasion. For when we think of the multitude of our sick and suffering brethren in this great city—not only the inmates of our hospitals, but the wider range of out-patients who are relieved thereby, and the still larger number of those who suffer in their comfortless homes because they cannot obtain admission to the wards—surely we find here an illustration of the Apostle's lament 'that the whole creation groaneth and travaileth in pain together until now.' And when we consider the varied forms of bodily suffering which exist among mankind—those acute disorders which suddenly prostrate their victim, those chronic complaints which slowly wear away the sufferer's life, that ever-increasing class of maladies which are especially produced by our highly organised civilisation and the desperate struggle for a livelihood, those accidents to which so many are liable in the ordinary work of their calling—when we think of all these, are we not reminded that the redemption of man's body is yet incomplete, and that we are waiting for our glorious manifestation as the 'sons of God' which shall more than compensate for all our sorrows here as the 'sons of men'? It is sad to feel that we can do nothing to remove this burden of suffering from our fellow-men. But we may do much to lessen it. God only can cure disease; He permits man to alleviate it. And how can we do this better than by helping to support those institutions established on purpose to minimise physical pain and distress? This year especially the hospital appeal should awaken a warm response in our hearts. Sorrow begets sympathy, and we have suffered (most of us) from the terrible visitation of influenza with which the country was afflicted last winter. Some of us were then laid low upon a bed of sickness and have been restored to health again. Some have suffered bereavement in the loss of dear ones whom we still mourn. Some of us have, in God's mercy, been spared from the dark shadow of disease and death, but in any case we owe a special acknowledgment to Almighty God for His many mercies vouchsafed to us. Let, then, your hospital offering to-day be a thankoffering to Him—let us 'comfort others as we ourselves have been comforted by God.'"

SS. MARY AND MICHAEL.

The Archbishop of Westminster, in preaching at SS. Mary and Michael's, Commercial-road, said that, although he was addressing a great congregation of working people, he called upon them to support the hospitals of London according to their means with as much heartiness as their richer fellow subjects. It was the working people who, beyond all others, benefited by these noble institutions, and he was sure they would all give a helping hand towards their maintenance. Last year the London hospitals had received 99,000 patients, and of these they had cured 44,000, while over 2,000,000 visits had been paid to out-patients. He was sorry to see that there were over 2000 beds that could not be occupied because the Sunday hospital collection fell far short of what was needed. Last year it had amounted to £45,000. The Lord Mayor was aiming at raising it to £100,000. This would meet the demand. Catholics had again and again proved their power of self-sacrifice in a good cause. The Archbishop called upon them to give proof to the whole of London that they appreciated the benefits which the hospitals afforded them by contributing every one of them

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towards this great public charity, in which all shared irrespective of creed and nationality.

We may recall attention to the fact that, as stated in the letter from the Lord Mayor published in our Second Edition last week, a box for anonymous donations is placed outside the Mansion House as usual; any contributions from those who were absent from London or unable to attend a place of worship on Sunday will be gladly received and promptly acknowledged by his lordship.

ROYAL COLLEGE OF PHYSICIANS.

AN extraordinary comitia of the Royal College of Physicians was held on the 17th inst., the President, Sir Andrew Clark, Bart., in the chair. The meeting was chiefly called to consider communications from the Gresham University Commission and the report of the Committee thereon. This report was adopted with but slight modification, and on the nomination of the President the following Fellows were appointed to give evidence on behalf of the College before the Commission:—The President, the Registrar, Dr. N. Moore, and Dr. Allchin. It was stated that Mr. Hulke and Mr. Howse would similarly represent the Royal College of Surgeons.

Dr. Alfred Birch of Calcutta was elected a Fellow of the College.

The President announced that he had nominated Dr. Halliburton to deliver the Gulstonian Lectures for 1893, and Dr. C. T. Williams the Lumleian Lectures. Dr. Pavy had consented to be the Croonian lecturer for 1894.

The Rev. Dr. Wale Hicks was congratulated by the President on his appointment to a bishopric in Africa. The President's remarks were warmly endorsed by the Fellows present, and were replied to by Dr. Wale Hicks.

A letter was read from Mr. Gurner, thanking the College for their recognition of his services on the occasion of his retiring from the office of bedell.

THE RECENT RAILWAY COLLISION AT BISHOPSGATE.

THE following particulars have been furnished us of the cases, admitted into the wards of St. Bartholomew's Hospital, suffering from injuries sustained in the railway accident at Bishopsgate:—

Case 1: Age fifty-one. Scalp wound and scald; progressing favourably. Case 2: Age eighteen. Bruised and shaken; discharged. Case 3: Age thirty-two. Scalp wound and hæmatoma; discharged. Case 4: Age sixteen. Compound fracture, dislocation of right ankle, simple fracture of right femur, comminution of left tibia and fibula, scalp wounds, and suppuration of ankle-joint. Patient has rallied from the shock. Case 5: Age forty-two. Shock; discharged.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Liverpool Port District.—The past year was one of anxiety in this port, owing to the number of Russian and Polish Jews who passed through Liverpool and to the increase of small-pox. The number of vessels actually infected was 3662, of which 3294 were found in good condition; others required some cleansing or structural alterations. The various occurrences of infectious disease on board are discussed by Dr. Stopford Taylor, and it is pointed out that with a view to more efficient inspection, especially of persons landed on the quay after the vessels have been docked, an alteration in the quarantine law would be necessary. This subject has latterly received much attention in Liverpool. It is also pointed out that the arrangements under which no less than some 200,000 emigrants are annually inspected are not such as to conduce to accuracy of diagnosis, especially in the case of the early stages of infectious diseases.

Handsworth Urban District.—During 1891 the general death-rate for Handsworth was 13·5 per 1000, the zymotic rate being 1·35. The infectious hospital was used for the isolation of forty-two cases of scarlet fever, but apparently no other disease was admitted. The various sanitary circumstances associated with occurrences of infectious disease are described; and a series of typhoid fever cases is referred to in which the disease seemed to have a possible relation to the use of ginger beer from a certain house where a well-water was used which might have become contaminated by the burial of some pigs suffering from swine fever. Three other cases of typhoid fever had, however, occurred in the immediate locality during the preceding year. Water-closets are in some places being substituted for privy-middens, and other good sanitary work is in progress under Dr. J. B. Welch's supervision.

Barnsley Urban District.—Dr. M. T. Sadler records a death-rate of 26·0 per 1000 during 1891 as opposed to a mean of 22·8 for the preceding ten years, with a zymotic rate as high as 4·37, the excess being largely due to measles and whooping cough. Influenza, too, contributed to the excess in the general mortality rate. The Kendray hospital is more and more appreciated and its usefulness is gradually being extended. Amongst the new lines in which progress is being made is the abolition of privy-middens and the storage of filth consequent upon their use, together with the extension of the system of automatic flush closets attached to the dwellings of the working classes.

Dunbarton County Council District.—Dr. John C. M'Vail, well known as an authority on public health, has submitted a very complete report to the County Council and the district committees of Dunbarton, to which county he was last year appointed medical officer of health. The vital statistics are carefully studied, the climate, occupations, and other conditions tending to affect health and disease are discussed, and such subjects as water-supply, drainage, sewerage, and general sanitary administration are entered into in detail. In fact, the report very much resembles a typically complete report by an English health officer whose district covers a number of urban as well as rural districts; and it is probably the difference between the two portions of Great Britain in point of sanitary administration and duties of officers that makes this necessary. The report is well compiled and its educational value will, we trust, be considerable; at all events the material which it sets out cannot fail to be of much use to the localities with which it is concerned.

Fulham.—The death-rate for the parish of Fulham was 19·7 per 1000 last year, as compared with a rate of 21·4 for London as a whole. Amongst the cases of infectious disease coming under notice there were 78 of scarlet fever, 47 of diphtheria, and 47 of typhoid fever; and of these, 52, 23, and 18 respectively were removed to hospital for isolation purposes. Discussing the question of notification, Mr. Cooney is of opinion that measles should be made notifiable by way of experiment for two years. The experiment would probably be a wise one, but we are convinced that two years would be too short a time. What is wanted is to include at least two epidemic periods and two periods when there is but little measles. Then it would be possible to test the effect of the process by way of securing preventive measures in the case of first attacks. Two years would not suffice for this. Some five years probably would. A large number of local questions are discussed in Mr. Cooney's report; as are also certain general questions, such as intermitting and constant water services, trade nuisances and methods of refuse disposal. A considerable amount of information is also given as to local sanitary administration, and the report is calculated to excite a greater interest in the question of public health in the parish than has been manifested in some previous years.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN thirty-three of the largest English towns 7264 births and 3473 deaths were registered during the week ending June 18th. The annual rate of mortality in these towns, which had declined from 19·4 to 17·8 per 1000 in the preceding three weeks, was again 17·8 last week. In London the rate was 17·1 per 1000, while it averaged 18·2 in the thirty-two provincial towns. The lowest rates in these towns were 11·2 in Hull, 13·3 in Croydon, 13·7 in Portsmouth, and 13·8 in Bradford; the highest rates were 21·7 in Halifax, 22·0 in Preston, 22·5 in Oldham, and 22·9 in Liverpool. The

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3473 deaths included 513 which were referred to the principal zymotic diseases, against 455 and 466 in the preceding two weeks; of these, 196 resulted from measles, 96 from whooping-cough, 88 from diarrhœa, 59 from scarlet fever, 50 from diphtheria, 22 from "fever" (principally enteric), and 2 from small-pox. No fatal case of any of these diseases occurred last week in Norwich; in the other towns they caused the lowest death-rates in Croydon, Derby, Swansea, and Bradford, and the highest rates in Birkenhead, Halifax, Birmingham, and Bolton. The greatest mortality from measles occurred in London, West Ham, Nottingham, Birmingham, Birkenhead, Sunderland, and Halifax; scarlet fever in Bolton; whooping-cough in Huddersfield, Sheffield, Wolverhampton, Blackburn, and Preston; and diarrhœa in Plymouth, Bolton, and Leicester. The mortality from "fever" showed no marked excess in any of these large towns. The 50 deaths from diphtheria included 34 in London, and 2 each in Bristol, Liverpool, Bolton, Manchester, Salford, and Sheffield. One fatal case of small-pox was registered in London and one in Liverpool, but not one in any other of the large towns; 69 cases of this disease were under treatment in the Metropolitan Asylum Hospitals, and 9 in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 1945, against numbers increasing from 1226 to 1878 in the preceding twelve weeks; 213 cases were admitted during the week, against 215 and 207 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding five weeks from 304 to 208, further fell to 202 last week, and were 41 below the corrected average. The causes of 87, or 2·5 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Croydon, Blackburn, Norwich, and in five other smaller towns; the largest proportions of uncertified deaths were registered in Birmingham, Manchester, Salford, Preston, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 20·2 and 20·8 per 1000 in the preceding two weeks, declined again to 17·7 during the week ending June 18th, and was slightly below the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 11·2 in Edinburgh and 14·1 in Leith to 20·6 in Perth and 21·2 in Glasgow. The 493 deaths in these towns included 27 which were referred to whooping-cough, 27 to measles, 6 to diarrhœa, 4 to scarlet fever, 2 to diphtheria, and not one either to small-pox or "fever." In all, 66 deaths resulted from these principal zymotic diseases, against 76 and 82 in the preceding two weeks. These 66 deaths were equal to an annual rate of 2·4 per 1000, which was 0·2 below the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had been 20 and 30 in the preceding two weeks, declined to 27 last week, of which 18 occurred in Glasgow and 3 in Edinburgh. The deaths referred to measles, which had been 32, 34, and 27 in the previous three weeks, were again 27 last week, all of which were recorded in Glasgow. The 6 fatal cases of diarrhœa showed a decline from those returned in recent weeks. The deaths from scarlet fever, which had been 7 and 6 in the preceding two weeks, further fell to 4 last week, all of which occurred in Glasgow, where the 2 fatal cases of diphtheria were also recorded. The deaths referred to diseases of the respiratory organs in these towns, which had been 123 and 124 in the preceding two weeks, declined last week to 94, and were as many as 49 below the number in the corresponding week of last year. The causes of 45, or more than 9 per cent., of the deaths in these eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had declined in the preceding four weeks from 34·6 to 24·0 per 1000, rose again to 31·6 during the week ending June 18th. During the first eleven weeks of the current quarter the death-rate in the city averaged 32·3 per 1000, against 19·2 in London and 18·0 in Edinburgh. The 212 deaths in Dublin during the week under notice showed an increase of 51 upon the number in the preceding week, and included 27 which were referred to measles, 5 to whooping-cough, 1 to diarrhœa, and not one either to small-pox, scarlet fever, diphtheria, or "fever." In all, 33 deaths resulted from these principal zymotic diseases, equal to an annual rate of 4·9 per 1000, the zymotic death-rate during the same period being 3·2 in London and 0·6 in Edinburgh. The fatal cases of measles, which had been 21 and 25 in the preceding two weeks, further increased to 27 last week. The deaths referred to whooping-cough, which had declined from 6 to 1 in the previous three weeks, rose again to 5 last week. The 212 deaths registered in Dublin last week included 32 of infants under one year of age, and 38 of persons aged upwards of sixty years; the deaths of infants showed a decline, while those of elderly persons showed a marked increase upon the number recorded in the preceding week. Six inquest cases and 4 deaths from violence were registered; and 76, or more than one-third, of the deaths in the city last week were not certified.

THE SERVICES.

BRIGADE-SURGEON W. SKUES, M.D.

WE regret to have to announce the death of Brigade-Surgeon W. Skues, M.D., Surgeon-Major, Retired List, Army Medical Staff, at Shrublands, Linden-grove, Nunhead, on the 10th inst., aged sixty-four years. He joined the Army, July 29th, 1853; became Surgeon, July 8th, 1860; Surgeon-Major, March 1st, 1873; and retired with the rank of Brigade-Surgeon, Dec. 2nd, 1881. He was Principal Medical Officer of the expedition from Aden into Arabia against the Arabs in 1865–66.

ARMY MEDICAL STAFF.

Surgeon-Major A. A. Lyle has been posted for duty to the Station Hospital, York.—Brigade-Surgeon-Lieutenant-Colonel G. Andrew has been posted to the charge of the South Station Hospital, Secunderabad, and Surgeon-Major G. D. Bourke has been posted to the charge of the Central Station Hospital, Secunderabad.—Surgeon-Captains G. B. Russell and C. A. Young, doing duty in Burmah, have been ordered to Wellington and Bungalore respectively, Madras command.—Surgeon-Lieutenant-Colonel H. T. Brown, M.D., to be Brigade-Surgeon-Lieutenant-Colonel, vice C. S. Close, retired.

NAVAL MEDICAL SERVICE.—In accordance with the provisions of Her Majesty's Order in Council of April 1st, 1881, Fleet Surgeon Henry Scott Lander has been placed on the Retired List, with permission to assume the rank of Deputy-Inspector-General of Hospitals and Fleets (dated June 15th, 1892); Fleet Surgeon Geo. Bolster has been placed on the Retired List at his own request, with permission to assume the rank of Deputy-Inspector-General of Hospitals and Fleets (dated June 16th, 1892).—The following appointments have been made at the Admiralty:—Fleet Surgeons: I. H. Anderson to Plymouth Hospital (dated June 11th, 1892); R. A. Mowll, M.D., to the *Duke of Wellington*; B. Renshaw to the *Defiance*, and R. Turner to the *Euphrates* (all dated July 8th, 1892). Staff Surgeons: H. A. W. Richardson to Plymouth Hospital (dated June 11th, 1892); H. W. D. Walsh to the *Hecla* and R. Bentham to the *Neptune* (dated July 2nd, 1892); A. L. Christie, M.B., to the *Serapis*, and T. D. Gimlette to the *Anson* (both dated July 8th, 1892); and A. C. Queely to the *Triumph* (dated June 16th, 1892). Surgeons B. S. Mends and J. L. Thomas to the *Excellent*, additional; J. C. Wood to the *Alecto*; H. W. Macnamara and H. E. L. Earl to the *Pembroke*, additional (all dated June 11th, 1892).

YEOMANRY CAVALRY.—Denbighshire (Hussars): Richd. Williams, Gent., to be Surgeon-Lieutenant (dated June 18th, 1892).

MILITIA MEDICAL STAFF.—Surgeon-Lieutenant-Colonel W. Malcomson, 4th Battalion, Princess Victoria's (Royal Irish Fusiliers), resigns his commission; also is permitted to retain his rank and to wear the prescribed uniform on his retirement.

VOLUNTEER CORPS.—*Rifle:* 1st Volunteer Battalion, the Royal Warwickshire Regiment: Surgeon-Lieutenant T. G. McLauchlan, M.B., resigns his commission (dated June 18th, 1892).—3rd (Cambridgeshire) Volunteer Battalion, the Suffolk Regiment: Surgeon-Captain W. R. Grove, M.D., to be Surgeon-Major (dated June 18th, 1892).

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METROPOLITAN HOSPITAL SUNDAY FUND, 1892.

WE have received, at the time of our going to press on Thursday evening, returns from a number of metropolitan places of worship giving the amounts collected last Sunday in aid of the Hospital Sunday Fund.

	£	s.	d.
St. Michael, Chester-square (per Rev. Canon Fleming, B.D.)	1208	15	3
St. Paul's Cathedral (Dean Gregory)	216	7	9
Delta (a further)	200	0	0
A. A. C. (a further)	200	0	0
J. A. J.	200	0	0
G. W. Medley, Esq. (a further)	30	0	0
Percy Ricardo, Esq. (a further)	25	0	0
Mrs. Burnaby (a further)	20	0	0
St. Mary's Old Church, Stoke Newington (Rev. Prebendary Shelford)	33	17	1
St. Matthew's, Denmark-hill (Rev. J. R. Porte, D.D.)	65	6	4
St. Paul, Mill-hill (Rev. H. V. Cowper)	21	7	2
St. Matthew, Brixton-hill (Rev. N. A. Garland)	83	1	0
Lady Tilson (a further)	50	0	0
St. Saviour's, Clapham (Rev. C. P. Greene)	38	14	0
All Saints, Upper Norwood (Rev. James Watson)	27	12	11
St. Anne, Highgate-rise (Rev. C. T. B. Acland)	55	4	7
Miss Emily Old	25	0	0
Holy Trinity, Tulse-hill (Rev. E. L. Roxby)	97	0	0
H. A. Soames, Esq. (a further)	25	0	0
Gower-street Baptist Chapel (Mr. R. Link)	20	3	2
Box outside Mansion House	20	7	8
National Secular Society (open-air collection, Finsbury Park)	17	11	0
Holy Trinity, Kilburn (Rev. Canon Money)	31	13	2
Clapton Park Congregational Chapel (Rev. W. J. Woods, B.A.)	39	3	10
Camberwell Parish Church (Rev. F. F. Kelly)	65	17	3
St. Philip's, Sydenham (Rev. A. Edmund King)	37	8	8
St. Paul's, Kilburn (Rev. Dr. Bonavia Hunt)	40	19	2
St. Luke's, West Holloway (Rev. R. Glover)	48	0	0
St. James's, Garlickhithe (Rev. L. Gibbs)	26	13	4
St. Mary Brookfield, Highgate-rise (Rev. D. J. Twemlow Cooke)	27	12	0
St. Mary Magdalene, Enfield (Rev. G. P. Turner)	28	12	1
St. Stephen's, Hampstead (Rev. J. Kirkman)	44	4	0
Carmellite Church, Kensington (Rev. Father Badger)	24	15	0
Malden, Surrey, Parish Church (Rev. Canon Stapylton)	37	18	4
St. Paul's (Presbyterian), Westbourne-grove (Rev. Dr. Morison)	77	9	4
St. James's, Camberwell (Rev. J. Dixon Dyke)	36	5	6
St. Andrew's, Thornhill-square (Rev. A. J. Bridgman)	22	0	0
Dutch Church, Austin Friars (Rev. A. D. Adama van Scheltema)	29	12	3
St. Andrew's, Holborn (Rev. H. Blunt)	21	7	5
Islington Presbyterian Church (Rev. J. Thain Davidson, D.D.)	24	14	10
Holy Trinity, Lyonsdown (Rev. E. Gardner)	28	11	4
Central-hill Baptist Chapel, Upper Norwood (Rev. S. A. Tipple)	33	10	4
Anonymous, per Robarts, Lubbock, and Co.	200	0	0
Christ Church, Southgate (Rev. James Baird)	43	0	6
Regent-square Presbyterian Church	102	6	2
Chislehurst Parish Church (Rev. Canon Murray)	262	5	7
B.C.F.N.I.	100	0	0
Curzon Chapel, Mayfair (Rev. T. Filmer Bennet)	305	0	0
St. James's, West Hampstead (Rev. Charles Mc Anally)	307	8	7
St. George's Parish Church, Beckenham (Rev. Henry Arnott)	61	9	6
Elstree Parish Church (Rev. P. Peach)	32	5	9
Wanstead Churches (Rev. M. Drummond)	42	1	0
East London Christian Evidence Society	23	10	2
Stoke Newington Parish Church (Rev. Prebendary Shelford)	73	15	2
Christchurch, North Brixton (Rev. W. R. Mowl)	53	14	3
St. Mary Boltons (Rev. W. J. Du Boulay)	58	9	6
Coldharbour Parish Church (Rev. J. Rooker, jun.)	20	15	6
St. Mary Shortlands (Rev. H. F. Woolley)	41	5	4
F. G. D. (a further)	50	0	0
St. Matthew's, Westminster (Rev. W. B. Trevelyan)	22	0	0
St. Peter's, Vere-street (Rev. W. Page Roberts)	297	7	7
Eltham Parish Church (Rev. W. J. Sowerby)	34	10	2
St. Mary's, Monken Hadley (Rev. F. C. Cass)	31	0	0
The Oratory, South Kensington (Very Rev. W. T. Gordon)	41	11	0
Crosby Lockwood, Esq. (a further)	21	0	0
C. H. T. Hawkins, Esq. (a further)	21	0	0
Major Jones (a further)	20	0	0
St. Thomas's, Portman-square (Rev. R. P. Thompson)	106	10	4
Westminster Abbey (Very Rev. Dean Bradley, D.D.)	179	9	4
Hampstead Parish Church (Rev. S. B. Burnaby)	62	7	8
Abney Congregational Church, Stoke Newington (Rev. W. Spensley)	25	7	5
St. Stephen's, Canonbury (Rev. John Parry)	31	10	8
St. Mary's, Hornsey-rise (Rev. W. S. Lewis)	42		0
New Court Congregational Chapel, Tollington-park (Rev. W. Pierce)	33		14
Dulwich College Chapel (Rev. G. W. Daniell)	57	5	0
St. Giles's-in-the-Fields (Rev. Canon Nisbet)	36	13	8
St. Philip's, Regent-street (Rev. Prebendary Harry Jones)	25	6	3
Park Chapel, Camden Town (Rev. H. Coley)	36	14	2
St. Paul's, Balls-pond (Rev. J. H. Shaw)	31	18	9
St. Anne's, Soho (Rev. J. H. Cardwell)	50	13	5
Holy Trinity, Lee (Rev. W. B. Bucke)	35	0	0
Blackheath Wesleyan Church (Rev. Owen Davies)	23	6	6
Gray's-inn Chapel (Rev. J. H. Lupton)	42	8	6
St. Pancras Parish Church (Rev. H. L. Paget)	49	16	7
St. Margaret's, Westminster (Ven. Archdeacon Farrar, D.D. &c.)	224	2	0
St. Mark's, North Audley-street (Rev. J. W. Ayre)	214	10	0
Temple Church (Very Rev. Dean Vaughan)	211	1	2
Marylebone Presbyterian Church (Dr. Pentecost)	100	0	0
St. Paul's, Great Portland-street (Rev. C. G. Williamson)	43	0	0
St. Stephen's, South Dulwich (Rev. J. M. Clark)	145	17	4
Woodford Parish Church (Rev. A. Hughes)	21	1	3
Hammersmith Parish Church and Missions (Rev. J. H. Snowdon)	39	14	4
St. Peter's, Islington (Rev. C. J. Procter)	20	5	1
All Saints, Friern Barnet (Rev. H. S. Miles)	40	7	8
Ewell Parish Church (Rev. J. Thornton)	39	4	0
West Wickham Parish Church (Rev. H. Bertie Roberts)	25	10	10
St. George's, Bickley (Rev. R. Wood)	56	16	0
Effra-road Unitarian Church, Brixton (Rev. W. M. Ainsworth)	63	7	6
St. Saviour's, Ealing (Rev. W. Ranger)	30	19	6
Mitcham Parish Church (Rev. D. F. Wilson)	26	2	1
Bromley (Kent) Parish Church (Rev. A. G. Hellicar)	80	0	9
St. John's Presbyterian Church, Kensington (Rev. Charles Moinet, M.A.)	86	10	0
Julian Senior, Esq. (a further)	25	0	0
St. Mark's, Reigate (Rev. A. Simmonds)	33	10	0
St. Luke's Parish Church, Chelsea (Rev. Gerald Blunt)	43	10	0
Lewisham High-road Congregational Church (Rev. J. Morley Wright)	20	16	11
Barnes Parish Church (Rev. B. M. Kitson)	35	17	6
St. James the Less, Westminster (Rev. Canon Blackley)	33	15	9
St. Mary Magdalene, Munster-square (Rev. F. J. Ponsonby)	23	17	8
Clapton Wesleyan Church (Rev. J. Dixon)	21	11	7
Holy Trinity, Blackheath, and Missions (Rev. S. F. Hooper)	37	12	10
Park Church, Highbury (Rev. John Edmond, D.D.)	27	0	0
St. Paul's, Paddington (Rev. H. V. H. Cowell)	34	7	1
Crouch Hill Presbyterian Church (Rev. J. B. Meharry, B.A.)	48	5	2
Lyndhurst-road Congregational Church (Rev. R. F. Horton, M.A.)	50	18	2
Highbury Quadrant Church (Rev. S. Pearson, M.A.)	27	9	8
Denbigh-road Wesleyan Chapel, Bayswater (Rev. Josiah Banham)	26	10	6
Craven Chapel, Foubert's-place, Regent-street	7	8	0
Nutley-lane Church, Reigate (Rev. Montague Hobbs)	8	6	0
St. Matthew's, Canonbury	14	4	5
St. David's, West Holloway (Rev. Edward Doveton)	13	6	0
Forest Hill Congregational Church (Rev. R. Alex. Johnson)	8	16	1
St. George's, Westcombe Park, Blackheath (Rev. H. K. Soames)	30	4	3
St. John the Evangelist, Brownswood-park, Hornsey, N.	25	2	1
Loughborough Park Congregational Church, S.W. (Rev. J. A. Joyce)	7	7	0
Corpus Christi College Mission, 32, New Cross-road, S.E. (Rev. W. W. Hough)	7	9	4
St. Barnabas, Addison-road, Kensington (Rev. G. R. Thornton)	133	11	2
St. Paul's, Harringay, N. (Rev. J. H. Greaves)	19	0	9
St. Saviour's, Forest Hill (Rev. A. O. Napeh)	16	8	3
St. Mary of the Angels, Westmoreland-road, Bayswater (Rev. M. Wyndham)	8	0	0
Chelsfield Parish Church (Rev. T. W. Nutt)	10	3	8
Liverpool-road Wesleyan Chapel (Rev. John Evans)	10	0	0
St. Michael's, Paddington (Rev. G. F. Prescott)	173	8	7
The Old College Chapel, Dulwich (Rev. G. W. Daniell)	57	1	2
St. James's, Walthamstow (Rev. E. T. Hamel)	6	7	2
St. Mary the Virgin, Primrose-hill (Rev. A. Spencer)	44	1	4
Great Queen-street Wesleyan Chapel	9	4	3
South Hackney Parish Church (Rev. V. R. Lennar)	18	17	6
St. Mary Magdalene, Wandsworth-common, S.W.	16	7	10
Swiss Church, Endell-street (Rev. Alb. Boerich)	9	11	0
St. James's, Camberwell	36	5	6
St. Clement's, Notting-hill	8	0	0
Weald Church, Sevenoaks (Rev. E. K. S. Morgan)	5	4	5
St. John's Church, Enfield / St. Luke's Church, Enfield	12	8	5
St. Andrew's, Stoke Newington (Rev. J. E. J. Bevan)	96	1	9
St. Augustine's, Kilburn (Rev. R. C. Kirkpatrick)	58	12	8
St. Matthew's, Yiewsley (Rev. H. Francis)	12	2	0
Capland-road Wesleyan Church, Hackney (Rev. A. H. Vine)	12	15	8
St. Bartholomew's, Camberwell (Rev. H. Wells)	6	15	11
St. Marylebone Parish Chapel (Rev. E. Thomas, M.A., B.C.L.)	18	0	0
St. Peter's, Page-green, Tottenham (Rev. E. B. Scott)	5	3	10
St. Mary of Eton, Eton Mission (Rev. St. Clair Donaldson)	9	10	6
Hendon Baptist Chapel (Rev. G. D. Hooper)	7	5	4
St. Laurance, Catford S.E. (Rev. E. C. Robinson)	26	6	2
All Saints, Clapham Park	42	0	3
Covent Garden (Rev. S. F. Camberley)	6	4	3
Christ's Church, Mayfair (Rev. H. Rowsell)	103	16	0
Canning Town Congregational Church (Rev. T. W. Neoland)	8	10	0
Dormansland Church (Rev. J. A. Purvis)	7	10	9
Christ Church, Greenwich (Rev. A. Hamilton Baynes)	39	5	2
Parish Church, Hampstead (Rev. S. B. Burnaby)	62	7	8
St. John's, Isleworth, W. (Rev. G. B. Gordon Stokes)	12	12	0
St. Columba's, Pont-street	102	12	10
Parish Church, Shenfield (Rev. W. Quennell)	15	0	9
"Persis" (special)	5	0	0
St. Jude, Bethnal-green (Rev. Wilfred H. Davies)	4	16	6
St. John's, Hendon, N.W. (Rev. W. H. Shaw)	4	15	7

Other subscriptions have been received, and will be announced in our next list.

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Correspondence.

"Audi alteram partem.'

THE TREATMENT OF SPASMODIC TORTICOLLIS BY NEURECTOMY.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of June 18th particulars are given by four different writers of cases of spasmodic torticollis treated by removal of a portion of the spinal accessory nerve. In an editorial note on one of the cases it is remarked: "It is still too early to assign its just position to this operation. ..... It is only when the after histories of the whole have been ascertained that a fair judgment of this method of treatment will be possible."

Having now performed this operation on ten occasions, I may perhaps be allowed to state that, in my experience, the results are extremely satisfactory, as in a large proportion of cases there is no recurrence of the spasm.[1] Several of my cases have been lost sight of, two have been operated upon very recently, but in four which are still under observation, where intervals varying from eight to two years have now elapsed since operation, the relief from spasm which followed its performance has been permanent.

I am, Sirs, yours faithfully,

Manchester, June 20th, 1892. F. A. SOUTHAM.

DEATH UNDER CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—Enclosed is a very poor account of the case of chloroform death. I have made my house surgeon's notes as readable as I can, but I cannot personally vouch for their accuracy, except as to the order in which attempts at restoration were applied, and as to the short time—about five minutes—which intervened between the commencement of the anæsthetic and cessation of breathing. I was in the operating theatre, but scarcely saw the man until the moment of alarm. I am quite confident that the death began at the brain centre, which presides over respiration, and that the patient was *irrecoverably dead* from the moment when his breathing first ceased. The following is an account of the case.

The patient, aged fifty-two years, was admitted into Queen's Hospital on May 31st, under the care of Mr. Jordan Lloyd, for the purpose of having an exploratory operation on the right kidney for the relief of some painful malady which had disabled him from work and which had persisted for many months. He was a thick-set, muscular man, of middle height, and inclined to be stout. During his stay in the hospital his various organs were examined, and it was noted that the "heart sounds were normal, but somewhat feeble; apex displaced slightly outwards, and that there were moist sounds over the bases of each lung."

On June 11th pure chloroform was administered in the usual way, on a double fold of lint, by the house surgeon, Mr. Stead. For about three minutes the patient took the anæsthetic well, but then began to struggle rather violently. This struggling lasted two or three minutes, and the patient then began to lose consciousness. He breathed quietly and well for about another minute, when respiration suddenly ceased, and he became livid. The whole period of the anæsthetisation was not more than five minutes, and the operation had not been commenced. The pulse could be felt, and the pupils were less than a line in diameter. Restorative measures were applied for more than half an hour and in this order: inversion, artificial respiration (Howard's and Silvester's), faradisation, heart puncture, venesection, tracheotomy, and direct lung inflation. During these efforts at restoration patient gave one or two feeble gasps, the pulse was lost at wrist almost at once, and pupils dilated towards the end of the fifth minute.

The post-mortem examination of thoracic organs showed that the blood was fluid; the inferior cava and its tributaries were loaded with blood much more so than the superior cava and its branches; the heart was somewhat fatty, dilated, and flabby; tricuspid and mitral valves dilated; the aorta was healthy; the lungs both intensely congested with œdema of right base, the left base was bound down extensively by old adhesions.

I am, Sirs, yours faithfully,

Birmingham, June 22nd, 1892. JORDAN LLOYD.

[1] Brit. Med. Jour., July 11th, 1885, Jan. 31st, 1891.

COPPERED GREEN PEAS.

To the Editors of THE LANCET.

SIRS,—Are you quite sure you are correct in saying, with reference to the use of sulphate of copper in greening vegetables, that "the French Government have prohibited its use in this way so far as home trade is concerned, although they permit the adoption of the *reverdissage* process where the peas are intended for export purposes only"? I am aware that this has been suggested in expert reports, but not that it has ever been officially recognised. More especially also in 1890 I obtained from the British Embassy in Paris a copy of the circular of April 18th, 1889, issued by the French Government, withdrawing the prohibition hitherto existing as the result of the report of M. Grimaux adopted by the Consulting Committee of Hygiene of France, to the effect that "there was no reason for continuing the prohibition on the ground of injury to health." Last year I again communicated with the British Embassy to ascertain if any change in the position had taken place, and was informed that the decree of April, 1889, was the last, and was still in force. As to the present position of this question in this country, it is extremely unsatisfactory, and in my opinion there are only two remedies: either to lighten the burden of proof by making Section 3 of the Adulteration Act read, "so as to render the article dangerous or injurious to health," or by enacting *simpliciter* that no article of food shall be coloured with substances injurious to health, defining such substances so as to include the various metallic and other poisons. This is the straight and sensible method adopted by the German Empire, by the State of Massachusetts and other countries.

I am, Sirs, your obedient servant,

J. B. RUSSELL.

Sanitary Department, Glasgow, June 20th, 1892.

To the Editors of THE LANCET.

SIRS,—*Apropos* of your remarks on this subject in the current issue of THE LANCET, I would instance a case which was lately brought under my notice in which griping pain and diarrhœa were experienced after dinner and on inquiry it was found that the peas in question had been partaken of largely. But it has been affirmed by some that leguminate of copper is insoluble in the stomach and by others that the copper absorbed is so small in quantity as to be practically harmless. The latter supposition can, of course, only be true to a limited extent. Regarding the digestibility of these peas, in the careful research of Drs. Charteris and Snodgrass, to which you refer, it is clearly demonstrated that leguminate of copper is readily soluble in artificial digestants. That leguminate of copper is therefore soluble in the gastric juice is placed beyond reasonable doubt. But in these experiments the peas were (*a*) digested for one hour, and (*b*) digested alone. It might no doubt be urged that in the case of human consumption the peas are usually associated with large quantities of food and that they might thus escape the action, or the full action, of the available gastric juice during the time the food mass was permitted to remain in the stomach. Any undissolved leguminate of copper would, however, be further submitted to the action of the pancreatic juices which the above experiments have shown to be equally capable of dissolving it. It would indeed be interesting to learn how in the light of these experiments the digestibility of leguminate of copper in the human stomach can be disproved; and until such can be done, it is legitimate to regard the symptoms referred to as due to copper poisoning.—I am, Sirs, yours faithfully,

June, 1892. M.D.

RECTAL INJECTIONS OF SALT SOLUTION FOR HÆMORRHAGES.

To the Editors of THE LANCET.

SIRS,—Dr. R. F. Gill recommended (THE LANCET, Nov. 3rd, 1888), in cases of hæmorrhage, the injection per rectum of tepid salt solution at the rate of two or three

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ounces every ten or fifteen minutes. Supposing all the fluid to be absorbed, it would, at this rate, take *two hours* for that quantity to enter the circulation, which is the minimum found to produce benefit in some cases of intravenous injection. There is good reason to believe that, in the collapse attending *severe* hæmorrhage, rapid absorption does not take place from the intestinal tract. Case 7 in my paper shows the superiority of intravenous over rectal injection. Nevertheless, *hot* saline fluid is a useful stimulant in some of the less grave cases.

I am, Sirs, yours faithfully,

Mansfield-street, W., June 20th, 1892. HERBERT R. SPENCER.

EPIDEMIC DERMATITIS.

To the Editors of THE LANCET.

SIRS,—It may interest some of your readers to know that the epidemic dermatitis, of which 163 cases occurred last year in the Paddington Infirmary and in the adjacent workhouse, has again visited us, though in a milder form and with fewer cases. Indeed, the cases this year would almost have passed unnoticed had we not been on the look out for it. The epidemic appeared for the first time in this infirmary about the end of May last year, and there are now some six or eight cases among the patients in the wards. All but two of these had the disease last year. The disease has exactly the same features which I have already described, and terminates as usual in profuse exfoliation of the epidermis. It is in the hope that some of your readers will do me the favour to come and see the cases, and that we may thus obtain more light on the subject, that I have ventured to trouble you. I will not trespass further on your indulgence, except to add that the disease has also, as I am informed, reappeared in a neighbouring infirmary and hospital.—I am, Sirs, yours faithfully,

Paddington Infirmary, W., June 20th, 1892. THOS. SAVILL.

MALARIA IN ROME.

To the Editors of THE LANCET.

SIRS,—In your article on "Malaria in Italy" the curious fact is quoted that the most densely peopled and filthiest regions in Rome suffer least, while the less crowded suburbs where the houses are few, well built, surrounded by gardens and apparently answering the conditions required for perfect salubrity are extremely unhealthy. It is interesting to note that in the first century of our era a similar incidence of sickness was observed. Up to the time of the calamitous fire in the reign of Nero the city was built in close, narrow winding streets and alleys, the houses usually varying in height from sixty to seventy feet (*vide* Livy and Strabo). After the fire wide streets were laid out and it was an ordinance that "every house should be enclosed by its own walls." Tacitus (Annals, B. xv.), commenting on the improved appearance of Rome, says: "These regulations, which were favourably received in consideration of their utility, were also a source of beauty to the new city; yet some there were who believed the ancient form was more conducive to health, as from the narrowness of the streets and the heights of the buildings the rays of the sun were more excluded, whereas now the spacious breadth of the streets, without any shade to protect it, was more intensely heated in warm weather." Brotier, in a note on this passage, remarks that in his time there were more patients during the hot weather in the wide thoroughfares of Rome than in the narrow places.

I am, Sirs, your obedient servant,

West Brighton, June 21st, 1892. WATKIN W. JONES.

THE LONDON AND COUNTIES MEDICAL PROTECTION SOCIETY, LIMITED.

To the Editors of THE LANCET.

SIRS,—Permit me to observe in reply to the annotation in THE LANCET of the 18th inst. that there are about 5000 medical men practising in what may be termed the London district. As far as I can judge at present over 1000 of these are of opinion that such a society having a central office and council in London is needed, and, still more, acknowledge that, admitting the necessity of such a society, there is no centre equal to London for its successful working, and that London ought in the matter of medical protection to "run second" to no other town. The protection of a member, experience shows, can be more cheaply and efficiently conducted in London. We can there, at the minimum of expense and trouble, obtain the services of a staff of experts. This to men whose time is not merely money, but spent in a great part often without fee in performing onerous and valuable public services, is important both to the experts themselves and to the suffering public. At our head, forming the legal directory, are men of the highest position in all, or nearly all, branches of the profession, and we have the active sympathy and support of others of equal eminence whose names do not appear on our articles &c., but who are ready to help us in defending any wronged and suffering brother. All roads lead to London; from personal experience I know that it is often easier and less expensive to run up to London, and down to any provincial centre, than to attempt the cross-country route, even where one exists, with its delays and other disadvantages. For London men, with their immediate neighbours, the question is a double one. If in trouble or difficulty, would you rather be able to consult in London the chairman of our Emergency Committee, who has power to at once summon a meeting of able men residing within easy reach of his house, and empowered to advise or authorise preliminary steps to be taken to defend you, or go to some distant centre for that purpose?

I am, Sirs, yours obediently,

GEORGE B. MEAD,
Hon. Sec. London and Counties Medical Protection Society.

June 20th, 1892.

CENTRAL AFRICAN THERAPEUTICS.

To the Editors of THE LANCET.

SIRS,—I read with great interest your note on the above subject, but I cannot agree that religious progress will in any way aid in expelling superstition. History tells us that just in proportion to the intensity of religious feeling in a people is the spread of superstition. Had Mr. Currie's views appeared in a reactionary journal they would not have called forth a letter; but in a scientific journal like THE LANCET they are out of place and require notice. Besides all this, are we not making too much of our superiority over African superstition? In 1863 a man was drowned at Hedingham in Essex for being a wizard, and have we not examples enough in English history of barbarities for witchcraft without resorting to Central Africa? What might be said of the murder of Ruth Osborne and her husband at Tring in Hertfordshire, Aug. 22nd, 1751? What is to be thought of the brutality with which James I. had Fian, the Saltpans schoolmaster, murdered for witchcraft, Jan. 26th, 1591? When James I. brought home his bride from Denmark thirty persons were put to death for raising a storm at sea by witchcraft whilst he was on his journey. The few persons sacrificed in Africa for witchcraft sink into insignificance when we contemplate the nine millions of victims sacrificed by Christian Europe, according to Sprengel. Space would not allow of my recounting the Rev. Cotton Mather's witch-hunting in Salem; but before leaving the subject I will just mention that the statute against witchcraft in Ireland was not repealed until 1821. As an evidence of religion promoting superstition, need I do more than mention the exorcism in Edward VI.'s "Book of Common Prayer"; the function of the "laying-on of hands" for the royal touch; the services of Lourdes and such shrines? How religion has retarded medical progress is told in the lives of the earlier anatomists, the closure of anatomy rooms in George's reign, and the hysterical outcry against vivisection and the regulation of prostitution. Medicine is promoted by the advance of science, and superstition flies from the whistle of the steam-engine and the brightness of the electric light.—I am, Sirs, yours truly,

Dublin, June 18th, 1892. GEORGE FOY, F.R.C.S.I.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

To the Editors of THE LANCET.

SIRS,—The nonsense written by me has one advantage over that written by Mr. Lawson Tait—inasmuch as it happens to be true, whereas in his last letter to you he

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makes a statement which has not this distinction. While it is the fact that he obtained and paid for counsel's opinion on the question of appeal, it is also the fact that he afterwards wrote stating his intention of deducting the amount so paid from a sum of £100 which he had all along promised in aid of the legal costs, "provided that the case was fought out to the end," and of which sum he has up to the present time only contributed one half. It is obvious, therefore, that he did not pay for the opinion, but has made the committee do so, although they had voted against any such expenditure as being unnecessary.

I am, Sirs, yours faithfully,

June 21st, 1892. W. G. DICKINSON.

THE VENICE SANITARY CONFERENCE.

A WELL-INFORMED correspondent writes from Paris:—"Considerable doubt still prevails as to the results of the negotiations between the representatives of Great Britain and of France concerning the protocol drawn up by the Venice Sanitary Conference, and which had been accepted by all the nationalities represented with the exception of England and Turkey. The negotiations held in Paris were prolonged, and their lengthy duration gave rise to rumours of an unfavourable description. After calling upon some of the representatives present at the Paris meeting, I am able to affirm positively that there was no disagreement, and that the negotiations have been brought to a satisfactory conclusion. If the negotiations in Paris were of lengthy duration, this was not due so much to difference of opinion as to the desirability of establishing clearer definitions. Lord Salisbury, it appears, feared that if at any future time English influence in Egypt should not be as powerful as it is at present, the local authorities might interpret the clauses of the Venice protocol in a manner calculated to damage the interests of Great Britain. The English representatives were therefore anxious that the meaning of the words employed should be so clearly defined as to preclude the possibility of different interpretations. The term "suspect" was particularly open to this objection. It is now, however, clearly established that a person to be "suspect" must have been in personal contact with a cholera patient. The terms of the Venice protocol, which have already been published in THE LANCET, remain intact for ships that have neither disinfecting-stove nor surgeon on board; but modifications of practical importance have been introduced to the advantage of ships which have on board stoves where disinfection by steam under pressure can be applied and which carry a fully qualified medical attendant. For ships thus provided great facilities for transit through the Suez Canal will be accorded. The persons who have been in contact with a cholera patient may be landed at the Wells of Moses while the part of the ship they occupied and all their clothes and personal effects are disinfected. They may then return on board and remain on board during the period of observation, which is fixed at a maximum of six or seven days. But if these persons can be persuaded to remain on shore altogether, then the ship, after disinfection, may at once proceed on its journey. The "suspected" persons landed would, in that case, continue their journey in some other ship. At the suggestion of the English representatives it was agreed that, instead of landing "suspected" persons, they might be placed on board a pontoon, which would be anchored off the Wells of Moses for that purpose. As, however, such cases will only occur at very rare intervals, it is not likely that the expense of establishing a pontoon will be incurred. The negotiations held in Paris had also for object the conferring on the local sanitary authorities the right to use their discretion in not detaining for too long a period ships on which cases of cholera have occurred during the passage. The detention of such ships is never to exceed six to seven days since the occurrence of the last case of cholera. The time occupied in travelling is to be reckoned, so that a ship, for instance, having a case of cholera on board three days previously to its arrival at the Wells of Moses would not be detained under observation at this station for more than three or four days; and, as already mentioned, would not be kept longer than twenty-four hours, if all the "suspected" persons consented to land and wait for another ship. One of the most practical advantages resulting from the Venice protocol is the abolition of detention formerly imposed upon ships that came from ports where cholera prevailed. These ships will now be allowed to proceed through the Canal at once if there be no case of cholera on board. Inasmuch as in actual practice cases of cholera very rarely occur on board ship, but, on the other hand, ships frequently come from ports where cholera prevails, it will be seen that the new regulations remove the principal obstacle to easy transit through the Canal. As all these stipulations have now been accepted by the British Government, it is considered that the other powers are not likely to raise any objection, and that the protocol—as drawn up at Venice and amended in Paris—will soon be signed and have the force of law. Some surprise and much satisfaction are expressed at the willingness with which the English Government consented to the modification of the constitution of the Alexandrian Sanitary Commission, though this alteration gives England a smaller representation on the Commission. This, however, renders the Commission more international in its character, and for this reason gives greater satisfaction to the various continental powers concerned."

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

Election of Honorary Assistant Medical Officers to the Royal Infirmary.

ON the 16th inst. the newly created Election Committee of the Royal Infirmary met for the first time in its board-room for the purpose of electing one honorary assistant physician and two honorary assistant surgeons. The committee is composed of the members of the general committee, the physicians, the surgeons of the infirmary, the two surgeons of the Lock Hospital, and a number of trustees—i.e., subscribers of two guineas and upwards, or donors of thirty guineas and upwards—annually elected, bringing up the total number to ninety-five. Of these upwards of fifty attended. For the assistant physicianship there were seven candidates; for the two assistant surgeoncies five. The election was by ballot, and, at its conclusion, the chairman announced that Dr. Thomas Robert Bradshaw had been elected assistant physician and Messrs. Geo. Gibson Hamilton and Wm. Thelwall Thomas, assistant surgeons. Mr. Hamilton's election will cause a vacancy in the office of surgeon to the Northern Hospital, which is also to be filled by an election committee. To the candidates this new mode of election is a great economy as well as free from the odious duty of canvassing trustees. The general impression appears to be that it is a very great improvement upon the former mode of election.

Declarations of Stillbirth.

The Births and Deaths Registration Act of 1874 contained a clause regulating the burial of stillborn infants, requiring the production of a medical certificate or a declaration signed by some one of a number of persons specified, and enacting heavy penalties for any breach of this law. But unfortunately there was no form of medical certificate or of declaration given in the Act or its schedules, these being left to the practitioners giving the certificates or to the persons making the declaration. This latter it must be observed is not a statutory declaration requiring the attestation, but a declaration in the same sense as that given by informants to registrars of births and deaths, or to clergymen before the publication of banns. The Toxteth-park Burial Board have provided for use, at their cemetery in Smithdown-road, a form which is in all its details very complete. This must be signed by the person responsible—i.e., the father, mother, occupier of the house, or person present at the birth. The registrar is most careful to read over the declaration and the penalty clause. This form and these precautions are examples which might well be followed elsewhere. For medical practitioners a form of certificate of stillbirth has been issued by the Registrar-General, as intimated in THE LANCET some months ago, and books of forms can be had either direct or from the registrar of any subdistrict.

Liverpool and Neighbouring Health Resorts.

Although the weather cannot be called settled as yet, many of the inhabitants of this crowded city have availed

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themselves of the proximity of the many seaside resorts which are so easy of access from Liverpool. To those who can reside for some time at the seaside, New Brighton, Hoylake, and West Kirby offer many advantages, being all now accessible by rail. On the Lancashire side Seaforth, Waterloo, and Southport are favourite localities, especially the latter. To those who have little or no reason to dread *mal de mer*, the Isle of Man affords a complete change and an air almost as bracing as the deck of a steamer, while the voyage is much shortened. In addition to Douglas and Ramsey, the central and northern towns, Castletown, Port Erin, and Port St. Mary in the south, with Peel in the west, have all excellent hotels and comfortable lodgings for visitors. To those who can only afford a day's holiday at a time the sail to and from Douglas, Llandudno, Beaumaris, or Menai Straits is both health-giving and pleasurable. Monthly and season tickets can be obtained on most moderate terms, enabling those who may wish to do so to spend a considerable portion of each day at sea, sleeping in England or Wales each night.

June 22nd.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

A Medical School Board Officer wanted.

THE Newcastle School Board, wishful to appoint a medical officer of their own to certify as to the health of their officers and to fulfil other duties, are about to make this appointment. It strikes one, however, that the board have not been at all "lavish" in their remuneration. The medical officer will have to examine all teachers seeking appointments under the board and visit all the staff who may be laid up with any serious illness. The board have, I believe, about 400 teachers alone. The sum offered, as pointed out by a member, is quite inadequate. It has a fine sound in "guineas"; but when reduced to vulgar and everyday sterling money it amounts to 10*s.* 6*d.* per week, or just half as much as they would probably offer to their porter or messenger. The appointment should, by right, go a long time "begging."

Municipal Visit to Newcastle.

A large deputation from the Leeds Corporation visited Newcastle on Saturday last for the purpose of inspecting the new city fever hospital. The members expressed themselves highly pleased with what they had seen, and the ex-Mayor of Leeds said they considered the hospital superior to anything they had seen. The deputation was afterwards entertained to luncheon by the Mayor of Newcastle, when it was stated that the Leeds Corporation have just acquired a very large estate, about three miles from Leeds, called Mannsfield Hall and containing about eighty acres, for the purpose of erecting a large fever hospital, and, in addition, they intend to build a convalescent hospital for patients upon the same estate.

The Newcastle Cathedral Nurse and Loan Society.

The annual meeting of this Society has been held, and the report showed a very large amount of work had been done during the past year, for 19,252 visits had been paid, and the night nurses had been out 848 times. The Convalescent Home of the Society at Shotley Bridge had proved most valuable, and the Home at Hexham was also in progress. The plans for the site had passed the local board, and the contract had been signed for the building; it is hoped that before the next report the building will be finished and in full working order. About £1000 are, however, still wanted to meet all necessary expenses.

Two Children poisoned by Hemlock.

Two little girls, sisters, aged four and nine, were unfortunately poisoned by hemlock at Newton Hall, near Corbridge, last week. The children were playing in a field where their mother was working and found the poisonous plants which were growing in a quarry hole near at hand. The younger child died the same night, and her sister the next day. The rector of the parish has written to the papers to urge the necessity of making children acquainted with the poisonous plants of their district; he considers that this instruction might be very well given in the schools.

Darlington and Cremation.

As a result of a ballot taken in Darlington as to the granting of a way leave through the cemetery to the crematorium there, the result showed 4110 votes against and 53 in favour of the granting of the way leave to the cremationists.

Small-pox at Middlesbrough.

A fatal case of small-pox has occurred at Middlesbrough. The medical officer of health, Dr. Malcomson, reported the removal of a Spanish sailor from a vessel which had arrived in the Tees from Bilbao. The man, he said, was nearly at the Fever Hospital when he heard of the case, when he should have been sent to the Small-pox Hospital floating in the river, but he did not deem it advisable to take him back through the town. Dr. Malcomson speaks of the imperfect instructions given to foreign vessels having infective diseases aboard. The crews cannot speak English, much less read it, and he very properly suggests that the code of instructions suitable for these cases should be translated and printed in the various continental languages, so that captains would understand how to communicate with the officials on shore in cases of sickness and that they must not send them on shore without authority. The man, I hear, has since died.

Carlisle and its Water-supply.

The people of Carlisle are much exercised as to their water-supply, which is at present far short of the requirements of the city and district. Fortunately, however, the sources of supply are not far distant; and further, Mr. J. G. Goodchild of Edinburgh has shown in a paper lately read the great probability of there being an abundant supply under the Penrith sandstone along the western bank of the River Eden; but it is likely that the Carlisle people will find their supply nearer to their city. At all events, it is merely an engineering question now, and not at all a difficult one.

Death of Mr. J. J. Johnstone of Brampton.

Mr. J. J. Johnstone of Brampton, near Carlisle, died last Wednesday at his residence, The Hollies, in his eighty-fourth year. Mr. Johnstone came into the district about fifty-seven years ago and had an extensive general practice; he was also a skilful operator. About twelve years ago, through failing sight and health, he was compelled to relinquish his practice. He held during his time of professional activity many appointments. Mr. Johnstone has left a widow and two daughters.

Mrs. Ostle of Birkby has bequeathed to the Cumberland Infirmary £200 and to the Royal Albert Asylum, Lancaster, £50.

The amount subscribed towards the public memorial in Berwick to the late Dr. P. W. Maclagan has now reached £100.

Newcastle-on-Tyne, June 22nd.

SCOTLAND.

(FROM OUR OWN CORRESPONDENT.)

Appointment of Pathologists to the Edinburgh Royal Infirmary.

AT a meeting of the managers of the Royal Infirmary on Monday, Dr. Robert Muir and Dr. R. F. C. Leith were appointed pathologists in succession to Dr. W. Russell, who has become an assistant-physician, and Dr. W. H. Barrett, who has gone to Belfast as lecturer on pathology. Both Dr. Muir and Dr. Leith were distinguished students, and both are teaching pathology, the former inside the University, the latter in the Extra-mural School.

Scottish Universities Commission.

The Commission resumed some time ago its sittings in Edinburgh, and has been engaged in rehearing evidence as to the place of materia medica in the five years' curriculum. So far as can be ascertained the Professor of Materia Medica does not seem to be in harmony with his colleagues on this question. In fact, it is said that the reopening of this question was a surprise to some of them. This week the Commission has been examining witnesses regarding the redistribution of chairs between St. Andrews and University College, Dundee.

The Health of Edinburgh.

The mortality last week was 52, making the death-rate 10·0 per 1000. Diseases of the chest caused 23 deaths and

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zymotic diseases 3, all of which were due to whooping-cough. The intimations for the week were: typhoid fever, 2; diphtheria, 4; scarlet fever, 34; measles, 76.

Action under the Public Health (Scotland) Act.

A case has been before the sheriff of Midlothian, in which the pursuer sues one of the district committees of the Midlothian County Council. The pursuer alleged that in January last, in consequence of a case of scarlet fever being notified in his house, the medical officer of the county ordered the pursuer to close his shop in which he carried on the business of a restaurateur, and that he had done so for six weeks. The pursuer estimated his loss at £50. The defenders denied the statements as to the pursuer being ordered to close his premises, and explained that all that was insisted on was that the child should be isolated. The sheriff has dismissed the action, and in his note states that where damage has been sustained by reason of the acts or operations of a public body not authorised by the statute under which it acts, the remedy is by an action of damages at common law, and not by a claim for compensation under the statute. He, however, does not find in the Act anything which would empower the defenders or their medical officer to issue and enforce the order of which the pursuer complained, and he is therefore of opinion that the pursuer's remedy is by an ordinary action of damages if he can show that the defenders or their medical officer exceeded their statutory powers. This is said to be the first occasion on which the question has been decided in a law court.

The City Hospital, Edinburgh.

The Public Health Committee of the Edinburgh Town Council have decided to ask the Council to authorise the expenditure of £550 for the establishment of a hot-water apparatus to the hospital.

The Edinburgh University Court.

Amongst other matters before the Court last week was the continuance of the recognition of Professor Windle, Queen's College, Birmingham, as a teacher of anatomy on change of teaching rooms from Queen's College buildings to Mason's College. Dr. R. F. C. Leith was granted recognition as a teacher of practical pathology in Edinburgh.

June 21st.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Death of Mr. William Colles, F.R.C.S.I.

By this gentleman's death a vacancy for a surgeon in ordinary to Her Majesty in Ireland has arisen. I understand that Mr. Philip Crampton Smyly, M.D. Dub., F.R.C.S.I., is a candidate for the post, and his selection would give general satisfaction. Mr. Smyly is surgeon to the Meath Hospital and a member of the medical staff to the Lord-Lieutenant. Of unsullied reputation, strictly honourable in every transaction of life, he has the respect and esteem of his professional brethren and of the community at large. No better selection could be made than the appointment of Mr. Smyly as Mr. Colles' successor.

Adelaide Hospital, Dublin.

The Hudson Scholarship, consisting of a gold medal and a cheque for £30, has this year been awarded to Mr. T. E. B. Meyler, and the Hudson prize—a silver medal and £10—to Mr. F. W. Staunton. These prizes were established in memory of the late Dr. Alfred Hudson, an eminent physician for some years attached to the hospital. The subjects for examination are numerous and the competition keen for the rewards offered by the authorities of the institution.

Dublin University Tercentenary.

The following is the amended programme for the celebration of the tercentenary of the University, which will commence on July 5th and terminate on July 8th:—

Tuesday, July 5th.—10 A.M: Reception of guests and delegates by the Provost in the Examination Hall. 11.30 A.M.: Commemoration service in St. Patrick's Cathedral, to which a procession will start from the Examination Hall; guests and delegates will be expected to attend in their academic robes or official costume. 3 P.M.: Cricket match in College Park—Cambridge Eleven *v.* Dublin University. 4 P.M: Garden party in the Fellows' Garden. 9 P.M: Performance of Tercentenary Ode by the University Choral Society in the Leinster Hall. 10 P.M.: Reception and ball by the Lord Mayor.

Wednesday, July 6th.—12 noon: Conferring of honorary degrees in the Examination Hall, Trinity College. 3 P.M.: Meeting in connexion with the graduates' memorial. 3 P.M.: Cricket match in the College Park. 3 P.M.: Garden party at the Viceregal lodge. 6.45 P.M. Tercentenary banquet in the Leinster Hall.

Thursday, July 7th.—11 A.M.: Procession in academic robes or official costume from Trinity College to Leinster Hall. 11.30 A.M.: Presentation of addresses by the delegates in the Leinster Hall. 4 to 6 P.M.: Garden party at the Royal Hospital. 8 P.M.: Dramatic performance in the Gaiety Theatre.

Friday, July 8th.—11 A.M.: Addresses to the students by certain of the University guests in the Examination Hall. 12.30 P.M.: College races in the College Park. 10 P.M.: University ball in the Leinster Hall.

The tercentenary medal to commemorate the event has on one side two heads—Elizabeth and Victoria—and the dates 1592 and 1892, with the motto "Ab Elizabetha ad Victoriam"; while on the other side are the arms of the College, and the words, "Trinity College, Dublin, Tercentenary." The medal has no raised rim, and is two inches and a half in diameter, and can be had in bronze or silver. On Saturday the Board of Trinity College received a memorial signed by 10,000 Irish ladies, asking that from the date of the tercentenary the educational benefits of the University may be extended to females.

At a meeting of the Board of Governors of the Catholic University School of Medicine, held on Tuesday, the 14th inst., it was decided to create a chair of Pathology and Bacteriology, the incumbent of which is to have a seat upon the Medical Faculty. It was also resolved that Mr. Edmond J. McWeeney, M.A., M.D., Pathologist to the Mater Misericordiæ Hospital, be appointed to the new chair.

June 21st.

Obituary.

WILLIAM COLLES, M.D. T.C.D., F.R.C.S.I.

MR. COLLES died on June 18th at his residence in Stephen's-green, Dublin, in his eighty-fourth year. He was the son of the celebrated Abraham Colles, who was Professor of Surgery, Anatomy, and Physiology in the Royal College of Surgeons in Ireland and President of that institution when only twenty-eight years of age. Mr. William Colles was educated at the Feniaiglian School, and graduated in Arts in the University of Dublin in 1831, and ten years later in Medicine. He studied at Steevens' Hospital and the School of the College of Surgeons. In 1831 he was admitted a licentiate of the College, and was President in 1863-4. Mr. Colles retained a seat on the Council of the College until the last few weeks, and held the post of secretary and librarian for twenty-seven years, having been succeeded on the 6th inst. by Sir Charles Cameron. He was a visiting surgeon for many years to Steevens' Hospital, and for some time lecturer on surgery in the medical school attached thereto. Mr. Colles resigned the post of Regius Professor of Surgery in Trinity College, which is now held by Sir George Porter, and at the time of his death was Surgeon in Ordinary to Her Majesty in Ireland and consulting surgeon to the Rotunda Lying-in Hospital.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At a recent meeting of the President, Vice-Presidents, and Council the following examiners were elected for the ensuing year:—Anatomy and Surgery: John Barton, William Stoker, Sir William Stokes, and William Thompson. Physiology, Histology, and Pathology: R. Glasgow Patteson and J. Alfred Scott. Chemistry and Physics: Robert J. Montgomery. Midwifery and Gynæcology: Samuel R. Mason. Ophthalmology: Patrick William Maxwell and Ferdinand Odevaine. Diploma in State Medicine: D. Edgar Flinn, J. Dallas Pratt, P. Crampton Smyly, and William Stoker. Midwifery Diploma: Samuel R. Mason, John J. Cranny, and Jeremiah O'Donovan. General Education: Frank J. Davys and Robert Morton.

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Medical News.

SOCIETY OF APOTHECARIES OF LONDON.—The following candidates have recently passed in the subjects indicated:—

Surgery.—A. Baldwin, Edinburgh; W. R. Floyd, Cambridge and Liverpool; A. D. Howard and A. J. Russell, London Hospital; E. Howgate, Yorkshire College, Leeds; C. T. Parsons, St. Mary's Hospital; J. S. Tabb, Charing-cross Hospital; P. M. Thomas, Cleveland, U.S.A.; W. H. Waddington and J. D. Willis, Owens College; R. B. Williams, St. Thomas's Hospital.

Medicine, Forensic Medicine, and Midwifery.—C. R. Batchellor and S. D. Gill, Queen's College, Birmingham; J. N. Dobie, Cambridge and St. Mary's Hospital; W. R. Floyd, Cambridge and Liverpool; C. T. Parsons and W. F. Peacock, St. Mary's Hospital; J. A. T. White, St. Bartholomew's Hospital.

Medicine and Midwifery.—J. Edwards and A. Greenwood, London Hospital; W. Loades, Middlesex Hospital; T. E. Pallett, Westminster Hospital; S. J. Roberts, Guy's Hospital.

Forensic Medicine.—E. E. Frazer and W. K. Steele, Guy's Hospital; J. H. Hobling, St. Mary's Hospital; J. Kyffin, London Hospital.

Midwifery.—J. C. Netherton, Dublin.

To Messrs. Floyd, Frazer, Gill, Kyffin, Parsons, Steele, and Tabb was granted the diploma of the Society entitling them to practise Medicine, Surgery, and Midwifery.

PRESENTATION.—Dr. George B. Currie of Insch was presented on the 13th inst., prior to his leaving the district for British Honduras, with a gold watch by his friends and well wishers at Insch.

MATER MISERICORDIÆ HOSPITAL, DUBLIN.—At a recent examination the following prizes were awarded:—Leonard Prizes: Medical—Gold medal, J. O'Donnell; silver medal, J. Brennan. Surgical—Gold medal, J. McGee; silver medal, J. O'Donnell.

THE QUEEN has been pleased to give and grant unto Thomas Rawson Ker, Esq., and James Patrick Andrew Wilson, Esq., L.R.C.P., L.R.C.S. Edin, Her Majesty's Royal licence and authority that they may, respectively, accept and wear the Insignia of the Order of the Crown of Johore of the Third Class.

THE NEW SANATORIUM, SALFORD.—Alderman P. Keevney, the Mayor of the borough, formally opened on the 15th inst. the new Ladywell Sanatorium, or hospital for infectious diseases, for the borough, which has been erected on the Eccles New-road, near Eccles, at an outlay of £50,000.

GATES AND BARS, NORTH-WEST LONDON.—The St. Pancras Vestry has resolved to remove the gate in Gower-street, opposite University College Hospital. The vestry will purchase the roadway in Gower-street, between University College and the hospital, for £15,000. The authorities of University College are the freeholders, and this sum is to be applied towards rebuilding University College Hospital.

ROYAL (DICK) VETERINARY COLLEGE.—The new appointments in connexion with the Royal (Dick) Veterinary College consequent on the resignation of Prof. McFadyean are as follows:—Chair of Veterinary Surgery and Obstetrics: J. R. H. Dewar, F.R.C.V.S.; Chair of Anatomy and Histology: A. E. Metham, M.R.C.V.S.; Lectureship in Pathological Histology and College Assistant; S. Stockman, M.R.C.V.S. All three gentlemen are graduates of the College. Mr. Dewar was a distinguished member of Sir Joseph Lister's and other classes at the University. Mr. Metham gained the Dick Bursary for 1889, and was also first prizeman in the Fitzwygram competition for that year. Mr. Stockman, after graduation, went to Alfort and worked in Nocard's laboratory.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.—The report for the past year shows a steadily maintained increase in the scope of the work of the Society. The discussions and papers read have been excellent and so numerous that a change in procedure has had to be adopted owing to pressure on the time of the Society. The following were elected office holders for the ensuing session:—President: Dr. Bell. Vice-president: Dr. Sutherland. Treasurer: Dr. Goyder. Council: Dr. Major, Dr. March, Mr. Farrow, Dr. Berry, and Messrs. Mercer and Wilmot. Secretaries: Drs. Hermann Bronner and J. J. Johnston. Librarians: Messrs. Althorpe and Pettitt. Pathologists: Dr. Major and Mr. Pettitt. Auditors: Drs. Foster and Whalley.

INCREASED DUTIES OF HEALTH OFFICERS.—In consideration of the extra duties imposed by the Public Health (London) Act, 1891, upon medical officers of health, the Vestry of St. Leonard, Shoreditch, have increased Dr. F. J. Allan's salary by £150.

BARON HIRSCH AND MEDICAL CHARITIES.—There is a great deal, says *Truth*, both written and spoken concerning the demoralising influence of racing, but as regards Baron Hirsch we have apparently a strong argument to the contrary. Baron Hirsch is just now distributing amongst the London hospitals a further large sum, the result of his winnings in the 1000 Guineas, the Oaks, and various other races, including the Derby, in which La Flèche ran second. Sums varying between £300 and £500, before these remarks see the light, will have been allotted to several deserving charities, and amongst others the Victoria Hospital for Children, Queen Charlotte's Hospital, the London Hospital, the North West London Hospital, St. George's Hospital, and the Hospital for Sick Children in Great Ormond-street will have benefited by the millionaire Baron's munificence. In future the running of Baron Hirsch's horses will be watched by the public with increased interest, seeing that his profits on the turf are apparently to be devoted to the relief of the and of the sick poor.

MEDICAL NOTES IN PARLIAMENT.

The Study of Inebriety.

IN the House of Lords on Friday, June 17th, petitions were presented by the Society for the Study of Inebriety in favour of further facilities for the reception of diseased inebriates in homes.

The Metropolitan Hospitals Committee.

In the House of Commons on Friday, June 17th, Mr. Ritchie moved that a message be sent to the Lords for a copy of the report of the Committee on Metropolitan Hospitals, Dispensaries, &c. The motion was agreed to. On the same day the message was received in the House of Lords, and it was agreed to accede to the request of the other House.

Infectious Hospitals Bill.

In the House of Lords on Tuesday, the 21st inst., Lord Thring moved the second reading of this Bill, and said it was brought in on the recommendation of the County Councils Association. The object of the Bill was to provide hospitals to which persons suffering from infectious diseases could be speedily removed, and where they would have the benefit of complete isolation. Where local application was made the County Council might provide for the establishment of an infectious hospital. It was necessary that the local application should be made by a rural or by an urban sanitary authority or by twenty-five ratepayers in any contributory place, and that this application should be supplemented by a report of the medical officer of health. The Bill provided for a local inquiry as to the necessity of hospital accommodation, and gave the district the right of appeal to the Local Government Board, a similar power being allowed as to the constitution of the hospital committee. The Bill was read a second time.

Medical Officers of Prisons.

Dr. Farquharson asked the Home Secretary whether he had received a communication from the chairman of the Parliamentary Bills Committee of the British Medical Association submitting to him a statement on behalf of the committee concerning certain hardships and disadvantages in the present duties, pay, and prospects of the medical officers of prisons; and whether he was able to say that he would take measures to give effect to the suggestions set out in the memorial so submitted.—Mr. Matthews: Yes, sir; a communication of the nature described from the chairman of the Parliamentary Committee of the British Medical Association has been received. I am well aware of the important and useful services rendered by this branch of prison officers, and any representations coming from them will meet with my most attentive consideration. It must be borne in mind, however, that the pay of the medical officers and assistants was revised and increased so lately as 1883. I do not feel able to say that I can make any recommendation to the Treasury upon the memorial referred to.

The Board of Agriculture.

A new standing order has been adopted by the House of Commons with reference to the deposit of Bills with the Board of Agriculture It sets forth that on or before Dec. 31st a printed copy shall be deposited at the office of the board "of every local Bill which relates to the drainage of land in England or Wales, or which relates to the improvement of land in England, Wales, or Scotland, or to the erection, improvement, repair, maintenance, or regulation of any market or market place at which cattle are exposed for sale, or to any matter within the jurisdiction of the Board of Agriculture, or which proposes to alter the boundary of any county, sanitary district, parish, or any other administrative area in the United Kingdom."

The Scarlet Fever Case at Fulham.

In the House of Lords on Thursday evening Lord Sandhurst called attention to the circumstances regarding this case of the girl who was removed by order of the magistrate from the Middlesex Hospital to the West London Fever Hospital under the idea that she was suffering from scarlet fever, although the child had been for six days in the Middlesex Hospital, where plenty of means of isolation were at hand. His lordship detailed the circumstances of the case, which were reported at length in the last issue of THE LANCET, and explained how Dr. Cayley, Senior Physician to the Middlesex Hospital, had gone to see the child out of pure philanthropy and with no expectation of a fee, and had determined that there were no

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symptoms of scarlet fever in the case. The magistrate had taken it upon him to make some remarks upon Dr. Cayley, but he (Lord Sandhurst) did not think that the reputation of that distinguished gentleman was likely to suffer owing to the remarks of the police magistrate.—Lord De Ramsay, replying on behalf of the Government, said if the authority wielded by the Public Health Act was arbitrarily to tear children away from their parents, those children being the subject of great differences of opinion amongst doctors, then it was absolutely necessary to have the supreme control of the Home Office to keep medical officers in order. The noble lord, however, must remember that the medical officers had to be very careful in these matters, so as to take in time any cases of contagion, which might rapidly spread and cause much misery. At the same time, however, there was much difference of opinion amongst most competent men upon both sides. Then he could not but think that although the diagnosis might have been different, still it would be more advisable for the medical officer to have paused a little. The Home Secretary had not had the benefit of hearing the magistrate's views upon the case, as he was away on leave of absence and therefore he would make no remarks upon his action until he had heard what he had to say.—Lord Kimberley deprecated any arbitary administration of the Act, and said he was glad that the Home Secretary intended to get an explanation from the magistrate. If it were found that the magistrate had at all acted in the manner that the newspapers represented him to have done in this case, he hoped that the Home Office would in some way or other endeavour to prevent such vagaries in future.

The Shop Hours Bill.

The Select Committee on the Shop Hours Bill have issued their report. The Committee have amended the Bill by limiting it to the same protected classes as those to which the Shop Hours Act of 1886 applied. The proposal to extend to adult women the limitation as to hours which that Act provided only for persons under eighteen years of age is one which they do not at present feel justified in adopting. In view of the conflict of evidence, and of the limited amount of time remaining at the disposal of the Committee, they did not feel that they could at present take the responsibility of recommending the inclusion of adult women in the Bill. It appears to the Committee to be undesirable that the Shop Hours Act of 1886 should remain of doubtful and imperfect operation. They have therefore retained the clause which proposes that its provisions should be enforced by inspectors, but have modified the clause so that the enforcement should be a matter of local rather than imperial responsibility. To remove doubts domestic servants are expressly excluded, but in all other respects the law of 1886 is left as it stands, and the Committee think that the time has arrived for making its provisions permanent.

METROPOLITAN WATER SUPPLY.

EVIDENCE OF DR. FRANKLAND.

ON Tuesday, before the Royal Commission, Dr. Frankland gave evidence on the Metropolitan Water-supply. At the outset he stated that, although he appeared at the request of the London County Council, the opinions he would have to express were entirely his own private opinions and for which the County Council were in no way responsible. During the last twenty-seven years he had paid special attention to the composition of water as delivered to London. The results of the numerous inspections and analyses he had made from time to time showed that above the points where water was abstracted from the Thames for the purpose of metropolitan supply were received contributions such as the drainage of manured land, the effluents from sewage works, and even raw sewage itself. This animal matter is probably generally innocuous, though sentimentally objectionable. It may, however, at any time be accompanied by zymotic poisons, such as those of typhoid fever, tuberculosis, or diphtheria. The chance of such pathogenic germs reaching the consumer is greatly reduced by the protective measures adopted by the water companies by means of filtration. Notwithstanding these protective measures, however, there is no trustworthy guarantee, in his opinion, that the noxious ingredients are wholly removed.

Professor Dewar: Have you considered the question of the probability—I am speaking now of the mere question of probability, apart altogether from strict modern chemical or bacteriological research—of such pathogenic germs being delivered and distributed in London water?—Yes, I have taken that into serious consideration, and I am at the present time engaged in a series of observations which will, I think—I hope, at all events—throw more light upon the subject. It is a point which requires a good deal of investigation yet. Of course, if we had any process of filtration which would remove every germ from water, that would be an almost absolute safeguard; it would be a single line of defence only, but it would be an absolute safeguard.

Witness then stated the results of recent experiments upon water as it left the filters of the various London companies, drawn from the Thames and Lea. He confessed his astonishment at the result that, instead of getting hundreds of germs in the cubic centimetre, as had been the case in London water, he got in some cases only four. If, however, there was only one single germ left, of course it might multiply afterwards into millions in a very short time. And during the passing of the water through the mains of London there is no doubt the microbes multiply, and hence the difference in the results of experiments on water coming through the filters and water as delivered in London. Of course if you removed from water the many thousands or tens of thousands of microbes or their germs, with the exception of one or even four, it is extremely unlikely that amongst those four you would have one pathogenic germ.

Have you made yourself any attempt to distinguish between the pathogenic germs and the harmless germs in London water?—No, I have not, and I have been deterred from doing so from the circumstance that Dr. Klein, who is a much more experienced bacteriologist than I am, has failed himself to distinguish the pathogenic germs in London water.

Witness admitted that recent discoveries in connexion with filtration had very considerably modified the opinions given by him as to the value of filtration in the Sixth Report of the Rivers Pollution Commission in 1874. At that time a number of very remarkable outbreaks of disease had been traced to impure water.

Take the conditions of a stream when precipitation and matter in suspension are being renewed continually. Such conditions cannot, of course, be favourable to the life of a large number of these organisms, but there has been no actual laboratory observations of that kind that you can refer us to that would guide us?—No. Of course it is difficult to imitate a flowing river in a laboratory. Several important experiments lead to the conclusion that pathogenic organisms very frequently fall a prey to the harmless ones when the latter are in a great majority; they can hold their own if they are in a majority, but the harmless organisms eat up the pathogenic ones if they are only present in small quantities. That is an additional reason why one would feel some security in the non-passage of those organisms through a considerable length of flowing water, because there is always present in such water a very large number of harmless micro-organisms.

So that the continuous change in the environment, together with continual and ever-changing motion—as in a river, exposure to light, the variations in suspended matter, and precipitation going on, combined with the presence of a large number of harmless micro-organisms, are all fatal towards the life of one or two specific ones; and that, combined with filtration, adds greatly to the security that they are not likely to pass and develop after they have been properly filtered?—Yes. At the same time I would point out that it by no means excludes the possibility of such organisms finally making their appearance in the water as drunk.

It only removes the fear in the sense that the probabilities are almost infinity to one against its occurring?—Yes, they are certainly considerably stronger than the opposite.

In reply to further questions put by Professor Dewar, witness said the vast majority of microbes found in potable waters are, as far as is known, perfectly harmless, and although pathogenic bacteria have been found amongst them it has only been on rare occasions, and not in connexion with the London water-supply. Pathogenical bacteria have been found in the tanks in India used by the natives there, amongst whom frequent outbreaks of cholera occur, and the cholera bacillus or cholera spirillum has been found in the water of those tanks, and there are several other cases in which a microbe has been found; but I do not think any one of them has occurred in England, certainly not in connexion with the London water-supply. At the same time it must not on this account be concluded that they are never present. In the first place, only a very small volume of water can be submitted to examination; and secondly, several kinds of pathogenic organisms can be cultivated only in the bodies of animals, and are therefore undiscoverable by Koch's gelatine plate process.

Then I understand you to convey that the mere appearance of a microbe similar to that of a pathogenic one would not be satisfactory to you as a bacteriologist, unless its action on the living organism was clearly proved to be pathogenic?—Yes, I should certainly think that that was absolutely necessary to establish its identity. These things are so small, and they resemble each other so closely, that it would be subject to great fallacy if you were to conclude merely from the appearance of these microbes that they were pathogenic microbes.

Sir A. Geikie: Once the identity of the microbe has been established, and you know the specific form of it, you can identify it always, can you not?—You can to some extent; but these microbes resemble each other so closely that no experimenter, I think, is ever satisfied unless he gains what is called a pure cultivation. By cultivating it in a proper medium he can get it free from all other kinds of microbes, then inject it under the skin of an animal, or administer it to a rabbit or a frog or some animal, and see whether it produces its proper pathogenic result.

The point I wanted to get at was whether you considered it at all possible or likely that we should ever be able to identify those microbes without going through that process of actual infection?—I think it is not at all impossible. I may illustrate what I mean by considering what would happen if the animals in the Zoological Gardens were all microscopic animals. How very difficult it would be to distinguish between a lion and a tiger, for instance, although there is no difficulty when you have them a sufficient size. The same difficulty is met with in the case of these microbes. For instance, this cholera spirillum is so closely allied in form to microbes that exist in human saliva that many eminent bacteriologists, at the time when Koch announced his discovery, said that they had plenty of the cholera spirilla in their own mouths. But it was a mistake. There is a cholera spirillum.

The Commission adjourned until Monday next.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

ABRAM, G. S., L.R.C.P.Lond., M.R.C.S., has been appointed Assistant House Surgeon to the Devon and Exeter Hospital.

ANDERSON, L. M., M.R.C.S., has been reappointed Medical Officer to the Hearts of Oak Medical Fund.

BAILY, E., M.B., C.M. Edin., has been appointed Medical Officer of Health for the Burgh of Oban.

BLAMEY, JAMES, M.R.C.S., has been reappointed Medical Officer for the Budock Sanitary District of the Falmouth Union.

BOOTH, DANIEL, L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Sixth Sanitary District of the Ashton-under-Lyne Union, vice J. Schofield, deceased.

BOWLAN, M. M., M.B., B.S. Durh., L.R.C.S. Edin., has been appointed Assistant Medical Officer to the Union Infirmary, St. George's-in-the-East.

BRADSHAW, T. R., M.D., M.R.C.P. Lond., M.R.C.S., has been appointed Assistant Honorary Physician to the Royal Infirmary, Liverpool.

BROWNING, G. DANSEY, M.R.C.S., L.R.C.P. Lond., has been appointed Resident Obstetric Assistant to the Westminster Hospital.

BULMAN, F., M.B., C.M. Durh., has been appointed Medical Officer of the Workhouse, Newport, Mon.

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BYLES, J. B., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Physician to the Westminster Hospital.

CAMPBELL, J. M., M.B., C.M. Glasg., has been appointed Medical Officer to the Workhouse, Newtown and Llanidloes Union.

CRAIG, W. WALLACE, L.R.C.P. Lond., M.R.C.S., has been appointed House Surgeon to the Salop Infirmary, Shrewsbury.

DE RENZI, H., M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Surgeon to the Westminster Hospital.

EVERED, F., L.R.C.P., L.R.C.S., has been appointed Medical Officer for the Third District of the Westbourne Union.

FIELD, E., M.B., C.M., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer to the Municipal Charities, Bath.

GIBB, G., M.B., C.M. Aberd., has been appointed Third Medical Officer, and also Medical Officer to the Western District, Oldmachar Parochial Board.

GREENWOOD, G. S., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for the Ossett Urban Sanitary District of the Dewsbury Union, vice J. W. Greenwood, resigned.

HAMILTON, G. G., M.B., C.M. Edin., has been appointed Assistant Honorary Surgeon to the Royal Infirmary, Liverpool.

HAVELOCK, J. G., M.B., C.M. Edin., has been reappointed Senior Assistant Medical Officer to the Royal Asylum, Montrose.

HOWDEN, J. C., M.D. Edin., has been reappointed Medical Superintendent to the Royal Asylum, Montrose.

HUDSON, H. R., L.R.C.P., L.R.C.S. Irel., has been appointed Public Vaccinator, Newport, Monmouthshire.

LAWSON, T. C., M.R.C.S., has been appointed Medical Officer for the Wiggenhall Sanitary District of the Downham Union, vice C. Flood, resigned.

LEWIS, H. W., M.R.C.S., L.R.C.P. Lond., has been appointed Senior House Surgeon to the Westminster Hospital.

MILLS, H. H., M.R.C.S., L.R.C.P. Lond., has been appointed Junior House Physician to the Westminster Hospital.

MOORE, E. H., L.R.C.S. Edin., has been reappointed Medical Officer for the Mylor Sanitary District of the Falmouth Union.

NAPIER, A. D. LEITH, M.D. Aberd., M.R.C.P. Lond., F.R.S. Edin., has been appointed Assistant Physician to the Royal Maternity Charity.

PATON, R. J., M.B., C.M., L.R.C.P., L.R.C.S. Edin., has been appointed a District Medical Officer of the Newport (Mon.) Union.

PURSLOW, C. E., M.D. Lond., has been appointed Ingleby Examiner, Queen's College, Birmingham, for the current year.

RIDDELL, J. S., M.B., C.M. Aberd., has been appointed Medical Officer to the Infirmary, Oldmachar Parochial Board.

RUSSELL, JAS. W., M.B., B.C. Cantab, has been appointed Assistant Physician to the General Hospital, Birmingham.

RYAN-TENISON, E. H., M.R.C.S., has been appointed Medical Officer of Health for the Bexhill Urban Sanitary District of the Battle Union, vice J. P. B. Mills, resigned.

SCANLAN, A. E., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer for the Linthorpe Sanitary District of the Middlesbrough Union, vice J. A. Malcomson.

SNOW, RAYMOND, L.R.C.P., L.R.C.S. Irel., has been reappointed Medical Officer of Health for the Llanwnog Sanitary District.

SOUTAR, R., M.B., C.M. Aberd., has been reappointed Medical Officer to the Royal Infirmary, Montrose.

STONE, V., M.D. St. And., F.R.C.S. Edin., has been reappointed Medical Officer to the Royal Infirmary, Montrose.

THOMAS, W. T., L.R.C.P. Edin., F.R.C.S. Eng., has been appointed Assistant Honorary Surgeon to the Royal Infirmary, Liverpool.

WEST, C. J., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Leadenham Sanitary District of the Sleaford Union, and for the Fulbeck Sanitary District of the Newark Union.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

ANCOATS HOSPITAL, Manchester.—Resident Junior House Surgeon. Salary £50, with board and washing.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester-street, S.W.—House Surgeon.

BELGRAVE HOSPITAL FOR CHILDREN, 79, Gloucester-street, S.W.—Dental Surgeon.

BOROUGH OF SCARBOROUGH.—Medical Officer of Health for the district of the borough for one year. Salary £325 per annum.

BRIDGNORTH AND SOUTH SHROPSHIRE INFIRMARY.—House Surgeon. Salary £80 per annum, rising £10 per annum to £100, with board and lodging in the Infirmary. (Apply to the Honorary Secretary, 22, St. Mary's street, Bridgnorth.)

BRISTOL HOSPITAL FOR SICK CHILDREN AND WOMEN.—House Surgeon. Salary £100, with rooms and attendance.

COLONIAL HOSPITAL, Perth, Western Australia.—Resident Medical Officer and Assistant to the Superintendent of Vaccination. Salary £200 a year, with quarters in the hospital and board (excepting wines &c.). Passage out provided, conditionally. (Apply to the Agent-General for Western Australia, 15, Victoria-street, Westminster, London, S.W.)

DERBY PROVIDENT DISPENSARY.—Dispenser. Salary £78 and House.

DUNDEE ROYAL LUNATIC ASYLUM.—Assistant Medical Officer. Salary £100 per annum, with board, lodging, and washing.

DUNSTABLE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION, Dunstable, Beds.—Resident Medical Officer. Commencing salary £180, rising £10 per annum to £220, with good residence, garden, and conservatory (rates and taxes free.) Conveyance provided.

GAMMA, THE LANCET Office, 423, Strand, W.C.—Surgeon to a Medical Aid Association. Salary for the first year £120, with house rent free. Salary increased by at least £10 the second year.

GENERAL HOSPITAL, Birmingham.—Resident Surgical Officer for one year. Salary £130 per annum, with residence, board, and washing.

GENERAL HOSPITAL, Birmingham.—Assistant House Surgeon for six months. Residence, board, and washing provided.

HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—Resident House Physicians.

HOSPITAL FOR DISEASES OF THE THROAT, Golden-square, W.—Registrar and Pathologist. Honorarium 25 guineas per annum.

LEICESTER UNITED FRIENDLY SOCIETIES' MEDICAL ASSOCIATION, 114, Highcross-street, Leicester.—Second Medical Officer. Salary £90 per annum, with midwifery fees.

MCGILL UNIVERSITY, Montreal, Canada.—Professorship of Pathology for the Faculties of Medicine and Comparative Medicine for one year. Salary for provisional appointment for one year £400 sterling. (Apply to the Dean, Montreal, Canada.)

NORFOLK COUNTY ASYLUM, Thorpe, Norwich.—Assistant Medical Officer. Locum Tenens for two or three months—July, August, and September. No salary. Board, lodging, and washing, and travelling expenses provided.

PAROCHIAL BOARD OF PENNYGOWN AND TOROSAY, N.B.—Medical Officer. Salary from Board £100, cost of paupers' medicines included. (Apply to the Inspector of Poor of Torosay, Auchnacraig, by Oban.)

ROYAL LONDON OPHTHALMIC HOSPITAL, Moorfields, E.C.—Senior House Surgeon. Salary £75 per annum, with board and residence.

ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant House Surgeon. No salary. Board and rooms provided.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Demonstrator of Physics and Chemistry. Stipend £100 per annum.

ST. THOMAS'S HOSPITAL MEDICAL SCHOOL.—Obstetric Tutor. Salary £50 per annum.

SWANSEA HOSPITAL.—Resident Medical Officer. Salary £100 per annum, with board, furnished apartments, coal, gas, laundress, and attendance.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL, Wolverhampton.—House Physician. Salary £100 per annum, with board, lodging, and washing.

YORK DISPENSARY.—Resident Medical Officer. Salary £150 a year, with furnished apartments, coals, and gas.

Births, Marriages, and Deaths.

BIRTHS.

BAXENDELL.—On June 19th, at Dukinfield, Cheshire, the wife of Arthur Baxendell, M.R.C.S., L.S.A., of a son.

EMBLETON.—On June 12th, at St. Wilfrid's, Bournemouth, the wife of Dennis C. Embleton, M.R.C.S., L.R.C.P., of a son.

FRASER.—On June 17th, at Devon House, Mostyn-road, Brixton, S.W., the wife of Dr. E. Fraser, prematurely, of a daughter, stillborn.

GAGE-BROWN.—On June 20th, at 74, Cadogan-place, the wife of C. Herbert Gage Brown, M.D., of a son.

LUSH.—On Sunday, June 19th, at 4, Mansfield-gardens, Hampstead, the wife of Percy J. F. Lush, M.A., M.B. Oxon., M.R.C.S., of a son.

MACKENZIE.—On June 17th, at the Manor House, Much Wenlock, the wife of A. G. Mackenzie, F.R.C.S., M.R.C.P. Edin., of a daughter.

MANSBRIDGE.—On June 15th, at Grosvenor-gardens, Willesden-green, the wife of Josiah Mansbridge, L.R.C.P., M.R.C.S., of a daughter.

VICKERS.—On May 15th, at Suabo, Upper Burmah, Frances, the wife of Surgeon-Capt. Vickers, 6th Burmah Regiment, of a daughter (late of Sible Hedingham, Essex).

WADE.—On June 18th, at Ashwick Court, near Bath, the wife of Newton Wade, of a son.

MARRIAGES.

BRUNTON—DURNFORD.—On June 22nd, at St. Michael's, Chester-square, by the Rev. Canon Fleming, assisted by the Rev. Arthur Durnford, cousin of the bride, C. E. Brunton, M.B., M.R.C.S., of Linden House, Walthamstow, to Kathleen Brabazon, youngest daughter of the late Rev. A. G. Durnford, Vicar of Hindolveston, Norfolk.

COBBOLD—ADDISON.—On June 14th, at St. Mark's, Hamilton-terrace, Charles Spencer Cobbold, M.D., of Bailbrook House, Bath, son of the late T. Spencer Cobbold, M.D., F.R.S., to Lilly, widow of the late Capt. J. C. Addison, R.E., and daughter of F. Peterson Ward, 46, Hamilton-terrace, N.W.

COCKS—FOX.—On June 2nd, at St. Jude's Church, South Kensington, Surgeon-Captain Horace Cocks, M.B., Army Medical Staff, eldest son of J. Cocks, Esq., Kirkley Cliff, Lowestoft, to Kathleen Mary, only daughter of Captain Fox, of Kilcoursey, Cromwell-road, S.W.

MURRAY—BICKERSTETH.—On June 16th, at St. Luke's Church, Liverpool, George Redmayne Murray, M.R.C.P., of Newcastle-on-Tyne, to Annie Katharine, second daughter of E. R. Bickersteth, F.R.C.S., Liverpool.

SPILSBURY—BENCRAFT.—On June 15th, at the Parish Church, Bideford, Francis James Spilsbury, L.R.C.P., &c., of Warbleton, Sussex, third son of Major-General E. J. Spilsbury, H.M. Bengal Staff Corps, to Clara Louisa, third daughter of William Bencraft, late of Instow, North Devon.

WALKER—FAIRHAM.—On June 16th, at St. Alban's Church, Rochdale, by the Rev. W. Cooper, M.A., Vicar, James Pixton Walker, M.R.C.S., L.R.C.P., of Daisy Bank, Spotland-road, Rochdale, eldest son of Roger Walker, L.D.S., of Alliston House, Urmston, to Mildred, elder daughter of William Fairham, of Landseer House, Rochdale.

DEATHS.

EVES.—On June 16th, at Goldney-road, Clifton, Augustus William Eves, M.R.C.S., eldest son of the late Augustus Eves, M.D., of Cheltenham.

HILL-WOOD.—On June 17th, at Westgate-on-Sea, Penelope Wood, younger daughter of T. Wood Hill, L.R.C.P., M.R.C.S., L.S.A., aged twelve years, formerly of Earl's Court-road, Kensington.

LANGFORD.—On June 16th, at Older's-hill, Finchley, Phineas Pitts Langford, M.D., M.R.C.S., late of Park House, East Finchley.

PARSONS.—On June 20th, Joshua Parsons, M.R.C.S., of North End, Frome, aged 77.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages and Deaths.

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METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 23rd 1892.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
June 17	29·96	N.W.	54	48	113	62	48	09	Cloudy
,, 18	29·99	N.W.	53	47	112	65	46	..	Fine
,, 19	29·89	W.	57	51	112	67	49	·01	Cloudy
,, 20	29·85	W.	56	51	117	68	47	·06	Cloudy
,, 21	29·90	S.W.	59	53	110	69	49	·03	Cloudy
,, 22	29·91	S.W.	62	58	120	75	57	·04	Overcast
,, 23	29·51	S.W.	54	53	..	58	53	·20	Raining

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the Journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET to be addressed "To the Publisher."

We cannot undertake to return MSS. not used.

THE THERAPEUTIC USES OF IRON.

THE tonic and hæmatinic properties of iron were well known to the ancients. The old way of administering this metal was very curious The metal being very much used in the preparation of weapons of warfare and Mars being the god of war, Mars became the patron of iron; and very frequently in old books we read of the "martial preparations," by which is meant preparations of iron, and the mode of administering them was to put a sword into a water-trough and allow it to lie there and rust, and to let the people drink of the water. Of course, it was a very mild chalybeate water that could be got in this way. But still, very mild preparations of iron, if continued for a long period of time, will produce a very marked effect; and distinct results were obtained in ancient times from this very mild way of giving iron.

Flex.—The placing an unqualified assistant in a separate house and two miles away from his principal would be very apt to be regarded by the Medical Council as "covering," even under the theoretical conditions described by our correspondent. We cannot at the time of going to press refer to the prescription alluded to.

Dr. Fred. Robinson.—For particulars regarding the conditions under which English medical practitioners are allowed to practise in France our correspondent should consult our last Students' Number, Sept. 5th, 1891.

POLICE DUTY.

To the Editors of THE LANCET.

SIRS,—I am frequently called to decide at a police-station the often very knotty question as to whether the party detained is drunk or has been drinking. The first point there is not often any difficulty in deciding; but the second, in my opinion, is not so soon ascertained. Will some of your readers give me their reasons *pro* and *con*, or refer to the title of some little work on this and other subjects, and oblige

Yours truly.

June 19th, 1892. W. Y.

AN APOLOGY.

To the Editors of THE LANCET.

SIRS,—Our attention has been drawn to the fact that in our work on Diseases of the Rectum and Anus, second edition, p. 191, Mr. Harrison Cripps' name has been omitted in connexion with our description of laminar carcinoma. It is from his work that our account has been drawn; and we beg to acknowledge our indebtedness to him, and regret at the same time the oversight which has occurred.

We are, Sirs, yours truly,

ALFRED COOPER.

June 20th, 1892. F. SWINFORD EDWARDS.

ADVERTISING HANDBILLS.

Viator sends us a specimen of a very unprofessional handbill, extensively circulated, offering, at 55, Park-road, Hornsey, advice and medicines on cheap terms, and saying that the establishment is conducted by a married, fully qualified, registered and experienced physician and surgeon, who has the discretion not to insert his name.

M.—The question is a legal one Our correspondent should see the solicitor. His claim is against A, who presumably sent for him, and A or his solicitor should have asked for his account prior to the settlement. But some patients are much more anxious about compensation than costs.

Dolphin will have the title conceded to him in courtesy by many; but we should not advise his using it on a card or plate. He is justified in styling himself "physician and surgeon."

Mr. J. Doughty should apply to the medical officer of health of the town in question.

Query has not enclosed his card.

"KILLED BY AN EMETIC."

To the Editors of THE LANCET.

SIRS,—With reference to your paragraph in last week's issue, headed "Killed by an Emetic," may I be permitted to make a few remarks in the absence of the medical gentleman who gave evidence at the inquest?

A man was found dead one morning after he had taken some poison and after common salt had been administered as an emetic. A post-mortem examination was made and I was present at it. The whole of the stomach was in a very congested state; several portions were very much softened and there were two perforations which had allowed of the escape of the stomach contents into the peritoneal cavity. The glass from which the patient had drunk the poison was given to me and in it I found a few crystals, which, on being tested, proved to be sulphate of zinc. Moreover, it came out in the evidence that that salt had been sold to the deceased. An interesting question, then, seems to be opened up. Is sulphate of zinc a safe emetic? It is hardly possible that the small quantity which had been swallowed should have alone produced such very violent effects on the stomach wall, and the theory that the chloride was formed by the addition of common salt to the solution in the stomach would satisfactorily explain the congestion and perforation. Perhaps some of your readers may have met with parallel cases.—I am, Sirs, yours faithfully,

A. L. MACLEOD, M.A., M.B.,

June 21st, 1892. House Surgeon, Macclesfield General Infirmary.

DISTRICT MEDICAL OFFICERS AND SUPERANNUATION.

To the Editors of THE LANCET.

SIRS,—I am a district medical officer of over thirty years' service and am now resigning on account of ill-health, but have not yet reached sixty years of age. Am I entitled to the two-thirds superannuation pension?

I am, Sirs, yours faithfully,

June 15th, 1892. FIFTY-SIX.

*** As superannuation is not yet made compulsory it rests entirely with the guardians whether they will recommend the Local Government Board to grant superannuation. Without such a recommendation the district medical officer has no chance, whether he has served thirty or fifty years, or whether he has reached sixty years of age.—ED. L.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Althaus, London; Mr. Aitchison, Wallsend; Mr. N. W. Allt, London; Dr. H. Alderson, London; Dr. R. Broadbent, Leicester; Mr. H. T. Butlin, London; Mr. Baird, London; Mr. Burrows, London; Messrs. Black and Co, London; Mr. Baron, Manchester; Messrs. Burroughs and Wellcome, London; Mr. Bryan, London; Dr. Bateman; Mr. Buxey, Southampton; Mr. R. E. Cowper, Ontario; Dr. R H. Creighton, Bally Shannon; Mr Cooke, London; Mr. Cowell, London; Messrs. Cleave and Son, Crediton; Mr. Connop, Aix les-Bains; Messrs. Carver and Co, Forest-hill; Mr. Chapman, Huddersfield; Messrs. Crossley and Co., London; Mr. Cox, Manchester; Mr. Cross, Liverpool; Mr. J. Carter, London; Mr. Donaldson, Liverpool; Messrs. Dawson and Sons, London; Dr. Moh. El-Calamawy, Port Said; Dr. F. Swinford Edwards, London; Mr. F. W. Elder, Halifax; Mr. Fisk, London; Mr. A. Fousset, London; Dr. Hanbury Frere, London; Mr. George Foy, Dublin; Mr. Grieg, Clapton; Mr. Green, London; Mr. Graham, Scarborough; Mr. Harrison, Derby; Dr. Hyme, Bradford; Dr. Hare, Philadelphia; Mr Hoskyns-Abrahall, Biggleswade; Dr. Hocken, Dunedin; Mr. Hutchinson, Haslemere; Mr. Hillier, Birchington-on-Sea; Mr. Hornibrook, London; Mr. George Heaton, Birmingham; Mr. F. B. Jessett, London; Mr. Jones, Llanelly; Mr. Watkin W Jones, West Brighton; Mr. Kühn, London; Mr. King, Liverpool; Mr. Little, London; Mr. Lord, London; Dr. Love, Belfast; Dr. Hugh Lane, Bath; Mrs. Levick, Paris; Mr. W. T. Law, London; Dr. A. I. Macleod, Macclesfield; Dr. Mead, Newmarket; Messrs. Mackie and Co., Warrington; Mr. Maconochie, London; Mr. Macadam, Edinburgh; Dr. Martin, Leith; Mr. Edmond J. McWeeney; Dr. Richard

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Neale; Mr. Offord; Messrs. Oppenheimer and Co.; Messrs. Orridge and Co., London; Mr. Osburne, Hythe; Dr. F. S. Palmer, East Sheen; Mr. Planner, London; Mr. J. Parrot, London; Messrs. Pooley and Son, London; Mr. F. T. Paul, Liverpool; Mr. A. Rajasingham, Aberdeen; Sir. W. Roberts, London; Mr. Rorie, Dundee; Dr. Russell, Glasgow; Dr. Fred. Robinson, London; Messrs. Robertson and Scott, Edinburgh; Mr. Steelhouse, Birmingham; Messrs. Shanks and Co., London; Mr. F. A. Southam, Manchester; Mr. E. M. Shirtleff, London; Dr. T. Sevill, London; Dr. Skrimshire, Blaenavon; Dr. J. C. Syson, Ayrshire; Dr. Herbert R. Spencer, London; Mr. Octavius Sturges, London; Mr. W. R. H. Stewart, London; Mr. W. Pickett Turner; Mr. J. H. Targett, London; Dr. Thomson, Norwich; Dr. J. Mackie Whyte, Dundee; Mr. Woodcock, Bolton Spa; Messrs. Wilson and Blessley, London; Messrs. Whitworth and Stuart, Newcastle-on-Tyne; Messrs. Waterlow and Sons, London; Mr. W. Yates, Richmond; W., London; Rex, London; Galen, London; Maltine Manufacturing Co., Bloomsbury; F. M., London; Superintendent, London; Nurse Monk, Buxton; 133A, Wandsworth-road, S.W.; Secretary, St. Luke's Hospital; Medicus, London; Assistant; Jeyes' Sanitary Compound Co., London; Chylos; Cappa; Dolphin; Secretary, Hospital for Sick Children, Bristol; M.; Perplexed; Query; Smedley's Hydropathic Establishment, Matlock; Teufel Remedial Appliances; *Birmingham Daily Post* Office; Rex; Surgeon; Scalpel, London; De Maatschappy Zeebad, Scheveningen, Holland; Janus, London; Agent-General, New Zealand; Scapula, London.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Dixey, Yarmouth; Mr. Walker, Rochdale; Mr. Stone, Paris; Dr. Couldrey, Colchester; Mr. Bayley, Margate; Miss Gough, London; Mr. Buller, Stowmarket; Mrs. Tyte, Minchinhampton; Mr. Tredinnick, Shropshire; Dr. Griggs, Ashbourne; Mr. Thin, Edinburgh; Mr. Standage, Birmingham; Mr. Fiske, Maidstone; Mr. Eccles, Derby; Mr. Wade, Bath; Dr. Duggan, Durham; Dr. Bourke, London; Mr. Fitzgerald, Queenstown; Mr. White, Eythorne; Mr. Lambert, Hull; Mr. Poole, Walthamstow; Miss Hooper, London; Mr. Crossley, Leicester; Dr. C. Williams, London; Mr. Baxendale, Dukinfield; Mr. Johnstone Edinburgh; Dr. Cobbold, Bath; Mr. Harrison, Derby; Messrs Schweppe and Co., London; Mr. Daniell, Mitcham; Messrs. Giles, Schacht, and Co., Clifton; Dr. Collie, London; Mr. Bagster; Messrs. Armstrong and Paton, Manchester; Mr. White, Dunstable; Mr. Deemer, New Zealand; Mr. Griffith, Ruthin; Mr. Agar; Mr. Farquharson, Balla Chulish; Mr. Breach, Newbury; Mr. Heywood; Dr. Mukirjie, Upper Assam; Mr. Palmer, Dorset; Dr. Nevin, Durham; Mr. Norman, Ashburton; Mr. Harden, St. Mawes; Mr Taynton, London; Mr. Poole, Walthamstow; Mr. Brunton, Walthamstow; Mr. Hill, Westgate-on-Sea; Mr. Evans, Hereford; Volens, London; Essex, London; Beta Gamma, London; E. H., Stratford; M., London; Secretary, Jessop Hospital for Women; S., Southport; X., London; W. A. K., South Hackney; X. Y., London; H. F., London; Tenax, London; Class Rooms, Edinburgh; Gerald, Cheshire; Medicus, Addlestone; Union Assurance Society; Nucleolus, London; D. H., London; Medicus, Reading; M.B., London; X. Y. Z., London; Beta, London; Friendly, London; Medical, London; B. S., Leeds; Medicus, Hull; G. R. N., London; C., London; M.R.C.S., London; Nucleus, London; L. J., Portman-square; Coedmor, London; R. G., Bournemouth; Ajax, London; Secretary, Bristol General Infirmary; A. L., London; C. H., Birmingham; P. N. C., London; Hector, London; W. W.; Cardiac, London; Gracious; C. W., London.

NEWSPAPERS.—*Leicester Post*, *Public Opinion*, *North China Daily News*, *Cape Times*, *South Wales Daily News*, *Sussex Daily News*, *Surrey Comet*, *Folkestone Express*, *Inverness Courier*, *West London Observer*, *County Telephone (Salford)*, *Levant Herald*, *Fulham Chronicle*, *Woodford Times*, *Putney News*, *Kentish Mercury*, *Leyton Express*, *Bromley Times*, *Glasgow Evening News*, *Citizen*, *Birmingham Gazette*, *Western Morning News*, *Sheffield Independent*, &c., have been received.

Medical Diary for the ensuing Week.

Monday, June 27.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.

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Thursday, June 30.

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Friday, July 1.

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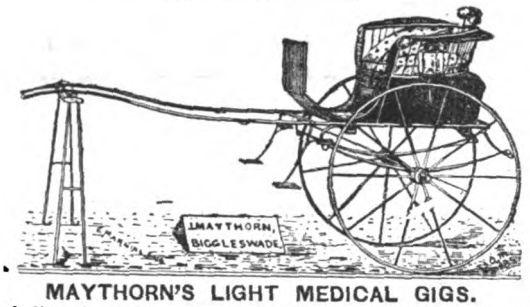
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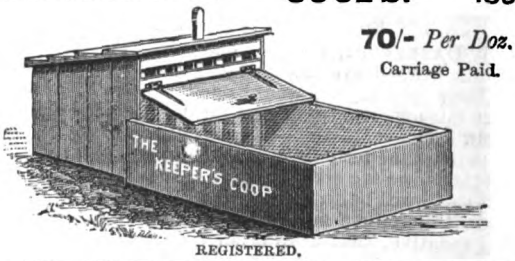
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LORD CHANCELLOR SELBORNE and LORD JUSTICE JAMES stated that the Defendant had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.

Chemists throughout the land will confirm this decision that Dr. J. C. BROWNE was the inventor of Chlorodyne.

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in *The Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. COLLIS BROWNE'S Chlorodyne, and that she never used any other; that she had written to the Defendant Freeman to that effect, notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. COLLIS BROWNE; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. COLLIS BROWNE was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is, in effect and composition, quite different from any other preparation; nevertheless, he assumes the name, testimonials, &c., of Chlorodyne.

It is now incumbent on all who purchase Chlorodyne to see that the name "DR. J. COLLIS BROWNE'S CHLORODYNE" is engraved on the Government stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed, hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

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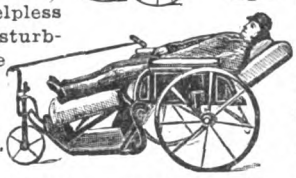




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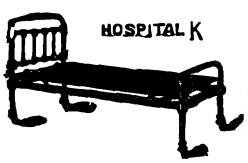
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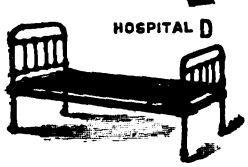
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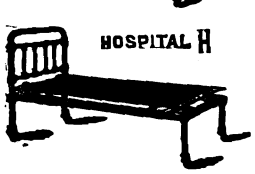
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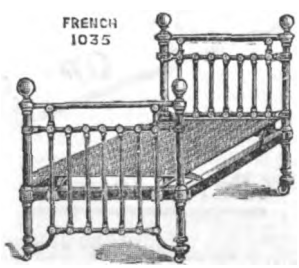
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A DIAGNOSTICAL CHARACTERISTIC OF INFLUENZA.

(By DR. DELMIS).

THE symptoms that have appeared in the greater part of the cases of the present epidemic of influenza prove once again that, although this complaint is rightly placed in the group of catarrhal affections, it nevertheless occupies in this group a perfectly distinct place, and should in nowise be confounded with the common, unimportant catarrhal epidemics to which the cold and damp seasons give rise in an almost periodic manner. Although the present epidemic, in a certain number of its forms, shows the ordinary series of symptoms that are observed in superficial inflammations of the respiratory tract, it is yet clearly distinct from them through having a much more intricate set of morbid elements, in the foremost rank of which must be placed the deep impression it makes on the nervous system, with general prostration of strength as a consequence.

It is in this action on the cerebro-spinal nervous system that the diagnosis of influenza finds its surest basis. It is evident that the nervous manifestations vary in degree and form in different epidemics and cases, and according to predispositions and to the constitution and previous conditions of health of the patients; but still, wherever there is any influenza they always exist to a certain degree.

They can be already detected during the premonitory period of the complaint, though it is usually very short, and may even be lacking altogether. During this period the nervous manifestations are approximately the same as in the majority of acute diseases: an undefinable feeling of uneasiness, frontal cephalalgia, disturbance in the organs of the different senses, and in some cases pain in the spinal column; but the feature which seems to be characteristic of influenza, and which distinguishes it from other similar acute diseases, and particularly from ordinary bronchitis, with which it has so many points in common, is a sensation of utter prostration, of weakness, and disinclination for any movement, accompanied by restlessness and anxiety. It is a fact worthy of notice that these general symptoms are entirely out of proportion with the results given by the examination of the different organs, and, at the same time, with the real unimportance of the disease, at any rate in persons who are not aged or who have not some organic lesion.

If, now, we consider the period when the disease is at its height in typical cases, we find again, even in the catarrhal and gastro-intestinal forms, in addition to the laryngo-tracheo-bronchitis or digestive troubles, this same characteristic action on the nervous system. It is here more marked than during the preceding period, having undergone the same increase as the other morbid symptoms of the complaint. Thus it is quite usual to observe precordial distress, trembling of the muscles, vertigo, disorders of the sight and hearing, even when the catarrhal inflammation has not extended to the conjunctiva or to the tympanum by the Eustachian tube. Actual otalgia is not very rare, as also a number of other forms of neuralgia, from which the patients often suffer tortures, and of which the ophthalmic branch of the trigeminous nerve is frequently the seat of predilection. The general sensibility of the body is also affected; finally the sleep is troubled, agitated, interrupted by dreams or nightmares, which are a still further cause for general weakening.

It is scarcely necessary to add that the terms "encephalic form," "nervous form," have been used to designate cases that are quite common, in which the nervous disorders of which we have spoken have so great a predominance over the other phenomena as to mask them and to make the diagnosis uncertain.

We may also remark that in some cases these characteristic nervous troubles have been known to continue even during convalescence; it is also not very rare to see, under their influence and during convalescence, a sort of recurrence of previous nervous troubles, hysteria, St. Vitus' dance, &c. It could even be said that it is to this possible recurrence of former nervous affections, or to the permanence of persistent forms of neuralgia caused by the influenza, that the so-called encephalic form owes its gravity, since, outside of these symptoms, this form has a very much lower death-rate than the other forms, although it frequently gives to the disease an alarming appearance. It is none the less true, however, that the records of epidemics of influenza show a certain number of cases of death produced by this functional disturbance of the nervous system being carried to the extreme.

It is very evident, after what we have said, that the nervous troubles connected with influenza demand the serious attention of physicians. In addition to the means used for lessening nervous depression, they should not fail to employ those which realise the following twofold indication:—

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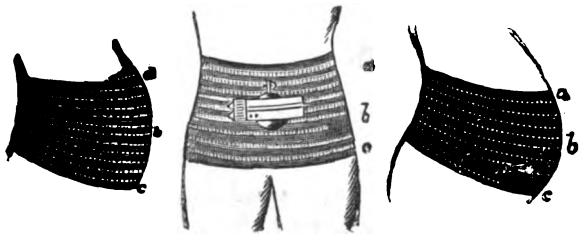
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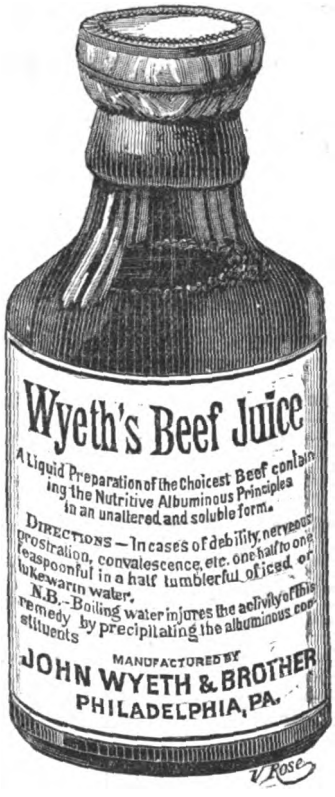
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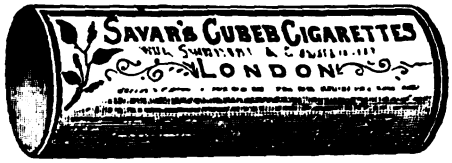
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"Two distinct preparations, Beef Meal and Beef Jelly, have been submitted to us. Both contain nourishing fibrine as well as peptone, the former being recognised under the microscope, and the latter by the well-known biuret reaction. The meal on analysis gave the following results: Moisture, 8·60 per cent.; organic matter, 87·68 per cent.; mineral matter, 3·72 per cent. The jelly results as follows: Moisture, 22·10 per cent.; organic matter, 62·46 per cent.; ash, 15·44 per cent. The meal contained over 10 per cent. of nitrogen. In the face of these results it is evident that both preparations are foods particularly rich in restorative and nourishing elements. Further, they are of excellent flavour, and the entire absence of objectionable preservatives was ascertained."—**THE LANCET, April 30th.**

"The substance is a finely divided beef powder, of a light brown colour and of very pleasant taste. It contains high percentages both of albuminous matters, which may be regarded as available, and of so-called peptones; while it has, as above implied, neither bitter nor other objectionable taste. The percentage of water is low, and the preparation keeps unchanged, apparently, for an indefinite period if properly stored. This Beef Meal may be relied upon as a well-manufactured preparation, and it will probably be found unusually useful."—**BRITISH MEDICAL JOURNAL, Jan. 2nd.**

"Various forms of powdered meats have been brought forward at different times, but they failed in nutritive value, as they largely consisted of insoluble matters. The Beef Meal contains less than 10 per cent. of water, and, with the exception of this small percentage, is composed of nutritive matter, nearly half of which is in a readily soluble form. We have given the food in several cases of extreme debility with very satisfactory results. The Mosquera Co.'s Beef Meal is a unique and valuable food."—**HOSPITAL GAZETTE, Nov. 21st.**

Samples and Descriptive Literature free to Physicians.

PARKE, DAVIS, & CO. (Detroit and New York, U.S.),
43 & 44, HOLBORN VIADUCT, LONDON.

Wholesale Agents: **Messrs. BURGOYNE, BURBIDGES, CYRIAX, & FARRIES,**
16 COLEMAN STREET, LONDON, E.C.

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FACTA NON VERBA.

ANALYSES OF LOEFLUND'S MILK & MALT DIETETICS.—14, St. Mary Axe, E.C.

	Fat.	Albuminoids.	Soluble Carbo-hydrates.	Mineral Matter. Salts, Ash	Phosph. Acid.
1. PURE STERILISED ALPINE MILK (Unsweetened), -/6	10·85	10·27	Milk Sugar 13·78	1·68	0·66
2. KINDERMILCH (Infant's Milk), 1/6	12·22	Casein (5·68) Hemi-Albumen & Peptone 4·18 = 9·86	Do. Maltose & Dextrine = 55·10	1·64	0·70
3. ALPINE MILK RUSK (Powdered), 1/6 & 1/-	7·12	Do. do. and Albumen of Wheaten Flour = 12·65	Do. do. 31·10 Baked Wheaten Flour 38·19	3·24	1·20
4. CREMOR HORDEATUS (Condensed Cream Emulsion), 2/6 & 2/-	23·02	5·82	51·04	1·37	—
5. PURE HORDEUM (Malt Extract), 2/6	—	AZOTIC SUBSTANCES. Albumines 1·36 Peptones 0·48 Amides 2·80	Maltose 58·91 Dextrine 15·43	Ash 1·13	Natural Acids 0·47

6. HORDEUM (q.v.) c. PEPSINE PORCI, gr. iv. ex. 5 iv., 2/6.
7. " c. FERRI PYROPHOSPHAT, gr. vi. ex. 5 vi. 2/6.
8. " c. FERRI CIT. c. QUINIÆ, gr. ii. ex. 5 iv., 2/6.
9. " c. CALCE HYPOPHOSPHIT, gr. vi ex. ℥iv., 2/6.
10. " c. COD LIVER OIL, 1/9.
11. "L" BRAND MALT EXTRACT, 1/6. Contains less diastase than pure Hordeum.
12. TROCH. EXT. MALTI, 10/6. Contain 20% Pure Hordeum. Cause no acidity.

NOTES.—1. Absolutely sterilised and free from any addition, such as cane-sugar and antiseptics.
2. Casein partially solved *by neutral process*. Free from unaltered starch. Fat in emulsion. Especially adapted for weaning.
3. Rich in bone-forming phosphates (especially lime).
4. Consists solely of Alpine Cream and Pure Hordeum. A delicious substitute for Cod Liver Oil. Assimilated by weakest stomachs. Also with 10% milk fat only for extreme cases.
5. Albuminoids perfectly soluble. Diastasic strength equal to 15–20 times its weight. Neither ferments nor congeals. Prepared solely from finest Barley Malt. Also with Hop Flavour.

DE JONG'S COCOA.

Absolutely pure and perfectly soluble, should be recommended in preference to any other on account of its economy and surpassing excellence in every respect, as proved by most eminent authorities. See reports of BRIT. MED. JOURN., Drs. Hehner, Söldner, and W. L. Scott, &c.
Analysis.—Water, 7·68; Nitrogenous Matter, including Theobromine, 20·43; Fat, 32·60; Starch, 9·30; Extractive Matter, 21·23; Ash, 8·74.

Samples, &c., on application to the Chief Depot of the DE JONG'S COCOA, 14, St. Mary Axe, E.C.

Cleaver's Juvenia Cream

MEDICAL TESTIMONIAL. Streatham, S.W., Feb. 19th, 1892.

Gentlemen,—Some time since you were good enough to forward me a sample of your Juvenia Cream—I at once tried it in a case of Eczema Capitis with very satisfactory results. I next recommended it to a patient who had undergone an operation for relief of constriction of the bowels some 3½ years ago, and who has since been troubled with an eczematous condition of the skin. Many preparations have been tried for the relief of this complication with very variable success, but since the use of your preparation this trouble has been kept completely in abeyance, and the patient's comfort has been very greatly increased. As a toilet preparation for the relief of chapped hands it is unequalled. I have great pleasure in testifying to the good results I have found from its use.

Yours faithfully.

MESSRS. F. S. CLEAVER & SONS. MATTHEW COATES, M.D., F.R.C.S.

Registered No. 99,335. **PRICE PER TIN, 1s., 2s., & 3s. 6d.**

THIS unique Toilet Preparation is specially adapted both for preventing and allaying Eruptions and Irritation of the Skin.

In all cases of Roughness, Redness, or Chapping of the Skin, arising from susceptibility to atmospheric changes, Eczema, Tan, Sunburn, etc., it will be found most valuable.

It becomes rapidly absorbed by, and entirely penetrates, the Epidermal surface, rendering the same soft and supple; and its continued use produces a natural and healthy action of the Skin, by enabling it to perform its proper functions of respiration.

JUVENIA CREAM should be regularly applied before retiring to rest at night.

JUVENIA CREAM will be found most valuable by members of the Theatrical Profession, as by being applied before making-up, it prevents the injurious action of the colours used.

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SOLUBLE PODOPHYLLIN

Liq. Podophyllin (Hockin).

Miscible (bright), in Aqueous, Acid, or Alkaline Solutions, also with Decoctions, Ethers, Infusions, Tinctures, &c. Each Drachm equal to—Podophyllin Pur. ¼ gr. Packed (for Dispensing) in 16 oz. 7/-, 8 oz. 4/-, and 4 oz. 2/6 bottles, and Winchester Quarts, 6/9 per lb. Bottles free. Postage charged as follows:—16 oz. and 8 oz. bottles, 6d.; 4 oz. bottles, 3d.

E. G. Dutton, Esq., M.R.C.S., L.S.A., Plymstock, writes:—"With reference to the "sample of Liq. Podophyllin which you kindly favoured me with, I can distinctly "state that your preparation was vastly more efficacious than Podophyllin in the "form of pills, and I shall in future always use the 'Liquor.'"

Liq. Podophyllin et Pepsin (Hockin.)

A Soluble Preparation of Podophyllin and Pure Pepsin. Of great Digestive Power. As an aid to Digestion, when the ordinary stimuli do not excite sufficient secretion and the digestive ferment is insufficient. In all indigestion due to a sluggish state of the liver and constipation of the bowels it will be found invaluable. Its action is certain, and it has not the strong, disagreeable odour so often found in preparations of Pepsin. Each Drachm equals—Pepsin Porci B.P., 2 grs.; Podophyllin Resin, ¼ gr. Prices as Liq. Podophyllin.

John Keagh, Esq., L.R.C.S.I., L.M., Killaloe, writes:—"I have prescribed your "preparation of Liq: Podophyllin et Pepsin with great success. I consider it a most "valuable hepatic stimulant. Please send me an 8 oz. bottle, for which I send "P.O. Order."

Liq. Podophyllin et Belladonnæ c. Strychnia (Hockin).

SYNONYM.—LIQ. HOCKIN. Acts most beneficially in torpid liver from defective nerve influence, and also upon the alimentary canal. It increases the tone and vascularity of the stomach, improves appetite and promotes digestion, and in atonic dyspepsia and various chronic catarrhal affections of the gastric mucous membrane it acts as an excellent tonic, greatly increasing the muscular contractions of the intestinal tube, and counteracts constipation and fæcal accumulations. Each Drachm equals—Podophyllin Resin, ¼ gr.; Ext. Belladonnæ Rad. Alch., ⅛ gr.; Strychnia, 1-30 gr. Prices as Liq. Podophyllin.

John Morgan, Esq., F.R.C.S., Eng., L.R.C.P., Lond., Langport, writes:—"I have "tried your Liq. Podophyllin et Belladonna C. Strychnia, of which you sent me a "sample. I have found it valuable in cases of torpid liver, and shall continue to "prescribe it whenever suitable cases occur."

Liquor Jalapæ Resinæ (Hockin).

The value and use of Jalap as a purgative has been so long established that it appears almost unnecessary to refer in any way to its therapeutics, but the difficulty of dispensing it in a soluble liquid form has always been very considerable, and has necessitated its being invariably given in the form of a pill, and even then its action is by no means certain. These difficulties have induced us to prepare a liquor soluble in all proportions with water, and of a standardised strength of 2 grains to the drachm. It contains *no* alcohol, is pleasant to the taste, and will be found a thoroughly reliable preparation. Packed (for Dispensing) in 16 oz. bottles, 7/-; 8 oz. 4/-; 4 oz. 2/6 each. Bottles free.

Injectio Glycerini c. Jalapa (Hockin).

Each Drachm contains 1 grain of Jalapæ Resina, B.P. The use of Glycerine in Constipation has become during the past year or two very general, and excellent results have been obtained; but it has been found that where a decided predisposition to Constipation exists it often has no action whatever. This has induced us to combine it with Resina Jalapæ, which will be found to form an injection that seldom fails, and also will doubtless not merely act on the lower intestines as plain Glycerine does. Packed in 4 oz. bottles, 2/- each. Bottles free. Postage 3d.

Prepared only by HOCKIN, WILSON & CO.,

WHOLESALE DRUGGISTS AND MANUFACTURING CHEMISTS,

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SAMPLES, MEDICAL AND PRESS REPORTS on application.

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DR. KNORR'S ANTIPYRINE



(LION BRAND).

Protected by Royal Letters Patent.

An ESTABLISHED REMEDY, recommended by Authorities against

FEBRILE DISEASES,
NEURALGIAS,
CHOREA,
SUNSTROKE,
&c.

HEADACHE,
WHOOPING-COUGH,
AORTIC TUMOURS,
INFLUENZA (Grippe or Dengue),
&c.

Prepared under the authority and control of the Discoverer by

FARBWERKE, vorm. MEISTER LUCIUS & BRÜNING, Hoechst o/M.

Purchasers should always inquire for "DR. KNORR'S ANTIPYRINE (LION BRAND)." The labels bear in facsimile the signature of "Dr. Knorr." Dr. Knorr's Antipyrine is readily and completely soluble in water.

ANTIPYRINE TABLOIDS. The cheapest and most convenient form of administration.

ANTIPYRINE TABLOIDS. Absolutely pure. Easily and completely soluble in water, wine, tea, or any other beverage.

ANTIPYRINE TABLOIDS. Packed in small tins of 20 or 80 each; 3 are equal to 15 grains of Dr. Knorr's Antipyrine. Dose for Adults, 2 to 3 Tabloids; for Children, 1 to 2, according to age.

NEWEST PHARMACEUTICAL PRODUCTS of the Farbwerke, vorm. Meister Lucius & Brüning, Hoechst o/M.:—

DERMATOL (Patent applied for). An odourless vulnerary, replacing Iodoform in most cases. Discovered by Drs. HEINTZ and LIEBRECHT.

BENZOSOL (Patented). Substitute for Creosote. Discovered by Dr. BONGARTZ.

IODOPYRINE (Iodantipyrine). Discovered by Dr. OSTERMAYER.

HYPNAL (Chloral-Antipyrine). Hypnotic.

All tins bear our Registered Lion Trade Mark. The labels have the signature of the respective discoverers.

TUMENOLUM-VENALE (Tumenol).
TUMENOL-SULPHON (Tumenol Oil).
TUMENOL-SULPHONIC-ACID (Tumenol Powder). } (Patented.)

Recommended by Professor NEISSER at the Dermatological Congress in Leipzig.

TUBERCULOCIDIN of Professor KLEBS.

With reference to the strength of the Tuberculocidin solution, we observe that it is prepared from an equal volume of Tuberculin Koch. This strength Professor Klebs designates in his publications as 100 per cent. We now supply this solution in quantities of 30 ms, 1¼, 2½, and 6 drachms. Imitations must be carefully avoided. The Sole Manufacturers of the above-named products are

FARBWERKE, vorm. MEISTER LUCIUS & BRÜNING, Hoechst o/Main, who also supply:

BENZOIC ACID, from Toluol.
CHINOLIN, pur.
Do. puriss.
α-NAPHTHOL, chem. pure, cryst.
β- Do. „ „
β- Do. resublim.
RESORCIN, chem. pure.
Do. puris. resubl. albiss.
URETHAN, chem. pure.
PHENYLURETHAN.
MONOMETHYLANILINE.
METHYLENE Blue, medicinal.

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SAVORY & MOORE'S

PANCREATIC EMULSION,

OR PEPTONISED (PREDIGESTED) FAT,

LARGELY PRESCRIBED AS AN ARTICLE OF DIET

IN ALL CASES OF

CONSUMPTION, WASTING, LOSS OF APPETITE, STRENGTH, and DIGESTIVE POWER.

The vast benefits resulting from the administration in Wasting Diseases of Cod-liver Oil and Pancreatic Emulsion are too widely known and acted upon to need further mention. The special advantage of Pancreatic Emulsion is that it provides the NATURAL STABLE SOLID FATS OF FOOD, predigested by the action of the pancreatic secretion, so that they can be taken without the least disturbance of the digestive functions. As it provides SOLID fat, it is well to make it alternate with a liquid fat, like cod-liver oil, even where the latter agrees, and in the many cases where cod-liver oil disagrees it may be permanently substituted with the greatest advantage, or it may be taken WITH the oil, the assimilation of which it actively promotes.

A collection of Medical testimonies as to the rapid increase in weight and health resulting from taking the Pancreatic Emulsion will be sent on application. The following brief extracts are selected:—

"In these cases cod-liver oil, which has hitherto been persistently rejected, was retained by the stomach after the emulsion had been administered for some time."

"The emulsion and cod-liver oil treatment was tried in cases of consumption, in all of which it produced a speedy and well-marked improvement in the digestive organs, and proved far superior to the oil alone."

"Found the digestion improved. A marked improvement in nutrition, with increase of weight."

"Have found it of inestimable value in general debility, atonic dyspepsia, and diabetes."

"In all cases the patients can take emulsion when they cannot take cod-liver oil."

Special stress is now laid on the great desirability of attending to the digestive functions in phthisis. We venture respectfully to remind the Profession that a very large consensus of Medical opinion points to this preparation as the only one which exactly provides both the form of nourishment required and the necessary aid to the digestive powers.

The Emulsion is of the consistence of Devonshire cream: easily miscible with fluids and quite unobjectionable in taste. It may be given in milk or water, and with the addition of a little wine or brandy if desired.

SAVORY & MOORE,

143, NEW BOND STREET, W.

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A BOON TO DYSPEPTICS.

Bynin — LIQUID MALT.

This liquid preparation of **Malt Extract,** so favourably known to the medical profession for many years, while possessing all the digestive and nutritive powers of the ordinary thick extract, is so much pleasanter to handle, and easier to take, that by many persons it is infinitely preferred to the older form. The activity of the Diastase upon which the value of Malt Extract chiefly depends is very pronounced—in fact, it is greater than in the thick extract, owing to the fact that it has been subjected to heat for a shorter time. In addition to Diastase, Maltose and Dextrine are largely present, together with Phosphates and a certain amount of Nitrogenous material, all possessing considerable value as articles of diet.

CHIEF USES.—Malt Extract has been most largely prescribed in wasting diseases, and its use has been almost invariably followed by very good results, emaciation being stopped and the patient putting on flesh. It is most probable that this result is due partly to improved digestion, from the assistance given by the malt diastase to the diastase of the Salivary and Pancreatic Juices, and partly to the fact of Nitrogenous tissue-waste being saved by the Carbohydrates.

The presence of diastase clearly points to the use of Bynin in certain forms of dyspepsia due to weak digestion, and in such cases the practical experience of many medical men has abundantly proved the great value of this preparation.

For **Children** Bynin is especially useful, as its pleasant taste renders it very palatable, and digestive disorders being the commonest found amongst children, such a powerful aid to digestion and nutrition cannot fail to be of the utmost service. On this point we have abundant testimony of the most varied description.

For **Women** whilst suckling, Bynin has been given in milk, in place of Stout or Porter, with the best results, forming, as it does, a highly nutritive and easily digested food, which increases the flow and enriches the quality of the milk; and, what is of great importance, renders it more assimilable and easy of digestion by the infant.

METHOD OF ADMINISTRATION.—The *best* way to take Bynin is *during the meal.* It may be sipped slowly either by itself, or mixed with water, wine, milk, lemonade, &c., or may be taken stirred up with gruel or farinaceous puddings. It is better taken in this way than after the meal, when its action is much hampered by the acid secretion of the stomach. Nursing mothers should take one tablespoonful, in half a tumbler of new milk, three times a day *between* meals.

☞ **One FLUID ounce of Bynin represents one ounce by WEIGHT of Allen & Hanburys' ordinary thick MALT EXTRACT, which is sold in wide-mouthed jars, similar to their Bynol jars, at (retail) 1s. 6d. and 2s. 9d. each.**

THE LANCET writes: "We find that one ounce of Bynin will digest perfectly one pound of starch. This is a most favourable result, and, coupled with the fluidity and pleasant flavour, renders this preparation a most valuable one."

In Bottles at (Retail) 1s. 9d. and 3s. each; 16s. and 27s. per dozen to the Profession.

SAMPLES SENT TO MEDICAL MEN POST FREE ON APPLICATION.

ALLEN & HANBURYS, Plough Court, Lombard St., London, E.C.

West End House: 7, VERE ST., CAVENDISH SQUARE. *Laboratories and Warehouse:* BETHNAL GREEN, LONDON.
Cod-liver Oil Factories: LONGVA AND KJERSTAD, NORWAY. *Australian Agency:* 484, COLLINS STREET, MELBOURNE.

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BENGER'S PREPARATIONS

OF THE

NATURAL DIGESTIVE FERMENTS

AND SPECIAL FOODS FOR INFANTS AND INVALIDS.

1.—LIQUOR PANCREATICUS (Benger). (REGISTERED.)

For the preparation of peptonised or partially digested foods, such as milk, soups, beef-tea, &c.

Simple directions for preparing these accompany each bottle.

In 4 oz., 8 oz., and 16 oz. Bottles.

THE LANCET says: "So many worthless articles of this kind have been sold that great care is required in choosing those upon which reliance can be placed. Mr. BENGER'S care has therefore been well spent."

2.—BENGER'S PEPTONISING POWDERS.

(Pulvis Pancreatus Alkalinus—Benger.)

These Powders may be used instead of LIQUOR PANCREATICUS (BENGER) to peptonise Milk, &c. They are colourless, odourless, and instantly soluble.

One powder will rapidly peptonise a pint of milk, gruel, soup, &c.

In Boxes of 12 Powders, Retail, 2s. 6d.

3.—LIQUOR PEPTICUS (Benger).

A CONCENTRATED & EXCEEDINGLY ACTIVE FLUID PEPSINE.

It is prescribed in doses of one or two teaspoonfuls in a wineglass of water, wine, or weak spirit-and-water, with meals. It is without disagreeable taste.

In 4 oz., 8 oz., and 16 oz. Bottles.

4.—BENGER'S PEPTONISED BEEF JELLY.

Glass Jars, will keep in any climate, Retail Price, 2s. each.

A DELICATELY FLAVOURED, CONCENTRATED, PARTIALLY DIGESTED, AND SOLIDIFIED BEEF-TEA.

It can be taken by teaspoonfuls, cold as a jelly, or dissolved in a little hot water, as a concentrated beef-tea. It is also used to fortify or enrich ordinary beef-tea, soups, &c. It affords to invalids, when travelling, a ready and convenient form of concentrated nutriment.

5.—BENGER'S PEPTONISED CHICKEN JELLY.

A NUTRITIVE DELICACY FOR INVALIDS.

Glass Jars, 2s. each.

It is prepared in a similar manner to the PEPTONISED BEEF JELLY above described, and, like it, contains the nutritive constituents in a concentrated, partially digested, and solidified form.

AWARDS.

GOLD MEDAL
International Health Exhibition, London, 1884.

FIRST ORDER OF MERIT AND MEDAL (Highest Award), Adelaide, 1887.

FIRST ORDER OF MERIT AND MEDAL, Melbourne 1888.

HIGHEST AWARD, Medical & Sanitary Exhibition, London, 1888.

OPINIONS OF THE MEDICAL PRESS.

THE LANCET.

"We have on a previous occasion noticed some of Mr. BENGER'S admirable preparations. Those now before us are not less satisfactory."

The BRITISH MEDICAL JOURNAL.

"Time and use have justified the claims put forward for these preparations."

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"All these preparations are, we think, deserving of the highest praise, and only require to be made known to the profession to ensure their extensive employment."

The LONDON MEDICAL RECORD.

"These are, undoubtedly, a great advance on any previous attempt in this direction. .... The introduction of these preparations is a distinct advance in therapeutics."

The MEDICAL TIMES AND GAZETTE

"BENGER'S preparations have deservedly a very high reputation, and are all largely used."

6.—BENGER'S FOOD *(Pancreatised).*

(REGISTERED.)

For INFANTS, CHILDREN, and INVALIDS.

In Tins, 1s. 6d., 2s. 6d., 5s., and 10s., with Directions for Use.

A great improvement on the various forms of Liebig's Food. When mixed with warm milk the pancreatic ferments render the farinaceous matter soluble, and reduce the casein to the same digestible condition in which it exists in human milk, so that hard masses of curd cannot be formed in the stomach. Experience has shown that delicate children and adults with weak digestions can enjoy and retain this food when all others disagree.

7.—BENGER'S PANCREATISED OAT FLOUR.

8.—BENGER'S PANCREATISED LENTIL FLOUR.

Tins, 1s. 6d. and 2s. 6d.

These Flours are partially cooked and impregnated with the natural digestive principles of the pancreas. They are useful as a substitute for BENGER'S FOOD, described above, where a change of diet is thought desirable, and are used in a similar manner with milk or milk-and-water.

Full directions for use accompany each tin.

9.—BENGER'S NEW ESSENCE OF RENNET.

CURDLING FLUID,

For PREPARING FRESH WHEY, JUNKETS, &c.

Bottles, 1s. and 1s. 6d.

Directions for use enclosed.

10.—PEPTONE SUPPOSITORIES (Benger).

For RECTAL ALIMENTATION.

In Boxes of 6 and 12.

BENGER'S PREPARATIONS may be obtained through all Wholesale and Retail Houses, or direct from the Manufacturers.

F. B. BENGER & CO., Limited, OTTER WORKS, MANCHESTER.

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BY ROYAL LETTERS PATENT.

"TRITICUMINA" BREAD.

(REG.)

THE features of this process are: That (after treatment) the whole of the grain of wheat is ground for Bread-making, and a Bread obtained therefrom which does not cause the excessive irritation of the alimentary canal which is produced by the wholemeal bread of other processes, **with the important additional advantage that the greater portion of the starch of the grain is converted into dextrine.** The Bread produced has a fine, rich, home-made flavour, with a thin, perfectly uniform, and easily masticated crust.

Each Loaf has the word "TRITICUMINA" stamped on it.

4d. per Loaf.

"TRITICUMINA" FOOD.

TRADE MARK.

REGISTERED.

"TRITICUMINA" is a Malt Food. Its special value lies in the fact that, instead of employing the barley malt of the market, **the wheat is malted,** under specially ascertained conditions, with the express purpose of rendering the product most suitable for use as **a digestible food for Infants, Children, and Invalids.** It is rich in mineral matter, fine portions of the inner bran being retained.

One Shilling per Tin.

See Reports by OTTO HEHNER, Analyst, London; ALFRED GORDON SALAMON, Analyst, London; A. BOSTOCK HILL, Analyst, Birmingham, &c., in Pamphlet.

Sole Proprietors: **MEABY'S "TRITICUMINA" COMPANY, LTD.,**
"TRITICUMINA" FACTORY, READING.

LIST OF AGENTS MAKING "TRITICUMINA" BREAD ON APPLICATION.

BAKERS APPOINTED IN ALL DISTRICTS.

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IMPROVED PRODUCTS.

THE "B., W., & CO." PORTABLE PIPE CHLORIDE OF AMMONIUM INHALER.

(*As designed by* Dr. STENSON HOOKER.)



The beneficial effects of inhalations of Ammonium Chloride have been long known to the Medical Profession, and the only objection to the more extensive use has been the high cost of instruments for the inhalation of Ammonium Chloride Vapour. We have, however, at the instance of Dr. HOOKER, introduced a portable Pipe Inhaler. It is composed throughout of earthenware. The bowl of the pipe contains an inner vessel, perforated at the base, to promote combination of the vapours, and is divided down the middle by a septum. In the base of the bowl itself there is placed a sponge which, when saturated with water, thoroughly washes the fumes. This inhaler possesses the following advantages over any temporary apparatus. It is extremely portable, and not liable to get out of order easily. It may be thoroughly cleansed by washing, and is moderate in price. This inhaler may be employed by patients in any position, or while walking, sitting, or reclining.

The Inhaler, together with two stoppered bottles, containing Hydrochloric Acid and Solution of Ammonium, for use with the instrument, is supplied to the Profession at 5s. each; retail, 7s.

HAZELINE.


Witch Hazel Plant.

A colourless distilled product, containing the volatile active principles of the fresh green twigs and leaves of the Witch Hazel.

PROPERTIES.—*Hæmostatic, Anodyne, and Astringent.*

Prescribed in cases of hæmorrhage from the nose, lungs, womb, rectum, &c. Is a valuable agent in the treatment of bruises, sprains, inflammation, peritonitis, piles, fistula, anal fissures, ulcers, varicose veins, eczematous surfaces, tonsillitis, pharyngitis, nasal and post-nasal catarrh, stomatitis, leucorrhœa, nasal polypi, &c.

DIRECTIONS.—In catarrh or cold in the head, may be sniffed up the nostrils with an equal part of tepid water.

Dose for irritated or inflamed throat and lungs, half to one teaspoonful occasionally.

Supplied to the Medical Profession in ½ and 1 lb. bottles, at 1s. 2d. and 3s. 6d. each. Retail prices, 1s. 6d. and 4s. 6d. each.

VEREKER IMPROVED CHLORIDE OF AMMONIUM INHALER.

"The neutral vapour of Chloride of Ammonium removes unhealthy and offensive secretions, and restores the long diseased or weakened nasal and respiratory mucous membrane to a healthy state, so that in cases of catarrh, where thickening, induration, and irritation exist, a most decided improvement is brought about in a short time." In "throat-cough," pharyngeal irritation and relaxation and weakness of the throat, it acts as a most effective alterative and tonic to the mucous membrane.



"The best inhaler for the surgeon's study is that of Burroughs, Wellcome, & Co.; it does not require recharging at each time of using, and yields perfectly neutral vapour of Ammonium Chloride."—"Diseases of the Ear and Naso-pharynx," Dr. MACNAUGHTON JONES (Baillière).

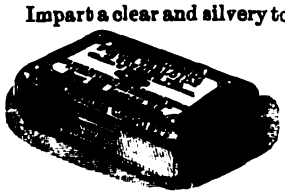
Dr. SMYLY, Ex-Pres. Royal College of Surgeons, Ireland, says:—"It is the best Inhaler for Chloride of Ammonium I have met with."

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Composed of COCAINE, *Chlorate of Potash, and Borax.*

Impart a clear and silvery tone to the voice. Easily retained in the mouth while singing or speaking. Now used by the leading singers and public speakers throughout the world.



DIRECTIONS. — A single "Tabloid" may be slowly dissolved in the mouth to remove huskiness or hoarseness.

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THE B., W., & CO. PAROLEINE ATOMISER.

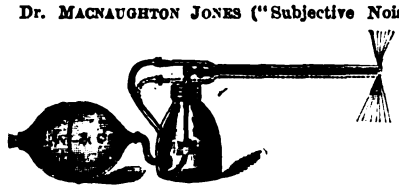
THE JOURNAL OF LARYNGOLOGY AND RHINOLOGY says: "These instruments have delighted us. We have so often asked for a spray that would throw a fine vapour of an ointment or oily solution, and those which are offered are anything but satisfactory. The sprays before us meet all our wants; no laryngologist's table will be complete without these beautiful sprays."—December, 1890.



The B., W., & Co. Naso-Pharyngeal Paroleine Atomiser, 3s. 5d. each.

Mr. LENNOX BROWNE recommends inhalations of menthol by these means in rhinitis and irritable or inflamed conditions of the naso-pharynx.

Dr. MACNAUGHTON JONES ("Subjective Noises in the Head and Ears," Baillière, Tindall, & Cox) says:—"A solution of menthol may be made by dissolving one part of menthol in Paroleine (B., W., & Co.), seven parts; this is preferable, as it does not turn rancid by keeping. This bland, neutral, and tasteless oil is a ready solvent for all essential oils—menthol, thymol, salol, iodoform, and creosote."


The B., W., & Co. Post-nasal Paroleine Atomiser, 5s. 2d. each.

Paroleine is supplied to the Medical Profession in 4-oz. bottles, at 9d. each.

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Prepared by BURROUGHS, WELLCOME, & CO.



This preparation contains all the stimulating properties of Beef with Citrate of Iron in a pure medicinal wine. Is palatable, elegant in appearance, and can be frequently taken by patients when Iron in any other form cannot be borne. As a resuscitating agent during convalescence from acute disease, in anæmia, neurasthenia, and wherever a useful stimulant and tonic is indicated, the Burroughs Beef and Iron Wine will afford every satisfaction.

THE LANCET says: "This is a really valuable preparation, and, as far as we know, a novelty. It contains Beef Juice and Citrate of Iron in solution in Wine, and is therefore a very powerful and rapidly acting tonic. Children, as well as adults, take it easily, and, as its taste is by no means unpleasant, it can hardly fail to attain great popularity."

The BRITISH MEDICAL JOURNAL says: "It is a pleasant tonic and mild stimulant. It will be found most useful in cases where the use of a blood tonic is indicated. The ordinary dose for an adult is a tablespoonful, which should be taken in a little water between meals. Children also may take it in similar doses according to age."

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APIOLIN-CHAPOTEAUT.

The True Active Principle of Parsley, differing from so-called Apiol.

Professor Laborde's (Paris) exhaustive study of the action of Apiolin indicates that it stimulates the intestinal and genital vaso-motor system, and hence has a decided action on the utero-ovarian reproductive apparatus. The general conclusion, therefore, from a practical point of view, is that the drug is indicated in certain cases of genito-spinal atony, and especially in dysmenorrhœa.—UN. MED. MAG.

Shoemaker's Materia Medica and Therapeutics says:—

"In cases of scanty or deficient menstruation with pain &c. one capsule can be given after meals, thrice daily for a week beore the expected period, as recommended by Dr. Fordyce Barker.

℞ Apiolini, grm. iv. (about 3j),
ft. Capsule No. xx. (Chapoteaut).
Sig: Take three each day during the week preceding menstruation.

"It is especially appropriate when amenorrhœa depends upon anæmia."

Dr. R. Hill, before the Washington (D.C.) Medical Society, Feb. 16th, 1891, reported five cases of dysmenorrhœa treated by him at the Central Dispensary, and concludes the paper in these words: "Apiolin is decidedly the most reliable drug that I have yet used in dysmenorrhœa. In all the cases I have so treated, relief has invariably resulted."

In phials of 24 capsules containing 20 centigrammes of Apiolin in each.

DUSART'S SYRUP AND WINE OF LACTO-PHOSPHATE OF LIME.

Phosphate of Lime (the restorer of muscular fibre and bone) rendered assimilable by the action of its natural solvent, Lactic Acid.

These Preparations act as general excitants of the nutritive functions, ensure digestion, stimulate the appetite, and enrich the milk of ladies suckling. They are prescribed with advantage in Teething, Rickets, or tardy development of children; and in Convalescence, Dyspepsia, Wounds, Fractures, and Affections of the Osseous System. The Syrup acts as a specific in Infants' Green Diarrhœa.

DUSART'S SYRUP OF LACTO-PHOSPHATE OF LIME AND IRON.

Invaluable where any of the above cases are complicated with Anæmia.

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OL: SANTAL: FLAV: (MIDY).

In gonorrhœa and all forms of urethritis *Santal-Midy* replaces, copaiba, cubebs, and the ordinary remedies, without producing eructations, offensive odour, or diarrhœa, and the discharge is reduced to a slight oozing in forty-eight hours.

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Dr. Posner stated before the Berlin Medical Society: "Much depended on the purity of Sandal Oil, many qualities of which are found in commerce. The best form was the French preparation known as *Santal-Midy*, put up in elegant little capsules, which were easily taken and well supported."—MEDICAL RECORD.

Santal-Midy is distilled from the best Mysore sandal wood, and is dispensed in small, spherical capsules of 20 centigrammes.

Dose, 6 to 12 capsules daily. Original bottles contain 40 capsules.

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BISMUTH, PEP., & STRYCH. ...	5.5 & 1/10 grs. to ,,	IRON, QUIN., & STRYCH....	5.1 & 1/10 grs. ,,
BISMUTH, PEP., & QUININE ...	5.5 & 1 ,, ,,	IRON & ARSENIC	5 grs. & 3 m. (Fowler's) ,,
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LITHIA BENZOATE	5 ,, ,, ,,	PHENACETIN	... 5 & 10 ,, ,, ,,
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VALUABLE Maltine COMPOUNDS.

MALTINE with PEPSINE and PANCREATINE.

The knowledge of how nature prepares the food for assimilation has enabled the medical man to render much assistance in the matter by administering natural digestive ferments where there is reason to suspect a patient's digestive troubles arise from a deficiency of these necessary agents. It is not needful to insist upon the great importance of Pepsine and Pancreatine in this respect. "MALTINE with PEPSINE AND PANCREATINE" forms an ideal combination for the treatment of many troublesome cases of dyspepsia, and for administration during the early stages of convalescence from acute diseases.

Each fluid ounce contains fifteen grains of Pepsine and Pancreatine respectively.

MALTINE with IRON.

Each Fluid Ounce contains: Iron Pyrophosphate, 8 grains.

Pyrophosphate of Iron, one of the most efficient chalybeates, is free from disagreeable taste, and, owing to its solubility, is readily assimilated. In addition to furnishing the blood with needed elements, nutrition is stimulated, and these functions are augmented by the reconstructive and digestive properties of MALTINE, while its slightly laxative tendency counteracts the astringency of the iron. The irritating effect on the digestive organs, which is one of the disadvantages of most ferruginous preparations, is overcome in this combination.

"MALTINE with IRON" is therefore of inestimable value in the treatment of Chlorosis, Scrofula, Dyspepsia, Neuralgia, and all cases of imperfect nutrition where iron is deficient in the system. The richness of "MALTINE" in albuminoids renders "MALTINE with IRON" specially efficacious in the treatment of Chronic Anæmia, attended as it generally is with repugnance to all kinds of food. If administered in sherry wine, in the proportion of one part to three parts of wine, it will be found much superior to the ordinary iron and wine tonics.

MALTINE with LIME.

This is a combination of MALTINE with Hypophosphites of Lime and Soda and Hypophosphite of Iron in the proportion of three grains of each of the former and two of the latter. It is especially adapted for administration to children suffering from rickets; the sweetness and palatability of the MALTINE eminently adapt it for use in these cases. According to certain authorities, the malnutrition which is present in rickets is almost invariably preceded by a failure of the digestive powers; and, in view of this opinion, the expediency of giving "MALTINE with LIME" becomes self-evident. The MALTINE strengthens the digestive capacity of the rickety child, and the Hypophosphite Salts furnish it with those necessary elements of bone formation of which it appears to be so largely deficient.

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Probably no emmenagogue yet introduced to the Medical Practitioner has created such a general satisfaction as Liquor Cauloph. et Pulsatillæ Co. (Oppenheimer). It acts directly on the utero-genital organs as a sedative and tonic, and will be found specific in all cases of Amenorrhœa, Dysmenorrhœa, Leucorrhœa, Prolapsus Uteri, and premature cessation of the menses. In "change of life," Passive Hæmorrhage, Vaginitis, Urethritis, and Hysteria it is particularly valuable, and has been successfully prescribed in atony of the uterus after parturition. It likewise prevents the tendency to repeated successive miscarriage, and by its tonic action restores the general functions of the system. It should therefore be administered continually during entire gestation where abortion is feared.

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(By Royal Letters Patent.)

The most perfect form of medication ever invented. Elegance, Portability, and Convenience. Embraces the following *desiderata* :—



Absolute accuracy of dosage.
Ease of deglutition.
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Protection from atmospheric influences.
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The full therapeutic effect of the medicament.
The efficacy of a mixture with the convenience of a pill.



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The only reliable and practical method of administering ferrous carbonate, phosphate, and arseniate in a pure undecomposed, unoxidised state. "*A perfect Blaud's Pill.*" *Deserves the thanks of the Profession.* If the chemicals necessary for the production of these delicate iron salts be mixed decomposition must and does occur. "*We regard these 'Bi-palatinoids' as a very ingenious and marked progress in elegant and efficient pharmacy.*"—BRITISH MEDICAL JOURNAL. "*Will, as a matter of course, meet with very hearty and general approval.*"—THE LANCET.

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MODERN PHARMACY.

KEPLER SOLUTION OF COD LIVER OIL.

THIS is, according to the BRITISH MEDICAL JOURNAL, "an ideal form for the administration of fat." It is a well-known fact that when fatty material is ingested *en masse* it to a very large extent escapes emulsification during its passage through the alimentary canal. If, on the other hand, it is mixed intimately with other foods, the disintegration process has already been accomplished and the fat is readily acted upon by the secretion of the pancreas, succus entericus, and the bile. Cod Liver Oil is no exception to this rule, and, according to recent investigations, a very large proportion of the oil taken by a selected number of patients was voided unchanged in the fæces; whereas oil given in a condition similar to the Kepler Solution of Cod Liver Oil was perfectly absorbed, and merely a trace of fat only was discovered unchanged. The Kepler Solution contains a very large percentage of Cod Liver Oil, the remaining part of it consisting of a rich and nutritious Extract of Malt. Everything considered, this preparation is one of the most perfect foods and resuscitating agents it is possible to prepare. THE LANCET reports: "It has hardly any of the taste of the oil. Many can take it who could not take the oil." The BRITISH MEDICAL JOURNAL reports: "The taste of the oil is agreeably disguised, its nutritive qualities are greatly increased, and it is rendered easy of digestion." Again, THE LANCET reports: "It is the best known and most largely used." The MEDICAL PRESS AND CIRCULAR: "The most palatable and easily digested."

The Kepler Solution of Cod Liver Oil is supplied to the Medical Profession in ¾-lb. and 1½-lb. bottles, at 1/8 and 3/- each; retail, 2/6 and 4/-.

KEPLER EXTRACT OF MALT.

This preparation contains all the essential principles of Barley Malt in an agreeable and concentrated form. It is especially rich in diastase—the digestive principle which converts starch into dextrines and maltose. Opinions vary as to whether the immense utility of Extract of Malt depends more upon the diastase than the nutritive principles contained in it. In many debilitated conditions, however, it is generally conceded that the nutritive principles of dextrines, maltose, and natural phosphates are absolutely necessary. A tablespoonful of the Malt Extract under such circumstances is equivalent to a large percentage of farinaceous foods. Undoubtedly diastase, however, is very valuable in converting starchy material into soluble conditions suitable for ready assimilation.

Kepler Extract of Malt is an excellent sweetening agent for gruels, rice puddings, &c. It is an invaluable adjunct to peptonised milk and to foods for infants. The Malt Extract prevents the milk curdling in large clots, and therefore assists materially in the digestion of the food.

VERDICT.

THE LANCET reports: "The Kepler Extract of Malt is the best."

The MEDICAL TIMES AND GAZETTE: "By far the best."

The MEDICAL PRESS: "Delicious to the taste."

The Kepler Extract of Malt is supplied in ¾-lb. and 1½-lb. bottles, at 1/8 and 3/- each; retail, 2/6 and 4/-.

ZYMINE PEPTONISING POWDERS (Fairchild).

These are so called because they convert proteids, albumens, and fats into soluble *peptones* and readily assimilable substances. Whenever it is proposed to peptonise milk only, and that continuously, the Zymine Peptonising Powders (Fairchild)* will be found the most convenient form to use for obvious reasons.



"Fairchild Peptonising Powders (Zymine):—These are very useful for peptonising milk, and especially for use in the case of infants brought up by 'bottle.'" ("Manual of Clinical Dietetics," Dr. Burnet.) In those cases, however, where strict economy is a matter of considerable moment, the plain Zymine can be used.

The Zymine Peptonising Powders (Fairchild) are supplied in glass tubes, a dozen in a box, each tube containing 5 gr. of Zymine and 15 gr. of Soda Bicarb., sufficient to predigest a pint of milk or beef-tea.

The BRITISH MEDICAL JOURNAL, referring to the value of predigested food by the ZYMINE method, says: "It has proved useful in many hands in *uræmic vomiting, gastric catarrh, pernicious anæmia, gastric ulcer, pyloric and intestinal obstruction.* ITS INTRODUCTION HAS PROBABLY DONE MORE THAN ANY OTHER THERAPEUTIC MEASURE TO LESSEN INFANT MORTALITY."

IMPORTANT NOTE.—*A complete list of recipes for the preparation of peptonised foods is supplied with each box of the powders, or will be sent post free to any medical man on request.*

ZYMINE PEPTONISING POWDERS (FAIRCHILD) supplied to the profession in boxes containing 1 doz. tubes, at 1/2 each; retail, 1/6 per box.

ZYMINISED MEAT and MILK SUPPOSITORIES for Rectal Alimentation.

Physiologists are unanimous in condemning GELATINE as a basis for peptone suppositories, for this mixture is one of the best culture-media for BACTERIA, therefore we have prepared these suppositories with pure peptones and COCOA BUTTER; they are easily introduced, perfectly absorbed, never cause intolerance, and ARE PERFECTLY STERILE.



The ZYMINISED MEAT SUPPOSITORIES were thoroughly tested clinically by Dr. Barlow in cases after surgical operations, gastric ulcer, or when for any reason it was found desirable to rest the stomach; in every case the suppository was perfectly absorbed, and afforded excellent results. Mr. Bowreman Jessett (THE LANCET, Oct. 24th, 1891) records the successful operation of combined pylorectomy and gastro-enterostomy when the patient was fed with *zyminised meat suppositories.*

Zyminised Meat and Milk Suppositories are supplied to the Profession in boxes of 1 dozen, at 1/10 per box.

* Beware of imitations of these Peptonising Powders—always see that the name FAIRCHILD is on the package, as substances of an entirely different character are being sold in the market under the name of Peptonising Powders.

MALTO RICINE (Kepler).

Castor Oil has long been considered a valuable laxative, especially for parturient women and children, and although much dreaded on account of its nauseating character, was nevertheless most effective in producing a comfortable relaxation of the bowels. Taking as our guide the Kepler Solution of Cod Liver Oil, wherein the oil is rendered palatable through being dissolved in Extract of Malt, we performed similar experiments with Castor Oil, and in the Malto Ricine the repugnant odour and flavour of the oil are thoroughly hidden; moreover, the aperient action is enhanced by the laxative effect of the Extract of Malt. It is palatable, and therefore readily taken by children or fastidious patients. The demulcent, mild, aperient, and soothing properties of the Malt Extract render it especially adapted for mixing with and masking the disagreeable properties of Castor Oil, thus rendering it agreeable to those unable to take the clear oil.

Malto Ricine is more reliable in effect, since the whole of the oil passes into the intestinal canal and readily excites peristalsis. It never excites nausea or vomiting.

Malto Ricine is supplied to the Medical Profession in ¾-lb. bottles, at 1/8 each. Retail, 2/6.

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Samples of these Preparations supplied to Medical Men free on request.

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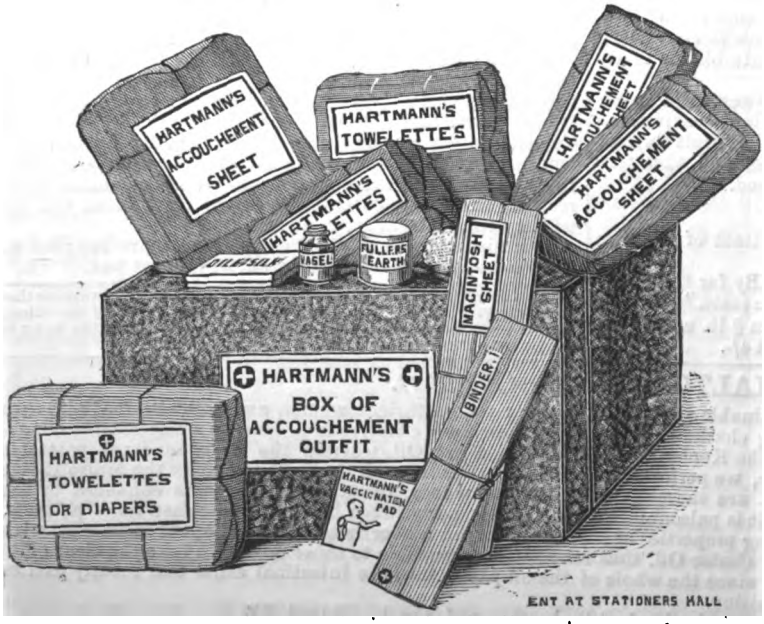
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It contains all the necessary Hartmann's Absorbent Wood Wool Sheets, Sanitary Wood Wool Diapers, Binders, Safety Pins, Carbolised Vaseline, Thread, Pads, Fuller's Earth, Oiled Silk, Mackintosh Sheeting, &c.

It affords great cleanliness and comfort to the patient, and diminishes the risk of puerperal fever.

Too much attention cannot be given in selecting the best articles for use during confinement; and in the interest of their patients we ask Physicians to recommend Hartmann's Complete Guinea Accouchement Outfit.

REDUCED PRICES TO DOCTORS AND NURSES.

The above box will be sent, carriage paid, to any Medical Man or Nurse on receipt of 19s.

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To the Medical Profession.

BEST FOOD FOR INFANTS.
BEST BARLEY WATER.

Doctors are continually being asked by mothers who cannot or will not "nurse" their babies—"What artificial food do you recommend?" Then comes the difficulty, there being so many foods, all professing to be the best.

Will the readers of this journal kindly advise the use of

Nearly 70 years' Reputation.

Robinson's Patent Barley

Nearly 70 years' Reputation.

(Made from the Finest Scotch Barley),

which has been used with success for 69 years for rearing babies by hand, partly or wholly?

Dr. PYE H. CHAVASSE, in "Advice to a Mother," says:—"ROBINSON'S PATENT BARLEY is the best Infants' Food." (*Answer to Question 44.*)

Dr. JOHNSTONE, F.R.C.S., F.C.S., reports:—"Used with milk it forms an agreeable, highly nutritious, and easily digested Infants' Food."

BARLEY WATER should always be made from ROBINSON'S PATENT BARLEY. Easily and quickly made.

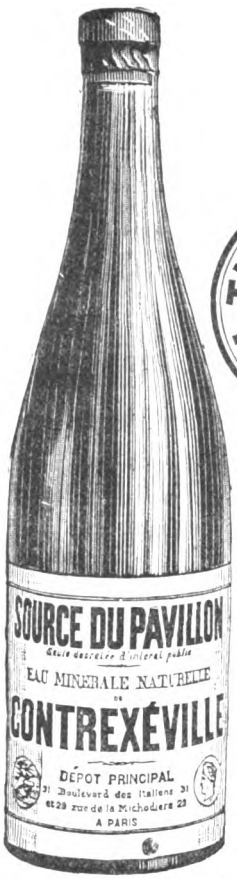
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Some time since we had several samples of well-known SYRUP. HYPOPHOS. COMP. analysed by Mr. D. B. DOTT, F.R.S.E., F.I.C., Ph.C., and in no one case did he find so large a proportion of the active constituents as is found in our preparation by a precisely similar analysis—which analysis is an absolute proof that the proportions of the different ingredients which we state are in our Syrup ARE ACTUALLY PRESENT. We, therefore, submit that from the use of our Syrup the best results may be confidently anticipated.

In proof of our statements we subjoin the report of Analysis referred to.

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"Analysis of SYRUP. HYPOPHOS. COMP. (grains per drachm)."

—	DUNCAN'S	No. 1.	No. 2.	No. 3.	No. 4.
Hypophosphite of Quinine	·25	·14	·11	·09	·12
,, ,, Iron	·77	·72	·10	·28	·15
,, ,, Manganese	·27	·23	·09	·16	·08
,, ,, Calcium	1·04	·00	·28	·01	·15
,, ,, Potassium	1·00	·85	1·48	·34	·28
,, ,, Sodium	1·98	1·46	1·84	·09	·70
The quantity of STRYCHNINE present was not determined. Our Syrup contains $\frac{1}{60}$ grain in each fluid drachm.					

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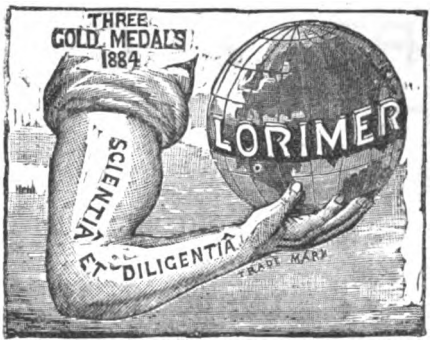
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FIG. 2.

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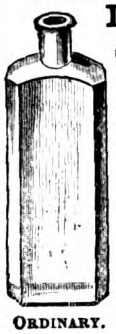
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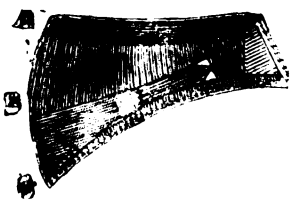


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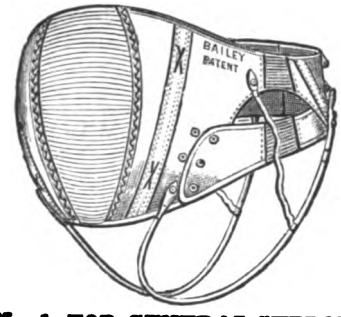
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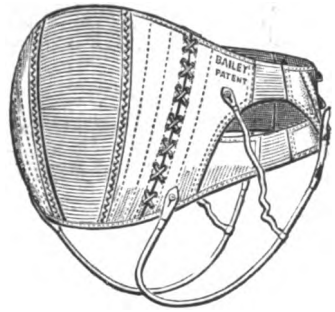


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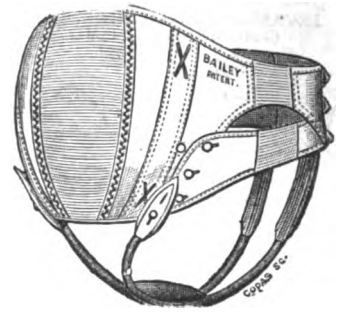
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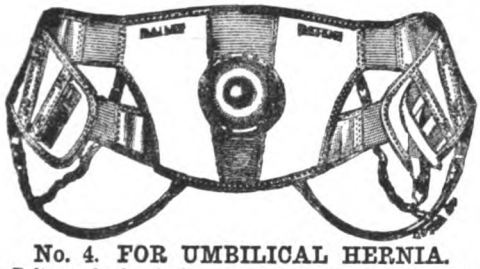
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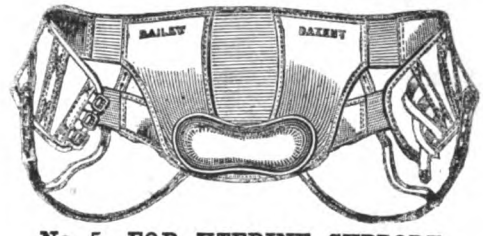
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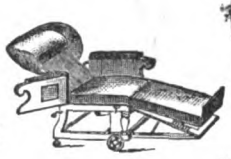
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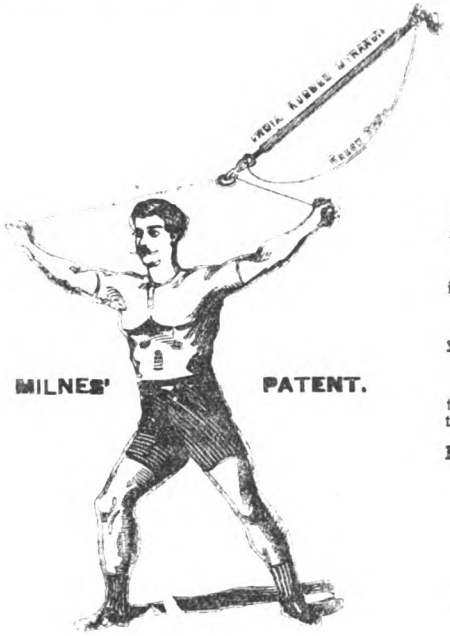


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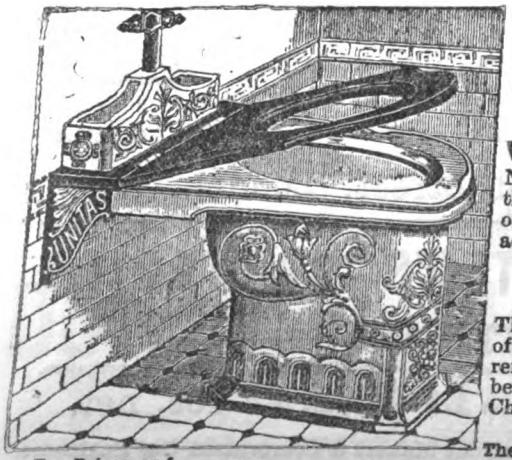
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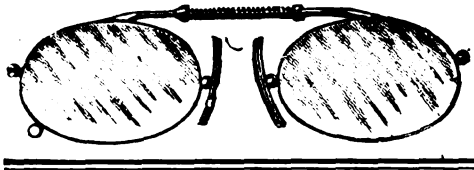
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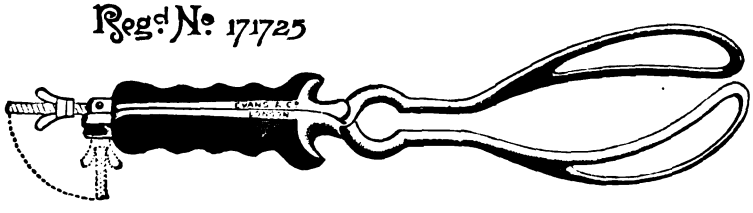
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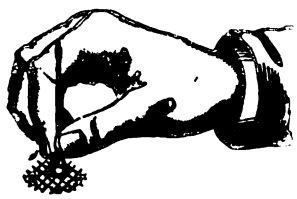
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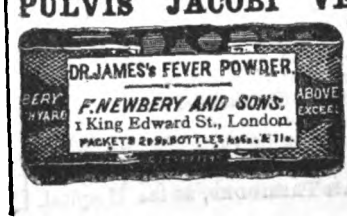
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WAR OFFICE, May 12th, 1892.

An Examination of Candidates for Ten Commissions in the Medical Staff of Her Majesty's Army will be held at the University of London, Burlington-gardens, W. (by permission of the Senate), on the 8th of August next and following days.

Application for admission to the Examination should be made in writing, without delay, to the Director-General, Army Medical Department, War Office, London, S.W.

(Signed) W. A. MACKINNON, Director-General.

LONDON POST-GRADUATE COURSE.

President: JONATHAN HUTCHINSON, ESQ., LL.D., F.R.S.

WINTER TERM, 1892.

The WINTER TERM will commence on Monday, October 10th, and will end on Saturday, December 3rd.

Applications for Prospectus &c. to

J. FLETCHER LITTLE, M.B., Secretary,
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June 15th, 1892.

Royal Westminster Ophthalmic HOSPITAL, King William-street, Strand.

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For particulars of the various Classes and Lectures, apply either the Hospital, or to Mr. ADAMS FROST, 17, Queen Anne-street.

Fees, not exceeding six months, £3 3s.; Perpetual, £5 5s.

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Monday, 2 to 3 P.M.—Mr. Reginald Harrison, F.R.C.S.
Tuesday, 2 to 3 P.M.—Mr. Heycock, F.R.C.S.
Thursday, 2 to 3 P.M.—Mr. F. Swinford Edwards, F.R.C.S.
Saturday, 4 to 7 P.M.—Mr. E. Hurry Fenwick, F.R.C.S.

Consultations will be held and operations performed on Wednesdays and Fridays, at 2 P.M.

Additional Clinical Demonstrations will be given in June and July, as follows:—

June 25th.—Mr. Hurry Fenwick, at 3.30 to 4: Electric Illumination of the Urethra.

July 4th, 11th, 18th, 25th.—Mr. Reginald Harrison.

WALTER E. SCOTT, Secretary.

London School of Medicine for WOMEN, 30, Handel-street, Brunswick-square, W.C., and ROYAL FREE HOSPITAL.—School Scholarship, value £30, and Indian Scholarship, value £25 a year for four years, offered next September.—Apply, Secretary.

General Practitioners' Alliance.—The ANNUAL MEETING of the Members of the above Society will be held at the Council Chamber, Exeter Hall, Strand, London, W.C., on Wednesday, 29th inst., at 8.30 P.M., for the Election of Officers for the ensuing twelve months, and other business.

An Address will be delivered by the retiring President, Mr. George Brown. All medical men in general practice are invited to attend.

W. E. DAWSON, Hon. Sec.

11, Adam-street, Strand, W.C., June 15th, 1892.

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234, Gt. Portland Street, Regent's Park, W.

THIS Hospital is specially intended for children and adults suffering from Deformities of the Spine or Legs and Feet. Many patients who were well-nigh hopeless cripples, cured by the surgical skill and timely aid of this charity, are now earning a livelihood.

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The Committee of Management very earnestly appeal for help, that the benefits of the charity may be continued and extended.

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Students of the Queen's College will be transferred to Mason College, without any further payments than may be, at the time in question, due from them to the former College.

Full information respecting Medical and Dental Fees, Scholarships, &c., may be obtained from Professor Windle, Dean.

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FOR THE UPPER AND MIDDLE CLASSES.

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Beautifully situated in a retired position in one of the healthiest localities in England. An easy distance from town on the Sevenoaks and Maidstone Railway. Old established, fully equipped, and perfectly adapted in itself, and by its surroundings, for CARE AND CURE UNDER HOME-LIKE CONDITIONS. Resident Physician and Proprietor, Dr. JAMES ADAM, late Physician-Superintendent, Crichton Royal Institution, &c. (36, Harley-street, Cavendish-square, W., Wednesday mornings). Voluntary Boarders received under the new Act without Certificates.



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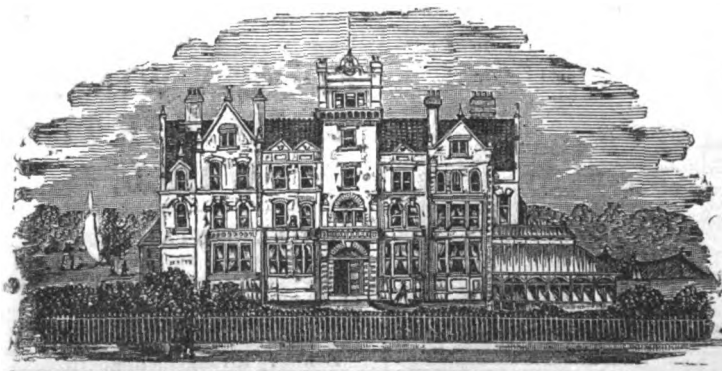
The Most Central and Healthy Situation in Buxton.

A High-Class Residence for Visitors and Invalids. Massage, Vapour, Douche, and other Baths. This famous establishment possesses all the advantages of a first-class hotel. Electric Light. Passenger Lift. Table d'Hôte 7 P.M., at separate tables. Treatment at this establishment is carried out on strictly professional principles. The Bathing, Massage, and Nursing department is in the charge of a Hospital-trained Superintendent.

THERMAL MINERAL WATER BATHS.

PHYSICIAN: S. HYDE, M.D. TELEGRAMS: "THERMAL, BUXTON."

Fitzroy House, Fitzroy-square, London, W., is provided with every comfort for the reception of MEDICAL and SURGICAL CASES of both Sexes. Patients are attended by their own Medical Advisers. Trained and experienced Nurses sent out on the shortest notice.—Address, the Lady Superintendent, as above.



INTEMPERANCE.

TOWER HOUSE RETREAT AND SANATORIUM, Ltd., Westgate-on-Sea, Kent.

Principal and Licensee ... J. H. BROWN.

Licensed under the Inebriates Acts, 1879-88. The only Establishment in the United Kingdom specially erected for the reception and treatment of Ladies and Gentlemen desirous of overcoming habits of intemperance.

The house stands in its own grounds of nearly three acres, and is replete with every convenience, containing a large Billiard-room, spacious Drawing-rooms, Smoking-rooms, Bath-rooms, &c.

Patients can be received under the Act or privately. All servants and attendants total abstainers.—For prospectus and further particulars, address, Principal, Tower House, Westgate-on-Sea.

NERVOUS AFFECTIONS.

The Oaks, Hythe, Kent.—A quiet Home for the Special Treatment of a limited number of Patients suffering from Hysterical and Nervous Affections (not under certificates).

The house stands in its own grounds, within five minutes' walk of the church, sea, and railway station, and contains every modern convenience and comfort. Massage, Baths, and Electrical treatment carried out under medical supervision.—Apply to Dr. CECIL A. P. OSBURNE (late of Church Stretton), Resident Physician.

Invalid, Chronic, with or without own attendants.—A Lady will receive such in her well-appointed home, Haverstock-hill. Fully qualified resident Hospital Nurse and Masseuse.—Address, Masseuse, THE LANCET Office, 423, Strand, W.C.

A comfortable home offered to a Lady in a doctor's family in Derbyshire. Good house and garden. Terms reasonable. References exchanged.—X., THE LANCET Office, 423, Strand, W.C.

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NEWLANDS HOUSE,

TOOTING BEC ROAD, TOOTING COMMON, S.W.

CHANGE OF ADDRESS.

The Proprietors beg to announce that the above House has been substituted for BLACKLANDS HOUSE, CHELSEA, and licensed for the care and treatment of Gentlemen of Unsound Mind. Voluntary Boarders can also be received. The House is near Balham Station, and forty minutes' drive from Charing-cross. It has been fitted with the most modern appliances for sanitation and for the treatment of the Insane.—Apply to

E. T. HALL, Esq., M.R.C.S., Resident Medical Superintendent, or to **A. H. SUTHERLAND, Esq., 2a, Marloes-road, Kensington, W.**

Tue Brook Villa, Liverpool.—PRIVATE ASYLUM for the care and treatment of those suffering from Mental and Nervous Diseases. Pleasantly situated in the parish of West Derby. Stands in its own grounds. Home life, cricket, tennis, bowls, croquet, gardening, billiards, and evening entertainments. Out-door employment on the farm and grounds. Voluntary boarders accommodated.—For terms apply to G. Duffus, Medical Superintendent. Telephone No. 3114.

Kingsdown House, Box, Wilts.—A Private Home, with every comfort and convenience for those suffering from Mental and Nervous Diseases.

The situation is most healthy and picturesque, among the Wiltshire Downs, fifteen minutes from Box Station, and five miles from Bath.

The house stands in its own grounds, in the gardens of which the patients employ and amuse themselves with tennis, croquet, cricket, &c., and the close proximity of country walks affording them the great advantage of extended exercise.

Voluntary Boarders can be received under the New Statute without Certificate.

Friends of patients, if desirous, may reside in the house pro tem.

Terms moderate, for which apply to H. CRAWFORD MACBRYAN, Resident Medical Superintendent.

INTEMPERANCE.



For Lady Patients suffering from Intemperance or from the excessive use of drugs. The Institution is managed by voluntary workers; there are no paid assistants. The income, after paying the expenses, is devoted to the extension of the work.—Apply to the Secretary, St. Raphael's, Woodside, Croydon.

Resident Patient. — A Doctor of Medicine &c. (married), of considerable experience in Mental Diseases (formerly a resident medical officer in a large asylum), wishes to receive either a Mental Case or a Patient requiring a comfortable Home with Medical Care. House and large grounds, tennis lawn, &c., situated in a quiet, healthy, and picturesque locality about nine miles from London. Separate suite of rooms; carriage exercise if required. Terms moderate according to requirements. Highest references.—Address, Epping Forest, THE LANCET Office, 423, Strand, W.C.

A HOME FOR INVALIDS,

REGENT VILLA, REGENT ROAD, GREAT YARMOUTH.

Two minutes from the Sea and Piers. Large healthy house, standing in its own grounds; splendid position. Every comfort and attention. Terms moderate, but vary according to requirements of case. Hot and cold baths. CHARLES WHITFIELD, Proprietor.

Glasgow.—Hospital Physician and Lecturer would receive into his house Two Gentlemanly STUDENTS. Large facilities for study.—Address, Medicus, care of Mr. Tindall, 20, King William-street, Strand, London, W.C.

Bexhill.—Private Nursing Home.—Under strict medical supervision. Especially recommended for early phthisis and convalescents. Infectious cases not received. Entirely open to sea and country. Sanitation perfect.—Apply, Lady Superintendent, South Lodge, Cantelupe-road, Bexhill.

Resident Patients. — A list of Medical Men in all parts willing to receive into their houses Resident Patients, together with a full description of the accommodation offered, terms, &c., can be had without charge from Mr. G. B. Stocker, 8, Lancaster-place, Strand, W.C.

INEBRIETY.

HIGH SHOT HOUSE,

ST. MARGARET'S, TWICKENHAM.

For Gentlemen, under the Acts and privately. Terms 2½ to 5 guineas. Apply to the RESIDENT SUPERINTENDENT.

FLOWER HOUSE,

CATFORD, S.E.

A Sanatorium of the highest class for the Treatment and Care of Gentlemen of Unsound Mind.

N.B.—Under the New Act voluntary boarders can be received on their own personal application.

Apply to Dr. MERCIER, Resident Medical Superintendent.

A Country Home, for the reception of an Invalid Lady or Gentleman or Child, can be highly recommended by a Medical Man. Medical supervision; every comfort and attention; pure air; healthy and picturesque locality. Terms according to requirements.—Address, Devon, THE LANCET Office, 423, Strand, W.C.

Private Medical and Surgical Home, 2, Middle Portland-terrace, Southampton. There will be vacancies for Two Patients next July. Also for Two Chronic Cases requiring a home with medical care and Nursing, or Massage. Patients can be admitted into private rooms for their confinements.—For terms, &c., apply to the Matron.

Dr. Collie has opened a Home by the SEA for SCARLET FEVER CONVALESCENTS certified free of infection. Terms: Children, 2 guineas; adults, 3 to 6 guineas weekly. No extras.—Apply, Dr. Collie, 28, St. Swithin's-lane, London.

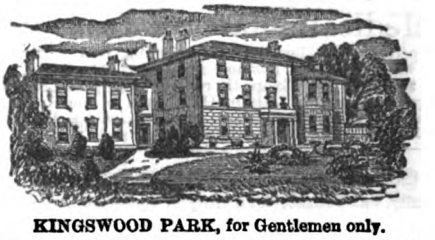
Resident Patient. — Handsome Bonus offered by married Physician of good standing and means (not practising) for introduction of resident patient. Very healthy locality; short run from London. Moderate terms. Unexceptionable references.—Address, M. B., 17, New Inn-chambers, W.C.

Earlswood, near Redhill. — This Institution is situated in the most healthy, pleasant, and picturesque part of Surrey. The extensive estate comprises over 200 acres of finely wooded grounds, and is well laid out in paths and drives.

The Institution, being a home and school, is especially adapted for the development, training, and education of backward children, there being a skilled staff of governesses, teachers, and nurses.

Roomy, extensive, and well-ventilated workshops are also provided, where instruction is given in every branch of industry, serving as occupation or amusement for the pupils.

Accommodation is also provided for harmless and quiet ladies and gentlemen by means of private rooms fitted up with every comfort, special attendance, carriages, &c. Terms, according to accommodation, from £1 5s. per week, inclusive of all extras. Medical Superintendent, Robert Jones, M.D.Lond.—For further information, apply to the Secretary, Mr. JAMES DOWNING, 36, King William-street, London Bridge, E.C.



KINGSWOOD PARK, for Gentlemen only.

Intemperance and Narcotics.—Private HOME for the Treatment and Cure of Gentlemen wishing to Overcome the Propensity. (Established 1862.) Healthy and cheerful situation, near Clifton and Bath. Extensive grounds. Patients can be sent for or received on receipt of telegram. Billiard, Drawing, and Amusement Rooms, Tennis, &c. Telegraphic or postal address (for particulars), "Proprietor," Kingswood Park, near Bristol. Consulting Physician, Dr. OWEN PRITCHARD; Medical Adviser, HY. GRACE, L.R.C.P.Lond.

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ROTHESAY HOUSE,

517 & 519, CLAPHAM ROAD, LONDON, S.W.

Superior Private Home for Invalids. Large gardens. Good nursing. Highest references. Terms moderate. Massage and Weir-Mitchell cases treated with great success. Patients attended by their own physicians. Masseurs and Masseuses supplied. Also pupils received for massage.—Apply, Mrs. Chapman.

NERVOUS AFFECTIONS.

Private Establishment for Lady Patients suffering from Hysteria and Nervous Affections (not insane). The house is pleasantly situated in its own grounds in a well-known health resort. Christian influence and home comforts. Massage baths and electrical treatment carried out under a Medical Specialist of many years' experience. Highest references. — Letters and Telegrams, Proprietor, Clevedon, Somerset.

Intemperance and Nervous Debility.—A PRIVATE HOME at the SEASIDE (established in 1874) for LADIES only, suffering from alcoholism, opium, morphia, chloral, or drugs; every care, judicious supervision, with home comforts and amusements. Highest references. — Address, Medicus, care of Messrs. Tayler, 154, Fleet-street, London.

St. Luke's Hospital, London, E.C.—Established 1751.

This Hospital was established for the Treatment of Mental Diseases of the Upper-middle and Middle Classes, for whom there is no statutory relief. Preference is given to acute cases, and these are admitted either gratuitously or on payment of a weekly sum varying from 14s. to 30s., according to the circumstances of each; and chronic cases can only be admitted at the higher rates. Patients are eligible for admission from any part of the United Kingdom.

Forms of application may be had from, and inquiries addressed to, the Secretary, at the Hospital.

PERCY DE BATHE, M.A., Secretary.

Ladies requiring Medical Supervision—viz., mild mental, hysteria, epilepsy, inebriety, &c.—combined with a most comfortable home, and where only one or two cases are received.—A Physician of large experience offers the above. The house is beautifully situated in a bracing part of Warwickshire. A cottage near Stratford-on-Avon is in connexion with the above, and can be chosen if desired. Terms from £3 3s. per week.—Apply, Dr. McLauchlan, 267, Hagley-road, Edgbaston, Warwickshire.

Plymouth Borough Asylum, Ivybridge, Devon.—This institution is situated in a healthy and picturesque locality, on the southern slope of Dartmoor, and is upwards of 500 ft. above the sea level.

Private patients can be received on moderate terms.

For particulars apply to

Dr. A. N. DAVIS, Superintendent.

OVERDALE ASYLUM

(Late CLIFTON HALL), WHITEFIELD, LANCASHIRE.

Licensed for a limited number of PATIENTS of the Upper and Middle Classes. It is beautifully situated in a retired neighbourhood, and has all the comforts of home life.—For terms &c. apply to J. HOLMES, M.D., Resident Medical Superintendent. Dr. HOLMES attends at 8, St. John-street, Manchester, Tuesdays, Thursdays, and Fridays, 12 to 1.30 P.M.

To Medical Men seeking Rest and healthy Change.—Advertiser can receive a few Members of the Profession for any time between 1st July and end of October, to board with him in his cottage on estate of 1800 acres in Herefordshire. Country very pretty. Altitude of cottage above sea level, 537 feet. Good rough shooting included. Terms very moderate.—Address, Galen, THE LANCET Office, 423, Strand, W.C.

A Medical Man of considerable experience in Mental Cases, receiving One PATIENT under certificate into his family, has now a vacancy. The house, charmingly situated in the Midlands, is large, thoroughly well appointed, and suitable to the requirements of a Lady or Gentleman of good social position. Separate suite of rooms, carriage exercise, and special attendant.—Address, D. K. S., THE LANCET Office, 423, Strand, W.C.

A Medical Man, married, without family, has Vacancy for a Lady or Gentleman requiring a comfortable home and a warm climate. Large house in old-fashioned town on South Coast. Boating and sea excursions. Terms according to requirements. Good references.—Address, Felix, THE LANCET Office, 423, Strand, W.C.

To Ladies not strong enough for Hospital Work.—Ladies are wanted as Workers in the HOMES for WAIFS and STRAYS. Every variety of employment. One guinea weekly is charged for room and maintenance.—Address, the Secretary, Society for Waifs and Strays, Church House, Dean's-yard, Westminster, London.

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Ben Rhydding Hydropathic. Under New Proprietors and Management. Thoroughly renovated and newly furnished. Spacious New Central Lounge and Smoking-room. Tennis, racquets (open and covered), and bowls. Full system of Baths, Massage, and Electricity. Physician, Thomas Johnstone, M.D., M.R.C.P.—JOSEPH I. KIRBY, Managing Director.

ACCOUCHEMENT.

Ladies received in the houses of a Medical Man—one house in London, the other in a quiet country village, within one hour of Town—whose wife is a qualified Obstetrician.—For terms &c., address M. O. S., care of Messrs. Gale & Co., 15, Bouverie-street, London, E.C.

Companion.—A Gentleman (36), with large Mental experience, desires RE-ENGAGEMENT. The advertiser has lived with private families and had entire care of invalids at the seaside. Accustomed to control of household and light secretarial duties. Highest references and testimonials, social and medical. Address, Gerald, care of Miss Todd, Normans, Bowdon, Cheshire.

Travelling Companion.—A middle-aged Surgeon of considerable experience wishes for an engagement as Travelling Companion. Advertiser is active, energetic, well up in his work, accustomed to good society, and fond of sport, &c.; South Africa preferred. First-class references.—Address, B. W., care of Messrs. Gale & Co., Bouverie-street, E.C.

Wanted, a young Man of good appearance to act as COMPANION to a Gentleman who suffers from occasional mild attacks of epilepsy. Would also be required to wait at table &c. Satisfactory references indispensable. Salary £25.—Address, Medicus, Abbotsbury, Addlestone, Surrey.

Hospital Sister desires an Engagement as above, or post of SUPERINTENDENT or ASSISTANT MATRON. Age thirty. London experience. Excellent testimonials.—Address, Hilda, 10, College-terrace, Kemp Town, Brighton.

District Nursing.—North London NURSING ASSOCIATION. Not affiliated with Queen's Institute. Trained Nurses being educated gentlewomen are required. Salary £35 to £50. Probationers also received.—Apply, by letter only, to Superintendent, 413, Holloway-road, N.

Wanted, for the Belgrave Hospital FOR CHILDREN, 79, Gloucester-street, Pimlico, a LADY SUPERINTENDENT with some experience of nursing; board and lodging free.—Applications to be sent to Mr. Percy Gates, Hon. Sec., 7, Victoria-street, Westminster, on or before the 6th July.

Salop Infirmary (120 Beds).—Wanted, a LADY SUPERINTENDENT to take entire Charge of the Nursing Staff and Nursing Home in connexion with the Infirmary.

She must be a lady of superior education, a thoroughly trained Nurse and competent to train Nurses, and must have had experience in housekeeping.

Salary £100 a year, with board, lodging, and washing. No extra fees.

Applications, with testimonials and certificates of previous work, must be sent to the Chairman, Salop Infirmary, Shrewsbury, not later than July 9th, 1892.

No canvassing allowed.

Three months' notice may be required on either side to terminate the engagement.

By order of the Board.

WALLACE BOYCE, Secretary.

Salop Infirmary, June 11th, 1892.

The New Hospital for Women, 144, Euston-road, N.W. — Vacancies for TWO CLINICAL ASSISTANTS in the Out-patient Department on Mondays and Thursdays. Appointments for one year.

Applications to be sent in by the 2nd of July.

MARGARET M. BAGSTER, Secretary.

Wanted, qualified Man as Surgeon to a Medical Aid Association. Salary for first year £120, with house rent free. Salary increased by at least £10 the second year. Would suit a R.C.—Apply, stating age &c., to Gamma, THE LANCET Office, 423, Strand, W.C.

Leicester United Friendly Societies' MEDICAL ASSOCIATION, 114, High Cross-street, Leicester.

Wanted, a SECOND MEDICAL OFFICER, doubly qualified, for the above Association. Salary £200 per annum, with Midwifery fees. Application, with recent testimonials, to be forwarded not later than June 27th, 1892, addressed to the Secretary, and endorsed "Medical Officer."

Duties to commence on July 1st, 1892.

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St. Thomas's Hospital Medical

SCHOOL.—DEMONSTRATOR OF PHYSICS AND CHEMISTRY.—The General Committee will shortly proceed to make this appointment.

The Demonstrator will be required to devote his whole time to work in the Chemical Department under the direction of the Lecturer on Chemistry. His principal duties will be to undertake the teaching of Elementary Physics and to assist in the teaching of Chemistry. The stipend is £100 per annum.

Applications, with testimonials, should be sent to the Medical Secretary, St. Thomas's Hospital, S.E., before July 6th.

G. H. MAKINS, Dean.

St. Thomas's Hospital Medical

SCHOOL.—OBSTETRIC TUTOR.—Applications for this appointment are invited. The duties include the tutorial instruction of students and the registrarship in the in-patients' department for the diseases of women, and will commence on the 1st of October next. The salary is £50 per annum. The holder of the appointment will be eligible for annual re-election, but may not hold office for more than five years consecutively. A statement of the duties can be obtained from the Medical Secretary, to whom applications for the appointment must be sent on or before 12th of July. G. H. MAKINS, Dean.

Resident House Physicians.—

Vacancies having occurred at the HOSPITAL for CONSUMPTION and DISEASES of the CHEST, those gentlemen who are desirous of becoming Candidates for the vacant offices are requested to send in their applications with testimonials on or before July 2nd, and to attend the Medical Committee on the following Monday at 3.30 o'clock. Testimonials as to moral character, as well as to medical qualifications, are required. Duties commence on August 1st. Further particulars may be obtained at the Hospital.

Brompton, June 14th, 1892. HENRY DOBBIN, Secretary.

Belgrave Hospital for Children,

79, Gloucester-street, S.W.—Candidates for the appointment of DENTAL SURGEON to the Hospital are invited to forward their applications, with testimonials, addressed to the Hon. Secretary, at the Hospital, on or before June 29th.

Belgrave Hospital for Children,

79, Gloucester-street, S.W.—Candidates for the appointment of HOUSE SURGEON are invited to forward their applications, with testimonials, addressed to the Hon. Secretary, at the Hospital, on or before June 29th. Board, lodging, and washing. Candidates must be qualified and registered.

Hospital for Diseases of the Throat,

Golden-square, W.—Required, a REGISTRAR and PATHOLOGIST. Duties: to prepare the Medical Report, to take charge of the Museum and Pathological Room, to prepare Specimens and to administer Anæsthetics. Honorarium 25 guineas per annum.—Applications should be sent in on or before July 4th to

W. THORNTON SHARP, Secretary.

Royal London Ophthalmic Hospital,

Moorfields, E.C.—A vacancy having occurred in the office of SENIOR HOUSE SURGEON, applications for the appointment must be sent to the Secretary on or before Tuesday, July 5th next. Salary £75 per annum, with board and residence. The present Junior House Surgeon is an eligible candidate, and candidates are asked to state whether they will be willing to accept the office of Junior House Surgeon, the salary being £50 per annum, with board and residence.

ROBERT NEWSTEAD, Secretary.

Wolverhampton and Staffordshire

GENERAL HOSPITAL, Wolverhampton.—The Vice-Presidents and the Weekly Board will elect a HOUSE PHYSICIAN (who will also be required to act as Chloroformist, Pathologist, and Medical Registrar) on Tuesday, July 12th.

Candidates must be Graduates of a British University, or be possessed of such medical qualifications as are satisfactory to the Medical Committee and the Weekly Board.

As the most eligible candidate will be elected, anyone canvassing will be disqualified.

Testimonials, sealed and addressed to the Chairman of the Medical Committee, must be received on or before Thursday, June 30th. Salary £100 per annum, with board, lodging, and washing.

The successful candidate will be expected to continue in office at least twelve months. All applications must be inscribed "Application for House Physician." By order.

EDWIN A. WHITE,
House Governor and Secretary.

Wolverhampton, June 7th, 1892.

York Dispensary.—Wanted, a Resi-

DENT MEDICAL OFFICER, to Visit and Attend the sick poor at their own homes. Candidates must be duly qualified, registered, and unmarried. Salary £150 a year, with furnished apartments, coals, and gas. There are three Resident Medical Officers, each having a separate district and separate apartments. No Midwifery.—Applications and testimonials to be sent to S. W. North, Esq., 84, Micklegate, York, on or before June 28th.

The General Hospital, Birmingham.

Appointment of RESIDENT SURGICAL OFFICER.—The Committee of the General Hospital, Birmingham, are prepared to receive applications from gentlemen for the above appointment.

Candidates must be Fellows or Members of the Royal College of Surgeons in London, Edinburgh, or Dublin, and must also possess a medical qualification.

The salary will be £130 per annum, with residence, board, and washing.

The appointment is for one year, but candidates are eligible for re-election annually for two subsequent years, and the tenure of office under no circumstances will exceed a period of three years.

Applications, accompanied by certificate of registration and printed copies of testimonials, must be sent on or before Monday, July 4th, 1892, addressed to the undersigned.

The election will take place on Friday, July 8th at noon, and duties commence immediately afterwards.

HOWARD J. COLLINS, House Governor.

The General Hospital, Birmingham.

Appointment of ASSISTANT HOUSE SURGEON.—The Committee of the General Hospital, Birmingham, are prepared to receive applications from gentlemen for the above appointment.

Candidates must possess a Surgical qualification

The appointment is for six months, and may be held by re-election for a further period of six months, but no longer.

There is no salary attached to the post, but residence, board, and washing will be provided

Applications, with certificate of registration, printed copies of testimonials, addressed to the House Governor, to be sent in on or before Saturday, July 2nd.

The election will take place July 8th, 1892, and duties commence immediately afterwards.

By order of the Committee.
HOWARD J. COLLINS, House Governor.

Royal South Hants Infirmary,

Southampton.—Required, an ASSISTANT HOUSE SURGEON. Must be qualified, or a third-year's student at a recognised medical school. No salary, but board and rooms provided.

Applications, stating qualifications, with testimonials, to be forwarded to the undersigned on or before 15th July next.

June 9th, 1892. T. A. FISHER HALL, Secretary.

The Bristol Hospital for Sick

CHILDREN and WOMEN.

APPOINTMENT OF HOUSE SURGEON.

Salary £100, with rooms and attendance. Candidates must hold double qualifications and produce unexceptionable references as to character.—Applications, stating age, and accompanied by proof of qualifications, with testimonials, to be sent in on or before Saturday, the 2nd day of July, addressed to me.

June 24th, 1892. H. LAWFORD JONES, Secretary.

Ancoats Hospital, Manchester.—

Wanted, RESIDENT JUNIOR HOUSE SURGEON, to attend home patients and accidents. Salary £50, with board and washing. Candidates must be duly qualified and on the Medical Register.—Address, stating age, with testimonials, Alex. Forrest, Hon. Sec.

Borough of Scarborough.—Medical

OFFICER OF HEALTH.—The Town Council of the Borough of Scarborough as the Urban Sanitary Authority require a Medical Officer of Health for the District of the Borough.

The Officer will be required to devote the whole of his time to the duties of his office, and to reside within the district.

The appointment will be made subject to the rules and regulations for the time being of the Local Government Board, and the duties of the Officer will be those prescribed by such rules and regulations, and by the Public Health Acts, the Scarborough Improvement Act, 1889, the Housing of the Working Classes Act, 1890, and any other Acts from time to time in force within the district, and by the Sanitary Authority, and will include the attendance on patients at the Sanatorium or Hospital for Infectious Cases.

The salary in respect of the aforesaid duties will be £325 per annum.

The Officer will also be required to act as Surgeon to the Borough Police Force, including all necessary medical attendance on persons apprehended or detained at the Police Station, and as Public Analyst, and to take and prepare such meteorological observations and charts as may be required by the Sanitary Authority, at a further salary of £25 per annum.

A list of the duties can be obtained on application to the Town Clerk.

The Officer must be a duly qualified Medical Practitioner, and must also be registered in the Medical Registry as the holder of a Diploma in Sanitary Science, Public Health, or State Medicine.

The appointment will be made for one year, subject to the right of the Sanitary Authority to terminate it in case of neglect or misconduct, and will be made subject to the approval of the Local Government Board.

Canvassing any Member of the Town Council will be a disqualification.

Applications, stating age, which must be not less than twenty-five or more than forty years, length of practice, previous appointments, if any, and date of registration under the Medical Acts, accompanied by not more than six testimonials, must be sent in to me on or before the 4th day of July next.

JOHN E. T. GRAHAM, Town Clerk.

Town Hall, Scarborough, June 16th, 1892

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Wanted, a House Surgeon, with registered Medical and Surgical qualifications, for the BRIDGNORTH AND SOUTH SHROPSHIRE INFIRMARY, containing nine beds. He will be required to attend the in- and out-patients under the direction of the Honorary Surgeons, and to visit patients in the two town parishes, and also country patients within a radius of three miles (for the latter of which he is entitled to charge 1s. per mile), and to dispense for the same. Salary £80 per annum, rising £10 per annum to £100, with board and lodging in the Infirmary.—Applications, with testimonials, to be in the hands of the Assistant Hon. Secretary, 22, St. Mary's-street, Bridgnorth, by the 27th inst. No canvassing allowed. The candidate elected must be ready to enter upon his duties at once.

Norfolk County Asylum, Thorpe, Norwich.—An ASSISTANT MEDICAL OFFICER, Locum Tenens, is required for two or three months, July, August, and September. No salary, but board, lodging and washing, and travelling expenses given. Must be qualified, but previous experience not necessary.—Apply to the Medical Superintendent.

Dunstable Friendly Societies' Medical ASSOCIATION.—RESIDENT MEDICAL OFFICER required. Commencing salary £180, rising £10 per annum to £220, with good residence, large garden, and conservatory (rates and taxes free). Conveyance provided.—Forms of application can be obtained of F. W. White, Hon. Sec., Princes-street, Dunstable, Beds.

Wanted, Dispenser to the Derby PROVIDENT DISPENSARY. Salary £78 and house. Must possess minor qualification of the Pharmaceutical Society.—Applications, in writing, stating age, qualifications, &c., to be sent to the Secretary, T. H. Harrison, 18, Wardwick, Derby.

Swansea Hospital. — Wanted, a RESIDENT MEDICAL OFFICER. Salary £100 per annum, with board, furnished apartments, coals, gas, laundress, and attendance.

Candidates, who must be registered in Medicine and Surgery, are requested to send in their applications with testimonials to the undersigned, on or before July 4th. The election will take place on July 14th, and the gentleman elected will be required to commence his duties on or about July 26th. By order of the Board.

Offices, 9, Castle-street, Swansea, June 4th, 1892. JNO. W. MORRIS, Secretary.

Dundee Royal Lunatic Asylum.— An ASSISTANT MEDICAL OFFICER will be required at the end of August. Candidates must be registered under the Medical Act, and unmarried. Salary £100 per annum, with board, lodging, and washing.—Applications to be sent, with testimonials, to Dr. Rorie, Westgreen House, Dundee, not later than July 18th.

Medical Officer wanted by the PAROCHIAL BOARD of PENNYGOWN and TOROSAY. Salary from Board £100, cost of paupers' medicines included. Population 971. Number of paupers within the parish 21. Gaelic desirable.—Apply before July 20th, 1892, to Alex. Macdougall, Inspector of Poor of Torosay, Auchnacraig, by Oban, N.B.

Wanted immediately, a qualified Man for the PONTYBERAN and PENTREMAWR WORKMEN and the neighbourhood. Good Private Practice. A Welshman preferred.—Full information on application to William Jones, Cook's Bridge, Pontyberan, near Llanelly, Carmarthenshire, South Wales.

McGill University, Montreal, Canada.

The PROFESSORSHIP of PATHOLOGY for the FACULTIES of MEDICINE and COMPARATIVE MEDICINE being vacant, a Provisional Appointment, with status of Sessional Lecturer on Pathology, will be made for one year, with a view to the regular Professorship. The Faculty of Medicine has about 300 students, and the Faculty of Comparative Medicine about sixty.

The Montreal General Hospital, where autopsies are held, has over 200 patients. The Royal Victoria Hospital, nearing completion, has 250 beds. Salary for provisional appointment for one year £400 sterling. Duties to begin October 1st.—Address, up to July 20th, giving age, testimonials, experience, original work, &c.,

Montreal, Canada. ROBERT CRAIK, M.D., Dean.

Western Australia. — Wanted, for the COLONIAL HOSPITAL at Perth, Western Australia, a RESIDENT MEDICAL OFFICER and ASSISTANT to the SUPERINTENDENT of VACCINATION. Must be a single man and duly qualified. Salary £200 a year, with quarters in the hospital and board (excepting wines &c.). Passage out provided, but repayment will be a condition insisted on if the office is vacated before the expiration of three (3) years, the term to be agreed upon.

Applications, by letter, should be made at once, stating qualifications, to the Agent General for Western Australia, 15, Victoria-street, Westminster, London, S.W.

June 20th, 1892.

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CONFIDENTIAL MEDIUM OF TRANSFER,

11, Buckingham-street, Strand, W.C.

Messrs. Needes & Wallace beg to notify that they act as medium between Vendor and Purchaser at the usual honorarium.

LOCA TENENTES and ASSISTANTS (gratis). Reliable and efficient Gentlemen speedily introduced.

MIDLANDS.—£1600 to £1700 a year.—The PRACTICE is old established; in vendor's family over forty years, and situate within two hours of London. Patients mixed class, with a sprinkling of nobility and gentry. Appointments connected, value £600.

WEST OF ENGLAND.—£600 a year.—In the suburbs of an important city an old-established PRACTICE. Held by vendor many years. Convenient residence.

MIDLANDS.—Increasing PRACTICE situate in a small town with numerous villages surrounding within eighty miles of London. Income at present about £300 (clubs £100), with every prospect of increase. No horse. Good house with small garden and green; rent £30.

EASTERN COUNTIES.—The Succession to an old-established COUNTRY PRACTICE to be secured for a nominal figure. Full details on application.

SOUTH COAST.—NUCLEUS in suburbs of fashionable watering-place. At present doing (pro rata) about £200 per annum, with scope to £500 in a year or two. Detached villa, with garden. Terms, to include part furniture and book debts, £150.

SUSSEX.—COUNTRY PRACTICE, one opponent, averaging £360 per annum. Appointment £30. Good house, with large garden, coachhouse, &c.; rent under £30. Particularly adapted to married Gentleman with means.

CASH PRACTICES.—S.E. Suburb: old-established, and returning about £350. London, N.W.: about £10 per week, not necessitating residence. London, W.: £500 a year (over); main road of populous locality; small Retail attached could be abolished or trebled; terms £350.

Loca Tenentes (gratis).—Principals seeking the above are invited to apply to Needes and Wallace, as above, who upon receipt of letter or wire are prepared to despatch thoroughly efficient and reliable Gentlemen well known to them, whose aptitude for the position has been tested to the full satisfaction of the office.

Messrs. H. Wilson and Son, 26, CHARLES STREET, ST. JAMES'S SQUARE, S.W.

Established over fifty years.

MEDICAL REFEREES, VALUERS, and ARBITRATORS.

QUALIFIED ASSISTANTS and LOCUM TENENS PROVIDED.

1. PARTNERSHIP.—A General Practitioner, who has for nearly twenty-five years conducted a fair-class Private Practice in a residential London suburb, and which is producing considerably over £2000, is seeking the assistance of a suitable and fully qualified Gentleman experienced in the ordinary routine of work as Junior Partner. Every investigation allowed, and the books have already been examined by an accountant. It is desirable an immediate arrangement should be carried out.
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4. AN UNOPPOSED COUNTRY PRACTICE in an agricultural village. Income about £700 per annum, inclusive of appointments. A convenient house, with stabling and good garden. Premium £1200, with three months' introduction.
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7. AN OPENING FOR PRACTICE.—A good opportunity for an active Gentleman, in a good district within an easy distance. Personal application only to H. Wilson & Son.

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Several Qualified Resident and Non-resident Gentlemen wanted for Town and Country Practices.

SURREY: out-; salary £130, with furnished rooms and attendance. Suitable for a qualified single Gentleman.

Personal application only.

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MEDICAL DEPARTMENT.

This Association was established in 1880 as a Limited Liability Company under the direction of professional men, its object being the creation of a RESPONSIBLE and THOROUGHLY TRUSTWORTHY Agency. The Medical Department has met with so great success that it has been found necessary for one of the Managing Directors (Mr. G. B. Stocker) to devote his whole attention thereto; and he has the assistance of an experienced Medical Accountant and a large staff of clerks. Further, a Board composed entirely of gentlemen of high standing in the Medical Profession has been appointed, and to them matters of dispute and complaint are referred.

The Association undertakes the SALE of PRACTICES and PARTNERSHIPS; the Introduction of LOCUM TENENS and ASSISTANTS; MEDICAL ACCOUNTANCY (by a duly qualified Medical Accountant); INVESTIGATION and VALUATION of Practices, &c.; POSTING BOOKS and sending out Bills, &c. &c.

A Pamphlet relating to the Medical Department, with the names of the "Directors" and "The Medical Advising Board," and terms, will be sent on application to—MR. G. B. STOCKER, MANAGING DIRECTOR, 8, LANCASTER PLACE, STRAND, W.C.

Telegraphic Address—"Triform, London."

FOR SALE.

(1) DEATH VACANCY.—UNOPPOSED PRACTICE in a seaside resort (South). Receipts £800. Expenses very light. No horse required. Price £1050.

(2) GOOD SUBURB OF A LARGE NORTHERN CITY.—Receipts for 1891 over £1200. Good house; rent £90. No carriage necessary. Very little Midwifery. Premium only £1000.

(3) HOME COUNTIES.—PARTNERSHIP in a first-class Country Practice of over £2000 per annum, with preliminary Assistantship. One-fourth share at first. Premium two and a half years' purchase.

(4) LONDON, W.—PARTNERSHIP (one-third at first) in a Practice of nearly £1500 per annum. All good-class work, with great scope for increase. Price two and a half years' purchase.

(5) LUNACY.—Any Medical Man wishing for a licence (for a few ladies) to be transferred to his house should communicate with Mr. Stocker for particulars.

(6) NORTHERN TOWN.—PRACTICE of over £900 per annum, including over £500 from transferable appointments. Rent £35. No horse and no Assistant required.

(7) LARGE SEAPORT TOWN.—PRACTICE of over £2300 per annum, held by vendor twenty years. Middle-class, with large clubs. Twelve months' introduction. Suitable for two men to purchase in partnership. One and a quarter year's purchase.

(8) LONDON, N.—Good middle-class PRACTICE. Receipts over £700 per annum. Visiting fees average 5s. Very little Midwifery. Good house; rent £70. Premium £700.

(9) HOME COUNTIES.—PARTNERSHIP in an increasing Country Town Practice. Share estimated to produce £450 per annum at first. This would be guaranteed for two years. Price £900.

(10) NORTHERN RESIDENTIAL TOWN AND WATERING PLACE.—Receipts of Practice for 1891 £820. No Clubs or Union. Rent of commodious house £35. Good boys' school. Price £1050.

(11) LARGE SOUTHERN CITY.—PRACTICE of £400 per annum. All good-class work. Suitable for well-qualified surgeon. Price, including house, which is in the best position, £2000.

(12) NORTHERN TOWN.—PARTNERSHIP in a Practice of £900 per annum, including £200 from Club and Insurance appointments. Price for half share £500, or for one-third £300.

(13) SEAPORT TOWN AND WATERING PLACE.—NON-DISPENSING PRACTICE of £1300 per annum. Not much night work. No Assistant. Rent moderate. Premium one and a half year's purchase.

(14) LONDON, W.—INVESTMENT suitable for a well-qualified Surgeon. Would not interfere with practice.

(15) PARTNERSHIP in an excellent Practice of £2500, including valuable appointments. Working-class district. No Midwifery under £1 1s.; no Visiting fee under 2s. 6d. Expenses about £400. Premium for Half-share, £1000 down and £1000 by instalments.

(16) COUNTRY PRACTICE in a SOUTH-WESTERN COUNTY near a large city. Receipts over £600, including £150 from appointments. Good house, stabling, and garden; rent £45. Premium £1000.

(17) NORTHERN MANUFACTURING TOWN.—Working-class PRACTICE of about £1200 per annum. Price (to include book debts, estimated to bring in at least £800) £1300.

(18) FAVOURITE SOUTH-COAST RESORT.—HALF-SHARE in a SANATORIUM returning nearly £1000 per annum net profits. Purchaser should be over thirty; if married, without family. Capital necessary £2500.

(19) UNOPPOSED.—NORTH MIDLANDS.—PRACTICE of over £500 per annum. Rent £18, and other expenses low. Price £500.

(20) SOUTH.—UNOPPOSED PRACTICE.—£800 per annum, including £300 from appointments. Very quiet place. Small house; rent £40. Premium £1000.

(21) LUNACY AND PRIVATE PRACTICE.—HOME COUNTIES.—Transfer or Partnership.—Very old established PRIVATE ASYLUM, licensed for a few patients only. Most desirable situation. Expenses low. Suitable only for a Medical Man with capital or connexion. Small General Practice. Price moderate.

(22) RESIDENTIAL SUBURB.—PRACTICE of £1200 per annum. As lease of large house, stabling, and garden must be taken, would only suit man of means. Very easy terms.

(23) UNOPPOSED COUNTRY PRACTICE in Wales of £500 to £600 per annum, including valuable appointments. Expenses light. Welsh desirable. Premium £600, or half-share would be sold for £250.

FOR SALE (*continued*).

(24) NORTH.—In a beautiful part, an unopposed PRACTICE of £800, without appointments. Sport of all kinds. Good house &c., suitable for resident patient; rent under £30.

(25) NORTH MIDLANDS.—Unopposed COUNTRY PRACTICE. Cash receipts £400, including appointments. Commodious house, &c., with three acres and a half of land; rent £40. Good hunting country. One year's purchase.

(26) MIDLANDS.—COUNTRY TOWN PRACTICE of nearly £700; old-established; good class. Midwifery light. Rent £40. Premium £800.

(27) SUPERIOR SURGEON'S RETAIL and good CONSULTATION PRACTICE in a pleasant suburb. Cash receipts £1150. Price inclusive £1050. May be largely increased. The work is very light.

(28) LONDON SUBURB, W.—SHARE of about £200 per annum in an increasing non-dispensing PRACTICE. Premium £400.

(29) LARGE MIDLAND TOWN.—CASH PRACTICE. Receipts for 1891 £402. Premium £315.

(30) LONDON, S.W. (Middlesex side).—Cash PRACTICE of £500 per annum. Rent £40, and other expenses low. Price £500.

(31) LONDON, S.W.—CASH and PRIVATE PRACTICE. Receipts for 1891 £1140. Long introduction. Premium £500 down and balance by instalments.

(32) NORTH MIDLANDS.—PRACTICE in a small manufacturing town. Receipts £630, including valuable appointment. Rent of house, with stabling and garden, £35. Premium £700.

WANTED TO PURCHASE.

(33) WANTED TO PURCHASE, a Country PRACTICE of £600 per annum, unopposed, and Midlands or West of England preferred. Purchaser is middle-aged, married, and willing to pay one and a half year's purchase.

(34) WANTED, a good-class PRACTICE or PARTNERSHIP in London, a leading Provincial Town, or a residential Country District. Purchaser is an Edinburgh Graduate, with Cambridge D.P.H., age about thirty-seven. Ample capital.

(35) WANTED, a PARTNERSHIP (with a view to succession preferred) in London or in any good General Practice within 100 miles. Purchaser is M.B.London, age twenty-eight, single, and can invest £1000 or more.

(36) WANTED, a PRACTICE in a south-western county (or in the Lake district) of about £600 per annum. Purchaser is a graduate of Cambridge, and can invest £1200 or more.

(37) WANTED, a PRACTICE or PARTNERSHIP in the West of London or first-rate suburb or a good town anywhere; small income at first would suffice. Purchaser is a man of experience (F.R.C.S. Eng.), aged about thirty-eight, and has ample means.

(38) WANTED, by a London Graduate (St. Bart.'s), aged twenty-nine, single, a Country or Provincial Town PARTNERSHIP. Midlands or South preferred. Purchaser can invest £1000 or more.

(39) WANTED, a PRACTICE or PARTNERSHIP, in a good northern town. Income not to be less than £500. Premium up to £1000. Purchaser is a Graduate in Arts and Medicine of Edinburgh, aged thirty, and experienced in practice.

(40) WANTED TO PURCHASE, a CASH PRACTICE of £800 per annum or over, where the principal could reside away. Ample capital.

N.B.—There are several hundred purchasers on the books of the Association, so that the sale of any good Practice or Partnership within a reasonable time is certain.

ASSISTANTS WANTED.

QUALIFIED.

(41) Westmoreland, £150, out-; not under twenty-eight; single. (42) Lancs, £120, furnished house, &c. (43) Beds, £120, out-; light work. (44) Kent, £120, and furnished rooms; English or Scotch. (45) London, S.E., £100, rooms and percentage. (46) Leicester, £130, out-; under twenty-eight. (47) London, N., time for reading, £50, in-. (48) Kent, seaside, £130, out-. (49) Notts, £150, out-; English preferred; well up in Surgery. (50) Lancs, £100, in-; experienced and well up in Surgery. (51) Somerset, £70, in-. (52) Worcs., £80, in-; experienced; must be English.

UNQUALIFIED.

Lancs, full curriculum, £60 to £70, in-. Worcs., £45 to £50; well up in Midwifery. London, W., up to £50, in-; good Dispenser.

ASSISTANTS and LOCUM TENENS SUPPLIED.

ADDRESS—Mr. G. B. STOCKER, Managing Director, Medical &c. Association, Limited, 8, Lancaster-place, Strand, W.C.

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MEDICAL PARTNERSHIP AND CONVEYANCING AGENCY,

1, ADAM-STREET, ADELPHI, W.C.

The SALE of PRACTICES and PARTNERSHIPS NEGOTIATED. Trustworthy LOCUM TENENS and ASSISTANTS can be had at a few hours' notice.

N.B.—No charge made to Purchasers.

Notice.—Mr. J. C. Needes, with an experience of over a quarter of a century, is in an exceptional position to give intending Purchasers independent information concerning most PRACTICES and PARTNERSHIPS. Those Investments in the following List marked with an asterisk are well known to him, having been purchased through his Office by the present Incumbents years ago, and in many other cases an Introduction can be given to Gentlemen who have taken charge of the Practices during the absence of the Incumbents.

£1100 to £1200 a year.—The oldest established PRACTICE in a thickly populated South-Western Suburb offers for negotiation. About £400 per annum taken in ready-money fees. The work is not heavy. A Dispenser kept, but a horse not required. About 100 cases of Midwifery yearly; nothing under a guinea. Good house available. An introduction given to meet wishes of purchaser. Premium one year's purchase.

PARTNERSHIP.—MODERATE PREMIUM.—A suitable Gentleman can succeed to a SHARE (yielding over £600 a year) in an established Practice situate in a fashionable and increasing town about sixty miles from London. Premium one and a half year's purchase.—Further particulars on application.

*LONDON.—Moderate premium.—Appointments £450 a year. The PRACTICE is very old established and the total income over £500 a year. Visiting fees 2s. to 7s. 6d. About 100 cases of Midwifery. The house contains twelve rooms, with large garden attached; rent £60. Premium £600, £400 down and balance at end of introduction. This Practice is specially suitable for a Gentleman with a limited amount of capital requiring a transferable and lucrative Practice yielding a good income.

PARTNERSHIP.—Guaranteed Income.—The Incumbent of an old-established and increasing PRACTICE is desirous of meeting with a suitable partner, to whom he would guarantee (for two years) an income of at least £450 per annum. The Practice is situate in a pleasant town with over 20,000 inhabitants, thirty miles south of London. Premium £950.

SOUTH-WEST COUNTY.—An old-established COUNTRY PRACTICE, worth at least £500 a year, £200 of which is derived from transferable appointments. No opposition within four miles. Large detached house (four sitting-rooms, seven bedrooms, &c.), standing in its own grounds, and held on lease at a very low rental. Good hunting, fishing, and shooting.

SOUTH COAST TOWN.—£900 a year.—A rapidly increasing PRACTICE for immediate Disposal, owing to the ill-health of the incumbent. The greater part of the income is received in ready money. Expenses very light; neither horse nor assistant required. Well situated house, at low rental. The Practice would prove a very safe investment to an energetic Gentleman.

*SOUTH.—An absolutely unopposed and exceedingly easily worked COUNTRY PRACTICE, worth about £400 a year, including Union and Club Appointments of £130. Patients: gentry, clergy, farmers, &c. About thirty Midwifery cases yearly. Excellent house, with large garden, paddock, &c., attached. Premium one year's purchase. Facilities for sport of all kinds.

*SUBURBAN.—£1000 to £1100 a year.—An old-established PRACTICE averaging the above amount situated in a pleasant district ten miles from London. Transferable appointments held worth £160. Midwifery 1 to 5 guineas; about 100 cases yearly. One horse is sufficient for the work, and an assistant is not kept. Capital family residence, standing in its own grounds, with stabling &c. attached; rent £70. A partnership introduction of six months given, and part of the premium can be paid by instalments.

*WESTERN COUNTY.—In an exceptionally beautiful district an old-established COUNTRY PRACTICE worth about £500 a year. Nearest medical man resides five miles distant. The fees are good—10s. 6d., 7s. 6d., 5s., and in a few rare cases 3s. 6d. No Midwifery under 1½ guinea; only twenty cases yearly. Good hunting and fishing. Premium one year's purchase. An efficient introduction.

PARTNERSHIP.—MIDLANDS.—The incumbent of an old-established PRACTICE, worth about £1400 a year, is desirous of Disposing of the Half Share of the same to a suitable Gentleman. The expenses are light, one horse being sufficient to work the entire Practice. Fifty cases of Midwifery yearly. The town is a good one, containing about 30,000 inhabitants, and the neighbourhood is mixed residential, agricultural, and manufacturing. The usual premium of two years' purchase required.

*PARTNERSHIP.—£2000 a year.—In a pleasant district twenty miles west of London, an opportunity offers for a well-qualified Gentleman to be admitted as PARTNER in a very old established Practice of £2000 a year. The Third Share can be negotiated at once, with increase to the Half, and ultimately succession to the entire Practice in three or four years. Premium for Third Share £1400.

Apply to J. C. NEEDES, 1, Adam-street, Adelphi, W.C.

Locum Tenens and Temporary ASSISTANTS.—Practitioners requiring the above can immediately obtain thoroughly reliable qualified Gentlemen upon application to 1, Adam-street, Adelphi, W.C. Every Gentleman engaged by the Office in either of the above capacities is personally known to Mr. J. C. Needes.

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[Established 1874.

Mr. Percival Turner

(Son of a well-known Practitioner),
4, Adam-street, Adelphi, London, W.C.
(close to THE LANCET Office).

Telegraphic Address—"EPSOMIAN, LONDON."

Practitioners seeking Partners or Successors can be immediately introduced to suitable candidates by Mr. Turner, he having always very many more purchasers than vendors on his books, thereby enabling him to carry out the arrangements, if desired, without the delay and publicity of advertising.

PURCHASERS supplied with details of Practices for Disposal free of charge on application.

LOCUM TENENS or ASSISTANTS free of expense to Principal. Only those known to be reliable introduced.

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Nucleus.—West of England.—A rapidly increasing Nucleus in Suburbs of a large Town, at present doing about £200 a year, including a transferable appointment of £80, will be sold on moderate terms. Good house in rising suburb. Ample scope.—Apply to Mr. Percival Turner.

***Partnership.—£1400.—Partner** wanted to purchase Half Share and ultimate succession to a good General Practice of £1400 a year, in a large residential town in North Midlands. Personally visited by Mr. Turner. Usual terms.

***£1200 a year, Cash.—In a favourite** residential suburb of London, a rapidly increasing better-class CASH PRACTICE, combined with a superior Retail, separately worked by qualified Chemist, will be Sold for less than one year's purchase. Net profit about £700 a year after paying every outgoing. Residence not essential. No night work.—Apply to Mr. Percival Turner.

***£800 a year.—Near London.—A** good increasing GENERAL PRACTICE, offering excellent facilities for increase, and believed to be entirely transferable, will be Sold for two years' purchase, with good partnership introduction. Good house &c.—Apply to Mr. Percival Turner.

***£800 a year.—West County.—** Immediate.—A very safe Country PRACTICE, including appointments of £200, in a pretty district, is for Sale under exceptional circumstances for £900. Good introduction given, and every facility for investigation. Suited to a young married Practitioner desirous of settling down in Practice.—Apply to Mr. Percival Turner.

***Midlands.—A money-making Prac-** TICE, safely transferable, and returning over £1100 last year, will be Sold on moderate terms to a prompt buyer. In a large manufacturing town. Fees to a great extent ready money.—Apply to Mr. Percival Turner.

***Partnership.—Suburban.—£1500 a** year.—Junior Partner wanted in a good-class non-dispensing suburban Practice of £1500. Must be well qualified, experienced, and with necessary capital.

Midlands.—In a large Town, a Prac- TICE of £400 a year will be Sold for £275. Middle class; appointments £150. Expenses very low. Ample scope.—Apply to Mr. Percival Turner.

Kent.—A middle-class increasing transferable PRACTICE of £300 a year, in a town. An active Gentleman commencing Practice could make a large Practice. Fees mostly cash, and from 1s. upwards. Midwifery 21s.

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Locum Tenens now disengaged.—Mr. TURNER has several qualified Locum Tenens prepared to act for his clients during the summer. Satisfactory references.

TO PRINCIPALS REQUIRING LOCUM TENENS.—Mr. Turner cannot engage any gentleman at less than the recognised fee of £3 3s. a week, as no qualified gentleman of any standing or experience will accept less during the busy season. No Agency Fees to principals.

***Mr. Turner is personally acquainted** with, and has visited, the Practices marked with an asterisk.

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MEDICAL TRANSFER OFFICES.

19, Craven-street, Strand, W.C.
Established 1868.

Mr. W. T. Peacock, Medical Transfer and PARTNERSHIP AGENT, informs the Profession that he has special facilities for introducing Successors and arranging Partnerships; that if Members who are desirous of Disposing of their Practices will forward him full particulars (and which will be received in strict confidence) an immediate Transfer will probably be effected.

Gentlemen requiring Practices or Partnerships can, on application, select and obtain full particulars of those on Mr. Peacock's books which are open for negotiation.

ASSISTANTS and LOCUM TENENS, with satisfactory testimonials as to sobriety and general abilities, can be engaged at very short notice.

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£900 a year, including £250 from appointments. — An old-established and virtually unopposed PRACTICE situate within an hour of London is for immediate Disposal. Large good house, with stabling &c.; rent £50. One horse sufficient. Excellent railway service. From a prompt purchaser £800 will be accepted, and a short but efficient introduction given.

Apply to W. T. Peacock, 19, Craven-street, Strand, W.C.

Western County. — An excellent NUCLEUS, situate in a rapidly increasing suburb in a large Cathedral City. Receipts, including a transferable appointment of £80, were upwards of £200 last year, and steadily increasing. Capital house, good garden &c.; rent £38; and to effect an immediate transfer a very small premium will be accepted.

Apply to W. T. Peacock, 19, Craven-street, Strand, W.C.

Midland.—Hospital Town.—An old- established good-class PRIVATE PRACTICE of £1200 per annum, with scope for great increase. Visiting fees 3s. 6d., 5s., and upwards. Midwifery from £1 10s. to £5 5s. Large good family residence, situate in one of the best leading thoroughfares, with garden, stabling, &c.; rent moderate. No assistant kept. Premium £1250. Everything is open to the strictest investigation.

Apply to W. T. Peacock, 19, Craven-street, Strand, W.C.

London, S.E.—A thoroughly well established CASH PRACTICE, which has been held by present incumbent several years. Receipts, including appointments of £30, are upwards of £500 per annum. Small house, best suited for a bachelor; rent £35. Premium from a prompt purchaser £350, with an efficient introduction.

Apply to W. T. Peacock, 19, Craven-street, Strand, W.C.

Locum Tenens.—Mr. W. T. Peacock has now selected a staff of fully qualified, experienced, and thoroughly reliable Gentlemen for the ensuing Summer Season, and can send a suitable Gentleman to any part of Town or Country immediately on receipt of letter or telegram.

Telegraphic address—"Hornibrook, London."

Medical and Professional Agency,

17, BLOOMSBURY-STREET, OXFORD-STREET, W.C.
Mr. WILLIAM HORNIBROOK

Has special facilities for introducing Successors and arranging Partnerships. No charge is made to Purchasers or to Gentlemen making inquiries.

Locum Tenens and Assistants introduced on the shortest notice. The greatest care is taken in introducing Assistants and Locum Tenens to a Practice, and no gentleman is sent without inquiring into his character and suitability. Reliable and experienced Gentlemen always on the books.

All matters connected with the Transfer of Practices, Partnerships, Arbitrations, and Valuations promptly arranged, in strict confidence.

Wanted to Purchase, a Practice of from £400 to £800 a year or thereabouts, unopposed preferred, and with a fairly good house and garden. The purchaser has had several years' experience in General Practice, and is prepared to make immediate arrangements.

Partnership wanted in a good-class PRACTICE, with a share bringing in from £500 to £1000 a year. Purchaser is accustomed to good-class patients. Has ample means to purchase, and will give full price.

Medical Transfer Agency of SCOTLAND,

50, George-street, Edinburgh.
Managers, W. SMITH, W.S., and A. LANGWILL, C.A.
PRACTICES transferred. "LOCUMS" and ASSISTANTS supplied.
Apply for prospectus.

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DEBTS COLLECTED.
BOOKS POSTED AND AUDITED.
PARTNERSHIP ACCOUNTS ADJUSTED.
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MEDICAL TRANSFER AND PARTNERSHIP AGENCY.
82, Ludgate-hill.

Messrs. Orridge and Co., Medical Transfer Agents, Referees, and Valuers, in offering their services to the Profession, have pleasure in referring to the fact that for ABOUT HALF A CENTURY the name of Mr. ORRIDGE has been known in the advertising columns of the leading medical journals, and that a very large proportion of the Medical Men throughout the kingdom have confided their interests in the adjustment of PARTNERSHIPS and TRANSFERS to their care.

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(Conducted by University and Professional Men.)

WANTED TO PURCHASE.

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Qualified Assistant wanted, in-door. Salary £80 per annum. No objection to a recently qualified man. Apply to W. A. K., 134, Mare-street, Hackney, any evening.

Unqualified Assistantship wanted by Guy's Man, aged twenty-eight. Visit, Dispense, attend Midwifery. Good reference.—Apply, M., THE LANCET Office, 423, Strand, W.C.

A Gentleman (middle-aged, of steady and refined habits) requires engagement as ASSISTANT. Twelve years in last situation in town and country Practice. Active; well received by patients. Can ride and drive if required, and is considered well up in General Practice and work. In- or out-door.—Mr. White, West End House, Eythorne, near Dover.

Qualified Assistant wanted to manage Colliery Branch. Must be single, steady, and industrious.—Apply, with particulars, to Dr. Duggan, Castle Eden, co. Durham.

Branch or Assistantship required by an M.R.C.S. Eng. (registered) and L.R.C.P. Lond., minus Medicine. Seven years' experience. Excellent testimonials.—Address, Beta, THE LANCET Office, 423, Strand, W.C.

A Graduate of Cambridge, work-ing for his final M.B., having considerable experience in Dispensing, will give his services in return for board and lodging, with time for hospital work in London.—C. W., 4, Lancaster-terrace, N.W.

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Locum Tenens wanted for two weeks, beginning Saturday, July 2nd, in pleasant London suburb. Work very light. Terms 2 guineas per week and second-class return fare from London.—Address, Herculean, THE LANCET Office, 423, Strand, W.C.

Locum Tenens, reliable and registered, wanted for about a month from middle of July. Practice small; all within a mile; no dispensing.—Write fully, stating age, experience, terms, and giving reference, to Medicus, "Observer" Office, Reading.

An experienced married Man, aged thirty-five, having disposed of his Practice in town, wants an Engagement as LOCUM or ASSISTANT in the Country, either permanent or with a view to purchase.—Address, S., 21, Upper Aughton-road, Birkdale, Southport.

Locum Tenency required by M.D., M.Ch., unmarried; or would take good out-door ASSISTANCY. Of ripe experience as Assistant and Locum. Now disengaged. Highest testimonials and references.—Address, H. F., THE LANCET Office, 423, Strand, W.C.

Locum Tenency.—A doubly qualified Medical Gentleman, registered, seeks an Engagement as above, or other appointment. Town or country. Accustomed to all kinds of Practice—Private, Club, Union, &c.; reliable and temperate; recent references; usual Locum terms.—Letters and telegrams to Medicus, Alpha House, Ramsgate-road, Margate.

A middle-aged Practitioner desires to act as LOCUM TENENS. Has just completed engagement. ... in town.—M.D., 15, Granville-terrace, Child's hill, London, N.W.

Locum wanted in a City Practice from July 2nd. About six hours' work only per diem.—Address, W. E. D., THE LANCET Office, 423, Strand, W.C.

Locum Tenens.—Wanted, employ- ment as above, by a Gentleman; able, reliable, and experienced. Doubly qualified and registered. First-class references. Terms moderate.—Wire or write to X. Y. Z., Westfield Farm, Westfield-road, Edgbaston, Warwickshire. (Address permanent.)

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Evening Engagement required by Student, at Hospital during day. Experienced in Club, Colliery, and Private Practice. Small salary. Good references.—D. R., 20, Lawn-terrace, Blackheath.

Assistant (in-door) wanted in a Suburban Practice for about four weeks in July. Qualification not essential.—Apply, stating terms, to M., care of Messrs. Davy, Yates, and Routledge, 64, Park-street, Southwark, S.E.

A Doctor in Cumberland, near the Lakes, wishes to meet with a qualified Man requiring rest or time for reading, to take charge of his Practice during August, in return for board &c. and travelling expenses.—Full particulars to B. S., Reynolds & Branson, 13, Briggate, Leeds.

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A Student—full curriculum and reading for Final Conjoint Examination—seeks an ASSISTANCY. Thoroughly acquainted with the routine of General Practice; or as Dispenser and Bookkeeper. References.—Volens, THE LANCET Office, 423, Strand, W.C.

Qualified Assistant required in Country Town. Salary £50, in-doors, with time for study. Willing to Dispense, keep Books, &c. Suit a Gentleman reading for higher qualifications.—Sigma, THE LANCET Office, 423, Strand, W.C.

Dispensership.—Wanted, by good Dispenser, aged twenty-five, full curriculum. Busy Practice preferred.—Address, stating salary offered, to C. H., 449, Stratford-road, Birmingham.

Wanted, qualified Assistant to take Charge of Branch Surgery. £150 a year (increasing), with also furnished rooms and attendance, coal and gas.—Apply, before 10 any day, to Dr. Bourke, 40, Redcliffe-square, Earl's-court. Also wanted, LOCUM TENENS.

Wanted, a qualified in-door Assist- ANT in a General Practice in the Midlands.—Apply, stating experience and salary required, to Hector, THE LANCET Office, 423, Strand, W.C.

Wanted, qualified Assistant, to take charge of Branch Practice, already established and working. Chiefly Club and Colliery work. A good energetic man might rapidly work up a large connexion. Salary and good commission. Small furnished house and attendance. Preference given to a Churchman and Englishman.—Apply A. L., THE LANCET Office, 423, Strand, W.C.

Wanted, good Dispenser and Book- KEEPER, out-door, unmarried, age twenty to thirty.—Apply personally, 138A, Wandsworth-road, S.W., 7 to 9 P.M. No Medical Student need apply. Preference given to a Gentleman capable of attending a case of Midwifery if required

Wanted immediately, an in-door qualified ASSISTANT. An abstainer preferred. Applicants to state age &c. and give references.—Apply to R. Nevin, M.B., West Auckland, co. Durham.

Wanted, unqualified Assistancy, full curriculum, to Visit, Dispense, attend Midwifery, &c. Married; no family; aged thirty-five. Highest testimonials and references to present and past employers.—Address, Medicus, 24, Percy-street, Hull, Yorks.

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Wanted, an Assistancy, sine diploma, full curriculum. Well up in all branches of the profession (including Colliery and Private Practice especially), Midwifery, Dentistry, Vaccination, &c. Excellent references and testimonials.—Address, Scapula, THE LANCET Office, 423, Strand, W.C.

Wanted, by M.R.C.S., L.R.C.P. Lond., L.S.A., an ASSISTANTSHIP in London District for three to six months, or as permanency in case of assistantship with view to partnership or succession. Age twenty-five. Not afraid of hard work.—Address, M.R.C.S., L.S.A., THE LANCET Office, 423, Strand, W.C.

Wanted at once, by an experienced Gentleman, single, of middle age, son of a Physician, in- or out-door work, principally as DISPENSER and BOOKKEEPER, but who can also Visit and Accouche on emergency.—Address only, Medicus, care of Mr. Titley, Chemist, &c., Goodge-street, London, W.

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Advertiser desires a Situation as out- door (unqualified) ASSISTANT to a Medical Gentleman, to Dispense, keep Books, &c. Able to Visit and attend ordinary Midwifery. Sixteen years' experience. Six years in present situation; married; age thirty-three years; total abstainer; good pedestrian. Permanency desired.—H. Eccles, 14, St. Mary's Gate, Derby.

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